

「車輛型式安全審驗管理辦法」第十四條附表車輛安全檢測基準
部分增修條文內容檢討
(一)

會議資料

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UN 法規增修涉及國內車輛安全法規內容彙整（計 2 項）

項次	法規名稱	修訂法規內容	新增之法規項目	頁碼	參考法規版本別	內容摘要
1.	附件○、駕駛人控制輔助系統（草案）		◎	P.4	UN R171 01 Series	參考UN R171 01 Series內容，增訂檢測基準「附件○、駕駛人控制輔助系統」草案，其摘要說明如下： 1.DCAS主要為ADAS之集合，透過其功能可持續輔助駕駛人執行縱向及側向控制。 2.本項法規預期針對DCAS建立技術性之一致規範，就功能已超出UN R79轉向系統所設極限之DCAS進行管理，並將目標設定為對多樣之駕駛人控制輔助功能進行認證，進而填補現存法規之空缺處。 3.由於DCAS仍屬輔助系統之特性，於考量駕駛人仍為具備駕駛車輛之職責，本項規定將著重於DCAS所具備性能、對駕駛人的資訊提供、對於特定情境下之反應、設計上之風險評估，以及駕駛人參與狀況等項，以確保DCAS不會受到誤用並進一步造成行車風險。
2.	附件○、自動車道維持輔助系統（草案）		◎	P.227	UN R157 00-S1、00-S2、 00-S3、00-S4、 00-S5、00-S6	1.參考UN R157 00-S1版，修訂緊急操作、最低風險操作之相關規定、人機界面/操作者資訊、目標、事件偵測及反應、自動駕駛之數據存儲系統、網路安全及軟體更新、自動車道維持輔助系統之資訊文件表、適用於自動車道維持輔助系統(ALKS)功能及操作安全方面之特殊要求及ALKS試驗標準等相關規定。 2.參考UN R157 00-S2版，修訂網路安全及軟體更新相關規定。

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						3.參考UN R157 00-S3內容，修訂系統對緊急/執法車輛、大型車輛之自動車道維持輔助系統相關規定，以及資料可回收性相關規定，其中大型車輛部分包含最小跟車距離、偵測距離。 4.參考UN R157 00-S4版研擬本次修訂草案，依照聯合國法規制定程序，調整電磁相容性索引方式。 5.參考UN R157 00-S5研擬相關修訂內容，將電磁相容性規定索引至最新版本。 6.參考UN R157 00-S6版次增修訂內容研擬，主要係將聯合國1958及1998協定第二號共同協議中車輛動力系統(Powertrain)相關定義索引至本項法規，並配合修正對應用詞及規範。

UN R171 uniform provisions concerning the approval of vehicles with regard to Driver Control Assistance Systems (DCAS) 駕駛人控制輔助系統

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
01 Series	00 - S1		
Introduction 1. Advanced Driver Assistance Systems (ADAS) have been developed to support drivers and enhance road safety through information support, including warnings in safety-critical situations, and assisting in executing the lateral and/or longitudinal control of the vehicle temporarily or on a sustained basis during normal driving and when avoiding collision and/or mitigating the crash severity in critical situations. ADAS are aimed to assist the drivers, who always remain responsible for vehicle control and shall permanently monitor the environment and vehicle/system performance. 2. This UN Regulation addresses the Driver Control Assistance Systems (DCAS), which are a subset of ADAS. DCAS are driver-operated vehicle systems assisting a human driver in performing vehicle dynamic control via sustained lateral and longitudinal motion-control support. DCAS, while active, provide support to the driving tasks, and increase comfort and reduce the drivers' workload by actively stabilising or manoeuvring the vehicle. DCAS assist the driver, when operated within the system boundaries, but do not completely take over the driving task, thus the responsibility	Introduction 1. Advanced Driver Assistance Systems (ADAS) have been developed to support drivers and enhance road safety through information support, including warnings in safety-critical situations, and assisting in executing the lateral and/or longitudinal control of the vehicle temporarily or on a sustained basis during normal driving and when avoiding collision and/or mitigating the crash severity in critical situations. ADAS are aimed to assist the drivers, who always remain responsible for vehicle control and shall permanently monitor the environment and vehicle/system performance. 2. This UN Regulation addresses the Driver Control Assistance Systems (DCAS), which are a subset of ADAS. DCAS are driver-operated vehicle systems assisting a human driver in performing vehicle dynamic control via sustained lateral and longitudinal motion-control support. DCAS, while active, provide support to the driving tasks, and increase comfort and reduce the drivers' workload by actively stabilising or manoeuvring the vehicle. DCAS assist the driver, when operated within the system boundaries, but do not completely take over the driving task, thus the responsibility	附件○、駕駛人控制輔助系統(草案)	附件○、駕駛人控制輔助系統(草案)

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
remains with the driver. DCAS support shall not adversely impact road safety and driver control over the vehicle behaviour. 3. Reflecting on the expansion to the market of different enhanced DCAS, this UN Regulation intends to establish technologically neutral uniform and general provisions concerning the approval of vehicles equipped with DCAS that may function beyond the limitations imposed by the 03 series of amendments to UN Regulation No. 79, and aims to allow the approval of a variety of driver control assistance features, filling an existing regulatory gap. This UN Regulation provides minimum safety requirements for any DCAS. 4. According to the standard SAE J3016 (Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles), DCAS are treated as “SAE level 2 according to SAE J3016” (partial automation), systems that are only capable of performing parts of the vehicle dynamic control, and thus require a driver to perform the remainder of dynamic control, as well as to supervise the system operation and vehicle environment.¹ As such, DCAS, when operated, support — but do not replace — a driver in performing dynamic control. Providing either only longitudinal or only lateral control	remains with the driver. DCAS support shall not adversely impact road safety and driver control over the vehicle behaviour. 3. Reflecting on the expansion to the market of different enhanced DCAS, this UN Regulation intends to establish technologically neutral uniform and general provisions concerning the approval of vehicles equipped with DCAS that may function beyond the limitations imposed by the 03 series of amendments to UN Regulation No. 79, and aims to allow the approval of a variety of driver control assistance features, filling an existing regulatory gap. This UN Regulation provides minimum safety requirements for any DCAS. 4. According to the standard SAE J3016 (Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles), DCAS are treated as “SAE level 2 according to SAE J3016” (partial automation), systems that are only capable of performing parts of the vehicle dynamic control, and thus require a driver to perform the remainder of dynamic control, as well as to supervise the system operation and vehicle environment.¹ As such, DCAS, when operated, support — but do not replace — a driver in performing dynamic control. Providing either only longitudinal or only lateral control		

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temporarily degrades DCAS automation level from 2 to 1 (driver assistance). ¹ The levels of automation described by SAE J3016 are also included in the reference document ECE/TRANS/WP29/1140. 5. While both DCAS and Automated Driving Systems (ADS) of higher automation levels 3 to 5 according to SAE J3016 provide lateral and longitudinal control on a sustained basis, only ADS may permit the driver to disengage from the driving task, as only ADS, by definition, is capable of managing all driving situations reasonably expected within their Operational Design Domain (ODD) without further input from the driver. Instead, DCAS only assist the driver but never replace the driver. As a consequence, there is no transfer in the driver's responsibility for control of the vehicle. 6. The availability of DCAS, and their capability to assist, are constrained by the defined system operational boundaries. While DCAS is able to detect and respond to common scenarios within the use case (DCAS feature), the system may not be capable of recognizing certain environmental conditions, as DCAS are not designed to handle each and every situation, and it is expected that the driver is always in control of the vehicle. 7. This impact of system boundaries on the	temporarily degrades DCAS automation level from 2 to 1 (driver assistance). ¹ The levels of automation described by SAE J3016 are also included in the reference document ECE/TRANS/WP29/1140. 5. While both DCAS and Automated Driving Systems (ADS) of higher automation levels 3 to 5 according to SAE J3016 provide lateral and longitudinal control on a sustained basis, only ADS may permit the driver to disengage from the driving task, as only ADS, by definition, is capable of managing all driving situations reasonably expected within their Operational Design Domain (ODD) without further input from the driver. Instead, DCAS only assist the driver but never replace the driver. As a consequence, there is no transfer in the driver's responsibility for control of the vehicle. 6. The availability of DCAS, and their capability to assist, are constrained by the defined system operational boundaries. While DCAS is able to detect and respond to common scenarios within the use case (DCAS feature), the system may not be capable of recognizing certain environmental conditions, as DCAS are not designed to handle each and every situation, and it is expected that the driver is always in control of the vehicle. 7. This impact of system boundaries on the		

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system's ability to fulfil certain requirements, and the nature of how requirements can be assessed, is reflected by the language used in this UN Regulation. (a) Some requirements are expected to be always met, including in all relevant tests. These provisions are phrased as “the system shall...”; (b) Some requirements are such that whilst the system is generally expected to fulfil them, this might not always be appropriate or achievable under the specific circumstances, or external disturbances may still lead to a varying output. These provisions are phrased as “the system shall aim to...”; and (c) Some requirements are difficult to verify by assessing system performance directly and are more readily verified by assessing the design of the system, for example by analysing its control strategies. These provisions are phrased as “the system shall be designed to...”. 8. Depending on the use case, some DCAS may be able to initiate driving manoeuvres. When manoeuvres are initiated by the system, the system shall be designed to follow the national traffic rules. However, when manoeuvres are initiated by the driver, DCAS only assists the driver in operating the vehicle without ensuring compliance with national traffic rules. In either case, the	system's ability to fulfil certain requirements, and the nature of how requirements can be assessed, is reflected by the language used in this UN Regulation. (a) Some requirements are expected to be always met, including in all relevant tests. These provisions are phrased as “the system shall...”; (b) Some requirements are such that whilst the system is generally expected to fulfil them, this might not always be appropriate or achievable under the specific circumstances, or external disturbances may still lead to a varying output. These provisions are phrased as “the system shall be aim to...”; and (c) Some requirements are difficult to verify by assessing system performance directly and are more readily verified by assessing the design of the system, for example by analysing its control strategies. These provisions are phrased as “the system shall be designed to...”. 8. Depending on the use case, some DCAS may be able to initiate driving manoeuvres. When manoeuvres are initiated by the system, the system shall be designed to follow the national traffic rules. However, when manoeuvres are initiated by the driver, DCAS only assists the driver in operating the vehicle without ensuring compliance with national traffic rules. In either case, the	(序言部分為法規簡介，故不影響檢測基準內容而不調和)	

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responsibility remains with the driver. 9. It is recognized that operation in compliance with traffic rules related to driver-confirmed or system-initiated manoeuvres might not be fully achievable due to the complexity and variety of rules across the different countries of operation. The driver's continued involvement in the driving task is deemed to compensate for this. 10. Overreliance of the driver could pose a potential safety risk. The better the system, the more likely the driver is to trust the system to always function correctly and decrease the driver's level of supervision over time (even to the point of confusing the system with fully automated driving). Therefore, DCAS shall aim to prevent reasonably foreseeable risks of driver's misuse or abuse. DCAS shall provide sufficient information to enable the driver to supervise the assistance provided. 11. DCAS shall be designed to avoid drivers undertaking activities other than driving over and above those permitted for manual driving before this UN Regulation enters into force as DCAS require the driver to remain engaged with the driving task. Therefore, DCAS shall have means to evaluate continuous driver involvement in and supervision of the vehicle operation. DCAS will monitor the driver engagement (ensuring hands-on wheel or eyes-on road or	responsibility remains with the driver. 9. It is recognized that operation in compliance with traffic rules related to driver-confirmed or system-initiated manoeuvres might not be fully achievable due to the complexity and variety of rules across the different countries of operation. The driver's continued involvement in the driving task is deemed to compensate for this. 10. Overreliance of the driver could pose a potential safety risk. The better the system, the more likely the driver is to trust the system to always function correctly and decrease the driver's level of supervision over time (even to the point of confusing the system with fully automated driving). Therefore, DCAS shall aim to prevent reasonably foreseeable risks of driver's misuse or abuse. DCAS shall provide sufficient information to enable the driver to supervise the assistance provided. 11. DCAS shall be designed to avoid drivers undertaking activities other than driving over and above those permitted for manual driving before this UN Regulation enters into force as DCAS require the driver to remain engaged with the driving task. Therefore, DCAS shall have means to evaluate continuous driver involvement in and supervision of the vehicle operation. DCAS will monitor the driver engagement (ensuring hands-on wheel or eyes-on road or		

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even both), evaluate the driver's involvement and respond to a lack of the driver's engagement appropriately by giving distinct warnings to the driver. It will further bring the vehicle to a complete stop, if the driver had not responded to the system's warnings and had not taken necessary control actions. DCAS will monitor for signs of driver disengagement utilizing a driver monitoring system. However, while this system monitors for physical signs of disengagement, it is currently not capable of directly assessing cognitive disengagement. 12. This UN Regulation includes general functional requirements regarding the system safety at normal operation and the failsafe response in the case of the system failure or an inability of the driver to confirm the involvement in the vehicle control. The regulatory provisions cover DCAS interaction with other vehicle assistance systems, description of the system boundary conditions and the system behaviour when the system boundaries have been detected to be reached, controllability and the system dynamic control assistance for different DCAS use cases (features). DCAS and driver interactions are regulated, including Human-Machine Interface (HMI) in two directions: driver operation of the system and the system assurance of the driver's engagement. This UN Regulation	even both), evaluate the driver's involvement and respond to a lack of the driver's engagement appropriately by giving distinct warnings to the driver. It will further bring the vehicle to a complete stop, if the driver had not responded to the system's warnings and had not taken necessary control actions. DCAS will monitor for signs of driver disengagement utilizing a driver monitoring system. However, while this system monitors for physical signs of disengagement, it is currently not capable of directly assessing cognitive disengagement. 12. This UN Regulation includes general functional requirements regarding the system safety at normal operation and the failsafe response in the case of the system failure or an inability of the driver to confirm the involvement in the vehicle control. The regulatory provisions cover DCAS interaction with other vehicle assistance systems, description of the system boundary conditions and the system behaviour when the system boundaries have been detected to be reached, controllability and the system dynamic control assistance for different DCAS use cases (features). DCAS and driver interactions are regulated, including Human-Machine Interface (HMI) in two directions: driver operation of the system and the system assurance of the driver's engagement. This UN Regulation		

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establishes requirements for the specific DCAS features. 13. This UN Regulation establishes more generic compliance assessment methods compared to those in the 03 series of amendments to UN Regulation No. 79 (where specific requirements are developed for each use case). The manufacturer is required to declare an outline of the system design, which helps informing the Type Approval Authority of the necessary assessment and verification activities that need to take place. The multi-pillar assessment techniques compensate uncertainties related to DCAS operational cases that are not directly assessed and thus cover the assessment of DCAS multiple operational cases. The validation of DCAS shall ensure that a thorough assessment, considering the functional and operational safety of the features integrated in DCAS and the entire DCAS integrated into a vehicle, has been performed by the manufacturer during the design and development processes. The assessment pillars include the validation of DCAS safety aspects through the enhanced audit of the manufacturer documentation, physical tests on the test track and public roads and in-service monitoring of DCAS operation by the manufacturer. 14. The safe use of DCAS requires appropriate	establishes requirements for the specific DCAS features. 13. This UN Regulation establishes more generic compliance assessment methods compared to those in the 03 series of amendments to UN Regulation No. 79 (where specific requirements are developed for each use case). The manufacturer is required to declare an outline of the system design, which helps informing the Type Approval Authority of the necessary assessment and verification activities that need to take place. The multi-pillar assessment techniques compensate uncertainties related to DCAS operational cases that are not directly assessed and thus cover the assessment of DCAS multiple operational cases. The validation of DCAS shall ensure that a thorough assessment, considering the functional and operational safety of the features integrated in DCAS and the entire DCAS integrated into a vehicle, has been performed by the manufacturer during the design and development processes. The assessment pillars include the validation of DCAS safety aspects through the enhanced audit of the manufacturer documentation, physical tests on the test track and public roads and in-service monitoring of DCAS operation by the manufacturer. 14. The safe use of DCAS requires appropriate		

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understanding by the driver and of the performance capabilities of DCAS available on the vehicle. The provision of the appropriate information to the driver is required to avoid potential driver's misinterpretation, overestimation, or difficulty with the DCAS/vehicle control. The development of this UN Regulation showed a necessity to ensure that the driver maintains specific or sufficient knowledge on the appropriate use of DCAS. This issue touches on the broader topic of drivers' education, which can be divided in two directions: (a) the upgrade of the education and reassessment of drivers to safely operate vehicles equipped with DCAS and (b) the development of a uniform standard (e.g., ISO) setting for DCAS the common HMI, communication techniques, modes of operation, possibilities of overriding, system messages and signals, etc. in addition to this UN Regulation. This will ensure a uniformity of HMI for different DCAS produced by different manufacturers, so that every driver could be prepared to use different DCAS features in a safe way. 15. This UN Regulation is not intended to establish requirements applicable to drivers, however, it stipulates the requirements to the educational materials, messages and signals that the manufacturers of DCAS will need to present to the driver (e.g., for review).	understanding by the driver and the performance capabilities of DCAS available on the vehicle. The provision of the appropriate information to the driver is required to avoid potential driver's misinterpretation, overestimation, or difficulty with the DCAS/vehicle control. The development of this UN Regulation showed a necessity to ensure that the driver maintains specific or sufficient knowledge on the appropriate use of DCAS. This issue touches on the broader topic of drivers' education, which can be divided in two directions: (a) the upgrade of the education and reassessment of drivers to safely operate vehicles equipped with DCAS and (b) the development of a uniform standard (e.g., ISO) setting for DCAS the common HMI, communication techniques, modes of operation, possibilities of overriding, system messages and signals, etc. in addition to this UN Regulation. This will ensure a uniformity of HMI for different DCAS produced by different manufacturers, so that every driver could be prepared to use different DCAS features in a safe way. 15. This UN Regulation is not intended to establish requirements applicable to drivers, however, it stipulates the requirements to the educational materials, messages and signals that the manufacturers of DCAS will need to present to the driver (e.g., for review).		

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However, this UN Regulation nor the Type Approval Authority cannot guarantee, through regulatory provisions, that these materials are appropriately reviewed and understood by the driver. 16. The deployment of DCAS draws attention to the need for a balanced marketing policy so as not to cause overestimation of DCAS capabilities by the driver, who may believe that the system performance is more than an assistant system. Referring to misleading terms in the information materials provided by the manufacturer may lead to driver confusion or overreliance. In order to avoid this, terms which have been deemed misleading by national authorities should not be used in DCAS marketing promotion. 17. While DCAS is currently being diligently developed by many manufacturers and is supposed to be further developed in the future, this UN Regulation is established based on the current technology and data from limited number of vehicles introduced to the market. This UN Regulation implements such an instrument as monitoring of DCAS operation intended for collecting more data from the vehicles with DCAS which will be introduced into the market. This UN Regulation is a subject to continuous review based on examining the technology development and the data obtained through the monitoring of DCAS	However, this UN Regulation nor the Type Approval Authority cannot guarantee, through regulatory provisions, that these materials are appropriately reviewed and understood by the driver. 16. The deployment of DCAS draws attention to the need for a balanced marketing policy so as not to cause overestimation of DCAS capabilities by the driver, who may believe that the system performance is more than an assistant system. Referring to misleading terms in the information materials provided by the manufacturer may lead to driver confusion or overreliance. In order to avoid this, terms which have been deemed misleading by national authorities should not be used in DCAS marketing promotion.	(序言部分為法規簡介，故不影響檢測基準內容而不調和)	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
operation.			
1. Scope 1.1 This UN Regulation applies to the type approval of vehicles of Categories M and N² with regard to their Driver Control Assistance Systems (DCAS). ² As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2 - https://unece.org/transport/standards/transport/vehicle-regulations-wp29/resolutions 歐盟 (EU) 2019/2144 指令： 2025/06/26 若選配則應符合 UN過渡條款： 新型式：2027/09/01；各型式：2030/09/01 1.2. This UN Regulation does not apply to the approval of vehicles with regard to their Automatically Commanded Steering Functions (ACSF) or Risk Mitigation Function (RMF) which have been approved to UN Regulation No. 79, even when a system is exercising longitudinal control at the same time. However, if the manufacturer declares such ACSF or RMF to be part of DCAS, this UN Regulation applies irrespective of whether it has also been approved to UN Regulation No. 79.	1. Scope 1.1 This UN Regulation applies to the type approval of vehicles of Categories M and N² with regard to their Driver Control Assistance Systems (DCAS). ² As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2 - https://unece.org/transport/standards/transport/vehicle-regulations-wp29/resolutions 1.2. This UN Regulation does not apply to the approval of vehicles with regard to their Automatically Commanded Steering Functions (ACSF) or Risk Mitigation Function (RMF) which have been approved to UN Regulation No. 79, even when a system is exercising longitudinal control at the same time. However, if the manufacturer declares such ACSF or RMF to be part of DCAS, this UN Regulation applies irrespective of whether it has also been approved to UN Regulation No. 79.	1. 實施時間及適用範圍 1.1 中華民國一百十九年一月一日起，新型式之M及N類車輛及中華民國一百二十一年一月一日起，各型式之M及N類車輛，若配備駕駛人控制輔助系統時，應符合本項規定。 1.2 本法規不適用採用本基準「附件四十七之三、轉向系統」檢測之自動控制轉向功能(ACSF)或風險減緩功能(RMF)，即便系統係同時執行縱向控制亦同。惟若申請者宣告此類ACSF或RMF為DCAS之一部分，則無論其是否採用本基準「附件四十七之三、轉向系統」檢測，皆適用本項法規。 1.3 同一申請者同一年度同型式規格車輛，申請少量車型安全審驗且總數未逾三輛者；或同一申請者同一年度同型式規格車輛，申請逐車少	1. 實施時間及適用範圍 1.1 中華民國○年一月一日起，新型式之M及N類車輛及中華民國○年一月一日起，各型式之M及N類車輛，若配備駕駛人控制輔助系統時，應符合本項規定。 1.2 本法規不適用採用本基準「附件四十七之三、轉向系統」檢測之自動控制轉向功能(ACSF)或風險減緩功能(RMF)，即便系統係同時執行縱向控制亦同。惟若申請者宣告此類ACSF或RMF為DCAS之一部分，則無論其是否採用本基準「附件四十七之三、轉向系統」檢測，皆適用本項法規。 1.3 同一申請者同一年度同型式規格車輛，申請少量車型安全審驗且總數未逾三輛者；或同一申請者同一年度同型式規格車輛，申請逐車少

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
		量車型安全審驗且總數未逾二十輛者，得免符合本項「駕駛人控制輔助系統」規定。 1.4 檢測機構得依本項基準調和之聯合國車輛安全法規 (UN Regulations)，UN R171 01系列及其後續相關修正規範進行測試。	量車型安全審驗且總數未逾二十輛者，得免符合本項「駕駛人控制輔助系統」規定。 1.4 檢測機構得依本項基準調和之聯合國車輛安全法規 (UN Regulations)，UN R171 00系列及其後續相關修正規範進行測試。
2. Definitions For the purposes of this Regulation: 2.1. “Driver Control Assistance System (DCAS)” means the hardware and software collectively capable of assisting a driver in controlling the longitudinal and lateral motion of the vehicle on a sustained basis. Within this UN Regulation, DCAS is also referred to as “the system”. 2.3. “(DCAS) Feature” means a specific DCAS capability providing assistance to the driver in defined traffic scenarios, circumstances and system boundaries. 2.4. “Dynamic Control” means the real-time performance of operational and tactical functions required to move the vehicle. This includes controlling the vehicle’s lateral and longitudinal motion, monitoring the road environment, responding to events in the road traffic environment, and planning and signalling for manoeuvres. For the purpose of this UN Regulation, DCAS	2. Definitions For the purposes of this Regulation: 2.1. “Driver Control Assistance System (DCAS)” means the hardware and software collectively capable of assisting a driver in controlling the longitudinal and lateral motion of the vehicle on a sustained basis. Within this UN Regulation, DCAS is also referred to as “the system”. 2.3. “(DCAS) Feature” means a specific DCAS capability providing assistance to the driver in defined traffic scenarios, circumstances and system boundaries. 2.4. “Dynamic Control” means the real-time performance of operational and tactical functions required to move the vehicle. This includes controlling the vehicle’s lateral and longitudinal motion, monitoring the road environment, responding to events in the road traffic environment, and planning and signalling for manoeuvres. For the purpose of this UN Regulation, only a driver is in charge and responsible for	2. 名詞釋義 2.1 駕駛人控制輔助系統 (Driver Control Assistance System ; DCAS)：係指能以持續之方式，共同協助駕駛人控制車輛縱向及橫向動態之車輛硬體及軟體。 於本基準附件內，DCAS亦以「系統」表示。 2.2 (DCAS)特性((DCAS) Feature)：係指於<u>申請者</u>定義之交通情境、環境及系統邊界下，對駕駛人提供協助之特定DCAS能力。 2.3 動態控制(Dynamic Control)：係指移動車輛所需之運作及策劃功能的即時性能，<u>其包含對車輛之側向及縱向動態的控制、對道路環境之監測、對道路交通環境中之事件進行反應，以及對各項操作進行規劃及發出訊號。</u> 對於本基準附件之目的而言，於駕駛人於任意指定時間介入之能力不受	2. 名詞釋義 2.1 駕駛人控制輔助系統 (Driver Control Assistance System ; DCAS)：係指能以持續之方式，共同協助駕駛人控制車輛縱向及橫向動態之車輛硬體及軟體。 於本基準附件內，DCAS亦以「系統」表示。 2.2 (DCAS)特性((DCAS) Feature)：係指於所定義之交通情境、環境及系統邊界下，對駕駛人提供協助之特定DCAS能力。 2.3 動態控制(Dynamic Control)：係指移動車輛所需之運作及策劃功能的即時性能。<u>此包含控制</u>車輛之側向及縱向動態、<u>監測</u>道路環境、對道路交通環境中之事件進行反應，以及對各項操作進行規劃及發出訊號。 對於本基準附件之目的而言，<u>儘管DCAS於不限制</u>駕駛人於任意指定

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
and tactical functions without limiting the driver's ability to intervene at any given time.	vehicle dynamic control whereas DCAS provides assistance to carry out operational and tactical functions without limiting the driver's ability to intervene at any given time.	<u>限制的狀況</u> 下， <u>DCAS藉由執行運作及策劃功能對駕駛人進行協助</u> 。	時間進行介入 <u>的</u> 能力下， <u>提供協助以執行運作及策劃功能，仍僅有駕駛人承擔且負責車輛動態控制</u> 。
2.5. "System Boundaries" are those verifiable or measurable limits or conditions established by a manufacturer up to or within which DCAS or a feature of DCAS is designed to provide assistance to the driver and those conditions which impact the system's ability to operate as intended.	2.5. "System Boundaries" are those verifiable or measurable limits or conditions established by a manufacturer up to or within which DCAS or a feature of DCAS is designed to provide assistance to the driver and those conditions which impact the system's ability to operate as intended.	2.4 系統邊界(System Boundaries): 係指 <u>申請者所建立之可驗證或可測量的極限或條件，其最高至設計用以對駕駛人提供協助之DCAS或DCAS功能或於其範圍內，且該條件將對系統能力如預期運作之狀況造成影響</u> 。	2.4 系統邊界(System Boundaries): 係指最高到達或位於DCAS或DCAS設計用於對駕駛人提供協助之功能內，由申請者所建立之相關可驗證或可測量的極限或條件，且相關條件對系統如預期運作之能力產生衝擊。
2.6. "Driver disengagement" means the system's determination of the driver's current inability to safely execute perception, planning, or decision-making and to intervene in the operation of DCAS.	2.6. "Driver disengagement" means the system's determination of the driver's current inability to safely execute perception, planning, or decision-making and to intervene in the operation of DCAS.	2.5 駕駛人未參與 (Driver disengagement): 係指系統測定駕駛人當下 <u>無法安全地</u> 執行觀察、規劃或決策，以及介入DCAS運作之情形。	2.5 駕駛人未參與 (Driver disengagement): 係指系統測定駕駛人當下不具備安全執行觀察、規劃或決策，以及介入DCAS之運作之能力的情形。
2.7. "Operational functions" means the basic control actions of the driver required and taken to move a vehicle and operate its systems, including control of the vehicle's lateral and longitudinal motion. Realization of operational functions implies the driver's physical operation of the vehicle.	2.7. "Operational functions" means the basic control actions of the driver required and taken to move a vehicle and operate its systems, including control of the vehicle's lateral and longitudinal motion. Realization of operational functions implies the driver's physical operation of the vehicle.	2.6 運作功能(Operational functions): 係指駕駛人用於移動車輛及操作其系統需 <u>要執行</u> 之基礎控制動作， <u>其</u> 包含控制車輛之側向及縱向動態。運作功能實現意味著駕駛人 <u>對</u> 車輛之物理 <u>操作</u> 。	2.6 運作功能(Operational functions): 係指駕駛人用於移動車輛及操作其系統所需 <u>及採取</u> 之基礎控制動作，包含控制車輛之側向及縱向動態。運作功能的實現意味著駕駛人 <u>之</u> 車輛的物理 <u>運作</u> 。
2.8. "Tactical functions" means the real-time planning and determination of manoeuvres by the driver. Tactical functions imply the implementation of the driver's skills to operate the vehicle within the continuously changing environment.	2.8. "Tactical functions" means the real-time planning and determination of manoeuvres by the driver. Tactical functions imply the implementation of the driver's skills to operate the vehicle within the continuously changing environment.	2.7 策劃功能(Tactical functions): 係指由駕駛人 <u>對操作所執行之</u> 即時規劃及 <u>決策</u> 。策劃功能意味著駕駛人 <u>使用技能以</u> 於不斷變化之環境內 <u>操作</u> 車輛。	2.7 策劃功能(Tactical functions): 係指由駕駛人操作之 <u>即時</u> 規劃及 <u>測定</u> 。策劃功能意味著駕駛人於不斷變化環境內 <u>用以運作</u> 車輛之 <u>技巧的執行</u> 。
2.9. "Real-time" means the actual time during which a process or event occurs.	2.9. "Real-time" means the actual time during which a process or event occurs.	2.8 即時(Real-time): 係指程序或事件發生期間之實際時間。	2.8 即時(Real-time): 係指程序或事件發生期間之實際時間。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.10. “Manoeuvre” means a change in the vehicle’s trajectory that leads the vehicle to at least partially leave its original lane or direction of travel whereby possibly leading to interaction with other road users. A series of manoeuvres can be considered as an individual manoeuvre providing the manoeuvres follow in succession, without significant separation, and are related to the completion of one tactical goal (e.g., changing lanes in combination with navigating an intersection). Distinct manoeuvres in relation with following a navigation route with significant separation are not considered as an individual manoeuvre.	2.10. “Manoeuvre” means a change in the vehicle’s trajectory that leads the vehicle to at least partially leave its original lane or direction of travel whereby possibly leading to interaction with other road users. A series of manoeuvres can be considered as an individual manoeuvre providing the manoeuvres follow in succession, without significant separation, and are related to the completion of one tactical goal (e.g., changing lanes in combination with navigating an intersection). Distinct manoeuvres in relation with following a navigation route with significant separation are not considered as an individual manoeuvre.	2.9 操作(Manoeuvre)：係指<u>引導</u>車輛至少一部份離開其原行駛車道或行駛方向，<u>並</u>導致與其他道路使用者<u>接觸</u>之車輛軌跡變化。 <u>若一系列之操作與後續操作之間未有可觀間隔，且操作與完成單一策劃目標相關之狀況下（例如：變換車道與路口處導航之組合），則其可被視為獨立操作。與接續之具備可觀間隔的一導航路徑相關之不同操作將不被視為獨立操作。</u> 2.10 目標車道(Target Lane)：係指系統藉由執行<u>變換車道</u>操作<u>預期使車輛</u>抵達之行駛車道。 2.11 變換車道程序 (Lane Change Procedure；LCP)：係指目標為<u>車輛</u>執行變換車道之<u>一系列操作</u>。<u>該程序</u>由下述<u>操作</u>組成： (a) <u>啟動</u>方向燈； (b) 車輛朝向車道邊界<u>執行</u>側向移動； (c) 變換車道操作； (d) 車輛<u>回到</u>車道內<u>的</u>穩定位置； (e) <u>關閉</u>方向燈。	2.9 操作(Manoeuvre)：係指<u>導致</u>車輛至少一部份離開其原行駛車道，<u>或</u>行駛方向<u>可能</u>導致與其他道路使用者<u>互動</u>之車輛軌跡變化。 <u>一系列之操作可被視為未有可觀間隔下提供後繼操作，且操作與單一策劃目標之完成相關的獨立操作（例如：變換車道與路口處導航之組合）。與接續之具備可觀間隔的一導航路徑相關之不同操作將不被視為獨立操作。</u> 2.10 目標車道(Target Lane)：係指系統藉由執行操作<u>將</u>車輛轉換抵達之行駛車道。 2.11 變換車道程序 (Lane Change Procedure；LCP)：係指目標為執行車輛之變換車道之<u>一序列運作</u>。<u>相關序列</u>由下述<u>運作</u>組成： (a) 方向燈之<u>啟動</u>； (b) 車輛朝向車道邊界之<u>側向移動</u>； (c) 變換車道操作； (d) 車輛<u>於</u>車道內之<u>穩定位置</u>的<u>恢復</u>； (e) 方向燈之<u>解除</u>。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.13. “Lane Change Manoeuvre (LCM)” is part of the LCP and (a) Starts when the outside edge of the tyre tread of the vehicle’s front wheel closest to the lane markings crosses the outside edge of the lane marking to which the vehicle is being manoeuvred; and (b) Ends when the rear wheels of the vehicle have fully crossed the lane marking.	2.13. “Lane Change Manoeuvre (LCM)” is part of the LCP and (a) Starts when the outside edge of the tyre tread of the vehicle’s front wheel closest to the lane markings crosses the outside edge of the lane marking to which the vehicle is being manoeuvred; and (b) Ends when the rear wheels of the vehicle have fully crossed the lane marking.	2.12 變換車道操作 (Lane Change Manoeuvre; LCM): 係指LCP之一部分, 且: (a) <u>從車輛最接近車道標線之前輪的胎面外緣, 穿越車輛受到操控以通過之車道標線外緣時開始。</u> (b) <u>至車輛後輪完全越過車道標線時結束。</u>	2.12 變換車道操作 (Lane Change Manoeuvre; LCM): 係指LCP之一部分, 且: (a) <u>當最接近車道標線之車輛前輪胎面外緣穿越車道標線外緣時開始, 車輛即處於受操控狀態。</u> (b) <u>當車輛後輪完全越過車道標線時結束。</u>
2.14. “Off mode” means a DCAS operational condition, when the system is prevented from assisting the driver in executing dynamic control of the vehicle.	2.14. “Off mode” means a DCAS operational condition, when the system is prevented from assisting the driver in executing dynamic control of the vehicle.	2.13 關閉模式(Off mode): 係指系統 <u>被禁止協助駕駛人</u> 執行車輛動態控制之DCAS運作狀態。	2.13 關閉模式(Off mode): 係指 <u>於系統被防止以</u> 執行車輛 <u>之</u> 動態控制 <u>協助駕駛人的</u> DCAS運作狀態。
2.15. “On mode” means a DCAS operational condition, when the system or a DCAS feature has been requested to provide assistance to the driver in executing dynamic control of the vehicle. In this mode, the system is either in ‘stand-by’ or ‘active’ mode.	2.15. “On mode” means a DCAS operational condition, when the system or a DCAS feature has been requested to provide assistance to the driver in executing dynamic control of the vehicle. In this mode, the system is either in ‘stand-by’ or ‘active’ mode.	2.14 開啟模式(On mode): 係指於系統或DCAS功能被要求 <u>協助駕駛人</u> 執行車輛動態控制之DCAS運作狀態。於此模式下, 系統處於「待機」或「主動」模式。	2.14 開啟模式(On mode): 係指於系統或DCAS功能被要求以執行車輛 <u>之</u> 動態控制 <u>對駕駛人提供協助的</u> DCAS運作狀態。於此模式下, 系統處於「待機」或「主動」模式。
2.15.1. “Active mode” means a DCAS operational condition, when the system or a DCAS feature considers itself to be within its system boundaries and is providing assistance to the driver in executing dynamic control of the vehicle.	2.15.1. “Active mode” means a DCAS operational condition, when the system or a DCAS feature considers itself to be within its system boundaries and is providing assistance to the driver in executing dynamic control of the vehicle.	2.14.1 主動模式(Active mode): 係指於系統或DCAS功能 <u>認為其本身</u> 位於系統邊界內, 且正在 <u>協助駕駛人</u> 執行車輛動態控制之DCAS運作狀態。	2.14.1 主動模式(Active mode): 係指於系統或DCAS功能將本身 <u>視為</u> 位於 <u>其</u> 系統邊界內, 且正在 <u>以</u> 執行車輛 <u>之</u> 動態控制對駕駛人提供協助的DCAS運作狀態。
2.15.2. “Stand-by mode” means a DCAS operational condition, where the system or a DCAS feature is in ‘On’ mode, but not generating control output. In this mode, the system can be either in ‘passive’ or	2.15.2. “Stand-by mode” means a DCAS operational condition, where the system or a DCAS feature is in ‘On’ mode, but not generating control output. In this mode, the system can be either in ‘passive’ or	2.14.2 待機模式(Stand-by mode): 係指系統或DCAS功能處於開啟模式, <u>惟</u> 未產生控制輸出之DCAS運作狀態。於此模式下, 系統可為處於「被動」或「非主動」模式。	2.14.2 待機模式(Stand-by mode): 係指 <u>於</u> 系統或DCAS功能處於開啟模式, <u>但</u> 未產生控制輸出 <u>的</u> DCAS運作狀態。於此模式下, 系統可為處於「被動」或「非主動」模式。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
‘inactive’ mode. 2.15.2.1. “Passive mode” means a DCAS operational condition, when the system or DCAS feature is in ‘stand-by’ mode and considers itself to be within its system boundaries with no preconditions preventing switching to ‘active’ mode. 2.15.2.2. “Inactive mode” means a DCAS operational condition, when the system or a DCAS feature is in ‘stand-by’ mode and considers itself to be outside its boundary conditions or any precondition is such that switching to ‘active’ mode is prevented. 2.16. “Risk of imminent collision” describes a situation or an event which leads to a collision of the vehicle with another road user or an obstacle which cannot be avoided by a braking demand lower than 5 m/s². 2.17. “Detection Range” means the distance at which the system can reliably recognise an object, taking account of the deterioration of components of the sensing system due to time and usage throughout the lifetime of the vehicle, and generate a control signal. 2.18. “System/Feature Designed Speed Range” means the adaptive speed range within which the system or a feature thereof can be in ‘active’ mode based on the system design and capability, taking into account traffic and environmental conditions where relevant. 2.19. “Driver-set maximum speed” means the	‘inactive’ mode. 2.15.2.1. “Passive mode” means a DCAS operational condition, when the system or DCAS feature is in ‘stand-by’ mode and considers itself to be within its system boundaries with no preconditions preventing switching to ‘active’ mode. 2.15.2.2. “Inactive mode” means a DCAS operational condition, when the system or a DCAS feature is in ‘stand-by’ mode and considers itself to be outside its boundary conditions or any precondition is such that switching to ‘active’ mode is prevented. 2.16. “Risk of imminent collision” describes a situation or an event which leads to a collision of the vehicle with another road user or an obstacle which cannot be avoided by a braking demand lower than 5 m/s². 2.17. “Detection Range” means the distance at which the system can reliably recognise an object, taking account of the deterioration of components of the sensing system due to time and usage throughout the lifetime of the vehicle, and generate a control signal. 2.18. “System/Feature Designed Speed Range” means the adaptive speed range within which the system or a feature thereof can be in ‘active’ mode based on the system design and capability, taking into account traffic and environmental conditions where relevant. 2.19. “Driver-set maximum speed” means the	2.14.2.1 被動模式(Passive mode)：係指系統或DCAS功能處於待機模式，<u>且於未被禁止</u>切換至主動模式之前提下，<u>認為其本身</u>位於系統邊界內之DCAS運作狀態。 2.14.2.2 非主動模式(Inactive mode)：係指系統或DCAS功能處於待機模式，<u>且認為其本身位於</u>系統邊界外，或<u>具有任何禁止</u>切換至主動模式之<u>先決條件</u>的DCAS運作狀態。 2.15 立即性碰撞風險(Risk of imminent collision)：係指<u>無法藉由低於五公尺／秒平方之煞車需求迴避</u>，<u>且導致車輛碰撞其他道路使用者或障礙物之狀況或事件</u>。 2.16 偵測範圍(Detection Range)：係指<u>將感測系統因時間及車輛壽命內使用率，以及產生控制信號造成之零組件劣化納入考量</u>下，系統可有效辨認物件之距離。 2.17 系統／功能設計速度範圍(System/Feature Designed Speed Range)：係指<u>系統或功能將相關交通及環境條件納入考量，且可基於系統設計及能力處於</u>主動模式下之適應性速度範圍。 2.18 駕駛人設定最高速度(Driver-set	2.14.2.1 被動模式(Passive mode)：係指<u>於</u>系統或DCAS功能處於待機模式，<u>且以未防止</u>切換至主動模式之前提，<u>將本身視為</u>位於<u>其</u>系統邊界內的DCAS運作狀態。 2.14.2.2 非主動模式(Inactive mode)：係指<u>於</u>系統或DCAS功能處於待機模式，<u>且將本身視為</u>位於<u>其</u>系統邊界外，或<u>有任何防止</u>切換至主動模式之<u>前提</u>的DCAS運作狀態。 2.15 立即性碰撞風險 (Risk of imminent collision)：係指導致車輛碰撞其他道路使用者或障礙物，<u>且無法藉由低於五公尺／秒平方之煞車需求以避免</u>之狀況或事件。 2.16 偵測範圍(Detection Range)：係指<u>考量</u>感測系統因時間及車輛壽命內使用率，<u>且產生控制信號所造成之零組件劣化</u>下，系統可有效辨認物件之距離。 2.17 系統／功能設計速度範圍 (System/Feature Designed Speed Range)：係指於系統或功能<u>可</u>於主動模式下，<u>基於系統設計及能力，並考量相關交通及環境條件內</u>之適應性速度範圍。 2.18 駕駛人設定最高速度(Driver-set

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
maximum speed of DCAS operation set by the driver.	maximum speed of DCAS operation set by the driver.	maximum speed)：係指由駕駛人所設定之DCAS運作最高速度。	maximum speed)：係指由駕駛人所設定之DCAS運作 ~~的~~ 最高速度。
2.20. “Current maximum speed” means the maximum speed up to which the system will control the vehicle.	2.20. “Current maximum speed” means the maximum speed up to which the system will control the vehicle.	2.19 現在最高速度(Current maximum speed)：係指最 ~~多~~ 至系統將控制車輛之最高速度。	2.19 現在最高速度(Current maximum speed)：係指最 ~~高~~ 至系統將控制車輛之最高速度。
2.21. “Rx Software Identification Number (RXSWIN)” means a dedicated identifier, defined by the vehicle manufacturer, representing information about the type approval relevant software of the Electronic Control System contributing to the UN Regulation No. 1XX type approval relevant characteristics of the vehicle.	2.21. “Rx Software Identification Number (RXSWIN)” means a dedicated identifier, defined by the vehicle manufacturer, representing information about the type approval relevant software of the Electronic Control System contributing to the UN Regulation No. 1XX type approval relevant characteristics of the vehicle.	2.20 R ~~171~~ 軟體識別碼 (R ~~171~~ Software Identification Number ; R ~~171~~ SWIN)：係指一個由申請者所定義之指定識別碼，代表促成UN R1 ~~71~~ 型式認證相關車輛特性之電子控制系統之型式認證相關軟體的資訊。	2.20 R ~~x~~ 軟體識別碼 (R ~~x~~ Software Identification Number ; R ~~x~~ SWIN)：係指一個由申請者所定義之指定識別碼，代表促成UN R1 ~~XX~~ 型式認證相關車輛特性之電子控制系統之型式認證相關軟體的資訊。
2.22. “Electronic Control System” means a combination of units, designed to co-operate in the production of the stated vehicle control function by electronic data processing. Such systems, often controlled by software, are built from discrete functional components such as sensors, electronic control units and actuators and connected by transmission links. They may include mechanical, electro-pneumatic or electro-hydraulic elements.	2.22. “Electronic Control System” means a combination of units, designed to co-operate in the production of the stated vehicle control function by electronic data processing. Such systems, often controlled by software, are built from discrete functional components such as sensors, electronic control units and actuators and connected by transmission links. They may include mechanical, electro-pneumatic or electro-hydraulic elements.	2.21 電子控制系統(Electronic Control System)：係指電子單元組合，其被設計用於透過電子資料處理，使電子單元合作產生前述自動車道維持輔助功能。系統常由軟體控制，且係由各獨立功能元件例如感 ~~測~~ 器、電子控制單元及作動器所建構，並由傳輸連結線連接。其可能包含機械式、電動氣壓式或電動液壓式元件。	2.21 電子控制系統(Electronic Control System)：係指電子單元組合，其被設計用於透過電子資料處理，使電子單元合作產生前述自動車道維持輔助功能。系統常由軟體控制，且係由各獨立功能元件例如感 ~~知~~ 器、電子控制單元及作動器所建構，並由傳輸連結線連接。其可能包含機械式、電動氣壓式或電動液壓式元件。
2.23. “Occurrence” means, in the context of the provisions in paragraph 7, a safety-related action or instance of an arising event or incident involving a vehicle equipped with DCAS.	2.23. “Occurrence” means, in the context of the provisions in paragraph 7, a safety-related action or instance of an arising event or incident involving a vehicle equipped with DCAS.	2.22 事件發生(Occurrence)：係指規定7.中，一個即將發生且涉及配備DCAS之車輛的事件或事故之安全相關動作或狀態。	2.22 事件發生(Occurrence)：係指規定7.中，一個即將發生且涉及配備DCAS之車輛的事件或事故之安全相關動作或狀態。
2.24. “Safety-Critical Occurrence” means an occurrence when DCAS or its respective feature is in ‘On’ mode at the time of a	2.24. “Safety-Critical Occurrence” means an occurrence when DCAS or its respective feature is in ‘On’ mode at the time of a	2.23 安全性危害之事件發生(Safety-Critical Occurrence)：係指於DCAS或其 ~~個別~~ 功能處於開啟模式，且處於	2.23 安全性危害之事件發生(Safety-Critical Occurrence)：係指於DCAS或其 ~~相關~~ 功能處於開啟模式，且處於

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
collision event which: (a) Resulted in an injury requiring medical assistance or death of at least one person; or (b) Resulted in the deployment of airbags, non-reversable occupant restraints and/or vulnerable road user secondary safety system of the DCAS-equipped vehicle. 2.25. “Controllability” means a measure of the probability that harm can be avoided when a hazardous condition occurs. This condition might be due to actions by the driver, the system or by external measures. 2.26. “Driver Override” means any action taken by the driver to temporarily intervene on the assistance provided by DCAS through the application of braking, transmission, accelerator or steering controls. 2.27. “Highway” means a type of road where pedestrians and cyclists are prohibited and which, by design, is equipped with a physical separation that divides the traffic moving in opposite directions. 2.28. “Non-Highway” means a type of road other than a highway as defined in paragraph 2.27. 2.29. “Automated Driving System (ADS)” means the vehicle hardware and software that are collectively capable of performing the entire Dynamic Driving Task (DDT) on a sustained basis.	collision event which: (a) Resulted in the injury of at least one person requiring medical assistance; or (b) Resulted in the deployment of airbags, non-reversable occupant restraints and/or vulnerable road user secondary safety system of the DCAS-equipped vehicle. 2.25. “Controllability” means a measure of the probability that harm can be avoided when a hazardous condition occurs. This condition might be due to actions by the driver, the system or by external measures. 2.26. “Driver Override” means any action taken by the driver to temporarily intervene on the assistance provided by DCAS through the application of braking, transmission, accelerator or steering controls. 2.27. “Highway” means a type of road where pedestrians and cyclists are prohibited and which, by design, is equipped with a physical separation that divides the traffic moving in opposite directions. 2.28. “Non-Highway” means a type of road other than a highway as defined in paragraph 2.27. 2.29. “Automated Driving System (ADS)” means the vehicle hardware and software that are collectively capable of performing the entire Dynamic Driving Task (DDT) on a sustained basis.	下述碰撞事件時之事件發生： (a) 導致至少一人受到需要醫療協助或死亡之傷害時；或 (b) 導致配備DCAS之車輛的空氣囊、不可回復之乘客束縛及／或弱勢道路使用者次要安全系統展開時； 2.24 可控制性(Controllability)：係指可於危害情形發生時迴避傷害之可能性的計算值。危害情形可能源於駕駛人、系統行為或外部措施。 2.25 駕駛人取代(Driver Override)：係指由駕駛人透過施加煞車、傳動、加速器或轉向控制，以暫時介入由DCAS提供之協助所採取的任意行為。 2.26 高／快速公路(Highway)：係指一種類型之道路，其禁止行人及自行車騎士使用，且依照設計配備有物理分隔將相反方向移動之交通進行區分。 2.27 非高／快速公路 (Non-Highway)：係指一種類型之道路，其為不同於規定2.26所述之高／快速公路的道路。 2.28 自動駕駛系統(Automated Driving System ; ADS)：係指具備以持續之方式，共同執行完整之動態行駛任務能力的車輛硬體及軟體。	下述碰撞事件時之事件發生： (a)導致至少一人受到需要醫療協助之傷害時；或 (b)導致配備DCAS之車輛的空氣囊、不可回復之乘客束縛及／或弱勢道路使用者次要安全系統展開時； 2.24 可控制性(Controllability)：係指可於危害情形發生時迴避傷害之可能性的計算值。相關情形可能源於駕駛人、系統之行為，或源於外部措施。 2.25 駕駛人取代(Driver Override)：係指由駕駛人透過施加煞車、傳動、加速器或轉向控制，以暫時介入由DCAS所提供之協助所採取之任意行為。 2.26 高速公路(Highway)：係指一種類型之道路，其禁止行人及自行車騎士使用，且依照設計配備有物理分隔將相反方向移動之交通進行區分。 2.27 非高速公路(Non-Highway)：係指一種類型之道路，其為不同於規定2.26所述之高速公路的道路。 2.28 自動駕駛系統 (Automated Driving System ; ADS)：係指具備以持續之方式，共同執行完整之動態行駛任務能力的車輛硬體及軟體。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.30. “Dynamic Driving Task (DDT)” means the real-time operational and tactical functions required to operate the vehicle. 2.31. “String Instability” means when a disturbance in the speed profile of the vehicle in front is amplified by the following vehicle. 2.32. “Hands On Request (HOR)” means a request from the system to the driver to motorically reengage. 2.33. “Eyes On Request (EOR)” means a request from the system to the driver to visually reengage. 2.34. “Direct Control Alert (DCA)” means an instruction from the system to the driver to immediately resume at least lateral control of the vehicle.	2.30. “Dynamic Driving Task (DDT)” means the real-time operational and tactical functions required to operate the vehicle in on-road traffic.	2.29 動態行駛任務(Dynamic driving task; DDT)：係指於操作車輛所需之即時運作及策劃功能。 2.30 車流不穩定性(String instability)：係於前方車輛之速度廓線(speed profile)中的擾動藉由隨後之車輛放大的情形。 2.31 接手要求(Hands On Request；HOR)：係指系統向駕駛人發出要求以就動作上重新參與行駛。 2.32 著眼要求(Eyes On Request；EOR)：係指系統向駕駛人發出要求以就視覺上重新參與行駛。 2.33 直接控制警示(Direct Control Alert；DCA)：係指系統向駕駛人發出指示以至少立即恢復車輛之側向控制。	2.29 動態行駛任務(Dynamic driving task; DDT)：係指於<u>道路交通</u>操作車輛所需之即時運作及策劃功能。
... 2.2. “Vehicle Type with regard to DCAS” means a group of vehicles, which do not differ in such essential aspects as: (a) The system characteristics and design of DCAS; (b) Vehicle features which significantly influence the performances of DCAS. If within the manufacturer's designation of the vehicle type, DCAS consists of multiple features, some of which optionally may not be fitted on some vehicles, DCAS with lesser features is deemed to belong to the same vehicle type with respect to DCAS.	... 2.2. “Vehicle Type with regard to DCAS” means a group of vehicles, which do not differ in such essential aspects as: (a) The system characteristics and design of DCAS; (b) Vehicle features which significantly influence the performances of DCAS. If within the manufacturer's designation of the vehicle type, DCAS consists of multiple features, some of which optionally may not be fitted on some vehicles, DCAS with lesser features is deemed to belong to the same vehicle type with respect to DCAS.	3. 駕駛人控制輔助系統之適用型式及其範圍認定原則： 3.1 車輛廠牌相同。 3.2 DCAS之系統特性及設計相同。 3.3對於DCAS性能有重大影響之車輛特性。 若於車型之申請者指定對象內，其DCAS由多項功能組成，而部分功能可能因屬可選項目而無法於部分車輛上安裝，則具備較少功能之DCAS仍視為相同車型。	3. 駕駛人控制輔助系統之適用型式及其範圍認定原則： 3.1 車輛廠牌相同。 3.2 DCAS之系統特性及設計相同。 3.3對於DCAS性能有重大影響之車輛特性。 若於車型之申請者指定對象內，其DCAS由多項功能組成，而部分功能可能因屬可選項目而無法於部分車輛上安裝，則具備較少功能之DCAS仍視為相同車型。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
3. Application for approval 3.1. The application for approval of a vehicle type with regard to the DCAS shall be submitted by the vehicle manufacturer or by the manufacturer's authorized representative to the Type Approval Authority of the Contracting Party, according to the provisions of Schedule 3 of the 1958 Agreement. 3.2. It shall be accompanied by the following documentation: 3.2.1. A description of the vehicle type with regard to the items specified in paragraph 2.2 together with a documentation package as required in Annex 1 which gives access to the basic design of the DCAS and the means by which it is linked to other vehicle systems, or by which it directly controls output variables. 3.3. A vehicle representative of the vehicle type to be approved shall be submitted to the Type Approval Authority or its designated technical service responsible for conducting the approval tests.	3. Application for approval 3.1. The application for approval of a vehicle type with regard to the DCAS shall be submitted by the vehicle manufacturer or by the manufacturer's authorized representative to the Type Approval Authority of the Contracting Party, according to the provisions of Schedule 3 of the 1958 Agreement. 3.2. It shall be accompanied by the following documentation (a model of the information document is provided in Annex 2): 3.2.1. A description of the vehicle type with regard to the items specified in paragraph 2.2 together with a documentation package as required in Annex 1 which gives access to the basic design of the DCAS and the means by which it is linked to other vehicle systems, or by which it directly controls output variables. 3.3. A vehicle representative of the vehicle type to be approved shall be submitted to the Type Approval Authority or its designated technical service responsible for conducting the approval tests.	4. 申請者於申請認證測試時應至少提供一部代表車及下列文件： 4.1 應提供 <u>下述文件</u> ： 4.1.1 併同規定11.所要求之可確認DCAS基本設計，以及與其他車輛系統連結方式或直接控制輸出變數的文件，與具備規定3.所述項目之車型相關說明。	4. 申請者於申請認證測試時應至少提供一部代表車及下列文件： 4.1 <u>依照規定12.之資訊文件模型</u> 提供： 4.1.1 併同規定11.所要求之可確認DCAS基本設計，以及與其他車輛系統連結方式或直接控制輸出變數的文件，與具備規定3.所述項目之車型相關說明。
4. Approval 4.1. If the vehicle type submitted for approval pursuant to this UN Regulation meets the requirements of paragraphs 5 to 10 below, approval of that vehicle type shall be granted. 4.2. An approval number shall be assigned to	4. Approval 4.1. If the vehicle type submitted for approval pursuant to this UN Regulation meets the requirements of paragraphs 5 to 10 below, approval of that vehicle type shall be granted. 4.2. An approval number shall be assigned to	(認證相關規定不影響檢測基準內容)	(認證相關規定不影響檢測基準內容)

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
each type approved. Its first two digits (at present 00 for the UN Regulation in its original form) shall indicate the series of amendments incorporating the technical amendments made to the UN Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another type of vehicle. 4.3. Communication of approval or extension of approval or refusal of approval or withdrawal of approval or of production definitively discontinued of a vehicle type pursuant to this UN Regulation shall be communicated to the Contracting Parties to the Agreement applying this UN Regulation by means of a form conforming to the model in Annex 1 to this UN Regulation and documentation supplied by the applicant being in a format not exceeding A4 (210 × 297mm), and on an appropriate scale or electronic format. 4.4. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every vehicle conforming to a vehicle type approved under this UN Regulation, an international approval mark conforming to the model described in Annex 2, consisting of either: 4.4.1. A circle surrounding the letter “E” followed by: (a) The distinguishing number of the country which has granted approval; and	each type approved. Its first two digits (at present 00 for the UN Regulation in its original form) shall indicate the series of amendments incorporating the technical amendments made to the UN Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another type of vehicle. 4.3. Communication including approval of extension of refusal or of withdrawal of approval or of production definitively discontinued of a vehicle type pursuant to this UN Regulation shall be communicated to the Contracting Parties to the Agreement applying this UN Regulation by means of a form conforming to the model in Annex 1 to this UN Regulation and documentation supplied by the applicant being in a format not exceeding A4 (210 × 297mm), and on an appropriate scale or electronic format. 4.4. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every vehicle conforming to a vehicle type approved under this UN Regulation, an international approval mark conforming to the model described in Annex 3, consisting of either: 4.4.1. A circle surrounding the letter “E” followed by: (a) The distinguishing number of the country which has granted approval; and		

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(b) The number of this Regulation, followed by the letter “R”, a dash and the approval number to the right of the circle prescribed in this paragraph; 4.5. The approval mark shall be clearly legible and be indelible. 4.6. The Type Approval Authority shall verify the existence of satisfactory arrangements for ensuring effective checks on conformity of production before type-approval is granted.	(b) The number of this Regulation, followed by the letter “R”, a dash and the approval number to the right of the circle prescribed in this paragraph; Or, 4.4.2. An oval surrounding the letters “UI” followed by the Unique Identifier. 4.5. The approval mark shall be clearly legible and be indelible. 4.6. The Type Approval Authority shall verify the existence of satisfactory arrangements for ensuring effective checks on conformity of production before type-approval is granted.		
5. General Specifications The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the Approval Authority during the inspection of the safety approach as part of the assessment to Annex 3 and according to the relevant tests in Annex 4. 5.1. General Requirements 5.1.1. The system shall be designed to ensure the driver remains engaged with the driving task, in accordance with paragraph 5.5.4.2. 5.1.2. The system shall be designed to ensure mode awareness and avoid driver overreliance. This shall be demonstrated by fulfilment of provisions of paragraphs 5.5.4. 5.1.3. The system shall be designed to guard against reasonably foreseeable misuse by	5. General Specifications The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the Approval Authority during the inspection of the safety approach as part of the assessment to Annex 3 and according to the relevant tests in Annex 4. 5.1. General Requirements 5.1.1. The system shall be designed to ensure the driver remains engaged with the driving task, in accordance with paragraph 5.5.4.2. 5.1.2. The manufacturer shall implement strategies to ensure mode awareness and avoid driver overreliance. This shall be demonstrated by fulfilment of provisions of paragraphs 5.5.4. 5.1.3. The manufacturer shall take effective measures to guard against reasonably	5. 一般規格 為滿足本規定，申請者應於安全方法檢查期間作為規定12.評估之一部分，並依據規定13.相關試驗向檢測機構展演。 5.1 通則 5.1.1 系統應依照規定5.5.4.2設計以確保駕駛人維持參與行駛作業。 5.1.2 系統設計上應確保模式覺察性並避免駕駛人過度依賴。此項應藉由滿足規定5.5.4進行展演。 5.1.3 系統設計上應防止源自於駕駛人之合理可預見誤用，以及對系統之	5. 一般規格 為滿足本規定，申請者應於安全方法檢查期間作為規定12.評估之一部分，並依據規定13.相關試驗向檢測機構展演。 5.1 通則 5.1.1 系統應依照規定5.5.4.2設計以確保駕駛人維持參與行駛作業。 5.1.2 申請者應實施策略以確保模式覺察性並避免駕駛人過度依賴。此項應藉由滿足規定5.5.4進行展演。 5.1.3 申請者應採取有效措施以防止源自於駕駛人之合理可預見誤用，

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the driver and unauthorized modification of the system's software and hardware components. 5.1.4. The system shall provide the driver a means to safely override or deactivate the system at any time in accordance with paragraphs 5.5.3.4. 5.1.5. The DCAS-equipped vehicle shall at least be equipped with an Advanced Emergency Braking System. In addition, it shall be equipped with either a Lane Departure Prevention System or Lane Departure Warning System. These systems shall comply with the technical requirements and transitional provisions of UN Regulations Nos. 131, 152, 79 (Corrective Steering Function) and 130, as appropriate for the DCAS-equipped vehicle category.	foreseeable misuse by the driver and unauthorized modification of the system's software and hardware components. 5.1.4. The system shall provide the driver a means to safely override or deactivate the system at any time in accordance with paragraphs 5.5.3.4. 5.1.5. The DCAS-equipped vehicle shall at least be equipped with an Advanced Emergency Braking System. In addition, it shall be equipped with either a Lane Departure Prevention System or Lane Departure Warning System. These systems shall comply with the technical requirements and transitional provisions of UN Regulations Nos. 131, 152, 79 (Corrective Steering Function) and 130, as appropriate for the DCAS-equipped vehicle category.	軟體及硬體組件之未經授權修改。 5.1.4 系統應依照規定5.5.3.4提供駕駛人於任何時間安全地取代或解除系統之方法。 5.1.5 配備DCAS之車輛應至少配備緊急煞車輔助系統。另外，其應配備車道偏離預防系統或車道偏離警示系統。前述系統應依照配備DCAS之車輛種類符合本基準「附件七十二、緊急煞車輔助系統」、「附件一百、小型汽車之緊急煞車輔助系統」、「附件四十七之三、轉向系統」(修正轉向功能)及「附件七十、車道偏離警示輔助系統」之技術要求。 <u>5.1.6 若檢測機構因測試場地限制而無法到達規定試驗速度時，則可由檢測機構與申請者協商後依一百十公里/小時進行試驗。</u> 5.2 DCAS與其他車輛輔助系統之互動 5.2.1 於系統處於主動模式時，其運作不應解除或暫停已啟動之緊急輔助系統(即AEBS)之縱向功能性。於側向功能性上，系統可依照涵蓋此功能性之個別規定解除或暫停緊急輔助系統。	以及對系統之軟體及硬體組件之未經授權修改。 5.1.4 系統應依照規定5.5.3.4提供駕駛人於任何時間安全地取代或解除系統之方法。 5.1.5 配備DCAS之車輛應至少配備緊急煞車輔助系統。另外，其應配備車道偏離預防系統或車道偏離警示系統。前述系統應依照配備DCAS之車輛種類符合本基準「附件七十二、緊急煞車輔助系統」、「附件一百、小型汽車之緊急煞車輔助系統」、「附件四十七之三、轉向系統」(修正轉向功能)及「附件七十、車道偏離警示輔助系統」之技術要求。 5.2 DCAS與其他車輛輔助系統之互動 5.2.1 於系統處於主動模式時，其運作不應解除或暫停已啟動之緊急輔助系統(即AEBS)之縱向功能性。於側向功能性上，系統可依照涵蓋此功能性之個別規定解除或暫停緊急輔助系統。

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emergency assistance systems in accordance with the respective regulations covering this functionality. 5.2.2. Transitions between DCAS and other assistance or automation systems, prioritization of one over the other, and any suppression or deactivation of other assistance systems which are intended to ensure the safe and nominal operation of the vehicle shall be described in detail in the documentation presented to the Type Approval Authority. 5.3. Functional requirements 5.3.1. The manufacturer shall describe in detail in the documentation the detection capabilities of the system relevant to the individual features, especially for those system boundaries listed in Annex 3, Appendix 3. 5.3.2. The system shall be able to assess and respond to its surroundings as required to implement the system's intended functionality, within the system boundaries and to the extent possible if operating beyond system boundaries. 5.3.2.1. The system shall aim to avoid disruption to the flow of traffic by adapting its behaviour to the surrounding traffic in an appropriate safety-oriented way. 5.3.2.2. If the system detects a risk of collision, it shall aim to avoid or mitigate the severity of a collision.	emergency assistance systems in accordance with the respective regulations covering this functionality. 5.2.2. Transitions between DCAS and other assistance or automation systems, prioritization of one over the other, and any suppression or deactivation of other assistance systems which are intended to ensure the safe and nominal operation of the vehicle shall be described in detail in the documentation presented to the Type Approval Authority. 5.3. Functional requirements 5.3.1. The manufacturer shall describe in detail in the documentation the detection capabilities of the system relevant to the individual features, especially for those system boundaries listed in Annex 3, Appendix 3. 5.3.2. The system shall be able to assess and respond to its surroundings as required to implement the system's intended functionality, within the system boundaries and to the extent possible if operating beyond system boundaries. 5.3.2.1. The system shall aim to avoid disruption to the flow of traffic by adapting its behaviour to the surrounding traffic in an appropriate safety-oriented way. 5.3.2.2. If the system detects a risk of collision, it shall aim to avoid or mitigate the severity of a collision.	5.2.2 就介於DCAS與其他輔助或自動化系統之轉換，於超越其他項目之首要優先順序，以及意圖確保車輛之安全及正常運作的任意其他輔助系統之暫停或解除，應於向<u>檢測機構</u>所呈現之文件中詳細說明。 5.3 功能要求 5.3.1 申請者應於文件中詳細描述與獨立功能系統之偵測能力，特別是規定12.8中所列之系統邊界。 5.3.2 系統應於系統邊界及<u>盡可能</u>於超越系統邊界下運作之範圍內，如執行系統之預期功能所需，能對其周遭評估及反應。 5.3.2.1 系統應藉由以合適之安全性規劃方式，調適其對週遭交通之行為，以避免擾亂車流為目標。 5.3.2.2 若系統偵測碰撞風險，其應以避免或減輕碰撞之嚴重性為目標。	5.2.2 就介於DCAS與其他輔助或自動化系統之轉換，於超越其他項目之首要優先順序，以及意圖確保車輛之安全及正常運作的任意其他輔助系統之暫停或解除，應於向<u>檢測機構</u>所呈現之文件中詳細說明。 5.3 功能要求 5.3.1 申請者應於文件中詳細描述與獨立功能系統之偵測能力，特別是規定12.8中所列之系統邊界。 5.3.2 系統應於系統邊界及於超越系統邊界下運作之<u>可能延伸</u>範圍內，如執行系統之預期功能所需，能對其周遭評估及反應。 5.3.2.1 系統應藉由以合適之安全性規劃方式，調適其對週遭交通之行為，以避免擾亂車流為目標。 5.3.2.2 若系統偵測碰撞風險，其應以避免或減輕碰撞之嚴重性為目標。

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5.3.2.3. Without prejudice to other requirements in this UN Regulation, the system shall control the longitudinal and lateral motion of the vehicle aiming to maintain appropriate distances from other road users.	5.3.2.3. Without prejudice to other requirements in this UN Regulation, the system shall control the longitudinal and lateral motion of the vehicle aiming to maintain appropriate distances from other road users.	5.3.2.3 於不違反本基準附件中其他要求下，系統應以維持與其他道路使用者間之合適距離為目標，控制車輛之縱向及側向動態。	5.3.2.3 於不違反本基準附件中其他要求下，系統應以維持與其他道路使用者間之合適距離為目標，控制車輛之縱向及側向動態。
5.3.3. The system may activate relevant vehicle systems when necessary and applicable as appropriate for the system's operational design (e.g. direction indicators, activate wipers in case of rain, heating systems, etc.).	5.3.3. The system may activate relevant vehicle systems when necessary and applicable as appropriate for the system's operational design (e.g. direction indicators, activate wipers in case of rain, heating systems, etc.).	5.3.3 系統可於需要及適用系統之運作設計時啟動相關車輛系統（例如：方向燈、於下雨時啟動雨刷、加熱系統等）。	5.3.3 系統可於需要及適用系統之運作設計時啟動相關車輛系統（例如：方向燈、於下雨時啟動雨刷、加熱系統等）。
5.3.4. The system's control strategy shall be designed to reduce the risk of collisions whilst remaining controllable, accounting for the reaction time of the driver, as per paragraph 5.3.6.	5.3.4. The system's control strategy shall be designed to reduce the risk of collisions whilst remaining controllable, accounting for the reaction time of the driver, as per paragraph 5.3.6.	5.3.4 系統之控制策略應設計以減少碰撞風險，同時如規定5.3.6所述考量駕駛人之反應時間下維持可控制之狀態。	5.3.4 系統之控制策略應設計以減少碰撞風險，同時如規定5.3.6所述考量駕駛人之反應時間下維持可控制之狀態。
5.3.5. Response to System boundaries	5.3.5. Response to System boundaries	5.3.5 對系統邊界之反應	5.3.5 對系統邊界之反應
5.3.5.1. The system shall aim to detect the applicable system boundaries when DCAS or a feature of DCAS is in 'on' mode. If the system identifies that the system or feature boundary is exceeded, it shall transition into 'stand-by' mode and immediately notify the driver in accordance to the strategies described by the manufacturer as outlined in paragraph 5.3.5.2. and according to the HMI requirements defined in paragraph 5.5.4.1.	5.3.5.1. The system shall aim to detect the applicable system boundaries when DCAS or a feature of DCAS is in 'on' mode. If the system identifies that the system or feature boundary is exceeded, it shall transition into 'stand-by' mode and immediately notify the driver in accordance to the strategies described by the manufacturer as outlined in paragraph 5.3.5.2. and according to the HMI requirements defined in paragraph 5.5.4.1.	5.3.5.1 系統應於DCAS或DCAS之功能處於開啟模式時，以偵測適用之系統邊界為目標。若系統識別到超過系統或功能邊界時，其應如申請者依照規定5.3.5.2所描述之策略，以及依照規定5.5.4.1所定義之HMI要求，轉換至待機模式並立即通知駕駛人。	5.3.5.1 系統應於DCAS或DCAS之功能處於開啟模式時，以偵測適用之系統邊界為目標。若系統識別到超過系統或功能邊界時，其應如申請者依照規定5.3.5.2所描述之策略，以及依照規定5.5.4.1所定義之HMI要求，轉換至待機模式並立即通知駕駛人。
The system shall terminate assistance to the driver provided by the affected feature or the system in a controllable way. The assistance termination strategy shall be described by	The system shall terminate assistance to the driver provided by the affected feature or the system in a controllable way. The assistance termination strategy shall be described by	系統應藉由可控制之方式影響功能或系統，終止已對駕駛人提供之輔助。輔助之終止策略應由申請者描述並依照規定12.進行評估。	系統應藉由可控制之方式影響功能或系統，終止已對駕駛人提供之輔助。輔助之終止策略應由申請者描述並依照規定12.進行評估。

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the vehicle manufacturer and assessed according to Annex 3.	the vehicle manufacturer and assessed according to Annex 3.		
5.3.5.1.1 The system shall aim to avoid rapid system fluctuations between ‘stand-by’ and ‘active’ modes.	5.3.5.1.1 The manufacturer shall implement strategies to avoid rapid system fluctuations between ‘stand-by’ and ‘active’ modes.	5.3.5.1.1 系統目標應朝向避免介於待機及主動模式間之快速系統波動。	5.3.5.1.1 申請者應執行策略以避免介於待機及主動模式間之快速系統波動。
5.3.5.2. The manufacturer shall describe in detail, as part of the documentation required for Section 9, the system boundary conditions for the system and its features, and the strategies to notify the driver in the event a boundary condition is detected to be exceeded, being met or being approached (as per paragraph 5.3.5.5).	5.3.5.2. The manufacturer shall describe in detail, as part of the documentation required for Section 9, the system boundary conditions for the system and its features, and the strategies to notify the driver in the event a boundary condition is detected to be exceeded, being met or being approached (as per paragraph 5.3.5.5).	5.3.5.2 作為規定9所需之文件的一部分，申請者應詳細描述對系統及其功能之系統邊界條件，以及用於偵測到超過邊界條件之事件下通知駕駛人的策略(如規定5.3.5.5所示)。	5.3.5.2 作為規定9所需之文件的一部分，申請者應詳細描述對系統及其功能之系統邊界條件，以及用於偵測到超過邊界條件之事件下通知駕駛人的策略(如規定5.3.5.5所示)。
5.3.5.2.1. The description shall at least take into account potentially relevant boundary conditions as listed in Annex 3, Appendix 3.	5.3.5.2.1. The description shall at least take into account potentially relevant boundary conditions as listed in Annex 3, Appendix 3.	5.3.5.2.1 相關說明應至少將規定12.8所列潛在之相關邊界條件納入考量。	5.3.5.2.1 相關說明應至少將規定12.8所列潛在之相關邊界條件納入考量。
5.3.5.2.2. The manufacturer shall describe and where reasonable demonstrate the behaviour of the system, the impact on system performance and how safety is ensured in case the system or its features remain in ‘active’ mode beyond these boundaries.	5.3.5.2.2. The manufacturer shall describe and where reasonable demonstrate the behaviour of the system, the impact on system performance and how safety is ensured in case the system or its features remain in ‘active’ mode beyond these boundaries.	5.3.5.2.2 若系統或其功能於超越相關邊界後仍維持主動模式，申請者應描述及於合理之狀況下展演系統之行為、於系統性能上之衝擊，以及如何確保安全性。	5.3.5.2.2 若系統或其功能於超越相關邊界後仍維持主動模式，申請者應描述及於合理之狀況下展演系統之行為、於系統性能上之衝擊，以及如何確保安全性。
5.3.5.3. The manufacturer shall identify those system boundaries that the system is able to detect and shall describe the means by which the system is capable of identifying system boundaries.	5.3.5.3. The manufacturer shall identify those system boundaries that the system is able to detect and shall describe the means by which the system is capable of identifying system boundaries.	5.3.5.3 申請者應識別系統可偵測之系統邊界，且應描述系統藉此具備識別系統邊界之方法。	5.3.5.3 申請者應識別系統可偵測之系統邊界，且應描述系統藉此具備識別系統邊界之方法。
5.3.5.4. Any declared system boundary that the system is unable to detect shall be documented and it shall be justified, to the satisfaction of the Approval Authority, how the inability to detect does not affect the safe	5.3.5.4. Any declared system boundary that the system is unable to detect shall be documented and it shall be justified, to the satisfaction of the Approval Authority, how the inability to detect does not affect the safe	5.3.5.4 任何系統無法偵測之已宣告系統邊界應進行記錄，且為滿足 <u>檢測機構</u> ，應證明前述不能偵測之情形如何不對系統或其功能之安全運作造成影響。	5.3.5.4 任何系統無法偵測之已宣告系統邊界應進行記錄，且為滿足 <u>檢測機構</u> ，應證明前述不能偵測之情形如何不對系統或其功能之安全運作造成影響。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
operation of the system or its features. 5.3.5.5. When the system identifies that the vehicle is approaching a system boundary of a feature in ‘active mode’, it shall inform the driver of this with sufficient lead time for the driver to respond appropriately. 5.3.6. Controllability 5.3.6.1. The system shall be designed to ensure that control actions by the system including, but not limited to, those resulting from system failures, reaching system boundaries, cancelling manoeuvres or when the system is being switched to ‘off’ mode remain controllable for the driver. This shall take into account the driver’s potential reaction time, as relevant to the situation, including manual reengagement where applicable, so that the driver intervention can be safely performed at any time (e.g., during a given manoeuvre). 5.3.6.1.1. Whilst withholding HORs, the manufacturer shall consider this potential reaction time required for the driver to respond to a DCA and to hold the steering control. This shall never be assumed to be less than 1 second, unless the manufacturer is able to demonstrate that controllability is ensured through specific strategies. 5.3.6.2. The system shall be designed to ensure controllability in accordance with the system’s capabilities and within the defined system boundaries. In the case that HORs	operation of the system or its features. 5.3.5.5. When the system identifies that the vehicle is approaching a system boundary of a feature in ‘active mode’, it shall inform the driver of this with appropriate lead time. 5.3.6. Controllability 5.3.6.1. The system shall be designed to ensure that control actions by the system including, but not limited to, those resulting from system failures, reaching system boundaries or when the system is being switched to ‘off’ mode remain controllable for the driver. This shall take into account the driver’s potential reaction time, as relevant to the situation, so that the driver intervention can be safely performed at any time (e.g., during a given manoeuvre). 5.3.6.2. To ensure controllability, the system shall implement strategies as relevant to the system’s capabilities, within the defined system boundaries.	5.3.5.5 於系統識別車輛已接近一個處於主動模式功能之系統邊界，<u>為使駕駛人適當地反應</u>，其應以<u>足夠</u>之前置時間通知駕駛人相關事宜。 5.3.6 可控制性 5.3.6.1 系統應設計以確保源於系統之控制行為包含但不限於因系統故障、抵達系統邊界、<u>取消操作</u>，或於系統切換至關閉模式對駕駛人維持可控制等項。本項應考量<u>包含依實際情況手動重新參與等</u>，與情境相關之駕駛人的潛在反應時間，已使駕駛人之介入可於任意時間安全地執行（例如：於指定之操作期間）。 <u>5.3.6.1.1 於保留HOR時，申請者應考量駕駛人對DCAS進行反應，以及掌握方向盤所需之潛在反應時間。另除申請者能展示可透過特定策略確保可控制性外，否則前述反應時間不應被假設為少於一秒鐘。</u> 5.3.6.2 <u>系統設計上應依照系統能力及已定義之系統邊界內確保可控制性。於HOR受到保留之狀況下，系統應將駕駛人可能動作上不參與行駛</u>	5.3.5.5 於系統識別車輛已接近一個處於主動模式功能之系統邊界，其應以<u>適當</u>之前置時間通知駕駛人相關事宜。 5.3.6 可控制性 5.3.6.1 系統應設計以確保源於系統之控制行為包含但不限於因系統故障、抵達系統邊界，或於系統切換至關閉模式對駕駛人維持可控制等項。本項應考量與情境相關之駕駛人的潛在反應時間，已使駕駛人之介入可於任意時間安全地執行（例如：於指定之操作期間）。 5.3.6.2 <u>為確保可控制性，系統應於已定義之系統邊界內，實施與系統能力相關之策略。</u>

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
are being withheld, the system shall take into account that the driver may be motorically disengaged.	Controllability strategies may include, but are not limited to: (a) Limiting the system's steering output; (b) Adjusting the vehicle's position in the lane of travel; (c) Determining road type and attributes; (d) Determining other road user behaviour; (e) Driver monitoring used.	<u>納入考量。</u>	<u>可控制性策略可能包含但不限於：</u> (a) <u>限制系統之轉向輸出；</u> (b) <u>調整車輛於行駛車道中之位置；</u> (c) <u>測定道路類型及屬性；</u> (d) <u>測定其他道路使用者行為；</u> (e) <u>使用駕駛人監測。</u>
The manufacturer's controllability design shall be described in detail to the Type Approval Authority and shall be assessed according to Annex 3.	The manufacturer's controllability design shall be described in detail to the Type Approval Authority and shall be assessed according to Annex 3.	申請者之可控制性設計應向 <u>檢測機構</u> 詳細說明，且應依照規定12.進行評估。	申請者之可控制性設計應向檢測機構詳細說明，且應依照規定12.進行評估。
5.3.6.3 Deceleration and Acceleration	5.3.6.3 Deceleration and Acceleration	5.3.6.3 減速及加速	5.3.6.3 減速及加速
5.3.6.3.1. When controlled by the system, the vehicle deceleration and acceleration shall remain manageable for the driver and surrounding traffic, unless increased levels of deceleration are required to ensure the safety of the vehicle or surrounding road users.	5.3.6.3.1. When controlled by the system, the vehicle deceleration and acceleration shall remain manageable for the driver and surrounding traffic, unless increased levels of deceleration are required to ensure the safety of the vehicle or surrounding road users.	5.3.6.3.1 於受到系統控制時，除需要增加減速等級以確保車輛或週遭道路使用者之安全性外，車輛之減速及加速應對駕駛人及週遭交通維持可管理之狀態。	5.3.6.3.1 於受到系統控制時，除需要增加減速等級以確保車輛或週遭道路使用者之安全性外，車輛之減速及加速應對駕駛人及週遭交通維持可管理之狀態。
5.3.6.3.2. While the system is trying to maintain a constant speed without external disturbances, it shall aim to minimise unreasonable fluctuations in the vehicle's speed.	5.3.6.3.2. (Reserved)	5.3.6.3.2 <u>於系統正嘗試於無外部干擾下維持一恆定速度時，其目標應最小化於車輛速度上之無理波動。</u>	5.3.6.3.2 <u>(保留)</u>
5.3.7. System Dynamic Control	5.3.7. System Dynamic Control	5.3.7 系統動態控制	5.3.7 系統動態控制
5.3.7.1. Positioning of the vehicle in the lane of travel	5.3.7.1. Positioning of the vehicle in the lane of travel	5.3.7.1 車輛於行駛車道之位置調整	5.3.7.1 車輛於行駛車道之位置調整
5.3.7.1.1. The system while being in 'active' mode shall assist in keeping the vehicle in a stable position within its lane of travel.	5.3.7.1.1. The DCAS feature while being in 'active' mode shall assist in keeping the vehicle in a stable position within its lane of travel.	5.3.7.1.1 正處於主動模式之 <u>系統</u> 應協助維持車輛於所行駛車道內之穩定位置。	5.3.7.1.1 正處於主動模式之 <u>DCAS功能</u> 應協助維持車輛於所行駛車道內之穩定位置。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
While being in ‘active’ mode, the system shall ensure that the vehicle does not leave its lane of travel for lateral acceleration values specified by the manufacturer. 5.3.7.1.1.1. The system shall have the capability to adapt the vehicle speed in response to road curvature in order to achieve this. 5.3.7.1.2. The activated feature shall at any time, within the boundary conditions, ensure that the vehicle does not unintentionally cross a lane marking for lateral accelerations values to be specified by the manufacturer which shall not exceed 3 m/s² for M1 and N1 category vehicles and 2.5 m/s² for M2, M3, N2 and N3 category vehicles. It is recognised that the maximum lateral acceleration values specified by the vehicle manufacturer may not be achievable under all conditions (e.g., inclement weather, different tyres fitted to the vehicle, laterally sloped roads). The feature shall not deactivate or unreasonably switch the control strategy in these other conditions. The system may exceed the specified value of maximum lateral acceleration by not more than 0.3 m/s², while not exceeding 3 m/s² for M1 and N1 category vehicles and 2.5 m/s² for M2, M3, N2 and N3 category vehicles. Notwithstanding the sentence above, for time	While being in ‘active’ mode, the system shall ensure that the vehicle does not leave its lane of travel for lateral acceleration values specified by the manufacturer. 5.3.7.1.1.1. The system shall have the capability to adapt the vehicle speed in response to road curvature in order to achieve this. 5.3.7.1.2. The activated feature shall at any time, within the boundary conditions, ensure that the vehicle does not unintentionally cross a lane marking for lateral accelerations values to be specified by the manufacturer which shall not exceed 3 m/s² for M1 and N1 category vehicles and 2.5 m/s² for M2, M3, N2 and N3 category vehicles. It is recognised that the maximum lateral acceleration values specified by the vehicle manufacturer may not be achievable under all conditions (e.g., inclement weather, different tyres fitted to the vehicle, laterally sloped roads). The feature shall not deactivate or unreasonably switch the control strategy in these other conditions.	當處於主動模式時，系統應確保車輛不會以申請者所述之側向加速度值離開所行駛車道。 5.3.7.1.1.1 系統應具備能力以作為對道路彎道之反應調適車輛速度，以達成本項要求。 5.3.7.1.2 已啟動功能於邊界條件內，應於任意時間確保車輛不會無意間以申請者所述之側向加速度值穿越車道標線，其中M1及N1類車輛之側向加速度值不應超過三公呎／秒平方，以及M2、M3、N2及N3類車輛之側向加速度值不應超過二點五公尺／秒平方。 可認知到由申請者所述之最大側向加速度可能無法於所有條件下達成（例如：極端氣候、安裝至車輛上之不同輪胎、側向斜坡道路）。功能不應於前述其他條件下解除或無理地切換控制策略。 <u>系統可超過最大側向加速度規定數值不多於零點三公呎／秒平方，同時對於M1及N1類車輛而言不超過三公呎／秒平方，以及對於M2、M3、N2及N3類車輛而言不超過二點五公尺／秒平方。</u> <u>儘管前述規定說明，對於不超過二秒</u>	當處於主動模式時，系統應確保車輛不會以申請者所述之側向加速度值離開所行駛車道。 5.3.7.1.1.1 系統應具備能力以作為對道路彎道之反應調適車輛速度，以達成本項要求。 5.3.7.1.2 已啟動功能於邊界條件內，應於任意時間確保車輛不會無意間以申請者所述之側向加速度值穿越車道標線，其中M1及N1類車輛之側向加速度值不應超過三公呎／秒平方，以及M2、M3、N2及N3類車輛之側向加速度值不應超過二點五公尺／秒平方。 可認知到由申請者所述之最大側向加速度可能無法於所有條件下達成（例如：極端氣候、安裝至車輛上之不同輪胎、側向斜坡道路）。功能不應於前述其他條件下解除或無理地切換控制策略。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
periods of not more than 2 seconds the lateral acceleration of the system may exceed the specified value of maximum lateral acceleration by not more than 40 per cent, while not exceeding 3 m/s² for M1 and N1 category vehicles and 2.5 m/s² for M2, M3, N2 and N3 category vehicles by more than 0.3 m/s².		<u>之期間，系統之側向加速度可超過最大側向加速度規定數值不多於百分之四十，同時對於M1及N1類車輛而言不超過三點三公厘／秒平方，以及對於M2、M3、N2及N3類車輛而言不超過二點八公厘／秒平方。</u>	
5.3.7.1.2.1. The moving average over half a second of the lateral jerk generated by the system shall not exceed 5 m/s³.	5.3.7.1.2.1. The moving average over half a second of the lateral jerk generated by the system shall not exceed 5 m/s³.	5.3.7.1.2.1 由系統產生之側向急動超過半秒的移動平均不應超過五公尺／秒立方。	5.3.7.1.2.1 由系統產生之側向急動超過半秒的移動平均不應超過五公尺／秒立方。
5.3.7.1.3. The strategy by which the system determines the appropriate speed and resulting lateral acceleration shall be documented and assessed by the Type Approval Authority.	5.3.7.1.3. The strategy by which the system determines the appropriate speed and resulting lateral acceleration shall be documented and assessed by the Type Approval Authority.	5.3.7.1.3 應對系統用以決定適當速度及其衍生之側向加速度所藉由之策略進行記錄，並由<u>檢測機構</u>評估。	5.3.7.1.3 應對系統用以決定適當速度及其衍生之側向加速度所藉由之策略進行記錄，並由<u>檢測機構</u>評估。
5.3.7.1.4. When the system reaches its boundary conditions set out in paragraph 9.1.3., and both in the absence of any driver input to the steering control and when any the front tyre of the vehicle starts to unintentionally cross a lane marking, the system shall avoid sudden loss of steering support by providing continued assistance to the extent possible as outlined in the safety concept of the vehicle manufacturer. The system shall clearly inform the driver about this system status by means of an optical warning signal and additionally by an acoustic or haptic warning signal.	5.3.7.1.4. When the system reaches its boundary conditions set out in paragraph 9.1.3., and both in the absence of any driver input to the steering control and when any the front tyre of the vehicle starts to unintentionally cross a lane marking, the system shall avoid sudden loss of steering support by providing continued assistance to the extent possible as outlined in the safety concept of the vehicle manufacturer. The system shall clearly inform the driver about this system status by means of an optical warning signal and additionally by an acoustic or haptic warning signal.	5.3.7.1.4 於系統抵達於規定9.所設之其邊界條件，且併同駕駛人未任意對轉向控制之輸入，以及於車輛前輪無意間穿越車道標線時，系統應<u>如申請者之安全性概念所述，盡可能</u>藉由提供延續協助，以避免轉向支援之突然損失。系統應就此系統狀況，藉由光學警示訊號，以及額外藉由聲音或觸覺警示訊號之方法明確通知駕駛人。	5.3.7.1.4 於系統抵達於規定9.所設之其邊界條件，且併同駕駛人未任意對轉向控制之輸入，以及於車輛前輪無意間穿越車道標線時，系統應藉由提供延續協助<u>以盡可能如申請者之安全性概念所述進行延長</u>，以避免轉向支援之突然損失。系統應就此系統狀況，藉由光學警示訊號，以及額外藉由聲音或觸覺警示訊號之方法明確通知駕駛人。
For vehicles of categories M2, M3, N2 and N3,	For vehicles of categories M2, M3, N2 and N3,	對於M2、M3、N2及N3類車輛而言，	對於M2、M3、N2及N3類車輛而言，

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
the warning requirement above is deemed to be fulfilled if the vehicle is equipped with a Lane Departure Warning System (LDWS) fulfilling the technical requirements of UN Regulation No. 130.	the warning requirement above is deemed to be fulfilled if the vehicle is equipped with a Lane Departure Warning System (LDWS) fulfilling the technical requirements of UN Regulation No. 130.	若車輛配備滿足「附件七十、車道偏離輔助警示系統」技術要求之車道偏離輔助警示系統時，則視為滿足上述相關警示要求。	若車輛配備滿足「附件七十、車道偏離輔助警示系統」技術要求之車道偏離輔助警示系統時，則視為滿足上述相關警示要求。
5.3.7.2. Manoeuvre	5.3.7.2. Manoeuvre	5.3.7.2 操作	5.3.7.2 操作
5.3.7.2.1. General Requirements	5.3.7.2.1. General Requirements	5.3.7.2.1 一般規定	5.3.7.2.1 一般規定
5.3.7.2.1.1. A manoeuvre shall only be initiated if the driver is not detected to be disengaged, and	5.3.7.2.1.1. A manoeuvre shall only be initiated if the driver is not detected to be disengaged, and	5.3.7.2.1.1 操作應只能於駕駛人未被偵測到未參與(disengaged)時啟動，且	5.3.7.2.1.1 操作應只能於駕駛人未被偵測到未參與(disengaged)時啟動，且
(a) has commanded the system to perform the manoeuvre for a driver-initiated manoeuvre; or	(a) has commanded the system to perform the manoeuvre for a driver-initiated manoeuvre; or	(a) 就由駕駛人起始之操作而言，已指示系統執行操作；或	(a) 就由駕駛人起始之操作而言，已指示系統執行操作；或
(b) has acknowledged the system's intention as needed for a driver-confirmed manoeuvre; or	(b) has acknowledged the system's intention as needed for a driver-confirmed manoeuvre; or	(b) 就由駕駛人確認之操作而言，已根據需要了解系統之意圖；或	(b) 就由駕駛人確認之操作而言，已根據需要了解系統之意圖；或
(c) is given sufficient notice to react for a system-initiated manoeuvre.	(c) is given sufficient notice to react for a system-initiated manoeuvre.	(c) 就由系統起始之操作而言，已給予充足之通知以進行反應。	(c) 就由系統起始之操作而言，已給予充足之通知以進行反應。
Motoric disengagement may not be considered when HORs are being withheld by the system.		<u>於HOR受到系統保留時，動作上未參與將不納入考量。</u>	
5.3.7.2.1.2. The system shall only be permitted to perform a manoeuvre if the vehicle is equipped with detection capabilities with sufficient range to the front, side and rear with respect to the manoeuvre.	5.3.7.2.1.2. The system shall only be permitted to perform a manoeuvre if the vehicle is equipped with detection capabilities with sufficient range to the front, side and rear with respect to the manoeuvre.	5.3.7.2.1.2 系統應只能於車輛配備與操作相關之前方、側方及後方之充足範圍的偵測能力時，被允許執行操作。	5.3.7.2.1.2 系統應只能於車輛配備與操作相關之前方、側方及後方之充足範圍的偵測能力時，被允許執行操作。
5.3.7.2.1.3. A manoeuvre shall not be initiated if a driver disengagement warning is being given to the driver.	5.3.7.2.1.3. A manoeuvre shall not be initiated if a driver disengagement warning is being given to the driver.	5.3.7.2.1.3 操作不應於駕駛人未參與警示向駕駛人發出時被起始。	5.3.7.2.1.3 操作不應於駕駛人未參與警示向駕駛人發出時被起始。
5.3.7.2.1.4. A manoeuvre shall not be initiated if a risk of collision with another vehicle or road user is detected in the predicted path of	5.3.7.2.1.4. A manoeuvre shall not be initiated if a risk of collision with another vehicle or road user is detected in the predicted path of	5.3.7.2.1.4 操作不應於與其他車輛或道路使用者於操作期間DCAS車輛之預測路徑中產生碰撞風險被偵	5.3.7.2.1.4 操作不應於與其他車輛或道路使用者於操作期間DCAS車輛之預測路徑中產生碰撞風險被偵測

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the DCAS vehicle during the manoeuvre.	the DCAS vehicle during the manoeuvre.	測時被起始。	時被起始。
5.3.7.2.1.5. A manoeuvre shall be predictable and manageable for other road users.	5.3.7.2.1.5. A manoeuvre shall be predictable and manageable for other road users.	5.3.7.2.1.5 對其他道路使用者而言，操作應為可預測且可管理的。	5.3.7.2.1.5 對其他道路使用者而言，操作應為可預測且可管理的。
5.3.7.2.1.6. A manoeuvre shall aim to be one continuous movement.	5.3.7.2.1.6. A manoeuvre shall aim to be one continuous movement.	5.3.7.2.1.6 操作應以單一連續移動為目標。	5.3.7.2.1.6 操作應以單一連續移動為目標。
5.3.7.2.1.7. A manoeuvre shall be completed without undue delay.	5.3.7.2.1.7. A manoeuvre shall be completed without undue delay.	5.3.7.2.1.7 操作應於未過度之延遲下完成。	5.3.7.2.1.7 操作應於未過度之延遲下完成。
5.3.7.2.1.8. Once a manoeuvre has been completed, the system shall resume assisting in maintaining a stable position in the lane of travel.	5.3.7.2.1.8. Once a manoeuvre has been completed, the system shall resume assisting in maintaining a stable position in the lane of travel.	5.3.7.2.1.8 一旦操作已被完成，系統應恢復至協助維持於行駛車道內之穩定位置。	5.3.7.2.1.8 一旦操作已被完成，系統應恢復至協助維持於行駛車道內之穩定位置。
5.3.7.2.1.9. In case the vehicle is unexpectedly forced to become stationary during a planned manoeuvre, the system shall provide at least a visual warning signal to the driver, and may request the driver to resume control.	5.3.7.2.1.9. In case the vehicle is unexpectedly forced to become stationary during a planned manoeuvre, the system shall provide at least a visual warning signal to the driver, and may request the driver to resume control.	5.3.7.2.1.9 若車輛於已規畫操作期間意外被迫變為停止狀態，系統應對駕駛人提供至少一視覺警示訊號，且可要求駕駛人接手控制。	5.3.7.2.1.9 若車輛於已規畫操作期間意外被迫變為停止狀態，系統應對駕駛人提供至少一視覺警示訊號，且可要求駕駛人接手控制。
5.3.7.2.1.10. The system shall indicate driving manoeuvres assisted by the system (e.g., a lane change or turn) to other road users as per the required convention or as specifically defined in this Regulation. This shall include the use of the direction indicator to notify road users of an upcoming lateral manoeuvre.	5.3.7.2.1.10. The system shall indicate driving manoeuvres assisted by the system (e.g., a lane change or turn) to other road users as per the required convention or as specifically defined in this Regulation. This shall include the use of the direction indicator to notify road users of an upcoming lateral manoeuvre.	5.3.7.2.1.10 系統應依照所需轉換或如本基準附件所特別定義，指示由系統對其他道路使用者所協助之行駛操作（例如：變換車道或轉向）。應包含方向燈之使用以就即將發生之側向操作對道路使用者進行通知。	5.3.7.2.1.10 系統應依照所需轉換或如本基準附件所特別定義，指示由系統對其他道路使用者所協助之行駛操作（例如：變換車道或轉向）。應包含方向燈之使用以就即將發生之側向操作對道路使用者進行通知。
5.3.7.2.1.11. The system shall ensure the manoeuvre remains controllable for the driver, as per paragraph 5.3.6., by adapting its longitudinal speed before and during the manoeuvre when necessary.	5.3.7.2.1.11. The system shall ensure the manoeuvre remains controllable for the driver, as per paragraph 5.3.6., by adapting its longitudinal speed before and during the manoeuvre when necessary.	5.3.7.2.1.11 系統應於操作之前或操作期間必要時，藉由調適其縱向速度，以依照規定5.3.6確保操作對駕駛人維持於可控制狀態下。	5.3.7.2.1.11 系統應於操作之前或操作期間必要時，藉由調適其縱向速度，以依照規定5.3.6確保操作對駕駛人維持於可控制狀態下。
5.3.7.2.1.12. The manoeuvre shall aim to not cause a collision with another detected	5.3.7.2.1.12. The manoeuvre shall aim to not cause a collision with another detected	5.3.7.2.1.12 操作應以不造成於操作期間位於預期路徑之與其他已偵測	5.3.7.2.1.12 操作應以不造成於操作期間位於預期路徑之與其他已偵測的

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vehicle or road user in the predicted path of the vehicle during the manoeuvre. 5.3.7.2.2. General requirements for driver-initiated manoeuvres The requirements of this paragraph and its subparagraphs apply to feature(s) capable of performing driver-initiated manoeuvres. 5.3.7.2.2.1. The system shall only initiate the manoeuvre when explicitly commanded by the driver without prior request by the system, and when it is safe to do so.	vehicle or road user in the predicted path of the vehicle during the manoeuvre. 5.3.7.2.2. General requirements for driver-initiated manoeuvres The requirements of this paragraph and its subparagraphs apply to systems capable of performing driver-initiated manoeuvres. 5.3.7.2.2.1. The system shall only initiate the manoeuvre when explicitly commanded by the driver without prior request by the system, and when it is safe to do so. 5.3.7.2.2.2. The system shall not start the manoeuvre when a driver disengagement warning is currently being given.	的車輛或道路使用者產生碰撞為目標。 5.3.7.2.2 由駕駛人起始之操作的一般規定 本節規定及其子段落之要求適用於具備執行由駕駛人起始之操作相關能力的功能。 5.3.7.2.2.1 系統應只能於可安全執行，且由駕駛人於系統未有預先要求之明確指示下起始操作。	車輛或道路使用者產生碰撞為目標。 5.3.7.2.2 由駕駛人起始之操作的一般規定 本節規定及其子段落之要求適用於具備執行由駕駛人起始之操作相關能力的系統。 5.3.7.2.2.1 系統應只能於可安全執行，且由駕駛人於系統未有預先要求之明確指示下起始操作。 <u>5.3.7.2.2.2 系統不應於駕駛人未參與警示正在被發出時開始操作。</u>
5.3.7.2.3. General requirements for driver-confirmed manoeuvres The requirements of this paragraph and its subparagraphs apply to feature(s) capable of performing driver-confirmed manoeuvres. 5.3.7.2.3.1. The requirements outlined in paragraph 5.5.4.1.8. and subparagraphs shall apply. In addition, the system shall be designed to ensure that the driver has sufficient time to confirm that the system may proceed with the manoeuvre, as appropriate. 5.3.7.2.3.2. A request by the system for the driver to confirm a manoeuvre shall at least be indicated through a specific signal (or combination of signals) in accordance with paragraph 5.5.4.1.	5.3.7.2.3. General requirements for driver-confirmed manoeuvres The requirements of this paragraph and its subparagraphs apply to the system capable of performing driver-confirmed manoeuvres. 5.3.7.2.3.1. The requirements outlined in paragraph 5.5.4.1.8. and subparagraphs shall apply. In addition, the system shall be designed to ensure that the driver has sufficient time to confirm that the system may proceed with the manoeuvre, as appropriate. 5.3.7.2.3.2. A request by the system for the driver to confirm a manoeuvre shall at least be indicated through a specific visual signal.	5.3.7.2.3 由駕駛人確認之操作的一般規定 本節規定及其子段落之要求適用於具備執行由駕駛人確認之操作相關能力的功能。 5.3.7.2.3.1 應適用規定5.5.4.1.8及其子段落所述之要求。另系統應設計以依照實際情況，確保駕駛人有充足時間確認系統可繼續執行操作。 5.3.7.2.3.2 源於系統對駕駛人以確認操作之要求應依照規定5.5.4.1至少透過特定訊號(或訊號之組合)進行指示。	5.3.7.2.3 由駕駛人確認之操作的一般規定 本節規定及其子段落之要求適用於具備執行由駕駛人確認之操作相關能力的系統。 5.3.7.2.3.1 應適用規定5.5.4.1.8及其子段落所述之要求。另系統應設計以依照實際情況，確保駕駛人有充足時間確認系統可繼續執行操作。 5.3.7.2.3.2 源於系統對駕駛人以確認操作之要求應至少透過特定視覺訊號進行指示。

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5.3.7.2.3.3. In the event that the driver does not confirm a request by the system, the system shall not initiate that manoeuvre.	5.3.7.2.3.3. In the event that the driver does not confirm a request by the system or a driver disengagement warning is currently being given , the system shall not initiate the manoeuvre.	5.3.7.2.3.3 於駕駛人未能確認源於系統之要求 <u>下</u> ，系統不應起始 <u>該</u> 操作。	5.3.7.2.3.3 於駕駛人未能確認源於系統之要求， <u>或駕駛人未參與警示正在被發出之事件中</u> ，系統不應起始操作。
5.3.7.2.3.4. A manoeuvre shall only be proposed if there is a justifiable reason for said manoeuvre.	5.3.7.2.3.4. A manoeuvre shall only be proposed if there is a justifiable reason for said manoeuvre.	5.3.7.2.3.4 操作應只能於前述操作具備充分之理由下被提出。	5.3.7.2.3.4 操作應只能於前述操作具備充分之理由下被提出。
5.3.7.2.3.5. The system shall aim not to initiate the proposed manoeuvre, even if already confirmed by the driver, unless the following conditions are met:	5.3.7.2.3.5. The system shall not initiate the proposed manoeuvre, even if already confirmed by the driver, unless the following conditions are met:	5.3.7.2.3.5 除下述條件已滿足外，即使駕駛人已完成確認，系統 <u>目標</u> 不應 <u>朝向</u> 起始已提出之操作：	5.3.7.2.3.5 除下述條件已滿足外，即使駕駛人已完成確認，系統不應起始已提出之操作：
(a) The target area, lane or path is determined by the system to be clear ;	(a) The target area, lane or path of the manoeuvre is not obstructed ;	(a) <u>由系統所決定之</u> 目標區域、車道或路徑 <u>待暢通</u> ；	(a) 目標區域、車道或 <u>操作</u> 路徑 <u>未受阻礙</u> ；
(b) The reason for the manoeuvre still exists;	(b) The reason for the manoeuvre still exists;	(b) 操作之理由仍然存在；	(b) 操作之理由仍然存在；
(c) The target area or lane allows the system to resume stable control after completing the manoeuvre;	(c) The target area or lane allows the system to resume stable control after completing the manoeuvre;	(c) 目標區域或車道允許系統於完成操作後恢復穩定控制；	(c) 目標區域或車道允許系統於完成操作後恢復穩定控制；
(d) The manoeuvre is anticipated to be completed before the vehicle comes to standstill, unless this is necessary for safe navigation or to give way to other road users;	(d) The manoeuvre is anticipated to be completed before the vehicle comes to standstill, unless this is necessary for safe navigation or to give way to other road users;	(d) 除需要安全導航或對其他道路使用者讓道外，操作被預期將於車輛停止前完成；	(d) 除需要安全導航或對其他道路使用者讓道外，操作被預期將於車輛停止前完成；
(e) The target area or lane is assessed not to be outside of the system's boundaries.	(f) The target area or lane is assessed not to be outside of the system's boundaries.	(e) 目標區域或車道被評估非為位於系統邊界之外。	(f) 目標區域或車道被評估非為位於系統邊界之外。
(f) The driver has been detected to have directed their gaze as appropriate to the proposed manoeuvre within an appropriate period before the manoeuvre commences.		(f) <u>駕駛人已被偵測到於操作發生前一段適當期間內，將其視線引導如適於所提出操作之狀況。</u>	
5.3.7.2.3.6. The system shall not propose a manoeuvre if it would knowingly cause other road users to unreasonably or	5.3.7.2.3.6. The system shall not propose a manoeuvre if it would knowingly cause other road users to unreasonably decelerate	5.3.7.2.3.6 若系統已了解作為操作之後果，將造成其他道路使用者進行無理 <u>或無法對應之</u> 減速或迴避車	5.3.7.2.3.6 若系統已了解作為操作之後果，將造成其他道路使用者進行無理減速或迴避車輛，則不應提出

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unmanageably decelerate or evade the vehicle as a consequence of the manoeuvre. 5.3.7.2.3.7. The system shall aim to not initiate a manoeuvre if it would violate applicable instruction by relevant signage or performance requirements as specified in paragraph 6. 5.3.7.2.3.8. The system shall not propose a manoeuvre if it would lead the vehicle to cross lane markings which are not permitted to be crossed. 5.3.7.2.4. General requirements for system-initiated manoeuvres The requirements of this paragraph and its subparagraphs apply to the system capable of performing system-initiated manoeuvres 5.3.7.2.4.1. The system shall be designed to ensure that the driver has sufficient time to reject the manoeuvre announced by the system before it is performed in an easily accessible way, or to resume unassisted control, as appropriate. If the driver rejects a manoeuvre, the system shall not initiate the same manoeuvre unless the circumstances change or there is a risk of an imminent collision. 5.3.7.2.4.2. A manoeuvre shall not be initiated if system has presented an EOR to the driver in the 7 seconds leading up to the initiation of the manoeuvre. 5.3.7.2.4.2.1. In addition, further strategies shall be implemented to ensure appropriate	or evade the vehicle as a consequence of the manoeuvre. 5.3.7.2.3.7. The system shall aim to not propose a manoeuvre if it would violate applicable instruction by relevant signage or by other traffic rules as specified in paragraph 6. 5.3.7.2.3.8. The system shall not propose a manoeuvre if it would lead the vehicle to cross lane markings which are not permitted to be crossed. 5.3.7.2.4. General requirements for system-initiated manoeuvres The requirements of this paragraph and its subparagraphs apply to the system capable of performing system-initiated manoeuvres 5.3.7.2.4.1. (Reserved)	輛，則不應提出操作。 5.3.7.2.3.7 系統應以若將違反如規定6.所述相關號誌或<u>性能要求</u>所適用指示時，不<u>起始</u>操作為目標。 5.3.7.2.3.8 若操作將引導車輛穿越不允許穿越之車道標線時，系統不應提出操作。 5.3.7.2.4 由系統起始之操作的一般規定 本節規定及其子段落之要求適用於具備執行由系統起始之操作相關能力的系統。 5.3.7.2.4.1 <u>系統設計上應確保駕駛人具備充足時間以依實際狀況，就操作透過簡單達成之方式執行前否決由系統所發出之操作，或控制恢復至未受協助之狀態。</u> <u>若駕駛人否決一項操作，除非狀況改變或當下有立即性碰撞之風險外，則系統不應起始同一操作。</u> 5.3.7.2.4.2 <u>若系統已於一項操作之起始七秒前向駕駛人發出EOR，則該操作不應被起始。</u> 5.3.7.2.4.2.1 <u>另應實施進一步策略以於操作之起始前，確保適當之駕駛</u>	操作。 5.3.7.2.3.7 系統應以若將違反如規定6.所述相關號誌或<u>其他交通規則</u>所適用指示時，不<u>提出</u>操作為目標。 5.3.7.2.3.8 若操作將引導車輛穿越不允許穿越之車道標線時，系統不應提出操作。 5.3.7.2.4 由系統起始之操作的一般規定 本節規定及其子段落之要求適用於具備執行由系統起始之操作相關能力的系統。 5.3.7.2.4.1 <u>(保留)</u>

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driver engagement prior to the initiation of the manoeuvre, which shall be documented and explained. 5.3.7.2.4.3. The manufacturer shall also describe in the safety concept the system behaviour in case the driver is detected to be disengaged during a manoeuvre (e.g., initiation of a risk mitigation function, full execution of the manoeuvre, stop the vehicle). 5.3.7.2.4.4. A manoeuvre shall only be performed if there is a justifiable reason for said manoeuvre (e.g., pursuing a set destination, following traffic flow, safety-relevant manoeuvres, etc.). The manufacturer shall explain in the documentation the traffic situations where the system may initiate manoeuvres. 5.3.7.2.4.5. The system shall not initiate the manoeuvre if the conditions outlined in paragraph 5.3.7.2.3.5. are not met. 5.3.7.2.4.6. The system shall aim to not initiate a manoeuvre if it would cause other road users to unreasonably or unmanageably decelerate or evade the vehicle as a consequence of the manoeuvre. 5.3.7.2.4.7. The system shall aim to not initiate a manoeuvre if it would violate applicable instruction by relevant signage or performance requirements as specified in paragraph 6. 5.3.7.2.4.8. The system shall not initiate a		<u>人參與情形，並應將其進行記錄及說明。</u> <u>5.3.7.2.4.3 申請者亦應描述系統行為之<u>安全性概念</u>，以對應駕駛人被偵測到於操作（例如：風險減輕功能之起始、操作之完全執行、停止車輛等）期間轉為未參與之狀況。</u> <u>5.3.7.2.4.4 單一操作僅應於相關操作具備合理緣由下而被執行（例如：追隨一設定目標、跟隨車流、安全相關操作等），申請者應於文件中說明系統可能起始操作之交通狀況。</u> <u>5.3.7.2.4.5 系統不應於規定5.3.7.2.3.5所描述條件未滿足下起始操作。</u> <u>5.3.7.2.4.6 系統應於操作將造成其他道路使用者進行無理或無法對應之減速，或迴避車輛作為操作之結果下，朝向不起始單一操作為目標。</u> <u>5.3.7.2.4.7 系統應於操作將違反藉由相關標誌呈現之適用指引，或規定6.所述性能要求下，朝向不起始單一操作為目標。</u> <u>5.3.7.2.4.8 系統不應於操作將導致</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
manoeuvre if it would lead the vehicle to cross lane markings which are not permitted to be crossed. 5.3.7.2.4.9. The system shall aim not to violate appropriate right-of-way rules applicable in the country of operation where relevant to the manoeuvre. 5.3.7.2.4.10. The system shall only initiate a manoeuvre if the vehicle is located on a highway (including highway slip roads) and it is not withholding HORs. 5.3.7.2.4.11. A request for the driver to acknowledge that they have read and understood the driver information material outlined in paragraph 5.6 shall be given while the vehicle is in a stopped position. This request shall be given at least once every month. If the vehicle utilises a means of differentiating between users, this may be extended to three months for a given user. If the vehicle can identify that a driver has previously acknowledged this request it does not need to be given again for that driver. If the vehicle can identify that the current driver has not acknowledged this request before, then it shall be given in the current drive cycle. 5.3.7.2.5. Special provisions for systems capable of performing system-initiated manoeuvres or withholding of HORs 5.3.7.2.5.1. The system shall be designed to have anticipatory behaviour in interaction		<u>車輛穿越不允許被跨越之車道標線下起始操作。</u> <u>5.3.7.2.4.9 系統應於與操作相關時，以朝向不違反適用於我國之路權規定為目標。</u> <u>5.3.7.2.4.10 系統僅應於車輛位於高／快速公路（包含高／快速公路之匝道）且未保留接手要求下起始操作。</u> <u>5.3.7.2.4.11 應於車輛處於停駐位置時對駕駛人提供要求，以確保其已經閱讀並理解規定5.6所述之駕駛人資訊相關內容。此要求應至少每個月提供一次。若車輛使用區分使用者之方式，則對指定使用者可延長至三個月提供一次。若車輛可識別先前駕駛人已接收相關要求下，則無需再重複對該駕駛人提供要求。若車輛可識別現在之駕駛人前未接收相關要求下，則其應於現在驅動循環時提供要求。</u> <u>5.3.7.2.5 具備執行系統起始操作或保留接手要求能力之系統相關特殊規定</u> <u>5.3.7.2.5.1 系統設計上應將目標朝向具備與其他道路使用者互動上，</u>	

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with other road user(s) aiming to ensure stable, low-amplitude dynamics and/or to minimise risk as appropriate (e.g., when critical situations could become imminent). This shall be demonstrated by avoidance of a collision in the following scenarios, accounting for the robustness criteria outlined in Annex 3 Appendix 4: (a) A cut-out of the lead vehicle as outlined in Annex 4, paragraph 4.2.5.2.6.; (b) A vehicle cutting in from the adjacent lane as outlined in Annex 4, paragraph 4.2.5.2.5.; (c) A decelerating lead vehicle as outlined in Annex 4, paragraph 4.2.5.2.4. 5.3.7.2.5.2. In case the following distance to a vehicle in front is temporarily disrupted (e.g., vehicle is cutting in, a decelerating lead vehicle, etc.), the vehicle shall readjust the following distance at the next available opportunity without any harsh braking implementing strategies aiming to address significant string instability, unless an emergency manoeuvre would become necessary. 5.3.7.2.5.3. Special provisions regarding system boundaries 5.3.7.2.5.3.1. For highway operation, the system shall aim to respond to work zones, lane reductions, lane closures, toll stations and end of highways (e.g., by notifying the driver, issuing a DCA, or continuing operation if capable).		<u>確保穩定、低幅度動態及／或視實際狀況將風險最小化(例如：於危險狀況可能轉變為立即性時)之預期行為。本項應於考量規定12.9所述穩健性指標下，透過於下述情境中對一碰撞之迴避進行展演：</u> (a) <u>如規定13.4.2.5.2.6所述之前導車輛之切出；</u> (b) <u>如規定13.4.2.5.2.5所述之車輛自相鄰車道切入；</u> (c) <u>如規定13.4.2.5.2.4所述之減速中前導車輛。</u> 5.3.7.2.5.2 <u>若對一輛位於前方之車輛的跟隨距離暫時受到阻撓時(例如：車輛切入、前車減速等)，除緊急操作將轉變為必要外，車輛應就下次之可行機會，於實施朝向處理重大車流不穩定性之策略，且未有任何急遽煞車下重新調整跟隨距離。</u> 5.3.7.2.5.3 <u>系統邊界相關特殊規定</u> 5.3.7.2.5.3.1 <u>就高／快速公路環境之運作上，系統應朝向就工作區域、車道縮減、車道關閉、收費站，以及高／快速公路終點等(例如：藉由通知駕駛人、發出DCA，或可行時接續運作)進行回應為目標。</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
5.3.7.2.5.3.2. For non-highway operation, if system-initiated manoeuvres can be activated, the system shall aim to respond to relevant situations when the vehicle could be expected to stop, give way or required to change lane. If the relevant situation is within the system boundaries, the system shall manage it by either: (a) Carrying on providing lateral and/or longitudinal assistance; or (b) Suggesting a manoeuvre to the driver; or (c) Issue a DCA; or (d) Performing a system-initiated manoeuvre. If the relevant situation means that the system is approaching a system boundary, the system shall issue a DCA. 5.3.7.2.5.3. The system shall be able to recognize lane markings as outlined in Annex 3 of the 01 or later series of amendments to UN Regulation No. 130, as relevant to the countries in which the system can be activated.		<u>5.3.7.2.5.3.2 就非高／快速公路環境之運作上，若系統起始操作可被啟動，則系統應朝向於車輛可被預期停止、讓道或被要求變換車道時，就相關情境進行回應為目標。</u> <u>若相關情境係位於系統邊界內，系統應藉由下述方式對其進行管理：</u> <u>(a) 接續提供側向及／或縱向輔助；</u> <u>或</u> <u>(b) 對駕駛人建議一項操作；或</u> <u>(c) 發出單一DCA；或</u> <u>(d) 執行單一系統起始操作。</u> <u>若相關狀況表示系統正在接近系統邊界，則系統應發出DCA。</u> <u>5.3.7.2.5.3 系統應能辨識如「附件七十、車道偏離輔助警示系統」所列之車道標線。</u>	
5.3.7.3. Driver Unavailability Response 5.3.7.3.1. The system shall comply with the technical requirements and transitional provisions of the 04 or later series of amendments to UN Regulation No. 79 with respect to the Risk Mitigation Function (RMF). In the event that the driver has been determined to be unavailable following a	5.3.7.3. Driver Unavailability Response 5.3.7.3.1. The system shall comply with the technical requirements and transitional provisions of the 04 or later series of amendments to UN Regulation No. 79 with respect to the Risk Mitigation Function (RMF). In the event that the driver has been determined to be unavailable following a	5.3.7.3 駕駛人無法行駛狀態回應 5.3.7.3.1 系統應符合本基準「附件四十七之三、轉向系統」中風險緩解功能(RMF)相關技術要求。於駕駛人被測定為無法行駛，並隨著如規定5.5.4.2.6所定義之一個駕駛人未參與警示提升順序的事件下，系統應適當地啟動風險緩解功能以安全停	5.3.7.3 駕駛人無法行駛狀態回應 5.3.7.3.1 系統應符合本基準「附件四十七之三、轉向系統」中風險緩解功能(RMF)相關技術要求。於駕駛人被測定為無法行駛，並隨著如規定5.5.4.2.6所定義之一個駕駛人未參與警示提升順序的事件下，系統應適當地啟動風險緩解功能以安全停

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driver disengagement warning escalation sequence as defined in paragraph 5.5.4.2.6., the system shall appropriately activate the Risk Mitigation Function in order to come to a safe stop. 5.3.7.3.2. The system shall be designed to select an appropriate target stop area based on the system capabilities and current circumstances (e.g. traffic situation, road infrastructure) with the aim of minimising risk. 5.3.7.3.3. Where the system is equipped with a driver-confirmed or system-initiated lane change feature, the RMF shall be capable of performing lane changes, in compliance with the technical requirements for systems with the purpose of bringing the vehicle to a safe stop outside its own lane of travel of the 04 or later series of amendments to UN Regulation No. 79, during an intervention on a highway to bring the vehicle towards a target stop area in a slower or emergency lane. 5.3.7.4. Speed Limit Compliance Assistance 5.3.7.4.1. The system shall aim to determine the permitted road speed limit relevant to the current lane of travel. 5.3.7.4.2. The system shall continuously display the system-determined road speed limit to the driver. 5.3.7.4.3. The system and any of its features shall only provide assistance within their	driver disengagement warning escalation sequence as defined in paragraph 5.5.4.2.6., the system shall appropriately activate the Risk Mitigation Function in order to come to a safe stop. 5.3.7.3.2. Where the system is equipped with a driver-confirmed or system-initiated lane change feature, the RMF shall be capable of performing lane changes during an intervention on a highway. The system shall be designed to perform lane changes towards a slower or emergency lane where it is possible and safe to do so, taking into account surrounding traffic and road infrastructure in order to come to a safe stop. 5.3.7.4. Speed Limit Compliance Assistance 5.3.7.4.1. The system shall aim to determine the permitted road speed limit relevant to the current lane of travel. 5.3.7.4.2. The system shall continuously display the system-determined road speed limit to the driver. 5.3.7.4.3. The system and any of its features shall only provide assistance within their	止。 <u>5.3.7.3.2 系統設計上應以最小化風險為目的，並基於系統能力以及當下狀況（例如：交通狀況、道路基礎建設）選擇合適之目標停止區域。</u> <u>5.3.7.3.3 於系統配備由駕駛人確認或由系統起始之變換車道功能，RMF應於符合「附件四十七之三、轉向系統」及其後續版次中使車輛朝向於本車行駛車道外之安全停止區移動之系統相關技術要求下，具備於高／快速公路上使車輛朝向較慢或緊急車道中目標停止區域進行移動之介入期間執行變換車道之能力。</u> 5.3.7.4 速限符合性協助 5.3.7.4.1 系統應以測定與現在所行駛車道相關之允許道路速限為目標。 5.3.7.4.2 系統應不斷對駕駛人顯示由系統測定之道路速限。 5.3.7.4.3 系統及任意其他功能應只能於設計速度範圍內提供協助。	止。 <u>5.3.7.3.2 於系統配備由駕駛人確認或由系統起始之變換車道功能，RMF應具備於高速公路上之介入期間執行變換車道之能力。系統應設計以於可安全執行時，考量週遭交通及道路基礎建設之情況下，執行朝向較慢或緊急車道之變換車道以安全停止。</u> 5.3.7.4 速限符合性協助 5.3.7.4.1 系統應以測定與現在所行駛車道相關之允許道路速限為目標。 5.3.7.4.2 系統應不斷對駕駛人顯示由系統測定之道路速限。 5.3.7.4.3 系統及任意其他功能應只能於設計速度範圍內提供協助。

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designed speed range. 5.3.7.4.4. The maximum speed up to which the system and any of its features provides assistance shall not exceed the maximum speed limit in the country where the vehicle is currently operating. 5.3.7.4.5. The current maximum speed the system may assist up to shall be determined either from: (a) Driver-set maximum speed; (b) System-determined road speed limit. 5.3.7.4.6. The system shall automatically control the vehicle speed to not exceed the current maximum speed. 5.3.7.4.7. The system shall provide a means for the driver to set a driver-set maximum speed within the system's designed speed range. 5.3.7.4.7.1. When the vehicle speed exceeds the system-determined road speed limit, the system shall provide at least an optical signal to the driver for an appropriate duration. 5.3.7.4.7.2. The system may incorporate a feature allowing the driver to confirm or reject any change in the current maximum speed before it is automatically changed by the system. 5.3.7.4.7.3. In the case where there is a change in the system-determined road speed limit the following shall apply: 5.3.7.4.7.3.1. The driver shall be given at least an acoustic or haptic signal, which may be	designed speed range. 5.3.7.4.4. The maximum speed up to which the system and any of its features provides assistance shall not exceed the maximum speed limit in the country where the vehicle is currently operating. 5.3.7.4.5. The current maximum speed the system may assist up to shall be determined either from: (a) Driver-set maximum speed; (b) System-determined road speed limit. 5.3.7.4.6. The system shall automatically control the vehicle speed to not exceed the current maximum speed. 5.3.7.4.7. The system shall provide a means for the driver to set a driver-set maximum speed within the system's designed speed range. 5.3.7.4.7.1. When the vehicle speed exceeds the system-determined road speed limit, the system shall provide at least an optical signal to the driver for an appropriate duration. 5.3.7.4.7.2. The system may incorporate a feature allowing the driver to confirm or reject any change in current maximum speed before it is implemented by the system. 5.3.7.4.7.3. In the case where there is a change in the system-determined road speed limit the following shall apply: 5.3.7.4.7.3.1. The driver shall be given at least an acoustic or haptic signal, which may be	5.3.7.4.4 系統及任意其他功能提供協助之最高速度，至多不應超過一百十公里／小時。 5.3.7.4.5 系統可協助之至多現在最高速度，應由下述其中一項決定： (a) 由駕駛人設定之最高速度； (b) 由系統測定之道路速限。 5.3.7.4.6 系統應自動控制車輛速度以不超過現在最高速度。 5.3.7.4.7 系統應對駕駛人提供方法以設定於系統設計速度範圍內之由駕駛人設定最高速度。 5.3.7.4.7.1 於車輛速度超過由系統測定之道路速限時，系統應於一段適當時間對駕駛人提供至少光學訊號。 5.3.7.4.7.2 系統可包含一項功能以允許駕駛人於對系統自動改變之前，確認或拒絕任意於現在最高速度之變化。 5.3.7.4.7.3 若由系統測定之道路速限改變時，應適用下述項目： 5.3.7.4.7.3.1 應對駕駛人發出至少可由駕駛人永久停止之聲音或觸覺訊	5.3.7.4.4 系統及任意其他功能提供協助之最高速度，至多不應超過一百十公里／小時。 5.3.7.4.5 系統可協助之至多現在最高速度，應由下述其中一項決定： (a) 由駕駛人設定之最高速度； (b) 由系統測定之道路速限。 5.3.7.4.6 系統應自動控制車輛速度以不超過現在最高速度。 5.3.7.4.7 系統應對駕駛人提供方法以設定於系統設計速度範圍內之由駕駛人設定最高速度。 5.3.7.4.7.1 於車輛速度超過由系統測定之道路速限時，系統應於一段適當時間對駕駛人提供至少光學訊號。 5.3.7.4.7.2 系統可包含一項功能以允許駕駛人於對系統實施之前，確認或拒絕任意於現在最高速度之變化。 5.3.7.4.7.3 若由系統測定之道路速限改變時，應適用下述項目： 5.3.7.4.7.3.1 應對駕駛人發出至少可由駕駛人永久停止之聲音或觸覺訊

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suppressed permanently by the driver. 5.3.7.4.7.3.2. If the current maximum speed before the change was a driver set maximum speed and the driver set maximum speed is lower than both the previous system-determined road speed limit as well as the new system-determined road speed limit, then the current maximum speed shall not automatically change to the new system-determined road speed limit.	suppressed permanently by the driver. 5.3.7.4.7.3.2. If the current maximum speed before the change was a driver set maximum speed, then the current maximum speed shall not automatically change to the new system-determined road speed limit if the driver set maximum speed is lower than both previous system-determined road speed limit and the new system-determined road speed limit.	號。 5.3.7.4.7.3.2 若改變前之現在最高速度為駕駛人先前所設最高速度，且駕駛人所設最高速度低於前一個以及新的由系統測定之道路速限時，則現在最高速度不應自動改變至新的由系統測定之道路速限。	號。 5.3.7.4.7.3.2 若改變前之現在最高速度為駕駛人先前所設最高速度，則於駕駛人所設最高速度低於前一個由系統測定之道路速限及新的由系統測定之道路速限時，現在最高速度不應自動改變至新的由系統測定之道路速限。
5.3.7.4.7.3.3. If the new system-determined road speed limit is lower than the current maximum speed, the current maximum speed shall automatically change to the new system-determined road speed limit.	5.3.7.4.7.3.3. If the new system-determined road speed limit is lower than the current maximum speed, the current maximum speed shall automatically change to the new system-determined road speed limit.	5.3.7.4.7.3.3 若新的由系統測定道路速限低於現在最高速度，則現在最高速度應自動改變至新的由系統測定之道路速限。	5.3.7.4.7.3.3 若新的由系統測定道路速度低於現在最高速度，則現在最高速度應自動改變至新的由系統測定之道路速限。
5.3.7.4.7.3.4. For those cases not specifically addressed by the provisions above, the manufacturer shall document the system behaviour in response to a change in system-determined road speed limit and demonstrate this to the Type Approval Authority.	5.3.7.4.7.3.4. For those cases not specifically addressed by the provisions above, the manufacturer shall document the system behaviour in response to a change in system-determined road speed limit and demonstrate this to the Type Approval Authority.	5.3.7.4.7.3.4 對於上述規定未特別處理之情形，申請者應記錄反應由系統測定之道路速限改變之系統行為，且對檢測機構進行展演。	5.3.7.4.7.3.4 對於上述規定未特別處理之情形，申請者應記錄反應由系統測定之道路速限改變之系統行為，且對檢測機構進行展演。
5.3.7.4.8. Any system-initiated change in vehicle speed due to a changed system-determined road speed limit shall be controllable to the driver.	5.3.7.4.8. Any system-initiated change in vehicle speed due to a changed system-determined road speed limit shall be controllable to the driver.	5.3.7.4.8 任意因已改變由系統測定之道路速限所導致於車輛速度上由系統起始之改變應為駕駛人可控制的。	5.3.7.4.8 任意因已改變由系統測定之道路速限所導致於車輛速度上由系統起始之改變應為駕駛人可控制的。
5.3.7.4.9. The system shall not enable the driver to set a default offset by which the current maximum speed is supposed to exceed the system-determined road speed limit.	5.3.7.4.9. The system shall not enable the driver to set a default offset by which the current maximum speed is supposed to exceed the system-determined road speed limit.	5.3.7.4.9 系統不應使駕駛人可藉由假設現在最高速度超過由系統測定之道路速限以設定一預設偏移。	5.3.7.4.9 系統不應使駕駛人可藉由假設現在最高速度超過由系統測定之道路速限以設定一預設偏移。
5.3.7.4.10. Technically reasonable tolerances	5.3.7.4.10. Technically reasonable tolerances	5.3.7.4.10 技術上合理之容許誤差	5.3.7.4.10 技術上合理之容許誤差（例

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(e.g., related to speedometer inaccuracy) may be applied to the warning thresholds and the system's designed speed range and shall be declared by the manufacturer to the Type Approval Authority.	(e.g., related to speedometer inaccuracy) may be applied to the warning thresholds and operational limits and shall be declared by the manufacturer to the Type Approval Authority.	(例如：與速率計之不準確相關時)可適用至警示值域及 <u>系統之設計速度範圍</u> ，且應由申請者對 <u>檢測機構</u> 宣告。	如：與速率計之不準確相關時)可適用至警示值域及 <u>運作極限</u> ，且應由申請者對 <u>檢測機構</u> 宣告。
5.3.7.4.11. The provisions of paragraph 5.3.7.4. shall not be in prejudice to any national or regional legislations which regulate the speed limit control system.	5.3.7.4.11. The provisions of paragraph 5.3.7.4. shall not be in prejudice to any national or regional legislations which regulate the speed limit control system.	5.3.7.4.11 規定5.3.7.4相關內容應無法影響我國規範之速限控制系統。(我國無相關系統，本項不導入檢測基準)	5.3.7.4.11 規定5.3.7.4相關內容應無法影響我國規範之速限控制系統。(我國無相關系統，本項不導入檢測基準)
5.3.7.5. Safe Headway Assistance	5.3.7.5. Safe Headway Assistance	5.3.7.5 安全車前距離輔助	5.3.7.5 安全車前距離輔助
5.3.7.5.1. The system shall support the driver in complying with regulatorily defined headway according to national traffic rules.	5.3.7.5.1. The system shall support the driver in complying with regulatorily defined headway according to national traffic rules.	5.3.7.5.1 系統應支援駕駛人符合依照我國交通規則所定義車前距離之法規要求。	5.3.7.5.1 系統應支援駕駛人符合依照我國交通規則所定義車前距離之法規要求。
5.3.7.5.1.1. For M1 and N1 vehicles, the requirement in paragraph 5.3.7.5.1 shall be deemed to be fulfilled if either of the following requirements are met:	5.3.7.5.1.1. For M1 and N1 vehicles, the requirement in paragraph 5.3.7.5.1 shall be deemed to be fulfilled if either of the following requirements are met:	5.3.7.5.1.1 對M1及N1類車輛而言，若下述其中一項要求滿足時，則規定5.3.7.5.1之要求應視為滿足：	5.3.7.5.1.1 對M1及N1類車輛而言，若下述其中一項要求滿足時，則規定5.3.7.5.1之要求應視為滿足：
5.3.7.5.1.1.1. The system shall permanently indicate to the driver the current headway setting while the system is in 'active' mode.	5.3.7.5.1.1.1. The system shall permanently indicate to the driver the current headway setting while the system is in 'active' mode.	5.3.7.5.1.1.1 系統應於系統處於主動模式時，向駕駛人永久指示設定之現在車前距離。	5.3.7.5.1.1.1 系統應於系統處於主動模式時，向駕駛人永久指示設定之現在車前距離。
5.3.7.5.1.1.2. Upon first activation of the system following an initiation of the powertrain¹ , the system shall provide information to the driver that the headway configuration is set to a value lower than 2 seconds, if that is the case.	5.3.7.5.1.1.2. Upon first activation of the system during a run cycle , the system shall provide information to the driver that the headway configuration is set to a value lower than 2 seconds, if that is the case.	5.3.7.5.1.1.2 於系統 <u>隨動力系統之啟動後</u> 首次啟動當下，系統應向駕駛人提供車前距離配置已設定至低於兩秒之數值的資訊（依實際狀況）。	5.3.7.5.1.1.2 於 <u>運轉循環期間中</u> 系統首次啟動當下，系統應向駕駛人提供車前距離配置已設定至低於兩秒之數值的資訊（依實際狀況）。
¹ As defined in Mutual Resolution No. 2 (M.R.2) of the 1958 and the 1998 Agreements containing vehicle propulsion system definitions, see document ECE/TRANS/WP.29/1121.			
5.4. System safety response to detected failures	5.4. System safety response to detected failures	5.4 對已偵測故障之系統安全性回應	5.4 對已偵測故障之系統安全性回應

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
5.4.1. The activated system shall be capable of detecting and responding to electrical and non-electrical (e.g., sensor blockage, misalignment) failure conditions affecting the safe operation of the system or its features.	5.4.1. The activated system shall be capable of detecting and responding to electrical and non-electrical (e.g., sensor blockage, misalignment) failure conditions affecting the safe operation of the system or its features.	5.4.1 已啟動系統應具備對系統及其功能之安全運作造成影響之電氣及非電氣（例如：感測器受到阻擋、未校正）故障情形進行偵測及回應的能力。	5.4.1 已啟動系統應具備對系統及其功能之安全運作造成影響之電氣及非電氣（例如：感測器受到阻擋、未校正）故障情形進行偵測及回應的能力。
5.4.2. Upon detection of a failure affecting the safe operation of a given feature(s) or the system as a whole, the control assistance of the affected feature(s) or the system altogether shall be terminated in a safe manner in accordance with the manufacturer's safety concept.	5.4.2. Upon detection of a failure affecting the safe operation of a given feature(s) or the system as a whole, the control assistance of the affected feature(s) or the system altogether shall be terminated in a safe manner in accordance with the manufacturer's safety concept.	5.4.2 於影響指定功能或系統作為整體之安全運作的故障受到偵測當下，受影響功能或系統之控制協助應一同依照申請者之 安全性概念 ，以安全的方式中斷。	5.4.2 於影響指定功能或系統作為整體之安全運作的故障受到偵測當下，受影響功能或系統之控制協助應一同依照申請者之 安全性概念 ，以安全的方式中斷。
The system shall gradually reduce its control assistance provided by the affected features(s) or system if it is safe to do so, and inform the driver according to paragraph 5.5.4.1.	The system shall gradually reduce its control assistance provided by the affected features(s) or system if it is safe to do so, and inform the driver according to paragraph 5.5.4.1.	若可安全執行下，系統應逐漸減少由受影響功能或系統所提供控制協助，並依照規定5.5.4.1通知駕駛人。	若可安全執行下，系統應逐漸減少由受影響功能或系統所提供控制協助，並依照規定5.5.4.1通知駕駛人。
5.4.2.1 If a failure affects the entire system, the system shall switch to 'off' mode upon termination of assistance and provide at least an optical failure warning signal to the driver for an appropriate duration.	5.4.2.1 If a failure affects the entire system, the system shall switch to 'off' mode upon termination of assistance and provide at least an optical failure warning signal to the driver for an appropriate duration.	5.4.2.1 若一故障影響整個系統，系統應於協助中斷之當下即切換至關閉模式，並對駕駛人於一段適當期間提供至少一光學故障警示訊號。	5.4.2.1 若一故障影響整個系統，系統應於協助中斷之當下即切換至關閉模式，並對駕駛人於一段適當期間提供至少一光學故障警示訊號。
5.4.2.2. The failure affecting the system shall be indicated to the driver with at least an optical signal unless the system is in 'off' mode.	5.4.2.2. The failure affecting the system shall be indicated to the driver with at least an optical signal unless the system is in 'off' mode.	5.4.2.2 除系統已處於關閉模式外，影響系統之故障應至少以一光學訊號向駕駛人指示。	5.4.2.2 除系統已處於關閉模式外，影響系統之故障應至少以一光學訊號向駕駛人指示。
5.4.3. The manufacturer shall take appropriate measures (according to paragraph 5.3.6.) to ensure that failures in the system remain controllable by the driver.	5.4.3. The manufacturer shall take appropriate measures (according to paragraph 5.3.6.) to ensure that failures in the system remain controllable by the driver.	5.4.3 申請者應採取適當措施（依照規定5.3.6）以確保系統中之故障維持於可由駕駛人進行控制之狀態。	5.4.3 申請者應採取適當措施（依照規定5.3.6）以確保系統中之故障維持於可由駕駛人進行控制之狀態。
5.4.4. If a failure only affects some features,	5.4.4. If a failure only affects some features,	5.4.4 若一故障僅對一些功能造成	5.4.4 若一故障僅對一些功能造成影

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
the system operation is permitted to continue provided that the remaining features are capable of operating in accordance to this Regulation.	the system operation is permitted to continue provided that the remaining features are capable of operating in accordance to this Regulation.	影響，假設剩餘功能仍具備依照本基準附件運作之能力，則允許繼續系統運作。	響，假設剩餘功能仍具備依照本基準附件運作之能力，則允許繼續系統運作。
5.4.4.1 The remaining available features or the absence of those features as a result of the failure shall be visually indicated to the driver in an easily understandable manner.	5.4.4.1 The remaining available features or the absence of those features as a result of the failure shall be visually indicated to the driver in an easily understandable manner.	5.4.4.1 作為故障結果之剩餘可使用功能或不復存在的功能，應於視覺上向駕駛人以容易理解之方式進行指示。	5.4.4.1 作為故障結果之剩餘可使用功能或不復存在的功能，應於視覺上向駕駛人以容易理解之方式進行指示。
5.4.4.2 If the system is able to provide continued assistance in the case of a failure disabling a given feature, the manufacturer shall describe which features are able to operate independently from one another. This shall be assessed according to Annex 3.	5.4.4.2 If the system is able to provide continued assistance in the case of a failure disabling a given feature, the manufacturer shall describe which features are able to operate independently from one another. This shall be assessed according to Annex 3.	5.4.4.2 於一故障使一指定功能無法使用下，若系統可提供後續協助，申請者應描述可自另一功能中獨立運作之功能，本項將依照規定12.進行評估。	5.4.4.2 於一故障使一指定功能無法使用下，若系統可提供後續協助，申請者應描述可自另一功能中獨立運作之功能，本項將依照規定12.進行評估。
5.4.5. When the driver attempts to switch to ‘on’ mode the system or a feature that is unavailable due to a failure, the system shall provide a notice to the driver about the failure and the unavailability of the system or given feature.	5.4.5. When the driver attempts to switch to ‘on’ mode the system or a feature that is unavailable due to a failure, the system shall provide a notice to the driver about the failure and the unavailability of the system or given feature.	5.4.5 於駕駛人嘗試切換因故障而無法使用之系統或功能至開啟模式時，系統應對駕駛人就相關故障及系統或指定功能之無法使用情形提供通知。	5.4.5 於駕駛人嘗試切換因故障而無法使用之系統或功能至開啟模式時，系統應對駕駛人就相關故障及系統或指定功能之無法使用情形提供通知。
5.5. Human-Machine Interface (HMI)	5.5. Human-Machine Interface (HMI)	5.5 人機介面(HMI)	5.5 人機介面(HMI)
5.5.1. Modes of operation	5.5.1. Modes of operation	5.5.1 運作模式	5.5.1 運作模式
Diagram of DCAS Modes of Operation as defined under this Regulation: (圖片如頁末所示)	Diagram of DCAS Modes of Operation as defined under this Regulation: (圖片如頁末所示)	於本基準附件下定義DCAS模式運作之圖面如： (圖片如頁末所示)	於本基準附件下定義DCAS模式運作之圖面如： (圖片如頁末所示)
5.5.2. General Requirements	5.5.2. General Requirements	5.5.2 一般規定	5.5.2 一般規定
5.5.2.1. When the system is switched into ‘on’ mode, specific system features shall be either in ‘active’ mode (generating control outputs) or in ‘stand-by’ mode (currently not generating control outputs), while some other system features may remain in ‘off’	5.5.2.1. When the system is switched into ‘on’ mode, specific system features shall be either in ‘active’ mode (generating control outputs) or in ‘stand-by’ mode (currently not generating control outputs), while some other system features may remain in ‘off’	5.5.2.1 於系統切換至開啟模式，特定系統功能應處於開啟模式（產生控制輸出）或待機模式（當下不產生控制輸出）中一種模式，同時一些其他系統功能可維持於關閉模式，並透過不同方式下達指令。	5.5.2.1 於系統切換至開啟模式，特定系統功能應處於開啟模式（產生控制輸出）或待機模式（當下不產生控制輸出）中一種模式，同時一些其他系統功能可維持於關閉模式，並透過不同方式下達指令。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
mode and be commanded by a different means.	mode and be commanded by a different means.		
5.5.2.2. When the system is switched to ‘off’ mode by the driver, there shall not be an automatic transition to any system which provides continuous longitudinal and/or lateral movement of the vehicle.	5.5.2.2. When the system is switched to ‘off’ mode by the driver, there shall not be an automatic transition to any system which provides continuous longitudinal and/or lateral movement of the vehicle.	5.5.2.2 於駕駛人將系統切換至關閉模式，不應有自動轉換至提供後續車輛之縱向及／或側向移動的任意系統之情形。	5.5.2.2 於駕駛人將系統切換至關閉模式，不應有自動轉換至提供後續車輛之縱向及／或側向移動的任意系統之情形。
5.5.2.3. When the system is in ‘active’ mode, sustained longitudinal and lateral control assistance shall not be provided by any other system other than DCAS, unless an intervention of an emergency safety system is deemed necessary as specified in paragraph 5.2.	5.5.2.3. When the system is in ‘active’ mode, sustained longitudinal and lateral control assistance shall not be provided by any other system other than DCAS, unless an intervention of an emergency safety system is deemed necessary as specified in paragraph 5.2.	5.5.2.3 除依照規定5.2所述之緊急安全系統被視為需要而介入外，於系統處於主動模式時，已持續之縱向及橫向控制協助不應由DCAS以外之任意其他系統提供。	5.5.2.3 除依照規定5.2所述之緊急安全系統被視為需要而介入外，於系統處於主動模式時，已持續之縱向及橫向控制協助不應由DCAS以外之任意其他系統提供。
5.5.2.4. The HMI shall be designed not to cause mode confusion with other systems equipped on the vehicle.	5.5.2.4. The HMI shall be designed not to cause mode confusion with other systems equipped on the vehicle.	5.5.2.4 人機介面應設計以不造成模式與車輛上配備之其他系統混淆。	5.5.2.4 人機介面應設計以不造成模式與車輛上配備之其他系統混淆。
5.5.2.4.1. Without prejudice to the provisions of UN Regulation No. 121, the vehicle controls dedicated to the DCAS shall be clearly identified and distinguishable (e.g., through size, form, colour, type, action, spacing and/or control shape) to accommodate only the appropriate interactions. This provision aims to promote correct use and is not intended to prohibit multifunction controls.	5.5.2.4.1. Without prejudice to the provisions of UN Regulation No. 121, the vehicle controls dedicated to the DCAS shall be clearly identified and distinguishable (e.g., through size, form, colour, type, action, spacing and/or control shape) to accommodate only the appropriate interactions. This provision aims to promote correct use and is not intended to prohibit multifunction controls.	5.5.2.4.1 於不影響本基準「附件七十五、汽車控制器標誌」相關要求下，專用於DCAS之車輛控制應能被清楚識別及區分（例如：透過尺寸、格式、顏色、類型、行為、空間及／或控制器形狀）以只容納合適之互動。本項規定以提倡正確使用，且非意圖禁止多功能控制器為目標。	5.5.2.4.1 於不影響本基準「附件七十五、汽車控制器標誌」相關要求下，專用於DCAS之車輛控制應能被清楚識別及區分（例如：透過尺寸、格式、顏色、類型、行為、空間及／或控制器形狀）以只容納合適之互動。本項規定以提倡正確使用，且非意圖禁止多功能控制器為目標。
5.5.3. Activation, Deactivation and Driver Override	5.5.3. Activation, Deactivation and Driver Override	5.5.3 啟動、解除及駕駛人取代	5.5.3 啟動、解除及駕駛人取代
5.5.3.1. The default status of the system shall be the ‘off’ mode at each initiation of the powertrain, regardless of what mode the	5.5.3.1. The system shall be in ‘off’ mode at the initiation of each new engine start (or run cycle, as relevant), regardless of what mode	5.5.3.1 無論駕駛人前次已選擇為何等模式，系統於每次動力系統之啟動時的預設狀態應處於關閉模式。	5.5.3.1 無論駕駛人前次已選擇為何等模式，系統於每次新引擎啟動(或運轉循環，如相關時)之開始時應處於

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
driver had previously selected. A new engine start (or run cycle), which is performed automatically, e.g., the operation of a stop/start system, shall not be considered an “initiation of the powertrain” wherever that term is used in this regulation. 5.5.3.2. Activation 5.5.3.2.1. At the latest when the system first enters ‘active’ mode following an initiation of the powertrain, the system shall provide visual information to the driver requesting them to remain engaged with the driving task while using the system. 5.5.3.2.2 The system shall change its mode from ‘off’ to ‘on’ only upon a deliberate action of the driver. 5.5.3.2.3. The system or its features shall only enter ‘active’ mode if all of the following conditions are met: (a) The driver is in the driver seat and the driver’s safety belt is fastened; (b) The system is able to monitor the driver’s potential disengagement with the driving task; (c) No failure affecting the safe operation of the system has been detected; (d) The system or feature has not detected to be outside of its system boundaries; (e) Other safety systems according to paragraph 5.2. are functional. The manufacturer shall specify in the documentation additional types of	the driver had previously selected. This requirement does not apply when a new engine start (or run cycle, as relevant) is performed automatically, e.g., the operation of a stop/start system. 5.5.3.2. Activation 5.5.3.2.1. The system shall change its mode from ‘off’ to ‘on’ only upon a deliberate action of the driver. 5.5.3.2.2. The system or its features shall only enter ‘active’ mode if all of the following conditions are met: (a) The driver is in the driver seat and the driver’s safety belt is fastened; (b) The system is able to monitor the driver’s potential disengagement with the driving task; (c) No failure affecting the safe operation of the system has been detected; (d) The system or feature has not detected to be outside of its system boundaries; (e) Other safety systems according to paragraph 5.2. are functional. The manufacturer shall specify in the documentation additional types of	於自動執行之新引擎啟動（或運轉循環）如：停止／起步系統之運作，無論相關定義被使用於本基準之何處，皆不應被視為「動力系統之啟動」。 5.5.3.2 啟動 5.5.3.2.1 最晚於系統接續於動力系統之啟動後首次進入啟動模式時，系統應向駕駛人提供視覺資訊，以要求其於使用系統時，維持參與行駛作業之狀態。 5.5.3.2.2 僅於駕駛人之主動行為當下，系統應自關閉模式改變為開啟模式。 5.5.3.2.3 系統或其功能應只能於所有下述條件滿足時進入啟動模式： (a) 駕駛人位於駕駛座，且駕駛人之安全帶已繫上； (b) 系統可監控駕駛人對行駛任務之潛在未參與情形； (c) 未有影響系統之安全運作的故障已被偵測； (d) 系統或功能未偵測到位於其系統邊界之外； (e) 其他依照規定5.2之安全系統運作中。 申請者應於文件內說明可使系統或其功能進入主動模式之額外類型的前	關閉模式。 <u>本要求不適用</u>於自動執行之新引擎啟動（或運轉循環，如相關時），例如：停止／起步系統之運作。 5.5.3.2 啟動 5.5.3.2.1 僅於駕駛人之主動行為當下，系統應自關閉模式改變為開啟模式。 5.5.3.2.2 系統或其功能應只能於所有下述條件滿足時進入啟動模式： (a) 駕駛人位於駕駛座，且駕駛人之安全帶已繫上； (b) 系統可監控駕駛人對行駛任務之潛在未參與情形； (c) 未有影響系統之安全運作的故障已被偵測； (d) 系統或功能未偵測到位於其系統邊界之外； (e) 其他依照規定5.2之安全系統運作中。 申請者應於文件內說明可使系統或其功能進入主動模式之額外類型的前

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
preconditions enabling the system or its features to enter ‘active’ mode, if applicable.	preconditions enabling the system or its features to enter ‘active’ mode, if applicable.	置條件（依實際狀況）。	置條件（依實際狀況）。
5.5.3.3. Deactivation	5.5.3.3. Deactivation	5.5.3.3 解除	5.5.3.3 解除
5.5.3.3.1. It shall be possible for the driver to switch the system to ‘off’ mode at any time.	5.5.3.3.1. It shall be possible for the driver to switch the system to ‘off’ mode at any time.	5.5.3.3.1 應使駕駛人可於任意時間將系統切換至關閉模式。	5.5.3.3.1 應使駕駛人可於任意時間將系統切換至關閉模式。
5.5.3.3.2. When the driver switches the system or one of its features off, the system or feature respectively shall go to ‘off’ mode.	5.5.3.3.2. When the driver switches the system or one of its features off, the system or feature respectively shall go to ‘off’ mode.	5.5.3.3.2 於駕駛人將系統或其功能中一項切換至關閉時，系統或功能應個別切換至關閉模式。	5.5.3.3.2 於駕駛人將系統或其功能中一項切換至關閉時，系統或功能應個別切換至關閉模式。
5.5.3.3.3. When the system or a feature thereof has assessed that the preconditions for remaining in ‘active’ mode are no longer met, the system or features shall terminate the control output in a safe and timely manner by either transitioning to ‘stand-by’ mode, or by switching the system or feature to ‘off’ mode, unless specifically defined otherwise by this Regulation.	5.5.3.3.3. When the system or a feature thereof has assessed that the preconditions for remaining in ‘active’ mode are no longer met, the system or features shall terminate the control output in a safe and timely manner by either transitioning to ‘stand-by’ mode, or by switching the system or feature to ‘off’ mode, unless specifically defined otherwise by this Regulation.	5.5.3.3.3 於系統或功能中已評估啟動模式中剩餘之前置條件將不再滿足時，除本基準附件中另有特別定義外，系統或功能應皆由轉換至待機模式，或藉由將系統或功能切換至關閉模式，以安全且及時方式中斷控制輸出。	5.5.3.3.3 於系統或功能中已評估啟動模式中剩餘之前置條件將不再滿足時，除本基準附件中另有特別定義外，系統或功能應皆由轉換至待機模式，或藉由將系統或功能切換至關閉模式，以安全且及時方式中斷控制輸出。
5.5.3.3.4. The system shall not resume longitudinal control without driver input if the vehicle comes to a standstill following an intervention by an emergency safety system (e.g., AEBS).	5.5.3.3.4. The system shall not resume longitudinal control without driver input if the vehicle comes to a standstill following an intervention by an emergency safety system (e.g., AEBS).	5.5.3.3.4 若車輛接續於緊急安全系統（例如：AEBS）之介入後進而停止，則系統不應於未有駕駛人輸入之狀況下恢復縱向控制。	5.5.3.3.4 若車輛接續於緊急安全系統（例如：AEBS）之介入後進而停止，則系統不應於未有駕駛人輸入之狀況下恢復縱向控制。
5.5.3.4. Driver Override	5.5.3.4. Driver Override	5.5.3.4 駕駛人取代	5.5.3.4 駕駛人取代
5.5.3.4.1. The system or feature may remain in ‘active’ mode, provided that priority is given to the driver input during the overriding period.	5.5.3.4.1. The system or feature may remain in ‘active’ mode, provided that priority is given to the driver input during the overriding period.	5.5.3.4.1 假設優先權於取代過程期間係指定予駕駛人輸入，則系統可維持於主動模式。	5.5.3.4.1 假設優先權於取代過程期間係指定予駕駛人輸入，則系統可維持於主動模式。
5.5.3.4.1.1. A driver input to the braking control resulting in a higher deceleration than that induced by the system shall override and suspend the longitudinal control assistance provided by the system	5.5.3.4.1.1. A driver input to the braking control resulting in a higher deceleration than that induced by the system, shall override any feature associated with the longitudinal control performed by the	5.5.3.4.1.1 導致與系統導入減速度相較下較高減速度之對煞車控制的駕駛人輸入，應取代 <u>並於取代期間暫停</u> 由系統 <u>提供之</u> 縱向控制 <u>輔助</u> 。	5.5.3.4.1.1 導致與系統導入減速度相較下較高減速度之對煞車控制的駕駛人輸入，應取代 <u>任何</u> 由系統 <u>執行且與縱向控制相關之功能，且不應於未有駕駛人個別行動下，接續於</u>

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
during the overriding period.	system and shall not resume assistance following such override without a separate action by the driver.		<u>此等取代後恢復協助</u> 。
5.5.3.4.1.1.1. The system shall not resume longitudinal control assistance without a separate action by the driver, however, the system may provide the longitudinal control assistance in order to avoid inappropriate distances to other road users. If the driver input results in a speed reduction of not more than 30km/h within 2 seconds, the system may resume longitudinal control assistance without a separate action by the driver.		5.5.3.4.1.1.1 系統不應於未有源於駕駛人之獨立動作下恢復縱向控制輔助，惟系統可提供縱向控制輔助以避免與其他道路使用者間之不適當距離。 若駕駛人之輸入造成於兩秒內不超過三十公里／小時之速度減少，系統可於未有源於駕駛人之獨立動作下恢復縱向控制輔助。	
5.5.3.4.1.1.2. Following resumption of longitudinal control assistance, the system may accelerate up to the current maximum speed. The rate of increase of acceleration shall be gradual (i.e. with low jerk) and controllable in accordance with paragraph 5.3.6.		5.5.3.4.1.1.2 隨縱向控制輔助之恢復，系統可加速至現在最高速度。加速度之增加率應依照規定5.3.6為漸進（即以低急動狀況下）且可控制的。	
5.5.3.4.1.2. A driver input to the control of any braking system (e.g., service brake, parking brake) in order to maintain the vehicle at standstill, shall override the longitudinal control assistance performed by the system.	5.5.3.4.1.2. A driver input to the braking control by any braking system (e.g. parking brake) in order to maintaining the vehicle in standstill, shall override any feature associated with the longitudinal control performed by the system.	5.5.3.4.1.2 為使車輛維持於停止狀態，對任何煞車系統（例如：常用煞車、駐煞車系統）之控制器的駕駛人輸入，應取代由系統執行之縱向控制輔助。	5.5.3.4.1.2 為使車輛維持於停止狀態，藉由任何煞車系統（例如：駐煞車系統）對煞車控制之駕駛人輸入，應取代任何由系統執行且與縱向控制相關之功能。
5.5.3.4.1.3. An accelerator input by the driver with a higher acceleration than that induced by the system shall override longitudinal control assistance provided by the system. The system shall resume longitudinal	5.5.3.4.1.3. An accelerator input by the driver with a higher acceleration than that induced by the system shall override longitudinal control assistance provided by the system. The system shall resume longitudinal	5.5.3.4.1.3 由駕駛人以與系統導入加速度相較下較高加速度的加速器輸入應取代由系統提供之縱向控制輔助。系統應基於現在最高速度恢復縱向控制協助。	5.5.3.4.1.3 由駕駛人以與系統導入加速度相較下較高加速度的加速器輸入應取代由系統提供之縱向控制輔助。系統應基於現在最高速度恢復縱向控制協助。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
control assistance on the basis of the current maximum speed. 5.5.3.4.1.4. A steering input by the driver shall override any feature associated with the lateral control assistance performed by the system. The steering control effort necessary to override shall not exceed 50 N. The system may allow for the driver to perform minor lateral corrections (e.g. to avoid a pothole). 5.5.3.4.1.4.1. When the driver override occurs while the system is performing a manoeuvre, the manoeuvre shall be terminated unless the steering input is in support of the intended manoeuvre and/or providing minor lateral corrections.	control assistance on the basis of the current maximum speed. 5.5.3.4.1.4. A steering input by the driver shall override any feature associated with the lateral control assistance performed by the system. The steering control effort necessary to override shall not exceed 50 N. The system may allow for the driver to perform minor lateral corrections (e.g. to avoid a pothole).	5.5.3.4.1.4 由駕駛人之轉向輸入應取代任意由系統所執行與側向控制輔助相關之功能。用以取代所需之轉向控制力不應超過五十牛頓。系統可允許駕駛人執行輕微側向修正（例如：為迴避路面坑洞）。 <u>5.5.3.4.1.4.1 於系統正在執行操作下發生駕駛人取代時，除轉向輸入正處於預期操作之支援中，及／或提供輕微側向修正外，相關操作應被終止。</u>	5.5.3.4.1.4 由駕駛人之轉向輸入應取代任意由系統所執行與側向控制輔助相關之功能。用以取代所需之轉向控制力不應超過五十牛頓。系統可允許駕駛人執行輕微側向修正（例如：為迴避路面坑洞）。
5.5.3.4.1.5. If according to paragraph 5.3.7.4.4, the system is no longer permitted to provide longitudinal or lateral assistance in response to driver override, the system shall be designed to ensure controllability of these phases of operation (e.g. not terminating lateral control while the driver is detected to be motorically disengaged).	5.5.3.4.1.5. If according to paragraph 5.3.7.4.4, the system is no longer permitted to provide longitudinal or lateral assistance in response to driver override, the manufacturer shall implement strategies to ensure controllability of these phases of operation (e.g. not terminating lateral control while the driver is detected to be motorically disengaged).	5.5.3.4.1.5 若依照規定5.3.7.4.4，作為駕駛人取代之回應，系統將不再被允許提供縱向或側向輔助時， <u>系統設計上應</u> 確保此等運作之階段的可控制性（例如：當駕駛人被偵測到為 <u>動作上</u> 相關之未參與時不中斷側向控制）。	5.5.3.4.1.5 若依照規定5.3.7.4.4，作為駕駛人取代之回應，系統將不再被允許提供縱向或側向輔助時， <u>申請者應實施策略以</u> 確保此等運作之階段的可控制性（例如：當駕駛人被偵測到為 <u>身體移動</u> 相關之未參與時不中斷側向控制）。
5.5.4. Driver Information, Driver Disengagement and Warning Strategies 5.5.4.1. Driver Information 5.5.4.1.1. The system shall inform or warn the driver about: (a) The status of the system or feature: ‘stand-by’ mode (if applicable), ‘active’ mode;	5.5.4. Driver Information, Driver Disengagement and Warning Strategies 5.5.4.1. Driver Information 5.5.4.1.1. The system shall inform or warn the driver about: (a) The status of the system or feature: ‘stand-by’ mode (if applicable), ‘active’ mode;	5.5.4 駕駛人資訊、駕駛人未參與及警示策略 5.5.4.1 駕駛人資訊 5.5.4.1.1 系統應通知或警示駕駛人有關： (a) 系統或功能之狀態：待機模式（依實際狀況）、主動模式；	5.5.4 駕駛人資訊、駕駛人未參與及警示策略 5.5.4.1 駕駛人資訊 5.5.4.1.1 系統應通知或警示駕駛人有關： (a) 系統或功能之狀態：待機模式（依實際狀況）、主動模式；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(b) Status of an ongoing manoeuvre (e.g., initiation, cancellation or if it will be recommenced after the vehicle is forced to come to a stop during the manoeuvre); (c) The need for the driver to perform a specific action (e.g. apply control, check indirect vision devices); (d) If while in ‘active’ mode the system has detected to have reached a currently relevant system boundary, unless already indicated by (a); (e) A detected upcoming system boundary; (f) Detected failures affecting the system or its features, unless the system is in ‘off’ mode; (g) Intended driver-confirmed or system-initiated manoeuvres. 5.5.4.1.2. The system messages and signals shall be unambiguous, timely and shall not lead to confusion. 5.5.4.1.3. The system’s messages and signals shall use individual or an appropriate combination of visual, audio and/or haptic feedback for the given circumstances. 5.5.4.1.4. In the case of multiple messages or signals being offered in parallel, they shall be subject to prioritization by urgency. Safety-relevant messages and signals shall be given the greatest urgency. The manufacturer shall list and explain all system messages and signals in the documentation. 5.5.4.1.5. The system’s messages and signals	(b) An ongoing manoeuvre; (c) The need for the driver to perform a specific action (e.g. apply control, check indirect vision devices); (d) If while in ‘active’ mode the system has detected to have reached a currently relevant system boundary, unless already indicated by (a); (e) A detected upcoming system boundary; (f) Detected failures affecting the system or its features, unless the system is in ‘off’ mode; (g) Intended driver-confirmed or system-initiated manoeuvres. 5.5.4.1.2. The system messages and signals shall be unambiguous, timely and shall not lead to confusion. 5.5.4.1.3. The system’s messages and signals shall use individual or an appropriate combination of visual, audio and/or haptic feedback for the given circumstances. 5.5.4.1.4. In the case of multiple messages or signals being offered in parallel, they shall be subject to prioritization by urgency. Safety-relevant messages and signals shall be given the greatest urgency. The manufacturer shall list and explain all system messages and signals in the documentation. 5.5.4.1.5. The system’s messages and signals	(b) <u>即將執行之操作的狀態(例如：起始、取消，或若車輛於操作期間被強迫停止後，其將被重新啟動等)</u>； (c) 對駕駛人執行特定行動之需求(例如：施加控制、檢查間接視野裝置)； (d) 除已藉由(a)進行指示外，若處於主動模式，系統已偵測到已抵達現在系統邊界。 (e) 已偵測之即將到來的系統邊界； (f) 除系統處於關閉模式外，影響系統或其功能之已偵測故障； (g) 已預劃之由駕駛人確認或由系統啟示的操作。 5.5.4.1.2 系統訊息及訊號應明確、及時且不應導致混淆。 5.5.4.1.3 系統訊息及訊號應對指定情境使用獨立之視覺、聲音及／或觸覺回饋或適當之組合。 5.5.4.1.4 於多重訊息或訊號同步被提供時，應依緊急程度調整優先順序。安全相關訊息及訊號應作為最重大緊急程度提供。申請者應於文件中表列並說明所有系統訊息及訊號。 5.5.4.1.5 系統之訊息及訊號應設計以	(b) <u>正在</u>執行之操作； (c) 對駕駛人執行特定行動之需求(例如：施加控制、檢查間接視野裝置)； (d) 除已藉由(a)進行指示外，若處於主動模式，系統已偵測到已抵達現在系統邊界。 (e) 已偵測之即將到來的系統邊界； (f) 除系統處於關閉模式外，影響系統或其功能之已偵測故障； (g) 已預劃之由駕駛人確認或由系統啟示的操作。 5.5.4.1.2 系統訊息及訊號應明確、及時且不應導致混淆。 5.5.4.1.3 系統訊息及訊號應對指定情境使用獨立之視覺、聲音及／或觸覺回饋或適當之組合。 5.5.4.1.4 於多重訊息或訊號同步被提供時，應依緊急程度調整優先順序。安全相關訊息及訊號應作為最重大緊急程度提供。申請者應於文件中表列並說明所有系統訊息及訊號。 5.5.4.1.5 系統之訊息及訊號應設計以

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
shall be designed to actively encourage driver understanding of the state of the system, its capabilities and the driver's tasks and responsibilities.	shall be designed to actively encourage driver understanding of the state of the system, its capabilities and the driver's tasks and responsibilities.	主動促使駕駛人了解系統之狀態、能力，以及駕駛人之作業及責任。	主動促使駕駛人了解系統之狀態、能力，以及駕駛人之作業及責任。
5.5.4.1.6. The system's messages and signals shall encourage driver understanding of system's intended control outputs.	5.5.4.1.6. The system's messages and signals shall encourage driver understanding of system's intended control outputs.	5.5.4.1.6 系統之訊息及訊號應促使駕駛人了解系統之預劃控制輸出。	5.5.4.1.6 系統之訊息及訊號應促使駕駛人了解系統之預劃控制輸出。
5.5.4.1.7. The system's overall status indication shall be unambiguously distinguishable from the status indication of any ADS equipped on the vehicle.	5.5.4.1.7. The system's overall status indication shall be unambiguously distinguishable from the status indication of any automated driving system equipped on the vehicle.	5.5.4.1.7 系統之整體狀態指示應自任何車輛所配備ADS之狀態指示明確區分。	5.5.4.1.7 系統之整體狀態指示應自任何車輛所配備自動駕駛系統之狀態指示明確區分。
5.5.4.1.8. System Messages and Signals for Driver-Confirmed Manoeuvres	5.5.4.1.8. System Messages and Signals for Driver-Confirmed Manoeuvres	5.5.4.1.8 對於由駕駛人確認之操作的系統訊息及訊號	5.5.4.1.8 對於由駕駛人確認之操作的系統訊息及訊號
5.5.4.1.8.1. The system shall visually inform the driver about a proposed manoeuvre. If informing about a series of manoeuvres, then it shall be a combination that is comprehensible to the driver and of a connected series. The manufacturer shall explain to the Type Approval Authority the timing at which this information is provided to ensure appropriate driver response.	5.5.4.1.8.1. The system shall visually inform the driver about a proposed manoeuvre. If informing about a series of manoeuvres, then it shall be a combination that is comprehensible to the driver and of a connected series. The manufacturer shall explain to the Type Approval Authority the timing at which this information is provided to ensure appropriate driver response.	5.5.4.1.8.1 系統應就提出之操作視覺上通知駕駛人。若就一系列之操作進行通知，則其應使駕駛人容易理解，且為一互相串聯之系列。申請者應就為確保合適駕駛反應而提供此等資訊之時機向檢測機構解釋。	5.5.4.1.8.1 系統應就提出之操作視覺上通知駕駛人。若就一系列之操作進行通知，則其應使駕駛人容易理解，且為一互相串聯之系列。申請者應就為確保合適駕駛反應而提供此等資訊之時機向檢測機構解釋。
5.5.4.1.8.2. The direction indicators shall not be deemed to satisfy this requirement.		5.5.4.1.8.2 方向燈不應被視為滿足此要求。	
5.5.4.1.8.3 The system's signals and messages shall be designed to avoid driver overreliance or misuse.	5.5.4.1.8.2. The system's signals and messages shall be designed to avoid driver overreliance or misuse.	5.5.4.1.8.3 系統之訊號及訊息應設計以避免駕駛人過度依賴或誤用。	5.5.4.1.8.2 系統之訊號及訊息應設計以避免駕駛人過度依賴或誤用。
5.5.4.1.9. System Messages and Signals for System-Initiated Manoeuvres	5.5.4.1.9. System Messages and Signals for System-Initiated Manoeuvres	5.5.4.1.9 對於由系統起始之操作的系統訊息及訊號	5.5.4.1.9 對於由系統起始之操作的系統訊息及訊號
5.5.4.1.9.1. The provisions 5.5.4.1.8. shall equally apply.	5.5.4.1.9.1. The provisions 5.5.4.1.8. shall equally apply. Where possible, information	5.5.4.1.9.1 應同等地適用規定 5.5.4.1.8。	5.5.4.1.9.1 應同等地適用規定 5.5.4.1.8。如可行時，應至少於相關

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
5.5.4.1.9.2. The system shall aim to provide information ahead of the initiation of a relevant intended manoeuvre with sufficient notice to allow the driver to comprehend the manoeuvre and the traffic situation, taking into account the complexity of the manoeuvre and amount of other road users present. If there is a risk of imminent collision or it would conflict with the information about an ongoing manoeuvre, the time may be reduced and system shall visually inform the driver as far in advance as possible. In addition, the initiation of a lane change procedure shall be announced by another modality unless the system has assessed that the driver has observed the visual information. 5.5.4.1.9.3. Provided the system is capable of performing system-initiated manoeuvres, the system shall indicate to the driver whether in the current mode of operation, manoeuvres could be initiated automatically, or only upon driver initiation or confirmation. 5.5.4.2. Driver State Monitoring and Warning Strategies The driver state monitoring system and its warning strategy shall be documented and demonstrated by the manufacturer to the	shall be provided at least 3 seconds ahead of a relevant intended manoeuvre. 5.5.4.1.9.2. (Reserved) 5.5.4.2. Driver State Monitoring and Warning Strategies The driver state monitoring system and its warning strategy shall be documented and demonstrated by the manufacturer to the	5.5.4.1.9.2 <u>系統應朝向於相關預期操作之前以充分通知提供資訊為目標，以於考量操作之複雜性及當下其他道路使用者之數量下，使駕駛人理解操作及交通狀況。若立即性碰撞風險產生，或與即將執行之操作相關資訊產生衝突時，相關時間可被減少，且系統應於視覺上盡可能提前通知駕駛人。</u> <u>另外，除非系統評估駕駛人已觀察到視覺資訊外，變換車道程序之起始應藉由其他方式發出。</u> 5.5.4.1.9.3 <u>假設系統具備執行系統起始操作之能力下，無論現在是何種運作模式，系統應向駕駛人指示可自動或僅於駕駛人起始或確認下起始操作。</u> 5.5.4.2 駕駛人狀態監控及警示策略 駕駛人狀態監控系統及其警示策略應進行記錄，並於<u>安全性概念</u>檢查期間作為規定12.評估之一部分，並依	<u>預劃操作前三秒提供資訊。</u> 5.5.4.1.9.2 <u>(保留)</u> 5.5.4.2 駕駛人狀態監控及警示策略 駕駛人狀態監控系統及其警示策略應進行記錄，並於<u>安全性概念</u>檢查期間作為規定12.評估之一部分，並依

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
Approval Authority during the inspection of the safety concept as part of the assessment to Annex 3 and according to the relevant tests of Annex 4.	Approval Authority during the inspection of the safety concept as part of the assessment to Annex 3 and according to the relevant tests of Annex 4.	據規定13.相關試驗向檢測機構展演。	據規定13.相關試驗向檢測機構展演。
5.5.4.2.1. Driver Disengagement Monitoring The system shall be equipped with means to appropriately detect driver disengagement as specified in the following paragraphs.	5.5.4.2.1. Driver Disengagement Monitoring The system shall be equipped with means to appropriately detect driver disengagement as specified in the following paragraphs.	5.5.4.2.1 駕駛人未參與監控 系統應如下述規定所述，配備適當偵測駕駛人未參與之方式。	5.5.4.2.1 駕駛人未參與監控 系統應如下述規定所述，配備適當偵測駕駛人未參與之方式。
5.5.4.2.1.1. The system shall monitor if the driver is motorically (as per paragraph 5.5.4.2.4.) and visually (as per paragraph 5.5.4.2.5.) disengaged.	5.5.4.2.1.1. The system shall monitor if the driver is motorically (i.e., hand(s) on the steering control) and visually (e.g. gaze direction and/or head posture) disengaged.	5.5.4.2.1.1 系統應監控駕駛人是否有 <u>動作上</u> 相關(依規定5.5.4.2.4)及視覺相關(依規定5.5.4.2.5)未參與情形。	5.5.4.2.1.1 系統應監控駕駛人是否有 <u>身體移動</u> 相關(即： <u>手放置於轉向控制上</u>)及視覺相關(例如： <u>注視方向及／或頭部姿態</u>)未參與情形。
5.5.4.2.1.2. If visual disengagement determination is detected to be temporarily unavailable, the system shall not lead the vehicle to leave its current lane of travel.	5.5.4.2.1.2. If visual disengagement determination is detected to be temporarily unavailable, the system shall not lead the vehicle to leave its current lane of travel.	5.5.4.2.1.2 若視覺相關未參與之測定被偵測到暫時無法使用時，系統不應引導車輛離開其行駛車道。	5.5.4.2.1.2 若視覺相關未參與之測定被偵測到暫時無法使用時，系統不應引導車輛離開其行駛車道。
5.5.4.2.2. General Requirements for Driver Disengagement Warnings	5.5.4.2.2. General Requirements for Driver Disengagement Warnings	5.5.4.2.2 駕駛人未參與警示之一般規定	5.5.4.2.2 駕駛人未參與警示之一般規定
5.5.4.2.2.1. The warning shall guide the driver on the required actions in order to support appropriate engagement in the driving task.	5.5.4.2.2.1. The warning shall guide the driver on the required actions in order to support appropriate engagement in the driving task.	5.5.4.2.2.1 警示應於所需動作上引導駕駛人，以支援行駛任務中之適當參與情形。	5.5.4.2.2.1 警示應於所需動作上引導駕駛人，以支援行駛任務中之適當參與情形。
5.5.4.2.2.3. The system's warning and escalation strategy shall consider for and prioritize warning strategies of simultaneously activated emergency assistance systems (e.g. AEBS).	5.5.4.2.2.3. The system's warning and escalation strategy shall consider for and prioritize warning strategies of simultaneously activated emergency assistance systems (e.g. AEBS).	5.5.4.2.2.3 系統警示及提升策略應就同步啟動之緊急輔助系統(例如：AEBS)的警示策略進行考量並劃分優先程度。	5.5.4.2.2.3 系統警示及提升策略應就同步啟動之緊急輔助系統(例如：AEBS)的警示策略進行考量並劃分優先程度。
5.5.4.2.3. Types of Warnings	5.5.4.2.3. Types of Warnings	5.5.4.2.3 警示類型	5.5.4.2.3 警示類型
5.5.4.2.3.1. Hands On Request (HOR)	5.5.4.2.3.1. Hands On Request (HOR)	5.5.4.2.3.1 接手要求(HOR)	5.5.4.2.3.1 接手要求(HOR)
5.5.4.2.3.1.1. An HOR shall contain at least a continual (continuous or intermittent) visual information similar to the presented in the example below.	5.5.4.2.3.1.1. An HOR shall contain at least a continual (continuous or intermittent) visual information similar to the presented in the example below.	5.5.4.2.3.1.1 單一HOR應包含至少相似於下述範例之單一連續(不斷或間歇)之視覺資訊。	5.5.4.2.3.1.1 單一HOR應包含至少相似於下述範例之單一連續(不斷或間歇)之視覺資訊。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(圖片如頁末所示) 5.5.4.2.3.1.2. An HOR, as a minimum, shall be considered confirmed when the driver is no longer motorically disengaged . 5.5.4.2.3.2. Eyes On Request (EOR) 5.5.4.2.3.2.1. An EOR shall be a continual visual information in combination with at least one other modality which are clear and easily perceptible, unless it can be ensured that the driver has observed the visual information. 5.5.4.2.3.2.2. An EOR shall, as a minimum, be considered confirmed when the driver is no longer visually disengaged as per paragraph 5.5.4.2.5. 5.5.4.2.3.3. Direct Control Alert (DCA) 5.5.4.2.3.3.1. A DCA shall clearly and prominently instruct the driver to immediately resume at least lateral control of the vehicle. It shall comprise of a visual warning combined with at least one other modality which are clear and easily perceptible. 5.5.4.2.3.3.2. A DCA shall, as a minimum, be considered confirmed when the driver has taken control of the vehicle without any continuous lateral assistance as requested by the DCA. 5.5.4.2.4. Assessment of Motoric Disengagement 5.5.4.2.4.1. The driver shall be deemed to be motorically disengaged when the driver has	(圖片如頁末所示) 5.5.4.2.3.1.2. An HOR, as a minimum, shall be considered confirmed when the driver has placed the hand(s) on the steering control . 5.5.4.2.3.2. Eyes On Request (EOR) 5.5.4.2.3.2.1. An EOR shall be a continual visual information in combination with at least one other modality which are clear and easily perceptible, unless it can be ensured that the driver has observed the visual information. 5.5.4.2.3.2.2. An EOR shall, as a minimum, be considered confirmed when the driver is no longer visually disengaged as per paragraph 5.5.4.2.5. 5.5.4.2.3.3. Direct Control Alert (DCA) 5.5.4.2.3.3.1. A DCA shall clearly and prominently instruct the driver to immediately resume either lateral, or lateral and longitudinal unassisted control of the vehicle. It shall comprise of a visual warning combined with at least one other modality which are clear and easily perceptible. 5.5.4.2.3.3.2. A DCA shall, as a minimum, be considered confirmed when the driver has taken unassisted lateral, or lateral and longitudinal control of the vehicle as requested by the DCA. 5.5.4.2.4. Assessment of Motoric Disengagement 5.5.4.2.4.1. The driver shall be deemed to be motorically disengaged when the driver has	(圖片如頁末所示) 5.5.4.2.3.1.2 作為最低要求，單一HOR應於駕駛人 <u>動作上不再未參與</u> 時被視為已確認。 5.5.4.2.3.2 著眼要求(EOR) 5.5.4.2.3.2.1 除可確保駕駛人已觀察到視覺資訊外，單一EOR應為與至少一個其他明確且易於觀察之方式進行組合的連續視覺資訊。 5.5.4.2.3.2.2 作為最低要求，單一EOR應於駕駛人不再如規定5.5.4.2.5所述之視覺相關未參與時被視為已確認。 5.5.4.2.3.3 直接控制警告(DCA) 5.5.4.2.3.3.1 單一DCA應明確且顯著地指示駕駛人 <u>至少</u> 立即恢復車輛之側向控制。其應由單一視覺警示與至少一個其他明確且易於觀察之方式組成。 5.5.4.2.3.3.2 作為最低要求，單一DCA應於駕駛人如DCA要求 <u>且未有</u> <u>任何連續側向輔助下</u> 採取車輛之控制時被視為已確認。 5.5.4.2.4 身體移動相關未參與之評估 5.5.4.2.4.1 駕駛人於其已將手部自轉向控制上移開時應被視為身體移	(圖片如頁末所示) 5.5.4.2.3.1.2 作為最低要求，單一HOR應於駕駛人 <u>已將手部放置於轉向控制上</u> 時被視為已確認。 5.5.4.2.3.2 著眼要求(EOR) 5.5.4.2.3.2.1 除可確保駕駛人已觀察到視覺資訊外，單一EOR應為與至少一個其他明確且易於觀察之方式進行組合的連續視覺資訊。 5.5.4.2.3.2.2 作為最低要求，單一EOR應於駕駛人不再如規定5.5.4.2.5所述之視覺相關未參與時被視為已確認。 5.5.4.2.3.3 直接控制警告(DCA) 5.5.4.2.3.3.1 單一DCA應明確且顯著地指示駕駛人立即恢復 <u>未受輔助之車輛的側向、或側向與縱向</u> 控制。其應由單一視覺警示與至少一個其他明確且易於觀察之方式組成。 5.5.4.2.3.3.2 作為最低要求，單一DCA應於駕駛人如DCA要求採取 <u>未受輔助之車輛的側向、或側向及縱向</u> 控制時被視為已確認。 5.5.4.2.4 身體移動相關未參與之評估 5.5.4.2.4.1 駕駛人於其已將手部自轉向控制上移開時應被視為身體移動

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
removed their hands from the steering control.	removed their hands from the steering control.	動相關未參與。	相關未參與。
5.5.4.2.5. Assessment of Visual Disengagement	5.5.4.2.5. Assessment of Visual Disengagement	5.5.4.2.5 視覺相關未參與之評估	5.5.4.2.5 視覺相關未參與之評估
5.5.4.2.5.1. The driver state monitoring system shall detect the driver's visual disengagement at a minimum based on the detection of the driver's eye gaze. Head posture may also be used if the driver's eye gaze can temporarily not be determined, or where the head posture can determine the disengagement more quickly.	5.5.4.2.5.1. The driver state monitoring system shall detect the driver's visual disengagement at a minimum based on the detection of the driver's eye gaze Head posture may also be used if the driver's eye gaze cannot be determined, or where the head posture can determine the disengagement more quickly.	5.5.4.2.5.1 駕駛人狀態監測系統應以最低基於駕駛人眼部注視之偵測，對駕駛人之視覺相關未參與進行偵測。若駕駛人之眼部注視暫時無法被測定，或頭部姿態可更快地測定未參與時，則頭部姿態亦可被使用。	5.5.4.2.5.1 駕駛人狀態監測系統應以最低基於駕駛人眼部注視之偵測，對駕駛人之視覺相關未參與進行偵測。若駕駛人之眼部注視無法被測定，或頭部姿態可更快地測定未參與時，則頭部姿態亦可被使用。
5.5.4.2.5.2. The driver shall be deemed to be visually disengaged when the driver's eye gaze and/or head posture, as relevant, is directed away from any currently driving task relevant area.	5.5.4.2.5.2. The driver shall be deemed to be visually disengaged when the driver's eye gaze and/or head posture, as relevant, is directed away from any currently driving task relevant area.	5.5.4.2.5.2 駕駛人於駕駛人之眼部注視及／或頭部姿態(如相關)為直接自任意現在行駛任務相關區域遠離時應被視為視覺相關未參與。	5.5.4.2.5.2 駕駛人於駕駛人之眼部注視及／或頭部姿態(如相關)為直接自任意現在行駛任務相關區域遠離時應被視為視覺相關未參與。
An outline of the driving task relevant areas, and when they are relevant, shall be specified by the manufacturer in the documentation provided to the Type Approval Authority. For the purpose of the assessment of visual disengagement, the dashboard and instrument panel shall not be considered as a driving task relevant area.	An outline of the driving task relevant areas, and when they are relevant, shall be specified by the manufacturer in the documentation provided to the Type Approval Authority. For the purpose of the assessment of visual disengagement, the dashboard and instrument panel shall not be considered as a driving task relevant area.	有關行駛任務相關區域及其何時為相關之概述，應由申請者於提供 <u>檢測機構</u> 之文件中描述。為評估視覺相關未參與，儀錶板及儀器面板不應被視為一行駛任務相關區域。	有關行駛任務相關區域及其何時為相關之概述，應由申請者於提供 <u>檢測機構</u> 之文件中描述。為評估視覺相關未參與，儀錶板及儀器面板不應被視為一行駛任務相關區域。
5.5.4.2.5.2.1. The driver shall be deemed to be visually engaged or reengaged following an aversion of eye gaze or head posture if either are re-directed towards any currently driving task relevant area for a sufficient duration depending on the situation. The duration shall be at least 200 milliseconds.	5.5.4.2.5.2.1. The driver shall be deemed to be visually engaged or reengaged following an aversion of eye gaze or head posture if either are re-directed towards any currently driving task relevant area for a sufficient duration depending on the situation. The duration shall be at least 200 milliseconds.	5.5.4.2.5.2.1 接續於眼部注視或頭部姿態之轉離後，若兩者依情況重新轉朝向任意現在行駛任務相關區域一段足夠期間，駕駛人應被視為視覺相關參與或重新參與。相關期間應至少為二百毫秒。	5.5.4.2.5.2.1 接續著眼部注視或頭部姿態之轉離後，若兩者依情況重新轉朝向任意現在行駛任務相關區域一段足夠期間，駕駛人應被視為視覺相關參與或重新參與。相關期間應至少為二百毫秒。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
5.5.4.2.5.2.2. An outline of the sufficient duration depending on the situation shall be specified by the manufacturer in the documentation provided to the Type Approval Authority.		<u>5.5.4.2.5.2.2 依情況之充足持續時間 相關概要應由申請者於提供予檢測 機構之文件中描述。</u>	
5.5.4.2.5.3. The system shall be designed to address the detection and response to multiple subsequent short aversions of eye gaze or head posture by the driver (e.g. increased reengagement time and/or immediate issuing of an EOR). This functionality shall be documented and explained by the manufacturer to the Type Approval Authority.	5.5.4.2.5.3. The manufacturer shall implement strategies to address the detection and response to multiple subsequent short aversions of eye gaze or head posture by the driver (e.g. increased reengagement time and/or immediate issuing of an EOR).	5.5.4.2.5.3 系統設計上應處理對駕駛人多次隨後短暫轉離之眼部注視及頭部姿態的偵測及反應(例如:已增加之重新參與時間及/或即時發出之EOR)。本項功能應由申請者向檢測機構提供紀錄及說明。	5.5.4.2.5.3 申請者應實施策略以處理對駕駛人多次隨後短暫轉離之眼部注視及頭部姿態的偵測及反應(例如:已增加之重新參與時間及/或即時發出之EOR)。
5.5.4.2.6. Warning Escalation Sequence Depending on the safety concept of the system, the warning escalation sequence described below may start directly at any of the warning stages, skip any of the warning stages, provide simultaneous warnings, or suppress or delay individual warnings in case another warning is already active.	5.5.4.2.6. Warning Escalation Sequence Depending on the safety concept of the system, the warning escalation sequence described below may start directly at any of the warning stages, skip any of the warning stages, provide simultaneous warnings, or suppress or delay individual warnings in case another warning is already active.	5.5.4.2.6 警示提升順序 依照系統之 <u>安全性概念</u> ，下述警示提升順序可直接於任意警示階段開始、可跳過任意警示階段、可提供同步警示，或於另一警示已啟動時可暫停或延遲獨立警示。	5.5.4.2.6 警示提升順序 依照系統之 <u>安全性概念</u> ，下述警示提升順序可直接於任意警示階段開始、可跳過任意警示階段、可提供同步警示，或於另一警示已啟動時可暫停或延遲獨立警示。
5.5.4.2.6.1. Hands On Requests	5.5.4.2.6.1. Hands On Requests	5.5.4.2.6.1 接手要求	5.5.4.2.6.1 接手要求
5.5.4.2.6.1.1 At speeds above 10 km/h a HOR shall be given latest when driver is deemed motorically disengaged for more than 5 seconds. However, the HOR may be delayed for a period of up to 5 seconds as long as the system can confirm that the driver is not visually disengaged.	5.5.4.2.6.1.1 At speeds above 10 km/h a HOR shall be given latest when driver is deemed motorically disengaged for more than 5 seconds. However, the HOR may be delayed for a period of up to 5 seconds as long as the system can confirm that the driver is not visually disengaged.	5.5.4.2.6.1.1 速度高於十公里/小時下，最晚應於駕駛人被視為身體移動相關未參與超過五秒鐘時發出HOR。惟只要系統可確認駕駛人未處於視覺相關未參與，HOR可被延遲至多一段五秒鐘之期間。	5.5.4.2.6.1.1 速度高於十公里/小時下，最晚應於駕駛人被視為身體移動相關未參與超過五秒鐘時發出HOR。惟只要系統可確認駕駛人未處於視覺相關未參與，HOR可被延遲至多一段五秒鐘之期間。
5.5.4.2.6.1.2. In the event of continued disengagement, the HOR request shall be	5.5.4.2.6.1.2. In the event of continued disengagement, the HOR request shall be	5.5.4.2.6.1.2 於持續未參與之事件中，HOR要求應最晚於首次HOR起	5.5.4.2.6.1.2 於持續未參與之事件中，HOR要求應最晚於首次HOR起計十

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
escalated latest 10 seconds after the initial HOR. The escalated HOR shall contain an additional acoustic and/or haptic information.	escalated latest 10 seconds after the initial HOR. The escalated HOR shall contain an additional acoustic and/or haptic information.	計十秒後被提升。已提升之HOR應包含額外聲音及／或觸覺資訊。	秒後被提升。已提升之HOR應包含額外聲音及／或觸覺資訊。
5.5.4.2.6.1.3. The initiation of an HOR may be withheld in accordance with the provisions of paragraph 5.5.4.2.6.5.	5.5.4.2.6.1.3. (Reserved for hands-off requirements)	5.5.4.2.6.1.3 <u>HOR之起始可依照規定5.5.4.2.6.5進行保留。</u>	5.5.4.2.6.1.3 <u>(保留予放手相關要求)</u>
5.5.4.2.6.1.4. The system shall be designed to avoid misuse (e.g., nudging the steering wheel in response to an HOR without becoming, as requested by the system, motorically engaged).		5.5.4.2.6.1.4 <u>系統設計上應避免誤用(例如：輕觸方向盤以於未轉變為動作上參與行駛之狀況下回應系統所要求之HOR)</u>	
5.5.4.2.6.2. Eyes On Requests	5.5.4.2.6.2. Eyes On Requests	5.5.4.2.6.2 著眼要求	5.5.4.2.6.2 著眼要求
5.5.4.2.6.2.1. At speeds above 10 km/h an EOR shall be given latest when the driver is deemed visually disengaged for 5 seconds.	5.5.4.2.6.2.1. At speeds above 10 km/h an EOR shall be given latest when the driver is deemed visually disengaged for 5 seconds.	5.5.4.2.6.2.1 速度高於十公里／小時下，最晚應於駕駛人被視為視覺相關未參與超過五秒鐘時發出EOR。	5.5.4.2.6.2.1 速度高於十公里／小時下，最晚應於駕駛人被視為視覺相關未參與超過五秒鐘時發出EOR。
5.5.4.2.6.2.2. Following an EOR, if the driver has been deemed visually reengaged according to paragraph 5.5.4.2.5.2.1 and subsequently starts to be visually disengaged again for at least 1 second within the following 2 seconds, an EOR shall be given immediately.		5.5.4.2.6.2.2 <u>接續於EOR之後，若駕駛人已依照規定5.5.4.2.5.2.1被視為視覺上參與行駛，且後續兩秒內再次視覺上未參與至少一秒時，應立即發出EOR。</u>	
5.5.4.2.6.2.3. In the event of continued visual disengagement, the EOR shall be escalated at the latest 3 seconds after the initial EOR according to the warning strategy with increased intensity. The escalated EOR shall always contain acoustic and/or haptic information.	5.5.4.2.6.2.3. In the event of continued visual disengagement, the system shall escalate the EOR latest 3 seconds after the initial EOR according to the warning strategy with increased intensity. This escalation shall always include acoustic and/or haptic information.	5.5.4.2.6.2.3 於持續視覺相關未參與之事件中，EOR應以已增加之強度且依照警示策略，最晚於首次EOR起計三秒後被提升。 <u>已提升之EOR</u> 應總是包含聲音及／或觸覺資訊。	5.5.4.2.6.2.2 於持續視覺相關未參與之事件中，EOR <u>要求應依照警示策略</u> 以已增加之強度，最晚於首次EOR起計三秒後被提升。 <u>相關</u> 提升應總是包含聲音及／或觸覺資訊。
5.5.4.2.6.3. Direct Control Alerts	5.5.4.2.6.3. Direct Control Alerts	5.5.4.2.6.3 直接控制警告	5.5.4.2.6.3 直接控制警告
5.5.4.2.6.3.1. At the latest 5 seconds following	5.5.4.2.6.3.1. At the latest 5 seconds following	5.5.4.2.6.3.1 最晚接續於EOR提升起	5.5.4.2.6.3.1 最晚接續於EOR提升起

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
an escalation of the EOR, a DCA shall be presented to the driver. 5.5.4.2.6.4. Transition to Driver Unavailability Response 5.5.4.2.6.4.1 If the system determines the driver to continue to be disengaged following a warning escalation, the system shall initiate a driver unavailability response at the latest 10 seconds after the first escalated request or DCA. 5.5.4.2.6.5. Withholding of HORs The system may withhold HORs when the vehicle is located on a “Highway” and is operated at a speed up to 130 km/h. As outlined in paragraph 5.3.5.2., the manufacturer shall describe in detail, as part of the documentation required for section 9, the boundary conditions under which HORs can be withheld. Whilst in this mode of operation, the following subparagraphs shall apply: 5.5.4.2.6.5.1. In case of a detected upcoming boundary condition which requires an HOR, this HOR shall be given at the latest 5 seconds in advance of reaching the boundary condition(s). For situations not detected 5 seconds in advance, a DCA shall be issued unless lateral assistance will still be provided after the driver is motorically reengaged. Where a DCA is not issued, an HOR shall be issued upon detection of the upcoming boundary	an escalation of the EOR, a DCA shall be presented to the driver. 5.5.4.2.6.4. Transition to Driver Unavailability Response 5.5.4.2.6.4.1 If the system determines the driver to continue to be disengaged following a warning escalation, the system shall initiate a driver unavailability response at the latest 10 seconds after the first escalated request or alert. 5.5.4.2.6.5. (Reserved for hands-off requirements)	計五秒後，應對駕駛人呈現一DCA。 5.5.4.2.6.4 駕駛人無法行駛狀態回應之轉換 5.5.4.2.6.4.1 若系統測定駕駛人於警示提升後持續處於未參與狀態，系統最晚應於首次已提升之要求或 <u>DCA</u>起計後十秒，起始駕駛人無法行駛狀態回應。 5.5.4.2.6.5 <u>HOR之保留</u> <u>系統可於車輛位於高／快速公路且以最高至一百三十公里／小時之速度運作時保留EOR。如規定5.3.5.2所述，申請者應作為規定9所需文件之一部分，對HOR可進行保留之邊界條件進行詳細描述。</u> <u>於此運作模式下，應符合下述相關規定：</u> <u>5.5.4.2.6.5.1 於需要HOR之已偵測且即將到來之邊界條件下，HOR最晚應至少於抵達邊界條件之五秒前發出。</u> <u>對於未提前五秒偵測之狀況下，除於駕駛人動作上重新參與行駛後，仍將提供側向輔助外，應發出DCA。於DCA未發出之狀況下，應於偵測即將到來之邊界條件當下發出HOR。</u>	計五秒後，應對駕駛人呈現一DCA。 5.5.4.2.6.4 駕駛人無法行駛狀態回應之轉換 5.5.4.2.6.4.1 若系統測定駕駛人於警示提升後持續處於未參與狀態，系統最晚應於首次已提升之要求或 <u>警示</u>起計後十秒，起始駕駛人無法行駛狀態回應。 5.5.4.2.6.5 <u>(保留予放手相關要求)</u>

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
condition(s). In addition to the requirements of paragraph 5.3.6., for those situations not detected 5 seconds in advance, the vehicle manufacturer shall demonstrate the controllability of such situations to the Type Approval Authority during the inspection of the safety concept. 5.5.4.2.6.5.2. The system shall issue an HOR or DCA as appropriate upon reaching the system boundaries due to a driver override of the longitudinal control by acceleration. 5.5.4.2.6.5.3. If the system has the ability to suppress accelerator input in order to avoid exceeding the system boundaries, the driver shall be able to override this. 5.5.4.2.6.5.4. Notwithstanding paragraph 5.5.4.2.6.2.1., an EOR shall be given at the latest when the driver has been deemed visually disengaged for the relevant time period according to the table below. (表格如頁末所示) For vehicle speeds values between 60 km/h and 130 km/h, a linear interpolation shall be used to calculate the corresponding EOR timing. 5.5.4.2.6.5.5. The system shall be designed to determine when there has been no deviation in eye gaze (or movement of head position when this is being used to determine visual engagement) for a significant period of time. An EOR shall be issued in this case. These		<u>除規定5.3.6之要求外，對於未提前五秒偵測之狀況下，申請者應於安全性概念檢視期間向檢測機構展示對相關狀況之可控制性。</u> <u>5.5.4.2.6.5.2 因駕駛人藉由加速取代縱向控制而抵達系統邊界當下，系統應依照實際狀況發出HOR或DCA。</u> <u>5.5.4.2.6.5.3 若系統具備暫停加速器輸入能力以避免超過系統邊界，駕駛人應能對此狀況進行取代。</u> <u>5.5.4.2.6.5.4 雖有規定5.5.4.2.6.2.1相關要求，最晚應依照下表就駕駛人於相關時期已被視為視覺上未參與時發出EOR。</u> (表格如頁末所示) <u>對於介於六十公里／小時及一百三十公里／小時之車輛速度數值，應使用線性插值以計算對應EOR時間。</u> <u>5.5.4.2.6.5.5 系統設計上應測定視線（或頭部位置之移動用於測定視覺上是否參與時）是否於一段較長時程下未偏移。於此狀況下應發出EOR。相關策略應由申請者向檢測機構提供紀錄及說明。</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
strategies shall be documented and explained by the manufacturer to the Type Approval Authority. 5.5.4.2.6.5.6. The system shall inform the driver whether HORs are currently being withheld or not in a clearly distinguishable way. This information shall be designed to not actively promote that the driver should remove their hands from the steering control (i.e., an indication of a steering wheel without hands is not considered to violate this requirement).		<u>5.5.4.2.6.5.6 系統應以可明確區分方式，向駕駛人通知HOR正在保留與否。相關資訊設計上不應主動提倡駕駛人將手部自轉向控制上移開（即未包含手部圖樣之方向盤指示將不被視為違反此要求）。</u>	
5.5.4.2.7. Additional Strategies for Disengagement Detection and Re-Engagement Support The driver state monitoring system shall be equipped with strategies to assess whether the driver is disengaged in the event that no driver input has been determined over prolonged periods (e.g. through a negative determination of driver drowsiness), and implement appropriate countermeasures.	5.5.4.2.7. Additional Strategies for Disengagement Detection and Re-Engagement Support The driver state monitoring system shall be equipped with strategies to assess whether the driver is disengaged in the event that no driver input has been determined over prolonged periods (e.g. through a negative determination of driver drowsiness), and implement appropriate countermeasures.	5.5.4.2.7 對未參與偵測及重新參與支援之額外策略 駕駛人狀態監測系統應具備策略，以評估於延長期間下已測定未有駕駛人輸入之事件中，駕駛人是否為未參與狀態（例如：透過駕駛人疲勞之消極測定），並應實施合適之對應措施。	5.5.4.2.7 對未參與偵測及重新參與支援之額外策略 駕駛人狀態監測系統應具備策略，以評估於延長期間下已測定未有駕駛人輸入之事件中，駕駛人是否為未參與狀態（例如：透過駕駛人疲勞之消極測定），並應實施合適之對應措施。
5.5.4.2.8. Repeated or Prolonged Driver Disengagement 5.5.4.2.8.1. The system shall be disabled for a period of at least 30 minutes whilst the powertrain is active when the driver is detected to have insufficient engagement.	5.5.4.2.8. Repeated or Prolonged Driver Disengagement 5.5.4.2.8.1. The manufacturer shall implement strategies to disable activation of the system for the duration of the start/run cycle when the driver is detected to demonstrate prolonged insufficient engagement at least when this leads to more than one driver unavailability response initiations.	5.5.4.2.8 已重複或已延長之駕駛人未參與 5.5.4.2.8.1 <u>系統應於動力系統啟動且駕駛人被偵測到參與不足之狀態下，被解除至少三十分鐘。</u>	5.5.4.2.8 已重複或已延長之駕駛人未參與 5.5.4.2.8.1 <u>申請者應實施策略以至少下述狀況導致多於一次之駕駛人無法行駛狀態回應起始時，當駕駛人被偵測到呈現已延長之參與不足之狀態下，於啟動/運轉循環期間，使系統之啟動無法執行。</u>
5.5.4.2.8.2. The driver is deemed to have		<u>5.5.4.2.8.2 駕駛人將於行為引導下</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
insufficient engagement when this leads to: (a) One unavailability response initiation; (b) At most 2 DCAs due to prolonged insufficient engagement; or (c) At most 3 engagement request escalations. For (a) and (b), counting is reset when the system is no longer disabled. For (c), this is determined over a rolling time window of 30 minutes during the activation of the powertrain. 5.5.4.2.8.3.The driver is also deemed to have insufficient engagement if there are repeated EOR or HOR due to driver disengagement within a given time period. The number of warnings and the time interval over which these are counted shall be defined by the manufacturer and justified to the Type Approval Authority. 5.5.4.2.8.4.When the system is disabled due to insufficient engagement by the driver, at the latest upon the deactivation of the powertrain, the system shall request that the driver reads the driver information material as outlined in paragraph 5.6. 5.6. Driver Information Materials In addition to the user manual the manufacturer shall provide clear and easily accessible information (e.g. documentation, video, website materials) free of charge regarding system operation on the specific vehicle type. The information shall cover at least the following aspects using terminology that is	5.6. Driver Information Materials In addition to the user manual the manufacturer shall provide clear and easily accessible information (e.g. documentation, video, website materials) free of charge regarding system operation on the specific vehicle type. The information shall cover at least the following aspects using terminology that is	<u>述狀況發生時被視為參與不足：</u> <u>(a) 單一無法行駛回應起始；</u> <u>(b) 因延長之參與不足產生最多兩次DCA，或；</u> <u>(c) 最多三次之參與要求相關提升。</u> <u>對於(a)及(b)，相關計數於系統不再解除時重置。</u> <u>對於(c)，係於動力系統啟動期間，跨越三十分鐘之滾動時間空檔進行測定。</u> <u>5.5.4.2.8.3 駕駛人因指定時期內駕駛人未參與而重複發出EOR或HOR，亦將被視為參與不足。受到計算之警示數量及時間區間應由申請者定義並向檢測機構證明。</u> <u>5.5.4.2.8.4 於系統因駕駛人參與不足而解除時，最晚於動力系統解除當下，系統應要求駕駛人閱讀規定5.6所述之駕駛人資訊素材。</u> 5.6 駕駛人資訊素材 額外於使用者手冊中，申請者應提供明確且容易取得之特定車型上系統運作的免付費資訊（例如：文件、影片、網站）。相關資訊應涵蓋至少下述使用術語的觀點，使非相關專業之觀眾容易理解：	5.6 駕駛人資訊素材 額外於使用者手冊中，申請者應提供明確且容易取得之特定車型上系統運作的免付費資訊（例如：文件、影片、網站）。相關資訊應涵蓋至少下述使用術語的觀點，使非相關專業之觀眾容易理解：

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
understandable by a non-technical audience; (a) Reminder of the driver's responsibilities and appropriate use of the system; (b) Explanation on how and to which extent the system and its features assist the driver; (c) System capabilities and limitations; (d) System Boundaries; (e) Modes of operation and transition between modes; (f) Mode transition to other assistance or automated systems, if applicable; (g) Driver Disengagement Detection; (h) Privacy Management when using the system; (i) Explanation on how to override the system or its features; (j) Human-machine interface (HMI): (i) Activation and deactivation; (ii) Status indication; (iii) Messages and signals to the driver and their interpretation; (iv) Vehicle behaviour when reaching system boundaries; (v) Vehicle behaviour when exceeding system boundaries; (vi) Information on system failures; (vii) Information on system mode transition to other assistance or automated systems, if applicable. In the manufacturer's documentation, including the educational materials (e.g. documentation, video, website materials)	understandable by a non-technical audience; (a) Reminder of the driver's responsibilities and appropriate use of the system; (b) Explanation on how and to which extent the system and its features assist the driver; (c) System capabilities and limitations; (d) System Boundaries; (e) Modes of operation and transition between modes; (f) Mode transition to other assistance or automated systems, if applicable; (g) Driver Disengagement Detection; (h) Privacy Management when using the system; (i) Explanation on how to override the system or its features; (j) Human-machine interface (HMI): (i) Activation and deactivation; (ii) Status indication; (iii) Messages and signals to the driver and their interpretation; (iv) Vehicle behaviour when reaching system boundaries; (v) Vehicle behaviour when exceeding system boundaries; (vi) Information on system failures; (vii) Information on system mode transition to other assistance or automated systems, if applicable. In the manufacturer's documentation, including the educational materials (e.g. documentation, video, website materials)	(a) 駕駛人之職責及系統之適當使用的提醒； (b) 如何使系統及其功能延長協助駕駛人，以及其程度之說明； (c) 系統能力及極限； (d) 系統邊界； (e) 於模式間之運作模式及轉換； (f) 轉換至其他輔助或自動系統之模式，依實際情況； (g) 駕駛人未參與偵測； (h) 使用系統時之隱私管理； (i) 如何取代系統或其功能之說明； (j) 人機介面(HMI)； (i) 啟動及解除； (ii) 狀態指示； (iii) 對駕駛人之訊息及訊號，以及相關解釋； (iv) 抵達系統邊界時之車輛行為； (v) 超越系統邊界時之車輛行為； (vi) 系統故障之資訊； (vii) 系統模式轉換至其他輔助或自動系統之資訊，依實際情況； 於申請者文件中，包含對消費者之處理後教育素材在內（例如：文件、影片、網站），申請者不應將誤導	(a) 駕駛人之職責及系統之適當使用的提醒； (b) 如何使系統及其功能延長協助駕駛人，以及其程度之說明； (c) 系統能力及極限； (d) 系統邊界； (e) 於模式間之運作模式及轉換； (f) 轉換至其他輔助或自動系統之模式，依實際情況； (g) 駕駛人未參與偵測； (h) 使用系統時之隱私管理； (i) 如何取代系統或其功能之說明； (j) 人機介面(HMI)； (i) 啟動及解除； (ii) 狀態指示； (iii) 對駕駛人之訊息及訊號，以及相關解釋； (iv) 抵達系統邊界時之車輛行為； (v) 超越系統邊界時之車輛行為； (vi) 系統故障之資訊； (vii) 系統模式轉換至其他輔助或自動系統之資訊，依實際情況； 於申請者文件中，包含對消費者之處理後教育素材在內（例如：文件、影片、網站），申請者不應將誤導

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
addressed to consumers, the manufacturer shall not describe the system in a manner that would mislead the customer about the capabilities and limits of the system or about its level of automation.	addressed to consumers, the manufacturer shall not describe the system in a manner that would mislead the customer about the capabilities and limits of the system or about its level of automation.	消費者就系統能力或極限，或其自動化程度之方式描述系統。	消費者就系統能力或極限，或其自動化程度之方式描述系統。
6. Additional Specifications for DCAS features The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the Type Approval Authority during the inspection of the safety approach as part of the assessment to Annex 3 and according to the relevant tests in Annex 4. The system shall fulfil the requirements of paragraph 6 where applicable to the design of the system and relevant to the safety concept, when operated within its boundary conditions according to paragraphs 5.3.5.2. 6.1. Specific requirements for positioning in the lane of travel 6.1.1. Increased lateral dynamics 6.1.1.1. Notwithstanding the requirements in paragraph 5.3.7.1.2., for M1 and N1 category vehicles, the feature may be permitted to induce higher lateral acceleration values than 3 m/s ² (e.g., in order to not disturb traffic flow), provided the following conditions are met: (a) The system provides visual information to the driver on the upcoming or ongoing driving situation which may potentially	6. Additional Specifications for DCAS features The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the Type Approval Authority during the inspection of the safety approach as part of the assessment to Annex 3 and according to the relevant tests in Annex 4. The system shall fulfil the requirements of paragraph 6 where applicable to the design of the system and relevant to the safety concept, when operated within its boundary conditions according to paragraphs 5.3.5.2. 6.1. Specific requirements for positioning in the lane of travel 6.1.1. Increased lateral dynamics 6.1.1.1. Notwithstanding the requirements in paragraph 5.3.7.1.2., for M1 and N1 category vehicles, the feature may be permitted to induce higher lateral acceleration values than 3 m/s ² (e.g., in order to not disturb traffic flow), provided the following conditions are met: (a) The system provides visual information to the driver on the upcoming or ongoing driving situation which may potentially	6. DCAS功能之額外規範 為滿足本規定，申請者應於安全方法檢查期間作為規定12.評估之一部分，並依據規定13.相關試驗向檢測機構展演。 系統應依照規定5.3.5.2於其邊界條件內運作時，並適用其設計且與 <u>安全性概念</u> 相關下滿足規定6.要求。 6.1 對於行駛車道之位置調整的特定規範 6.1.1 已增加之側向動態 6.1.1.1 於不考量規定5.3.7.1.2之要求下，對於M1及N1類車輛而言，若滿足下述條件時，則相關功能可被允許導入高於三公尺／秒平方之側向加速度值（例如：為避免擾亂車流）： (a) 系統於即將到來或正在發生之可能潛在地導入高於三公尺／秒平方側向加速度的行駛情況下，對駕駛	6. DCAS功能之額外規範 為滿足本規定，申請者應於安全方法檢查期間作為規定12.評估之一部分，並依據規定13.相關試驗向檢測機構展演。 系統應依照規定5.3.5.2於其邊界條件內運作時，並適用其設計且與 <u>安全性概念</u> 相關下滿足規定6.要求。 6.1 對於行駛車道之位置調整的特定規範 6.1.1 已增加之側向動態 6.1.1.1 於不考量規定5.3.7.1.2之要求下，對於M1及N1類車輛而言，若滿足下述條件時，則相關功能可被允許導入高於三公尺／秒平方之側向加速度值（例如：為避免擾亂車流）： (a) 系統於即將到來或正在發生之可能潛在地導入高於三公尺／秒平方側向加速度的行駛情況下，對駕駛

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
induce higher lateral acceleration than 3 m/s²; and (b) There is no disengagement warning being given to the driver; and (c) The system operation remains predictable and controllable according to paragraph 5.3.6.; (d) The vehicle is travelling at the system-determined road speed limit or below; and (e) The driver is not determined to be motorically disengaged. When any of the conditions are no longer met, the system shall implement strategies to ensure controllability. 6.1.1.2. The manufacturer shall demonstrate how the provisions of paragraph 6.1.1.1. are implemented in the system design to the Type Approval Authority. 6.1.2. Merging roads and slip roads on highways 6.1.2.1. If the system has the capability to assist in merging roads, the system shall aim to detect situations where the current lane of travel merges into another lane of travel (including slip roads), and shall be designed to ensure safe control in these situations accounting for road users in the neighbouring lane. If the system is designed to handle such a situation by performing a manoeuvre, this shall be in accordance with the provisions of this regulation. 6.1.3. Leaving the lane to form an access	induce higher lateral acceleration than 3 m/s²; and (b) There is no disengagement warning being given to the driver; and (c) The system operation remains predictable and controllable according to paragraph 5.3.6.; and (d) The vehicle is travelling at the system-determined road speed limit or below. When any of the conditions are no longer met, the system shall implement strategies to ensure controllability. 6.1.1.2. The manufacturer shall demonstrate how the provisions of paragraph 6.1.1.1. are implemented in the system design to the Approval Authority. 6.1.2. Merging roads and slip roads on highways 6.1.2.1. The system shall aim to detect situations where the current lane of travel merges into another lane of travel (including slip roads), and shall be designed to ensure safe control in these situations accounting for road users in the neighbouring lane. If the system is designed to handle such a situation by performing a manoeuvre, this shall be in accordance with the provisions of this regulation. 6.1.3. Leaving the lane to form an access	人提供視覺資訊；及 (b) 未有向駕駛人發出未參與警示之情形；及 (c) 系統運作依照規定5.3.6維持可預期且可控制； (d) 車輛正於由系統測定之道路速限或更低之速度行駛中；及 <u>(e) 駕駛人未被測定為動作上未參與。</u> 於任一相關條件不再滿足時，系統應實施策略以確保可控制性。 6.1.1.2 申請者應向<u>檢測機構</u>展演如何將規定6.1.1.1實施於系統設計中。 6.1.2 高<u>／快</u>速公路上之道路匯入及匝道 6.1.2.1 <u>若系統具備輔助匯入車道之能力</u>，系統應以偵測現在行駛車道匯入另一行駛車道(包含匝道)之情形為目標，且應設計以於考量相鄰車道之道路使用者下，於該等情形中確保進行安全控制。若系統設計以藉由執行單一操作處理此等情形，則應符合本基準附件相關規定。 6.1.3 離開車道以對緊急及執法車	人提供視覺資訊；及 (b) 未有向駕駛人發出未參與警示之情形；及 (c) 系統運作依照規定5.3.6維持可預期且可控制；及 (d) 車輛正於由系統測定之道路速限或更低之速度行駛中<u>。</u> 於任一相關條件不再滿足時，系統應實施策略以確保可控制性。 6.1.1.2 申請者應向<u>檢測機構</u>展演如何將規定6.1.1.1實施於系統設計中。 6.1.2 高速公路上之道路匯入及匝道 6.1.2.1 系統應以偵測現在行駛車道匯入另一行駛車道(包含匝道)之情形為目標，且應設計以於考量相鄰車道之道路使用者下，於該等情形中確保進行安全控制。若系統設計以藉由執行單一操作處理此等情形，則應符合本基準附件相關規定。 6.1.3 離開車道以對緊急及執法車輛

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
corridor for emergency and enforcement vehicles.	corridor for emergency and enforcement vehicles.	輛形成可使用之通道	形成可使用之通道
6.1.3.1. If the system is capable of forming an access corridor for emergency and enforcement vehicles, the system shall only leave its current lane of travel to (pre-emptively) form an access corridor where this is required and allowed according to national traffic rules.	6.1.3.1. If the system is capable of forming an access corridor for emergency and enforcement vehicles, the system shall only leave its current lane of travel to (pre-emptively) form an access corridor where this is required and allowed according to national traffic rules.	6.1.3.1 若系統具備為緊急及執法車輛形成可使用之通道的能力，系統應只能依照我國道路交通規則於需要且允許時，離開其現在行駛車道以（搶先地）形成通道。	6.1.3.1 若系統具備為緊急及執法車輛形成可使用之通道的能力，系統應只能依照我國道路交通規則於需要且允許時，離開其現在行駛車道以（搶先地）形成通道。
6.1.3.2. While forming an access corridor, the system shall ensure sufficient lateral and longitudinal distance to road boundaries, vehicles and other road users.	6.1.3.2. While forming an access corridor, the system shall ensure sufficient lateral and longitudinal distance to road boundaries, vehicles and other road users.	6.1.3.2 於形成可使用之通道時，系統應對道路邊界、車輛及其他道路使用者確保足夠之側向或縱向距離。	6.1.3.2 於形成可使用之通道時，系統應對道路邊界、車輛及其他道路使用者確保足夠之側向或縱向距離。
6.1.3.3. The vehicle shall return completely to its original lane of travel once the situation that required this access corridor to be formed has passed.	6.1.3.3. The vehicle shall return completely to its original lane of travel once the situation that required this access corridor to be formed has passed.	6.1.3.3 一旦需要形成此可使用之通道的相關情形結束時，車輛應完全地回到其原始行駛車道。	6.1.3.3 一旦需要形成此可使用之通道的相關情形結束時，車輛應完全地回到其原始行駛車道。
6.1.4. Lane positioning on roads without lane marking	6.1.4. Lane positioning on roads without lane marking	6.1.4 無車道標線下之道路上車道調整	6.1.4 無車道標線下之道路上車道調整
6.1.4.1. If the system is designed to perform lane positioning on roads without lane markings, it shall utilize other sources of information in order to robustly determine and pursue the appropriate trajectory in respect of other road users.	6.1.4.1. If the system is designed to perform lane positioning on roads without lane markings, it shall utilize other sources of information in order to robustly determine and pursue the appropriate trajectory in respect of other road users.	6.1.4.1 若系統設計以執行無車道標線下之道路上車道調整，其應使用其他資訊來源，以穩固地測定並追蹤與其他道路使用者相關之合適軌跡。	6.1.4.1 若系統設計以執行無車道標線下之道路上車道調整，其應使用其他資訊來源，以穩固地測定並追蹤與其他道路使用者相關之合適軌跡。
6.2. Specific Requirements for lane changes	6.2. Specific Requirements for lane changes	6.2 對變換車道之特定要求	6.2 對變換車道之特定要求
6.2.1. A lane change shall only be performed if the system has sufficient information about its surrounding to the front, side and rear in order to assess the criticality of that lane change.	6.2.1. A lane change shall only be performed if the system has sufficient information about its surrounding to the front, side and rear in order to assess the criticality of that lane change.	6.2.1 單一變換車道應只能於系統具備對其前方、側方及後方周遭足夠資訊，以評估此次變換車道之危險性時執行。	6.2.1 單一變換車道應只能於系統具備對其前方、側方及後方周遭足夠資訊，以評估此次變換車道之危險性時執行。
6.2.2. A lane change shall not be performed	6.2.2. A lane change shall not be performed	6.2.2 單一變換車道不應朝向用於	6.2.2 單一變換車道不應朝向用於反

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
towards a lane intended for traffic moving in the opposite direction. 6.2.3. During the lane change manoeuvre, the system shall be designed to avoid a lateral acceleration of more than 1.5 m/s² in addition to the lateral acceleration generated by the lane curvature and avoid a total lateral acceleration in excess of 3.5 m/s². The moving average over half a second of the lateral jerk generated by the system shall not exceed 5 m/s³. 6.2.4. A lane change manoeuvre shall only be started if a vehicle in the target lane is not forced to unmanageably decelerate due to the lane change of the vehicle. 6.2.4.1. When there is an approaching vehicle. The system shall be designed to not make an approaching vehicle decelerate at a higher level than 3.0 m/s² in order to ensure that the distance between the two vehicles is never less than that which the DCAS vehicle travels in 1 second. This assessment shall be performed with the assumptions that the approaching vehicle begins its deceleration: (a) 1.4 seconds after the system starts the lateral movement of the lane change procedure; and (b) Either:	towards a lane intended for traffic moving in the opposite direction. 6.2.3. During the lane change manoeuvre, the system shall be designed to avoid a lateral acceleration of more than 1.5 m/s² in addition to the lateral acceleration generated by the lane curvature and avoid a total lateral acceleration in excess of 3.5 m/s². The moving average over half a second of the lateral jerk generated by the system shall not exceed 5 m/s³. 6.2.4. A lane change manoeuvre shall only be started if a vehicle in the target lane is not forced to unmanageably decelerate due to the lane change of the vehicle. 6.2.4.1. When there is an approaching vehicle. The system shall be designed to not make an approaching vehicle decelerate at a higher level than 3 m/s², A seconds after the system starts the lane change manoeuvre, to ensure the distance between the two vehicles is never less than that which the DCAS vehicle travels in 1 second. With: (a) A equal to:	反向車流移動之車道執行。 6.2.3於變換車道操作期間，系統應設計以避免除由車道彎道所產生側向加速度外，超過一點五公尺／秒平方之側向加速度，並避免總側向加速度超過三點五公尺／秒平方。 由系統產生之側向急動超過半秒的移動平均不應超過五公尺／秒立方。 6.2.4 單一變換車道操作應只能於目標車道內之一車輛未因變換車道之車輛，而被強迫進行無法對應的減速下開始。 6.2.4.1 具有接近中車輛時 系統設計上不應造成接近中車輛以高於三公尺／秒平方之等級減速，以確保於一秒內介於兩車輛間之距離絕不少於DCAS車輛所行駛之距離。 <u>此評估應以接近中車輛於下述狀況展開其減速之假設執行：</u> <u>(a) 於系統開始變換車道程序之側向移動後一點四秒</u> <u>(b) 及：</u>	向車流移動之車道執行。 6.2.3於變換車道操作期間，系統應設計以避免除由車道彎道所產生側向加速度外，超過一點五公尺／秒平方之側向加速度，並避免總側向加速度超過三點五公尺／秒平方。 由系統產生之側向急動超過半秒的移動平均不應超過五公尺／秒立方。 6.2.4 單一變換車道操作應只能於目標車道內之一車輛未因變換車道之車輛，而被強迫進行無法對應的減速下開始。 6.2.4.1 具有接近中車輛時 系統應設計以於系統開始變換車道操作起計A秒後，不造成接近中車輛以高於三公尺／秒平方之等級減速，以確保於一秒內介於兩車輛間之距離絕不少於DCAS車輛所行駛之距離。 其中： (a) A等於：

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(i) 0.4 seconds after the system starts the lane change manoeuvre, provided that the approaching vehicle was detected by the DCAS vehicle for a duration of at least 1.0 seconds immediately before the lane change manoeuvre starts; or (ii) 1.4 seconds after the system starts the lane change manoeuvre. 6.2.4.2. When there is no vehicle detected If no approaching vehicle is detected by the system in the target lane, the assessment shall be calculated as per paragraph 6.2.4.1. with the assumption that: (a) The approaching vehicle in the target lane is at a distance from the DCAS vehicle equal to the actual rearward detection range; (b) The approaching vehicle in the target lane is travelling with the allowed maximum speed or 130 km/h, whichever is lower; and (c) The full width of the approaching vehicle is detected by the system during its lateral movement for at least 1 second. When the target lane has just commenced, this requirement is deemed fulfilled if there is no vehicle detected along the length of the target lane to the rear. 6.2.4.3. In case the system intends to decelerate the vehicle during a lane change procedure, this deceleration shall be factored in when assessing the distance to a vehicle approaching from the rear, and the deceleration shall not exceed 2 m/s² except	(i) 0.4 seconds after the start of the lane change manoeuvre, provided that the full width of the approaching vehicle was detected by the DCAS vehicle during its lateral movement for at least 1.0 second before the lane change manoeuvre starts; or (ii) 1.4 seconds after the start of the lane change manoeuvre. 6.2.4.2. When there is no vehicle detected If no approaching vehicle is detected by the system in the target lane, the assessment shall be calculated as per paragraph 6.2.4.1. with the assumption that: (a) The approaching vehicle in the target lane is at a distance from the DCAS vehicle equal to the actual rearward detection range; (b) The approaching vehicle in the target lane is travelling with the allowed maximum speed or 130 km/h, whichever is lower; and (c) The full width of the approaching vehicle is detected by the system during its lateral movement for at least 1 second. When the target lane has just commenced, this requirement is deemed fulfilled if there is no vehicle detected along the length of the target lane to the rear. 6.2.4.3. In case the system intends to decelerate the vehicle during a lane change procedure, this deceleration shall be factored in when assessing the distance to a vehicle approaching from the rear, and the deceleration shall not exceed 2 m/s² except	(i) 若接近中車輛<u>於變換車道操作開始前</u>，已受到DCAS車輛偵測<u>至少一點零秒之持續時間</u>，則為<u>系統展開</u>變換車道操作起計零點四秒後；或 (ii) 於<u>系統展開</u>變換車道操作起計一點四秒後。 6.2.4.2 未偵測到車輛時 若系統偵測到目標車道內未有接近中車輛時，則應依規定6.2.4.1計算相關評估，並假設如下： (a) 目標車道內之接近中車輛處於自DCAS車輛起計等同於實際後向偵測範圍之距離； (b) 目標車道內之接近中車輛正以已允許之最高速限或一百三十公里／小時（以較低者為準）行駛；且 (c) 由系統於其至少一秒鐘之側向移動期間，偵測到接近中車輛之全寬。 於目標車道方才開始，若延著目標車道長度至後方未偵測到車輛，則視為滿足此要求。 6.2.4.3 為防系統於變換車道程序期間預期將車輛減速，除為避免或減輕立即性碰撞風險外，此等減速度應於評估對一輛自後方接近之車輛的距離時進行分解，且減速度不應超過二公尺／秒平方。	(i) 若接近中車輛之全寬已受到DCAS車輛偵測，<u>於變換車道操作開始前起計至少一點零秒之側向移動期間</u>，則為變換車道操作<u>開始</u>起計零點四秒後；或 (ii) 於變換車道操作<u>開始</u>起計一點四秒後。 6.2.4.2 未偵測到車輛時 若系統偵測到目標車道內未有接近中車輛時，則應依規定6.2.4.1計算相關評估，並假設如下： (a) 目標車道內之接近中車輛處於自DCAS車輛起計等同於實際後向偵測範圍之距離； (b) 目標車道內之接近中車輛正以已允許之最高速限或一百三十公里／小時（以較低者為準）行駛；且 (c) 由系統於其至少一秒鐘之側向移動期間，偵測到接近中車輛之全寬。 於目標車道方才開始，若延著目標車道長度至後方未偵測到車輛，則視為滿足此要求。 6.2.4.3 為防系統於變換車道程序期間預期將車輛減速，除為避免或減輕立即性碰撞風險外，此等減速度應於評估對一輛自後方接近之車輛的距離時進行分解，且減速度不應超過二公尺／秒平方。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
for the purpose of avoiding or mitigating the risk of an imminent collision. 6.2.4.4. Where there is not sufficient headway time for the vehicle behind at the end of the lane change procedure, the system shall not increase the rate of deceleration for a least 2 seconds after the completion of the lane change procedure except in case this is necessary for nominal operation of the system (e.g., when responding to road infrastructure or other road users), or avoiding or mitigating the risk of an imminent collision. 6.2.5. The manufacturer shall demonstrate how the provisions of paragraph 6.2.4. are implemented in the system design to the Type Approval Authority. 6.2.6. The system shall generate a signal to activate the direction indicator unless already activated by the driver . The direction indicator signal shall remain active throughout the whole period of the lane change procedure and shall be deactivated by the system in a timely manner once the positioning in the lane of travel feature is resumed, unless the direction indicator control remains fully engaged (latched position). 6.2.7. A lane change procedure shall be indicated to other road users for at least 3 seconds prior to the start of the lane change manoeuvre. A shorter indication time is	for the purpose of avoiding or mitigating the risk of an imminent collision. 6.2.4.4. Where there is not sufficient headway time for the vehicle behind at the end of the lane change procedure, the system shall not increase the rate of deceleration for a least 2 seconds after the completion of the lane change procedure except in case this is necessary for nominal operation of the system (e.g., when responding to road infrastructure or other road users), or avoiding or mitigating the risk of an imminent collision. 6.2.5. The manufacturer shall demonstrate how the provisions of paragraph 6.2.4. are implemented in the system design to the Type Approval Authority. 6.2.6. The system shall generate a signal to activate and deactivate the direction indicator. The direction indicator signal shall remain active throughout the whole period of the lane change procedure and shall be deactivated by the system in a timely manner once the positioning in the lane of travel feature is resumed, unless the direction indicator control remains fully engaged (latched position). 6.2.7. A lane change procedure shall be indicated to other road users for at least 3 seconds prior to the start of the lane change manoeuvre. A shorter indication time is	6.2.4.4 於變換車道程序之結束時，對後方車輛之前置距離不足時，除為系統之正常運作的必要行為（例如：於對道路基礎設施或其他道路使用者回應等），或避免／減輕立即性碰撞風險外，系統於變換車道程序之完成後起計至少兩秒鐘，不應增加減速率。 6.2.5 申請者應向 <u>檢測機構</u> 展演如何將規定6.2.4實施於系統設計中。 6.2.6 <u>除方向燈已由駕駛人啟動外</u> ，系統應產生訊號以啟動方向燈。方向燈訊號應於整個變換車道程序期間維持啟動，並除方向燈控制維持完全切換時（鎖定狀態），應由系統以及時之方式，於行駛車道之位置調整功能恢復之當下進行解除。 6.2.7 變換車道程序應於變換車道操作開始前起計，向其他道路使用者指示至少三秒鐘。於不違反我國道路交通規則，且對其他道路使用者	6.2.4.4 於變換車道程序之結束時，對後方車輛之前置距離不足時，除為系統之正常運作的必要行為（例如：於對道路基礎設施或其他道路使用者回應等），或避免／減輕立即性碰撞風險外，系統於變換車道程序之完成後起計至少兩秒鐘，不應增加減速率。 6.2.5 申請者應向 <u>檢測機構</u> 展演如何將規定6.2.4實施於系統設計中。 6.2.6 系統應產生訊號以啟動 <u>及解除</u> 方向燈。方向燈訊號應於整個變換車道程序期間維持啟動，並除方向燈控制維持完全切換時（鎖定狀態），應由系統以及時之方式，於行駛車道之位置調整功能恢復之當下進行解除。 6.2.7 變換車道程序應於變換車道操作開始前起計，向其他道路使用者指示至少三秒鐘。於不違反我國道路交通規則，且對其他道路使用者

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
permitted where this is not in violation of national traffic rules in the country of operation, and sufficient notice of the manoeuvre is nevertheless given to other road users.	permitted where this is not in violation of national traffic rules in the country of operation, and sufficient notice of the manoeuvre is nevertheless given to other road users.	者仍提供足夠之操作通知下，允許提供較短之指示時間。	仍提供足夠之操作通知下，允許提供較短之指示時間。
6.2.8. When the lane change procedure is suppressed by the system, it shall clearly inform the driver by means of an optical signal in combination with either an acoustic or haptic signal.	6.2.8. When the lane change procedure is suppressed by the system, it shall clearly inform the driver by means of an optical signal in combination with either an acoustic or haptic signal.	6.2.8 於變換車道程序受到系統暫停時，其應藉由光學訊號與聲音或觸覺訊號其一進行組合之方法，明確地通知駕駛人。	6.2.8 於變換車道程序受到系統暫停時，其應藉由光學訊號與聲音或觸覺訊號其一進行組合之方法，明確地通知駕駛人。
6.2.9. Additional requirements for lane changes	6.2.9. Additional requirements for lane changes	6.2.9 變換車道之額外要求	6.2.9 變換車道之額外要求
6.2.9.1. Additional requirements for driver-confirmed lane changes	6.2.9.1. Additional requirements for driver-confirmed lane changes	6.2.9.1 由駕駛人確認之變換車道的額外要求	6.2.9.1 由駕駛人確認之變換車道的額外要求
6.2.9.1.1. The system shall aim not to make an approaching vehicle in the target lane unreasonably decelerate, particularly in the case where the lane change is not urgent (e.g., for the purpose of overtaking a slower moving vehicle). However, where making another vehicle in the target lane decelerate is necessary due to the traffic situation (e.g., current lane of travel is ending, where there is dense traffic in the target lane), the requirements of paragraph 6.2.4.1. shall apply.	6.2.9.1.1. In addition to the requirements of paragraph 6.2.4.1., the system shall aim not to make an approaching vehicle in the target lane decelerate unless necessary due to the traffic situation.	6.2.9.1.1 系統應以不造成目標車道內接近中車輛 <u>進行無理地減速為目標，特別是處於不急於變換車道之狀況下(例如：對於目的係超越較慢之移動車輛)</u> 。惟於造成另一部位於目標車道內之車輛，因交通情形影響而需要減速之狀況下(例如：目前行駛車道即將結束，而目標車道交通擁擠)，即應符合規定6.2.4.1之要求。	6.2.9.1.1 <u>除規定6.2.4.1之要求外，系統除交通情形影響進而必要外</u> ，應以不造成目標車道內接近中車輛減速為目標。
A lane change procedure shall only be proposed if sufficient free space in the target lane is already available or can reasonably be expected to become available allowing a LCM to be executed according to the provisions of paragraph 6.2.4.		<u>變換車道程序僅應於目標車道內之足夠空間已可使用，或可被合理地預期轉變為可使用，以允許LCM依照規定6.2.4之狀況下執行。</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
6.2.9.1.2. Notwithstanding the requirements in paragraph 6.2.4.2. (b), the approaching vehicle in the target lane is assumed to be travelling with the allowed maximum speed + 10% or 130 km/h, whichever is lower.	6.2.9.1.2. Notwithstanding the requirements in paragraph 6.2.4.2. (b), the approaching vehicle in the target lane is assumed to be travelling with the allowed maximum speed + 10% or 130 km/h, whichever is lower.	6.2.9.1.2 於不考量前述規定6.2.4.2(b)下，目標車輛之接近中車輛被假設以允許最高車速加上百分之十或一百三十公里／小時行駛，以較低者為準。	6.2.9.1.2 於不考量前述規定6.2.4.2(b)下，目標車輛之接近中車輛被假設以允許最高車速加上百分之十或一百三十公里／小時行駛，以較低者為準。
6.2.9.2. Additional requirements for system-initiated lane changes	6.2.9.2. Additional requirements for system-initiated lane changes	6.2.9.2 由系統起始之變換車道的額外規定	6.2.9.2 由系統起始之變換車道的額外規定
6.2.9.2.1. The requirements outlined in paragraph 6.2.9.1. shall equally apply.	6.2.9.2.1. (Reserved)	6.2.9.2.1 <u>規定6.2.9.1所述要求亦應符合。</u>	6.2.9.2.1 <u>(保留)</u>
6.2.9.2.2. The system shall aim to detect restricted lanes of travel which restrict access to specific vehicle road users (e.g., bus, bike or taxi lanes) and shall aim to refrain from initiating lane changes to such lanes.		6.2.9.2.2 <u>系統應朝向以偵測限制特定道路使用者使用之受限行駛車道(例如：公車、自行車或計程車專用道等)，並應限制對相關車道起始變換車道為目標。</u>	
6.2.9.3. Assisting lane changes on roads where there is no physical separation of traffic moving in opposite directions	6.2.9.3. Assisting lane changes on roads where there is no physical separation of traffic moving in opposite directions	6.2.9.3 於無反向車流移動之實體分隔的道路上協助變換車道	6.2.9.3 於無反向車流移動之實體分隔的道路上協助變換車道
If the system is designed to assist lane changes on roads where there is no physical separation of traffic moving in the opposite direction, the system shall implement strategies to ensure that the lane change procedure is only performed into or via a lane where the target lane is not designated for oncoming traffic.	If the system is designed to assist lane changes on roads where there is no physical separation of traffic moving in the opposite direction, the system shall implement strategies to ensure that the lane change procedure is only performed into or via a lane where the target lane is not designated for oncoming traffic.	若系統設計以協助於無反向車流移動之實體分隔的道路上協助變換車道，系統應實施策略以確保變換車道程序僅能朝向或藉由一個非指定由迎面而來車流所用之目標車道執行。	若系統設計以協助於無反向車流移動之實體分隔的道路上協助變換車道，系統應實施策略以確保變換車道程序僅能朝向或藉由一個非指定由迎面而來車流所用之目標車道執行。
These strategies shall be demonstrated to and assessed by the Technical Service according to the corresponding tests in Annex 4 during Type Approval.	These strategies shall be demonstrated to and assessed by the Technical Service according to the corresponding tests in Annex 4 during Type Approval.	此等策略應於型式認證期間，依照規定13.中對應測試向檢測機構展演並由其評估。	此等策略應於型式認證期間，依照規定13.中對應測試向檢測機構展演並由其評估。
6.2.9.4. Assisting lane changes on roads where pedestrians and/or bicycles are not	6.2.9.4. Assisting lane changes on roads where pedestrians and/or bicycles are not	6.2.9.4 於未禁止行人及／或自行車使用之道路上協助變換車道	6.2.9.4 於未禁止行人及／或自行車使用之道路上協助變換車道

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
prohibited The system shall only be permitted to perform a lane change on roads with pedestrians and cyclists if the system is able to avoid causing risk of a collision with any vulnerable road user (such as pedestrians and cyclists).	prohibited The system shall only be permitted to perform a lane change on roads with pedestrians and cyclists if the system is able to avoid causing risk of a collision with any vulnerable road user (such as pedestrians and cyclists).	系統應只能於系統具備避免造成與任意弱勢道路使用者（如行人及自行車騎士）之碰撞風險的能力時，允許於具有行人及自行車騎士之車道上變換車道。	系統應只能於系統具備避免造成與任意弱勢道路使用者（如行人及自行車騎士）之碰撞風險的能力時，允許於具有行人及自行車騎士之車道上變換車道。
6.2.9.5. Assisting lane changes in situations where the lane change manoeuvre cannot be started within 7 seconds of the initiation of the lane change procedure The time between initiation of the lane change procedure and start of the lane change manoeuvre is only permitted to be extended beyond 7 seconds where this is not in violation of national traffic rules.	6.2.9.5. Assisting lane changes in situations where the lane change manoeuvre cannot be started within 7 seconds of the initiation of the lane change procedure The time between initiation of the lane change procedure and start of the lane change manoeuvre is only permitted to be extended beyond 7 seconds where this is not in violation of national traffic rules.	6.2.9.5 於變換車道程序起始開始後起計七秒內無法開始變換車道操作之情形下協助變換車道 介於變換車道程序起始及變換車道操作開始之時間僅於不違反我國交通規則下，允許延伸超過七秒。	6.2.9.5 於變換車道程序起始開始後起計七秒內無法開始變換車道操作之情形下協助變換車道 介於變換車道程序起始及變換車道操作開始之時間僅於不違反我國交通規則下，允許延伸超過七秒。
6.3. Specific requirements for other manoeuvres other than a lane change 6.3.1. The provisions of this paragraph apply for manoeuvres which lead the vehicle to: (a) Select a lane where this manoeuvre is neither following the current lane of travel, nor a lane change; or (b) Navigate a roundabout by entering, navigating and exiting the roundabout; or (c) Navigate around an obstruction in the lane of travel; or (d) Provide sufficient lateral distance to safely pass an object adjacent to the lane of travel (e.g., a cyclist in a cycle lane); or (e) Take a turn (e.g. taking a turn at an intersection); or (f) Depart or arrive at a parked position.	6.3. Specific requirements for other manoeuvres other than a lane change 6.3.1. The provisions of this paragraph apply for manoeuvres which lead the vehicle to: (a) select a lane where this manoeuvre is neither following the current lane of travel, nor a lane change; or (b) navigate a roundabout by entering, navigating and exiting the roundabout; or (c) navigate around an obstruction in the lane of travel; or (d) take a turn (e.g. taking a turn at an intersection); or (e) depart or arrive at a parked position.	6.3 對於不同於變換車道之其他操作的特定要求 6.3.1 本節規定適用於操作將引領車輛至： (a) 選擇一個非為跟隨現在行駛車道，亦非變換車道之操作的車道；或 (b) 藉由進入、導航及離開圓環對圓環進行導航；或 (c) 導航以繞過行駛車道中之障礙；或 (d) <u>提供足夠側向距離以安全通過相鄰於行駛車道之物件（例如：一個位於自行車道之自行車騎士）；或</u> (e) 執行轉向（例如：於十字路口轉彎）；或 (f) 離開或抵達一停駐地點。	6.3 對於不同於變換車道之其他操作的特定要求 6.3.1 本節規定適用於操作將引領車輛至： (a) 選擇一個非為跟隨現在行駛車道，亦非變換車道之操作的車道；或 (b) 藉由進入、導航及離開圓環對圓環進行導航；或 (c) 導航以繞過行駛車道中之障礙；或 (d) 執行轉向（例如：於十字路口轉彎）；或 (e) 離開或抵達一停駐地點。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
6.3.2. The system shall be designed to respond to vehicles, road users, infrastructure or a blocked path ahead which are already within or may enter the planned trajectory or the corresponding driving environment in order to ensure safe operation.	6.3.2. The system shall be designed to respond to vehicles, road users, infrastructure or a blocked path ahead which are already within or may enter the planned trajectory or the corresponding driving environment in order to ensure safe operation.	6.3.2 系統應設計以對前方已經位於或可能進入預期軌跡對應行駛環境中之車輛、道路使用者、基礎建設或一受阻道路進行回應，以確保安全運作。	6.3.2 系統應設計以對前方已經位於或可能進入預期軌跡對應行駛環境中之車輛、道路使用者、基礎建設或一受阻道路進行回應，以確保安全運作。
6.3.3. The system shall be designed to respond to traffic lights, stop signs, right-of-way infrastructure (such as zebra crossings or bus stops) and restricted lanes appropriate to the system's given lane of travel, or the lane of travel the system would find itself in as a result of the manoeuvre where this is deemed relevant for the given manoeuvre and operating domain (e.g., highway or non-highway).	6.3.3. The system shall be designed to respond to traffic lights, stop signs, right-of-way infrastructure (such as zebra crossings or bus stops) and restricted lanes appropriate to the system's given lane of travel, or the lane of travel the system would find itself in as a result of the manoeuvre where this is deemed relevant for the given manoeuvre and operating domain (e.g., highway or non-highway).	6.3.3 系統應設計以對交通號誌、停止符號、路權相關基礎建設(例如斑馬線或公車站)，以及適用系統之指定行駛車道的受限車道，或視為與指定操作及運作區域(例如： <u>高／快速公路</u> 或非 <u>高／快速公路</u>)相關之情形下，系統作為操作結果將察覺自身已於其中之行駛車道進行反應。	6.3.3 系統應設計以對交通號誌、停止符號、路權相關基礎建設(例如斑馬線或公車站)，以及適用系統之指定行駛車道的受限車道，或視為與指定操作及運作區域(例如：高速公路或非高速公路)相關之情形下，系統作為操作結果將察覺自身已於其中之行駛車道進行反應。
6.3.4. The system shall be designed to safely and cautiously navigate hillcrests where this is deemed relevant for the controllability the given manoeuvre.	6.3.4. The system shall be designed to safely and cautiously navigate hillcrests where this is deemed relevant for the controllability the given manoeuvre.	6.3.4 系統應設計以於視為與指定操作之可控制性相關下，安全地且小心地於山巒導航。	6.3.4 系統應設計以於視為與指定操作之可控制性相關下，安全地且小心地於山巒導航。
6.3.5. If the manoeuvre would potentially lead the system to cross paths with vulnerable road users crossing the lane of travel (e.g., bike path, crosswalk), the system shall be designed to respond appropriately to the road users and infrastructure.	6.3.5. If the manoeuvre would potentially lead the system to cross paths with vulnerable road users crossing the lane of travel (e.g., bike path, crosswalk), the system shall be designed to respond appropriately to the road users and infrastructure.	6.3.5 若操作將潛在地引導系統穿越弱勢道路使用者用以穿越行駛車道之路徑(例如：自行車路徑、行人穿越道)，則系統應設計以合適地對道路使用者及基礎建設進行反應。	6.3.5 若操作將潛在地引導系統穿越弱勢道路使用者用以穿越行駛車道之路徑(例如：自行車路徑、行人穿越道)，則系統應設計以合適地對道路使用者及基礎建設進行反應。
6.3.6. If the manoeuvre would lead the system to cross paths with crossing traffic (e.g., when taking a turn) or lead the system to merge with traffic approaching from a different direction, the system shall be designed to appropriately respond to these	6.3.6. If the manoeuvre would lead the system to cross paths with crossing traffic (e.g., when taking a turn) or lead the system to merge with traffic approaching from a different direction, the system shall be designed to appropriately respond to these	6.3.6 若操作將引導系統穿越正在穿越中之車流的路徑(例如：正在轉彎當中)，或引導系統與從不同方向接近中之車流合併，則系統應設計以合適地對此等道路使用者進行反應(例如：藉由讓道)。	6.3.6 若操作將引導系統穿越正在穿越中之車流的路徑(例如：正在轉彎當中)，或引導系統與從不同方向接近中之車流合併，則系統應設計以合適地對此等道路使用者進行反應(例如：藉由讓道)。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
road users (e.g., by giving way). 6.3.7. Where relevant to the manoeuvre, the system shall be designed to detect restricted lanes of travel (e.g., bus, bike or taxi lanes) and shall aim to refrain from navigating on such lanes. In the event the system detects that it has entered into a restricted lane of travel, it shall propose or perform a lane change procedure to an appropriate lane of travel as appropriate to the system design, or request the driver to resume manual control. 6.3.8. The system shall aim to respect appropriate right-of-way rules. 6.3.9. Additional Requirements for navigating around an obstruction in the lane of travel 6.3.9.1. Navigating around an obstruction can be performed under the following circumstances: (a) Driving around a stationary obstacle (e.g., parked vehicle, debris, etc.) in the lane; (b) Passing a very slow-moving vehicle or road user with sufficient lateral distance; (c) The manoeuvre is instructed by legitimate external sources (e.g., static and dynamic road signs, road works, emergency or enforcement instruction, etc.), if applicable to the system's design. Other reasons to cross into another lane may be accepted if the manufacturer presents sufficient information to the Type Approval	road users (e.g., by giving way). 6.3.7. Where relevant to the manoeuvre, the system shall be designed to detect restricted lanes of travel (e.g., bus, bike or taxi lanes) and shall aim to refrain from navigating on such lanes. In the event the system detects that it has entered into a restricted lane of travel, it shall propose or perform a lane change procedure to an appropriate lane of travel as appropriate to the system design, or request the driver to resume manual control. 6.3.8. The system shall aim to respect appropriate right-of-way rules. 6.3.9. Additional Requirements for navigating around an obstruction in the lane of travel 6.3.9.1. Navigating around an obstruction in the lane of travel can be performed under the following circumstances: (a) Driving around a stationary obstacle (e.g., parked vehicle, debris, etc.) in the lane; (b) Passing a very slow moving vehicle or road user in or near to the lane (such as a cyclist in a cycle lane) with sufficient lateral distance; (c) The manoeuvre is instructed by legitimate external sources (e.g., static and dynamic road signs, road works, emergency or enforcement instruction, etc.), if applicable to the system's design. Other reasons to cross into another lane may be accepted if the manufacturer presents sufficient information to the Type Approval	6.3.7 於與操作相關時，系統應設計以偵測受限之行駛車道（例如：公車、自行車或計程車道），並應以避免導航至該等車道為目標。於系統偵測到其已進入受限之行駛車道時，應提出或執行變換車道程序至一適用於系統設計之合適行駛車道，或要求駕駛人恢復手動控制。 6.3.8 系統應以遵守合適之路權規則為目標。 6.3.9 對導航以繞過行駛車道中之障礙的額外要求 6.3.9.1 導航以繞過障礙可於下述情形下執行： (a) 行駛繞過一個位於車道內之靜態障礙（例如：已停駐車輛、殘骸等）； (b) 以足夠之側向距離，通過極度緩慢速度移動之車輛或道路使用者； (c) 若適用於系統之設計下，相關操作係由合法外部來源所指示時（例如：靜態及動態道路標誌、道路施工、緊急或執法指示等）。 其餘穿越進入至另一車道之理由可於申請者對 <u>檢測機構</u> 呈現足夠資訊，並決議其屬合適且系統將能安全地	6.3.7 於與操作相關時，系統應設計以偵測受限之行駛車道（例如：公車、自行車或計程車道），並應以避免導航至該等車道為目標。於系統偵測到其已進入受限之行駛車道時，應提出或執行變換車道程序至一適用於系統設計之合適行駛車道，或要求駕駛人恢復手動控制。 6.3.8 系統應以遵守合適之路權規則為目標。 6.3.9 對導航以繞過行駛車道中之障礙的額外要求 6.3.9.1 導航以繞過 <u>行駛車道中之</u> 障礙可於下述情形下執行： (a) 行駛繞過一個位於車道內之靜態障礙（例如：已停駐車輛、殘骸等）； (b) 以足夠之側向距離，通過 <u>位於車道內或靠近車道（例如自行車道之騎士）且以極度緩慢速度移動之車輛</u> 或道路使用者； (c) 若適用於系統之設計下，相關操作係由合法外部來源所指示時（例如：靜態及動態道路標誌、道路施工、緊急或執法指示等）。 其餘穿越進入至另一車道之理由可於申請者對 <u>檢測機構</u> 呈現足夠資訊，並決議其屬合適且系統將能安全地

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
Authority and it is determined that it is appropriate and the system would be able to safely operate. 6.3.9.2. Navigating around an obstruction shall only be permitted if the system is able to determine the position and movement of other road users to the front, side and rear where relevant to the specific manoeuvre, and that there is adequate distance to them to perform the manoeuvre. 6.3.9.3. If the manoeuvre would cause the vehicle to cross partially or fully into another lane, the system shall only do so if it is able to confirm that sufficient space and time is available. Such that there are no oncoming road users which would impede the system from completing the manoeuvre by reverting to the appropriate lane of travel. It shall not cross into another lane, where the direction of travel is in the opposite direction, to pass general traffic moving at an appropriate speed. The system shall appropriately indicate the manoeuvre to other road users throughout the manoeuvre. 6.3.9.4. The system shall not suggest a manoeuvre to the driver or perform a system-initiated manoeuvre, which intends to cross a solid lane marking that is not permitted to be crossed, unless permitted by the situation as described in paragraph	Authority and it is determined that it is appropriate and the system would be able to safely operate. 6.3.9.2. Navigating around an object obstructing the lane of travel shall only be permitted if the system is able to determine the position and movement of other road users to the front, side and rear where relevant to the specific manoeuvre, and that there is adequate distance to them to perform the manoeuvre. 6.3.9.3. If the manoeuvre would cause the vehicle to cross partially or fully into another lane, the system shall only do so if it is able to confirm that sufficient space and time is available. Such that there are no oncoming road users which would impede the system from completing the manoeuvre by reverting to the appropriate lane of travel. It shall not cross into another lane, where the direction of travel is in the opposite direction, to pass general traffic moving at an appropriate speed. 6.3.9.4. The system shall not suggest a manoeuvre to the driver, which intends to cross a solid lane marking that is not permitted to be crossed, unless permitted by the situation as described in 6.3.9.1. (c).	運作下被接受。 6.3.9.2 導航以繞過<u>障礙僅</u>應於系統能夠測定前方、側方及後方之特定操作相關其他道路使用者的位置及移動時，且對前述道路使用者尚有適當距離以執行操作被允許。 6.3.9.3 若相關操作將造成車輛部分地或完全地跨越進入另一車道，則系統應只能於可以確認尚有足夠空間及時間下執行操作。如此將不會有迎面而來的道路使用者，阻止系統藉由恢復到合適之行駛車道完成操作。其不應跨越進入另一行駛方式方向相反之車道，以通過於合適速度移動之一般車流。 <u>系統應於整個操作期間向其他道路使用者適當地指出操作。</u> 6.3.9.4 除於規定6.3.9.1(c)所述情形而被允許下，系統不應對駕駛人建議意圖穿越不允許被穿越之實體車道標線的操作，<u>或執行意圖穿越不允許被穿越之實體車道標線的系統起始操作。</u>	運作下被接受。 6.3.9.2 導航以繞過<u>阻礙行駛車道之物件應只能</u>於系統能夠測定前方、側方及後方之特定操作相關其他道路使用者的位置及移動時，且對前述道路使用者尚有適當距離以執行操作被允許。 6.3.9.3 若相關操作將造成車輛部分地或完全地跨越進入另一車道，則系統應只能於可以確認尚有足夠空間及時間下執行操作。如此將不會有迎面而來的道路使用者，阻止系統藉由恢復到合適之行駛車道完成操作。其不應跨越進入另一行駛方式方向相反之車道，以通過於合適速度移動之一般車流。 6.3.9.4 除於規定6.3.9.1(c)所述情形而被允許下，系統不應對駕駛人建議意圖穿越不允許被穿越之實體車道標線的操作。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
6.3.9.1. (c).			
7. Monitoring of DCAS operation 7.1. Monitoring of DCAS Operation 7.1.1. The manufacturer shall maintain processes to monitor safety-critical occurrences caused by the operation of the system. 7.1.2. The manufacturer shall set up a monitoring program aimed at collecting and analysing data in order to provide, to the extent feasible, evidence of the in-service safety performance of the DCAS and confirmatory evidence of the audit results of the Safety Management System requirements established in Annex 3 to this Regulation. 7.2. Reporting of DCAS operation 7.2.1. Initial notification of Safety-Critical Occurrences 7.2.1.1. The manufacturer shall notify the Type Approval Authority without unreasonable delay about any safety-critical occurrence the manufacturer becomes aware of through a monitoring program , where the system or its features were in 'on' mode, or had been switched to 'on' mode within the last 5 seconds before the safety-critical occurrence. 7.2.1.1.1. For systems capable of system-initiated manoeuvres, the applicable notification requirement shall apply to any instance where the feature was active within	7. Monitoring of DCAS operation 7.1. Monitoring of DCAS Operation 7.1.1. The manufacturer shall maintain processes to monitor safety-critical occurrences caused by the operation of the system. 7.1.2. To fulfil this provision, the manufacturer shall set up a monitoring program aimed at collecting and analysing data in order to provide, to the extent feasible, evidence of the in-service safety performance of the DCAS and confirmatory evidence of the audit results of the Safety Management System requirements established in Annex 3 to this Regulation. 7.2. Reporting of DCAS operation 7.2.1. Initial notification of Safety-Critical Occurrences 7.2.1.1. The manufacturer shall notify the Type Approval Authority as soon as practical about any safety-critical occurrence the manufacturer becomes aware of, where the system or its features were switched to 'on' mode, or had been switched to 'on' mode within the last 5 seconds before the safety-critical occurrence.	7. DCAS運作之監控 7.1 DCAS運作之監控 7.1.1 申請者應維持程序以監控因系統運作所造成之危害安全的相關事件。 7.1.2 申請者應設置一個以收集及分析資料為目的之監控程式，以於可行範圍內提供於本基準附件規定12.所建立DCAS之運作中安全性能的證據，及安全管理系統要求之審核結果的確認性證據。 7.2 DCAS運作之回報 7.2.1 安全危害事件之初始通知 7.2.1.1 申請者應於系統或其功能於安全危害事件前五秒內， <u>處於</u> 或已切換至開啟模式下， <u>透過監控程式</u> 注意到任何安全危害事件發生時， <u>於未有無理延遲狀況下</u> 通知審驗機構。 <u>7.2.1.1.1 對於具備系統起始操作能力之系統，於任何功能於安全危害事件發生前七秒內被啟動相關情況下皆應符合適用之通知要求。</u>	7. DCAS運作之監控 7.1 DCAS運作之監控 7.1.1 申請者應維持程序以監控因系統運作所造成之危害安全的相關事件。 7.1.2 <u>為滿足本項規定</u> ，申請者應設置一個以收集及分析資料為目的之監控程式，以於可行範圍內提供於本基準附件規定12.所建立DCAS之運作中安全性能的證據，及安全管理系統要求之審核結果的確認性證據。 7.2 DCAS運作之回報 7.2.1 安全危害事件之初始通知 7.2.1.1 申請者應於系統或其功能於安全危害事件前五秒內， <u>被切換至開啟模式</u> ，或已切換至開啟模式下，於注意到任何安全危害事件 <u>相關實務</u> 發生 <u>後盡速</u> 通知審驗機構。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
the last 7 seconds before the safety-critical occurrence. 7.2.1.2. The initial notification may be limited to high-level data but shall contain information about the features in 'on' mode, or which had been switched to 'on' mode with the last 5 seconds before the safety-critical occurrence (e.g., location, time, type of accident) to the extent that such information is available at the time of notification. 7.2.2. Short-term Reporting of Safety-Critical Occurrences 7.2.2.1. Following the initial notification as per paragraph 7.2.1., the manufacturer shall investigate whether the incident was related to DCAS operation and inform the Type Approval Authority of the results of this investigation as soon as possible. If the operation of the system was likely one of the causes of the incident, in addition, the manufacturer shall inform the Type Approval Authority of intended remedial action(s) addressing DCAS design, if applicable. 7.2.2.2. If remedial action addressing DCAS design is to be taken by the manufacturer, the Type Approval Authority shall upload this information received from the manufacturer in the English language to the secure internet database "DETA" , established by the United Nations Economic	7.2.1.2. The initial notification may be limited to high-level data (e.g., location, time, type of accident). 7.2.2. Short-term Reporting of Safety-Critical Occurrences 7.2.2.1. Following the initial notification, the manufacturer shall investigate whether the incident was related to DCAS operation and inform the Type Approval Authority of the results of this investigation as soon as possible. If the operation of the system was likely one of the causes of the incident, in addition, the manufacturer shall inform the Type Approval Authority of intended remedial action(s) addressing DCAS design, if applicable. 7.2.2.2. If remedial action is required, the Type Approval Authority shall communicate this information to all Type Approval Authorities.	7.2.1.2 初始通知可被限制於高等級資料，<u>惟應包含功能於安全危害事件發生前五秒內處於或已被切換至開啟模式相關資訊</u>（例如：位置、時間、事故類型），<u>以至於通知當下相關資訊為可使用狀態。</u> 7.2.2 安全危害事件之短期回報 7.2.2.1 接續於<u>規定7.2.1所述之</u>初始通知後，申請者應盡速調查事故是否與DCAS運作相關，並向審驗機構通知調查結果。若系統之運作疑似為事故肇因之其一，申請者另應依照實際情況，就處理DCAS設計之預期補救措施通知審驗機構。 7.2.2.2 若<u>申請者將採取處理DCAS設計之補救措施時</u>，審驗機構應於<u>於未有不當延遲下</u>對所有<u>相關檢測</u>機構交流此等資訊。<u>相關資訊應足以理解事故、肇因及補救動作。</u>	7.2.1.2 初始通知可被限制於高等級資料（例如：位置、時間、事故類型） 7.2.2 安全危害事件之短期回報 7.2.2.1 接續於初始通知後，申請者應盡速調查事故是否與DCAS運作相關，並向審驗機構通知調查結果。若系統之運作疑似為事故肇因之其一，申請者另應依照實際情況，就處理DCAS設計之預期補救措施通知審驗機構。 7.2.2.2 若<u>需要</u>補救措施時，審驗機構應對所有<u>型式認證</u>機構交流此等資訊。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
Commission for Europe, without undue delay to communicate this information to all Type Approval Authorities. The information shall be sufficient to understand the incident, the cause for and the remedial action. 7.2.2.3. If the Type Approval Authority is informed of a safety critical occurrence with a vehicle equipped with DCAS through sources other than a vehicle manufacturer, such as by other Type Approval Authorities, that Type Approval Authority may request the manufacturer to provide available information of the incident in a comprehensive and accessible way as stipulated in 7.2.1. and 7.2.2. 7.2.3. Periodic Reporting 7.2.3.1. The manufacturer shall report at least once a year to the Type Approval Authority on the information deemed to be proper evidence of the intended operation collected through the monitoring program and safety of the system in the field until the production is definitively discontinued according to paragraph 14. The manufacturer shall report at least the information listed in the table below, which can be shared in confidence with other Type Approval Authorities on request. The manufacturer shall be notified in this case. Additional information is subject to agreement between the Type Approval Authority and the manufacturer. In the event that the system was subject to	7.2.2.3. If the Type Approval Authority is informed of a safety critical occurrence with a vehicle equipped with DCAS through sources other than a vehicle manufacturer, such as by other Type Approval Authorities, that Type Approval Authority may request the manufacturer to provide available information of the incident in a comprehensive and accessible way as stipulated in 7.2.1. and 7.2.2. 7.2.3. Periodic Reporting 7.2.3.1. The manufacturer shall report at least once a year to the Type Approval Authority on the information deemed to be proper evidence of the intended operation and safety of the system in the field. The manufacturer shall report at least the information listed in the table below. Additional information is subject to agreement between the Type Approval Authority and the manufacturer. In the event that the system was subject to	7.2.2.3 若審驗機構收到非申請者之來源，例如其他型式認證機構，通知一輛配備有DCAS之車輛發生安全危害事件，則審驗機構可要求申請者如規定7.2.1及7.2.2所述，以易於理解且可取用之方式，提供可使用之事故資訊。 7.2.3 定期回報 7.2.3.1 <u>直至生產永久中斷為止</u>，申請者應針對投入使用之系統，就<u>透過監控系統所蒐集</u>預期運作及安全性之適當證據的資訊，至少每年向審驗機構回報一次。申請者應至少回報下表所列，<u>可於需要時以機密方式與其他相關檢測機構分享之</u>資訊，並於此狀況下通知申請者。額外資訊則視審驗機構及申請者之協議而定。 於回報期間下，系統受到與已回報資	7.2.2.3 若審驗機構收到非申請者之來源，例如其他型式認證機構，通知一輛配備有DCAS之車輛發生安全危害事件，則審驗機構可要求申請者如規定7.2.1及7.2.2所述，以易於理解且可取用之方式，提供可使用之事故資訊。 7.2.3 定期回報 7.2.3.1 申請者應針對投入使用之系統，就預期運作及安全性之適當證據的資訊，至少每年向審驗機構回報一次。申請者應至少回報下表所列資訊。額外資訊則視審驗機構及申請者之協議而定。 於回報期間下，系統受到與已回報資

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
significant changes relevant to the reported information during the reporting period, the report shall differentiate the changes of the system. Table 1 Information for Periodic Reporting (表格如頁末所示)	significant changes relevant to the reported information during the reporting period, the report shall differentiate the changes of the system. Table 1 Information for Periodic Reporting (表格如頁末所示)	訊相關之重大改變所影響之事件，相關報告應描述系統改變之差異。 表一、定期回報資訊 (表格如頁末所示)	訊相關之重大改變所影響之事件，相關報告應描述系統改變之差異。 表一、定期回報資訊 (表格如頁末所示)
8. System Validation 8.1. The validation of the system shall ensure that an acceptable thorough consideration of functional and operational safety of the features integrated in the system and the entire system integrated into a vehicle has been performed by the manufacturer assessed according to Annex 3. 8.2. The validation of the system shall demonstrate that the features integrated in the system and the entire system meet the performance requirements specified in paragraphs 5. and 6. of this Regulation The validation of the system shall include: (a) Validation of the system safety aspects in accordance with the requirements of Annex 3; (b) Physical tests on the test track and public roads in accordance with the requirements of Annex 4; (c) Monitoring of the system or its features in accordance with the requirements of paragraph 7. 8.2.1. The validation of the system may include the use of virtual testing and reporting of metrics produced by virtual testing, such as	8. System Validation 8.1. The validation of the system shall ensure that an acceptable thorough consideration of functional and operational safety of the features integrated in the system and the entire system integrated into a vehicle has been performed by the manufacturer assessed according to Annex 3. 8.2. The validation of the system shall demonstrate that the features integrated in the system and the entire system meet the performance requirements specified in paragraphs 5. and 6. of this Regulation The validation of the system shall include: (a) Validation of the system safety aspects in accordance with the requirements of Annex 3; (b) Physical tests on the test track and public roads in accordance with the requirements of Annex 4; (c) Monitoring of the system or its features in accordance with the requirements of paragraph 7. 8.2.1. The validation of the system may include the use of virtual testing and reporting of metrics produced by virtual testing, such as	8. 系統確認 8.1 系統之驗證應確保已由申請者依照規定12所評估，執行整合於系統及整合於車輛之整體系統中，對功能之功能安全及運作安全相關可接受的考量。 8.2 系統之驗證應針對整合於系統及整體系統內之功能，滿足本基準附件規定5.及規定6.所述之性能要求進行展演。 系統之驗證應包含： (a) 依照規定12.之要求，系統安全層面的驗證； (b) 依照規定13.之要求，於測試道路及公共道路執行實際測試； (c) 依照規定7.之要求，系統或其功能之監控。 8.2.1 系統之驗證可能包含模擬測試，以及回報由模擬測試所產生之量度，例如所涵蓋範圍之量測及安	8. 系統確認 8.1 系統之驗證應確保已由申請者依照規定12所評估，執行整合於系統及整合於車輛之整體系統中，對功能之功能安全及運作安全相關可接受的考量。 8.2 系統之驗證應針對整合於系統及整體系統內之功能，滿足本基準附件規定5.及規定6.所述之性能要求進行展演。 系統之驗證應包含： (a) 依照規定12.之要求，系統安全層面的驗證； (b) 依照規定13.之要求，於測試道路及公共道路執行實際測試； (c) 依照規定7.之要求，系統或其功能之監控。 8.2.1 系統之驗證可能包含模擬測試，以及回報由模擬測試所產生之量度，例如所涵蓋範圍之量測及安全

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
coverage measurement and safety metrics. If virtual testing is performed, a credibility assessment as described in Annex 5 shall be provided to the Type Approval Authority.	coverage measurement and safety metrics. If virtual testing is performed, a credibility assessment as described in Annex 5 shall be provided to the Type Approval Authority.	全指標。若執行模擬測試，則應向 <u>檢測機構</u> 提供如規定14.所述之可信度評估。	指標。若執行模擬測試，則應向 <u>檢測機構</u> 提供如規定14.所述之可信度評估。
9. System Information Data 9.1. The following data shall be provided by the manufacturer, together with the documentation package required in Annex 3 of this UN Regulation, to the Type Approval Authority at the time of type-approval. 9.1.1. Specific features according to the classification of paragraph 6 that the system possesses. The manufacturer is to confirm with an “x” or “Not Applicable” what domain the feature can operate in, and complete the table as necessary: (表格如頁末所示) 9.1.2. Domains (highway or non-highway), in which the system provides certain types of assistance as classified under paragraph 9.1.1. The manufacturer is to confirm with an “x” or “Not Applicable” what domain the feature can operate in, and complete the table as necessary: (表格如頁末所示) 9.1.3. The conditions under which the system and its features can be activated and the boundaries for operation (boundary conditions). 9.1.4. DCAS interactions with other vehicle systems. 9.1.5. Means to activate, deactivate and	9. System Information Data 9.1. The following data shall be provided by the manufacturer, together with the documentation package required in Annex 3 of this UN Regulation, to the Type Approval Authority at the time of type-approval. 9.1.1. Specific features according to the classification of paragraph 6 that the system possesses. The manufacturer is to confirm with an “x” or “Not Applicable” what domain the feature can operate in, and complete the table as necessary: (表格如頁末所示) 9.1.2. Domains (highway or non-highway), in which the system provides certain types of assistance as classified under paragraph 9.1.1. The manufacturer is to confirm with an “x” or “Not Applicable” what domain the feature can operate in, and complete the table as necessary: (表格如頁末所示) 9.1.3. The conditions under which the system and its features can be activated and the boundaries for operation (boundary conditions). 9.1.4. DCAS interactions with other vehicle systems. 9.1.5. Means to activate, deactivate and	9. 系統資訊之資料 9.1 應由申請者於申請型式認證時，併同本基準附件規定12.所需文件，向 <u>檢測機構</u> 提供下述資料： 9.1.1 依照規定6.分級之系統所擁有的特定功能。申請者以「X」或「不適用」以確認功能可於其中運作之區域，並如必要時完成下述表格： (表格如頁末所示) 9.1.2於系統提供如規定9.1.1之下進行分類特定類型之輔助的區域（高 <u>快</u> 速公路或非高 <u>快</u> 速公路）。申請者以「X」或「不適用」以確認功能可於其中運作之區域，並如必要時完成下述表格： (表格如頁末所示) 9.1.3 系統及其功能可被啟動的條件，以及運作邊界（邊界條件）。 9.1.4 與其他車輛系統之DCAS互動。 9.1.5 啟動、解除及取代系統之手	9. 系統資訊之資料 9.1 應由申請者於申請型式認證時，併同本基準附件規定12.所需文件，向 <u>檢測機構</u> 提供下述資料： 9.1.1 依照規定6.分級之系統所擁有的特定功能。申請者以「X」或「不適用」以確認功能可於其中運作之區域，並如必要時完成下述表格： (表格如頁末所示) 9.1.2於系統提供如規定9.1.1之下進行分類特定類型之輔助的區域（高速公路或非高速公路）。申請者以「X」或「不適用」以確認功能可於其中運作之區域，並如必要時完成下述表格： (表格如頁末所示) 9.1.3 系統及其功能可被啟動的條件，以及運作邊界（邊界條件）。 9.1.4 與其他車輛系統之DCAS互動。 9.1.5 啟動、解除及取代系統之手段。

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override the system. 9.1.6. Criteria monitored and the means by which driver disengagement is monitored. 9.1.7. Dynamic control assistance provided by each feature of the system. 9.1.8. Input other than lane markings the system uses to reliably determine the course of the lane and continues to provide lateral control assistance in the absence of a fully marked lane. (表格如頁末所示)	override the system. 9.1.6. Criteria monitored and the means by which driver disengagement is monitored. 9.1.7. Dynamic control assistance provided by each feature of the system. 9.1.8. Input other than lane markings the system uses to reliably determine the course of the lane and continues to provide lateral control assistance in the absence of a fully marked lane. (表格如頁末所示)	段。 9.1.6 所監控之參數以及對駕駛人未參與進行監控之方式。 9.1.7 由系統每個功能所提供之動態控制輔助。 9.1.8 系統用以可靠地測定車道之軌跡，以及於未有完整標記之車道中持續提供側向控制輔助，與車道標線不同之輸入。 (表格如頁末所示)	9.1.6 所監控之參數以及對駕駛人未參與進行監控之方式。 9.1.7 由系統每個功能所提供之動態控制輔助。 9.1.8 系統用以可靠地測定車道之軌跡，以及於未有完整標記之車道中持續提供側向控制輔助，與車道標線不同之輸入。 (表格如頁末所示)
10. Requirements for Software Identification 10.1. For the purpose of ensuring the software of the System can be identified, an R_{1XX}SWIN shall be implemented by the vehicle manufacturer. The R₁₇₁SWIN may be held on the vehicle or, if R₁₇₁SWIN is not held on the vehicle, the manufacturer shall declare the software version(s) of the vehicle or single ECUs with the connection to the relevant type approvals to the Type Approval Authority. 10.2. The vehicle manufacturer shall demonstrate compliance with UN Regulation No. 156 (Software Update and Software Update Management System) by fulfilling the requirements and respecting the transitional provisions of the original version of UN Regulation No. 156 or later series of amendments. 10.3. The vehicle manufacturer shall provide	10. Requirements for Software Identification 10.1. For the purpose of ensuring the software of the System can be identified, an R_{1XX}SWIN shall be implemented by the vehicle manufacturer. The R_{1XX}SWIN may be held on the vehicle or, if R_{1XX}SWIN is not held on the vehicle, the manufacturer shall declare the software version(s) of the vehicle or single ECUs with the connection to the relevant type approvals to the Type Approval Authority. 10.2. The vehicle manufacturer shall demonstrate compliance with UN Regulation No. 156 (Software Update and Software Update Management System) by fulfilling the requirements and respecting the transitional provisions of the original version of UN Regulation No. 156 or later series of amendments. 10.3. The vehicle manufacturer shall provide	10. 軟體識別之要求 10.1 為確保系統之軟體可被識別，應由申請者實施R₁₇₁SWIN。R₁₇₁SWIN可被車輛擁有或，若車輛未擁有R₁₇₁SWIN，則申請者應向<u>檢測機構</u>聲明車輛或單個ECU的軟體版本，並與相關型式認證連結。 10.2 申請者應藉由滿足「附件九十七、軟體更新及軟體更新管理系統」要求以展演對前述附件之符合性。 10.3 申請者應依照本基準附件規定4	10. 軟體識別之要求 10.1 為確保系統之軟體可被識別，應由申請者實施 R_{1XX}SWIN。R_{1XX}SWIN可被車輛擁有或，若車輛未擁有R_{1XX}SWIN，則申請者應向<u>檢測機構</u>聲明車輛或單個ECU的軟體版本，並與相關型式認證連結。 10.2 申請者應藉由滿足「附件九十七、軟體更新及軟體更新管理系統」要求以展演對前述附件之符合性。 10.3 申請者應依照本基準附件規定4

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
the following information in the communication form of this UN Regulation: (a) The R_{1XX}SWIN; (b) How to read the R₁₇₁SWIN or software version(s) in case the R₁₇₁SWIN is not held on the vehicle. 10.4. The vehicle manufacturer may provide in the communication form of the related Regulation a list of the relevant parameters that will allow the identification of those vehicles that can be updated with the software represented by the R₁₇₁SWIN. The information provided shall be declared by the vehicle manufacturer and may not be verified by a Type Approval Authority. 10.5. The vehicle manufacturer may obtain a new vehicle approval for the purpose of differentiating software versions intended to be used on vehicles already registered in the market from the software versions that are used on new vehicles. This may cover the situations where type approval regulations are updated or hardware changes are made to vehicles in series production. In agreement with the Type Approval Authority duplication of tests shall be avoided where possible.	the following information in the communication form of this UN Regulation: (a) The R_{1XX}SWIN; (b) How to read the R_{1XX}SWIN or software version(s) in case the R_{1XX}SWIN is not held on the vehicle. 10.4. The vehicle manufacturer may provide in the communication form of the related Regulation a list of the relevant parameters that will allow the identification of those vehicles that can be updated with the software represented by the R_{1XX}SWIN. The information provided shall be declared by the vehicle manufacturer and may not be verified by a Type Approval Authority. 10.5. The vehicle manufacturer may obtain a new vehicle approval for the purpose of differentiating software versions intended to be used on vehicles already registered in the market from the software versions that are used on new vehicles. This may cover the situations where type approval regulations are updated or hardware changes are made to vehicles in series production. In agreement with the Type Approval Authority duplication of tests shall be avoided where possible.	及規定11.提供下述資訊： (a) R₁₇₁SWIN； (b) 如何閱讀R₁₇₁SWIN，或於車輛未擁有R₁₇₁SWIN時，如何閱讀軟體版本。 10.4 申請者應以文件提供，將允許此等車輛之識別可透過R₁₇₁SWIN所呈現之軟體更新的相關參數之列表。所提供相關資訊應由申請者宣告，且可未經過<u>檢測機構</u>驗證。 10.5 為就預期於市場中已註冊車輛上使用之軟體版本，自使用於新車輛之軟體版本進行區分，申請者可取得全新車輛型式認證。本項可涵蓋型式認證法規受到更新，或對多量生產之車輛的硬體變更的情形。經與<u>檢測機構</u>協議，應於可行之情形下迴避重複試驗。	及規定11.提供下述資訊： (a) R_{1XX}SWIN； (b) 如何閱讀R_{1XX}SWIN，或於車輛未擁有R_{1XX}SWIN時，如何閱讀軟體版本。 10.4 申請者應以文件提供，將允許此等車輛之識別可透過R_{1XX}SWIN所呈現之軟體更新的相關參數之列表。所提供相關資訊應由申請者宣告，且可未經過<u>檢測機構</u>驗證。 10.5 為就預期於市場中已註冊車輛上使用之軟體版本，自使用於新車輛之軟體版本進行區分，申請者可取得全新車輛型式認證。本項可涵蓋型式認證法規受到更新，或對多量生產之車輛的硬體變更的情形。經與<u>檢測機構</u>協議，應於可行之情形下迴避重複試驗。
11. Modification of vehicle type and extension of approval 11.1. Every modification of the vehicle type as defined in paragraph 2.2 of this Regulation shall be notified to the Type Approval	11. Modification of vehicle type and extension of approval 11.1. Every modification of the vehicle type as defined in paragraph 2.2 of this Regulation shall be notified to the Type Approval	(車型修改及認證延伸相關規定，不影響檢測基準內容)	(車型修改及認證延伸相關規定，不影響檢測基準內容)

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
Authority which approved the vehicle type. The Type Approval Authority shall then either: (a) Consider that the modifications made do not have an adverse effect on the conditions of the granting of the approval and grant an extension of approval; (b) Consider that the modifications made affect the conditions of the granting of the approval and require further tests or additional checks before granting an extension of approval; (c) Decide, in consultation with the manufacturer, that a new type-approval is to be granted; or (d) Apply the procedure contained in paragraph 11.1.1. (Revision) and, if applicable, the procedure contained in paragraph 11.1.2. (Extension). 11.1.1. Revision When particulars recorded in the information documents have changed and the Type Approval Authority considers that the modifications made are unlikely to have appreciable adverse effects, the modification shall be designated a "revision". In such a case, the Type Approval Authority shall issue the revised pages of the information documents as necessary, marking each revised page to show clearly the nature of the modification and the date	Authority which approved the vehicle type. The Type Approval Authority shall then either: (a) Consider that the modifications made do not have an adverse effect on the conditions of the granting of the approval and grant an extension of approval; (b) Consider that the modifications made affect the conditions of the granting of the approval and require further tests or additional checks before granting an extension of approval; (c) Decide, in consultation with the manufacturer, that a new type-approval is to be granted; or (d) Apply the procedure contained in paragraph 11.1.1. (Revision) and, if applicable, the procedure contained in paragraph 11.1.2. (Extension). 11.1.1. Revision When particulars recorded in the information documents have changed and the Type Approval Authority considers that the modifications made are unlikely to have appreciable adverse effects, the modification shall be designated a "revision". In such a case, the Type Approval Authority shall issue the revised pages of the information documents as necessary, marking each revised page to show clearly the nature of the modification and the date		

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
of re-issue. A consolidated, updated version of the information documents, accompanied by a detailed description of the modification, shall be deemed to meet this requirement. 11.1.2. Extension The modification shall be designated an "extension" if, in addition to the change of the particulars recorded in the information documents, (a) Further inspections or tests are required; or (b) Any information on the communication document (with the exception of its attachments) has changed; or (c) Approval to a later series of amendments is requested after its entry into force. 11.2. Confirmation or refusal of approval, specifying the alterations, shall be communicated by the procedure specified in paragraph 4.3. above to the Contracting Parties to the Agreement applying this UN Regulation. In addition, the index to the information documents and to the test reports, attached to the communication document of Annex 1, shall be amended accordingly to show the date of the most recent revision or extension. 11.3. The Type Approval Authority shall inform the other Contracting Parties of the extension by means of the communication form which appears in Annex 1 to this UN Regulation. It shall assign a serial number to	of re-issue. A consolidated, updated version of the information documents, accompanied by a detailed description of the modification, shall be deemed to meet this requirement. 11.1.2. Extension The modification shall be designated an "extension" if, in addition to the change of the particulars recorded in the information documents, (a) Further inspections or tests are required; or (b) Any information on the communication document (with the exception of its attachments) has changed; or (c) Approval to a later series of amendments is requested after its entry into force. 11.2. Confirmation or refusal of approval, specifying the alterations, shall be communicated by the procedure specified in paragraph 4.3. above to the Contracting Parties to the Agreement applying this UN Regulation. In addition, the index to the information documents and to the test reports, attached to the communication document of Annex 1, shall be amended accordingly to show the date of the most recent revision or extension. 11.3. The Type Approval Authority shall inform the other Contracting Parties of the extension by means of the communication form which appears in Annex 1 to this UN Regulation. It shall assign a serial number to		

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
each extension, to be known as the extension number.	each extension, to be known as the extension number.		
12. Conformity of production 12.1. Procedures for the conformity of production shall conform to the general provisions defined in Article 2 and Schedule 1 to the Agreement (E/ECE/TRANS/505/Rev.3) and meet the following requirements: 12.2. A vehicle approved pursuant to this UN Regulation shall be so manufactured as to conform to the type approved by meeting the requirements of paragraph 5. above; 12.3. The Type Approval Authority which has granted the approval may at any time verify the conformity of control methods applicable to each production unit. The normal frequency of such inspections shall be once every two years. 12.4. The approval granted in respect of a vehicle type pursuant to this UN Regulation may be withdrawn if the requirements laid down in paragraph 8, above are not complied with. 12.5. If a Contracting Party withdraws an approval, it had previously granted, it shall forthwith so notify the other Contracting Parties applying this Regulation by sending them a communication form conforming to the model in Annex 1 to this UN Regulation.	12. Conformity of production 12.1. Procedures for the conformity of production shall conform to the general provisions defined in Article 2 and Schedule 1 to the Agreement (E/ECE/TRANS/505/Rev.3) and meet the following requirements: 12.2. A vehicle approved pursuant to this UN Regulation shall be so manufactured as to conform to the type approved by meeting the requirements of paragraph 5. above; 12.3. The Type Approval Authority which has granted the approval may at any time verify the conformity of control methods applicable to each production unit. The normal frequency of such inspections shall be once every two years. 12.4. The approval granted in respect of a vehicle type pursuant to this UN Regulation may be withdrawn if the requirements laid down in paragraph 8, above are not complied with. 12.5. If a Contracting Party withdraws an approval, it had previously granted, it shall forthwith so notify the other Contracting Parties applying this Regulation by sending them a communication form conforming to the model in Annex 1 to this UN Regulation.	(生產一致性相關規定，不影響檢測基準內容)	(生產一致性相關規定，不影響檢測基準內容)
13. Penalties for non-conformity of production	13. Penalties for non-conformity of production	(生產不一致之懲罰相關規定，不影響檢測基準內容)	(生產不一致之懲罰相關規定，不影響檢測基準內容)

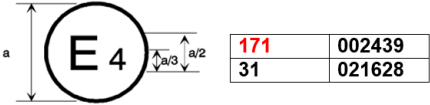
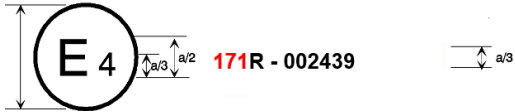
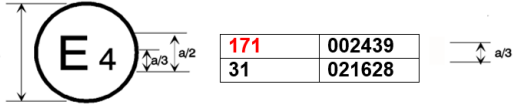
修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
13.1. The approval granted in respect of a vehicle type pursuant to this UN Regulation may be withdrawn, if the requirements laid down in paragraph 12 above are not complied with. 13.2. If a Contracting Party withdraws an approval it had previously granted, it shall forthwith so notify the other Contracting Parties applying this UN Regulation by sending them a communication form conforming to the model in Annex 1 to this UN Regulation.	13.1. The approval granted in respect of a vehicle type pursuant to this UN Regulation may be withdrawn, if the requirements laid down in paragraph 12 above are not complied with. 13.2. If a Contracting Party withdraws an approval it had previously granted, it shall forthwith so notify the other Contracting Parties applying this UN Regulation by sending them a communication form conforming to the model in Annex 1 to this UN Regulation.		
14. Production definitively discontinued 14.1. If the holder of the approval completely ceases to manufacture a type of vehicle approved in accordance with this UN Regulation, he shall so inform the Type Approval Authority which granted the approval, which in turn shall forthwith inform the other Contracting Parties to the Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this UN Regulation. 14.2. The production is not considered definitely discontinued if the vehicle manufacturer intends to obtain further approvals for software updates for vehicles already registered in the market.	14. Production definitively discontinued 14.1. If the holder of the approval completely ceases to manufacture a type of vehicle approved in accordance with this UN Regulation, he shall so inform the Approval Authority which granted the approval, which in turn shall forthwith inform the other Contracting Parties to the Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this UN Regulation. 14.2. The production is not considered definitely discontinued if the vehicle manufacturer intends to obtain further approvals for software updates for vehicles already registered in the market.	(生產永久中斷相關規定，不影響檢測基準內容)	(生產永久中斷相關規定，不影響檢測基準內容)
15. Names and Addresses of Technical Services Responsible for Conducting Approval Tests and of Type Approval	15. Names and Addresses of Technical Services Responsible for Conducting Approval Tests and of Type Approval	(實施認證測試之檢測機構以及審驗機構相關規定，不影響檢測基準內容)	(實施認證測試之檢測機構以及審驗機構相關規定，不影響檢測基準內容)

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
Authorities 15.1. The Contracting Parties to the Agreement applying this UN Regulation shall communicate to the United Nations Secretariat ³ the names and addresses of the Technical Services responsible for conducting approval tests and of the Type Approval Authorities which grant approval and to which forms certifying approval or extension or refusal or withdrawal of approval are to be sent. ³ Through the online platform ("343 Application") provided by UNECE and dedicated to the exchange of such information https://apps.unece.org/WP29_application/	Authorities 15.1. The Contracting Parties to the Agreement applying this UN Regulation shall communicate to the United Nations Secretariat ³ the names and addresses of the Technical Services responsible for conducting approval tests and of the Type Approval Authorities which grant approval and to which forms certifying approval or extension or refusal or withdrawal of approval are to be sent. ³ Through the online platform ("343 Application") provided by UNECE and dedicated to the exchange of such information https://apps.unece.org/WP29_application/		
16. Transitional Provisions 16.1. As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 01 series of amendments. 16.2. As from 1 September 2027, Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the original version (00 series of amendments) of this Regulation, first issued after 1 September 2027. 16.3. Until 1 September 2030, Contracting Parties applying this Regulation shall accept type approvals issued to the original version		16.2 於2027年9月1日起，簽約國不應接受於此日期後所核發之原始版本及其修訂版次的型式認證。 16.3 直至2030年9月1日前，簽約國應接受於2027年9月1日前所核發之原始版本及其修訂版次的型式認證。	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(00 series of amendments) of this Regulation, first issued before 1 September 2027. 16.4. As from 1 September 2030, Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the original version (00 series of amendments) of this Regulation. 16.5. Notwithstanding the transitional provisions above, Contracting Parties who start to apply this Regulation after the date of entry into force of the most recent series of amendments are not obliged to accept type approvals which were granted in accordance with the original version (00 series of amendments) of this Regulation. 16.6. Contracting Parties applying this Regulation may grant type approvals according to the original version (00 series of amendments) of this Regulation. 16.7. Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to the original version (00 series of amendments) of this Regulation.		16.4 於2030年9月1日起，簽約國不應接受原始版本之型式認證。 16.5 雖有上述之過渡條款，惟於最近一個版次之生效日期後開始實施本項規定的契約國，不應接受原始版本之型式認證。	
Annex 1 Communication⁴ ⁴ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in UN Regulation No. 1XX (the number of this UN Regulation)).	Annex 1 Communication⁴ ⁴ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in UN Regulation No. 1XX (the number of this UN Regulation)).	11. 應繳交文件相關資訊 申請者應依照下述內容提供規定4.所要求相關資料	11. 應繳交文件相關資訊 申請者應依照下述內容提供規定4.所要求相關資料

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(Maximum format: A4 (210 x 297 mm))  Concerning⁶: Approval granted ⁶ Strike out what does not apply. Approval extended Approval refused Approval withdrawn Production definitively discontinued of a vehicle type with regard to DCAS pursuant to UN Regulation No. XXX Approval No. Reason for extension or revision: 1. Trade name or mark of vehicle 2. Vehicle type 3. Manufacturer's name and address 4. If applicable, name and address of manufacturer's representative 5. General construction characteristics of the vehicle: 5.1. Photographs and/or drawings of a representative vehicle: 6. Description and/or drawing of the DCAS: see Section 9. 6.1. The system is / is not¹ capable of performing Driver-initiated manoeuvres Description of system capabilities: 6.2. The system is / is not¹ capable of performing Driver-confirmed manoeuvres Description of system capabilities: 6.3. The system is / is not¹ capable of	(Maximum format: A4 (210 x 297 mm))  Concerning⁶: Approval granted ⁶ Strike out what does not apply. Approval extended Approval refused Approval withdrawn Production definitively discontinued of a vehicle type with regard to DCAS pursuant to UN Regulation No. XXX Approval No. Reason for extension or revision: 1. Trade name or mark of vehicle 2. Vehicle type 3. Manufacturer's name and address 4. If applicable, name and address of manufacturer's representative 5. General construction characteristics of the vehicle: 5.1. Photographs and/or drawings of a representative vehicle: 6. Description and/or drawing of the DCAS: see Section 9.	11.1 車輛 11.2 車輛型式 11.3 申請者名稱及地址 11.4 相關車輛之一般構造特性 11.4.1 代表車輛之照片及/或圖片 11.5 DCAS之說明及/或圖片：依規定9. 11.5.1 系統是／否具備執行駕駛人 起始操作之能力。 系統能力之說明： 11.5.2 系統是／否具備執行駕駛人 確認操作之能力。 系統能力之說明： 11.5.3 系統是／否具備執行系統起	1. 車輛 2. 車輛型式 3. 申請者名稱及地址 4. 相關車輛之一般構造特性 4.1 代表車輛之照片及/或圖片 5. DCAS之說明及/或圖片：依規定9.

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
performing System-initiated manoeuvres Description of system capabilities: 6.4. The system is / is not¹ capable of withholding of HORs		<u>始操作之能力。</u> <u>系統能力之說明：</u> <u>11.5.4 系統是／否具備保留HOR之能力。</u>	
7. Cyber Security and Software updates	7. Cyber Security and Software updates	11.6 網路安全及軟體更新	6. 網路安全及軟體更新
7.1. Cyber Security Type Approval Number (if applicable):	7.1. Cyber Security Type Approval Number (if applicable):	11.6.1 網路安全之報告編號(依實際狀況)	6.1 網路安全之報告編號(依實際狀況)
7.2. Software Update Type approval number (if applicable):	7.2. Software Update Type approval number (if applicable):	11.6.2 軟體更新之報告編號(依實際狀況)	6.2 軟體更新之報告編號(依實際狀況)
8. Special requirements to be applied to the safety aspects of electronic control systems (Annex 3)	8. Special requirements to be applied to the safety aspects of electronic control systems (Annex 3)	11.7 適用電子控制系統之安全層面的特殊要求(規定12.)	7. 適用電子控制系統之安全層面的特殊要求(規定12.)
8.1. Manufacturers document reference for Annex 3 (including version number):	8.1. Manufacturers document reference for Annex 3 (including version number):	11.7.1 對規定12.之申請者文件參考(包含版本號碼)	7.1 對規定12.之申請者文件參考(包含版本號碼)
8.2. Information document form (Appendix to Annex 3)	8.2. Information document form (Appendix to Annex 3)	11.7.2 資訊文件表格(規定12.6)	7.2 資訊文件表格(規定12.6)
9. Technical Service responsible for conducting approval tests	9. Technical Service responsible for conducting approval tests		
9.1. Date of report issued by that service	9.1. Date of report issued by that service		
9.2. (Reference) Number of the report issued by that service	9.2. (Reference) Number of the report issued by that service		
10. Approval granted/extended/revised/refused/withdrawn ²	10. Approval granted/extended/revised/refused/withdrawn ²		
11. Position of approval mark on vehicle	11. Position of approval mark on vehicle		
12. Place	12. Place		
13. Date	13. Date		
14. Signature	14. Signature		
15. Annexed to this communication is a list of documents in the approval file deposited at the administration services having delivered the approval and which can be obtained	15. Annexed to this communication is a list of documents in the approval file deposited at the administration services having delivered the approval and which can be obtained		

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
upon request. Additional information 16. R~~171~~SWIN: 16.1. Information on how to read the R~~171~~SWIN or software version(s) in case the R~~171~~SWIN is not held on the vehicle: 16.2. If applicable, list the relevant parameters that will allow the identification of those vehicles that can be updated with the software represented by the R~~171~~SWIN under the item above:	upon request. Additional information 16. R~~1xx~~SWIN: 16.1. Information on how to read the R~~1xx~~SWIN or software version(s) in case the R~~1xx~~SWIN is not held on the vehicle: 16.2. If applicable, list the relevant parameters that will allow the identification of those vehicles that can be updated with the software represented by the R~~1xx~~SWIN under the item above:	11.8 額外資訊 11.8.1 R~~171~~SWIN 11.8.1.1如何閱讀R~~171~~SWIN，或於車輛未擁有R~~171~~SWIN時，如何閱讀軟體版本。 11.8.1.2 依實際情況條列將允許此等車輛之識別可透過R~~171~~SWIN所呈現之軟體更新的相關參數。	8.額外資訊 8.1 R~~1xx~~SWIN 8.1.1如何閱讀R~~1xx~~SWIN，或於車輛未擁有R~~1xx~~SWIN時，如何閱讀軟體版本。 8.1.2 依實際情況條列將允許此等車輛之識別可透過R~~1xx~~SWIN所呈現之軟體更新的相關參數。
Annex 2 Arrangements of approval marks Model A (See paragraph 4.4. of this Regulation)  a = 8 mm min The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to DCAS, been approved in the Netherlands (E 4) pursuant to UN Regulation No. 171 under approval No. 002439. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No. 171 in its original version. Model B (See paragraph 4.5. of this Regulation) 	Annex 2 Arrangements of approval marks Model A (See paragraph 4.4. of this Regulation)  a = 8 mm min The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to DCAS, been approved in the Netherlands (E 4) pursuant to UN Regulation No. 171 under approval No. 002439. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No. 171 in its original version. Model B (See paragraph 4.5. of this Regulation) 	(認證標誌相關規定，不影響檢測基準內容)	(認證標誌相關規定，不影響檢測基準內容)

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
a = 8 mm min The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to UN Regulations Nos. 171 and 31.⁷ The approval numbers indicate that, at the dates when the respective approvals were given, UN Regulation No. 171 was in its original version and UN Regulation No. 31 included the 02 series of amendments. ⁷ The second number is given merely as an example.	a = 8 mm min The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to UN Regulations Nos. 171 and 31.⁷ The approval numbers indicate that, at the dates when the respective approvals were given, UN Regulation No. 171 was in its original version and UN Regulation No. 31 included the 02 series of amendments. ⁷ The second number is given merely as an example.		
Annex 3 Special requirements to be applied to the audit/assessment 1. General This Annex defines the special requirements for documentation, safety by design and verification with respect to the safety aspects of Electronic System(s) (paragraph 2.3.) and Complex Electronic Control System(s) (paragraph 2.4. below) as far as this UN Regulation is concerned. This Annex does not specify the performance criteria for "The System" but covers the methodology applied to the design process and the information which must be disclosed to the Type Approval Authority or the Technical Service acting on its behalf (hereafter referred to as Type Approval Authority), for type approval purposes.	Annex 3 Special requirements to be applied to the audit/assessment 1. General This Annex defines the special requirements for documentation, safety by design and verification with respect to the safety aspects of Electronic System(s) (paragraph 2.3.) and Complex Electronic Control System(s) (paragraph 2.4. below) as far as this UN Regulation is concerned. This Annex does not specify the performance criteria for "The System" but covers the methodology applied to the design process and the information which must be disclosed to the Type Approval Authority or the Technical Service acting on its behalf (hereafter referred to as Type Approval Authority), for type approval purposes.	12. 適用於審核/評估之特殊規定 12.1 通則 本項可由申請者確保及聲明符合此規定。 此要求涉及本項規定中關於電子系統及複合式電子控制系統安全層面之文件提供、設計安全及驗證之特殊要求。 此要求未具體規範系統(The System)之性能標準，惟為達認證需求而涵蓋有於設計過程中運用之方法、及必須向檢測機構揭露之資訊。	12. 適用於審核/評估之特殊規定 12.1 通則 本項可由申請者確保及聲明符合此規定。 此要求涉及本項規定中關於電子系統及複合式電子控制系統安全層面之文件提供、設計安全及驗證之特殊要求。 此要求未具體規範系統(The System)之性能標準，惟為達認證需求而涵蓋有於設計過程中運用之方法、及必須向檢測機構揭露之資訊。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
This information shall show that "The System" respects, under non-fault and fault conditions, all the appropriate performance requirements specified elsewhere in this UN Regulation and that it is designed to operate in such a way that it is free of unreasonable safety risks to the driver, passengers and other road users.	This information shall show that "The System" respects, under non-fault and fault conditions, all the appropriate performance requirements specified elsewhere in this UN Regulation and that it is designed to operate in such a way that it is free of unreasonable safety risks to the driver, passengers and other road users.	此資訊應顯示系統於非故障及故障狀態皆符合本基準內其它規定所有適合之性能要求，及其設計之運作模式不會引起對駕駛人、乘客以及其他道路使用者之無理的安全風險。	此資訊應顯示系統於非故障及故障狀態皆符合本基準內其它規定所有適合之性能要求，及其設計之運作模式不會引起對駕駛人、乘客以及其他道路使用者之無理的安全風險。
Provisions in this UN Regulation of the form “the system shall...” must always be complied with. Failure to meet such a requirement during assessment constitutes a non-compliance with the requirements established by this UN Regulation.	Provisions in this UN Regulation of the form “the system shall...” must always be complied with. Failure to meet such a requirement during assessment constitutes a non-compliance with the requirements established by this UN Regulation.	於本基準附件中以「系統應...」格式所呈現之規定應總是被符合。無法於評估期間滿足此等要求將被視為不符合由本基準附件所建立之要求。	於本基準附件中以「系統應...」格式所呈現之規定應總是被符合。無法於評估期間滿足此等要求將被視為不符合由本基準附件所建立之要求。
Provisions in this UN Regulation of the form “the system shall aim to...” acknowledge that the requirement may not always be achieved (e.g., due to external disturbances or because it is not appropriate to do so under the specific circumstances).	Provisions in this UN Regulation of the form “the system shall aim to...” acknowledge that the requirement may not always be achieved (e.g., due to external disturbances or because it is not appropriate to do so under the specific circumstances).	於本基準附件中以「系統應...為目標」格式所呈現之規定代表要求可能不總是被達成(例如：因外部干擾或基於特定情境下不適合執行之原因)。	於本基準附件中以「系統應...為目標」格式所呈現之規定代表要求可能不總是被達成(例如：因外部干擾或基於特定情境下不適合執行之原因)。
Provisions in this UN Regulation of the form “the system shall be designed to...” acknowledge that testing of system performance is not a comprehensive way to verify that the requirement is, or is not, complied-with, and that verification of the requirement will require an assessment of the system design (e.g. its control strategies).	Provisions in this UN Regulation of the form “the system shall be designed to...” acknowledge that testing of system performance is not a comprehensive way to verify that the requirement is, or is not, complied-with, and that verification of the requirement will require an assessment of the system design (e.g. its control strategies).	於本基準附件中以「系統應設計以...」格式所呈現之規定代表系統性能之測試非為全面之方式以驗證要求符合與否，且要求之驗證將需要對系統設計之評估(例如：其控制策略)。	於本基準附件中以「系統應設計以...」格式所呈現之規定代表系統性能之測試非為全面之方式以驗證要求符合與否，且要求之驗證將需要對系統設計之評估(例如：其控制策略)。
If during assessment a requirement of the form “shall aim to...” or “shall be designed to...” is not fulfilled, the manufacturer shall	If during assessment a requirement of the form “shall aim to...” or “shall be designed to...” is not fulfilled, the manufacturer shall	若一個「系統應...為目標」或「系統應設計以...」格式所呈現之要求於評估期間未達成時，為滿足 <u>檢測機構</u> ，申	若一個「系統應...為目標」或「系統應設計以...」格式所呈現之要求於評估期間未達成時，為滿足 <u>檢測機構</u> ，申

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
demonstrate to the satisfaction of the Type Approval Authority why this was the case, and how the system nevertheless remains free from unreasonable risk. 2. Definitions For the purposes of this annex, 2.1. "The system" means the hardware and software collectively capable of assisting a driver in controlling the longitudinal and lateral motion of the vehicle on a sustained basis. In the context of this Annex, this also includes any other system covered in the scope of this UN Regulation, as well as transmission links to or from other systems that are outside the scope of this UN Regulation, that acts on a function to which this UN Regulation applies. Within this UN Regulation, the system is also referred to as "Driver Control Assistance System (DCAS)". 2.2. "Safety Concept" means a description of the measures designed into the System, for example within the electronic units, as to address system integrity and thereby ensure safe operation under fault (functional safety) and non-fault conditions (operational safety) in such a way that it is free of unreasonable safety risks to the vehicle occupants and other road users. The possibility of a fallback to partial operation or even to a backup system for vital vehicle functions may be a part of the safety concept.	demonstrate to the satisfaction of the Type Approval Authority why this was the case, and how the system nevertheless remains free from unreasonable risk. 2. Definitions For the purposes of this annex, 2.1. "The system" means the hardware and software collectively capable of assisting a driver in controlling the longitudinal and lateral motion of the vehicle on a sustained basis. In the context of this Annex, this also includes any other system covered in the scope of this UN Regulation, as well as transmission links to or from other systems that are outside the scope of this UN Regulation, that acts on a function to which this UN Regulation applies. Within this UN Regulation, the system is also referred to as "Driver Control Assistance System (DCAS)". 2.2. "Safety Concept" means a description of the measures designed into the System, for example within the electronic units, as to address system integrity and thereby ensure safe operation under fault (functional safety) and non-fault conditions (operational safety) in such a way that it is free of unreasonable safety risks to the vehicle occupants and other road users. The possibility of a fallback to partial operation or even to a backup system for vital vehicle functions may be a part of the safety concept.	請者應進行示範以說明為何如此，以及系統將如何於任何情況下維持於免除無理之風險狀態。 12.2 名詞釋義 12.2.1 系統(The system)：係指具備以持續之方式，共同協助駕駛人控制車輛縱向及橫向動態之能力的車輛硬體及軟體。於本基準附件之內容中，系統亦包含任何涵蓋於本基準適用範圍之其他系統，以及作用於本基準適用功能之傳輸連接或非本基準適用範圍之其他系統。 於本基準附件內，系統亦指「駕駛人控制輔助系統(DCAS)」。 12.2.2 安全性概念(Safety Concept)：係指一種設計在系統中的措施，例如電子控制單元內，使車輛於故障（功能安全）及非故障（運作安全）條件下以此方式運行，不會對駕駛、乘客及其他道路使用者造成不合理之安全風險。部分操作功能的持續或有一個備用系統維持車輛功能之可能性，也是安全性概念的部分。	請者應進行示範以說明為何如此，以及系統將如何於任何情況下維持於免除無理之風險狀態。 12.2 名詞釋義 12.2.1 系統(The system)：係指具備以持續之方式，共同協助駕駛人控制車輛縱向及橫向動態之能力的車輛硬體及軟體。於本基準附件之內容中，系統亦包含任何涵蓋於本基準適用範圍之其他系統，以及作用於本基準適用功能之傳輸連接或非本基準適用範圍之其他系統。 於本基準附件內，系統亦指「駕駛人控制輔助系統(DCAS)」。 12.2.2 安全性概念(Safety Concept)：係指一種設計在系統中的措施，例如電子控制單元內，使車輛於故障（功能安全）及非故障（運作安全）條件下以此方式運行，不會對駕駛、乘客及其他道路使用者造成不合理之安全風險。部分操作功能的持續或有一個備用系統維持車輛功能之可能性，也是安全性概念的部分。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.3. "Electronic Control System" means a combination of units, designed to co-operate in the production of the stated vehicle control function by electronic data processing. Such systems, commonly controlled by software, are built from discrete functional components such as sensors, electronic control units and actuators and connected by transmission links. They may include mechanical, electro-mechanical, electro-pneumatic or electro-hydraulic elements.	2.3. "Electronic Control System" means a combination of units, designed to co-operate in the production of the stated vehicle control function by electronic data processing. Such systems, commonly controlled by software, are built from discrete functional components such as sensors, electronic control units and actuators and connected by transmission links. They may include mechanical, electro-mechanical, electro-pneumatic or electro-hydraulic elements.	12.2.3 電子控制系統(Electronic control system):係指電子單元組合,其被設計用於透過電子資料處理,使電子單元合作產生前述自動車道維持輔助功能。系統常由軟體控制,且係由各獨立功能元件例如感測器、電子控制單元及作動器所建構,並由傳輸連結線連接。其可能包含機械式、電動機械式、電動氣壓式或電動液壓式元件。	12.2.3 電子控制系統(Electronic control system):係指電子單元組合,其被設計用於透過電子資料處理,使電子單元合作產生前述自動車道維持輔助功能。系統常由軟體控制,且係由各獨立功能元件例如感測器、電子控制單元及作動器所建構,並由傳輸連結線連接。其可能包含機械式、電動機械式、電動氣壓式或電動液壓式元件。
2.4. "Complex Electronic Control Systems" are those electronic control systems in which a function controlled by an electronic system may be over-ridden by a higher-level electronic control system/function. A function which is over-ridden becomes part of the complex electronic control system, as well as any overriding system/function within the scope of this UN Regulation. The transmission links to and from overriding systems/function outside of the scope of this UN Regulation shall also be included.	2.4. "Complex Electronic Control Systems" are those electronic control systems in which a function controlled by an electronic system may be over-ridden by a higher-level electronic control system/function. A function which is over-ridden becomes part of the complex electronic control system, as well as any overriding system/function within the scope of this UN Regulation. The transmission links to and from overriding systems/function outside of the scope of this UN Regulation shall also be included.	12.2.4 複合式電子控制系統(Complex Electronic Control Systems):係指一個由電子系統所控制之電子控制系統功能,它可被較高階的電子控制系統/功能介入而取代。被取代的功能成為此系統的一部分,以及本基準附件適用範圍之任何取代系統/功能者。傳輸連接至與用於取代非本基準附件適用範圍之系統/功能者亦同。	12.2.4 複合式電子控制系統(Complex Electronic Control Systems):係指一個由電子系統所控制之電子控制系統功能,它可被較高階的電子控制系統/功能介入而取代。被取代的功能成為此系統的一部分,以及本基準附件適用範圍之任何取代系統/功能者。傳輸連接至與用於取代非本基準附件適用範圍之系統/功能者亦同。
2.5. "Higher-Level Electronic Control" systems/functions are those which employ additional processing and/or sensing provisions to modify vehicle behaviour by commanding variations in the function(s) of the vehicle control system. This allows complex systems to automatically change their objectives with a priority which	2.5. "Higher-Level Electronic Control" systems/functions are those which employ additional processing and/or sensing provisions to modify vehicle behaviour by commanding variations in the function(s) of the vehicle control system. This allows complex systems to automatically change their objectives with a priority which	12.2.5 高層次電子控制(Higher-Level Electronic Control)系統/功能:指運用額外處理及/或感應方式,於車輛控制系統功能上進行變動,以調整車輛行駛行為。由感應得之情況(Sensed circumstances),允許複合式系統依其優先度自動改變其目標。	12.2.5 高層次電子控制(Higher-Level Electronic Control)系統/功能:指運用額外處理及/或感應方式,於車輛控制系統功能上進行變動,以調整車輛行駛行為。由感應得之情況(Sensed circumstances),允許複合式系統依其優先度自動改變其目標。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
depends on the sensed circumstances. 2.6. "Units" are the smallest divisions of system components which will be considered in this annex, since these combinations of components will be treated as single entities for purposes of identification, analysis or replacement. 2.7. "Transmission links" are the means used for inter-connecting distributed units for the purpose of conveying signals, operating data or an energy supply. This equipment is generally electrical but may, in some part, be mechanical, pneumatic or hydraulic. 2.8. "Range of control" refers to an output variable and defines the range over which the system is likely to exercise control. 2.9. "Boundary of functional operation" defines the boundaries of verifiable or measurable limits within which the system is designed to maintain control, as defined in paragraph 2.5. of this UN Regulation.	depends on the sensed circumstances. 2.6. "Units" are the smallest divisions of system components which will be considered in this annex, since these combinations of components will be treated as single entities for purposes of identification, analysis or replacement. 2.7. "Transmission links" are the means used for inter-connecting distributed units for the purpose of conveying signals, operating data or an energy supply. This equipment is generally electrical but may, in some part, be mechanical, pneumatic or hydraulic. 2.8. "Range of control" refers to an output variable and defines the range over which the system is likely to exercise control. 2.9. "Boundary of functional operation" defines the boundaries of verifiable or measurable limits within which the system is designed to maintain control, as defined in paragraph 2.6. of Section 2 of this UN Regulation.	12.2.6 單元(Units)：係指本項規定所述系統組件(Component)之最小組合單元，以將這些組件組合視為一個被識別、分析或替換之整體。 12.2.7 傳輸連接 (Transmission links)：係指用於內部連結各配置元件，以傳送信號、作動數據或能源供給。一般而言，此等設備為電氣式，惟其可有部份為機械式、氣壓式或液壓式。 12.2.8 控制幅度(Range of control)：係指輸出之變數，其定義系統可能進行操控之幅度。 12.2.9 功能性作動範圍(Boundary of functional operation)：如本基準附件規定2.4所定義，其定義可驗證或可測量限制之範圍，讓系統能於該範圍內維持控制。	12.2.6 單元(Units)：係指本項規定所述系統組件(Component)之最小組合單元，以將這些組件組合視為一個被識別、分析或替換之整體。 12.2.7 傳輸連接(Transmission links)：係指用於內部連結各配置元件，以傳送信號、作動數據或能源供給。一般而言，此等設備為電氣式，惟其可有部份為機械式、氣壓式或液壓式。 12.2.8 控制幅度(Range of control)：係指輸出之變數，其定義系統可能進行操控之幅度。 12.2.9 功能性作動範圍(Boundary of functional operation)：如本基準附件規定2.4所定義，其定義可驗證或可測量限制之範圍，讓系統能於該範圍內維持控制。
Within this UN Regulation, Boundaries of functional operation are also referred to as "System Boundaries". 2.10. "Safety Related Function" means a function of "the system" that is capable of changing the dynamic behaviour of the vehicle. The system may be capable of performing more than one safety related function. 2.11. "Control Strategy" means a strategy to	Within this UN Regulation, Boundaries of functional operation are also referred to as "System Boundaries". 2.10. "Safety Related Function" means a function of "the system" that is capable of changing the dynamic behaviour of the vehicle. The system may be capable of performing more than one safety related function. 2.11. "Control Strategy" means a strategy to	於本基準附件內，功能性作動範圍亦可指為「系統邊界」。 12.2.10 安全相關功能(Safety Related Function)：係指系統中能改變車輛動態行為之功能。系統可具備執行多於一種安全相關功能之能力。 12.2.11 控制策略(Control strategy)：	於本基準附件內，功能性作動範圍亦可指為「系統邊界」。 12.2.10 安全相關功能(Safety Related Function)：係指系統中能改變車輛動態行為之功能。系統可具備執行多於一種安全相關功能之能力。 12.2.11 控制策略(Control strategy)：係

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
ensure robust and safe operation of the function(s) of the system in response to a specific set of ambient and/or operating conditions (such as road surface condition, traffic intensity and other road users, adverse weather conditions, etc.). This may include the automatic deactivation of a function or temporary performance restrictions (e.g., a reduction in the maximum operating speed, etc.).	ensure robust and safe operation of the function(s) of the system in response to a specific set of ambient and/or operating conditions (such as road surface condition, traffic intensity and other road users, adverse weather conditions, etc.). This may include the automatic deactivation of a function or temporary performance restrictions (e.g., a reduction in the maximum operating speed, etc.).	係指用於確保系統功能對特定組合之環境及/或運作狀況（例如路面狀況、交通密度及其他道路使用者、惡劣天氣環境等）下穩固及安全運作之策略。此可包含功能自動解除或性能暫時限制（例如：降低最高運作速度等）。	指用於確保系統功能對特定組合之環境及/或運作狀況（例如路面狀況、交通密度及其他道路使用者、惡劣天氣環境等）下穩固及安全運作之策略。此可包含功能自動解除或性能暫時限制（例如：降低最高運作速度等）。
2.12. "Fault" means an abnormal condition that can cause a failure. This can concern hardware or software.	2.12. "Fault" means an abnormal condition that can cause a failure. This can concern hardware or software.	12.2.12 錯誤(Fault)：係指可能造成故障之異常情形，本項可能涉及硬體或軟體。	12.2.12 錯誤(Fault)：係指可能造成故障之異常情形，本項可能涉及硬體或軟體。
2.13. "Failure" means the termination of an intended behaviour of a component or a system of the System due to a fault manifestation.	2.13. "Failure" means the termination of an intended behaviour of a component or a system of the System due to a fault manifestation.	12.2.13 故障(Failure)：係指系統中因發生錯誤造成零組件或系統之預期功能的終止。	12.2.13 故障(Failure)：係指系統中因發生錯誤造成零組件或系統之預期功能的終止。
2.14. "Unreasonable risk" means the overall level of risk for the vehicle occupants and other road users which is increased compared to a manually driven vehicle in comparable transportation services and situations within the system boundaries.	2.14. "Unreasonable risk" means the overall level of risk for the vehicle occupants and other road users which is increased compared to a manually driven vehicle in comparable transportation services and situations within the system boundaries.	12.2.14 無理之風險狀況(Unreasonable risk)：係指對車輛乘客及其他道路使用者之風險的整體等級，其與可比較之運輸服務之下手動行駛車輛及系統邊界內之情況相較為增加。	12.2.14 無理之風險狀況(Unreasonable risk)：係指對車輛乘客及其他道路使用者之風險的整體等級，其與可比較之運輸服務之下手動行駛車輛及系統邊界內之情況相較為增加。
2.15. "Highway" means a road where pedestrians and cyclists are prohibited and which, by design, is equipped with a physical separation that divides the traffic moving in opposite directions.	2.15. "Highway" means a road where pedestrians and cyclists are prohibited and which, by design, is equipped with a physical separation that divides the traffic moving in opposite directions.	12.2.15 高 ~~速~~ 快速公路(Highway)：係指一種類型之道路，其禁止行人及自行車騎士使用，且依照設計配備有物理分隔將相反方向移動之交通進行區分。	12.2.15 高速公路(Highway)：係指一種類型之道路，其禁止行人及自行車騎士使用，且依照設計配備有物理分隔將相反方向移動之交通進行區分。
2.16. "Non-Highway" means a road other than a highway as defined in paragraph 2.15.	2.16. "Non-Highway" means a road other than a highway as defined in paragraph 2.15.	12.2.16 非高 ~~速~~ 快速公路(Non-Highway)：係指一種類型之道路，其為不同於規定12.2.15所述之高 ~~速~~ 快速公路的道路。	12.2.16 非高速公路(Non-Highway)：係指一種類型之道路，其為不同於規定12.2.15所述之高速公路的道路。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
3. Documentation 3.1. Requirements The manufacturer shall provide a documentation package which gives access to the basic design of the system and the means by which it is linked to other vehicle systems or by which it directly controls output variables. The function(s) of the system and the safety concept, as laid down by the manufacturer, shall be explained. Documentation shall be brief, yet provide evidence that the design and development has had the benefit of expertise from all the system fields which are involved. For periodic technical inspections, the documentation shall describe how the current operational status of the system can be checked. The Type Approval Authority shall assess the documentation package to show that "The System": (a) Is designed to operate, under non-fault and fault conditions, in such a way that it is free from unreasonable risk; and (b) Respects, under non-fault and fault conditions, all the appropriate performance requirements specified elsewhere in this UN Regulation; and (c) Was developed according to the development process/method chosen by the manufacturer according to paragraph 3.4.4. 3.1.1. Documentation shall be made available	3. Documentation 3.1. Requirements The manufacturer shall provide a documentation package which gives access to the basic design of the system and the means by which it is linked to other vehicle systems or by which it directly controls output variables. The function(s) of the system and the safety concept, as laid down by the manufacturer, shall be explained. Documentation shall be brief, yet provide evidence that the design and development has had the benefit of expertise from all the system fields which are involved. For periodic technical inspections, the documentation shall describe how the current operational status of the system can be checked. The Type Approval Authority shall assess the documentation package to show that "The System": (a) Is designed to operate, under non-fault and fault conditions, in such a way that it is free from unreasonable risk; and (b) Respects, under non-fault and fault conditions, all the appropriate performance requirements specified elsewhere in this UN Regulation; and (c) Was developed according to the development process/method chosen by the manufacturer according to paragraph 3.4.4. 3.1.1. Documentation shall be made available	12.3 文件提供 12.3.1 要求 申請者應提供一份文件，以說明系統之基本設計及連結車輛其他系統或直接控制輸出變數之方法。申請者應於該文件中說明系統之功能及安全性概念。文件應簡要且應能佐證該系統所涉及領域於設計及開發時所受益的專業技術。 <u>檢測機構</u> 應評估相關文件以顯示系統： (a) 非故障及故障狀態之設計運作模式下，不應造成無理之風險狀況；及 (b) 各方面在非故障及故障狀態下，皆符合本基準其它規定所有適合之性能要求；及 (c) 依照申請者於規定12.3.4.4所選擇之研發流程/步驟進行開發。 12.3.1.1 相關文件應包括兩部分：	12.3 文件提供 12.3.1 要求 申請者應提供一份文件，以說明系統之基本設計及連結車輛其他系統或直接控制輸出變數之方法。申請者應於該文件中說明系統之功能及安全性概念。文件應簡要且應能佐證該系統所涉及領域於設計及開發時所受益的專業技術。 <u>檢測機構</u> 應評估相關文件以顯示系統： (a)非故障及故障狀態之設計運作模式下，不應造成無理之風險狀況；及 (b)各方面在非故障及故障狀態下，皆符合本基準其它規定所有適合之性能要求；及 (c)依照申請者於規定12.3.4.4所選擇之研發流程/步驟進行開發。 12.3.1.1 相關文件應包括兩部分：

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in two parts: (a) The formal documentation package for the approval, containing the material listed in paragraph 3. (with the exception of that of paragraph 3.4.4.) which shall be supplied to the Type Approval Authority at the time of submission of the type approval application. This documentation package shall be used by the Type Approval Authority as the basic reference for the verification process set out in paragraph 4. of this Annex. The Type Approval Authority shall ensure that this documentation package remains available for a period determined in agreement with the Type Approval Authority. This period shall be at least 10 years counted from the time when production of the vehicle is definitely discontinued. (b) Additional confidential material and analysis data (intellectual property) of paragraph 3.4.4. which shall be retained by the manufacturer, but made open for inspection (e.g., on-site in the engineering facilities of the manufacturer) at the time of type approval. The manufacturer shall ensure that this material and analysis data remains available for a period of 10 years counted from the time when production of the vehicle is definitely discontinued. 3.2. Description of the functions of the system A description shall be provided which gives a simple explanation of all the functions,	in two parts: (a) The formal documentation package for the approval, containing the material listed in paragraph 3. (with the exception of that of paragraph 3.4.4.) which shall be supplied to the Type Approval Authority at the time of submission of the type approval application. This documentation package shall be used by the Type Approval Authority as the basic reference for the verification process set out in paragraph 4. of this Annex. The Type Approval Authority shall ensure that this documentation package remains available for a period determined in agreement with the Type Approval Authority. This period shall be at least 10 years counted from the time when production of the vehicle is definitely discontinued. (b) Additional confidential material and analysis data (intellectual property) of paragraph 3.4.4. which shall be retained by the manufacturer, but made open for inspection (e.g., on-site in the engineering facilities of the manufacturer) at the time of type approval. The manufacturer shall ensure that this material and analysis data remains available for a period of 10 years counted from the time when production of the vehicle is definitely discontinued. 3.2. Description of the functions of the system A description shall be provided which gives a simple explanation of all the functions,	(a) 認證測試申請之正式文件，包括規定9.3所列資料（除規定9.3.4.4之內容），該資料於申請認證測試時應提供予<u>檢測機構</u>。此文件將由<u>檢測機構</u>用於規定9.4驗證程序之基本引用。<u>檢測機構</u>應確保將此份文件留存一段時間，留存時間應由車輛完全停止生產起至少十年。 (b) 規定9.3.4.4之附加機密資料及分析數據（智慧財產），申請者應保有此等資料，惟應於認證過程中開放予<u>檢測機構</u>（例如：於申請者之工程設施的現場時）。申請者應確保將此資料及分析數據留存一段時間，留存時間應由車輛完全停止生產起至少十年。 12.3.2 系統功能說明文件 應提供一份說明文件，簡要解釋系統所有控制功能及用來實現目的之方	(a) 認證測試申請之正式文件，包括規定9.3所列資料（除規定9.3.4.4之內容），該資料於申請認證測試時應提供予<u>檢測機構</u>。此文件將由<u>檢測機構</u>用於規定9.4驗證程序之基本引用。<u>檢測機構</u>應確保將此份文件留存一段時間，留存時間應由車輛完全停止生產起至少十年。 (b) 規定9.3.4.4之附加機密資料及分析數據（智慧財產），申請者應保有此等資料，惟應於認證過程中開放予<u>檢測機構</u>（例如：於申請者之工程設施的現場時）。申請者應確保將此資料及分析數據留存一段時間，留存時間應由車輛完全停止生產起至少十年。 12.3.2 系統功能說明文件 應提供一份說明文件，簡要解釋系統所有控制功能及用來實現目的之方

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including control strategies, of the system and the methods employed to achieve the objectives, including a statement of the mechanism(s) by which control is exercised. Any described function shall be identified and a further description of the changed rationale of the function's operation provided. Any enabled or disabled safety related functions providing assistance to the driver as defined in paragraph 2.1. of this UN Regulation, when the hardware and software are present in the vehicle at the time of production, shall be declared and are subject to the requirements of this Annex, prior to their use in the vehicle.	including control strategies, of the system and the methods employed to achieve the objectives, including a statement of the mechanism(s) by which control is exercised. Any described function shall be identified and a further description of the changed rationale of the function's operation provided. Any enabled or disabled safety related functions providing assistance to the driver as defined in paragraph 2.1. of this UN Regulation, when the hardware and software are present in the vehicle at the time of production, shall be declared and are subject to the requirements of this Annex, prior to their use in the vehicle.	法，包括控制功能運行之機制說明。 應詳述任何功能且更進一步說明運作功能所改變之基本原理。 任何如本基準規定2.1所定義之提供駕駛協助之已開啟或關閉安全性相關功能，於車輛生產中相關硬體及軟體存在時，應於使用於車輛前宣告並符合規定12.之要求。	法，包括控制功能運行之機制說明。 應詳述任何功能且更進一步說明運作功能所改變之基本原理。 任何如本基準規定2.1所定義之提供駕駛協助之已開啟或關閉安全性相關功能，於車輛生產中相關硬體及軟體存在時，應於使用於車輛前宣告並符合規定12.之要求。
3.2.1. A list of all input and sensed variables shall be provided and the working range of these defined, along with a description of how each variable affects system behaviour.	3.2.1. A list of all input and sensed variables shall be provided and the working range of these defined, along with a description of how each variable affects system behaviour.	12.3.2.1 應提供所有輸入與感測變數清單，以及定義工作範圍，檢附一份每一變數如何影響系統行為之說明。	12.3.2.1 應提供所有輸入與感測變數清單，以及定義工作範圍，檢附一份每一變數如何影響系統行為之說明。
3.2.2. A list of all output variables which are controlled by the system shall be provided and an explanation given, in each case, of whether the control is direct or via another vehicle system. The range of control exercised on each such variable shall be defined.	3.2.2. A list of all output variables which are controlled by the system shall be provided and an explanation given, in each case, of whether the control is direct or via another vehicle system. The range of control exercised on each such variable shall be defined.	12.3.2.2 應提供由系統所控制之輸出變數清單，及各變數由系統直接控制或由其他車輛系統控制之說明。應定義各變數之控制幅度。	12.3.2.2 應提供由系統所控制之輸出變數清單，及各變數由系統直接控制或由其他車輛系統控制之說明。應定義各變數之控制幅度。
3.2.3. Limits defining the boundaries of functional operation shall be stated where appropriate to system performance.	3.2.3. Limits defining the boundaries of functional operation shall be stated where appropriate to system performance.	12.3.2.3 應說明適用於系統性能之功能性作動範圍之界限值。	12.3.2.3 應說明適用於系統性能之功能性作動範圍之界限值。
3.2.4. A declaration of the capability of the system and its features according to the model in Appendix 4 to this Annex shall be	3.2.4. A declaration of the capability of the system and its features according to the model in Appendix 4 to this Annex shall be	12.3.2.4 應依照規定12.9之範例提供對系統及其功能之能力的宣告。	12.3.2.4 應依照規定12.9之範例提供對系統及其功能之能力的宣告。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
provided. 3.3. System layout and schematics 3.3.1. Inventory of components. A list shall be provided, collating all the units of the system and mentioning the other vehicle systems which are needed to achieve the control function in question. An outline schematic showing these units in combination, shall be provided with both the equipment distribution and the interconnections made clear. 3.3.2. Functions of the units The function of each unit of the system shall be outlined and the signals linking it with other units or with other vehicle systems shall be shown. This may be provided by a labelled block diagram or other schematic, or by a description aided by such a diagram. 3.3.3. Interconnections Interconnections within the system shall be shown by a circuit diagram for the electric transmission links, by a piping diagram for pneumatic or hydraulic transmission equipment and by a simplified diagrammatic layout for mechanical linkages. The transmission links both to and from other systems shall also be shown 3.3.4. Signal flow, operating data and priorities There shall be a clear correspondence between transmission links and the signals carried between units. Priorities of signals on	provided. 3.3. System layout and schematics 3.3.1. Inventory of components. A list shall be provided, collating all the units of the system and mentioning the other vehicle systems which are needed to achieve the control function in question. An outline schematic showing these units in combination, shall be provided with both the equipment distribution and the interconnections made clear. 3.3.2. Functions of the units The function of each unit of the system shall be outlined and the signals linking it with other units or with other vehicle systems shall be shown. This may be provided by a labelled block diagram or other schematic, or by a description aided by such a diagram. 3.3.3. Interconnections Interconnections within the system shall be shown by a circuit diagram for the electric transmission links, by a piping diagram for pneumatic or hydraulic transmission equipment and by a simplified diagrammatic layout for mechanical linkages. The transmission links both to and from other systems shall also be shown 3.3.4. Signal flow, operating data and priorities There shall be a clear correspondence between transmission links and the signals carried between units. Priorities of signals on	12.3.3 系統佈線圖及示意圖 12.3.3.1 組件清單 應提供一份清單，彙整系統所有單元 (Unit)，及說明所需控制功能之其他車輛系統。 應提供一份所有單元組合之簡要示意圖，明確標示裝置配置與內部連接。 12.3.3.2 單元功能說明文件 應概述系統各單元之功能，及顯示與其他單元或其他車輛系統間互相連結之信號。此文件可為附有標示之方塊圖(Block diagram)或其他示意圖，或由此等圖面輔助之說明。 12.3.3.3 內部連接 系統內部連接之電氣傳輸連結，應以電路圖表示；氣壓或液壓傳動裝置之連接，應以管路圖表示；機械連接應以簡要配置圖表示。應表示傳輸連結對其他系統之進出。 12.3.3.4 信號流程、運作資料與優先順序 單元間之傳輸連結與所輸送之信號應彼此明確對應。信號優先順序可能會影響性能或安全性者，應說明多	12.3.3 系統佈線圖及示意圖 12.3.3.1 組件清單 應提供一份清單，彙整系統所有單元 (Unit)，及說明所需控制功能之其他車輛系統。 應提供一份所有單元組合之簡要示意圖，明確標示裝置配置與內部連接。 12.3.3.2 單元功能說明文件 應概述系統各單元之功能，及顯示與其他單元或其他車輛系統間互相連結之信號。此文件可為附有標示之方塊圖(Block diagram)或其他示意圖，或由此等圖面輔助之說明。 12.3.3.3 內部連接 系統內部連接之電氣傳輸連結，應以電路圖表示；氣壓或液壓傳動裝置之連接，應以管路圖表示；機械連接應以簡要配置圖表示。應表示傳輸連結對其他系統之進出。 12.3.3.4 信號流程、運作資料與優先順序 單元間之傳輸連結與所輸送之信號應彼此明確對應。信號優先順序可能會影響性能或安全性者，應說明多

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multiplexed data paths shall be stated wherever priority may be an issue affecting performance or safety. 3.3.5. Identification of units Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware and marking or software output for software content) to provide corresponding hardware and documentation association. Where functions are combined within a single unit or indeed within a single computer, but shown in multiple blocks in the block diagram for clarity and ease of explanation, only a single hardware identification marking shall be used. The manufacturer shall, by the use of this identification, affirm that the equipment supplied conforms to the corresponding document. 3.3.5.1. The identification defines the hardware and software version and, where the latter changes such as to alter the function of the Unit as far as this Regulation is concerned, this identification shall also be changed. 3.4. Safety concept of the manufacturer 3.4.1. The manufacturer shall provide a statement which affirms that the strategy chosen to achieve the system objectives will not, under non-fault conditions, prejudice the safe operation of the vehicle. The manufacturer shall supplement this statement by an explanation showing in	multiplexed data paths shall be stated wherever priority may be an issue affecting performance or safety. 3.3.5. Identification of units Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware and marking or software output for software content) to provide corresponding hardware and documentation association. Where functions are combined within a single unit or indeed within a single computer, but shown in multiple blocks in the block diagram for clarity and ease of explanation, only a single hardware identification marking shall be used. The manufacturer shall, by the use of this identification, affirm that the equipment supplied conforms to the corresponding document. 3.3.5.1. The identification defines the hardware and software version and, where the latter changes such as to alter the function of the Unit as far as this Regulation is concerned, this identification shall also be changed. 3.4. Safety concept of the manufacturer 3.4.1. The manufacturer shall provide a statement which affirms that the strategy chosen to achieve the system objectives will not, under non-fault conditions, prejudice the safe operation of the vehicle. The manufacturer shall supplement this statement by an explanation showing in	工路傳輸數據通路(Multiplexed data path)上之信號優先順序。 12.3.3.5 單元識別 各單元應能被清楚且明確地辨識(例如:藉由硬體之標示、軟體內容之標示或軟體輸出),以提供硬體與文件間之相對應關聯。 為能清楚並簡易說明而以多方塊形式表示於方塊圖之單一單元或單一電腦內多項功能者,應只能使用單一硬體識別標示。申請者應藉由使用此識別以確認所收到之配備與相對應文件一致。 12.3.3.5.1 單元識別定義出硬體及軟體之版本,且軟體之改變(例如改變該單元之本法規相關功能),亦應改變此單元識別。 12.3.4 申請者之安全性概念 12.3.4.1 申請者應提供說明文件,確保為達到系統目的所選擇之策略,於非故障情況下不會損害車輛之安全運作。 申請者應藉由顯示所選擇之策略就整體而言,如何確保系統目標將不會	工路傳輸數據通路(Multiplexed data path)上之信號優先順序。 12.3.3.5 單元識別 各單元應能被清楚且明確地辨識(例如:藉由硬體之標示、軟體內容之標示或軟體輸出),以提供硬體與文件間之相對應關聯。 為能清楚並簡易說明而以多方塊形式表示於方塊圖之單一單元或單一電腦內多項功能者,應只能使用單一硬體識別標示。申請者應藉由使用此識別以確認所收到之配備與相對應文件一致。 12.3.3.5.1 單元識別定義出硬體及軟體之版本,且軟體之改變(例如改變該單元之本法規相關功能),亦應改變此單元識別。 12.3.4 申請者之安全性概念 12.3.4.1 申請者應提供說明文件,確保為達到系統目的所選擇之策略,於非故障情況下不會損害車輛之安全運作。 申請者應藉由顯示所選擇之策略就整體而言,如何確保系統目標將不會

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overall terms how the chosen strategy ensures that the system objectives does not prejudice the safe operation of the systems referred above, and by a description of the part of the validation plan supporting the statement.	overall terms how the chosen strategy ensures that the system objectives does not prejudice the safe operation of the systems referred above, and by a description of the part of the validation plan supporting the statement.	破壞上述所指系統之安全運作的說明，以及支撐前述描述之部分確認計畫(validation plan)的相關說明補充此等描述。	破壞上述所指系統之安全運作的說明，以及支撐前述描述之部分確認計畫(validation plan)的相關說明補充此等描述。
The Type Approval Authority shall perform an assessment to establish that the manufacturer's explanation of the chosen strategy is understandable, logical and that the validation plan is suitable and have been completed.	The Type Approval Authority shall perform an assessment to establish that the manufacturer's explanation of the chosen strategy is understandable, logical and that the validation plan is suitable and have been completed.	<u>檢測機構</u> 應執行評估以證實申請者之所選擇策略的說明可理解、具邏輯，以及驗證計畫合適且已被完成。	<u>檢測機構</u> 應執行評估以證實申請者之所選擇策略的說明可理解、具邏輯，以及驗證計畫合適且已被完成。
The Type Approval Authority may perform tests, or may require tests to be performed, as specified in paragraph 4. below, to verify that “the system” operates as per the chosen strategy.	The Type Approval Authority may perform tests, or may require tests to be performed, as specified in paragraph 4. below, to verify that “the system” operates as per the chosen strategy.	<u>檢測機構</u> 可如下述規定12.4，執行測試或要求測試被執行，以驗證系統如所選策略運作。	<u>檢測機構</u> 可如下述規定12.4，執行測試或要求測試被執行，以驗證系統如所選策略運作。
3.4.2. In respect of software employed in the system, the outline architecture shall be explained and the design methods and tools used shall be identified. The manufacturer shall show evidence of the means by which they determined the realisation of the system logic, during the design and development process.	3.4.2. In respect of software employed in the system, the outline architecture shall be explained and the design methods and tools used shall be identified. The manufacturer shall show evidence of the means by which they determined the realisation of the system logic, during the design and development process.	12.3.4.2 對於使用於系統內之軟體，應說明該軟體之概要架構，及識別出所用之設計方法與工具。申請者應出示證明文件以說明於設計及開發階段時所確定實現系統邏輯之方法。	12.3.4.2 對於使用於系統內之軟體，應說明該軟體之概要架構，及識別出所用之設計方法與工具。申請者應出示證明文件以說明於設計及開發階段時所確定實現系統邏輯之方法。
3.4.3. The manufacturer shall provide the Type Approval Authority with an explanation of the design provisions built into the system so as to generate safe operation under fault conditions. Possible design provisions for failure in the system are for example:	3.4.3. The manufacturer shall provide the Type Approval Authority with an explanation of the design provisions built into the system so as to generate safe operation under fault conditions. Possible design provisions for failure in the system are for example:	12.3.4.3 申請者應向 <u>檢測機構</u> 說明系統內建之設計機制，該機制用於故障發生時執行安全運行。系統故障設計機制範例如下：	12.3.4.3 申請者應向 <u>檢測機構</u> 說明系統內建之設計機制，該機制用於故障發生時執行安全運行。系統故障設計機制範例如下：
(a) Fall-back to operation using a partial	(a) Fall-back to operation using a partial	(a) 使用部分系統運作之備用機制	(a) 使用部分系統運作之備用機制

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system; (b) Change-over to a separate back-up system; (c) Removal of the high level function. 3.4.3.1. If the chosen provision selects a partial performance mode of operation under certain fault conditions, then these conditions shall be stated and the resulting limits of effectiveness defined. 3.4.3.2. If the chosen provision selects a second (back-up) means to realise the vehicle control system objective, the principles of the change-over mechanism, the logic and level of redundancy and any built in back-up checking features shall be explained and the resulting limits of back-up effectiveness defined. 3.4.3.3. If the chosen provision selects the removal of the higher-level function, all the corresponding output control signals associated with this function shall be inhibited, and in such a manner as to limit the transition disturbance. 3.4.4. The documentation shall be supported, by an analysis which shows, in overall terms, how the system will behave on the occurrence of any individual hazard or fault which will have a bearing on vehicle control performance or safety. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for	system; (b) Change-over to a separate back-up system; (c) Removal of the high level function. 3.4.3.1. If the chosen provision selects a partial performance mode of operation under certain fault conditions, then these conditions shall be stated and the resulting limits of effectiveness defined. 3.4.3.2. If the chosen provision selects a second (back-up) means to realise the vehicle control system objective, the principles of the change-over mechanism, the logic and level of redundancy and any built in back-up checking features shall be explained and the resulting limits of back-up effectiveness defined. 3.4.3.3. If the chosen provision selects the removal of the higher-level function, all the corresponding output control signals associated with this function shall be inhibited, and in such a manner as to limit the transition disturbance. 3.4.4. The documentation shall be supported, by an analysis which shows, in overall terms, how the system will behave on the occurrence of any individual hazard or fault which will have a bearing on vehicle control performance or safety. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for	(Fall-back)。 (b) 更換(Change-over)至獨立備用系統。 (c) 解除高層級控制系統/功能。 12.3.4.3.1 若選定於某些故障情況下使用部分性能運作模式，則應說明該些故障情況並界定其產生之效益極限。 12.3.4.3.2 若選定備用系統以實現車輛控制系統目的，則應說明其更換機制之原理、邏輯、冗餘度(Level of redundancy)與任何內建之備用檢查功能，並界定其產生之備用系統效益極限。 12.3.4.3.3 若選定解除高層級控制系統/功能，則應抑制與該功能相關並對應之輸出控制信號，以此限制其轉換干擾(Transition disturbance)。 12.3.4.4 應以分析資料作為佐證文件，整體而言，該文件說明任何會影響車輛控制性能或安全性之獨立風險或故障出現時系統之行為。 所選擇之分析方法應由申請者建置及維持，惟應於認證過程中開放予<u>檢測機構</u>。	(Fall-back)。 (b) 更換(Change-over)至獨立備用系統。 (c)解除高層級控制系統/功能。 12.3.4.3.1 若選定於某些故障情況下使用部分性能運作模式，則應說明該些故障情況並界定其產生之效益極限。 12.3.4.3.2 若選定備用系統以實現車輛控制系統目的，則應說明其更換機制之原理、邏輯、冗餘度(Level of redundancy)與任何內建之備用檢查功能，並界定其產生之備用系統效益極限。 12.3.4.3.3 若選定解除高層級控制系統/功能，則應抑制與該功能相關並對應之輸出控制信號，以此限制其轉換干擾(Transition disturbance)。 12.3.4.4 應以分析資料作為佐證文件，整體而言，該文件說明任何會影響車輛控制性能或安全性之獨立風險或故障出現時系統之行為。 所選擇之分析方法應由申請者建置及維持，惟應於認證過程中開放予<u>檢測機構</u>。

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inspection by the Type Approval Authority at the time of the type approval. The Type Approval Authority shall perform an assessment of the application of the analytical approach(es). The assessment shall include: (a) Inspection of the safety approach at the concept (vehicle) level with confirmation that it includes consideration of: (i) Interactions with other vehicle systems; (ii) Malfunctions of the system, within the scope of this UN Regulation, including the controllability aspects in accordance with paragraph 5.3.6. of this UN Regulation; (iii) For functions defined in paragraph 3.2. of this UN Regulation: - Situations when a system free from faults may create safety critical risks (e.g. due to a lack of or wrong comprehension of the vehicle environment); - Operational and system limitations; - Reasonably foreseeable misuse by the driver; - Intentional modification of the system. (iv) Cyber-attacks having an impact on the safety of the vehicle. This approach may be based on a Hazard / Risk analysis appropriate to system safety. (b) Inspection of the safety approach at the system level. This approach includes top down and bottom-up approach. The safety approach may be based on Failure Mode and Effect Analysis (FMEA), a Fault Tree	inspection by the Type Approval Authority at the time of the type approval. The Type Approval Authority shall perform an assessment of the application of the analytical approach(es). The assessment shall include: (a) Inspection of the safety approach at the concept (vehicle) level with confirmation that it includes consideration of: (i) Interactions with other vehicle systems; (ii) Malfunctions of the system, within the scope of this UN Regulation; (iii) For functions defined in paragraph 3.2. of this UN Regulation: - Situations when a system free from faults may create safety critical risks (e.g. due to a lack of or wrong comprehension of the vehicle environment); - Operational and system limitations; - Reasonably foreseeable misuse by the driver; - Intentional modification of the system. (iv) Cyber-attacks having an impact on the safety of the vehicle. This approach may be based on a Hazard / Risk analysis appropriate to system safety. (b) Inspection of the safety approach at the system level. This approach includes top down and bottom-up approach. The safety approach may be based on Failure Mode and Effect Analysis (FMEA), a Fault Tree	<u>檢測機構</u>應評估分析方法。查核內容應包含： (a) 概念（車輛）層級之安全方法檢查，其包含下述考量： (i) 與其他車輛系統之互動； (ii) <u>包含依照規定5.3.6之可控制性層面在內</u>，本基準附件適用範圍內之系統故障； (iii) 對本基準附件規定2.3所定義之相關功能而言： - 當系統排除錯誤後可能產生安全性危害風險（例如：因缺少或錯誤評估車輛環境造成風險）； - 運作極限及系統極限； - 合理可預見之駕駛人誤用； - 系統之刻意改裝。 (iv) 對車輛安全性造成衝擊之網路攻擊。 此方法可基於系統安全合適之危險/風險分析。 (b) 系統層級之安全方法檢查。此方法包含由上而下(top down)及由下而上(bottom-up)方法。此等安全方法可依照失效模式及影響分析(FMEA)、故障樹分析(FTA)、系統理	<u>檢測機構</u>應評估分析方法。查核內容應包含： (a)概念（車輛）層級之安全方法檢查，其包含下述考量： (i)與其他車輛系統之互動； (ii)本基準附件適用範圍內之系統故障； (iii)對本基準附件規定2.3所定義之相關功能而言： - 當系統排除錯誤後可能產生安全性危害風險（例如：因缺少或錯誤評估車輛環境造成風險）； - 運作極限及系統極限； - 合理可預見之駕駛人誤用； - 系統之刻意改裝。 (iv) 對車輛安全性造成衝擊之網路攻擊。 此方法可基於系統安全合適之危險/風險分析。 (b)系統層級之安全方法檢查。此方法包含由上而下(top down)及由下而上(bottom-up)方法。此等安全方法可依照失效模式及影響分析(FMEA)、故障樹分析(FTA)、系統理

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Analysis (FTA) and a System-Theoretic Process Analysis (STPA) or any similar process appropriate to system functional and operational safety;	Analysis (FTA) and a System-Theoretic Process Analysis (STPA) or any similar process appropriate to system functional and operational safety;	論過程分析(STPA)或任何適用於判斷控制系統功能及運作安全之類似過程。	論過程分析(STPA)或任何適用於判斷控制系統功能及運作安全之類似過程。
(c) Inspection of the validation plans and results. This validation shall / may include validation testing appropriate for validation, for example, Hardware in the Loop (HIL) testing, vehicle on-road operational testing, or any other testing appropriate for validation.	(c) Inspection of the validation plans and results. This validation shall / may include validation testing appropriate for validation, for example, Hardware in the Loop (HIL) testing, vehicle on-road operational testing, or any other testing appropriate for validation.	(c) 驗證計畫及結果檢查，此驗證應／可包含適當之驗證試驗如：硬體迴路(HIL)試驗、車輛於道路進行操作性試驗或任何其他適當之驗證試驗。	(c)驗證計畫及結果檢查，此驗證應／可包含適當之驗證試驗如：硬體迴路(HIL)試驗、車輛於道路進行操作性試驗或任何其他適當之驗證試驗。
The assessment shall consist of checks of hazards, faults and failure conditions chosen by the Type Approval Authority to establish that the manufacturer's explanation of the safety concept is understandable, logical and that the validation plans are suitable and have been completed.	The assessment shall consist of checks of hazards, faults and failure conditions chosen by the Type Approval Authority to establish that the manufacturer's explanation of the safety concept is understandable, logical and that the validation plans are suitable and have been completed.	此評估應由 <u>檢測機構</u> 所選擇之危險、錯誤及故障情形之多次檢查所組成，以證實申請者之 <u>安全性概念</u> 的說明可理解、具邏輯，以及驗證計畫合適且已被完成。	此評估應由 <u>檢測機構</u> 所選擇之危險、錯誤及故障情形之多次檢查所組成，以證實申請者之 <u>安全性概念</u> 的說明可理解、具邏輯，以及驗證計畫合適且已被完成。
The Type Approval Authority may perform tests or may require tests to be performed as specified in paragraph 4. to verify the safety concept.	The Type Approval Authority may perform tests or may require tests to be performed as specified in paragraph 4. to verify the safety concept.	<u>檢測機構</u> 可如下述規定12.4，執行測試或要求測試被執行，以驗證 <u>安全性概念</u> 。	<u>檢測機構</u> 可如下述規定12.4，執行測試或要求測試被執行，以驗證 <u>安全性概念</u> 。
3.4.4.1. This documentation shall itemize the parameters being monitored and shall set out, for each relevant failure condition of the type defined in paragraph 3.4.4. of this Annex, the warning signal to be given to the driver and/or to service/technical inspection personnel.	3.4.4.1. This documentation shall itemize the parameters being monitored and shall set out, for each failure condition of the type defined in paragraph 3.4.4. of this Annex, the warning signal to be given to the driver and/or to service/technical inspection personnel.	12.3.4.4.1 此文件應詳列所監測之參數，且依照規定9.3.4.4所述該型式系列之各 <u>相關</u> 故障情況，列出發送給駕駛者及/或維修/技術性檢查人員之警告訊號。	12.3.4.4.1 此文件應詳列所監測之參數，且依照規定9.3.4.4所述該型式系列之各故障情況，列出發送給駕駛者及/或維修/技術性檢查人員之警告訊號。
3.4.4.2. This documentation shall describe the measures in place to ensure the system does not prejudice the safe operation of the	3.4.4.2. This documentation shall describe the measures in place to ensure the system does not prejudice the safe operation of the	12.3.4.4.2 此文件應描述所採取之措施，以確保系統之性能受環境影響下（例如：氣候、溫度、灰塵侵入、	12.3.4.4.2 此文件應描述所採取之措施，以確保系統之性能受環境影響下（例如：氣候、溫度、灰塵侵入、

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vehicle when the performance of the system is affected by environmental conditions e.g. climatic, temperature, dust ingress, water ingress, ice packing. Where this UN Regulation contains particular requirements for the operation of the system under different environmental conditions, this documentation shall describe the measures in place to ensure compliance with those requirements.	vehicle when the performance of the system is affected by environmental conditions e.g. climatic, temperature, dust ingress, water ingress, ice packing. Where this UN Regulation contains particular requirements for the operation of the system under different environmental conditions, this documentation shall describe the measures in place to ensure compliance with those requirements.	進水及堆冰(Ice packing)之下), 不會損害車輛之安全運作。 於本基準附件包含對系統於不同環境條件下運作之特定要求的狀況下, 此文件應描述已就緒之措施以確保符合相關要求。	進水及堆冰(Ice packing)之下), 不會損害車輛之安全運作。 於本基準附件包含對系統於不同環境條件下運作之特定要求的狀況下, 此文件應描述已就緒之措施以確保符合相關要求。
3.5. Safety Management System (Process Audit) 3.5.1. In respect of software and hardware employed in the system, the manufacturer shall demonstrate to the Type Approval Authority in terms of a safety management system that effective processes, methodologies and tools are in place, up to date and being followed within the organization to manage the safety and continued compliance throughout the product lifecycle (design, development, production and operation).	3.5. Safety Management System (Process Audit) 3.5.1. In respect of software and hardware employed in the system, the manufacturer shall demonstrate to the Type Approval Authority in terms of a safety management system that effective processes, methodologies and tools are in place, up to date and being followed within the organization to manage the safety and continued compliance throughout the product lifecycle (design, development, production and operation).	12.3.5 安全管理系統 (程序稽核) 12.3.5.1 針對系統中所使用之軟體及硬體, 申請者應向檢測機構展示, 就安全管理系統而言, 有效程序、方法及工具皆已就緒、更新, 並已由組織內部追蹤, 以於整個產品生命週期 (設計、開發、量產及運作) 管理安全性及持續符合性。	12.3.5 安全管理系統 (程序稽核) 12.3.5.1 針對系統中所使用之軟體及硬體, 申請者應向檢測機構展示, 就安全管理系統而言, 有效程序、方法及工具皆已就緒、更新, 並已由組織內部追蹤, 以於整個產品生命週期 (設計、開發、量產及運作) 管理安全性及持續符合性。
3.5.2. The safety management system shall comprise of the following key components: (a) Safety policy and objectives, which establish safety practices with a clear safety policy, safety roles and responsibilities, and organizational safety objectives; (b) Safety risk management which aims at managing the risk in a proactive way; (c) Safety assurance to monitor, analyse, and	3.5.2. The safety management system shall comprise of the following key components: (a) Safety policy and objectives, which establish safety practices with a clear safety policy, safety roles and responsibilities, and organizational safety objectives; (b) Safety risk management which aims at managing the risk in a proactive way; (c) Safety assurance to monitor, analyse, and	12.3.5.2 安全管理系統應由下列關鍵部分所組成: (a) 以明確之安全政策、安全規則及責任建立安全實例, 以及組織性安全目標之安全政策及目標。 (b) 以積極方式管理風險為目標之安全風險管理。 (c) 安全保障以監控、分析以及計算	12.3.5.2 安全管理系統應由下列關鍵部分所組成: (a) 以明確之安全政策、安全規則及責任建立安全實例, 以及組織性安全目標之安全政策及目標。 (b) 以積極方式管理風險為目標之安全風險管理。 (c) 安全保障以監控、分析以及計算整

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measure overall safety performance; (d) Safety promotion to ensure adequate information, education, and heighten the safety awareness of employees. 3.5.3. The design and development process shall be established including safety-by-design, requirements management, requirements' implementation, testing, failure tracking, remedy and release. 3.5.4. The manufacturer shall institute and maintain effective communication channels between manufacturer departments responsible for functional/operational safety, cybersecurity and any other relevant disciplines related to the achievement of vehicle safety. 3.5.5. The manufacturer shall demonstrate that periodic independent internal process audits are carried out to ensure that the processes established in accordance with paragraphs 3.5.1 to 3.5.4. are implemented consistently. 3.5.6. The manufacturer shall put in place suitable arrangements (e.g. contractual arrangements, clear interfaces, quality management system) with suppliers to ensure that the supplier safety management system comply with the requirements of paragraphs 3.5.1. (except for vehicle related aspects like "operation"), 3.5.2, 3.5.3 and 3.5.5. 3.5.7. The documentation shall outline a system information strategy which aims to	measure overall safety performance; (d) Safety promotion to ensure adequate information, education, and heighten the safety awareness of employees. 3.5.3. The design and development process shall be established including safety-by-design, requirements management, requirements' implementation, testing, failure tracking, remedy and release. 3.5.4. The manufacturer shall institute and maintain effective communication channels between manufacturer departments responsible for functional/operational safety, cybersecurity and any other relevant disciplines related to the achievement of vehicle safety. 3.5.5. The manufacturer shall demonstrate that periodic independent internal process audits are carried out to ensure that the processes established in accordance with paragraphs 3.5.1 to 3.5.4. are implemented consistently. 3.5.6. The manufacturer shall put in place suitable arrangements (e.g. contractual arrangements, clear interfaces, quality management system) with suppliers to ensure that the supplier safety management system comply with the requirements of paragraphs 3.5.1. (except for vehicle related aspects like "operation"), 3.5.2, 3.5.3 and 3.5.5. 3.5.7. The documentation shall outline a system information strategy which aims to	整體安全性能。 (d) 安全提昇以確保適當之資訊、教育，以及提高對員工之安全意識。 12.3.5.3 設計及開發程序應於包含設計保障安全、要求管理、要求實施、試驗、故障追蹤、補救以及發佈等項下完成建立。 12.3.5.4 申請者應制定並維持負責功能／運作安全、網路安全及任何其他與達成車輛安全相關規則之申請者相關部門之間的有效溝通管道。 12.3.5.5 申請者應展示定期獨立內部程序稽核已完成執行，以確保依照規定12.3.5.1至12.3.5.4所建立之程序不斷被執行。 12.3.5.6 申請者應就供應商之合適安排（例如：合約相關安排、明確相互聯繫、品質管理系統等）準備就緒，以確保供應商之安全管理系統符合規定12.3.5.1（排除如「運作」等車輛相關層面者）、12.3.5.2、12.3.5.3以及12.3.5.5之要求。 12.3.5.7 文件應大致描述以促使駕駛人於其操作系統時（例如：於系統切	體安全性能。 (d) 安全提昇以確保適當之資訊、教育，以及提高對員工之安全意識。 12.3.5.3 設計及開發程序應於包含設計保障安全、要求管理、要求實施、試驗、故障追蹤、補救以及發佈等項下完成建立。 12.3.5.4 申請者應制定並維持負責功能/運作安全、網路安全及任何其他與達成車輛安全相關規則之申請者相關部門之間的有效溝通管道。 12.3.5.5 申請者應展示定期獨立內部程序稽核已完成執行，以確保依照規定12.3.5.1至12.3.5.4所建立之程序不斷被執行。 12.3.5.6 申請者應就供應商之合適安排（例如：合約相關安排、明確相互聯繫、品質管理系統等）準備就緒，以確保供應商之安全管理系統符合規定12.3.5.1（排除如「運作」等車輛相關層面者）、12.3.5.2、12.3.5.3以及12.3.5.5之要求。 12.3.5.7 文件應大致描述以促使駕駛人於其操作系統時（例如：於系統切

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encourage the driver to review information on system operation when the driver operates the system (e.g. a regular notification at the start of the drive cycle when the system is switched to 'on' mode inviting the driver to review relevant materials).	encourage the driver to review information on system operation when the driver operates the system (e.g. a regular notification at the start of the drive cycle when the system is switched to 'on' mode inviting the driver to review relevant materials).	換至「開啟」模式下，一個於行駛循環之開始邀請駕駛人再次確認相關資訊的常態通知)，再次確認系統運作相關資訊為目標之系統資訊策略。	換至「開啟」模式下，一個於行駛循環之開始邀請駕駛人再次確認相關資訊的常態通知)，再次確認系統運作相關資訊為目標之系統資訊策略。
4. Verification and test	4. Verification and test	12.4 驗證及試驗	12.4 驗證及試驗
4.1. The functional operation of the system, as laid out in the documents required in paragraph 3., shall be tested as follows:	4.1. The functional operation of the system, as laid out in the documents required in paragraph 3., shall be tested as follows:	12.4.1 系統之功能運作，應依規定12.3要求之相關文件內容，進行下列條件試驗：	12.4.1 系統之功能運作，應依規定12.3要求之相關文件內容，進行下列條件試驗：
4.1.1. Verification of the function of the system	4.1.1. Verification of the function of the system	12.4.1.1 系統功能之驗證	12.4.1.1 系統功能之驗證
The Type Approval Authority shall verify the system under non-fault conditions by testing a number of selected functions from those declared by the manufacturer in paragraph 3.2. above.	The Type Approval Authority shall verify the system under non-fault conditions by testing a number of selected functions from those declared by the manufacturer in paragraph 3.2. above.	<u>檢測機構</u> 應藉由試驗所選定之一定數量功能（由申請者於規定12.3.2所宣告功能中選擇）驗證無故障狀態下之系統。	<u>檢測機構</u> 應藉由試驗所選定之一定數量功能（由申請者於規定12.3.2所宣告功能中選擇）驗證無故障狀態下之系統。
The verification of the performance of those selected functions shall be conducted following the manufacturer's test procedures unless a test procedure is specified in this UN Regulation.	The verification of the performance of those selected functions shall be conducted following the manufacturer's test procedures unless a test procedure is specified in this UN Regulation.	除試驗程序已於本基準附件描述者外，此等所選擇功能之性能的驗證應依照申請者之試驗程序執行。	除試驗程序已於本基準附件描述者外，此等所選擇功能之性能的驗證應依照申請者之試驗程序執行。
For cases where the system is subject to input signal(s) from systems outside the scope of this UN Regulation, the test shall be conducted using the test procedure of the relevant UN Regulation, or by another means that generates the relevant input signal(s), (e.g. simulation).	For cases where the system is subject to input signal(s) from systems outside the scope of this UN Regulation, the test shall be conducted using the test procedure of the relevant UN Regulation, or by another means that generates the relevant input signal(s), (e.g. simulation).	對於系統被要求自本基準附件適用範圍外之系統輸入訊號的狀況下，應使用相關附件之試驗程序，或藉由產生相關輸入訊號之其他方式（例如：模擬）執行試驗。	對於系統被要求自本基準附件適用範圍外之系統輸入訊號的狀況下，應使用相關附件之試驗程序，或藉由產生相關輸入訊號之其他方式（例如：模擬）執行試驗。
For complex electronic systems, these tests shall include scenarios whereby a declared function is overridden.	For complex electronic systems, these tests shall include scenarios whereby a declared function is overridden.	對於複雜電子系統，此等試驗應包含已宣告功能受到取代之相關場景。	對於複雜電子系統，此等試驗應包含已宣告功能受到取代之相關場景。

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4.1.1.1. The verification results shall correspond with the description, including the control strategies, provided by the manufacturer in paragraph 3.2.	4.1.1.1. The verification results shall correspond with the description, including the control strategies, provided by the manufacturer in paragraph 3.2.	12.4.1.1.1 驗證結果應與說明互相對應，包含於規定12.3.2中申請者所提供之控制策略。	12.4.1.1.1 驗證結果應與說明互相對應，包含於規定12.3.2中申請者所提供之控制策略。
4.1.2. Verification of the safety concept of paragraph 3.4.	4.1.2. Verification of the safety concept of paragraph 3.4.	12.4.1.2 系統安全性概念（依規定12.3.4）之驗證	12.4.1.2 系統安全性概念（依規定12.3.4）之驗證
The reaction of the system shall be checked under the influence of a failure in any individual unit by applying corresponding output signals to electrical units or mechanical elements in order to simulate the effects of internal faults within the unit. The Type Approval Authority shall conduct this check for at least one individual unit, but shall not check the reaction of "The System" to multiple simultaneous failures of individual units.	The reaction of the system shall be checked under the influence of a failure in any individual unit by applying corresponding output signals to electrical units or mechanical elements in order to simulate the effects of internal faults within the unit. The Type Approval Authority shall conduct this check for at least one individual unit, but shall not check the reaction of "The System" to multiple simultaneous failures of individual units.	應藉由運用對應之輸出信號給電氣單元或機械元件，模擬該單元內部故障，以讓 <u>檢測機構</u> 檢查系統於任何獨立單元內發生故障影響時之反應。 <u>檢測機構</u> 應至少於一獨立單元上執行此項檢查，惟不應檢查系統對單一獨立單元同時發生多個失效之反應。	應藉由運用對應之輸出信號給電氣單元或機械元件，模擬該單元內部故障，以讓 <u>檢測機構</u> 檢查系統於任何獨立單元內發生故障影響時之反應。 <u>檢測機構</u> 應至少於一獨立單元上執行此項檢查，惟不應檢查系統對單一獨立單元同時發生多個失效之反應。
The Type Approval Authority shall verify that these tests include aspects that may have an impact on vehicle controllability and user information/interaction (HMI aspects).	The Type Approval Authority shall verify that these tests include aspects that may have an impact on vehicle controllability and user information/interaction (HMI aspects).	檢測機構應驗證這些包含可能會對車輛可控性及使用者資訊／互動（人機介面層面）造成影響之試驗。	檢測機構應驗證這些包含可能會對車輛可控性及使用者資訊／互動（人機介面層面）造成影響之試驗。
4.1.2.1. The verification results shall correspond with the documented summary of the failure analysis, to a level of overall effect such that the safety concept and execution are confirmed as being adequate.	4.1.2.1. The verification results shall correspond with the documented summary of the failure analysis, to a level of overall effect such that the safety concept and execution are confirmed as being adequate.	12.4.1.2.1 就其整體影響程度之驗證結果，應符合申請者所提供之故障分析文件所述結果，以確認該安全性概念及運作均適切。	12.4.1.2.1 就其整體影響程度之驗證結果，應符合申請者所提供之故障分析文件所述結果，以確認該安全性概念及運作均適切。
4.1.3.Verification of the controllability		<u>12.4.1.3 可控制性之驗證</u>	
The verification under non-fault (paragraph 4.1.1.1.) and fault (paragraph 4.1.2.1.) conditions shall be adequate from a controllability perspective.		<u>於非故障（規定12.4.1.1.1）及故障（規定12.4.1.2.1）條件下之驗證自可控制性觀點而言應適當。</u>	
4.1.3.1. In relation to paragraph 5.3.6.2. of this		<u>12.4.1.3.1 與規定5.3.6.2相關下，用</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
UN Regulation, the strategies for ensuring controllability may include, but are not limited to: (a) Limiting the system's steering output; (b) Adjusting the vehicle's position in the lane of travel; (c) Determining road type and attributes; (d) Determining other road user behaviour; (e) Driver monitoring used. 4.1.3.2. In relation to paragraph 5.3.6.2. of this UN Regulation, the strategies for ensuring controllability whilst withholding HORs may include, but are not limited to: (a) Not immediately terminating assistance and continuing control on an appropriate trajectory, e.g. when the driver is not detected to be holding the steering control and lane markings are temporarily not detected; (b) Limiting or avoiding sudden vehicle motion to the extent possible (e.g. to avoid a sudden loss of steering assistance), as outlined in the safety concept of the vehicle manufacturer; (c) Adjusting the vehicle's position in the lane of travel (e.g., offsetting while navigating through a curve, maintaining a center position or offsetting for other traffic); (d) Determining road type and attributes (e.g., limited to wide lane or lane with laterally wide free space); (e) Limiting the designed speed range or lateral		<u>以確保可控制性之策略包含但不限於：</u> <u>(a) 限制系統之轉向輸出；</u> <u>(b) 調整車輛於行駛中車道之位置；</u> <u>(c) 測定道路類型及性質；</u> <u>(d) 測定其他道路使用者行為；</u> <u>(e) 所使用之駕駛人監控。</u> <u>12.4.1.3.2 與規定5.3.6.2相關下，用以確保可控制性，同時保留HOR之策略包含但不限於：</u> <u>(a) 不立即中止輔助及接續於一適當軌跡上進行控制，例如於未偵測到駕駛人掌握方向盤及暫時無法偵測道路標線時；</u> <u>(b) 盡可能限制或避免突然之車輛動態(例如：為避免突然消失之轉向輔助)，如申請者之安全性概念所述。</u> <u>(c) 調整車輛於行駛中車道之位置(例如：於導引通過彎道時進行偏置、對其他交通狀況維持中心位置或偏置)；</u> <u>(d) 測定道路類型及性質(例如：限制於較寬車道或側向具備較寬空間之車道)；</u> <u>(e) 限制設計速度範圍或側向加速度</u>	

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
acceleration range; (f) Increasing warning times other than the HOR and EOR to allow sufficient time to the driver to apply direct steering control after moving back the hands.		<u>範圍；</u> <u>(f) 增加非為HOR及EOR警示次數，以使駕駛人於將手部移回方向盤後，具備充足時間對方向盤實施方向控制。</u>	
4.2. Simulation tools and mathematical models for verification of the safety concept may be used, in particular for scenarios that are difficult on a test track or in real driving conditions. Where used for this purpose, such methods shall be in accordance of Annex 5 of this UN Regulation. The manufacturer shall demonstrate the scope of the simulation tool, its validity for the scenario concerned as well as the validation performed for the simulation tool chain (correlation of the outcome with physical tests).	4.2. Simulation tools and mathematical models for verification of the safety concept may be used, in particular for scenarios that are difficult on a test track or in real driving conditions. Where used for this purpose, such methods shall be in accordance of Annex 5 of this UN Regulation. The manufacturer shall demonstrate the scope of the simulation tool, its validity for the scenario concerned as well as the validation performed for the simulation tool chain (correlation of the outcome with physical tests).	12.4.2 模擬工具及數學模型可被使用於<u>安全性概念</u>之驗證，特別是針對難以於測試車道或於真實行駛條件下之情境。於此等目標使用下，相關方法應依照規定14。申請者應展示模擬工具之適用範圍，以及其於相關情境和對模擬工具鏈所執行之確認的有效性（物理試驗之修正結果）。	12.4.2 模擬工具及數學模型可被使用於<u>安全性概念</u>之驗證，特別是針對難以於測試車道或於真實行駛條件下之情境。於此等目標使用下，相關方法應依照規定14。申請者應展示模擬工具之適用範圍，以及其於相關情境和對模擬工具鏈所執行之確認的有效性（物理試驗之修正結果）。
4.2.1 If virtual testing is performed by the manufacturer, the Type Approval Authority shall evaluate the declared results provided by the manufacturer, in particular pertaining to safety metrics and the coverage of the system boundaries.	4.2.1 If virtual testing is performed by the manufacturer, the Type Approval Authority shall evaluate the declared results provided by the manufacturer, in particular pertaining to safety metrics and the coverage of the system boundaries.	12.4.2.1 若由申請者執行虛擬試驗，<u>檢測機構</u>應評估由申請者提供之所宣告結果，特別是與安全性參數及系統邊界之涵蓋率相關者。	12.4.2.1 若由申請者執行虛擬試驗，<u>檢測機構</u>應評估由申請者提供之所宣告結果，特別是與安全性參數及系統邊界之涵蓋率相關者。
4.3. The Type Approval Authority shall check a number of scenarios that are critical for the characterization of HMI functions of the system, as well as to verify the effective performance of the driver disengagement monitoring and warning system.	4.3. The Type Approval Authority shall check a number of scenarios that are critical for the characterization of HMI functions of the system, as well as to verify the effective performance of the driver disengagement monitoring and warning system.	12.4.3 <u>檢測機構</u>應檢查對系統HMI功能特性而言，以及用以驗證駕駛人未參與監控及警示系統有效性而言為關鍵之一定數量情境。	12.4.3 <u>檢測機構</u>應檢查對系統HMI功能特性而言，以及用以驗證駕駛人未參與監控及警示系統有效性而言為關鍵之一定數量情境。
4.4. The Type Approval Authority shall also check a number of scenarios that are critical	4.4. The Type Approval Authority shall also check a number of scenarios that are critical	12.4.4 <u>檢測機構</u>亦應檢查如本基準附件鎖定之駕駛人對系統邊界的控	12.4.4 <u>檢測機構</u>亦應檢查如本基準附件鎖定之駕駛人對系統邊界的控制

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
for controllability of system boundaries by the driver (e.g. object difficult to detect, when the system reaches its system boundaries, risk of collision with another road user, system fault conditions) as defined in the regulation.	for controllability of system boundaries by the driver (e.g. object difficult to detect, when the system reaches its system boundaries, risk of collision with another road user) as defined in the regulation.	制能力（例如：難以偵測之物件、於系統抵達其系統邊界、 <u>與另一道路使用者之碰撞風險，以及系統故障條件</u> ）而言為關鍵之一定數量情境。	能力（例如：難以偵測之物件、於系統抵達其系統邊界， <u>以及</u> 與另一道路使用者之碰撞風險）而言為關鍵之一定數量情境。
5. Reporting by Type Approval Authority The reporting of the assessment by the Type Approval Authority shall be performed in such a manner that it allows traceability, e.g. versions of documents inspected are coded and listed in the assessment records. An example of a possible layout for the assessment form is given in Appendix 1 to this Annex.	5. Reporting by Type Approval Authority The reporting of the assessment by the Type Approval Authority shall be performed in such a manner that it allows traceability, e.g. versions of documents inspected are coded and listed in the assessment records. An example of a possible layout for the assessment form is given in Appendix 1 to this Annex.	12.5 <u>檢測機構</u> 之報告 <u>檢測機構</u> 應執行報告之評估，且其應允許進行追蹤，例如已檢查文件版本編碼及列於評估紀錄之中。 下述規定12.6為評估表格之可能的排版範例供申請者參考	12.5 <u>檢測機構</u> 之報告 <u>檢測機構</u> 應執行報告之評估，且其應允許進行追蹤，例如已檢查文件版本編碼及列於評估紀錄之中。 下述規定12.6為評估表格之可能的排版範例供申請者參考
Appendix 1 Model assessment form for electronic systems, and/or complex electronic systems Test report No: 1. Identification 1.1. Make: 1.2. Vehicle Type: 1.3. Means of system identification on the vehicle: 1.4. Location of that marking: 1.5. Manufacturer's name and address: 1.6. If applicable, name and address of manufacturer's representative: 1.7. Manufacturer's formal documentation package: Documentation reference No: Date of original issue:	Appendix 1 Model assessment form for electronic systems, and/or complex electronic systems Test report No: 1. Identification 1.1. Make: 1.2. Vehicle Type: 1.3. Means of system identification on the vehicle: 1.4. Location of that marking: 1.5. Manufacturer's name and address: 1.6. If applicable, name and address of manufacturer's representative: 1.7. Manufacturer's formal documentation package: Documentation reference No: Date of original issue:	12.6 對電子系統及/或複雜電子系統之評估表格範例 試驗報告編號： 12.6.1 識別 12.6.1.1 廠牌 12.6.1.2 車輛型式 12.6.1.3 於車輛上之系統識別方式 12.6.1.4 相關標誌位置 12.6.1.5 申請者之名稱及地址 12.6.1.6 申請者代表之名稱及地址（依實際情況） 12.6.1.7 申請者之正式文件集 文件參考編號： 原始發布日期：	12.6 對電子系統及/或複雜電子系統之評估表格範例 試驗報告編號： 12.6.1 識別 12.6.1.1 廠牌 12.6.1.2 車輛型式 12.6.1.3 於車輛上之系統識別方式 12.6.1.4 相關標誌位置 12.6.1.5 申請者之名稱及地址 12.6.1.6 申請者代表之名稱及地址（依實際情況） 12.6.1.7 申請者之正式文件集 文件參考編號： 原始發布日期：

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
Date of latest update: 2. Test vehicle(s)/system(s) description 2.1. General description: 2.2. Description of all the control functions of the system, including control strategies (Paragraph 3.2 of this Annex): 2.2.1. List of input and sensed variables and their working range including a description the effect of the variable on system behaviour (Paragraph 3.2.1. of this Annex): 2.2.2. List of output variables and their range of control (Paragraph 3.2.2. of this Annex): 2.2.2.1. Directly controlled: 2.2.2.2. Controlled via another vehicle system: 2.3. Description System layout and schematics (Paragraph 3.3. of this Annex): 2.3.1 Inventory of components (Paragraph 3.3.1. of this Annex): 2.3.2 Functions of the units (Paragraph 3.3.2. of this Annex): 2.3.3 Interconnections (Paragraph 3.3.3. of this Annex): 2.3.4 Signal flow, operating data and priorities (Paragraph 3.3.4. of this Annex): 2.3.5 Identification of units (hardware & software) (Paragraph 3.3.5. of this Annex): 3. Manufacturer's safety concept 3.1. Manufacturer's declaration (Paragraph 3.4.1. of this Annex): The manufacturer(s) ... affirm(s) that the system objectives will not, under non-fault	Date of latest update: 2. Test vehicle(s)/system(s) description 2.1. General description: 2.2. Description of all the control functions of the system, including control strategies (Paragraph 3.2 of this Annex): 2.2.1. List of input and sensed variables and their working range including a description the effect of the variable on system behaviour (Paragraph 3.2.1. of this Annex): 2.2.2. List of output variables and their range of control (Paragraph 3.2.2. of this Annex): 2.2.2.1. Directly controlled: 2.2.2.2. Controlled via another vehicle system: 2.3. Description System layout and schematics (Paragraph 3.3. of this Annex): 2.3.1 Inventory of components (Paragraph 3.3.1. of this Annex): 2.3.2 Functions of the units (Paragraph 3.3.2. of this Annex): 2.3.3 Interconnections (Paragraph 3.3.3. of this Annex): 2.3.4 Signal flow, operating data and priorities (Paragraph 3.3.4. of this Annex): 2.3.5 Identification of units (hardware & software) (Paragraph 3.3.5. of this Annex): 3. Manufacturer's safety concept 3.1. Manufacturer's declaration (Paragraph 3.4.1. of this Annex): The manufacturer(s) ... affirm(s) that the system objectives will not, under non-fault	最後更新日期： 12.6.2 試驗車輛／系統說明 12.6.2.1 一般說明： 12.6.2.2 包含控制策略（如規定12.3.2）在內之所有系統的控制功能說明： 12.6.2.2.1 包含變數對系統行為影響相關說明（如規定12.3.2.1）在內之輸入及所感測變數，以及其運作範圍相關列表。 12.6.2.2.2 輸出變數及其控制範圍相關列表（如規定12.3.2.2） 12.6.2.2.2.1 直接控制者： 12.6.2.2.2.2 透過另一車輛系統控制者： 12.6.2.3 系統佈線圖及示意圖相關說明（如規定12.3.3）： 12.6.2.3.1 組件之清單（如規定12.3.3.1）： 12.6.2.3.2 元件之功能（如規定12.3.3.2）： 12.6.2.3.3 內部連接（如規定12.3.3.3）： 12.6.2.3.4 信號流程、運作資料與優先順序（如規定12.3.3.4）： 12.6.2.3.5 單元識別（硬體及軟體）（如規定12.3.3.5）： 12.6.3 申請者之 安全性概念 12.6.3.1 申請者之宣告（如規定12.3.4.1）： 申請者（名稱）確認系統目標於非錯誤狀況下，將不會危害車輛之安全運	最後更新日期： 12.6.2 試驗車輛／系統說明 12.6.2.1 一般說明： 12.6.2.2 包含控制策略(如規定12.3.2)在內之所有系統的控制功能說明： 12.6.2.2.1 包含變數對系統行為影響相關說明（如規定12.3.2.1）在內之輸入及所感測變數，以及其運作範圍相關列表。 12.6.2.2.2 輸出變數及其控制範圍相關列表（如規定12.3.2.2） 12.6.2.2.2.1 直接控制者： 12.6.2.2.2.2 透過另一車輛系統控制者： 12.6.2.3 系統佈線圖及示意圖相關說明（如規定12.3.3）： 12.6.2.3.1 組件之清單（如規定12.3.3.1）： 12.6.2.3.2 元件之功能（如規定12.3.3.2）： 12.6.2.3.3 內部連接(如規定12.3.3.3): 12.6.2.3.4 信號流程、運作資料與優先順序（如規定12.3.3.4）： 12.6.2.3.5 單元識別(硬體及軟體)(如規定12.3.3.5）： 12.6.3 申請者之 安全性概念 12.6.3.1 申請者之宣告（如規定12.3.4.1）： 申請者（名稱）確認系統目標於非錯誤狀況下，將不會危害車輛之安全運

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
conditions, prejudice the safe operation of the vehicle.	conditions, prejudice the safe operation of the vehicle.	作。	作。
3.2. Software (Outline architecture, software design methods and tools used) (Paragraph 3.4.2. of this Annex):	3.2. Software (Outline architecture, software design methods and tools used) (Paragraph 3.4.2. of this Annex):	12.6.3.2 軟體(概要架構、軟體設計方法以及所使用工具)(如規定12.3.4.2):	12.6.3.2 軟體 (概要架構、軟體設計方法以及所使用工具)(如規定12.3.4.2):
3.3. Explanation of design provisions built into the system under fault conditions (Paragraph 3.4.3. of this Annex):	3.3. Explanation of design provisions built into the system under fault conditions (Paragraph 3.4.3. of this Annex):	12.6.3.3 系統於錯誤情況下內建之設計機制的相關說明(如規定12.3.4.3):	12.6.3.3 系統於錯誤情況下內建之設計機制的相關說明(如規定12.3.4.3):
3.4. Documented analyses of the behaviour of the system under individual fault conditions:	3.4. Documented analyses of the behaviour of the system under individual fault conditions:	12.6.3.4 系統於獨立錯誤狀況下行為的分析文件紀錄:	12.6.3.4 系統於獨立錯誤狀況下行為的分析文件紀錄:
3.4.1. Parameters monitored:	3.4.1. Parameters monitored:	12.6.3.4.1 受監控之參數:	12.6.3.4.1 受監控之參數:
3.4.2. Warning signals generated:	3.4.2. Warning signals generated:	12.6.3.4.2 已產生之警示訊號:	12.6.3.4.2 已產生之警示訊號:
3.5. Description of the measures in place for environmental conditions (Paragraph 3.4.4.2. of this Annex):	3.5. Description of the measures in place for environmental conditions (Paragraph 3.4.4.2. of this Annex):	12.6.3.5 預備於對應環境條件之措施的說明(如規定12.3.4.4.2):	12.6.3.5 預備於對應環境條件之措施的說明(如規定12.3.4.4.2):
3.6. Provisions for the periodic technical inspection of the system (Paragraph 3.1. of this Annex):	3.6. Provisions for the periodic technical inspection of the system (Paragraph 3.1. of this Annex):	(定檢相關規範未導入,故不影響檢測基準相關內容)	(定檢相關規範未導入,故不影響檢測基準相關內容)
3.7. Description of the method by which the operational status of the system can be checked:	3.7. Description of the method by which the operational status of the system can be checked:	12.6.3.6 系統運作狀態可被檢查之方法的說明:	12.6.3.6 系統運作狀態可被檢查之方法的說明:
4. Verification and Test	4. Verification and Test	12.6.4 驗證及測試	12.6.4 驗證及測試
4.1. Verification of the function of the system (Paragraph 4.1.1. of this Annex):	4.1. Verification of the function of the system (Paragraph 4.1.1. of this Annex):	12.6.4.1 系統功能之驗證(如規定12.4.1.1):	12.6.4.1 系統功能之驗證(如規定12.4.1.1):
4.1.1. List of the selected functions and a description of the test procedures used:	4.1.1. List of the selected functions and a description of the test procedures used:	12.6.4.1.1 受選擇功能之列表及所使用試驗步驟說明:	12.6.4.1.1 受選擇功能之列表及所使用試驗步驟說明:
4.1.2. Test results verified according to this Annex, paragraph 4.1.1.1. Yes/No	4.1.2. Test results verified according to this Annex, paragraph 4.1.1.1. Yes/No	12.6.4.1.2 試驗結果已依照規定12.之驗證:是/否	12.6.4.1.2 試驗結果已依照規定12.之驗證:是/否
4.2. Verification of the system safety concept (Paragraph 4.1.2. of this Annex):	4.2. Verification of the system safety concept (Paragraph 4.1.2. of this Annex):	12.6.4.2 系統 <u>安全性概念</u> 之驗證(如規定12.4.1.2)	12.6.4.2 系統 <u>安全性概念</u> 之驗證(如規定12.4.1.2)
4.2.1. Unit(s) tested and their function:	4.2.1. Unit(s) tested and their function:	12.6.4.2.1 受試驗之單元及其功能:	12.6.4.2.1 受試驗之單元及其功能:

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.2.2. Simulated fault(s): 4.2.3. Test results verified according to this Annex , paragraph 4.1.2. Yes/No. 4.3. Date of test(s): 4.4. This test(s) has been carried out and the results reported in accordance with ... to UN Regulation No. 1XX (the number of this UN Regulation) as last amended by the ... series of amendments.	4.2.2. Simulated fault(s): 4.2.3. Test results verified according to this Annex , paragraph 4.1.2. Yes/No. 4.3. Date of test(s): 4.4. This test(s) has been carried out and the results reported in accordance with ... to UN Regulation No. 1XX (the number of this UN Regulation) as last amended by the ... series of amendments.	12.6.4.2.2 已模擬之錯誤： 12.6.4.2.3 試驗結果已依照規定 12.4.1.2驗證：是／否 12.6.4.3 試驗日期： 12.6.4.4 此試驗已依照本基準附件執行並產出結果。	12.6.4.2.2 已模擬之錯誤： 12.6.4.2.3 試驗結果已依照規定 12.4.1.2驗證：是／否 12.6.4.3 試驗日期： 12.6.4.4 此試驗已依照本基準附件執行並產出結果。
Type Approval Authority carrying out the test Signed: Date: 4.5. Comments:	Type Approval Authority carrying out the test Signed: Date: 4.5. Comments:	執行試驗之 <u>檢測機構</u> 簽名： 日期： 12.6.4.5 備註：	執行試驗之 <u>檢測機構</u> 簽名： 日期： 12.6.4.5 備註：
Appendix 2 System design to be assessed during the audit/assessment 1. Introduction This Appendix reflects a summary of system design aspects outlined in the core text of this Regulation to be assessed by the Type Approval Authority.	Appendix 2 System design to be assessed during the audit/assessment 1. Introduction	12.7 於稽核／評估期間待評估之系統設計 12.7.1 摘要說明 <u>本節規定反應由檢測機構之評估，由本基準附件中核心文字所描述將進行評估之系統設計層面的摘要。</u>	12.7 於稽核／評估期間待評估之系統設計 12.7.1 摘要說明
The following information shall be provided by the manufacturer for assessment.	The following information shall be provided by the manufacturer for assessment by the Type Approval Authority.	下述資訊應由申請者提供以執行評估	下述資訊應由申請者提供以 <u>檢測機構</u> 執行評估
2. Information related to DCAS in general 2.1. Driver Interaction and HMI	2. Information related to DCAS in general 2.1. Driver Interaction and HMI	12.7.2 DCAS通常相關資訊 12.7.2.1 駕駛人互動及人機介面 (HMI)	12.7.2 DCAS通常相關資訊 12.7.2.1 駕駛人互動及人機介面 (HMI)
2.1.1. How the system is designed to ensure the driver remains engaged with the driving task, which includes an outline of the driver monitoring system and its warning strategy (paragraph 5.5.4.2.)	2.1.1. How the system is designed to ensure the driver remains engaged with the driving task, which includes an outline of the driver monitoring system and its warning strategy (paragraph 5.5.4.2.)	12.7.2.1.1 系統如何設計以確保駕駛人保持參與行駛任務，其中包含駕駛人監控系統之概要，以及其警示策略（依規定5.5.4.2）。	12.7.2.1.1 系統如何設計以確保駕駛人保持參與行駛任務，其中包含駕駛人監控系統之概要，以及其警示策略（依規定5.5.4.2）。
2.1.1.1. Additional strategies for driver	2.1.1.1. Additional strategies for driver	12.7.2.1.1.1 對於駕駛人未參與偵測	12.7.2.1.1.1 對於駕駛人未參與偵測以

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
disengagement detection and re-engagement support (paragraph 5.5.4.2.7.) 2.1.1.2. Evidence of effectiveness of driver disengagement monitoring and warning strategy 2.1.1.3. Evidence of robustness of the driver disengagement monitoring accounting for differences in human characteristics and apparel. This shall include evidence that the system performance in meeting the regulatory requirements is not affected adversely by e.g.: (a) Skin complexion; (b) Gender; (c) Age; (d) Stature of the driver; (e) Facial hair; (f) Corrective glasses; (g) Sunglasses with transmittance $\geq 70\%$; (h) Sunglasses with transmittance $< 15\%$; (i) Varying lux conditions. 2.1.1.4. An outline of the driving task relevant areas, and their limits, and applicable values in the context of determining the driver's visual disengagement in relation to the system and its features (paragraph 5.5.4.2.5.2.) 2.1.1.5. Strategies to disable activation of the system in the context of repeated driver	disengagement detection and re-engagement support (paragraph 5.5.4.2.7.) 2.1.1.2. Evidence of effectiveness of driver disengagement monitoring and warning strategy 2.1.1.3. An outline of the driving task relevant areas, and their limits, and applicable values in the context of determining the driver's visual disengagement in relation to the system and its features (paragraph 5.5.4.2.5.2.) 2.1.1.4. Strategies to disable activation of the system in the context of repeated driver	以及重新參與支援之額外策略（依規定5.5.4.2.7.）。 12.7.2.1.1.2 駕駛人未參與監控及警示策略有效性相關證據。 <u>12.7.2.1.1.3 駕駛人未參與監控之穩固性佐證考量人類特質及外表之差異。其應包含系統性能滿足法規相關要求，且未受到下述項目之負面影響之佐證，例如：</u> <u>(a) 膚色；</u> <u>(b) 性別；</u> <u>(c) 年齡；</u> <u>(d) 駕駛人身材；</u> <u>(e) 臉部毛髮；</u> <u>(f) 視力矯正眼鏡；</u> <u>(g) 透光度大於等於百分之七十的太陽眼鏡；</u> <u>(h) 透光度小於百分之十五的太陽眼鏡；</u> <u>(i) 多樣亮度條件</u> 12.7.2.1.1.4 與系統及其功能相關之行駛任務相關區域概要與其極限，以及用以決定駕駛人視覺未參與下之適用數值（依規定5.5.4.2.5.2.）。 12.7.2.1.1.5 導致多於一次之駕駛人無法參與回應產生之重複駕駛人未	及重新參與支援之額外策略（依規定5.5.4.2.7.）。 12.7.2.1.1.2 駕駛人未參與監控及警示策略有效性相關證據。 12.7.2.1.1.3 與系統及其功能相關之行駛任務相關區域概要與其極限，以及用以決定駕駛人視覺未參與下之適用數值（依規定5.5.4.2.5.2.）。 12.7.2.1.1.4 導致多於一次之駕駛人無法參與回應產生之重複駕駛人未

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
disengagement leading to more than one driver unavailability response (paragraph 5.5.4.2.8.1.) 2.1.1.6. How the system addresses the detection and response to multiple subsequent short aversions of eye gaze or head posture by the driver (paragraph 5.5.4.2.5.3.). 2.1.1.7. Strategies implemented for determination when there has been no deviation in eye gaze (or movement of head position when this is being used to determine visual engagement) for a significant period of time, where an EOR shall be issued (paragraph 5.5.4.2.6.5.5.). 2.1.1.8. The number of repeated EOR or HOR warnings due to driver disengagement and the time interval over which these are counted (paragraph 5.5.4.2.8.3.).	disengagement leading to more than one driver unavailability response (paragraph 5.5.4.2.8.1.)	參與下，系統用以解除啟動之策略（依規定5.5.4.2.8.1）。 <u>12.7.2.1.1.6 系統如何處理偵測以及對源由駕駛人之後續多次短暫視線或頭部姿勢轉向（依規定5.5.4.2.5.3）。</u> <u>12.7.2.1.1.7 於應發出EOR狀況下，對一段重大時程內測定是否無視線偏離（或使用於測定視覺上參與時之頭部位置移動）相關情形所實施策略（依規定5.5.4.2.6.5.5）。</u> <u>12.7.2.1.1.8 因駕駛人未參與而重複發出之EOR或HOR警示數，以及計算相關數量之時間區間（依規定5.5.4.2.8.3）。</u>	與下，系統用以解除啟動之策略（依規定5.5.4.2.8.1）。
2.1.2. Measures taken to guard against reasonably foreseeable misuse by the driver and tampering of the system (paragraph 5.1.3.)	2.1.2. Measures taken to guard against reasonably foreseeable misuse by the driver and tampering of the system (paragraph 5.1.3.)	12.7.2.1.2 為防範源於駕駛人之合理可預見誤用及破壞系統所採取之措施（依規定5.1.3）。	12.7.2.1.2 為防範源於駕駛人之合理可預見誤用及破壞系統所採取之措施（依規定5.1.3）。
2.1.3. Measures taken to encourage the driver's understanding of the system's limitations and their continued role in the driving task. (paragraph 5.1.2)	2.1.3. Measures taken to encourage the driver's understanding of the system's limitations and their continued role in the driving task. (paragraph 5.1.2)	12.7.2.1.3 為鼓勵駕駛人了解系統極限以及其於行駛任務中擔任角色所採取之措施（依規定5.1.2）。	12.7.2.1.3 為鼓勵駕駛人了解系統極限以及其於行駛任務中擔任角色所採取之措施（依規定5.1.2）。
2.1.4. Model of the information provided to users (paragraph 5.6.)	2.1.4. Model of the information provided to users (paragraph 5.6.)	12.7.2.1.4 對使用者提供之資訊範例（依規定5.6）	12.7.2.1.4 對使用者提供之資訊範例（依規定5.6）
2.1.5. Extract of the relevant part of the owner's manual	2.1.5. Extract of the relevant part of the owner's manual	12.7.2.1.5 自使用者手冊擷取之相關部分	12.7.2.1.5 自使用者手冊擷取之相關部分
2.1.6. A list of system messages and signals	2.1.6. A list of system messages and signals	12.7.2.1.6 系統訊息及訊號之列表	12.7.2.1.6 系統訊息及訊號之列表（依

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(paragraph 5.5.4.1.4.) 2.1.7. Timings and strategy to inform the driver about a (series of) driver-confirmed manoeuvre(s) (5.5.4.1.8.1.) 2.1.8. Timings and strategy to inform the driver about a (series of) system-initiated manoeuvre(s) (5.5.4.1.9.1.) 2.2. System Boundaries 2.2.1. The system's ability to assess and respond to its surroundings as required to implement the intended functionality (paragraphs 5.3.2. and 5.3.5.) 2.2.1.1. The boundary conditions of the system and its features, and strategy to notify the driver when those boundaries are exceeded, being met or approached(paragraph 5.3.2.) 2.2.1.2. The system's ability to maintain appropriate distances from other road users (paragraph 5.3.2.3.) 2.2.1.3. The system's ability to ensure safety, its behaviour and the impact on system performance when a feature remains in 'active' mode beyond the system boundaries (paragraph 5.3.5.2.2.) 2.2.2. The boundaries for detection capabilities for the system and individual features (paragraph 5.3.1.) 2.2.3. Evidence of continued safe operation of the system or its features when the system is unable to detect a declared system boundary (paragraph 5.3.5.4.) 2.2.4. The boundary conditions under which	(paragraph 5.5.4.1.4.) 2.1.7. Timings and strategy to inform the driver about a (series of) driver-confirmed manoeuvre(s) (5.5.4.1.8.1.) 2.1.8. Timings and strategy to inform the driver about a (series of) system-initiated manoeuvre(s) (5.5.4.1.9.1.) 2.2. System Boundaries 2.2.1. The system's ability to assess and respond to its surroundings as required to implement the intended functionality (paragraphs 5.3.2. and 5.3.5.) 2.2.1.1. The boundary conditions of the system and its features, and strategy to notify the driver when those boundaries are exceeded, being met or approached(paragraph 5.3.2.) 2.2.1.2. The system's ability to maintain appropriate distances from other road users (paragraph 5.3.2.3.) 2.2.1.3. The system's ability to ensure safety, its behaviour and the impact on system performance when a feature remains in 'active' mode beyond the system boundaries (paragraph 5.3.5.2.2.) 2.2.2. The boundaries for detection capabilities for the system and individual features (paragraph 5.3.1.) 2.2.3. Evidence of continued safe operation of the system or its features when the system is unable to detect a declared system boundary (paragraph 5.3.5.4.)	(依規定5.5.4.1.4)。 12.7.2.1.7 用以通知駕駛人有關一個(一系列)之需駕駛人確認操作的時間及策略(依規定5.5.4.1.8.1)。 12.7.2.1.8 用以通知駕駛人有關一個(一系列)之由系統起始操作的時間及策略(依規定5.5.4.1.8.1)。 12.7.2.2 系統邊界 12.7.2.2.1 系統為實施預期功能所需, 用以評估及回應其周遭之能力(依規定5.3.2及規定5.3.5)。 12.7.2.2.1.1 系統及其功能之邊界條件, 以及於相關邊界已超過、到達或接近時用以通知駕駛人之策略(依規定5.3.2)。 12.7.2.2.1.2 系統用以與其他道路使用者維持適當距離之能力(依規定5.3.2.3)。 12.7.2.2.1.3 系統用以確保安全性、其行為, 以及確認於功能超越系統邊界下對系統性能之衝擊的能力。 12.7.2.2.2 對系統及獨立功能之偵測能力之邊界(依規定5.3.1)。 12.7.2.2.3 於系統無法偵測所宣告系統邊界時, 系統或其功能之持續安全運作的證據(依規定5.3.5.4)。 <u>12.7.2.2.4 於HOR可被保留下之邊</u>	規定5.5.4.1.4)。 12.7.2.1.7 用以通知駕駛人有關一個(一系列)之需駕駛人確認操作的時間及策略(依規定5.5.4.1.8.1)。 12.7.2.1.8 用以通知駕駛人有關一個(一系列)之由系統起始操作的時間及策略(依規定5.5.4.1.8.1)。 12.7.2.2 系統邊界 12.7.2.2.1 系統為實施預期功能所需, 用以評估及回應其周遭之能力(依規定5.3.2及規定5.3.5)。 12.7.2.2.1.1 系統及其功能之邊界條件, 以及於相關邊界已超過、到達或接近時用以通知駕駛人之策略(依規定5.3.2)。 12.7.2.2.1.2 系統用以與其他道路使用者維持適當距離之能力(依規定5.3.2.3)。 12.7.2.2.1.3 系統用以確保安全性、其行為, 以及確認於功能超越系統邊界下對系統性能之衝擊的能力。 12.7.2.2.2 對系統及獨立功能之偵測能力之邊界(依規定5.3.1)。 12.7.2.2.3 於系統無法偵測所宣告系統邊界時, 系統或其功能之持續安全運作的證據(依規定5.3.5.4)。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
HORs can be withheld (paragraph 5.5.4.2.6.5.). 2.3. System operation 2.3.1. If/how the system adapts its behaviour to respond to identified safety risk of a collision (paragraph 5.3.2.2.) 2.3.2. Additional preconditions for DCAS activation (paragraph 5.5.3.2.2..) 2.3.3. The system's controllability design (paragraphs 5.3.4 and 5.3.6.) 2.3.3.1. Strategies ensuring controllability when the system no longer provides longitudinal or lateral assistance in response to driver override (paragraph 5.5.3.4.1.5.) 2.3.4. Description of any transitions between DCAS and other assistance or automation systems, their prioritization of one over the other, and any suppression or deactivation of other assistance systems to ensure safe and nominal operation (paragraph 5.2.2.) 2.3.5. System behaviour in response to changes in system-determined road speed limits in cases other than addressed in 5.3.7.4. (paragraph 5.3.7.4.7.3.4.) 2.3.6. Technically reasonable tolerances to warning thresholds and operational limits (paragraph 5.3.7.4.10.) 2.3.7. An outline of the system's ability to provide continued assistance in the case of a failure disabling a given feature (paragraph 5.4.4.)	2.3. System operation 2.3.1. If/how the system adapts its behaviour to respond to identified safety risk of a collision (paragraph 5.3.2.2.) 2.3.2. Additional preconditions for DCAS activation (paragraph 5.5.3.2.2..) 2.3.3. The system's controllability design (paragraphs 5.3.4 and 5.3.6.) 2.3.3.1. Strategies ensuring controllability when the system no longer provides longitudinal or lateral assistance in response to driver override (paragraph 5.5.3.4.1.5.) 2.3.4. Description of any transitions between DCAS and other assistance or automation systems, their prioritization of one over the other, and any suppression or deactivation of other assistance systems to ensure safe and nominal operation (paragraph 5.2.2.) 2.3.5. System behaviour in response to changes in system-determined road speed limits in cases other than addressed in 5.3.7.4. (paragraph 5.3.7.4.7.3.4.) 2.3.6. Technically reasonable tolerances to warning thresholds and operational limits (paragraph 5.3.7.4.10.) 2.3.7. An outline of the system's ability to provide continued assistance in the case of a failure disabling a given feature (paragraph 5.4.4.)	<u>界條件（依規定5.5.4.2.6.5）。</u> 12.7.2.3 系統運作 12.7.2.3.1 作為對一個已識別之碰撞安全風險的回應，系統如何調適其行為（或若系統調適行為以就前述風險進行反應；依規定5.3.2.2）。 12.7.2.3.2 DCAS啟動之額外前置條件（依規定5.5.3.2.2）。 12.7.2.3.3 系統之控制能力設計（依規定5.3.4及規定5.3.6） 12.7.2.3.3.1 對於作為駕駛人取代之回應，系統將無法提供縱向或橫向輔助時，確保控制能力之策略（依規定5.5.3.4.1.5）。 12.7.2.3.4 介於DCAS及其他輔助或自動系統間之任意轉換、其中之優先順序，以及任意暫停或解除其他輔助系統以確保安全或正常運作的說明（依規定5.2.2）。 12.7.2.3.5 於規定5.3.7.4所處理之案例外，就系統測定之道路速限變化進行回應的系統行為（依規定5.3.7.4.7.3.4）。 12.7.2.3.6 對警示值域及運作極限之技術上允許容許誤差（依規定5.3.7.4.10）。 12.7.2.3.7 於解除特定功能之故障發生時，對提供持續輔助之系統能力的概要（依規定5.4.4）。	12.7.2.3 系統運作 12.7.2.3.1 作為對一個已識別之碰撞安全風險的回應，系統如何調適其行為（或若系統調適行為以就前述風險進行反應；依規定5.3.2.2）。 12.7.2.3.2 DCAS啟動之額外前置條件（依規定5.5.3.2.2）。 12.7.2.3.3 系統之控制能力設計（依規定5.3.4及規定5.3.6） 12.7.2.3.3.1 對於作為駕駛人取代之回應，系統將無法提供縱向或橫向輔助時，確保控制能力之策略（依規定5.5.3.4.1.5）。 12.7.2.3.4 介於DCAS及其他輔助或自動系統間之任意轉換、其中之優先順序，以及任意暫停或解除其他輔助系統以確保安全或正常運作的說明（依規定5.2.2）。 12.7.2.3.5 於規定5.3.7.4所處理之案例外，就系統測定之道路速限變化進行回應的系統行為（依規定5.3.7.4.7.3.4）。 12.7.2.3.6 對警示值域及運作極限之技術上允許容許誤差（依規定5.3.7.4.10）。 12.7.2.3.7 於解除特定功能之故障發生時，對提供持續輔助之系統能力的概要（依規定5.4.4）。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.3.8. How the controllability is ensured in the situations, where HORs are withheld, and in the cases when upcoming boundary conditions which require an HOR are detected less than 5 seconds in advance (paragraph 5.5.4.2.6.5.1.).		<u>12.7.2.3.8 於HOR被保留之狀況下，以及提前少於五秒之即將需要HOR的邊界條件受到偵測時，如何確保可控制性（依規定5.5.4.2.6.5.1）。</u>	
3. Information related to System Dynamic Control	3. Information related to System Dynamic Control	12.7.3 系統動態控制之相關資訊	12.7.3 系統動態控制之相關資訊
3.1. The strategy by which the system determines appropriate speed and resulting lateral acceleration in the context of lane of travel positioning (paragraph 5.3.7.1.3.)	3.1. The strategy by which the system determines appropriate speed and resulting lateral acceleration in the context of lane of travel positioning (paragraph 5.3.7.1.3.)	12.7.3.1 於行駛車道定位下，系統測定合適速度之策略，以及所導致之側向加速度（依規定5.3.7.1.3）。	12.7.3.1 於行駛車道定位下，系統測定合適速度之策略，以及所導致之側向加速度（依規定5.3.7.1.3）。
4. Information related to DCAS features (Where applicable)	4. Information related to DCAS features (Where applicable)	12.7.4 DCAS功能之相關資訊（依實際情況）	12.7.4 DCAS功能之相關資訊（依實際情況）
4.1. Strategies to ensure controllability if the system induces higher lateral acceleration values and the conditions are no longer met (paragraph 6.1.1.2.)	4.1. Strategies to ensure controllability if the system induces higher lateral acceleration values and the conditions are no longer met (paragraph 6.1.1.2.)	12.7.4.1 若系統導入較高側向加速度值，以及條件不再符合時，用於確保控制能力之策略（依規定6.1.1.2）。	12.7.4.1 若系統導入較高側向加速度值，以及條件不再符合時，用於確保控制能力之策略（依規定6.1.1.2）。
4.2. Other sources of information to determine lane positioning without lane markings (paragraph 6.1.4.1.)	4.2. Other sources of information to determine lane positioning without lane markings (paragraph 6.1.4.1.)	12.7.4.2 於未有車道標記下用於測定車道位置之資訊的其他來源（依規定6.1.4.1）。	12.7.4.2 於未有車道標記下用於測定車道位置之資訊的其他來源（依規定 6.1.4.1）。
4.3. Evidence that a lane change manoeuvre is only started if a vehicle in the target lane is not forced to unmanageable decelerate due to the lane change (paragraph 6.2.5.)	4.3. Evidence that a lane change manoeuvre is only started if a vehicle in the target lane is not forced to unmanageable decelerate due to the lane change (paragraph 6.2.5.)	12.7.4.3 變換車道操作僅於目標車道內之車輛，未因前述變換車道而被強迫進行無法處理之減速下開始的證據（依規定6.2.5）。	12.7.4.3 變換車道操作僅於目標車道內之車輛，未因前述變換車道而被強迫進行無法處理之減速下開始的證據（依規定 6.2.5）。
4.4. An outline of the strategies to ensure that the lane change procedure is only performed into or via a lane where the target lane is not designated for oncoming traffic (paragraph 6.2.9.3.)	4.4. An outline of the strategies to ensure that the lane change procedure is only performed into or via a lane where the target lane is not designated for oncoming traffic (paragraph 6.2.9.3.)	12.7.4.4 策略之概要以確保變換車道程序僅於進入或透過目標車道未被指定為對向車流之車道執行（依規定6.2.9.3）。	12.7.4.4 策略之概要以確保變換車道程序僅於進入或透過目標車道未被指定為對向車流之車道執行（依規定 6.2.9.3）。
4.5. If the system can navigate around an obstruction in the lane of travel, sufficient	4.5. If the system can navigate around an obstruction in the lane of travel, sufficient	12.7.4.5 若系統可導航繞過行駛車道內之障礙，則應提供用以執行此等	12.7.4.5 若系統可導航繞過行駛車道內之障礙，則應提供用以執行此等

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
evidence for other reasons to perform this manoeuvre (paragraph 6.3.9.1.) Appendix 3 Exemplary Classification of the System Detection Capabilities and Relevant System Boundaries The manufacturer shall explain the detection capabilities of DCAS, differentiated by features, if applicable, and the system boundaries for these detection capabilities. The following list shall be taken as guidance on possibly relevant objects and events in different operating scenarios: • Road: type (highway, rural, etc.), surface (type, adhesion), geometry, lane characteristics, availability of lane markings, edge of road, road crossings; • Road facilities (traffic control facilities, special facilities (road construction markings), other facilities); • Road events (e.g. road accidents, traffic congestion, road works); • Environmental conditions, such as: • Inclement weather, fog and mist; • Temperature; • Precipitation; • Time of day and light conditions. • Other road users (e.g. motor vehicles, motorcycles, bicycles, pedestrians). Appendix 4 Declaration of system capability The manufacturer shall declare the capability of the system and its features according to the classification of paragraph 6 based on	evidence for other reasons to perform this manoeuvre (paragraph 6.3.9.1.) Appendix 3 Exemplary Classification of the System Detection Capabilities and Relevant System Boundaries The manufacturer shall explain the detection capabilities of DCAS, differentiated by features, if applicable, and the system boundaries for these detection capabilities. The following list shall be taken as guidance on possibly relevant objects and events in different operating scenarios: • Road: type (highway, rural, etc.), surface (type, adhesion), geometry, lane characteristics, availability of lane markings, edge of road, road crossings; • Road facilities (traffic control facilities, special facilities (road construction markings), other facilities); • Road events (e.g. road accidents, traffic congestion, road works); • Environmental conditions, such as: • Inclement weather, fog and mist; • Temperature; • Precipitation; • Time of day and light conditions. • Other road users (e.g. motor vehicles, motorcycles, bicycles, pedestrians). Appendix 4 Declaration of system capability The manufacturer shall declare the capability of the system and its features according to the classification of paragraph 6 based on	操作之其他理由的充足證據（依規定6.3.9.1）。 12.8 系統偵測能力及系統邊界之示範性分級 申請者應解釋DCAS之偵測能力，並對此等偵測能力以功能及（依實際情形）系統邊界進行區分。下述列表應作為對於不同運作情境下可能之相關物件及事件的指引而採用： • 道路：類型（高~~速~~快~~速~~公路、鄉村、其他等等）、表面（類型、抓地力）、幾何、車道特性、車道標線存在與否、道路邊緣；道路穿越道； • 道路設施（交通控制設施、特殊設施（道路施工標誌）、其他設施）； • 道路事件（例如：道路事故、交通壅塞、道路作業）； • 環境性條件，例如： — 極端天候、濃霧及薄霧； — 溫度； — 降雨； — 當下時間及光源條件； • 其他道路使用者（例如：機動車輛、機車、自行車、行人）。 12.9 系統能力之宣告 申請者應基於下述參數，依照規定6.之分類宣告系統及其功能之能力。此等宣告係作為對依規定13.將執行之	操作之其他理由的充足證據（依規定 6.3.9.1）。 12.8 系統偵測能力及系統邊界之示範性分級 申請者應解釋DCAS之偵測能力，並對此等偵測能力以功能及（依實際情形）系統邊界進行區分。下述列表應作為對於不同運作情境下可能之相關物件及事件的指引而採用： • 道路：類型（高速公路、鄉村、其他等等）、表面（類型、抓地力）、幾何、車道特性、車道標線存在與否、道路邊緣；道路穿越道； • 道路設施（交通控制設施、特殊設施（道路施工標誌）、其他設施）； • 道路事件（例如：道路事故、交通壅塞、道路作業）； • 環境性條件，例如： — 極端天候、濃霧及薄霧； — 溫度； — 降雨； — 當下時間及光源條件； • 其他道路使用者（例如：機動車輛、機車、自行車、行人）。 12.9 系統能力之宣告 申請者應基於下述參數，依照規定6.之分類宣告系統及其功能之能力。此等宣告係作為對依規定13.將執行之

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the following criteria. This declaration serves as reference to the base tests to be performed according to Annex 4.	the following criteria. This declaration serves as reference to the base tests to be performed according to Annex 4.	基礎試驗的參考。	基礎試驗的參考。
The system shall be considered to possess a capability as declared below if it is able to demonstrate the required behaviour in at least 90% of the corresponding tests. Evidence of this capability shall be provided to the Type Approval Authority via appropriate documentation.	The system shall be considered to possess a capability as declared below if it is able to demonstrate the required behaviour in at least 90% of the corresponding tests. Evidence of this capability shall be provided to the Type Approval Authority via appropriate documentation.	若系統於至少百分之九十的對應試驗中可展現所需行為，其應被視為擁有如下述宣告之能力。應透過適當之文件向 <u>檢測機構</u> 提供此等能力之證據。	若系統於至少百分之九十的對應試驗中可展現所需行為，其應被視為擁有如下述宣告之能力。應透過適當之文件向 <u>檢測機構</u> 提供此等能力之證據。
When conditions deviate from those specified for the corresponding test, the system shall not unreasonably switch its control strategy. This shall be demonstrated by the manufacturer to the Type Approval Authority in accordance to Annex 4.	When conditions deviate from those specified for the corresponding test, the system shall not unreasonably switch its control strategy. This shall be demonstrated by the manufacturer to the Type Approval Authority in accordance to Annex 4.	於條件係推導自對應試驗所述條件，系統不應無理地切換其控制策略。此應由申請者依照規定13.向 <u>檢測機構</u> 進行展示。	於條件係推導自對應試驗所述條件，系統不應無理地切換其控制策略。此應由申請者依照規定13.向 <u>檢測機構</u> 進行展示。
1. System's capability to respond to other road users	1. System's capability to respond to other road users	12.9.1 用以回應其他道路使用者之系統能力	12.9.1 用以回應其他道路使用者之系統能力
A detailed description of scenarios can be found in Annex 4.	A detailed description of scenarios can be found in Annex 4.	一份情境之詳細描述可於規定13.中尋得。	一份情境之詳細描述可於規定13.中尋得。
The manufacturer shall declare the maximum operational speed up to which the system is able to handle (i.e., to avoid a collision without driver intervention) the following scenarios as relevant for the system's design: (表格如頁末所示)	The manufacturer shall declare the maximum operational speed up to which the system is able to handle (i.e., to avoid a collision without driver intervention) the following scenarios as relevant for the system's design: (表格如頁末所示)	申請者應宣告最高運作速度，至系統能夠處理(即：以於無駕駛人介入狀況下迴避碰撞)與系統設計相關之下列情境：	申請者應宣告最高運作速度，至系統能夠處理(即：以於無駕駛人介入狀況下迴避碰撞)與系統設計相關之下列情境：
2. System's capability to follow the course of the lane (表格如頁末所示)	2. System's capability to follow the course of the lane (表格如頁末所示)	12.9.2 用以跟隨車道軌跡之系統能力 (表格如頁末所示)	12.9.2 用以跟隨車道軌跡之系統能力 (表格如頁末所示)
2.1. Road attributes which the system may recognize relevant to the given declared	2.1. Road events which the system may recognize relevant to the given declared	12.9.2.1 待完成且可能由申請者延伸之道路 性質 ，其中就指定之已宣告	12.9.2.1 待完成且可能由申請者延伸之道路 事件 ，其中就指定之已宣告

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system boundaries and system design, to be completed and possibly extended by the manufacturer, alternatively indicated as “Not Applicable”: 3. System’s ability to ensure safe operation when assisting lane changes (applicable to both driver- and system-initiated lane changes) The manufacturer shall declare the range at which the system is able to respond to other unobstructed targets if equipped with lane change feature. The manufacturer shall declare the conditions under which the maximum range is reduced: (表格如頁末所示) 4. The system’s ability to safely perform other driver-initiated or system-initiated manoeuvres or to respond to the target in non-highway environments without driver intervention, alternatively indicated as “Not Applicable”: (表格如頁末所示) 5. System’s ability to operate in accordance with traffic rules related to a certain driver-initiated manoeuvre The manufacturer shall declare traffic rule compliance related to a certain manoeuvre, if relevant to the given signal. In case the system’s performance is specific to a country of operation, this may be additionally specified by the manufacturer: (表格如頁末所示)	system boundaries and system design, to be completed and possibly extended by the manufacturer, alternatively indicated as “Not Applicable”: 3. System’s ability to ensure safe operation when assisting lane changes (applicable to both driver- and system-initiated lane changes) The manufacturer shall declare the range at which the system is able to respond to other unobstructed targets if equipped with lane change feature. The manufacturer shall declare the conditions under which the maximum range is reduced: (表格如頁末所示) 4. The system’s ability to safely perform other driver-initiated or system-initiated manoeuvres in non-highway environments without driver intervention, alternatively indicated as “Not Applicable”: (表格如頁末所示) 5. System’s ability to operate in accordance with traffic rules related to a certain driver-initiated manoeuvre The manufacturer shall declare traffic rule compliance related to a certain manoeuvre, if relevant to the given signal. In case the system’s performance is specific to a country of operation, this may be additionally specified by the manufacturer: (表格如頁末所示)	系統邊界及系統設計，系統可識別為相關，作為替代被指示為「不適用」: 12.9.3 用以確保於輔助變換車道時安全運作（駕駛人及系統所起始之變換車道皆適用）之系統能力 若具備變換車道功能，則申請者應宣告系統能夠對其他未受阻礙之目標進行回應下之相關範圍。申請者應宣告最大範圍減少下之狀況： (表格如頁末所示) 12.9.4 用以安全執行其他於非高速公路環境且未有駕駛人介入下，由駕駛人所起始或系統所起始之操作，<u>或對目標進行反應</u>的系統能力，作為替代被指示為「不適用」: (表格如頁末所示) 12.9.5 用以依照特定駕駛人起始操作相關之交通規則運作的系統能力 若與指定訊號相關，則申請者應宣告與特定操作相關之交通規則符合性。依所運作國家而有特定之系統性能的狀況下，此可額外由申請者進行描述： (表格如頁末所示)	系統邊界及系統設計，系統可識別為相關，作為替代被指示為「不適用」: 12.9.3 用以確保於輔助變換車道時安全運作（駕駛人及系統所起始之變換車道皆適用）之系統能力 若具備變換車道功能，則申請者應宣告系統能夠對其他未受阻礙之目標進行回應下之相關範圍。申請者應宣告最大範圍減少下之狀況： (表格如頁末所示) 12.9.4 用以安全執行其他於非高速公路環境且未有駕駛人介入下，由駕駛人所起始或系統所起始之操作的系統能力，作為替代被指示為「不適用」: (表格如頁末所示) 12.9.5 用以依照特定駕駛人起始操作相關之交通規則運作的系統能力 若與指定訊號相關，則申請者應宣告與特定操作相關之交通規則符合性。依所運作國家而有特定之系統性能的狀況下，此可額外由申請者進行描述： (表格如頁末所示)

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
	6. System's ability to operate in accordance with traffic rules related to a certain system-initiated manoeuvre The manufacturer shall declare traffic rule compliance related to a certain manoeuvre, if relevant to the given signal. In case the system's performance is specific to a country of operation, this may be additionally specified by the manufacturer: (表格如頁末所示)		<u>12.9.6 用以依照特定系統起始操作相關之交通規則運作的系統能力</u> <u>若與指定訊號相關，則申請者應宣告與特定操作相關之交通規則符合性。依所運作國家而有特定之系統性能的狀況下，此可額外由申請者進行描述：</u> (表格如頁末所示)
Annex 4 Physical Test Specifications for DCAS Validation 1. Introduction This Annex defines physical tests with the purpose to verify the technical requirements applicable to the system and the declaration made by the manufacturer according to Appendix 4 to Annex 3. All the tests in this annex shall be performed or witnessed by the Type Approval Authority or the Technical Service acting on its behalf (hereafter referred as "Type-Approval Authority") during the approval process. The specific test parameters for track tests shall be selected by the Type-Approval Authority based on the declaration made by the manufacturer and shall be recorded in the test report in such a manner that allows traceability and repeatability of the test setup. Pass- and Fail-Criteria for tests are derived solely from the technical requirements in	Annex 4 Physical Test Specifications for DCAS Validation 1. Introduction This Annex defines physical tests with the purpose to verify the technical requirements applicable to the system and the declaration made by the manufacturer according to Appendix 4 to Annex 3. All the tests in this annex shall be performed or witnessed by the Type Approval Authority or the Technical Service acting on its behalf (hereafter referred as "Type-Approval Authority") during the approval process. The specific test parameters for track tests shall be selected by the Type-Approval Authority based on the declaration made by the manufacturer and shall be recorded in the test report in such a manner that allows traceability and repeatability of the test setup. Pass- and Fail-Criteria for tests are derived solely from the technical requirements in	13. DCAS 確認 (Validation) 之物理試驗規範 13.1 引言 本節定義以驗證適用於系統之技術要求，以及申請者依照規定12.9所作之宣告為目標的物理試驗。本節之所有試驗應由檢測機構於認證過程期間執行或見證。 對測試道之特定試驗參數應由<u>檢測機構</u>基於申請者所作之宣告進行選擇，且應以使試驗設置具備追蹤性及再現性的方式記錄於試驗報告中。 試驗之通過指標及失敗指標僅係由本基準附件規定5.及規定6.，以及依照	13. DCAS 確認 (Validation) 之物理試驗規範 13.1 引言 本節定義以驗證適用於系統之技術要求，以及申請者依照規定12.9所作之宣告為目標的物理試驗。本節之所有試驗應由檢測機構於認證過程期間執行或見證。 對測試道之特定試驗參數應由<u>檢測機構</u>基於申請者所作之宣告進行選擇，且應以使試驗設置具備追蹤性及再現性的方式記錄於試驗報告中。 試驗之通過指標及失敗指標僅係由本基準附件規定5.及規定6.，以及依照

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paragraphs 5. and 6. of this UN Regulation and correspondence with the declarations made according to Appendix 4 to Annex 3. The tests specified in this document shall be intended as a minimum set of tests. The Type-Approval Authority may perform additional tests and compare the measured results against the requirements in paragraphs 5. and 6., or the contents of the Audit according to Annex 3. 2. Definitions For the purposes of this Annex, 2.1. "Time to Collision" (TTC) means the point in time obtained by dividing the longitudinal distance (in the direction of travel of the VUT) between the VUT and the target by the longitudinal relative speed of the VUT and the target. 2.2. "Offset" means the distance between the vehicle's and the respective target's longitudinal median plane in driving direction, measured on the ground. 2.3. "Pedestrian Target" means a target that represents a pedestrian. 2.4. "Passenger Car Target" means a target that represents a passenger car vehicle. 2.5. "Powered Two-Wheeler Target" means a target that represents a combination of a motorcycle and motorcyclist. 2.6. "Bicycle Target" means a target that represents a combination of a bicycle and a cyclist.	paragraphs 5. and 6. of this UN Regulation and correspondence with the declarations made according to Appendix 4 to Annex 3. The tests specified in this document shall be intended as a minimum set of tests. The Type-Approval Authority may perform additional tests and compare the measured results against the requirements in paragraphs 5. and 6., or the contents of the Audit according to Annex 3. 2. Definitions For the purposes of this Annex, 2.1. "Time to Collision" (TTC) means a point in time obtained by dividing the longitudinal distance (in the direction of travel of the VUT) between the VUT and the target by the longitudinal relative speed of the VUT and the target. 2.2. "Offset" means the distance between the vehicle's and the respective target's longitudinal median plane in driving direction, measured on the ground. 2.3. "Pedestrian Target" means a target that represents a pedestrian. 2.4. "Passenger Car Target" means a target that represents a passenger car vehicle. 2.5. "Powered Two-Wheeler Target" means a target that represents a combination of a motorcycle and motorcyclist. 2.6. "Bicycle Target" means a target that represents a combination of a bicycle and a cyclist.	規定12.9所作之宣告的對應項目所推導而出。 於本文件中所描述之試驗應預期為試驗之最低組合。檢測機構可執行額外試驗並就規定5、規定6.或依照規定12.所稽核內容，比較所測量之結果。 13.2 名詞釋義 就本節之相關內容而言： 13.2.1 碰撞時間(Time to Collision；TTC)：係指於時間內任一瞬間，將受測試車輛與目標間之縱向距離（於受測試車輛之行駛方向）除以受測試車輛與目標之縱向相對速度而得之時間值。 13.2.2 偏置(Offset)：係指於地面上測量，介於車輛及個別目標於行駛方向上之縱向中央平面間的距離。 13.2.3 行人目標(Pedestrian Target)：係指代表行人之目標。 13.2.4 小客車目標(Passenger Car Target)：係指代表小客車之目標。 13.2.5 機動二輪車輛目標(Powered Two-Wheeler Target)：係指代表機車及機車騎士之組合的目標。 13.2.6 自行車目標(Bicycle target)：係指代表自行車及自行車騎士之組合的目標。	規定12.9所作之宣告的對應項目所推導而出。 於本文件中所描述之試驗應預期為試驗之最低組合。檢測機構可執行額外試驗並就規定5、規定6.或依照規定12.所稽核內容，比較所測量之結果。 13.2 名詞釋義 就本節之相關內容而言： 13.2.1 碰撞時間(Time to Collision；TTC)：係指於時間內任一瞬間，將受測試車輛與目標間之縱向距離（於受測試車輛之行駛方向）除以受測試車輛與目標之縱向相對速度而得之時間值。 13.2.2 偏置(Offset)：係指於地面上測量，介於車輛及個別目標於行駛方向上之縱向中央平面間的距離。 13.2.3 行人目標 (Pedestrian Target)：係指代表行人之目標。 13.2.4 小客車目標 (Passenger Car Target)：係指代表小客車之目標。 13.2.5 機動二輪車輛目標 (Powered Two-Wheeler Target)：係指代表機車及機車騎士之組合的目標。 13.2.6 自行車目標(Bicycle target)：係指代表自行車及自行車騎士之組合的目標。

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2.7. "Vehicle Under Test" (VUT) means the vehicle equipped with the system to be tested.	2.7. "Vehicle Under Test" (VUT) means the vehicle equipped with the system to be tested.	13.2.7 受測試車輛(Vehicle Under Test; VUT):係指配備待測試之系統的車輛。	13.2.7 受測試車輛(Vehicle Under Test; VUT):係指配備待測試之系統的車輛。
2.8. "Base Test" means a test scenario where the manufacturer shall declare a threshold for the missing boundary conditions (e.g. VUT speed) up to which the system is able to safely control the vehicle.	2.8. "Base Test" means a test scenario where the manufacturer shall declare a threshold for the missing boundary conditions (e.g. VUT speed) up to which the system is able to safely control the vehicle.	13.2.8 基礎試驗(Base Test):係指一個試驗情境,其中申請者應對缺少之邊界條件(例如:受測試車輛速度)宣告最多至系統能夠安全地控制車輛之值域。	13.2.8 基礎試驗(Base Test):係指一個試驗情境,其中申請者應對缺少之邊界條件(例如:受測試車輛速度)宣告最多至系統能夠安全地控制車輛之值域。
2.9. "Extended Testing" means a set of test scenarios with a combination of test design variations to verify that the system does not unreasonably change the control strategy compared to the declared value and strategy in the base test, within the declared system boundaries.	2.9. "Extended Testing" means a set of test scenarios with a combination of test design variations to verify that the system does not unreasonably change the control strategy compared to the declared value and strategy in the base test, within the declared system boundaries.	13.2.9 延伸試驗(Extended Testing):係指於所宣告之系統邊界內,用以驗證系統與基礎試驗中所宣告數值及策略相較,不會無理地變換控制策略,具備試驗設計變化之組合的一組試驗情境。	13.2.9 延伸試驗(Extended Testing):係指於所宣告之系統邊界內,用以驗證系統與基礎試驗中所宣告數值及策略相較,不會無理地變換控制策略,具備試驗設計變化之組合的一組試驗情境。
3. General principles	3. General principles	13.3 一般原則	13.3 一般原則
3.1. Test conditions	3.1. Test conditions	13.3.1 試驗條件	13.3.1 試驗條件
3.1.1. The tests shall be performed under conditions (e.g. environmental, road geometry) that allow the activation of the system or specific features thereof. For conditions not tested that may occur within the defined system boundaries of the vehicle, the manufacturer shall demonstrate as part of the audit described in Annex 3 to the satisfaction of the Type-Approval Authority that the vehicle is safely controlled.	3.1.1. The tests shall be performed under conditions (e.g. environmental, road geometry) that allow the activation of the system or specific features thereof. For conditions not tested that may occur within the defined system boundaries of the vehicle, the manufacturer shall demonstrate as part of the audit described in Annex 3 to the satisfaction of the Type-Approval Authority that the vehicle is safely controlled.	13.3.1.1 試驗應於允許系統或特定功能之啟動的條件(例如:環境性、道路幾何)下執行。對於可能於所定義車輛之系統邊界內發生之未試驗條件,申請者應作為規定12.所述之稽核的一部分,為滿足 <u>檢測機構</u> 就車輛係受到安全地控制的要求而進行展示。	13.3.1.1 試驗應於允許系統或特定功能之啟動的條件(例如:環境性、道路幾何)下執行。對於可能於所定義車輛之系統邊界內發生之未試驗條件,申請者應作為規定12.所述之稽核的一部分,為滿足 <u>檢測機構</u> 就車輛係受到安全地控制的要求而進行展示。
3.1.2. If system modifications are required in order to allow testing (e.g. road type assessment criteria), it shall be ensured that these modifications do not have an effect on	3.1.2. If system modifications are required in order to allow testing (e.g. road type assessment criteria), it shall be ensured that these modifications do not have an effect on	13.3.1.2 若為允許執行試驗而需要系統之修改(例如:道路類型評估指標),則應確保相關修改不會影響試驗結果。此等修改應進行記錄並檢	13.3.1.2 若為允許執行試驗而需要系統之修改(例如:道路類型評估指標),則應確保相關修改不會影響試驗結果。此等修改應進行記錄並檢

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the test results. These modifications shall be documented and annexed to the test report. The description and the evidence of influence (if any) of these modifications shall be documented and annexed to the test report.	the test results. These modifications shall be documented and annexed to the test report. The description and the evidence of influence (if any) of these modifications shall be documented and annexed to the test report.	附於試驗報告。此等修改之說明及影響相關證據(依實際情況)應進行記錄並檢附於試驗報告。	附於試驗報告。此等修改之說明及影響相關證據(依實際情況)應進行記錄並檢附於試驗報告。
3.1.3. In order to test the requirements for failure of functions, self-testing and initialisation of the system, errors may be artificially induced and the vehicle may be artificially brought into situations where it reaches the limits of the defined operating range (e.g., environmental conditions). It shall be verified, that the condition of the system is according to the intended testing purpose (e.g. in a fault-free condition or with the specific faults to be tested).	3.1.3. In order to test the requirements for failure of functions, self-testing and initialisation of the system, errors may be artificially induced and the vehicle may be artificially brought into situations where it reaches the limits of the defined operating range (e.g., environmental conditions). It shall be verified, that the condition of the system is according to the intended testing purpose (e.g. in a fault-free condition or with the specific faults to be tested).	13.3.1.3 為針對功能之故障、自我測試以及系統之初始化測試相關要求，可人工導入錯誤且車輛可透過人工方式引領至其到達所定義運作範圍之極限的情況(例如：環境性條件)。 應對系統之條件係依照預期試驗目標(例如：於無錯誤條件下或以特定待測試之錯誤下)乙項進行驗證。	13.3.1.3 為針對功能之故障、自我測試以及系統之初始化測試相關要求，可人工導入錯誤且車輛可透過人工方式引領至其到達所定義運作範圍之極限的情況(例如：環境性條件)。 應對系統之條件係依照預期試驗目標(例如：於無錯誤條件下或以特定待測試之錯誤下)乙項進行驗證。
3.1.4. The test surface shall afford at least the adhesion required by the scenario in order to achieve the expected test result.	3.1.4. The test surface shall afford at least the adhesion required by the scenario in order to achieve the expected test result.	13.3.1.4 試驗表面應提供至少情境所需之抓地力以達成預期試驗結果。	13.3.1.4 試驗表面應提供至少情境所需之抓地力以達成預期試驗結果。
3.1.5. Test Targets 3.1.5.1. The target used for the vehicle detection tests shall be a regular high-volume series production vehicle of Category M or N or alternatively a "soft target" representative of a vehicle in terms of its identification characteristics applicable to the sensor equipment of the system under test according to ISO 19206-3. The reference point for the location of the vehicle shall be the most rearward point on the centreline of the vehicle.	3.1.5. Test Targets 3.1.5.1. The target used for the vehicle detection tests shall be a regular high-volume series production vehicle of Category M or N or alternatively a "soft target" representative of a vehicle in terms of its identification characteristics applicable to the sensor equipment of the system under test according to ISO 19206-3. The reference point for the location of the vehicle shall be the most rearward point on the centreline of the vehicle.	13.3.1.5 試驗目標 13.3.1.5.1 用於車輛偵測試驗之目標應為一般大量生產之M及N類車輛，或依照ISO 19206-3:2021適用於受測試系統之感測器設備，具備就識別性質而言，代表車輛之「軟式目標」。車輛位置之參考點應為車輛中心線上之最後點。	13.3.1.5 試驗目標 13.3.1.5.1 用於車輛偵測試驗之目標應為一般大量生產之M及N類車輛，或依照ISO 19206-3:2021適用於受測試系統之感測器設備，具備就識別性質而言，代表車輛之「軟式目標」。車輛位置之參考點應為車輛中心線上之最後點。

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3.1.5.2. The target used for the Powered-Two-wheeler tests shall be a test device according to ISO 19206-5 or a type approved high volume series production motorcycle of Category L₃ . The reference point for the location of the motorcycle shall be the most backward point on the centreline of the motorcycle.	3.1.5.2. The target used for the Powered-Two-wheeler tests shall be a test device according to ISO 19206-5 or a type approved high volume series production motorcycle of Category. The reference point for the location of the motorcycle shall be the most backward point on the centreline of the motorcycle.	13.3.1.5.2 用於機動二輪車輛偵測試驗之目標應為依照ISO 19206-5之試驗裝置，或經型式認證之大量生產之L類機車。機車位置之參考點應為機車中心線上之最後點。	13.3.1.5.2 用於機動二輪車輛偵測試驗之目標應為依照ISO 19206-5之試驗裝置，或經型式認證之大量生產之L類機車。機車位置之參考點應為機車中心線上之最後點。
3.1.5.3. The target used for the pedestrian detection tests shall be an "articulated soft target" and be representative of the human attributes applicable to the sensor equipment of the system under test according to ISO 19206-2.	3.1.5.3. The target used for the pedestrian detection tests shall be an "articulated soft target" and be representative of the human attributes applicable to the sensor equipment of the system under test according to ISO 19206-2.	13.3.1.5.3 用於行人偵測試驗之目標應依照ISO 19206-2適用於受測試系統之感測器設備的「鉸接軟式目標」，並代表人類特質。	13.3.1.5.3 用於行人偵測試驗之目標應依照ISO 19206-2適用於受測試系統之感測器設備的「鉸接軟式目標」，並代表人類特質。
3.1.5.4. The target used for bicycle detection tests shall be a device according to ISO 19206-4. The reference point for the location of the bicycle shall be the most forward point on the centreline of the bicycle.	3.1.5.4. The target used for bicycle detection tests shall be a device according to ISO 19206-4. The reference point for the location of the bicycle shall be the most forward point on the centreline of the bicycle.	13.3.1.5.4 用於自行車偵測試驗之目標應依照ISO 19206-4之裝置。自行車位置之參考點應為自行車中心線上之最前點。	13.3.1.5.4 用於自行車偵測試驗之目標應依照ISO 19206-4之裝置。自行車位置之參考點應為自行車中心線上之最前點。
3.1.5.5. As an alternative to reference targets, driverless robotised vehicles or state-of-the-art test tools (e.g., soft targets, mobile platforms, etc.) may be used to carry out the tests, replacing real vehicles and other road users that could reasonably be encountered within the system boundaries. It shall be ensured that the test tools replacing the reference targets have comparable characteristics to the vehicle or road user they are intended to represent, and are in agreement between the Type Approval	3.1.5.5. As an alternative to reference targets, driverless robotised vehicles or state-of-the-art test tools (e.g., soft targets, mobile platforms, etc.) may be used to carry out the tests, replacing real vehicles and other road users that could reasonably be encountered within the system boundaries. It shall be ensured that the test tools replacing the reference targets have comparable characteristics to the vehicle or road user they are intended to represent, and are in agreement between the Type Approval	13.3.1.5.5 作為參考目標之替代，可使用無駕駛人之自動化車輛，或最先進之試驗工具（例如：軟式目標、機動平台等）以執行試驗，並替換可能於系統邊界內合理地接觸之實際車輛及其他道路使用者。應確保替換參考目標之試驗工具擁有可與其欲替換之車輛或道路使用者相較之特性，並經過 <u>檢測機構</u> 及申請者之間的協議。	13.3.1.5.5 作為參考目標之替代，可使用無駕駛人之自動化車輛，或最先進之試驗工具（例如：軟式目標、機動平台等）以執行試驗，並替換可能於系統邊界內合理地接觸之實際車輛及其他道路使用者。應確保替換參考目標之試驗工具擁有可與其欲替換之車輛或道路使用者相較之特性，並經過 <u>檢測機構</u> 及申請者之間的協議。

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Authority and the manufacturer. 3.1.5.6. Details that enable the target(s) to be specifically identified and reproduced shall be recorded in the vehicle type approval documentation. 3.1.6. Test parameter variation 3.1.6.1. The manufacturer shall declare the system boundaries to the Type Approval Authority. The Type Approval Authority shall define different combinations of test parameters (e.g., present speed of the vehicle under test, type and offset of the target, curvature of lane). 3.1.6.2. In order to confirm consistency of the system, base tests shall be carried out at least 2 times. If one of the two test runs fails to meet the required performance, the test shall be repeated once. A test shall be accounted as passed if the required performance is met in two test runs and the manufacturer has provided sufficient evidence according to Annex 3 Appendix 4. The Type Approval Authority may choose to require additional test runs to confirm the declaration thresholds outlined in Annex 3 Appendix 4. 3.1.6.3. When conditions deviate from those specified for the base test, the system shall not unreasonably switch its control strategy. This shall be verified by the extended testing. Each parameter as outlined in the extended tests shall be varied, where variations can be grouped into a single test	Authority and the manufacturer. 3.1.5.6. Details that enable the target(s) to be specifically identified and reproduced shall be recorded in the vehicle type approval documentation. 3.1.6. Test parameter variation 3.1.6.1. The manufacturer shall declare the system boundaries to the Type Approval Authority. The Type Approval Authority shall define different combinations of test parameters (e.g., present speed of the vehicle under test, type and offset of the target, curvature of lane). 3.1.6.2. In order to confirm consistency of the system, base tests shall be carried out at least 2 times. If one of the two test runs fails to meet the required performance, the test shall be repeated once. A test shall be accounted as passed if the required performance is met in two test runs and the manufacturer has provided sufficient evidence according to Annex 3 Appendix 4. The Type Approval Authority may choose to require additional test runs to confirm the declaration thresholds outlined in Annex 3 Appendix 4. 3.1.6.3. When conditions deviate from those specified for the base test, the system shall not unreasonably switch its control strategy. This shall be verified by the extended testing. Each parameter as outlined in the extended tests shall be varied, where variations can be grouped into a single test	13.3.1.5.6 使目標能被特定地識別及再現之細節應記錄於車輛型式認證文件之中。 13.3.1.6 試驗參數變化 13.3.1.6.1 申請者應向<u>檢測機構</u>宣告系統邊界。<u>檢測機構</u>應定義試驗參數之不同組合(例如:受測試車輛之現在速度、目標之類型及偏置、車道之彎曲程度等)。 13.3.1.6.2 為確認系統之一致性,基礎試驗應至少執行兩次。若兩次試驗行程中一次無法達到所需性能,則試驗應重複一次。若於兩次試驗行程中皆達到所需性能,且申請者已依照規定12.9提供充足證據,則試驗將被視為通過。<u>檢測機構</u>可要求額外試驗行程,以確認規定12.9所概述之宣告值域。 13.3.1.6.3 於條件係推導自基礎試驗所述條件,系統不應無理地切換其控制策略。此應藉由延伸試驗進行驗證。如延伸試驗所概述之每一參數皆應變化,其中相關變化可被集中至單一試驗設計之中。另<u>檢測機構</u>可要求額外文件,用以佐證於	13.3.1.5.6 使目標能被特定地識別及再現之細節應記錄於車輛型式認證文件之中。 13.3.1.6 試驗參數變化 13.3.1.6.1 申請者應向<u>檢測機構</u>宣告系統邊界。<u>檢測機構</u>應定義試驗參數之不同組合(例如:受測試車輛之現在速度、目標之類型及偏置、車道之彎曲程度等)。 13.3.1.6.2 為確認系統之一致性,基礎試驗應至少執行兩次。若兩次試驗行程中一次無法達到所需性能,則試驗應重複一次。若於兩次試驗行程中皆達到所需性能,且申請者已依照規定12.9提供充足證據,則試驗將被視為通過。<u>檢測機構</u>可要求額外試驗行程,以確認規定12.9所概述之宣告值域。 13.3.1.6.3 於條件係推導自基礎試驗所述條件,系統不應無理地切換其控制策略。此應藉由延伸試驗進行驗證。如延伸試驗所概述之每一參數皆應變化,其中相關變化可被集中至單一試驗設計之中。另<u>檢測機構</u>可要求額外文件,用以佐證於未

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
design. In addition, the Type Approval Authority may request additional documentation evidencing the system's performance under parameter variations not tested.	design. In addition, the Type Approval Authority may request additional documentation evidencing the system's performance under parameter variations not tested.	未受到試驗之參數變化下的系統性能。	受到試驗之參數變化下的系統性能。
3.1.7. Public road verification	3.1.7. Public road verification	13.3.1.7 公共道路驗證	13.3.1.7 公共道路驗證
3.1.7.1. Where applicable to the type of feature of the system, the Type Approval Authority shall conduct, or shall witness, an assessment of the system, in a fault-free condition, in the presence of traffic in at least in one country of operation. The purpose of this verification is to assess the behaviour of the system in a fault-free condition, in its operating environment.	3.1.7.1. Where applicable to the type of feature of the system, the Type Approval Authority shall conduct, or shall witness, an assessment of the system, in a fault-free condition, in the presence of traffic in at least in one country of operation. The purpose of this verification is to assess the behaviour of the system in a fault-free condition, in its operating environment.	13.3.1.7.1 就適用系統之功能的類型狀況， <u>檢測機構</u> 應於系統無錯誤條件下，執行或見證於至少一個運作國家之交通中的評估。此等驗證之目標係為評估於其運作環境中且無錯誤條件下之系統行為。	13.3.1.7.1 就適用系統之功能的類型狀況， <u>檢測機構</u> 應於系統無錯誤條件下，執行或見證於至少一個運作國家之交通中的評估。此等驗證之目標係為評估於其運作環境中且無錯誤條件下之系統行為。
4. Test procedures	4. Test procedures	13.4 試驗程序	13.4 試驗程序
4.1. Test scenarios to confirm general compliance with requirements of this UN Regulation	4.1. Test scenarios to confirm general compliance with requirements of this UN Regulation	13.4.1 用以確認本基準附件要求之一般符合性之試驗情境	13.4.1 用以確認本基準附件要求之一般符合性之試驗情境
Compliance with the requirements of this UN Regulation shall be demonstrated by physical test for the following paragraphs. Variations of the same test (e.g. reaching different boundary conditions) may be demonstrated by other means (e.g. part of the audit described in Annex 3 or virtual testing) in agreement with the Type Approval Authority.	Compliance with the requirements of this UN Regulation shall be demonstrated by physical test for the following paragraphs. Variations of the same test (e.g. reaching different boundary conditions) may be demonstrated by other means (e.g. part of the audit described in Annex 3 or virtual testing) in agreement with the Type Approval Authority.	本基準附件要求之符合性應藉由下述規定之物理試驗進行展示。經與 <u>檢測機構</u> 協議後，可藉由其他方法（例如：規定12.所述稽核之一部分或虛擬試驗）展示相同試驗之變化（例如：到達不同邊界條件）。	本基準附件要求之符合性應藉由下述規定之物理試驗進行展示。經與 <u>檢測機構</u> 協議後，可藉由其他方法（例如：規定12.所述稽核之一部分或虛擬試驗）展示相同試驗之變化（例如：到達不同邊界條件）。
4.1.1. Requirements and system aspects that shall be tested during the physical tests are described in table 1. The relevant requirements or system aspects shall be	4.1.1. Requirements and system aspects that shall be tested during the physical tests are described in table 1. The relevant requirements or system aspects shall be	13.4.1.1 於物理試驗期間應受到測試之要求及系統層面如下表所述。相關要求或系統層面應基於系統邊界進行選擇。	13.4.1.1 於物理試驗期間應受到測試之要求及系統層面如下表所述。相關要求或系統層面應基於系統邊界進行選擇。

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chosen based on the system boundaries. Scenarios with the aim of testing the given requirement or aspect shall be created and described in agreement with the Type Approval Authority. Each requirement or aspect shall be assessed at least through track testing or public road verification. A given scenario may be used to assess different requirements / aspects of the system. Test scenarios shall be created depending on the system preconditions for activation and system boundaries. Table A4/1 Requirements and system aspects to be tested (表格如頁末所示) * Scenarios and test procedures for these items shall be agreed between the manufacturer and the Type Approval Authority. 4.2. Test scenarios to assess system behaviour 4.2.1. Test scenarios shall be selected depending on the system's preconditions for activation and system boundaries. 4.2.2. The tests can be performed either on a test track, or, where possible and without any safety risk to the vehicle occupants and other road users, on public roads. Test scenarios that may cause danger to other road users and the test personnel (e.g. AEB equivalent performance, driver	chosen based on the system boundaries. Scenarios with the aim of testing the given requirement or aspect shall be created and described in agreement with the Type Approval Authority. Each requirement or aspect shall be assessed at least through track testing or public road verification. A given scenario may be used to assess different requirements / aspects of the system. Test scenarios shall be created depending on the system preconditions for activation and system boundaries. Table A4/1 Requirements and system aspects to be tested (表格如頁末所示) 4.2. Test scenarios to assess system behaviour 4.2.1. Test scenarios shall be selected depending on the system's preconditions for activation and system boundaries. 4.2.2. The tests can be performed either on a test track, or, where possible and without any safety risk to the vehicle occupants and other road users, on public roads. Test scenarios that may cause danger to other road users and the test personnel (e.g. AEB equivalent performance, driver	就具備試驗之目標的情境，應於與<u>檢測機構</u>之協議下，建立並描述指定要求或層面。每一要求或層面應至少透過測試道試驗或公共道路驗證進行評估。一指定情境可被用於評估系統之不同要求或層面。 試驗情境應依照系統對啟動之前置條件及系統邊界而建立。 表、將測試之要求及系統層面 (表格如頁末所示) <u>*相關項目之情境及試驗程序應由申請者及檢測機構共同協議。</u> 13.4.2 用以評估系統行為之試驗情境 13.4.2.1 試驗情境應依照系統對啟動之前置條件及系統邊界而選擇。 13.4.2.2 試驗可於測試道上，或於具備可能性且不會對車輛乘客或其他道路使用者造成任何安全風險下，於公共道路上執行。 可能對其他道路使用者及試驗人員造成危險之試驗情境（例如AEB同等性能、駕駛人無法參與回應、高側向	就具備試驗之目標的情境，應於與<u>檢測機構</u>之協議下，建立並描述指定要求或層面。每一要求或層面應至少透過測試道試驗或公共道路驗證進行評估。一指定情境可被用於評估系統之不同要求或層面。 試驗情境應依照系統對啟動之前置條件及系統邊界而建立。 表、將測試之要求及系統層面 (表格如頁末所示) 13.4.2 用以評估系統行為之試驗情境 13.4.2.1 試驗情境應依照系統對啟動之前置條件及系統邊界而選擇。 13.4.2.2 試驗可於測試道上，或於具備可能性且不會對車輛乘客或其他道路使用者造成任何安全風險下，於公共道路上執行。 可能對其他道路使用者及試驗人員造成危險之試驗情境（例如AEB同等性能、駕駛人無法參與回應、高側向

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unavailability response, high lateral accelerations, etc.) shall be aimed to be tested on a test track. 4.2.2.1. The tests shall be performed in a way that the outcome of the test is not affected by driver settings or driver input and any other influences not related to the manoeuvre under test. Therefore, the following conditions shall apply: (a) The system's longitudinal control following distance shall be set to: (i) The default distance, if the distance is reset to a specific value upon first activation of the system following an initiation of the powertrain; or (ii) the closest driver adjustable following distance, if the distance is not reset to a default value. (b) The system's longitudinal control set speed shall be set to the speed indicated in the test or the speed declared by the manufacturer according to Annex 3 Appendix 4; (c) The system must be in 'active' mode before the lower of 10 s TTC or 250m relative longitudinal distance; (d) There shall be no corrective driver input to the steering control. The manufacturer shall declare any other relevant conditions to be met for correct execution of each test. 4.2.3. Tests must not be carried out in such a way as to endanger the personnel involved	unavailability response, high lateral accelerations, etc.) shall be aimed to be tested on a test track. 4.2.2.1. The tests shall be performed in a way that the outcome of the test is not affected by driver settings or driver input and any other influences not related to the manoeuvre under test. Therefore, the following conditions shall apply: (a) The system's longitudinal control following distance shall be set to: (i) the default distance, if the distance is reset to a specific value upon first activation of the system in the run cycle; or (ii) the closest driver adjustable following distance, if the distance is not reset to a default value. (b) The system's longitudinal control set speed shall be set to the speed indicated in the test or the speed declared by the manufacturer according to Annex 3 Appendix 4; (c) The system must be in 'active' mode before the lower of 10 s TTC or 250m relative longitudinal distance; (d) There shall be no corrective driver input to the steering control. The manufacturer shall declare any other relevant conditions to be met for correct execution of each test. 4.2.3. Tests must not be carried out in such a way as to endanger the personnel involved	加速度等) 應以於測試道進行測試為目標。 13.4.2.2.1 試驗應以試驗之產出不受到駕駛人設置或駕駛人輸入，以及任何其他非屬受測試操作相關之影響的方式執行。故應施加下述條件： (a) 系統之縱向控制跟隨距離應設置為： (i) 預設距離，若距離<u>接續於動力系統啟動</u>之系統首次啟動下重新設置於特定數值時，或 (ii) 最接近駕駛人可調整跟隨距離，若距離未重新設置至一預設距離時。 (b) 系統之縱向控制設置速度應設置於試驗中所指示速度，或申請者依照規定12.9所宣告之速度； (c) 系統於碰撞時間十秒或相對縱向距離兩百五十公尺前時（以較低者為準），必須為「啟動」模式； (d) 對轉向控制不應有修正性駕駛人輸入。 申請者應對每一試驗之修正執行事宜宣告待達成之任意其他相關條件。 13.4.2.3 於其他確認方式可行時，試驗不得以造成事涉人員危險，且必須	加速度等) 應以於測試道進行測試為目標。 13.4.2.2.1 試驗應以試驗之產出不受到駕駛人設置或駕駛人輸入，以及任何其他非屬受測試操作相關之影響的方式執行。故應施加下述條件： (a) 系統之縱向控制跟隨距離應設置為： (i) 預設距離，若距離<u>於運轉循環內</u>之系統首次啟動下重新設置於特定數值時，或 (ii) 最接近駕駛人可調整跟隨距離，若距離未重新設置至一預設距離時。 (b) 系統之縱向控制設置速度應設置於試驗中所指示速度，或申請者依照規定12.9所宣告之速度； (c) 系統於碰撞時間十秒或相對縱向距離兩百五十公尺前時（以較低者為準），必須為「啟動」模式； (d) 對轉向控制不應有修正性駕駛人輸入。 申請者應對每一試驗之修正執行事宜宣告待達成之任意其他相關條件。 13.4.2.3 於其他確認方式可行時，試驗不得以造成事涉人員危險，且必須

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and significant damage of the vehicle under test must be avoided where other means of validation are available.	and significant damage of the vehicle under test must be avoided where other means of validation are available.	須迴避受測試車輛之重大損害的方式執行。	迴避受測試車輛之重大損害的方式執行。
4.2.4. Lane Markings and Lane Geometry	4.2.4. Lane Markings and Lane Geometry	13.4.2.4 車道標線及道路幾何	13.4.2.4 車道標線及道路幾何
4.2.4.1. Where base tests are required to be performed on a curved section of road, the geometry shall fulfil the following criteria (S-bend means both turns in the listed order, curved section of the road means the 2 nd turn): (表格如頁末所示)	4.2.4.1. Where base tests are required to be performed on a curved section of road, the geometry shall fulfil the following criteria (S-bend means both turns in the listed order, curved section of the road means the 2 nd turn): (表格如頁末所示)	13.4.2.4.1 於基礎試驗被要求於道路之彎曲部分執行時，相關幾何應滿足下述指標(S形彎道係指依條列順序之兩個彎道，道路之彎曲部分係指第二次轉向)： (表格如頁末所示)	13.4.2.4.1 於基礎試驗被要求於道路之彎曲部分執行時，相關幾何應滿足下述指標(S—彎曲係指依條列順序之兩個彎道，道路之彎曲部分係指第二次轉向)： (表格如頁末所示)
At the request of the manufacturer and with the agreement of the Type Approval Authority, tests may be conducted on a road of different curvature, provided this does not change the intention or lower the severity of the test.	At the request of the manufacturer and with the agreement of the Type Approval Authority, tests may be conducted on a road of different curvature, provided this does not change the intention or lower the severity of the test.	於申請者要求且經與 <u>檢測機構</u> 之協議後，假設於不改變預期之試驗強度或降低試驗強度下，試驗可於不同彎曲程度之道路上執行。	於申請者要求且經與 <u>檢測機構</u> 之協議後，假設於不改變預期之試驗強度或降低試驗強度下，試驗可於不同彎曲程度之道路上執行。
4.2.5. At the time of type approval, the Type Approval Authority shall conduct or shall witness at least the following tests to assess the behaviour of the system based on the declared operating domains:	4.2.5. At the time of type approval, the Type Approval Authority shall conduct or shall witness at least the following tests to assess the behaviour of the system based on the declared operating domains:	13.4.2.5 於申請型式認證時， <u>檢測機構</u> 應執行或見證至少下述試驗以基於所宣告運作領域對系統行為進行評估：	13.4.2.5 於申請型式認證時， <u>檢測機構</u> 應執行或見證至少下述試驗以基於所宣告運作領域對系統行為進行評估：
4.2.5.1. Test scenarios for different DCAS Features	4.2.5.1. Test scenarios for different DCAS Features	13.4.2.5.1 對不同DCAS功能之試驗情境	13.4.2.5.1 對不同DCAS功能之試驗情境
4.2.5.1.1. Positioning in the lane of travel	4.2.5.1.1. Positioning in the lane of travel	13.4.2.5.1.1 行駛車道中之定位	13.4.2.5.1.1 行駛車道中之定位
4.2.5.1.1.1. Base Test: The test shall confirm positioning in the lane of travel capabilities declared by the manufacturer.	4.2.5.1.1.1. Base Test: The test shall confirm positioning in the lane of travel capabilities declared by the manufacturer.	13.4.2.5.1.1.1 基礎試驗：應透過試驗確認由申請者所宣告之行駛車道中的定位能力。	13.4.2.5.1.1.1 基礎試驗：應透過試驗確認由申請者所宣告之行駛車道中的定位能力。
4.2.5.1.1.1.1. The VUT speed shall remain in the range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation.	4.2.5.1.1.1.1. The VUT speed shall remain in the range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation.	13.4.2.5.1.1.1.1 功能部分I：受測試車輛速度應維持於申請者於規定9.1.1及9.1.2所宣告之範圍內。	13.4.2.5.1.1.1.1 功能部分I：受測試車輛速度應維持於申請者於規定9.1.1及9.1.2所宣告之範圍內。
The test shall be carried out for each speed	The test shall be carried out for each speed	試驗應以申請者於規定9.1.1及9.1.2每	試驗應以申請者於規定9.1.1及9.1.2每

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation separately or within contiguous speed ranges where the declared maximum lateral acceleration is identical.	range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation separately or within contiguous speed ranges where the declared maximum lateral acceleration is identical.	一速度範圍，於所宣告最高側向加速度相同下，分別或於連續速度範圍內執行。	一速度範圍，於所宣告最高側向加速度相同下，分別或於連續速度範圍內執行。
The VUT shall be driven without any force applied by the driver on the steering control (e.g. by removing the hands from the steering control) with a constant speed on a curved track with lane markings at each side.	The VUT shall be driven without any force applied by the driver on the steering control (e.g. by removing the hands from the steering control) with a constant speed on a curved track with lane markings at each side.	受測試車輛應於兩側具備車道標線之彎曲測試道路上，以未受到駕駛人於轉向控制上施加任何力（例如：藉由將手自轉向控制上離開），並以一定速度之方式行駛。	受測試車輛應於兩側具備車道標線之彎曲測試道路上，以未受到駕駛人於轉向控制上施加任何力（例如：藉由將手自轉向控制上離開），並以一定速度之方式行駛。
The necessary lateral acceleration to follow the curve shall be between 80 and 90 per cent of the maximum lateral acceleration declared by the manufacturer in Annex 3 Appendix 4 of this UN Regulation.	The necessary lateral acceleration to follow the curve shall be between 80 and 90 per cent of the maximum lateral acceleration declared by the manufacturer in Annex 3 Appendix 4 of this UN Regulation.	為跟隨彎道之必要側向加速度應介於由申請者於規定12.9所宣告之最高側向加速度的百分之八十至九十之間。	為跟隨彎道之必要側向加速度應介於由申請者於規定12.9所宣告之最高側向加速度的百分之八十至九十之間。
4.2.5.1.1.1.2. The VUT speed shall remain in the range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation.	4.2.5.1.1.1.2. The VUT speed shall remain in the range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation.	13.4.2.5.1.1.1.2 受測試車輛速度應維持於申請者於規定9.1.1及9.1.2之範圍。	13.4.2.5.1.1.1.2 受測試車輛速度應維持於申請者於規定9.1.1及9.1.2之範圍。
The test shall be carried out for each speed range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation separately or within contiguous speed ranges where the declared maximum lateral acceleration is identical.	The test shall be carried out for each speed range declared by the manufacturer in paragraphs 9.1.1. and 9.1.2. of this UN Regulation separately or within contiguous speed ranges where the declared maximum lateral acceleration is identical.	試驗應以申請者於規定9.1.1及9.1.2每一速度範圍，於所宣告最高側向加速度相同下，分別或於連續速度範圍內執行。	試驗應以申請者於規定9.1.1及9.1.2每一速度範圍，於所宣告最高側向加速度相同下，分別或於連續速度範圍內執行。
The VUT shall be driven without any force applied by the driver on the steering control (e.g. by removing the hands from the steering control) with a constant speed on a curved track with lane markings at each side.	The VUT shall be driven without any force applied by the driver on the steering control (e.g. by removing the hands from the steering control) with a constant speed on a curved track with lane markings at each side.	受測試車輛應於兩側具備車道標線之彎曲測試道路上，以未受到駕駛人於轉向控制上施加任何力（例如：藉由將手自轉向控制上離開），並以一定速度之方式行駛。	受測試車輛應於兩側具備車道標線之彎曲測試道路上，以未受到駕駛人於轉向控制上施加任何力（例如：藉由將手自轉向控制上離開），並以一定速度之方式行駛。
The Type Approval Authority shall define a test speed and a radius which would provoke	The Type Approval Authority shall define a test speed and a radius which would provoke	檢測機構應定義將引起與所宣告之最高側向加速度加上零點三公尺／秒	檢測機構應定義將引起與所宣告之最高側向加速度加上零點三公尺／秒

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
a higher acceleration than the declared maximum lateral acceleration + 0.3 m/s² (e.g. by travelling with a higher speed through a curve with a given radius). 4.2.5.1.1.1.3. At the request of the manufacturer and with the agreement of the Type Approval Authority, meeting the objectives of paragraphs 5.3.7.1.1., 5.3.7.1.2. or 6.1.1., as applicable, across all speed ranges where the declared maximum lateral acceleration differs may be demonstrated through alternative means when test tracks with an appropriate radius to meet the lateral acceleration conditions outlined in paragraphs 4.2.5.1.1.1.1. or 4.2.5.1.1.1.2. are not available, provided that at least one physical test as outlined above is performed at the overall declared maximum lateral acceleration for each of those paragraphs.	a higher acceleration than the declared maximum lateral acceleration + 0.3 m/s² (e.g. by travelling with a higher speed through a curve with a given radius).	平方相較下，較高之加速度的試驗速度及幅度(例如：藉由以較高速度透過具備指定幅度之彎道行駛)。 <u>13.4.2.5.1.1.1.3 就申請者要求及檢測機構同意之狀況，於所宣告最大側向加速度不同下，於具備合適半徑之試驗道路無法滿足規定4.2.5.1.1.1.1或規定13.4.2.5.1.1.1.2所述側向加速度條件時，且假設對每一個前述規定，至少一項如上所述之物理試驗係處於所宣告之整體最高側向加速度執行，可藉由替代方式展演對橫跨所有速度範圍滿足規定5.3.7.1.1、規定5.3.7.1.2或規定6.1.1之目標(依實際狀況)進行展演。</u>	平方相較下，較高之加速度的試驗速度及幅度(例如：藉由以較高速度透過具備指定幅度之彎道行駛)。
4.2.5.1.1.2. Extended Testing: The test shall demonstrate that the system does not leave its lane and maintains a stable motion inside its ego lane across the speed range and different curvatures within its system boundaries up to the maximum lateral acceleration declared by the manufacturer. 4.2.5.1.1.2.1. The test shall be executed at least: (a) With sufficient length to allow for an assessment of positioning in the lane of	4.2.5.1.1.2. Extended Testing: The test shall demonstrate that the system does not leave its lane and maintains a stable motion inside its ego lane across the speed range and different curvatures within its system boundaries up to the maximum lateral acceleration declared by the manufacturer. 4.2.5.1.1.2.1. The test shall be executed at least: (a) With sufficient length to allow for an assessment of positioning in the lane of	13.4.2.5.1.1.2 延伸試驗： 試驗應顯示系統於系統邊界之整個速度範圍及不同彎道下，最高至申請者所宣告之最高側向加速度內，不得離開其車道，並於其本身車道內維持穩定動態。 13.4.2.5.1.1.2.1 試驗應至少執行如下： (a) 以允許就行駛車道之定位行為進行評估之充足長度；	13.4.2.5.1.1.2 延伸試驗： 試驗應顯示系統於系統邊界之整個速度範圍及不同彎道下，最高至申請者所宣告之最高側向加速度內，不得離開其車道，並於其本身車道內維持穩定動態。 13.4.2.5.1.1.2.1 試驗應至少執行如下： (a) 以允許就行駛車道之定位行為進行評估之充足長度；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
travel behaviour; (b) For different road curvatures, including an S-bend with the parameters according to paragraph 4.2.4.1. or equivalent, and different initial speeds, at least one of which would require the vehicle to exceed the maximum lateral acceleration declared by the manufacturer in order to remain in the lane at this speed; (c) With different types of lane boundaries (e.g. markings, road edges, only one lane marking) as applicable to the system; 4.2.5.1.2. Driver-initiated lane changes 4.2.5.1.2.1. Base Test: The test shall confirm the driver-initiated lane changing capabilities of the system declared by the manufacturer. 4.2.5.1.2.1.1. The VUT shall perform a full lane change (e.g., 3.5 m lateral displacement) into the adjacent lane after the driver initiated the LCP. (圖片如頁末所示) 4.2.5.1.2.2. Extended Testing:	travel behaviour; (b) For different road curvatures, including an S-bend with the parameters according to paragraph 4.2.4.1. or equivalent, and different initial speeds, at least one exceeding the maximum lateral acceleration declared by the manufacturer; (c) With different types of lane boundaries (e.g. markings, road edges, only one lane marking) as applicable to the system; 4.2.5.1.2. Driver-initiated lane changes 4.2.5.1.2.1. Base Test: The test shall confirm the driver-initiated lane changing capabilities of the system declared by the manufacturer. 4.2.5.1.2.1.1. The VUT shall perform a full lane change (e.g., 3.5 m lateral displacement) into the adjacent lane after the driver initiated the LCP. 4.2.5.1.2.1.2. The VUT and the lead vehicle shall travel in a straight line, in the same direction, for at least two seconds prior to the functional part of the test with a VUT to lead vehicle centreline offset of not more than 1 m. 4.2.5.1.2.1.3. Tests shall be conducted with a lead vehicle travelling at least 20 km/h slower than the set speed limit of the VUT. (圖片如頁末所示) 4.2.5.1.2.2. Extended Testing:	(b) 包含具備依照規定13.4.2.4.1或相等程度之S形彎道，以及不同初始速度在內，對於不同道路彎曲，至少<u>其中一個將要求車輛</u>超過由申請者所宣告之最高側向加速度，<u>以於車道中維持此速度</u>； (c) 如系統適用下，以不同道路邊界之類型（例如：標記、道路邊緣、單側車道標線）； 13.4.2.5.1.2 駕駛人起始之變換車道 13.4.2.5.1.2.1 基礎試驗：應透過試驗確認由申請者所宣告之系統之駕駛人起始的變換車道能力。 13.4.2.5.1.2.1.1 受測試車輛應於駕駛人起始LCP後，執行一次完整之變換車道（例如：三點五公尺之側向位移）至相鄰車道內。 (圖片如頁末所示) 13.4.2.5.1.2.2 延伸試驗：	(b) 包含具備依照規定13.4.2.4.1或相等程度之S—彎曲，以及不同初始速度在內，對於不同道路彎曲，至少一個超過由申請者所宣告之最高側向加速度； (c) 如系統適用下，以不同道路邊界之類型（例如：標記、道路邊緣、單側車道標線）； 13.4.2.5.1.2 駕駛人起始之變換車道 13.4.2.5.1.2.1 基礎試驗：應透過試驗確認由申請者所宣告之系統之駕駛人起始的變換車道能力。 13.4.2.5.1.2.1.1 受測試車輛應於駕駛人起始LCP後，執行一次完整之變換車道（例如：三點五公尺之側向位移）至相鄰車道內。 <u>13.4.2.5.1.2.1.2 受測試車輛及前導車輛應以受測試車輛對前導車輛之中心線偏置不超過一公尺下，於試驗之功能部分至少兩秒前，以相同方向及以直線行駛。</u> <u>13.4.2.5.1.2.1.3 試驗應以前導車輛以慢於受測試車輛之設定速度極限至少二十公里／小時行駛下執行。</u> (圖片如頁末所示) 13.4.2.5.1.2.2 延伸試驗：

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
The test shall assess the system's ability to assist the driver within its boundary conditions/manufacturer's declared system features in changing lanes safely: (a) On roads without physical separation; (b) On roads where pedestrians and cyclists are not prohibited; (c) Where the lane change cannot be executed immediately after its initiation by the driver. (d) Presence of a lead vehicle. 4.2.5.1.2.2.1. The test shall be executed at least: (a) On a road with oncoming or overtaking traffic in the target lane; (b) With different road users approaching from the rear; (c) With a vehicle driving beside in the adjacent lane preventing a lane change; (d) In a scenario where the system reacts to another vehicle that starts changing into the same space within the target lane, to avoid a potential risk of collision. 4.2.5.1.3. Driver-confirmed or System-initiated lane changes 4.2.5.1.3.1.Base Test: The test shall confirm system-initiated lane changing capabilities declared by the manufacturer. 4.2.5.1.3.1.1. The VUT shall perform a full lane change (e.g., 3.5 m lateral displacement) into the adjacent lane after the	The test shall assess the system's ability to assist the driver within its boundary conditions/manufacturer's declared system features in changing lanes safely: (a) With other speed differences between the lead vehicle and VUT; (b) On roads without physical separation; (c) On roads where pedestrians and cyclists are not prohibited; (d) Where the lane change cannot be executed immediately after its initiation by the driver. 4.2.5.1.2.2.1. The test shall be executed at least: (a) On a road with oncoming or overtaking traffic in the target lane; (b) With different road users approaching from the rear; (c) With a vehicle driving beside in the adjacent lane preventing a lane change; (d) In a scenario where the system reacts to another vehicle that starts changing into the same space within the target lane, to avoid a potential risk of collision. 4.2.5.1.3. System-initiated lane changes 4.2.5.1.3.1.Base Test: The test shall confirm system-initiated lane changing capabilities declared by the manufacturer. 4.2.5.1.3.1.1. The VUT shall perform a full lane change (e.g., 3.5 m lateral displacement) into the adjacent lane after the	試驗應就安全地變換車道乙項，對於其邊界條件／申請者所宣告系統功能內輔助駕駛人的系統能力進行評估： (a) 於不具備實體分隔之道路上； (b) 於未禁止行人及自行車騎士之道路上； (c) 於變換車道不得於由駕駛人起始後立即執行之下。 (d) 一部前導車輛之存在。 13.4.2.5.1.2.2.1 試驗應至少執行如下： (a) 於目標車道內具備迎面而來或超車之車流的道路上； (b) 以從後方接近之不同道路使用者； (c) 以相鄰車道內採防止變換車道方式行駛於側之車輛； (d) 於系統對另一部開始變換至目標車道內相同空間之車輛進行反應，以避免潛在碰撞風險之情境下。 13.4.2.5.1.3 駕駛人確認或系統起始之變換車道 13.4.2.5.1.3.1 基礎試驗：應透過試驗確認由申請者所宣告之系統起始的變換車道能力。 13.4.2.5.1.3.1.1 受測試車輛應於系統起始LCP後，執行一次完整之變換車道（例如：三點五公尺之側向位	試驗應就安全地變換車道乙項，對於其邊界條件／申請者所宣告系統功能內輔助駕駛人的系統能力進行評估： (a) 以其他介於前導車輛及受測試車輛間之速度差距； (b) 於不具備實體分隔之道路上； (c) 於未禁止行人及自行車騎士之道路上； (d) 於變換車道不得於由駕駛人起始後立即執行之下。 13.4.2.5.1.2.2.1 試驗應至少執行如下： (a) 於目標車道內具備迎面而來或超車之車流的道路上； (b) 以從後方接近之不同道路使用者； (c) 以相鄰車道內採防止變換車道方式行駛於側之車輛； (d) 於系統對另一部開始變換至目標車道內相同空間之車輛進行反應，以避免潛在碰撞風險之情境下。 13.4.2.5.1.3 系統起始之變換車道 13.4.2.5.1.3.1 基礎試驗：應透過試驗確認由申請者所宣告之系統起始的變換車道能力。 13.4.2.5.1.3.1.1 受測試車輛應於系統起始LCP後，執行一次完整之變換車道（例如：三點五公尺之側向位

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
system has initiated the LCP. 4.2.5.1.3.1.2. The VUT and the lead vehicle shall travel in a straight line, in the same direction, for at least two seconds prior to the functional part of the test with a VUT to lead vehicle centreline offset of not more than 1 m. (圖片如頁末所示) 4.2.5.1.3.2. Extended Testing: The test shall demonstrate that the system is able to assist the driver in changing lanes safely: (a) With other speed differences between the lead vehicle and VUT; (b) On roads without physical separation; and/or (c) On roads where pedestrians and cyclists are not prohibited. 4.2.5.1.3.2.1. The test shall be executed at least: (a) On a road with oncoming or overtaking traffic in the target lane; (b) With different road users approaching from the rear; (c) With a vehicle driving beside in the adjacent lane preventing a lane change; (d) In a scenario where the system reacts to another vehicle that starts changing into the same space within the target lane, to avoid a potential risk of collision. 4.2.5.2. Ability to respond to another road user corresponding to the declared operating domains	system has initiated the LCP. 4.2.5.1.3.1.2. The VUT and the lead vehicle shall travel in a straight line, in the same direction, for at least two seconds prior to the functional part of the test with a VUT to lead vehicle centreline offset of not more than 1 m. (圖片如頁末所示) 4.2.5.1.3.2. Extended Testing: The test shall demonstrate that the system is able to assist the driver in changing lanes safely: (a) With other speed differences between the lead vehicle and VUT; (b) On roads without physical separation; and/or (c) On roads where pedestrians and cyclists are not prohibited. 4.2.5.1.3.2.1. The test shall be executed at least: (a) On a road with oncoming or overtaking traffic in the target lane; (b) With different road users approaching from the rear; (c) With a vehicle driving beside in the adjacent lane preventing a lane change; (d) In a scenario where the system reacts to another vehicle that starts changing into the same space within the target lane, to avoid a potential risk of collision. 4.2.5.2. Ability to respond to another road user corresponding to the declared operating domains	移) 至相鄰車道內。 13.4.2.5.1.3.1.2 受測試車輛及前導車輛應以受測試車輛對前導車輛之中心線偏置不超過一公尺下，於試驗之功能部分至少兩秒前，以相同方向及以直線行駛。 (圖片如頁末所示) 13.4.2.5.1.3.2 延伸試驗：應透過試驗顯示系統能夠輔助駕駛人安全地變換車道： (a) 以其他介於前導車輛及受測試車輛間之速度差距； (b) 於不具備實體分隔之道路上，及／或； (c) 於未禁止行人及自行車騎士之道路上； 13.4.2.5.1.3.2.1 試驗應至少執行如下： (a) 於目標車道內具備迎面而來或超車之車流的道路上； (b) 以從後方接近之不同道路使用者； (c) 以相鄰車道內採防止變換車道方式行駛於側之車輛； (d) 於系統對另一部開始變換至目標車道內相同空間之車輛進行反應，以避免潛在碰撞風險之情境下。 13.4.2.5.2 就對應至所宣告運作領域之另一道路使用者回應的能力	移) 至相鄰車道內。 13.4.2.5.1.3.1.2 受測試車輛及前導車輛應以受測試車輛對前導車輛之中心線偏置不超過一公尺下，於試驗之功能部分至少兩秒前，以相同方向及以直線行駛。 (圖片如頁末所示) 13.4.2.5.1.3.2 延伸試驗：應透過試驗顯示系統能夠輔助駕駛人安全地變換車道： (a) 以其他介於前導車輛及受測試車輛間之速度差距； (b) 於不具備實體分隔之道路上，及／或； (c) 於未禁止行人及自行車騎士之道路上； 13.4.2.5.1.3.2.1 試驗應至少執行如下： (a) 於目標車道內具備迎面而來或超車之車流的道路上； (b) 以從後方接近之不同道路使用者； (c) 以相鄰車道內採防止變換車道方式行駛於側之車輛； (d) 於系統對另一部開始變換至目標車道內相同空間之車輛進行反應，以避免潛在碰撞風險之情境下。 13.4.2.5.2 就對應至所宣告運作領域之另一道路使用者回應的能力

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.2.5.2.1. Stationary vehicle ahead on a straight section of road	4.2.5.2.1. Stationary vehicle ahead on a straight section of road	13.4.2.5.2.1 於道路直線部分上之前方靜態車輛	13.4.2.5.2.1 於道路直線部分上之前方靜態車輛
4.2.5.2.1.1. Base Test: The test shall confirm the declared response capability of the system for a stationary vehicle ahead on straight section of road.	4.2.5.2.1.1. Base Test: The test shall confirm the declared response capability of the system for a stationary vehicle ahead on straight section of road.	13.4.2.5.2.1.1 基礎試驗：應透過試驗確認所宣告系統對於道路直線部分上之前方靜態車輛的回應能力。	13.4.2.5.2.1.1 基礎試驗：應透過試驗確認所宣告系統對於道路直線部分上之前方靜態車輛的回應能力。
4.2.5.2.1.1.1. The VUT shall approach the stationary target in a straight line for at least 2 seconds prior to the functional part of the test with a VUT to target centreline offset of not more than 0.5 m.	4.2.5.2.1.1.1. The VUT shall approach the stationary target in a straight line for at least 2 seconds prior to the functional part of the test with a VUT to target centreline offset of not more than 0.5 m.	13.4.2.5.2.1.1.1 受測試車輛應以受測試車輛對目標之中心線偏置不超過零點五公尺下，於試驗之功能部分至少兩秒前，以直線接近靜態目標。	13.4.2.5.2.1.1.1 受測試車輛應以受測試車輛對目標之中心線偏置不超過零點五公尺下，於試驗之功能部分至少兩秒前，以直線接近靜態目標。
4.2.5.2.1.1.2. The functional part of the test shall begin with:	4.2.5.2.1.1.2. The functional part of the test shall begin with:	13.4.2.5.2.1.1.2 試驗之功能部分應開始如下：	13.4.2.5.2.1.1.2 試驗之功能部分應開始如下：
(a) The VUT travelling at the required test speed within the tolerances and within the lateral offset prescribed in this paragraph; and	(a) The VUT travelling at the required test speed within the tolerances and within the lateral offset prescribed in this paragraph; and	(a) 受測試車輛於前述側向偏置內，以及於容許誤差內之所需試驗速度下行駛；且	(a) 受測試車輛於前述側向偏置內，以及於容許誤差內之所需試驗速度下行駛；且
(b) A distance corresponding to a time of at least 4 seconds before the DCAS vehicle begins to react to the target.	(b) A distance corresponding to a time of at least 4 seconds before the DCAS vehicle begins to react to the target.	(b) 對應DCAS車輛開始對目標反應前至少四秒之時間的距離。	(b) 對應DCAS車輛開始對目標反應前至少四秒之時間的距離。
4.2.5.2.1.2. The tolerances shall be respected between the start of the functional part of the test and the system intervention.	4.2.5.2.1.2. The tolerances shall be respected between the start of the functional part of the test and the system intervention.	13.4.2.5.2.1.2 應於試驗之功能部分開始及系統介入間遵循容許誤差。	13.4.2.5.2.1.2 應於試驗之功能部分開始及系統介入間遵循容許誤差。
(圖片如頁末所示)	(圖片如頁末所示)	(圖片如頁末所示)	(圖片如頁末所示)
4.2.5.2.1.3. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary vehicle ahead on straight section of road.	4.2.5.2.1.3. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary vehicle ahead on straight section of road.	13.4.2.5.2.1.3 延伸試驗：應透過試驗顯示系統不會就道路直線部分上之前方靜態車輛，無理地改變控制策略。	13.4.2.5.2.1.3 延伸試驗：應透過試驗顯示系統不會就道路直線部分上之前方靜態車輛，無理地改變控制策略。
4.2.5.2.1.3.1. The test shall be executed at least with:	4.2.5.2.1.3.1. The test shall be executed at least with:	13.4.2.5.2.1.3.1 試驗應至少執行如下：	13.4.2.5.2.1.3.1 試驗應至少執行如下：
(a) A stationary vehicle of a different type or	(a) A stationary vehicle of a different type or	(a) 一部不同類型或類別之靜態車	(a) 一部不同類型或類別之靜態車輛；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
category; (b) A stationary vehicle positioned at a larger offset to the VUT's centreline; (c) A stationary vehicle facing towards the VUT for systems that are able to operate in non-highway conditions. 4.2.5.2.2. Stationary vehicle ahead on a curved section of road 4.2.5.2.2.1. Base Test: The test shall confirm the declared response capability of the system for a stationary vehicle ahead on curved section of road. 4.2.5.2.2.1.1. The target shall be positioned within a 0.5 m offset between the centreline of the target vehicle and the centreline of the lane around the bend (1st turn defined in 4.2.4.1. of this Annex) so that the rear corner is touching the extrapolated lane line if the straight were to continue. 4.2.5.2.2.1.2. The VUT vehicle shall be driven along the straight section of the fully marked lane at a constant speed with the system on for enough time for the lateral control to take up a constant position within the lane, prior to the start of the curved section of road. (圖片如頁末所示) 4.2.5.2.2.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary vehicle ahead on curved section of road.	category; (b) A stationary vehicle positioned at a larger offset to the VUT's centreline; (c) A stationary vehicle facing towards the VUT for systems that are able to operate in non-highway conditions. 4.2.5.2.2. Stationary vehicle ahead on a curved section of road 4.2.5.2.2.1. Base Test: The test shall confirm the declared response capability of the system for a stationary vehicle ahead on curved section of road. 4.2.5.2.2.1.1. The target shall be positioned within a 0.5 m offset between the centreline of the target vehicle and the centreline of the lane around the bend (1st turn defined in 4.2.4.1. of this Annex) so that the rear corner is touching the extrapolated lane line if the straight were to continue. 4.2.5.2.2.1.2. The VUT vehicle shall be driven along the straight section of the fully marked lane at a constant speed with the system on for enough time for the lateral control to take up a constant position within the lane, prior to the start of the curved section of road. (圖片如頁末所示) 4.2.5.2.2.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary vehicle ahead on curved section of road.	輛; (b) 一部就受測試車輛之中心線而言, 以較大偏置進行定位之靜態車輛; (c) 對於能夠於非高／快速公路條件下運作之系統, 一部面朝受測試車輛之靜態車輛。 13.4.2.5.2.2 於道路彎曲部分上之前方靜態車輛 13.4.2.5.2.2.1 基礎試驗: 應透過試驗確認所宣告系統對於道路彎道部分上之前方靜態車輛的回應能力。 13.4.2.5.2.2.1.1 目標於目標車輛中心線以及彎曲週遭車道中心線(規定13.4.2.4.1定義之第一次轉向)間, 應於零點五公尺偏置內進行定位, 以於直線延續時, 使後方角落接觸外推車道線。 13.4.2.5.2.2.1.2 受測試車輛應於道路彎曲部分開始前, 於系統開啟使側向控制具備充足時間以將車輛移至車道內一恆定位置下, 沿著具備完整標線之車道的直線區域行駛。 (圖片如頁末所示) 13.4.2.5.2.2.2 延伸試驗: 應透過試驗顯示系統不會就道路彎曲部分上之前方靜態車輛, 無理地改變控制策略。	(b) 一部就受測試車輛之中心線而言, 以較大偏置進行定位之靜態車輛; (c) 對於能夠於非高／快速公路條件下運作之系統, 一部面朝受測試車輛之靜態車輛。 13.4.2.5.2.2 於道路彎曲部分上之前方靜態車輛 13.4.2.5.2.2.1 基礎試驗: 應透過試驗確認所宣告系統對於道路彎道部分上之前方靜態車輛的回應能力。 13.4.2.5.2.2.1.1 目標於目標車輛中心線以及彎曲週遭車道中心線(規定13.4.2.4.1定義之第一次轉向)間, 應於零點五公尺偏置內進行定位, 以於直線延續時, 使後方角落接觸外推車道線。 13.4.2.5.2.2.1.2 受測試車輛應於道路彎曲部分開始前, 於系統開啟使側向控制具備充足時間以將車輛移至車道內一恆定位置下, 沿著具備完整標線之車道的直線區域行駛。 (圖片如頁末所示) 13.4.2.5.2.2.2 延伸試驗: 應透過試驗顯示系統不會就道路彎曲部分上之前方靜態車輛, 無理地改變控制策略。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.2.5.2.2.1. The test shall be executed at least with: (a) A stationary vehicle of a different type or category; (b) A stationary vehicle positioned with a larger offset from the centre position of the lane; (c) An angle of a stationary vehicle to the centreline of the lane; (d) A stationary vehicle facing towards the VUT depending for systems capable of operating in non-highway conditions.	4.2.5.2.2.1. The test shall be executed at least with: (a) A stationary vehicle of a different type or category; (b) A stationary vehicle positioned with a larger offset from the centre position of the lane; (c) An angle of a stationary vehicle to the centreline of the lane; (d) A stationary vehicle facing towards the VUT depending for systems capable of operating in non-highway conditions.	13.4.2.5.2.2.1 試驗應至少執行如下： (a) 一部不同類型或類別之靜態車輛； (b) 一部自道路之中心線以較大偏置進行定位之靜態車輛； (c) 一個靜態車輛對車道中心線之角度； (d) 對於能夠於非高 ~~速~~ 快公路條件下運作之系統，一部面朝受測試車輛之靜態車輛。	13.4.2.5.2.2.1 試驗應至少執行如下： (a) 一部不同類型或類別之靜態車輛； (b) 一部自道路之中心線以較大偏置進行定位之靜態車輛； (c) 一個靜態車輛對車道中心線之角度； (d)對於能夠於非高速公路條件下運作之系統，一部面朝受測試車輛之靜態車輛。
4.2.5.2.3. Slower moving vehicle ahead on a straight section of road 4.2.5.2.3.1. Base Test: The test shall confirm the declared response capability of the system for a slower moving vehicle ahead on a straight section of road.	4.2.5.2.3. Slower moving vehicle ahead on a straight section of road 4.2.5.2.3.1. Base Test: The test shall confirm the declared response capability of the system for a slower moving vehicle ahead on a straight section of road.	13.4.2.5.2.3 於道路直線部分上之前方緩慢移動車輛 13.4.2.5.2.3.1 基礎試驗：應透過試驗確認所宣告系統對於道路直線部分上之前方緩慢移動車輛的回應能力。	13.4.2.5.2.3 於道路直線部分上之前方緩慢移動車輛 13.4.2.5.2.3.1 基礎試驗：應透過試驗確認所宣告系統對於道路直線部分上之前方緩慢移動車輛的回應能力。
4.2.5.2.3.1.1. The VUT and the target shall travel in a straight line, in the same direction, for at least two seconds prior to the functional part of the test with a VUT to target centreline offset of not more than 0.5 m.	4.2.5.2.3.1.1. The VUT and the target shall travel in a straight line, in the same direction, for at least two seconds prior to the functional part of the test with a VUT to target centreline offset of not more than 0.5 m.	13.4.2.5.2.3.1.1 受測試車輛及目標應以受測試車輛對目標之中心線偏置不超過零點五公尺下，於試驗之功能部分至少兩秒前，沿著同方向以直線行駛。	13.4.2.5.2.3.1.1 受測試車輛及目標應以受測試車輛對目標之中心線偏置不超過零點五公尺下，於試驗之功能部分至少兩秒前，沿著同方向以直線行駛。
4.2.5.2.3.1.2. The tests shall be conducted with a slower moving vehicle target travelling 50 km/h slower than the VUT. (圖片如頁末所示)	4.2.5.2.3.1.2. The tests shall be conducted with a slower moving vehicle target travelling 50 km/h slower than the VUT. (圖片如頁末所示)	13.4.2.5.2.3.1.2 試驗應以一部緩慢移動車輛目標以慢於受測試車輛至少五十公里／小時之速度下行駛執行。 (圖片如頁末所示)	13.4.2.5.2.3.1.2 試驗應以一部緩慢移動車輛目標以慢於受測試車輛至少五十公里／小時之速度下行駛執行。 (圖片如頁末所示)
4.2.5.2.3.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy	4.2.5.2.3.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy	13.4.2.5.2.3.2 延伸試驗：應透過試驗顯示系統不會就道路直線部分上之前方緩慢移動車輛，無理地改變控	13.4.2.5.2.3.2 延伸試驗：應透過試驗顯示系統不會就道路直線部分上之前方緩慢移動車輛，無理地改變控

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
for a slower moving vehicle ahead on straight section of road. 4.2.5.2.3.2.1. The test shall be executed at least: (a) A slower moving vehicle of a different type or category; (b) A slower moving vehicle positioned at a larger offset to the VUT's centreline; (c) A slower moving vehicle with a larger speed difference to the VUT's speed. 4.2.5.2.4. Decelerating of a lead vehicle 4.2.5.2.4.1. Base Test: The test shall confirm the declared response capability of the system for a decelerating vehicle on a straight section of road. 4.2.5.2.4.1.1. The VUT and the target shall travel in a straight line with 50 km/h speed, in the same direction, with the VUT following the target with a steady state following time gap maintained by the system, for at least two seconds prior to the functional part of the test, with a VUT to target centreline offset of not more than 0.5 m. (圖片如頁末所示) 4.2.5.2.4.1.2. The tests shall be conducted with a vehicle target decelerating up to 4 m/s². 4.2.5.2.4.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control	for a slower moving vehicle ahead on straight section of road. 4.2.5.2.3.2.1. The test shall be executed at least: (a) A slower moving vehicle of a different type or category; (b) A slower moving vehicle positioned at a larger offset to the VUT's centreline; (c) A slower moving vehicle with a larger speed difference to the VUT's speed. 4.2.5.2.4. (Reserved)	制策略。 13.4.2.5.2.3.2.1 試驗應至少執行如下： (a) 一部不同類型或類別之緩慢移動車輛； (b) 一部就受測試車輛之中心線而言，以較大偏置進行定位之緩慢移動車輛； (c) 一部與受測試車輛之速度相較，速度差距較大之緩慢移動車輛； 13.4.2.5.2.4 <u>前導車輛之減速</u> 13.4.2.5.2.4.1 <u>基礎試驗：應透過試驗確認所宣告系統對於道路直線部分上之前方減速中車輛的回應能力。</u> 13.4.2.5.2.4.1.1 <u>受測試車輛及目標應以受測試車輛對目標之中心線偏置不超過零點五公尺下，於試驗之功能部分至少兩秒前，於受測試車輛以隨系統所維持時間間距之穩定狀態跟隨目標，就相同方向以五十公里／小時之速度直線行駛。</u> (圖片如頁末所示) 13.4.2.5.2.4.1.2 <u>試驗應以一部車輛目標就減速度最高至四公尺／秒平方下執行。</u> 13.4.2.5.2.4.2 <u>延伸試驗：應透過試驗顯示系統不會就道路直線部分上之減速中車輛，無理地改變控制策略。</u>	制策略。 13.4.2.5.2.3.2.1 試驗應至少執行如下： (a) 一部不同類型或類別之緩慢移動車輛； (b) 一部就受測試車輛之中心線而言，以較大偏置進行定位之緩慢移動車輛； (c) 一部與受測試車輛之速度相較，速度差距較大之緩慢移動車輛； 13.4.2.5.4 <u>(保留)</u>

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
strategy for a decelerating vehicle on a straight section of road. 4.2.5.2.4.2.1. The test shall be executed at least with: (a) A decelerating vehicle of a different type or category; (b) A decelerating vehicle positioned at a larger offset to the VUT's centreline; (c) A decelerating vehicle with a larger deceleration; (d) Different VUT and target speeds. 4.2.5.2.5. Cut-out of lead vehicle 4.2.5.2.5.1. Base Test: The test shall confirm the declared response capability of the system for a cut-out of the lead M1 category vehicle. 4.2.5.2.5.1.1. The vehicle cutting out shall perform a full lane change (e.g., 3.5 m lateral displacement) into the adjacent lane to avoid the stationary vehicle target, with the measurement behind the stationary vehicle target indicating that start of the lane change, and the measurement in front of the stationary vehicle target indicating the end of the lane change. 4.2.5.2.5.1.2. The indicated TTC is defined as the TTC of the lead vehicle to the target when the lead vehicle will start the lane change. Indicators are not to be used by the lead vehicle during the manoeuvre. 4.2.5.2.5.1.3. The cutting out vehicle shall not deviate from its defined path by more than	4.2.5.2.5. Cut-out of lead vehicle 4.2.5.2.5.1. Base Test: The test shall confirm the declared response capability of the system for a cut-out of the lead M1 category vehicle. 4.2.5.2.5.1.1. The vehicle cutting out shall perform a full lane change (e.g., 3.5 m lateral displacement) into the adjacent lane to avoid the stationary vehicle target, with the measurement behind the stationary vehicle target indicating that start of the lane change, and the measurement in front of the stationary vehicle target indicating the end of the lane change. 4.2.5.2.5.1.2. The indicated TTC is defined as the TTC of the lead vehicle to the target when the lead vehicle will start the lane change. Indicators are not to be used by the lead vehicle during the manoeuvre. 4.2.5.2.5.1.3. The cutting out vehicle shall not deviate from its defined path by more than	<u>13.4.2.5.2.4.2.1 試驗應至少執行如下：</u> <u>(a) 一部不同類型或類別之減速中車輛；</u> <u>(b) 一部自道路之中心線以較大偏置進行定位之減速中車輛；</u> <u>(c) 一部具備較大減速度之減速中車輛；</u> <u>(d) 不同之受測試車輛及目標速度。</u> 13.4.2.5.2.5 前導車輛之切出 13.4.2.5.2.5.1 基礎試驗：應透過試驗確認所宣告系統對於前導M1類車輛切出之回應能力。 13.4.2.5.2.5.1.1 於靜態車輛目標後方之量測指示變換車道開始，以及於靜態車輛目標前方之量測指示變換車道結束下，切出之車輛應執行一次完整之變換車道（例如：三點五公尺之側向位移）至相鄰車道內以迴避靜態車輛目標。 13.4.2.5.2.5.1.2 所指示之TTC係定義於前導車輛將開始變換車道時，前導車輛對目標之TTC。於操作期間將不由前導車輛使用指示器。 13.4.2.5.2.5.1.3 切出車輛不應從其已定義之路徑偏離超過正／負零點	13.4.2.5.2.5 前導車輛之切出 13.4.2.5.2.5.1 基礎試驗：應透過試驗確認所宣告系統對於前導M1類車輛切出之回應能力。 13.4.2.5.2.5.1.1 於靜態車輛目標後方之量測指示變換車道開始，以及於靜態車輛目標前方之量測指示變換車道結束下，切出之車輛應執行一次完整之變換車道（例如：三點五公尺之側向位移）至相鄰車道內以迴避靜態車輛目標。 13.4.2.5.2.5.1.2 所指示之TTC係定義於前導車輛將開始變換車道時，前導車輛對目標之TTC。於操作期間將不由前導車輛使用指示器。 13.4.2.5.2.5.1.3 切出車輛不應從其已定義之路徑偏離超過正／負零點二

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
±0.2 m. (表格如頁末所示) (圖片如頁末所示)	±0.2 m. (表格如頁末所示) (圖片如頁末所示)	二公尺。 (表格如頁末所示) (圖片如頁末所示)	公尺。 (表格如頁末所示) (圖片如頁末所示)
4.2.5.2.5.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a cut-out of the lead vehicle.	4.2.5.2.5.2. Extended Testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a cut-out of the lead vehicle.	13.4.2.5.2.5.2 延伸試驗：應透過試驗顯示系統不會就前導車輛之切出，無理地改變控制策略。	13.4.2.5.2.5.2 延伸試驗：應透過試驗顯示系統不會就前導車輛之切出，無理地改變控制策略。
4.2.5.2.5.2.1. The test shall be executed at least with:	4.2.5.2.5.2.1. The test shall be executed at least with:	13.4.2.5.2.5.2.1 試驗應至少執行如下：	13.4.2.5.2.5.2.1 試驗應至少執行如下：
(a) A stationary vehicle target of a different type or category;	(a) A stationary vehicle target of a different type or category;	(a) 一部不同類型或類別之靜態車輛目標；	(a) 一部不同類型或類別之靜態車輛目標；
(b) The cut-out occurring at less than 3 s TTC of the lead vehicle;	(b) The cut-out occurring at less than 3 s TTC of the lead vehicle;	(b) 以與前導車輛少於三秒之TTC發生之切出；	(b) 以與前導車輛少於三秒之TTC發生之切出；
(c) Different speeds of the VUT and lead vehicle;	(c) Different speeds of the VUT and lead vehicle;	(c) 受測試車輛及前導車輛之不同速度；	(c) 受測試車輛及前導車輛之不同速度；
(d) Different lateral acceleration of the lead vehicle.	(d) Different lateral acceleration of the lead vehicle.	(d) 前導車輛之不同側向加速度。	(d) 前導車輛之不同側向加速度。
4.2.5.2.6. Cut-in of vehicle from adjacent lane	4.2.5.2.6. Cut-in of vehicle from adjacent lane	13.4.2.5.2.6 自相鄰車道切入之車輛	13.4.2.5.2.6 自相鄰車道切入之車輛
4.2.5.2.6.1. Base Test: The test shall confirm the declared response capability of the system for a cut-in of the vehicle from adjacent lane.	4.2.5.2.6.1. Base Test: The test shall confirm the declared response capability of the system for a cut-in of the vehicle from adjacent lane.	13.4.2.5.2.6.1 基礎試驗：應透過試驗確認所宣告系統對於自相鄰車道切入之車輛的回應能力。	13.4.2.5.2.6.1 基礎試驗：應透過試驗確認所宣告系統對於自相鄰車道切入之車輛的回應能力。
4.2.5.2.6.1.1. The vehicle target on the adjacent lane shall perform a full lane change (e.g., 3.5 m lateral displacement) into the lane of the VUT.	4.2.5.2.6.1.1. The vehicle target on the adjacent lane shall perform a full lane change (e.g., 3.5 m lateral displacement) into the lane of the VUT.	13.4.2.5.2.6.1.1 於相鄰車道上之車輛目標應執行一次完整之變換車道（例如：三點五公尺之側向位移）至受測試車輛之車道。	13.4.2.5.2.6.1.1 於相鄰車道上之車輛目標應執行一次完整之變換車道（例如：三點五公尺之側向位移）至受測試車輛之車道。
4.2.5.2.6.1.2. The indicated TTC is defined as the TTC at the point in time that the target has finished the lane change manoeuvre, where the rear centre of the vehicle target is in the middle of the VUT's driving lane.	4.2.5.2.6.1.2. The indicated TTC is defined as the TTC at the point in time that the target has finished the lane change manoeuvre, where the rear centre of the vehicle target is in the middle of the VUT's driving lane.	13.4.2.5.2.6.1.2 所指示之TTC係定義於目標已完成變換車道操作當下之TTC，其中車輛目標後方中心係位於受測試車輛所行駛車道之中央。	13.4.2.5.2.6.1.2 所指示之TTC係定義於目標已完成變換車道操作當下之TTC，其中車輛目標後方中心係位於受測試車輛所行駛車道之中央。
4.2.5.2.6.1.3. The cutting in vehicle shall not	4.2.5.2.6.1.3. The cutting in vehicle shall not	13.4.2.5.2.6.1.3 切入車輛不應從其	13.4.2.5.2.6.1.3 切入車輛不應從其已

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
deviate from its defined path by more than ± 0.2 m. (表格如頁末所示) (圖片如頁末所示)	deviate from its defined path by more than ± 0.2 m. (表格如頁末所示) (圖片如頁末所示)	已定義之路徑偏離超過正／負零點二公尺。 (表格如頁末所示) (圖片如頁末所示)	定義之路徑偏離超過正／負零點二公尺。 (表格如頁末所示) (圖片如頁末所示)
4.2.5.2.6.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a cut-in of vehicle from adjacent lane.	4.2.5.2.6.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a cut-in of vehicle from adjacent lane.	13.4.2.5.2.6.2 延伸試驗：應透過試驗顯示系統不會就相鄰車道切入之車輛，無理地改變控制策略。	13.4.2.5.2.6.2 延伸試驗：應透過試驗顯示系統不會就相鄰車道切入之車輛，無理地改變控制策略。
4.2.5.2.6.2.1. The test shall be executed at least with:	4.2.5.2.6.2.1. The test shall be executed at least with:	13.4.2.5.2.6.2.1 試驗應至少執行如下：	13.4.2.5.2.6.2.1 試驗應至少執行如下：
(a) A cutting g-in vehicle of a different type or category;	(a) A cutting g-in vehicle of a different type or category;	(a) 一部不同類型或類別之切入車輛；	(a) 一部不同類型或類別之切入車輛；
(b) The cut-in occurring at a different TTC value;	(b) The cut-in occurring at a different TTC value;	(b) 以不同TTC值發生之切入；	(b) 以不同TTC值發生之切入；
(c) Different speeds of the VUT and target;	(c) Different speeds of the VUT and target;	(c) 受測試車輛及目標之不同速度；	(c) 受測試車輛及目標之不同速度；
(d) Different lateral acceleration of the target.	(d) Different lateral acceleration of the target.	(d) 目標之不同側向加速度。	(d) 目標之不同側向加速度。
4.2.5.2.7. Stationary pedestrian ahead in lane	4.2.5.2.7. Stationary pedestrian ahead in lane	13.4.2.5.2.7 車道內前方靜態行人	13.4.2.5.2.7 車道內前方靜態行人
4.2.5.2.7.1. Base Test: The test shall confirm the declared response capability of the system for a stationary pedestrian.	4.2.5.2.7.1. Base Test: The test shall confirm the declared response capability of the system for a stationary pedestrian.	13.4.2.5.2.7.1 基礎試驗：應透過試驗確認所宣告系統對於車道內前方靜態行人的回應能力。	13.4.2.5.2.7.1 基礎試驗：應透過試驗確認所宣告系統對於車道內前方靜態行人的回應能力。
4.2.5.2.7.1.1. The pedestrian target shall be positioned within the driving path of the VUT facing away from the VUT.	4.2.5.2.7.1.1. The pedestrian target shall be positioned within the driving path of the VUT facing away from the VUT.	13.4.2.5.2.7.1.1 行人目標應背對受測試車輛定位於受測試車輛之行駛路徑內。	13.4.2.5.2.7.1.1 行人目標應背對受測試車輛定位於受測試車輛之行駛路徑內。
4.2.5.2.7.1.2. The VUT shall approach the impact point with the pedestrian target in a straight line for at least two seconds prior to the functional part of the test. (圖片如頁末所示)	4.2.5.2.7.1.2. The VUT shall approach the impact point with the pedestrian target in a straight line for at least two seconds prior to the functional part of the test. (圖片如頁末所示)	13.4.2.5.2.7.1.2 受測試車輛應於試驗之功能部份至少兩秒前，以直線接近與行人目標之衝擊點。 (圖片如頁末所示)	13.4.2.5.2.7.1.2 受測試車輛應於試驗之功能部份至少兩秒前，以直線接近與行人目標之衝擊點。 (圖片如頁末所示)
4.2.5.2.7.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary pedestrian.	4.2.5.2.7.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary pedestrian.	13.4.2.5.2.7.2 延伸試驗：應透過試驗顯示系統不會就靜態行人，無理地改變控制策略。	13.4.2.5.2.7.2 延伸試驗：應透過試驗顯示系統不會就靜態行人，無理地改變控制策略。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.2.5.2.7.2.1. The test shall be executed at least with: (a) A pedestrian target positioned within the lane, but outside of the driving path of the VUT; (b) A pedestrian target positioned facing in a different direction; (c) A pedestrian target of a different size; (d) A different speed of the VUT. 4.2.5.2.8. Stationary bicycle target ahead in lane 4.2.5.2.8.1. Base Test: The test shall confirm the declared response capability of the system for a stationary target and any lateral movement navigating around the target, if applicable. 4.2.5.2.8.1.1. The bicycle target shall be positioned within the driving path of the VUT facing away from the subject vehicle. 4.2.5.2.8.1.2. The VUT shall approach the impact point with the bicycle target in a straight line for at least two seconds prior to the functional part of the test. (圖片如頁末所示) 4.2.5.2.8.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary bicycle. 4.2.5.2.8.2.1. The test shall be executed at least with: (a) A bicycle target positioned with different offsets up to the target being outside of the	4.2.5.2.7.2.1. The test shall be executed at least with: (a) A pedestrian target positioned within the lane, but outside of the driving path of the VUT; (b) A pedestrian target positioned facing in a different direction; (c) A pedestrian target of a different size; (d) A different speed of the VUT. 4.2.5.2.8. Stationary bicycle target ahead in lane 4.2.5.2.8.1. Base Test: The test shall confirm the declared response capability of the system for a stationary target and any lateral movement navigating around the target, if applicable. 4.2.5.2.8.1.1. The bicycle target shall be positioned within the driving path of the VUT facing away from the subject vehicle. 4.2.5.2.8.1.2. The VUT shall approach the impact point with the cyclist target in a straight line for at least two seconds prior to the functional part of the test. (圖片如頁末所示) 4.2.5.2.8.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a stationary bicycle. 4.2.5.2.8.2.1. The test shall be executed at least with: (a) A bicycle target positioned with different offsets up to the target being outside of the	13.4.2.5.2.7.2.1 試驗應至少執行如下： (a) 一個行人目標定位於車道內，惟位於受測試車輛的行駛路徑之外； (b) 一個面對不同方向定位之行人目標； (c) 一個不同尺寸之行人目標； (d) 受測試車輛之不同速度。 13.4.2.5.2.8 車道內前方靜態自行車目標 13.4.2.5.2.8.1 基礎試驗：應透過試驗確認所宣告系統對於靜態目標，以及依照實際狀況，於目標周遭引導之任意側向移動的回應能力。 13.4.2.5.2.8.1.1 自行車目標應背對受測試車輛定位於受測試車輛之行駛路徑內。 13.4.2.5.2.8.1.2 受測試車輛應於試驗之功能部份至少兩秒前，以直線接近與自行車目標之衝擊點。 (圖片如頁末所示) 13.4.2.5.2.8.2 延伸試驗：應透過試驗顯示系統不會就靜態自行車，無理地改變控制策略。 13.4.2.5.2.8.2.1 試驗應至少執行如下： (a) 一個以最高至位於受測試車輛行駛路徑外側之不同偏置的自行車目	13.4.2.5.2.7.2.1 試驗應至少執行如下： (a) 一個行人目標定位於車道內，惟位於受測試車輛的行駛路徑之外； (b) 一個面對不同方向定位之行人目標； (c) 一個不同尺寸之行人目標； (d) 受測試車輛之不同速度。 13.4.2.5.2.8 車道內前方靜態自行車目標 13.4.2.5.2.8.1 基礎試驗：應透過試驗確認所宣告系統對於靜態目標，以及依照實際狀況，於目標周遭引導之任意側向移動的回應能力。 13.4.2.5.2.8.1.1 自行車目標應背對受測試車輛定位於受測試車輛之行駛路徑內。 13.4.2.5.2.8.1.2 受測試車輛應於試驗之功能部份至少兩秒前，以直線接近與自行車騎士目標之衝擊點。 (圖片如頁末所示) 13.4.2.5.2.8.2 延伸試驗：應透過試驗顯示系統不會就靜態自行車，無理地改變控制策略。 13.4.2.5.2.8.2.1 試驗應至少執行如下： (a) 一個以最高至位於受測試車輛行駛路徑外側之不同偏置的自行車目

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
driving path of the VUT; (b) A bicycle target positioned facing in a different direction; (c) A different speed of the VUT; (d) A bicycle target facing towards the subject vehicle.	driving path of the VUT; (b) A bicycle target positioned facing in a different direction; (c) A different speed of the VUT; (d) A bicycle target facing towards the subject vehicle.	標; (b) 一個面對不同方式定位之自行車目標; (c) 受測試車輛之不同速度; (d) 面朝受測試車輛之自行車目標。	標; (b) 一個面對不同方式定位之自行車目標; (c) 受測試車輛之不同速度; (d) 面朝受測試車輛之自行車目標。
4.2.5.2.9. Pedestrian target crossing into the path of the VUT	4.2.5.2.9. Pedestrian target crossing into the path of the VUT	13.4.2.5.2.9 穿越進入受測試車輛路徑之行人目標	13.4.2.5.2.9 穿越進入受測試車輛路徑之行人目標
4.2.5.2.9.1. Base Test: The test shall confirm the declared response capability of the system for a crossing pedestrian target.	4.2.5.2.9.1. Base Test: The test shall confirm the declared response capability of the system for a crossing pedestrian target.	13.4.2.5.2.9.1 基礎試驗：應透過試驗確認所宣告系統對於正在穿越道路之行人目標的回應能力。	13.4.2.5.2.9.1 基礎試驗：應透過試驗確認所宣告系統對於正在穿越道路之行人目標的回應能力。
4.2.5.2.9.1.1. The functional part of the test shall start with:	4.2.5.2.9.1.1. The functional part of the test shall start with:	13.4.2.5.2.9.1.1 試驗之功能部分應開始如下：	13.4.2.5.2.9.1.1 試驗之功能部分應開始如下：
(a) The VUT travelling at the required test speed within the tolerances and within the lateral offset prescribed in this paragraph, and	(a) The VUT travelling at the required test speed within the tolerances and within the lateral offset prescribed in this paragraph, and	(a) 受測試車輛於本節所述容許誤差內之所需試驗速度行駛，以及於前述側向偏置內，且	(a) 受測試車輛於本節所述容許誤差內之所需試驗速度行駛，以及於前述側向偏置內，且
(b) A distance corresponding to a TTC of at least 4 seconds from the target.	(b) A distance corresponding to a TTC of at least 4 seconds from the target.	(b) 自目標起計至少四秒之TTC所對應之距離。	(b) 自目標起計至少四秒之TTC所對應之距離。
4.2.5.2.9.1.2. The tolerances shall be respected between the start of the functional part of the test and the system intervention.	4.2.5.2.9.1.2. The tolerances shall be respected between the start of the functional part of the test and the system intervention.	13.4.2.5.2.9.1.2 應於試驗之功能部分開始至系統介入之間遵循容許誤差。	13.4.2.5.2.9.1.2 應於試驗之功能部分開始至系統介入之間遵循容許誤差。
4.2.5.2.9.1.3. The pedestrian target shall travel in a straight line perpendicular to the VUT's direction of travel at a constant speed of 5 km/h +0/-0.4 km/h, starting not before the functional part of the test has started. The pedestrian target's positioning shall be coordinated with the VUT in such a way that the impact point of the pedestrian target on the front of the VUT is on the longitudinal centreline of the VUT with a tolerance of not	4.2.5.2.9.1.3. The pedestrian target shall travel in a straight line perpendicular to the VUT's direction of travel at a constant speed of 5 km/h +0/-0.4 km/h, starting not before the functional part of the test has started. The pedestrian target's positioning shall be coordinated with the VUT in such a way that the impact point of the pedestrian target on the front of the VUT is on the longitudinal centreline of the VUT with a tolerance of not	13.4.2.5.2.9.1.3 行人目標應以垂直於受測試車輛之行駛方向，以五正零／負零點四公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，行人目標之定位應與受測試車輛以位於車輛前方之行人目標的衝擊點，係以容許誤差不超過零點二公尺下位於受	13.4.2.5.2.9.1.3 行人目標應以垂直於受測試車輛之行駛方向，以五正零／負零點四公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，行人目標之定位應與受測試車輛以位於車輛前方之行人目標的衝擊點，係以容許誤差不超過零點二公尺下位於受測

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake. (圖片如頁末所示)	more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake. (圖片如頁末所示)	測試車輛之縱向中心線上之方式進行協調。 (圖片如頁末所示)	試車輛之縱向中心線上之方式進行協調。 (圖片如頁末所示)
4.2.5.2.9.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing pedestrian target.	4.2.5.2.9.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing pedestrian target.	13.4.2.5.2.9.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路之行人目標，無理地改變控制策略。	13.4.2.5.2.9.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路之行人目標，無理地改變控制策略。
4.2.5.2.9.2.1. The test shall be executed at least:	4.2.5.2.9.2.1. The test shall be executed at least:	13.4.2.5.2.9.2.1 試驗應至少執行如下：	13.4.2.5.2.9.2.1 試驗應至少執行如下：
(a) A pedestrian target of a different size;	(a) A pedestrian target of a different size;	(a) 一個不同尺寸之行人目標；	(a) 一個不同尺寸之行人目標；
(b) A pedestrian target moving at a different, but constant speed;	(b) A pedestrian target moving at a different, but constant speed;	(b) 一個以不同速度惟仍定速移動之行人目標；	(b) 一個以不同速度惟仍定速移動之行人目標；
(c) A different angle of the pedestrian target path to the VUT path.	(c) A different angle of the pedestrian target path to the VUT path.	(c) 一個行人目標路徑對受測試車輛路徑之不同角度；	(c) 一個行人目標路徑對受測試車輛路徑之不同角度；
4.2.5.2.10. Bicycle crossing into the path of the VUT	4.2.5.2.10. Bicycle crossing into the path of the VUT	13.4.2.5.2.10 穿越進入受測試車輛路徑之自行車	13.4.2.5.2.10 穿越進入受測試車輛路徑之自行車
4.2.5.2.10.1. Base Test: The test shall confirm the declared response capability of the system for a crossing bicycle target.	4.2.5.2.10.1. Base Test: The test shall confirm the declared response capability of the system for a crossing bicycle target.	13.4.2.5.2.10.1 基礎試驗：應透過試驗確認所宣告系統對於正在穿越道路之自行車目標的回應能力。	13.4.2.5.2.10.1 基礎試驗：應透過試驗確認所宣告系統對於正在穿越道路之自行車目標的回應能力。
4.2.5.2.10.1.1. The bicycle target shall travel in a straight line perpendicular to the VUT's direction of travel at a constant speed of 15 km/h +0/-1 km/h, starting not before the functional part of the test has started. During the acceleration phase of the bicycle target prior to the functional part of the test the bicycle target shall be obstructed. The bicycle target's positioning shall be coordinated with the VUT in such a way that the impact point of the bicycle target on the front of the VUT is on the longitudinal	4.2.5.2.10.1.1. The bicycle target shall travel in a straight line perpendicular to the VUT's direction of travel at a constant speed of 15 km/h +0/-1 km/h, starting not before the functional part of the test has started. During the acceleration phase of the bicycle target prior to the functional part of the test the bicycle target shall be obstructed. The bicycle target's positioning shall be coordinated with the VUT in such a way that the impact point of the bicycle target on the front of the VUT is on the longitudinal	13.4.2.5.2.10.1.1 自行車目標應以垂直於受測試車輛之行駛方向，以十五正零／負一公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。於試驗之功能部分前的自行車目標加速階段期間，自行車目標應受到阻礙。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，自行車目標之定位應與受測試車輛以位於車輛前方之自行車目標的衝擊點，係以容許誤差不超過零點二公	13.4.2.5.2.10.1.1 自行車目標應以垂直於受測試車輛之行駛方向，以十五正零／負一公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。於試驗之功能部分前的自行車目標加速階段期間，自行車目標應受到阻礙。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，自行車目標之定位應與受測試車輛以位於車輛前方之自行車目標的衝擊點，係以容許誤差不超過零點二公

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
centreline of the VUT with a tolerance of not more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake. (圖片如頁末所示)	centreline of the VUT with a tolerance of not more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake. (圖片如頁末所示)	尺下位於受測試車輛之縱向中心線上之方式進行協調。 (圖片如頁末所示)	尺下位於受測試車輛之縱向中心線上之方式進行協調。 (圖片如頁末所示)
4.2.5.2.10.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing bicycle target.	4.2.5.2.10.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing bicycle target.	13.4.2.5.2.10.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路之自行車目標，無理地改變控制策略。	13.4.2.5.2.10.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路之自行車目標，無理地改變控制策略。
4.2.5.2.10.2.1. The test shall be executed at least with:	4.2.5.2.10.2.1. The test shall be executed at least with:	13.4.2.5.2.10.2.1 試驗應至少執行如下：	13.4.2.5.2.10.2.1 試驗應至少執行如下：
(a) A bicycle target moving at a different but constant speed;	(a) A bicycle target moving at a different but constant speed;	(a) 一個以不同速度惟仍定速移動之自行車目標；	(a) 一個以不同速度惟仍定速移動之自行車目標；
(b) A different angle of the bicycle path to the subject vehicle path;	(b) A different angle of the bicycle path to the subject vehicle path;	(b) 一個自行車目標路徑對受測試車輛路徑之不同角度；	(b) 一個自行車目標路徑對受測試車輛路徑之不同角度；
(c) A different offset.	(c) A different offset.	(c) 一個不同之偏置。	(c) 一個不同之偏置。
4.2.5.2.11. Pedestrian target crossing into the path of the VUT in an intersection	4.2.5.2.11. Pedestrian target crossing into the path of the VUT in an intersection	13.4.2.5.2.11 於路口穿越受測試車輛之行駛路徑的行人目標	13.4.2.5.2.11 於路口穿越受測試車輛之行駛路徑的行人目標
4.2.5.2.11.1. Base Test: The test shall confirm the declared response capability of the system for a crossing pedestrian target in an intersection.	4.2.5.2.11.1. Base Test: The test shall confirm the declared response capability of the system for a crossing pedestrian target in an intersection.	13.4.2.5.2.11.1 基礎試驗：應透過試驗確認所宣告系統對於路口中正在穿越道路之行人目標的回應能力。	13.4.2.5.2.11.1 基礎試驗：應透過試驗確認所宣告系統對於路口中正在穿越道路之行人目標的回應能力。
4.2.5.2.11.1.1. The functional part of the test shall start with:	4.2.5.2.11.1.1. The functional part of the test shall start with:	13.4.2.5.2.11.1.1 試驗之功能部分應開始如下：	13.4.2.5.2.11.1.1 試驗之功能部分應開始如下：
(a) The VUT travelling at the required test speed and within the lateral offset prescribed in this paragraph, and	(a) The VUT travelling at the required test speed and within the lateral offset prescribed in this paragraph, and	(a) 受測試車輛於本節所述之所需試驗速度行駛，以及於前述側向偏置內，且	(a) 受測試車輛於本節所述之所需試驗速度行駛，以及於前述側向偏置內，且
(b) A distance corresponding to a TTC of at least 4 seconds from the target.	(b) A distance corresponding to a TTC of at least 4 seconds from the target.	(b) 自目標起計至少四秒之TTC所對應之距離。	(b) 自目標起計至少四秒之TTC所對應之距離。
4.2.5.2.11.1.3. The tolerances shall be respected between the start of the functional part of the test and the system intervention.	4.2.5.2.11.1.3. The tolerances shall be respected between the start of the functional part of the test and the system intervention.	13.4.2.5.2.11.1.2 應於試驗之功能部分開始及系統介入之間遵循容許誤差。	13.4.2.5.2.11.1.2 應於試驗之功能部分開始及系統介入之間遵循容許誤差。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.2.5.2.11.1.4. The pedestrian target shall travel in a straight line at a constant speed of 5 km/h +0/-0.4 km/h, starting not before the functional part of the test has started. The pedestrian target's positioning shall be coordinated with the VUT in such a way that the impact point of the pedestrian target on the front of the VUT is on the longitudinal centreline of the VUT with a tolerance of not more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake.	4.2.5.2.11.1.4. The pedestrian target shall travel in a straight line at a constant speed of 5 km/h +0/-0.4 km/h, starting not before the functional part of the test has started. The pedestrian target's positioning shall be coordinated with the VUT in such a way that the impact point of the pedestrian target on the front of the VUT is on the longitudinal centreline of the VUT with a tolerance of not more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake.	13.4.2.5.2.11.1.3 行人目標應以五正零／負零點四公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，行人目標之定位應與受測試車輛以位於車輛前方之行人目標的衝擊點，係以容許誤差不超過零點二公尺下位於受測試車輛之縱向中心線上之方式進行協調。	13.4.2.5.2.11.1.3 行人目標應以五正零／負零點四公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，行人目標之定位應與受測試車輛以位於車輛前方之行人目標的衝擊點，係以容許誤差不超過零點二公尺下位於受測試車輛之縱向中心線上之方式進行協調。
4.2.5.2.11.1.5. The test run shall be executed with the pedestrian target moving parallel to the near side from the VUT according to the diagram below. (圖片如頁末所示)	4.2.5.2.11.1.5. The test run shall be executed with the pedestrian target moving parallel to the near side from the VUT according to the diagram below. (圖片如頁末所示)	13.4.2.5.2.11.1.4 試驗行程應依照下圖以行人目標平行於受測試車輛之接近測移動執行。 (圖片如頁末所示)	13.4.2.5.2.11.1.4 試驗行程應依照下圖以行人目標平行於受測試車輛之接近測移動執行。 (圖片如頁末所示)
4.2.5.2.11.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing pedestrian target in an intersection. Up to four different scenarios shall be executed far and near side with the pedestrian target moving at both sides of the road.	4.2.5.2.11.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing pedestrian target in an intersection. Up to four different scenarios shall be executed far and near side with the pedestrian target moving at both sides of the road.	13.4.2.5.2.11.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路路口之行人目標，無理地改變控制策略。應以於道路兩側移動之行人目標就遠離側及接近測執行至多四個不同情境。	13.4.2.5.2.11.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路路口之行人目標，無理地改變控制策略。應以於道路兩側移動之行人目標就遠離側及接近測執行至多四個不同情境。
4.2.5.2.11.2.1. The test shall be executed at least with: (a) A pedestrian target of a different size; (b) A pedestrian target moving at a different but constant speed; (c) A pedestrian target colliding with the vehicle at a different impact point or	4.2.5.2.11.2.1. The test shall be executed at least with: (a) A pedestrian target of a different size; (b) A pedestrian target moving at a different but constant speed; (c) A pedestrian target colliding with the vehicle at a different impact point or	13.4.2.5.2.11.2.1 試驗應至少執行如下： (a) 一個不同尺寸之行人目標； (b) 一個以不同速度惟仍定速移動之行人目標； (c) 一個以不同衝擊點與車輛碰撞或迴避車輛之行人目標；	13.4.2.5.2.11.2.1 試驗應至少執行如下： (a) 一個不同尺寸之行人目標； (b) 一個以不同速度惟仍定速移動之行人目標； (c) 一個以不同衝擊點與車輛碰撞或迴避車輛之行人目標；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
avoiding the vehicle; (d) A variation of the visibility conditions (e.g., night time), as appropriate to the declared system boundaries. 4.2.5.2.12. Bicycle target crossing into the path of the VUT in an intersection 4.2.5.2.12.1. Base Test: The test shall confirm the declared response capability of the system for a crossing bicycle target in an intersection. 4.2.5.2.12.1.1. The bicycle target shall travel in a straight line perpendicular to the VUT's direction of travel at a constant speed of 15 km/h +0/-1 km/h, starting not before the functional part of the test has started. During the acceleration phase of the bicycle target prior to the functional part of the test the bicycle target shall be obstructed. The bicycle target's positioning shall be coordinated with the VUT in such a way that the impact point of bicycle target on the front of the VUT is on the longitudinal centreline offset of not more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake. (圖片如頁末所示) 4.2.5.2.12.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing bicycle target in an intersection.	avoiding the vehicle; (d) A variation of the visibility conditions (e.g., night time), as appropriate to the declared system boundaries. 4.2.5.2.12. Bicycle target crossing into the path of the VUT in an intersection 4.2.5.2.12.1. Base Test: The test shall confirm the declared response capability of the system for a crossing bicycle target in an intersection. 4.2.5.2.12.1.1. The bicycle target shall travel in a straight line perpendicular to the VUT's direction of travel at a constant speed of 15 km/h +0/-1 km/h, starting not before the functional part of the test has started. During the acceleration phase of the bicycle target prior to the functional part of the test the bicycle target shall be obstructed. The bicycle target's positioning shall be coordinated with the VUT in such a way that the impact point of the bicycle target centreline offset of not more than 0.2 m, if the VUT would remain at the prescribed test speed throughout the functional part of the test and does not brake. (圖片如頁末所示) 4.2.5.2.12.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing bicycle target in an intersection.	(d) 如適用於所宣告系統邊界下，對可見度條件之變化（例如夜間）。 13.4.2.5.2.12 於路口穿越受測試車輛之行駛路徑的自行車目標 13.4.2.5.2.12.1 基礎試驗：應透過試驗確認所宣告系統對於路口中正在穿越道路之自行車目標的回應能力。 13.4.2.5.2.12.1.1 自行車目標應以垂直於受測試車輛之行駛方向，以十五正零／負一公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。於試驗之功能部分前的自行車目標加速階段期間，自行車目標應受到阻礙。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，自行車目標之定位應與受測試車輛以<u>受測試車輛前方</u>自行車目標<u>於縱向</u>中心線偏置之衝擊點不超過零點二公尺。 (圖片如頁末所示) 13.4.2.5.2.12.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路路口之自行車目標，無理地改變控制策略。	(d) 如適用於所宣告系統邊界下，對可見度條件之變化（例如夜間）。 13.4.2.5.2.12 於路口穿越受測試車輛之行駛路徑的自行車目標 13.4.2.5.2.12.1 基礎試驗：應透過試驗確認所宣告系統對於路口中正在穿越道路之自行車目標的回應能力。 13.4.2.5.2.12.1.1 自行車目標應以垂直於受測試車輛之行駛方向，以十五正零／負一公里／小時之定速直線行進，且不於試驗之功能部分已經開始前開始。於試驗之功能部分前的自行車目標加速階段期間，自行車目標應受到阻礙。若受測試車輛將於整個試驗之功能部份期間維持前述試驗速度且不得煞車下，自行車目標之定位應與受測試車輛以自行車目標中心線偏置之衝擊點不超過零點二公尺。 (圖片如頁末所示) 13.4.2.5.2.12.2 延伸試驗：應透過試驗顯示系統不會就正在穿越道路路口之自行車目標，無理地改變控制策略。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.2.5.2.12.2.1. The test shall be executed at least with: (a) A bicycle target moving at a different but constant speed; (b) A bicycle target colliding with the vehicle at a different impact position or avoiding the vehicle.	4.2.5.2.12.2.1. The test shall be executed at least with: (a) A bicycle target moving at a different but constant speed; (b) A bicycle target colliding with the vehicle at a different impact position or avoiding the vehicle.	13.4.2.5.2.12.2.1 試驗應至少執行如下： (a) 一個以不同速度惟仍定速移動之自行車目標； (b) 一個以不同衝擊位置與車輛碰撞或迴避車輛之自行車目標。	13.4.2.5.2.12.2.1 試驗應至少執行如下： (a) 一個以不同速度惟仍定速移動之自行車目標； (b) 一個以不同衝擊位置與車輛碰撞或迴避車輛之自行車目標。
4.2.5.2.13. VUT turns across a path of an oncoming vehicle 4.2.5.2.13.1. Base Test: The test shall confirm the declared response capability of the system for an oncoming vehicle target while the VUT is turning in an intersection.	4.2.5.2.13. VUT turns across a path of an oncoming vehicle 4.2.5.2.13.1. Base Test: The test shall confirm the declared response capability of the system for an oncoming vehicle target while the VUT is turning in an intersection.	13.4.2.5.2.13 受測試車輛轉向並穿越一部迎面而來車輛之路徑 13.4.2.5.2.13.1 基礎試驗：應透過試驗確認所宣告系統於受測試車輛正在路口轉向時，對於迎面而來之車輛目標的回應能力。	13.4.2.5.2.13 受測試車輛轉向並穿越一部迎面而來車輛之路徑 13.4.2.5.2.13.1 基礎試驗：應透過試驗確認所宣告系統於受測試車輛正在路口轉向時，對於迎面而來之車輛目標的回應能力。
4.2.5.2.13.1.1. The VUT shall approach the impact point with another vehicle (passenger car or motorcycle) target in an initial straight line followed by a turn in an intersection to cross front edges of a target vehicle with a lateral position that gives a 50% overlap of the width of the VUT.	4.2.5.2.13.1.1. The VUT shall approach the impact point with another vehicle (passenger car or motorists) target in an initial straight line followed by a turn in an intersection to cross front edges of a target vehicle with a lateral position that gives a 50% overlap of the width of the VUT.	13.4.2.5.2.13.1.1 受測試車輛應以初始為直線行駛而後於路口接續轉向，以側向位置提供與受測試車輛寬度百分之五十重疊，穿過目標車輛之前方邊緣之方式，接近與另一部車輛(小客車或機車)目標之衝擊點。	13.4.2.5.2.13.1.1 受測試車輛應以初始為直線行駛而後於路口接續轉向，以側向位置提供與受測試車輛寬度百分之五十重疊，穿過目標車輛之前方邊緣之方式，接近與另一部車輛(小客車或機車)目標之衝擊點。
4.2.5.2.13.1.2. The target shall approach at a speed of up to 60 km/h, depending on the declared system boundaries. (圖片如頁末所示)	4.2.5.2.13.1.2. The target shall approach at a speed of up to 60 km/h, depending on the declared system boundaries. (圖片如頁末所示)	13.4.2.5.2.13.1.2 依照所宣告之系統邊界，目標應以最高至六十公里／小時之速度接近。 (圖片如頁末所示)	13.4.2.5.2.13.1.2 依照所宣告之系統邊界，目標應以最高至六十公里／小時之速度接近。 (圖片如頁末所示)
4.2.5.2.13.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for an oncoming vehicle target while the VUT is turning in an intersection.	4.2.5.2.13.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for an oncoming vehicle target while the VUT is turning in an intersection.	13.4.2.5.2.13.2 延伸試驗：應透過試驗顯示系統於受測試車輛正在路口轉向時，不會就對於迎面而來之車輛目標，無理地改變控制策略。	13.4.2.5.2.13.2 延伸試驗：應透過試驗顯示系統於受測試車輛正在路口轉向時，不會就對於迎面而來之車輛目標，無理地改變控制策略。
4.2.5.2.13.2.1. The test shall be executed at least with: (a) Different target vehicle types or categories;	4.2.5.2.13.2.1. The test shall be executed at least with: (a) Different target vehicle types or categories;	13.4.2.5.2.13.2.1 試驗應至少執行如下： (a) 不同之目標車輛型式或類型；	13.4.2.5.2.13.2.1 試驗應至少執行如下： (a) 不同之目標車輛型式或類型；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(b) Different overlaps; (c) Different lane position of both vehicles; (d) Target lane is (partially) blocked. 4.2.5.2.14. VUT crosses the straight path of the vehicle target in an intersection 4.2.5.2.14.1. Base Test: The test shall confirm the declared response capability of the system to recognize and offer right of way for a crossing vehicle target driving straight in an intersection. 4.2.5.2.14.1.1. The VUT shall approach the impact point with another vehicle (passenger car or motorcycle) target in an initial straight line in an intersection from either the near side or far side direction to collide the side of the target vehicle at 25% along the length of the target with the centre front of the VUT. 4.2.5.2.14.1.2. The target shall approach at a speed of up to 60 km/h, depending on the declared system boundaries. The VUT is expected to give right of way. (圖片如頁末所示) (圖片如頁末所示) 4.2.5.2.14.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing vehicle target driving straight in an intersection. 4.2.5.2.14.2.1. The test shall be executed at least with: (a) Different target vehicles types or	(b) Different overlaps; (c) Different lane position of both vehicles; (d) Target lane is (partially) blocked. 4.2.5.2.14. VUT crosses the straight path of the vehicle target in an intersection 4.2.5.2.14.1. Base Test: The test shall confirm the declared response capability of the system to recognize and offer right of way for a crossing vehicle target driving straight in an intersection. 4.2.5.2.14.1.1. The VUT shall approach the impact point with another vehicle (passenger car or motorist) target in an initial straight line in an intersection from either the near side or far side direction to collide the side of the target vehicle at 25% along the length of the target with the centre front of the VUT. 4.2.5.2.14.1.2. The target shall approach at a speed of up to 60 km/h, depending on the declared system boundaries. The VUT is expected to give right of way. (圖片如頁末所示) (圖片如頁末所示) 4.2.5.2.14.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a crossing vehicle target driving straight in an intersection. 4.2.5.2.14.2.1. The test shall be executed at least with: (a) Different target vehicles types or	(b) 不同之重疊； (c) 兩部車輛之不同車道位置； (d) 目標車道受到（部分）阻礙。 13.4.2.5.2.14 受測試車輛於路口穿越車輛目標之直線路徑 13.4.2.5.2.14.1 基礎試驗：應透過試驗確認所宣告系統用於辨識，以及對於路口中正在以直線行駛穿越之車輛目標提供路權的回應能力。 13.4.2.5.2.14.1.1 受測試車輛應於路口以初始為直線行駛，並自接近側及遠離側方向以受測試車輛之中心前方，碰撞目標車輛側方沿目標長度百分之二十五位置之方式，接近與另一部車輛（小客車或機車）目標之衝擊點。 13.4.2.5.2.14.1.2 依照所宣告之系統邊界，目標應以最高至六十公里／小時之速度接近。受測試車輛係被預期將提供路權。 (圖片如頁末所示) (圖片如頁末所示) 13.4.2.5.2.14.2 延伸試驗：應透過試驗顯示系統於受測試車輛於路口時，不會就對正在以直線行駛穿越之車輛目標，無理地改變控制策略。 13.4.2.5.2.14.2.1 試驗應至少執行如下： (a) 不同之目標車輛型式或類型；	(b) 不同之重疊； (c) 兩部車輛之不同車道位置； (d) 目標車道受到（部分）阻礙。 13.4.2.5.2.14 受測試車輛於路口穿越車輛目標之直線路徑 13.4.2.5.2.14.1 基礎試驗：應透過試驗確認所宣告系統用於辨識，以及對於路口中正在以直線行駛穿越之車輛目標提供路權的回應能力。 13.4.2.5.2.14.1.1 受測試車輛應於路口以初始為直線行駛，並自接近側及遠離側方向以受測試車輛之中心前方，碰撞目標車輛側方沿目標長度百分之二十五位置之方式，接近與另一部車輛（小客車或機車）目標之衝擊點。 13.4.2.5.2.14.1.2 依照所宣告之系統邊界，目標應以最高至六十公里／小時之速度接近。受測試車輛係被預期將提供路權。 (圖片如頁末所示) (圖片如頁末所示) 13.4.2.5.2.14.2 延伸試驗：應透過試驗顯示系統於受測試車輛於路口時，不會就對正在以直線行駛穿越之車輛目標，無理地改變控制策略。 13.4.2.5.2.14.2.1 試驗應至少執行如下： (a) 不同之目標車輛型式或類型；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
categories; (b) Different overlaps; (c) Different lane positions of the VUT and target vehicles. 4.2.5.2.15. System-initiated manoeuvring around an obstruction in the lane 4.2.5.2.15.1. Base Test: The test shall confirm the declared response capability of the system for a vehicle approaching from the opposite direction in the adjacent lane during a system-initiated manoeuvre around an obstruction in the lane. 4.2.5.2.15.1.1. The VUT shall travel in a straight line in the lane at constant speed before it performs a driving around manoeuvre into the adjacent lane by driving around a static target, while another vehicle is approaching from the opposite direction at a constant speed in the adjacent lane. 4.2.5.2.15.1.2. The moving target shall travel toward the VUT at least 30 km/h in the adjacent lane. A static target shall be placed in front of the VUT with 50% overlap towards the edge of the road. The VUT shall travel at least 30 km/h in a straight line and the VUT and the moving vehicle target shall be synchronized to reach the static target at the same time. 4.2.5.2.15.1.3. The VUT shall approach the static target with system-initiated manoeuvring activated. The VUT shall avoid collision with the targets.	categories; (b) Different overlaps; (c) Different lane positions of the VUT and target vehicles.	(b) 不同之重疊； (c) 受測試車輛及目標車輛之不同車道位置； <u>13.4.2.5.2.15 由系統所起始繞過車道中障礙之操作</u> <u>13.4.2.5.2.15.1 基礎試驗：應透過試驗確認系統所宣告處於其所起始繞過車道中障礙之操作期間，對於一部位於相鄰車道自相反方向接近中車輛的回應能力。</u> <u>13.4.2.5.2.15.1.1 受測試車輛應於其藉由行駛繞過靜態目標執行繞道操作而進入相鄰車道，同時另一部車輛於相鄰車道內以相反方向及恆定速度接近前，於車道內以恆定速度直線行駛。</u> <u>13.4.2.5.2.15.1.2 移動目標應至少以三十公里／小時之速度，朝向位於相鄰車道之受測試目標行駛；一個靜態目標應以朝向道路邊緣之重疊為百分之五十下，放置於受測試車輛前方，受測試車輛應至少以三十公里／小時之速度直線行駛，且受測試車輛及移動車輛目標應同步以同時抵達靜態目標處。</u> <u>13.4.2.5.2.15.1.3 受測試車輛應於系統起始操作致動狀態下接近靜態目標。受測試目標應避免與目標產生碰撞。</u>	(b) 不同之重疊； (c) 受測試車輛及目標車輛之不同車道位置；

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(圖片如頁末所示) 4.2.5.2.15.2. Extended testing: The test shall demonstrate that the system is not unreasonably changing the control strategy for a system-initiated manoeuvre around an obstruction in the lane. 4.2.5.2.15.2.1. The test shall be executed at least, with: (a) A target vehicle of a different type or category or other road user; (b) Different road marking configurations, including a road without central lane marking; (c) Different road geometries (e.g. curved section of the road); (d) Different overlap values between the VUT and the static target; (e) Different speeds of the VUT and the moving target; (f) Different synchronization times (e.g., early and later) between the VUT and the moving target. 4.3. Public Road Verification 4.3.1. The location and selection of the test route, time-of-day and environmental conditions shall be determined by the Type Approval Authority. Public road verification shall cover different time-of-day and light intensity according to the system boundaries. They shall include scenarios in which the system is expected to experience challenging scenarios (e.g. tight curvatures,	4.3. Public Road Verification 4.3.1. The location and selection of the test route, time-of-day and environmental conditions shall be determined by the Type Approval Authority. Public road verification shall cover different time-of-day and light intensity according to the system boundaries. They shall include scenarios in which the system is expected to experience challenging scenarios (e.g. tight curvatures,	(圖片如頁末所示) <u>13.4.2.5.2.15.2 延伸測試：應透過試驗顯示系統不會因其所起始繞過車道中障礙之操作，無理地改變控制策略。</u> <u>13.4.2.5.2.15.2.1 試驗應至少執行如下：</u> <u>(a) 不同之目標車輛型式或類型或其他道路使用者；</u> <u>(b) 不同之道路標線設定，包含未具備中央車道標線之道路；</u> <u>(c) 不同之道路幾何（例如：道路之彎曲部分）；</u> <u>(d) 受測試車輛及靜態目標之間不同的重疊數值；</u> <u>(e) 不同之受測試車輛及移動目標速度；</u> <u>(f) 受測試車輛及移動目標之間不同之同步時間（例如：較早或較晚）</u> 13.4.3 公共道路驗證 13.4.3.1 試驗路徑之位置及選擇、時段，以及環境條件應由<u>檢測機構</u>決定。公共道路試驗應依照系統邊界涵蓋不同之時段及光照密度。其應包含系統預期將受到挑戰情境（例如：幅度較大之彎道、源於可變之基礎建設性條件及交通條件之速度變化、可變之前導車輛行為、可變之道路速限），以及接近其所宣告之系統	13.4.3 公共道路驗證 13.4.3.1 試驗路徑之位置及選擇、時段，以及環境條件應由<u>檢測機構</u>決定。公共道路試驗應依照系統邊界涵蓋不同之時段及光照密度。其應包含系統預期將受到挑戰情境（例如：幅度較大之彎道、源於可變之基礎建設性條件及交通條件之速度變化、可變之前導車輛行為、可變之道路速限），以及接近其所宣告之系統

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
speed changes caused by variable infrastructural and traffic conditions, variable lead vehicle behaviour, variable road speed limits) and to approach the limits of its declared system boundaries (e.g. changes in visibility or road conditions, planned or sudden end of system boundaries).	speed changes caused by variable infrastructural and traffic conditions, variable lead vehicle behaviour, variable road speed limits) and to approach the limits of its declared system boundaries (e.g. changes in visibility or road conditions, planned or sudden end of system boundaries).	邊界極限的情境(例如:能見度條件或道路條件之變化、系統邊界之預期或突然結束)。	邊界極限的情境(例如:能見度條件或道路條件之變化、系統邊界之預期或突然結束)。
4.3.2. The duration of public road tests shall be such that allows the recording and assessment of the system operation according to all relevant parts of the specification described in paragraphs 5. and 6., excluding safety critical and failure related scenarios.	4.3.2. The duration of public road tests shall be such that allows the recording and assessment of the system operation according to all relevant parts of the specification described in paragraphs 5. and 6., excluding safety critical and failure related scenarios.	13.4.3.2 公共道路試驗之持續時間應使系統運作的記錄及評估,於排除安全危害及故障相關情境下,依規定5.及規定6.所述規範執行。	13.4.3.2 公共道路試驗之持續時間應使系統運作的記錄及評估,於排除安全危害及故障相關情境下,依規定5.及規定6.所述規範執行。
4.3.3. Test scenarios to assess the behaviour of the system in other driver- or system-initiated manoeuvres	4.3.3. Test scenarios to assess the behaviour of the system in other driver- or system-initiated manoeuvres	13.4.3.3 用以評估系統於其他駕駛人起始或系統起始操作之行為試驗情境	13.4.3.3 用以評估系統於其他駕駛人起始或系統起始操作之行為試驗情境
4.3.3.1. Public road verification shall include the test scenarios in the table below to assess the behaviour of the system under normal real-world operating conditions.	4.3.3.1. Public road verification shall include the test scenarios in the table below to assess the behaviour of the system under normal real-world operating conditions.	13.4.3.3.1 公共道路驗證應包含下表之試驗情境以評估系統於正常現實環境之運作條件的行為。	13.4.3.3.1 公共道路驗證應包含下表之試驗情境以評估系統於正常現實環境之運作條件的行為。
The routing shall be planned such that it incorporates the test scenarios, which are relevant according to the declaration of the manufacturer in Annex 3 of this UN regulation.	The routing shall be planned such that it incorporates the test scenarios, which are relevant according to the declaration of the manufacturer in Annex 3 of this UN regulation.	試驗路徑應併同依申請者於規定12.之宣告而有所相關之試驗情境進行規劃。	試驗路徑應併同依申請者於規定12.之宣告而有所相關之試驗情境進行規劃。
The test plan created by the Type Approval Authority shall cover the scenarios to assess the specific capability in a variety of circumstances.	The test plan created by the Type Approval Authority shall cover the scenarios to assess the specific capability in a variety of circumstances.	由 <u>檢測機構</u> 所建立之試驗計畫應涵蓋用以於多變之情形下評估特定能力的情境。	由 <u>檢測機構</u> 所建立之試驗計畫應涵蓋用以於多變之情形下評估特定能力的情境。
4.3.3.2. Evidence of the system's behaviour in	4.3.3.2. Evidence of the system's behaviour in	13.4.3.3.2 依申請者於規定12.之宣	13.4.3.3.2 依申請者於規定12.之宣告

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
any type of scenario which are relevant according to the declaration of the manufacturer in Annex 3 of this UN Regulation shall be additionally provided by the manufacturer (e.g., based on virtual testing). (表格如頁末所示)	any type of scenario which are relevant according to the declaration of the manufacturer in Annex 3 of this UN Regulation shall be additionally provided by the manufacturer (e.g., based on virtual testing). (表格如頁末所示)	告而有所相關之，於任意類型之情境的系統行為證明應額外由申請者提供（例如：基於虛擬試驗）。 (表格如頁末所示)	而有所相關之，於任意類型之情境的系統行為證明應額外由申請者提供（例如：基於虛擬試驗）。 (表格如頁末所示)
4.3.4. For any other relevant types of scenarios according to the system capability and system boundaries declared by the manufacturer according to Annex 3 that could not be encountered during the public road tests, the manufacturer shall provide appropriate evidence from the manufacturer's internal system validation to the satisfaction of the Type Approval Authority.	4.3.4. For any other relevant types of scenarios according to the system capability and system boundaries declared by the manufacturer according to Annex 3 that could not be encountered during the public road tests, the manufacturer shall provide appropriate evidence from the manufacturer's internal system validation to the satisfaction of the Type Approval Authority.	13.4.3.4 對於可能無法於公共道路試驗期間遭遇，依照申請者就規定12.所宣告系統能力及系統邊界之任意其他相關類型的情境，為滿足 <u>檢測機構</u> 要求，申請者應提供源於申請者之內部系統確認的適當證據。	13.4.3.4 對於可能無法於公共道路試驗期間遭遇，依照申請者就規定12.所宣告系統能力及系統邊界之任意其他相關類型的情境，為滿足 <u>檢測機構</u> 要求，申請者應提供源於申請者之內部系統確認的適當證據。
4.3.5. The verification drive shall be recorded and, if necessary, the test vehicle instrumented with additional non-perturbing equipment. The Type Approval Authority may log, or request logs of any data channels used or generated by the system as deemed necessary for post-test evaluation.	4.3.5. The verification drive shall be recorded and, if necessary, the test vehicle instrumented with additional non-perturbing equipment. The Type Approval Authority may log, or request logs of any data channels used or generated by the system as deemed necessary for post-test evaluation.	13.4.3.5 驗證相關行駛過程應進行記錄，並於需要時就試驗車輛裝設額外之無干擾設備。如試驗後評估需要， <u>檢測機構</u> 可記錄或要求任意所使用資料頻道，或由系統產生之紀錄。	13.4.3.5 驗證相關行駛過程應進行記錄，並於需要時就試驗車輛裝設額外之無干擾設備。如試驗後評估需要， <u>檢測機構</u> 可記錄或要求任意所使用資料頻道，或由系統產生之紀錄。
4.3.6. It is recommended that the public road verification is undertaken once the system has passed all of the track tests outlined in this Annex and upon completion of Annex 3.	4.3.6. It is recommended that the public road verification is undertaken once the system has passed all of the track tests outlined in this Annex and upon completion of Annex 3.	13.4.3.6 建議公共道路驗證係於系統已經通過本節規定之所有測試道路試驗，以及完成規定12.下執行。	13.4.3.6 建議公共道路驗證係於系統已經通過本節規定之所有測試道路試驗，以及完成規定12.下執行。
Annex 5 Principles for Credibility Assessment for using Virtual Toolchain in DCAS Validation	Annex 5 Principles for Credibility Assessment for using Virtual Toolchain in DCAS Validation	14. 對於DCAS確認中使用虛擬工具鏈之可信度評估原則	14. 對於DCAS確認中使用虛擬工具鏈之可信度評估原則

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
1. General 1.1. It is recommended that the Modelling and Simulation (M&S) toolchain could be used for virtual testing if its credibility is established by evaluating its fitness for the intended purpose. It is recommended that credibility is achieved by investigating and assessing five M&S properties: (a) Capability – what the M&S can do, and what are the associated risks; (b) Accuracy how well M&S does reproduce the target data; (c) Correctness – how sound & robust is the M&S data and the algorithms in the tools; (d) Usability – what training and experience is needed and what is the quality of the process that manage its use. (e) Fit for Purpose – how suitable is the M&S toolchain for the assessment of the DCAS within its system boundaries. Figure A5/1 Graphical representation of the relationships between the components of the credibility assessment framework (圖片如頁末所示) 1.2. Therefore, credibility requires a unified method to investigate these properties and get confidence in the M&S results. The Credibility Assessment framework introduces a way to assess and report the credibility of M&S based on quality assurance criteria that allow an indication of	1. General 1.1. It is recommended that the Modelling and Simulation (M&S) toolchain could be used for virtual testing if its credibility is established by evaluating its fitness for the intended purpose. It is recommended that credibility is achieved by investigating and assessing five M&S properties: (a) Capability – what the M&S can do, and what are the associated risks; (b) Accuracy how well M&S does reproduce the target data; (c) Correctness – how sound & robust is the M&S data and the algorithms in the tools; (d) Usability – what training and experience is needed and what is the quality of the process that manage its use. (e) Fit for Purpose – how suitable is the M&S toolchain for the assessment of the DCAS within its system boundaries. Figure A5/1 Graphical representation of the relationships between the components of the credibility assessment framework (圖片如頁末所示) 1.2. Therefore, credibility requires a unified method to investigate these properties and get confidence in the M&S results. The Credibility Assessment framework introduces a way to assess and report the credibility of M&S based on quality assurance criteria that allow an indication of	14.1 通則 14.1.1 建議若相關可信度係藉由評估其對於預期目標之合適度所建立，則模型化及模擬(M&S)工具鏈可被使用於虛擬試驗。建議可信度係藉由調查及評估五項M&S性質達成： (a) 能力 – 即M&S可執行項目，以及關聯風險為何； (b) M&S再現目標資料之準確度程度； (c) 正確性 – 即M&S資料及工具中演算法之健全及穩健程度； (d) 可用性 – 即需要之訓練及經驗，以及管理其使用之程序品質為何。 (e) 目標適用性 – 對於DCAS於其系統邊界內之評估的M&S工具鏈合適程度。 圖 A5/1 介於可信度評估框架之組成要素間的圖像化呈現 (圖片如頁末所示) 14.1.2 因此，可信度需要一個統一步驟以調查相關性質且於M&S結果中取得信賴度。可信度評估框架介紹一項基於可使結果中信賴度程度之指示產生之品質確認指標，用以評估且回報M&S之可信度的方式。	14.1 通則 14.1.1 建議若相關可信度係藉由評估其對於預期目標之合適度所建立，則模型化及模擬(M&S)工具鏈可被使用於虛擬試驗。建議可信度係藉由調查及評估五項M&S性質達成： (a) 能力 – 即M&S可執行項目，以及關聯風險為何； (b) M&S再現目標資料之準確度程度； (c) 正確性 – 即M&S資料及工具中演算法之健全及穩健程度； (d) 可用性 – 即需要之訓練及經驗，以及管理其使用之程序品質為何。 (e) 目標適用性 – 對於DCAS於其系統邊界內之評估的M&S工具鏈合適程度。 圖 A5/1 介於可信度評估框架之組成要素間的圖像化呈現 (圖片如頁末所示) 14.1.2 因此，可信度需要一個統一步驟以調查相關性質且於M&S結果中取得信賴度。可信度評估框架介紹一項基於可使結果中信賴度程度之指示產生之品質確認指標，用以評估且回報M&S之可信度的方式。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
the levels of confidence in results. In other words, the credibility is established by evaluating the key influencing factors that are the main contributors to the behaviour of the models and simulation tools and therefore affect the overall M&S toolchain credibility. The following all have an influence on the overall M&S credibility: organizational management of the M&S activity, team's experience and expertise, the analysis and description of the chosen M&S toolset, the pedigree of the data and inputs, verification, validation, uncertainty characterization. How well each of these factors is addressed indicates the level of quality achieved by M&S toolchain, and the comparison between the obtained levels and the required levels provides a qualitative measure of the M&S credibility and fitness for its use in virtual testing. A graphical representation of the relationship among the components of the credibility assessment framework is reported in Figure 1. 2. Definitions For the purposes of this annex: 2.1. “Abstraction” is the process of selecting the essential aspects of a source system or referent system to be represented in a model or simulation, while ignoring those aspects not relevant. Any modelling abstraction carries with it the assumption that it should	the levels of confidence in results. In other words, the credibility is established by evaluating the key influencing factors that are the main contributors to the behaviour of the models and simulation tools and therefore affect the overall M&S toolchain credibility. The following all have an influence on the overall M&S credibility: organizational management of the M&S activity, team's experience and expertise, the analysis and description of the chosen M&S toolset, the pedigree of the data and inputs, verification, validation, uncertainty characterization. How well each of these factors is addressed indicates the level of quality achieved by M&S toolchain, and the comparison between the obtained levels and the required levels provides a qualitative measure of the M&S credibility and fitness for its use in virtual testing. A graphical representation of the relationship among the components of the credibility assessment framework is reported in Figure 1. 2. Definitions For the purposes of this annex: 2.1. “Abstraction” is the process of selecting the essential aspects of a source system or referent system to be represented in a model or simulation, while ignoring those aspects not relevant. Any modelling abstraction carries with it the assumption that it should	換句話說，可信度係藉由評估對模型及模擬工具行為之主要貢獻者的關鍵影響因素所建立，且因此影響整體M&S工具鏈可信度。下述所有項目將對整體M&S可信度造成影響：M&S活動之組織化管理、團隊之經驗及專業、所選M&S工具組織分析及描述、資料及輸入之系譜、驗證、確認、不確定度特性化。 就這些因素如何受到處理之程度將顯示藉由M&S工具鏈達成品質之程度，且介於取得等級及所需等級之間的比較提供了對虛擬試驗中M&S使用之可信度及合適性的品質性措施。對於可信度評估框架中組成要素間之關係的圖像化呈現如圖A5/1所示。 14.2 名詞釋義 就本節之相關內容而言： 14.2.1 抽象化(Abstraction)：係指於模型或模擬中選擇待呈現之一來源系統或對象系統必要層面的程序，同時忽略不相關之層面。任意模型抽象化帶有將不會嚴重影響模擬工具之預期使用的假設。	換句話說，可信度係藉由評估對模型及模擬工具行為之主要貢獻者的關鍵影響因素所建立，且因此影響整體M&S工具鏈可信度。下述所有項目將對整體M&S可信度造成影響：M&S活動之組織化管理、團隊之經驗及專業、所選M&S工具組織分析及描述、資料及輸入之系譜、驗證、確認、不確定度特性化。 就這些因素如何受到處理之程度將顯示藉由M&S工具鏈達成品質之程度，且介於取得等級及所需等級之間的比較提供了對虛擬試驗中M&S使用之可信度及合適性的品質性措施。對於可信度評估框架中組成要素間之關係的圖像化呈現如圖A5/1所示。 14.2 名詞釋義 就本節之相關內容而言： 14.2.1 抽象化(Abstraction)：係指於模型或模擬中選擇待呈現之一來源系統或對象系統必要層面的程序，同時忽略不相關之層面。任意模型抽象化帶有將不會嚴重影響模擬工具之預期使用的假設。

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not significantly affect the intended uses of the simulation tool.	not significantly affect the intended uses of the simulation tool.		
2.2. “Closed Loop Testing” means a virtual environment that does take the actions of the element-in-the loop into account. Simulated objects respond to the actions of the system (e.g. system interacting with a traffic model).	2.2. “Closed Loop Testing” means a virtual environment that does take the actions of the element-in-the loop into account. Simulated objects respond to the actions of the system (e.g. system interacting with a traffic model).	14.2.2 閉迴路試驗 (Closed Loop Testing)：係指將「元素迴路 (element-in-the loop)」之行動納入考量之虛擬環境。受模擬物件對系統之行動進行回應(例如：系統與交通模型互動)。	14.2.2 閉迴路試驗 (Closed Loop Testing)：係指將「元素迴路 (element-in-the loop)」之行動納入考量之虛擬環境。受模擬物件對系統之行動進行回應(例如：系統與交通模型互動)。
2.3. “Deterministic” is a term describing a system whose time evolution can be predicted exactly and a given set of input stimuli will always produce the same output.	2.3. “Deterministic” is a term describing a system whose time evolution can be predicted exactly and a given set of input stimuli will always produce the same output.	14.2.3 確定性(Deterministic)：係指一個描述可準確預估時間演化且指定組合之輸入刺激將總是產出同一輸出之系統的名詞。	14.2.3 確定性(Deterministic)：係指一個描述可準確預估時間演化且指定組合之輸入刺激將總是產出同一輸出之系統的名詞。
2.4. “Driver-In-the-Loop” (DIL) is typically conducted in a driving simulator used for testing the human-automation interaction design. DIL has components for the driver to operate and communicate with the virtual environment.	2.4. “Driver-In-the-Loop” (DIL) is typically conducted in a driving simulator used for testing the human-automation interaction design. DIL has components for the driver to operate and communicate with the virtual environment.	14.2.4 駕駛人迴路 (Driver-In-the-Loop; DIL)：通常於行駛模擬器中就試驗人類-自動化互動設計所使用執行之方式。DIL具備對駕駛人用以與虛擬環境運作及溝通之組成要件。	14.2.4 駕駛人迴路 (Driver-In-the-Loop; DIL)：通常於行駛模擬器中就試驗人類-自動化互動設計所使用執行之方式。DIL具備對駕駛人用以與虛擬環境運作及溝通之組成要件。
2.5. “Hardware-In-the-Loop” (HIL) involves the final hardware of a specific vehicle subsystem running the final software with input and output connected to a simulation environment to perform virtual testing. HIL testing provides a way of replicating sensors, actuators and mechanical components in a way that connects all the I/O of the Electronic Control Units (ECU) being tested, long before the final system is integrated.	2.5. “Hardware-In-the-Loop” (HIL) involves the final hardware of a specific vehicle subsystem running the final software with input and output connected to a simulation environment to perform virtual testing. HIL testing provides a way of replicating sensors, actuators and mechanical components in a way that connects all the I/O of the Electronic Control Units (ECU) being tested, long before the final system is integrated.	14.2.5 硬體迴路 (Hardware-In-the-Loop; HIL)：涉及一個特定車輛子系統的最終硬體，連結至一個模擬環境之輸入及輸出執行最終軟體，以執行虛擬試驗。HIL試驗於早於最終系統進行整合前，提供複製感測器、作動器及機械組件之方式，以所有電子控制單元之I/O受到試驗方式進行連結。	14.2.5 硬體迴路 (Hardware-In-the-Loop; HIL)：涉及一個特定車輛子系統的最終硬體，連結至一個模擬環境之輸入及輸出執行最終軟體，以執行虛擬試驗。HIL試驗於早於最終系統進行整合前，提供複製感測器、作動器及機械組件之方式，以所有電子控制單元之I/O受到試驗方式進行連結。
2.6. “Model” is a description or representation of a system, entity, phenomenon, or process.	2.6. “Model” is a description or representation of a system, entity, phenomenon, or process.	14.2.6 模型(Model)：係系統、整體、現象或程序之描述或呈現。	14.2.6 模型(Model)：係系統、整體、現象或程序之描述或呈現。
2.7. “Model calibration” is the process of	2.7. “Model calibration” is the process of	14.2.7 模型校正(Model calibration)：	14.2.7 模型校正(Model calibration)：係

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adjusting numerical or modelling parameters in the model to improve agreement with a referent.	adjusting numerical or modelling parameters in the model to improve agreement with a referent.	係模型中調整數字性或模型化參數之程序，以透過相關項目改善協議。	模型中調整數字性或模型化參數之程序，以透過相關項目改善協議。
2.8. “Model Parameter” are numerical values used to support characterizing a system functionality. A model parameter has a value that cannot be observed directly in the real world but that must be inferred from data collected in the real world (in the model calibration phase).	2.8. “Model Parameter” are numerical values used to support characterizing a system functionality. A model parameter has a value that cannot be observed directly in the real world but that must be inferred from data collected in the real world (in the model calibration phase).	14.2.8 模型參數(Model Parameter)：係指用以支援系統功能進行特性化所使用之數字化數值。一個模型參數具備無法於現實被直接觀察，惟必須推斷自現實所收集之資料（於模型校正階段）的數值。	14.2.8 模型參數(Model Parameter)：係指用以支援系統功能進行特性化所使用之數字化數值。一個模型參數具備無法於現實被直接觀察，惟必須推斷自現實所收集之資料（於模型校正階段）的數值。
2.9. “Model-In-the-Loop” (MIL) is an approach which allows quick algorithmic development without involving dedicated hardware. Usually, this level of development involves high-level abstraction software frameworks running on general-purpose computing systems.	2.9. “Model-In-the-Loop” (MIL) is an approach which allows quick algorithmic development without involving dedicated hardware. Usually, this level of development involves high-level abstraction software frameworks running on general-purpose computing systems.	14.2.9 模型迴路 (Model-In-the-Loop；MIL)：係指可於無涉及專用硬體下允許快速演算開發之方法。通常此開發之等級涉及於一般用途電腦系統上運作之高階抽象化軟體框架。	14.2.9 模型迴路(Model-In-the-Loop；MIL)：係指可於無涉及專用硬體下允許快速演算開發之方法。通常此開發之等級涉及於一般用途電腦系統上運作之高階抽象化軟體框架。
2.10. “Open Loop Testing” is a virtual testing approach where a data provision unit provides input stimuli to a DCAS. There is no feedback between the DCAS and the environment provided via the input stimuli, hence the loop is “open”. The data provision unit can play back a recorded traffic situation, e.g., from a real-world drive. Environment data can also be generated (simulator approach) or measured (shadow mode) while testing.	2.10. “Open Loop Testing” is a virtual testing approach where a data provision unit provides input stimuli to a DCAS. There is no feedback between the DCAS and the environment provided via the input stimuli, hence the loop is “open”. The data provision unit can play back a recorded traffic situation, e.g., from a real-world drive. Environment data can also be generated (simulator approach) or measured (shadow mode) while testing.	14.2.10 開迴路試驗 (Open Loop Testing)：係指資料規則單元對DCAS提供輸入刺激之虛擬試驗方法。於DCAS及透過輸入刺激所提供環境之間並無回饋，故迴路係為「開迴路」。資料規則單元可重播一段以記錄之交通情況，例如源於現實之行駛過程。環境資料亦可於試驗時被產生（模擬器方法）或測量（影子模式）。	14.2.10 開迴路試驗 (Open Loop Testing)：係指資料規則單元對DCAS提供輸入刺激之虛擬試驗方法。於DCAS及透過輸入刺激所提供環境之間並無回饋，故迴路係為「開迴路」。資料規則單元可重播一段以記錄之交通情況，例如源於現實之行駛過程。環境資料亦可於試驗時被產生（模擬器方法）或測量（影子模式）。
2.11. “Probabilistic” is a term pertaining to non-deterministic events, the outcomes of which are described by a measure of likelihood.	2.11. “Probabilistic” is a term pertaining to non-deterministic events, the outcomes of which are described by a measure of likelihood.	14.2.11 機率性(Probabilistic)：係為非確定性事件相關之名詞，其中結果係藉由相似之測量所描述。	14.2.11 機率性(Probabilistic)：係為非確定性事件相關之名詞，其中結果係藉由相似之測量所描述。

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2.12. “Proving Ground or test-track” is a physical testing facility closed to the traffic where the performance of a DCAS can be investigated on the real vehicle. Traffic agents can be introduced via sensor stimulation or via dummy devices positioned on the track.	2.12. “Proving Ground or test-track” is a physical testing facility closed to the traffic where the performance of a DCAS can be investigated on the real vehicle. Traffic agents can be introduced via sensor stimulation or via dummy devices positioned on the track.	14.2.12 測試場或測試道(Proving Ground or test-track)：係指接近交通之物理試驗設施，其中DCAS之性能可於實際車輛上進行調查。可透過感測器模擬，或藉由定位於測試道之人偶導入交通代理(traffic agents)。	14.2.12 測試場或測試道(Proving Ground or test-track)：係指接近交通之物理試驗設施，其中DCAS之性能可於實際車輛上進行調查。可透過感測器模擬，或藉由定位於測試道之人偶導入交通代理(traffic agents)。
2.13. “Sensor Stimulation” is a technique whereby artificially generated signals are provided to the element under testing in order to trigger it to produce the result required for verification of the real world, training, maintenance, or for research and development.	2.13. “Sensor Stimulation” is a technique whereby artificially generated signals are provided to the element under testing in order to trigger it to produce the result required for verification of the real world, training, maintenance, or for research and development.	14.2.13 感測器模擬 (Sensor Stimulation)：對正在測試之元素提供人工所產生訊號，以將其觸發以產生對現實、訓練、維護之驗證，或對研究及開發所需結果的技術。	14.2.13 感測器模擬 (Sensor Stimulation)：對正在測試之元素提供人工所產生訊號，以將其觸發以產生對現實、訓練、維護之驗證，或對研究及開發所需結果的技術。
2.14. “Simulation” is the imitation of the operation of a real-world process or system over time.	2.14. “Simulation” is the imitation of the operation of a real-world process or system over time.	14.2.14 模擬(Simulation)：係現實程序或系統隨時間之運作的模仿。	14.2.14 模擬(Simulation)：係現實程序或系統隨時間之運作的模仿。
2.15. “Simulation toolchain” is a combination of simulation tools that are used to support the validation of a DCAS.	2.15. “Simulation toolchain” is a combination of simulation tools that are used to support the validation of a DCAS.	14.2.15 模擬工具鏈 (Simulation toolchain)：係使用於支援DCAS確認之模擬工具的組合。	14.2.15 模擬工具鏈 (Simulation toolchain)：係使用於支援DCAS確認之模擬工具的組合。
2.16. “Software-In-the-Loop” (SIL) is where the implementation of the developed model will be evaluated on general-purpose computing systems. This step can use a complete software implementation very close to the final one. SIL testing is used to describe a test methodology, where executable code such as algorithms (or even an entire controller strategy), is tested within a modelling environment that can help prove or test the software.	2.16. “Software-In-the-Loop” (SIL) is where the implementation of the developed model will be evaluated on general-purpose computing systems. This step can use a complete software implementation very close to the final one. SIL testing is used to describe a test methodology, where executable code such as algorithms (or even an entire controller strategy), is tested within a modelling environment that can help prove or test the software.	14.2.16 軟體迴路 (Software-In-the-Loop; SIL)：係將於一般用途電腦系統上進行評估之開發模型的實現。此階段可使用非常接近最終成品之完整軟體實現。SIL試驗係用於描述一試驗方法學，其中可執行程式碼例如演算法（或甚至一整個控制器策略），係於一個可幫助證明或測試軟體之模型化內進行測試。	14.2.16 軟體迴路 (Software-In-the-Loop; SIL)：係將於一般用途電腦系統上進行評估之開發模型的實現。此階段可使用非常接近最終成品之完整軟體實現。SIL試驗係用於描述一試驗方法學，其中可執行程式碼例如演算法（或甚至一整個控制器策略），係於一個可幫助證明或測試軟體之模型化內進行測試。
2.17. “Stochastic” means a process involving	2.17. “Stochastic” means a process involving	14.2.17 隨機性(Stochastic)：係指涉及	14.2.17 隨機性(Stochastic)：係指涉及

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
or containing a random variable or variables. Pertaining to chance or probability.	or containing a random variable or variables. Pertaining to chance or probability.	或包含一個隨機變數或變數組之程序。與機會或機率性相關。	或包含一個隨機變數或變數組之程序。與機會或機率性相關。
2.18. “Validation of the simulation model” is the process of determining the degree to which a simulation model is an accurate representation of the real world from the perspective of the intended uses of the tool.	2.18. “Validation of the simulation model” is the process of determining the degree to which a simulation model is an accurate representation of the real world from the perspective of the intended uses of the tool.	14.2.18 模擬模型之確認(Validation of the simulation model):係指自工具之預期使用的觀點而言,測定模擬模型係現實之準確呈現程度之程序	14.2.18 模擬模型之確認(Validation of the simulation model):係指自工具之預期使用的觀點而言,測定模擬模型係現實之準確呈現程度之程序
2.19. “Vehicle -In-the-Loop” (VIL) is a fusion environment of a real testing vehicle in the real-world and a virtual environment. It can reflect vehicle dynamics at the same level as the real-world and it can be operated on a vehicle test bed or on a test track.	2.19. “Vehicle -In-the-Loop” (VIL) is a fusion environment of a real testing vehicle in the real-world and a virtual environment. It can reflect vehicle dynamics at the same level as the real-world and it can be operated on a vehicle test bed or on a test track.	14.2.19 車輛迴路 (Vehicle -In-the-Loop; VIL):係指物理試驗車輛於現實及虛擬環境之混合環境。其可如現實相同等級反映車輛動態,且其可於車輛試驗基座或於測試道上運作。	14.2.19 車輛迴路 (Vehicle -In-the-Loop; VIL):係指物理試驗車輛於現實及虛擬環境之混合環境。其可如現實相同等級反映車輛動態,且其可於車輛試驗基座或於測試道上運作。
2.20. “Verification of the simulation model” is the process of determining the extent to which a simulation model or a virtual testing tool is compliant with its requirements and specifications as detailed in its conceptual models, mathematical models, or other constructs.	2.20. “Verification of the simulation model” is the process of determining the extent to which a simulation model or a virtual testing tool is compliant with its requirements and specifications as detailed in its conceptual models, mathematical models, or other constructs.	14.2.20 模擬模型之驗證(Verification of the simulation model):係指測定模擬模型或虛擬試驗工具符合如其所詳述之觀念模型、數學模型或其他構造要求及規格規定之延伸的程序。	14.2.20 模擬模型之驗證(Verification of the simulation model):係指測定模擬模型或虛擬試驗工具符合如其所詳述之觀念模型、數學模型或其他構造要求及規格規定之延伸的程序。
2.21. “Virtual testing” is the process of testing a system using one or more simulation models.	2.21. “Virtual testing” is the process of testing a system using one or more simulation models.	14.2.21 虛擬試驗(Virtual testing):係指使用一個或多個模擬模型試驗一個系統之程序。	14.2.21 虛擬試驗(Virtual testing):係指使用一個或多個模擬模型試驗一個系統之程序。
3. Models and Simulation Management	3. Models and Simulation Management	14.3 模型及模擬管理	14.3 模型及模擬管理
3.1. The Models and Simulation (M&S) lifecycle is a dynamic process with frequent releases that should be monitored and documented. As a result, it is recommended that management activities should be established to support the M&S through typical product management processes. Relevant information on the following	3.1. The Models and Simulation (M&S) lifecycle is a dynamic process with frequent releases that should be monitored and documented. As a result, it is recommended that management activities should be established to support the M&S through typical product management processes. Relevant information on the following	14.3.1 模型及模擬(M&S)之生命循環係需要被監控及紀錄之一個具備頻繁發佈之動態程序。作為結果,建議應建立管理活動以支援於典型產品管理程序之M&S。於下述層面上之相關資訊應包含於本節中。	14.3.1 模型及模擬(M&S)之生命循環係需要被監控及紀錄之一個具備頻繁發佈之動態程序。作為結果,建議應建立管理活動以支援於典型產品管理程序之M&S。於下述層面上之相關資訊應包含於本節中。

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aspects should be included in this section. 3.2. It is recommended that this part should: (a) Describe the modifications within the M&S toolchain releases (b) Designate the corresponding software (e.g., specific software product and version) and hardware arrangement e.g., X-In the Loop (XiL configuration) (c) Record the internal review processes that accepted the new releases (d) Be supported throughout the full duration of the virtual testing utilization. 3.3. Releases management 3.3.1. It is recommended that any toolchain's version used to release data for certification purposes should be stored. The virtual models constituting the testing tool should be documented in terms of the corresponding validation methods and acceptance thresholds to support the overall credibility of the toolchain. The developer should establish and enforce a method to trace generated data to the corresponding toolchain version. 3.3.2. Quality check of virtual data. Data completeness, accuracy, and consistency are ensured throughout the releases and lifetime of a tool or toolchain to support the verification and validation procedures. 3.4. Team's Experience and Expertise 3.4.1. Even though Experience and Expertise (E&E) are already covered in a general	aspects should be included in this section. 3.2. It is recommended that this part should: (a) Describe the modifications within the M&S toolchain releases (b) Designate the corresponding software (e.g., specific software product and version) and hardware arrangement e.g., X-In the Loop (XiL configuration) (c) Record the internal review processes that accepted the new releases (d) Be supported throughout the full duration of the virtual testing utilization. 3.3. Releases management 3.3.1. It is recommended that any toolchain's version used to release data for certification purposes should be stored. The virtual models constituting the testing tool should be documented in terms of the corresponding validation methods and acceptance thresholds to support the overall credibility of the toolchain. The developer should establish and enforce a method to trace generated data to the corresponding toolchain version. 3.3.2. Quality check of virtual data. Data completeness, accuracy, and consistency are ensured throughout the releases and lifetime of a tool or toolchain to support the verification and validation procedures. 3.4. Team's Experience and Expertise 3.4.1. Even though Experience and Expertise (E&E) are already covered in a general	14.3.2 本部分建議應： (a) 描述M&S工具鏈發佈時內含之修改 (b) 指定對應軟體（例如：特定軟體產品及版本）及硬體安排（例如X迴路（X設置）） (c) 記錄接受新發佈之內部檢視程序 (d) 於虛擬試驗使用之完整期間受到支援 14.3.3 發佈管理 14.3.3.1 建議應儲存任意對驗證目的所使用於發佈資料之工具鏈的版本。組成試驗工具之虛擬模型應依照對應確認步驟及接受度值域進行記錄，以支援工具鏈之整體可信度。開發者應建立並實施步驟以就對應工具鏈版本追蹤所產生之資料。 14.3.3.2 虛擬資料之快速檢查。於整個發佈，以及工具或工具鏈之生命週期，應確保資料完整度、準確性及一致性以支援驗證及確認程序。 14.3.4 團隊之經驗及專業 14.3.4.1 即使經驗及專業已於組織內常識所涵蓋，於M&S活動之特定經	14.3.2 本部分建議應： (a) 描述M&S工具鏈發佈時內含之修改 (b) 指定對應軟體（例如：特定軟體產品及版本）及硬體安排（例如X迴路（X設置）） (c) 記錄接受新發佈之內部檢視程序 (d) 於虛擬試驗使用之完整期間受到支援 14.3.3 發佈管理 14.3.3.1 建議應儲存任意對驗證目的所使用於發佈資料之工具鏈的版本。組成試驗工具之虛擬模型應依照對應確認步驟及接受度值域進行記錄，以支援工具鏈之整體可信度。開發者應建立並實施步驟以就對應工具鏈版本追蹤所產生之資料。 14.3.3.2 虛擬資料之快速檢查。於整個發佈，以及工具或工具鏈之生命週期，應確保資料完整度、準確性及一致性以支援驗證及確認程序。 14.3.4 團隊之經驗及專業 14.3.4.1 即使經驗及專業已於組織內常識所涵蓋，於M&S活動之特定經

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sense within an organization, it is important to establish the basis for confidence on the specific experience and expertise for M&S activities.	sense within an organization, it is important to establish the basis for confidence on the specific experience and expertise for M&S activities.	驗及專業上建立信賴度之基礎仍相當重要。	驗及專業上建立信賴度之基礎仍相當重要。
3.4.2. In fact, the credibility of M&S depends not only on the quality of the simulation models but also on the E&E of the personnel involved in the validation and usage of the M&S. For instance, a proper understanding of the limitations and validation domain will prevent possible misuse of the M&S or misinterpretation of its results.	3.4.2. In fact, the credibility of M&S depends not only on the quality of the simulation models but also on the E&E of the personnel involved in the validation and usage of the M&S. For instance, a proper understanding of the limitations and validation domain will prevent possible misuse of the M&S or misinterpretation of its results.	14.3.4.2 事實上，M&S之可信度不僅依賴模擬模型之品質，亦依賴於驗證及M&S使用涉及之人員的E&E。例如一個對於極限及確認領域之適當了解將避免M&S之可能誤用或對其結果之誤解。	14.3.4.2 事實上，M&S之可信度不僅依賴模擬模型之品質，亦依賴於驗證及M&S使用涉及之人員的E&E。例如一個對於極限及確認領域之適當了解將避免M&S之可能誤用或對其結果之誤解。
3.4.3. It is important to establish the basis for the manufacturer confidence in the experience and expertise of: (a) The teams that will internally assess and validate the M&S toolchain and, (b) The teams that will use the validated simulation for the execution of virtual testing with the purpose of validating the DCAS.	3.4.3. It is important to establish the basis for the manufacturer confidence in the experience and expertise of: (a) The teams that will internally assess and validate the M&S toolchain and, (b) The teams that will use the validated simulation for the execution of virtual testing with the purpose of validating the DCAS.	14.3.4.3 於下述項目之經驗及專業部分建立申請者信賴度之基礎相當重要： (a) 團隊將內部評估並確認M&S工具鏈，且 (b) 團隊將就確認DCAS目的執行虛擬試驗，使用已確認之模擬。	14.3.4.3 於下述項目之經驗及專業部分建立申請者信賴度之基礎相當重要： (a) 團隊將內部評估並確認M&S工具鏈，且 (b) 團隊將就確認DCAS目的執行虛擬試驗，使用已確認之模擬。
3.4.4. Thus, if a team's E&E is good it increases the level of confidence and hence the credibility of M&S and its results by ensuring that the human elements underpinning the M&S activity are taken into consideration and risks from the human aspect of the activity can be controlled, through its Management System.	3.4.4. Thus, if a team's E&E is good it increases the level of confidence and hence the credibility of M&S and its results by ensuring that the human elements underpinning the M&S activity are taken into consideration and risks from the human aspect of the activity can be controlled, through its Management System.	14.3.4.4 總而言之，於整個管理系統而言，若一個團隊之E&E狀況良好，將藉由確保將支撐M&S活動之人類元素納入考量，且活動中源於人類層面之風險可被控制，而增加信賴度等級，以及M&S及其結果之可信度。	14.3.4.4 總而言之，於整個管理系統而言，若一個團隊之E&E狀況良好，將藉由確保將支撐M&S活動之人類元素納入考量，且活動中源於人類層面之風險可被控制，而增加信賴度等級，以及M&S及其結果之可信度。
3.4.5. If the manufacturer toolchain incorporates or relies upon inputs from organizations or products outside of the	3.4.5. If the manufacturer toolchain incorporates or relies upon inputs from organizations or products outside of the	14.3.4.5 若申請者工具鏈併同或依賴於源於申請者自身團隊之外的組織或產品輸入，建議申請者就此等輸	14.3.4.5 若申請者工具鏈併同或依賴於源於申請者自身團隊之外的組織或產品輸入，建議申請者就此等輸

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manufacturer's own team, it is recommended that the manufacturer includes an explanation of measures it has taken to manage and develop confidence in the quality and integrity of those inputs. 3.4.6. The team's Experience and Expertise include two aspects: 3.4.6.1. Organizational level: The credibility is established by setting up processes and procedures to identify and maintain the skills, knowledge, and experience to perform M&S activities. The following processes should be established, maintained and documented: (a) Process to identify and evaluate the individual's competence and skills; (b) Process for training personnel to be competent to perform M&S-related duties. 3.4.6.2. Team level: Once a toolchain has been finalized, its credibility is mainly dictated by the skills and knowledge of the teams that will first validate the M&S and then use it for the validation of DCAS. The credibility is established by documenting that these teams have received adequate training to fulfil their duties. The manufacturer should: (a) Provide the basis for the manufacturer's confidence in the Experience and Expertise of the individual/team that validates the M&S toolchain.	manufacturer's own team, it is recommended that the manufacturer includes an explanation of measures it has taken to manage and develop confidence in the quality and integrity of those inputs. 3.4.6. The team's Experience and Expertise include two aspects: 3.4.6.1. Organizational level: The credibility is established by setting up processes and procedures to identify and maintain the skills, knowledge, and experience to perform M&S activities. The following processes should be established, maintained and documented: (a) Process to identify and evaluate the individual's competence and skills; (b) Process for training personnel to be competent to perform M&S-related duties. 3.4.6.2. Team level: Once a toolchain has been finalized, its credibility is mainly dictated by the skills and knowledge of the teams that will first validate the M&S and then use it for the validation of DCAS. The credibility is established by documenting that these teams have received adequate training to fulfil their duties. The manufacturer should: (a) Provide the basis for the manufacturer's confidence in the Experience and Expertise of the individual/team that validates the M&S toolchain.	入之品質及完整性以管理及發展信賴度，將已採用措施之解釋納入。 14.3.4.6 團隊之經驗及專業包含兩個層面： 14.3.4.6.1 組織級別： 可信度係藉由設置程序及步驟建立，以識別及維持用以執行M&S活動之技能、知識及經驗。下述程序應被建立、維持及記錄： (a) 用以識別及評估個體之能力及技能之程序； (b) 對於訓練人員具備能力執行M&S相關業務之程序。 14.3.4.6.2 團隊級別： 一旦一個工具鏈已被完善，其可信度係主要藉由將首次確認M&S，且使用其進行DCAS確認之團隊的技能及知識口頭描述。可信度係藉由記錄團隊已獲得足夠訓練已達成相關業務建立。 申請者應： (a) 對申請者就確認M&S工具鏈之個體／團隊，於經驗及專業之信賴度提供基礎。	入之品質及完整性以管理及發展信賴度，將已採用措施之解釋納入。 14.3.4.6 團隊之經驗及專業包含兩個層面： 14.3.4.6.1 組織級別： 可信度係藉由設置程序及步驟建立，以識別及維持用以執行M&S活動之技能、知識及經驗。下述程序應被建立、維持及記錄： (a) 用以識別及評估個體之能力及技能之程序； (b) 對於訓練人員具備能力執行M&S相關業務之程序。 14.3.4.6.2 團隊級別： 一旦一個工具鏈已被完善，其可信度係主要藉由將首次確認M&S，且使用其進行DCAS確認之團隊的技能及知識口頭描述。可信度係藉由記錄團隊已獲得足夠訓練已達成相關業務建立。 申請者應： (a) 對申請者就確認M&S工具鏈之個體／團隊，於經驗及專業之信賴度提供基礎。

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(b) Provide the basis for the manufacturer's confidence in the Experience and Expertise of the individual/team that uses the simulation to execute virtual testing with the purpose of validating the DCAS.	(b) Provide the basis for the manufacturer's confidence in the Experience and Expertise of the individual/team that uses the simulation to execute virtual testing with the purpose of validating the DCAS.	(b) 對申請者就以確認DCAS之目的，使用模擬以執行虛擬試驗之個體／團隊，於經驗及專業之信賴度提供基礎。	(b) 對申請者就以確認DCAS之目的，使用模擬以執行虛擬試驗之個體／團隊，於經驗及專業之信賴度提供基礎。
3.4.6.3. The manufacturer should demonstrate how it applies the principles of its Management Systems, e.g. ISO 9001 or a similar best practice or standard, with regard to the competence of its M&S organization and the individuals in that organization and the basis for this determination. It is recommended that the assessor not substitute its judgment for that of the manufacturer regarding the experience and expertise of the organization or its members.	3.4.6.3. The manufacturer should demonstrate of how it applies the principles of its Management Systems, e.g. ISO 9001 or a similar best practice or standard, with regard to the competence of its M&S organization and the individuals in that organization and the basis for this determination. It is recommended that the assessor not substitute its judgment for that of the manufacturer regarding the experience and expertise of the organization or its members.	14.3.4.6.3 申請者應展示其如何實施與其 M&S 組織之能力、組織內個體及此決策之基礎相關之管理系統的原則，例如 ISO 9001 或一個相似最佳實例或標準。建議評估者不對申請者就相關於組織或其成員之經驗及專業而替代其判斷。	14.3.4.6.3 申請者應展示其如何實施與其 M&S 組織之能力、組織內個體及此決策之基礎相關之管理系統的原則，例如 ISO 9001 或一個相似最佳實例或標準。建議評估者不對申請者就相關於組織或其成員之經驗及專業而替代其判斷。
3.4.7. Data/Input pedigree	3.4.7. Data/Input pedigree	14.3.4.7 資料／輸入系譜	14.3.4.7 資料／輸入系譜
3.4.7.1. The pedigree and traceability of the data and inputs used in the validation of the M&S is important. The manufacturer should have a record of these that allows the assessor to verify their quality and appropriateness.	3.4.7.1. The pedigree and traceability of the data and inputs used in the validation of the M&S is important. The manufacturer should have a record of these that allows the assessor to verify their quality and appropriateness.	14.3.4.7.1 就M&S確認中所使用資料及輸入之系譜及可追蹤性相當重要。申請者應具備前述相關紀錄以使評估者可驗證其品質及合適性。	14.3.4.7.1 就M&S確認中所使用資料及輸入之系譜及可追蹤性相當重要。申請者應具備前述相關紀錄以使評估者可驗證其品質及合適性。
3.4.7.2. Description of the data used for the M&S validation	3.4.7.2. Description of the data used for the M&S validation	14.3.4.7.2 M&S確認所使用資料之說明	14.3.4.7.2 M&S確認所使用資料之說明
(a) The manufacturer should document the data used to validate the models included in the tool or toolchain and note important quality characteristics;	(a) The manufacturer should document the data used to validate the models included in the tool or toolchain and note important quality characteristics;	(a) 申請者應記錄所使用資料以確認工具或工具鏈中所包含模型，且註記重要品質特性；	(a) 申請者應記錄所使用資料以確認工具或工具鏈中所包含模型，且註記重要品質特性；
(b) The manufacturer should provide documentation showing that the data used to validate the models covers the intended	(b) The manufacturer should provide documentation showing that the data used to validate the models covers the intended	(b) 申請者應提供顯示用以確認模型之資料，涵蓋工具鏈目標將虛擬化之預期功能的文件；	(b) 申請者應提供顯示用以確認模型之資料，涵蓋工具鏈目標將虛擬化之預期功能的文件；

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functionalities that the toolchain aims at virtualizing; (c) The manufacturer should document the calibration procedures employed to fit the virtual models' parameters to the collected input data. 3.4.7.3. Effect of the data quality (e.g. data coverage, signal to noise ratio, and sensors' uncertainty/bias/sampling rate) on model parameters uncertainty The quality of the data used to develop the model will have an impact on model parameters' estimation and calibration. Uncertainty in model parameters will be another important aspect in the final uncertainty analysis. 3.4.8. Data/Output pedigree 3.4.8.1. The pedigree of the output data is important. The manufacturer should keep a record of the outputs of the M&S toolchain and ensure that it is traceable to the inputs and the M&S toolchain that produced it. This will form part of the evidence trail for the DCAS validation. 3.4.8.2. Description of the data generated by the M&S (a) The manufacturer should provide information on any data and scenarios used for virtual testing toolchain validation. (b) The manufacturer should document the exported data and note important quality characteristics e.g., using the correlation	functionalities that the toolchain aims at virtualizing; (c) The manufacturer should document the calibration procedures employed to fit the virtual models' parameters to the collected input data. 3.4.7.3. Effect of the data quality (e.g. data coverage, signal to noise ratio, and sensors' uncertainty/bias/sampling rate) on model parameters uncertainty The quality of the data used to develop the model will have an impact on model parameters' estimation and calibration. Uncertainty in model parameters will be another important aspect in the final uncertainty analysis. 3.4.8. Data/Output pedigree 3.4.8.1. The pedigree of the output data is important. The manufacturer should keep a record of the outputs of the M&S toolchain and ensure that it is traceable to the inputs and the M&S toolchain that produced it. This will form part of the evidence trail for the DCAS validation. 3.4.8.2. Description of the data generated by the M&S (a) The manufacturer should provide information on any data and scenarios used for virtual testing toolchain validation. (b) The manufacturer should document the exported data and note important quality characteristics e.g. using the correlation	(c) 申請者應記錄所實施之校正程序以使虛擬模型之參數符合所收集輸入資料。 14.3.4.7.3 於模型參數不確定度上資料品質（例如資料涵蓋率、訊噪比，以及感測器之不確定度／偏差／取樣率）之影響 用以開發模型之資料的品質將對模型參數之估計及校正造成衝擊。於模型參數中之不確定度將於最終不確定度分析中為另一重要層面。 14.3.4.8 資料／輸出系譜 13.3.4.8.1 輸出資料之系譜相當重要。申請者應留存M&S工具鏈之輸出的紀錄，並確保其對產生其之輸入及M&S工具鏈而言係可追蹤的。此將對DCAS確認形成證據軌跡之一部分。 14.3.4.8.2 由M&S所產生資料之說明 (a) 申請者應提供於任意用於虛擬試驗工具鏈確認之資料及情境資訊。 (b) 申請者應將所輸出資料及註記之重要品質特性（例如使用相關方法學）彙整為文件。	(c) 申請者應記錄所實施之校正程序以使虛擬模型之參數符合所收集輸入資料。 14.3.4.7.3 於模型參數不確定度上資料品質（例如資料涵蓋率、訊噪比，以及感測器之不確定度／偏差／取樣率）之影響 用以開發模型之資料的品質將對模型參數之估計及校正造成衝擊。於模型參數中之不確定度將於最終不確定度分析中為另一重要層面。 14.3.4.8 資料／輸出系譜 13.3.4.8.1 輸出資料之系譜相當重要。申請者應留存M&S工具鏈之輸出的紀錄，並確保其對產生其之輸入及M&S工具鏈而言係可追蹤的。此將對DCAS確認形成證據軌跡之一部分。 14.3.4.8.2 由M&S所產生資料之說明 (a) 申請者應提供於任意用於虛擬試驗工具鏈確認之資料及情境資訊。 (b) 申請者應將所輸出資料及註記之重要品質特性（例如使用<u>如規定13.之</u>相關方法學）彙整為文件。

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methodologies. (c) The manufacturer should trace M&S outputs to the corresponding M&S setup: 3.4.8.2.1. Effect of the data quality on M&S credibility (a) The M&S output data should be sufficient to ensure the correct execution of the validation exercise. The data should sufficiently reflect the system boundaries relevant to the virtual assessment of the DCAS. (b) The output data should allow consistency/sanity check of the virtual models, possibly by exploiting redundant information 3.4.8.2.2. Managing stochastic models (a) Stochastic models should be characterized in terms of their variance (b) The use of a stochastic models should not prohibit the possibility of deterministic re-execution 3.5. M&S Analysis and Description 3.5.1. The M&S analysis and description aim to define the whole toolchain and identify the parameter space that can be assessed via virtual testing. It defines the scope and limitations of the models and simulation tools and the uncertainty sources that can affect its results. 3.5.2. General description: (a) The manufacturer should provide a description of the complete toolchain along	methodologies as defined Annex II. (c) The manufacturer should trace M&S outputs to the corresponding M&S setup: 3.4.8.2.1. Effect of the data quality M&S credibility (a) The M&S output data should be sufficient to ensure the correct execution of the validation exercise. The data should sufficiently reflect the system boundaries relevant to the virtual assessment of the DCAS. (b) The output data should allow consistency/sanity check of the virtual models, possibly by exploiting redundant information 3.4.8.2.2. Managing stochastic models (a) Stochastic models should be characterized in terms of their variance (b) The use of a stochastic models should not prohibit the possibility of deterministic re-execution 3.5. M&S Analysis and Description 3.5.1. The M&S analysis and description aim to define the whole toolchain and identify the parameter space that can be assessed via virtual testing. It defines the scope and limitations of the models and simulation tools and the uncertainty sources that can affect its results. 3.5.2. General description: (a) The manufacturer should provide a description of the complete toolchain along	(c) 申請者應追蹤就對應M&S設置之M&S輸出。 14.3.4.8.2.1 資料品質對M&S可信度之影響 (a) M&S輸出資料應充足以確保確認實務之正確執行。資料應充足反映DCAS之虛擬評估系統邊界。 (b) 輸出資料應允許虛擬模型之一致性／心智檢查，其藉由利用冗餘資訊而可能達成。 14.3.4.8.2.2 管理隨機性模型 (a) 隨機性模型應依照其變異數進行特性化。 (b) 隨機性模型之使用不應防止確定性重新執行之可能性。 14.3.5 M&S 分析及說明 14.3.5.1 M&S分析及說明目標係定義可藉由虛擬試驗評估之整個工具鏈及識別參數空間。其定義可能影響其結果之模型、模擬工具及不確定度來源之適用範圍及限制。 14.3.5.2 一般說明： (a) 申請者應隨M&S資料將如何被使用以支援DCAS確認策略，提供完整	(c) 申請者應追蹤就對應M&S設置之M&S輸出。 14.3.4.8.2.1 資料品質對M&S可信度之影響 (a) M&S輸出資料應充足以確保確認實務之正確執行。資料應充足反映DCAS之虛擬評估系統邊界。 (b) 輸出資料應允許虛擬模型之一致性／心智檢查，其藉由利用冗餘資訊而可能達成。 14.3.4.8.2.2 管理隨機性模型 (a) 隨機性模型應依照其變異數進行特性化。 (b) 隨機性模型之使用不應防止確定性重新執行之可能性。 14.3.5 M&S 分析及說明 14.3.5.1 M&S分析及說明目標係定義可藉由虛擬試驗評估之整個工具鏈及識別參數空間。其定義可能影響其結果之模型、模擬工具及不確定度來源之適用範圍及限制。 14.3.5.2 一般說明： (a) 申請者應隨M&S資料將如何被使用以支援DCAS確認策略，提供完整

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with how the M&S data will be used to support the DCAS validation strategy. (b) The manufacturer should provide a clear description of the test objective. 3.5.3. Assumptions, known limitations and uncertainty sources: (a) The manufacturer should motivate the modelling assumptions which guided the design of the M&S toolchain (b) The manufacturer should provide evidence on: (i) How the manufacturer-defined assumptions play a role in defining the limitations of the toolchain; (ii) The level of fidelity required for the simulation models. (c) The manufacturer should provide justification that the tolerance for M&S versus real-world correlation is acceptable for the test objective (d) Finally, this section should include information about the sources of uncertainty in the model. This will represent an important input to final uncertainty analysis, which will define how the M&S toolchain outputs can be affected by the different sources of uncertainty of the M&S toolchain used. 3.5.4. Scope (what is the model for?). It defines how the M&S is used in the DCAS validation. (a) The credibility of virtual tool should be	with how the M&S data will be used to support the DCAS validation strategy. (b) The manufacturer should provide a clear description of the test objective. 3.5.3. Assumptions, known limitations and uncertainty sources: (a) The manufacturer should motivate the modelling assumptions which guided the design of the M&S toolchain (b) The manufacturer should provide evidence on: (i) How the manufacturer-defined assumptions play a role in defining the limitations of the toolchain; (ii) The level of fidelity required for the simulation models. (c) The manufacturer should provide justification that the tolerance for M&S versus real-world correlation is acceptable for the test objective (d) Finally, this section should include information about the sources of uncertainty in the model. This will represent an important input to final uncertainty analysis, which will define how the M&S toolchain outputs can be affected by the different sources of uncertainty of the M&S toolchain used. 3.5.4. Scope (what is the model for?). It defines how the M&S is used in the DCAS validation. (a) The credibility of virtual tool should be	工具鏈之說明。 (b) 申請者應提供試驗目標之明確說明。 14.3.5.3 假設、已知極限及不確定度來源： (a) 申請者應激勵用於引導M&S工具鏈設計之模型化假設 (b) 申請者應提供對下述項目之證據： (i) 申請者所定義之假設如何於定義工具鏈之極限中扮演角色； (ii) 對模擬模型而言，所需傳真度之等級。 (c) 申請者應就M&S對現實相關之容許誤差於試驗目標係可接受的提供證明。 (d) 最後，本節應包含關於模型中不確定度之來源資訊。此將作為最終不確定度分析之重要輸入，其中將定義M&S工具鏈輸出可能受到所使用M&S工具鏈中不同之不確定度來源何等程度的影響。 14.3.5.4 適用範圍（對應何種模型）。其定義M&S係如何使用於DCAS確認中。 (a) 虛擬工具之可信度應藉由對已開	工具鏈之說明。 (b) 申請者應提供試驗目標之明確說明。 14.3.5.3 假設、已知極限及不確定度來源： (a) 申請者應激勵用於引導M&S工具鏈設計之模型化假設 (b) 申請者應提供對下述項目之證據： (i) 申請者所定義之假設如何於定義工具鏈之極限中扮演角色； (ii) 對模擬模型而言，所需傳真度之等級。 (c) 申請者應就M&S對現實相關之容許誤差於試驗目標係可接受的提供證明。 (d) 最後，本節應包含關於模型中不確定度之來源資訊。此將作為最終不確定度分析之重要輸入，其中將定義M&S工具鏈輸出可能受到所使用M&S工具鏈中不同之不確定度來源何等程度的影響。 14.3.5.4 適用範圍（對應何種模型）。其定義M&S係如何使用於DCAS確認中。 (a) 虛擬工具之可信度應藉由對已開

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enforced by a clearly defined scope for the utilization of the developed M&S toolchains. (b) The mature M&S should allow a virtualization of the physical phenomena to a degree of accuracy which matches the fidelity level required for certification. Thus, the M&S environment will act as a “virtual proving ground” for DCAS testing. (c) M&S toolchains need dedicated scenarios and metrics for validation. The scenario selection used for validation should be sufficient such that there is confidence that the toolchain will perform in the same manner in scenarios that were not included in the validation scope. (d) The manufacturer should provide a list of validation scenarios together with the corresponding parameter description limitations. (e) System boundary analysis is a crucial input to derive requirements, scope and the effects that the M&S toolchain must consider supporting DCAS validation. (f) Parameters generated for the scenarios will define extrinsic and intrinsic data for the toolchain and the simulation models. 3.5.5. Criticality assessment 3.5.5.1. The simulation models and the simulation tools used in the overall toolchain should be investigated in terms of their impact in case of a safety error in the final	enforced by a clearly defined scope for the utilization of the developed M&S toolchains. (b) The mature M&S should allow a virtualization of the physical phenomena to a degree of accuracy which matches the fidelity level required for certification. Thus, the M&S environment will act as a “virtual proving ground” for DCAS testing. (c) M&S toolchains need dedicated scenarios and metrics for validation. The scenario selection used for validation should be sufficient such that there is confidence that the toolchain will perform in the same manner in scenarios that were not included in the validation scope. (d) The manufacturer should provide a list of validation scenarios together with the corresponding parameter description limitations. (e) System boundary analysis is a crucial input to derive requirements, scope and the effects that the M&S toolchain must consider supporting DCAS validation. (f) Parameters generated for the scenarios will define extrinsic and intrinsic data for the toolchain and the simulation models. 3.5.5. Criticality assessment 3.5.5.1. The simulation models and the simulation tools used in the overall toolchain should be investigated in terms of their impact in case of a safety error in the final	發M&S工具鏈之使用進行明確定義之適用範圍而被執行。 (b) 成熟之M&S應允許物理現象之虛擬化至一滿足認證所需傳真度等級之程度的準確度。故M&S環境將作為對DCAS試驗之「虛擬測試場」。 (c) M&S工具鏈需要專用情境及指標以進行確認。所選擇用於確認之情境應足夠，使工具鏈將於未包含於確認範圍內之情境下以相同程度執行具備其信賴度。 (d) 申請者應併同對應參數說明之限制提供一確認情境之列表。 (e) 系統邊界分析係關鍵輸入以推導要求、適用範圍，以及M&S工具鏈必須就支援DCAS確認考量之影響。 (f) 對情境所產生參數將對工具鏈及模擬模型定義外部及內部資料。 14.3.5.5 危害評估 14.3.5.5.1 於整體工具鏈中所使用模擬模型及模擬工具應依照其衝擊進行調查以防於最終產品中出現安全錯誤。對危害分析所提出之方法	發M&S工具鏈之使用進行明確定義之適用範圍而被執行。 (b) 成熟之M&S應允許物理現象之虛擬化至一滿足認證所需傳真度等級之程度的準確度。故M&S環境將作為對DCAS試驗之「虛擬測試場」。 (c) M&S工具鏈需要專用情境及指標以進行確認。所選擇用於確認之情境應足夠，使工具鏈將於未包含於確認範圍內之情境下以相同程度執行具備其信賴度。 (d) 申請者應併同對應參數說明之限制提供一確認情境之列表。 (e) 系統邊界分析係關鍵輸入以推導要求、適用範圍，以及M&S工具鏈必須就支援DCAS確認考量之影響。 (f) 對情境所產生參數將對工具鏈及模擬模型定義外部及內部資料。 14.3.5.5 危害評估 14.3.5.5.1 於整體工具鏈中所使用模擬模型及模擬工具應依照其衝擊進行調查以防於最終產品中出現安全錯誤。對危害分析所提出之方法係

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product. The proposed approach for criticality analysis is derived from ISO 26262, which requires qualification for some of the tools used in the development process. In order to derive how critical the simulated data is, the criticality assessment considers the following parameters: (a) The consequences on human safety e.g. severity classes in ISO 26262. (b) The degree in which the M&S toolchain results influence's the DCAS. 3.5.5.2. The table below provides an example criticality assessment matrix to demonstrate this analysis. The manufacturer may adjust this matrix to their particular use case. Table A5/1 Criticality assessment matrix (表格如頁末所示) 3.5.5.3. From the perspective of the criticality assessment, the three possible cases for assessment are: (a) Those models or tools that are clear candidates for following a full credibility assessment; (b) Those models or tools that may or may not be candidates for following the full credibility assessment at the discretion of the assessor; (c) Those models or tools that are not required to follow the credibility assessment. 3.6. Verification 3.6.1. The verification of M&S deals with the analysis of the correct implementation of the	product. The proposed approach for criticality analysis is derived from ISO 26262, which requires qualification for some of the tools used in the development process. In order to derive how critical the simulated data is, the criticality assessment considers the following parameters: (a) The consequences on human safety e.g. severity classes in ISO 26262. (b) The degree in which the M&S toolchain results influence's the DCAS. 3.5.5.2. The table below provides an example criticality assessment matrix to demonstrate this analysis. The manufacturer may adjust this matrix to their particular use case. Table A5/1 Criticality assessment matrix (表格如頁末所示) 3.5.5.3. From the perspective of the criticality assessment, the three possible cases for assessment are: (a) Those models or tools that are clear candidates for following a full credibility assessment; (b) Those models or tools that may or may not be candidates for following the full credibility assessment at the discretion of the assessor; (c) Those models or tools that are not required to follow the credibility assessment. 3.6. Verification 3.6.1. The verification of M&S deals with the analysis of the correct implementation of the	係推導自ISO 26262，其中對於開發階段所使用之部分工具需要資格確認。為推導對模擬資料之危害程度，危害評估考量下列參數： (a) 對人類安全之後果（例如ISO 26262中之嚴重等級）。 (b) M&S工具鏈結果對DCAS影響之程度。 14.3.5.5.2 下表提供一個危害評估矩陣之範例以展示此分析。申請者可就其特定使用案例調整此矩陣。 表 A5/1 危害評估矩陣 (表格如頁末所示) 14.3.5.5.3 自危害評估之觀點而言，就評估具備三種可能案例： (a) 對於接續一個完整可信度評估，相關模型或工具係明確之受採用者。 (b) 對於接續於評估者之審慎考量下的完整可信度評估，相關模型或工具可能為或不為受採用者。 (c) 接續之完整可信度評估無需相關模型或工具。 14.3.6 驗證 14.3.6.1 M&S之驗證處理對創造並建立整體工具鏈之觀念性／數學性模	推導自ISO 26262，其中對於開發階段所使用之部分工具需要資格確認。為推導對模擬資料之危害程度，危害評估考量下列參數： (a) 對人類安全之後果（例如ISO 26262中之嚴重等級）。 (b) M&S工具鏈結果對DCAS影響之程度。 14.3.5.5.2 下表提供一個危害評估矩陣之範例以展示此分析。申請者可就其特定使用案例調整此矩陣。 表 A5/1 危害評估矩陣 (表格如頁末所示) 14.3.5.5.3 自危害評估之觀點而言，就評估具備三種可能案例： (a) 對於接續一個完整可信度評估，相關模型或工具係明確之受採用者。 (b) 對於接續於評估者之審慎考量下的完整可信度評估，相關模型或工具可能為或不為受採用者。 (c) 接續之完整可信度評估無需相關模型或工具。 14.3.6 驗證 14.3.6.1 M&S之驗證處理對創造並建立整體工具鏈之觀念性／數學性模

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
conceptual/mathematical models that create and build up the overall toolchain. Verification contributes to the M&S's credibility via providing assurance that the individual tools will not exhibit unrealistic behaviour for a set of inputs which cannot be tested. The procedure is grounded in a multi-step approach described below, which includes code verification, calculation verification and sensitivity analysis.	conceptual/mathematical models that create and build up the overall toolchain. Verification contributes to the M&S's credibility via providing assurance that the individual tools will not exhibit unrealistic behaviour for a set of inputs which cannot be tested. The procedure is grounded in a multi-step approach described below, which includes code verification, calculation verification and sensitivity analysis.	型的正確實施分析。驗證藉由提供對獨立工具就一組無法被測試之輸入，將不會顯現不真實行為進行確認以促成M&S之可信度。相關程序係基於下述之多步驟方法，其中包含程式碼驗證、計算驗證，以及靈敏度分析。	型的正確實施分析。驗證藉由提供對獨立工具就一組無法被測試之輸入，將不會顯現不真實行為進行確認以促成M&S之可信度。相關程序係基於下述之多步驟方法，其中包含程式碼驗證、計算驗證，以及靈敏度分析。
3.6.2. Code verification	3.6.2. Code verification	14.3.6.2 程式碼驗證	14.3.6.2 程式碼驗證
3.6.2.1. Code verification is concerned with the execution of testing that demonstrates that no numerical/logical flaws affect the virtual models.	3.6.2.1. Code verification is concerned with the execution of testing that demonstrates that no numerical/logical flaws affect the virtual models.	14.3.6.2.1 程式碼驗證與顯示無影響虛擬模型之數字性／邏輯性缺陷乙項之試驗執行相關。	14.3.6.2.1 程式碼驗證與顯示無影響虛擬模型之數字性／邏輯性缺陷乙項之試驗執行相關。
(a) The manufacturer should document the execution of proper code verification techniques, e.g. static/dynamic code verification, convergence analysis and comparison with exact solutions if applicable ¹⁰	(a) The manufacturer should document the execution of proper code verification techniques, e.g. static/dynamic code verification, convergence analysis and comparison with exact solutions if applicable ¹⁰	(a) 申請者應將適當程式碼驗證技術之執行（例如靜態／動態程式碼驗證）、收斂分析，以及與實際解決方案之比較（如適用）彙整為文件。	(a) 申請者應將適當程式碼驗證技術之執行（例如靜態／動態程式碼驗證）、收斂分析，以及與實際解決方案之比較（如適用）彙整為文件。
¹⁰ Roy, C. J. (2005). Review of code and solution verification procedures for computational simulation. Journal of Computational Physics, 205(1), 131-156.	¹⁰ Roy, C. J. (2005). Review of code and solution verification procedures for computational simulation. Journal of Computational Physics, 205(1), 131-156.		
(b) The manufacturer should provide documentation showing that the exploration in the domain of the input parameters was sufficiently wide to identify parameter combinations for which the M&S tools show unstable or unrealistic behaviour. Coverage metrics of parameters combinations may be	(b) The manufacturer should provide documentation showing that the exploration in the domain of the input parameters was sufficiently wide to identify parameter combinations for which the M&S tools show unstable or unrealistic behaviour. Coverage metrics of parameters combinations may be	(b) 申請者應提供顯示於輸入參數領域中之探索係足夠廣闊，以對展現不穩定或不真實行為之M&S工具進行識別之參數組合的文件。參數組合之涵蓋指標可被用於顯示對模型行為之所需探索。	(b) 申請者應提供顯示於輸入參數領域中之探索係足夠廣闊，以對展現不穩定或不真實行為之M&S工具進行識別之參數組合的文件。參數組合之涵蓋指標可被用於顯示對模型行為之所需探索。

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used to demonstrate the required exploration of the model's behaviours. (c) The manufacturer should adopt sanity/consistency checking procedures whenever data allows 3.6.3. Calculation verification 3.6.3.1. Calculation verification deals with the estimation of numerical errors affecting the M&S. (a) The manufacturer should document numerical error estimates (e.g. discretization error, rounding error, iterative procedures convergence); (b) The numerical errors should be kept sufficiently bounded to not affect validation. 3.6.4. Sensitivity analysis 3.6.4.1. Sensitivity analysis aims at quantifying how model output values are affected by changes in the model input values and thus identifying the parameters having the greatest impact on the simulation model results. The sensitivity study also provides the opportunity to determine the extent to which the simulation model satisfies the validation thresholds when it is subjected to small variations of the parameters, thus it plays a fundamental role to support the credibility of the simulation results. (a) The manufacturer should provide supporting documentation demonstrating that the most critical parameters influencing	used to demonstrate the required exploration of the model's behaviours. (c) The manufacturer should adopt sanity/consistency checking procedures whenever data allows 3.6.3. Calculation verification 3.6.3.1. Calculation verification deals with the estimation of numerical errors affecting the M&S. (a) The manufacturer should document numerical error estimates (e.g. discretization error, rounding error, iterative procedures convergence); (b) The numerical errors should be kept sufficiently bounded to not affect validation. 3.6.4. Sensitivity analysis 3.6.4.1. Sensitivity analysis aims at quantifying how model output values are affected by changes in the model input values and thus identifying the parameters having the greatest impact on the simulation model results. The sensitivity study also provides the opportunity to determine the extent to which the simulation model satisfies the validation thresholds when it is subjected to small variations of the parameters, thus it plays a fundamental role to support the credibility of the simulation results. (a) The manufacturer should provide supporting documentation demonstrating that the most critical parameters influencing	(c) 申請者應於資料允許時採用心智／一致性檢查程序。 14.3.6.3 計算驗證 14.3.6.3.1 計算驗證處理影響M&S之數字性錯誤的估計。 (a) 申請者應將數字性錯誤之估計（例如離散化錯誤、四捨五入錯誤、迭代程序收斂）彙整為文件； (b) 數字性錯誤應保持於充足範圍內以未影響確認。 14.3.6.4 靈敏度分析 14.3.6.4.1 靈敏度分析目標為量化模型輸出值受到模組輸入值之改變何等程度之影響，並識別於模擬模型結果上造成最重大衝擊之參數。靈敏度研究亦提供機會以決定模擬模型於符合參數之微小變化時滿足確認值域之延伸，故其扮演支援模擬結果之可信度的基礎角色。 (a) 申請者應提供藉由靈敏度分析技術如干擾模型之參數的方式，顯示已識別之影響模擬輸出的最關鍵參	(c)申請者應於資料允許時採用心智／一致性檢查程序。 14.3.6.3 計算驗證 14.3.6.3.1 計算驗證處理影響M&S之數字性錯誤的估計。 (a) 申請者應將數字性錯誤之估計（例如離散化錯誤、四捨五入錯誤、迭代程序收斂）彙整為文件； (b) 數字性錯誤應保持於充足範圍內以未影響確認。 14.3.6.4 靈敏度分析 14.3.6.4.1 靈敏度分析目標為量化模型輸出值受到模組輸入值之改變何等程度之影響，並識別於模擬模型結果上造成最重大衝擊之參數。靈敏度研究亦提供機會以決定模擬模型於符合參數之微小變化時滿足確認值域之延伸，故其扮演支援模擬結果之可信度的基礎角色。 (a) 申請者應提供藉由靈敏度分析技術如干擾模型之參數的方式，顯示已識別之影響模擬輸出的最關鍵參

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the simulation output have been identified by means of sensitivity analysis techniques such as by perturbing the model's parameters; (b) The manufacturer should demonstrate that robust calibration procedures have been adopted and that this has identified and calibrated the most critical parameters leading to an increase in the credibility of the developed toolchain. (c) Ultimately, the sensitivity analysis results will also help to define the inputs and parameters whose uncertainty characterization needs particular attention to characterize the uncertainty of the simulation results. 3.6.5. Validation 3.6.5.1. The quantitative process of determining the degree to which a model or a simulation is an accurate representation of the real world from the perspective of the intended uses of the M&S. It is recommended that the following items be considered when assessing the validity of a model or simulation: 3.6.5.2. Measures of Performance (metrics) (a) The Measures of Performance are metrics that are used to compare the DCAS's performance within a virtual test with its performance in the real world. The Measures of Performance are defined during the M&S analysis.	the simulation output have been identified by means of sensitivity analysis techniques such as by perturbing the model's parameters; (b) The manufacturer should demonstrate that robust calibration procedures have been adopted and that this has identified and calibrated the most critical parameters leading to an increase in the credibility of the developed toolchain. (c) Ultimately, the sensitivity analysis results will also help to define the inputs and parameters whose uncertainty characterization needs particular attention to characterize the uncertainty of the simulation results. 3.6.5. Validation 3.6.5.1. The quantitative process of determining the degree to which a model or a simulation is an accurate representation of the real world from the perspective of the intended uses of the M&S. It is recommended that the following items be considered when assessing the validity of a model or simulation: 3.6.5.2. Measures of Performance (metrics) (a) The Measures of Performance are metrics that are used to compare the DCAS's performance within a virtual test with its performance in the real world. The Measures of Performance are defined during the M&S analysis.	數相關支援性文件； (b) 申請者應就已採用穩固校正程序，並識別及校正最關鍵參數而導向已開發工具鏈之可信度增加進行說明。 (c) 最終，靈敏度分析結果亦將協助定義需要留意不確定度特性化相關輸入及參數，以特性化模擬結果之不確定度。 14.3.6.5 確認 14.3.6.5.1 自 M&S 之預期使用觀點，對一模型或一模擬是否為現實世界之精準呈現相關程度的量化過程。建議於評估模型或模擬之有效性時，將下述項目納入考量： 14.3.6.5.2 性能之量測（指標） (a) 性能之量測係用於虛擬試驗內 DCAS 之性能與其於現實世界之性能比較的指標。性能之量測係於 M&S 分析期間進行定義。	數相關支援性文件； (b) 申請者應就已採用穩固校正程序，並識別及校正最關鍵參數而導向已開發工具鏈之可信度增加進行說明。 (c) 最終，靈敏度分析結果亦將協助定義需要留意不確定度特性化相關輸入及參數，以特性化模擬結果之不確定度。 14.3.6.5 確認 14.3.6.5.1 自 M&S 之預期使用觀點，對一模型或一模擬是否為現實世界之精準呈現相關程度的量化過程。建議於評估模型或模擬之有效性時，將下述項目納入考量： 14.3.6.5.2 性能之量測（指標） (a) 性能之量測係用於虛擬試驗內 DCAS 之性能與其於現實世界之性能比較的指標。性能之量測係於 M&S 分析期間進行定義。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(b) Metrics for validation may include: (i) Discrete value analysis e.g. detection rate, firing rate; (ii) Time evolution e.g. positions, speeds, acceleration; (iii) Analysis of state changes e.g. distance/speed calculations, TTC calculation, brake initiation. 3.6.5.3. Goodness of Fit measures (a) The analytical frameworks used to compare real world and simulation metrics are generally derived as Key Performance Indicators (KPIs) indicating the statistical comparability between two sets of data. (b) The validation should show that these KPIs are met. 3.6.5.4. Validation methodology (a) The manufacturer should define the logical scenarios used for virtual testing toolchain validation. They should be able to cover, to the maximum possible extent, the system boundaries of virtual testing for DCAS validation. (b) The exact methodology depends on the structure and purpose of the toolchain. The validation may consist of one or more of the following: (i) Validate subsystem models e.g. environment model (road network, weather conditions, road user interaction), sensor models (Radio Detection And Ranging (RADAR), Light Detection And Ranging	(b) Metrics for validation may include: (i) Discrete value analysis e.g. detection rate, firing rate; (ii) Time evolution e.g. positions, speeds, acceleration; (iii) Analysis of state changes e.g. distance/speed calculations, TTC calculation, brake initiation. 3.6.5.3. Goodness of Fit measures (a) The analytical frameworks used to compare real world and simulation metrics are generally derived as Key Performance Indicators (KPIs) indicating the statistical comparability between two sets of data. (b) The validation should show that these KPIs are met. 3.6.5.4. Validation methodology (a) The manufacturer should define the logical scenarios used for virtual testing toolchain validation. They should be able to cover, to the maximum possible extent, the system boundaries of virtual testing for DCAS validation. (b) The exact methodology depends on the structure and purpose of the toolchain. The validation may consist of one or more of the following: (i) Validate subsystem models e.g. environment model (road network, weather conditions, road user interaction), sensor models (Radio Detection And Ranging (RADAR), Light Detection And Ranging	(b) 對確認之指標可能包含： (i) 離散值分析(例如偵測率、觸發率)； (ii) 時間演化(例如位置、速度、加速度)； (iii) 狀態改變之分析(例如距離／速度計算、TTC計算、煞車初始化)。 14.3.6.5.3 合適量測之優點 (a) 用於比較現實世界及模擬指標之分析性框架通常係推導如指示兩組資料間之統計可比較性的關鍵性能指示器(KPIs)。 (b) 確認應顯示相關KPI已達成。 14.3.6.5.4 確認方法學 (a) 申請者應定義用於虛擬試驗工具鏈確認之邏輯性情境。為最大可能之延伸，其應能夠涵蓋對DCAS確認之虛擬試驗的系統邊界。 (b) 實際方法學依賴工具鏈之結構及目標。確認可包含下述一項或多項： (i) 確認子系統模型，例如環境模型(道路網路、天氣條件、道路使用者互動)、感測器模組(無線電偵測及距離量測(RADAR)、光線偵測及距離量測(LiDARs)、攝影機)，以及車輛	(b) 對確認之指標可能包含： (i) 離散值分析(例如偵測率、觸發率)； (ii) 時間演化(例如位置、速度、加速度)； (iii) 狀態改變之分析(例如距離／速度計算、TTC計算、煞車初始化)。 14.3.6.5.3 合適量測之優點 (a) 用於比較現實世界及模擬指標之分析性框架通常係推導如指示兩組資料間之統計可比較性的關鍵性能指示器(KPIs)。 (b) 確認應顯示相關KPI已達成。 14.3.6.5.4 確認方法學 (a) 申請者應定義用於虛擬試驗工具鏈確認之邏輯性情境。為最大可能之延伸，其應能夠涵蓋對DCAS確認之虛擬試驗的系統邊界。 (b) 實際方法學依賴工具鏈之結構及目標。確認可包含下述一項或多項： (i) 確認子系統模型，例如環境模型(道路網路、天氣條件、道路使用者互動)、感測器模組(無線電偵測及距離量測(RADAR)、光線偵測及距離量測(LiDARs)、攝影機)，以及車

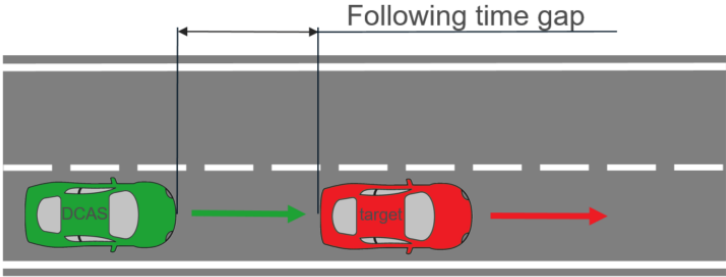
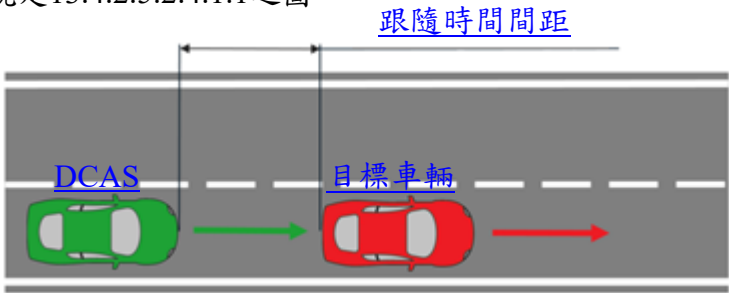
修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
(LiDARs), Camera), vehicle model (steering, braking, powertrain); (ii) Validate vehicle system (vehicle dynamics model together with the environment model); (iii) Validate sensor system (sensor model together with the environment model); (iv) Validate integrated system (sensor model + environment model with influences from vehicle model). 3.6.5.5. Accuracy requirement 3.6.5.5.1. Requirement for the correlation threshold is defined during the M&S analysis. The validation should show that these KPIs are met. E.g., using the correlation methodologies. 3.6.5.6. Validation scope (what part of the toolchain to be validated) 3.6.5.6.1. A toolchain consists of multiple tools, and each tool will use several models. The validation scope includes all tools and their relevant models. 3.6.5.7. Internal validation results (a) The documentation should not only provide evidence of the M&S validation but also should provide sufficient information related to the processes and products that demonstrate the overall credibility of the toolchain used. (b) Documentation/results may be carried over from previous credibility assessments.	(LiDARs), Camera), vehicle model (steering, braking, powertrain); (ii) Validate vehicle system (vehicle dynamics model together with the environment model); (iii) Validate sensor system (sensor model together with the environment model); (iv) Validate integrated system (sensor model + environment model with influences from vehicle model). 3.6.5.5. Accuracy requirement 3.6.5.5.1. Requirement for the correlation threshold is defined during the M&S analysis. The validation should show that these KPIs are met. E.g. using the correlation methodologies as defined in Annex II. 3.6.5.6. Validation scope (what part of the toolchain to be validated) 3.6.5.6.1. A toolchain consists of multiple tools, and each tool will use several models. The validation scope includes all tools and their relevant models. 3.6.5.7. Internal validation results (a) The documentation should not only provide evidence of the M&S validation but also should provide sufficient information related to the processes and products that demonstrate the overall credibility of the toolchain used. (b) Documentation/results may be carried over from previous credibility assessments.	模型（轉向、煞車、傳動）； (ii) 確認車輛系統（車輛動態模型併同環境模型）； (iii) 確認感測器系統（感測器模型併同環境模型）； (iv) 確認已整合系統（感測器模型加上環境模型併同源於車輛模型之影響）。 14.3.6.5.5 準確度要求 14.3.6.5.5.1 對相關值域之要求係於M&S分析期間進行定義。確認應顯示此等KPIs已經滿足，例如使用相關方法學。 14.3.6.5.6 確認之適用範圍（即哪一部分之工具鏈尚待確認） 14.3.6.5.6.1 工具鏈由多樣工具所組成，且每一工具將使用數個模型。確認之適用範圍包含所有工具及其相關模型。 14.3.6.5.7 內部確認結果 (a) 文件不應只提供M&S確認之證據，亦應提供顯示所使用工具鏈之整體可信度的過程及產品相關之足夠資訊。 (b) 文件／結果可自前次可信度評估沿用。	輛模型（轉向、煞車、傳動）； (ii) 確認車輛系統（車輛動態模型併同環境模型）； (iii) 確認感測器系統（感測器模型併同環境模型）； (iv) 確認已整合系統（感測器模型加上環境模型併同源於車輛模型之影響）。 14.3.6.5.5 準確度要求 14.3.6.5.5.1 對相關值域之要求係於M&S分析期間進行定義。確認應顯示此等KPIs已經滿足，例如使用<u>規定13.所定義之</u>相關方法學。 14.3.6.5.6 確認之適用範圍（即哪一部分之工具鏈尚待確認） 14.3.6.5.6.1 工具鏈由多樣工具所組成，且每一工具將使用數個模型。確認之適用範圍包含所有工具及其相關模型。 14.3.6.5.7 內部確認結果 (a) 文件不應只提供M&S確認之證據，亦應提供顯示所使用工具鏈之整體可信度的過程及產品相關之足夠資訊。 (b) 文件／結果可自前次可信度評估沿用。

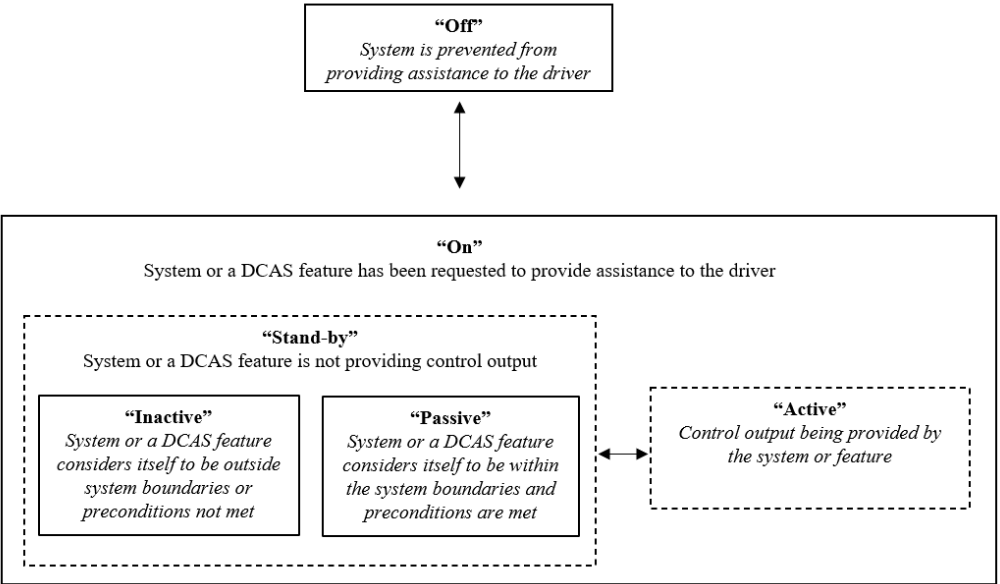
修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
3.6.5.8. Independent Validation of Results 3.6.5.8.1. The assessor should audit the documentation provided by the manufacturer and may carry out tests of the complete integrated tool. If the output of the virtual tests does not sufficiently replicate the output of physical tests, the assessor may request that the virtual and/or physical tests to be repeated. The outcome of the tests will be reviewed and any deviation in the results should be reviewed with the manufacturer. Sufficient explanation is required to justify why the test configuration caused deviation in results. 3.6.5.9. Uncertainty characterisation 3.6.5.9.1. This section is concerned with characterizing the expected variability of the virtual toolchain results. The assessment should be made up of two phases. In a first phase the information collected from the “M&S Analysis and Description” section and the “Data/Input Pedigree” are used to characterise the uncertainty in the input data, in the model parameters and in the modelling structure. Then, by propagating all of the uncertainties through the virtual toolchain, the uncertainty of the model results is quantified. Depending on the uncertainty of the model results, proper safety margins will need to be introduced by the DCAS manufacturer in the use of virtual testing as part of the DCAS validation.	3.6.5.8. Independent Validation of Results 3.6.5.8.1. The assessor should audit the documentation provided by the manufacturer and may carry out tests of the complete integrated tool. If the output of the virtual tests does not sufficiently replicate the output of physical tests, the assessor may request that the virtual and/or physical tests to be repeated. The outcome of the tests will be reviewed and any deviation in the results should be reviewed with the manufacturer. Sufficient explanation is required to justify why the test configuration caused deviation in results. 3.6.5.9. Uncertainty characterisation 3.6.5.9.1. This section is concerned with characterizing the expected variability of the virtual toolchain results. The assessment should be made up of two phases. In a first phase the information collected from the “M&S Analysis and Description” section and the “Data/Input Pedigree” are used to characterise the uncertainty in the input data, in the model parameters and in the modelling structure. Then, by propagating all of the uncertainties through the virtual toolchain, the uncertainty of the model results is quantified. Depending on the uncertainty of the model results, proper safety margins will need to be introduced by the DCAS manufacturer in the use of virtual testing as part of the DCAS validation.	14.3.6.5.8 結果之獨立確認 14.3.6.5.8.1 評估者應稽核由申請者所提供之文件，且可執行完整之已整合工具的試驗。若虛擬試驗之輸出不足以複製物理試驗之輸出，評估者可要求虛擬及／或物理試驗重複執行。試驗之結果將受到檢視並任何結果中之偏差與申請者一同檢視。需要充足解釋以證實為何試驗設置造成結果中之偏差。 14.3.6.5.9 不確定度特性化 14.3.6.5.9.1 本節與虛擬工具鏈結果之預期變異性的特性化相關。評估應以兩階段執行。於第一階段，自「M&S分析及說明」及「資料／輸入系譜」部分所收集資料係用於特性化輸入資料內、模型參數內，以及模型化結構內之不確定度。接著，透過虛擬工具鏈傳播所有不確定度，模型結果之不確定度即已被量化。依照模型結果之不確定度，於使用虛擬試驗作為DCAS確認之一部分，將會需要由申請者導入合適之安全邊緣。	14.3.6.5.8 結果之獨立確認 14.3.6.5.8.1 評估者應稽核由申請者所提供之文件，且可執行完整之已整合工具的試驗。若虛擬試驗之輸出不足以複製物理試驗之輸出，評估者可要求虛擬及／或物理試驗重複執行。試驗之結果將受到檢視並任何結果中之偏差與申請者一同檢視。需要充足解釋以證實為何試驗設置造成結果中之偏差。 14.3.6.5.9 不確定度特性化 14.3.6.5.9.1 本節與虛擬工具鏈結果之預期變異性的特性化相關。評估應以兩階段執行。於第一階段，自「M&S分析及說明」及「資料／輸入系譜」部分所收集資料係用於特性化輸入資料內、模型參數內，以及模型化結構內之不確定度。接著，透過虛擬工具鏈傳播所有不確定度，模型結果之不確定度即已被量化。依照模型結果之不確定度，於使用虛擬試驗作為DCAS確認之一部分，將會需要由申請者導入合適之安全邊緣。

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
3.6.5.9.2. Characterization of the uncertainty in the input data The DCAS manufacturer should demonstrate they have estimated the model's critical inputs by means of robust techniques such as providing multiple repetitions for their assessment;	3.6.5.9.2. Characterization of the uncertainty in the input data The DCAS manufacturer should demonstrate they have estimated the model's critical inputs by means of robust techniques such as providing multiple repetitions for their assessment;	14.3.6.5.9.2 於輸入資料內不確定度之特性化 申請者應展示其已藉由穩固技術如對其評估提供多次重現之方式，預估模型之關鍵輸入；	14.3.6.5.9.2 於輸入資料內不確定度之特性化 申請者應展示其已藉由穩固技術如對其評估提供多次重現之方式，預估模型之關鍵輸入；
3.6.5.9.3. Characterization of the uncertainty in the model parameters (following calibration). The manufacturer should demonstrate that when a model's critical parameters cannot be fully determined they are characterized by means of a distribution and/or confidence intervals;	3.6.5.9.3. Characterization of the uncertainty in the model parameters (following calibration). The manufacturer should demonstrate that when a model's critical parameters cannot be fully determined they are characterized by means of a distribution and/or confidence intervals;	14.3.6.5.9.3 於模型參數內不確定度之特性化（後續校正） 申請者應展示於模型之關鍵參數無法被完全測定時，其係藉由分配及／或信賴度區間之方式進行特性化；	14.3.6.5.9.3 於模型參數內不確定度之特性化（後續校正） 申請者應展示於模型之關鍵參數無法被完全測定時，其係藉由分配及／或信賴度區間之方式進行特性化；
3.6.5.9.4. Characterization of the uncertainty in the M&S structure The manufacturer should provide evidence that the modelling assumptions are given a quantitative characterization by assessing the generated uncertainty (e.g. comparing the output of different modelling approaches whenever possible).);	3.6.5.9.4. Characterization of the uncertainty in the M&S structure The manufacturer should provide evidence that the modelling assumptions are given a quantitative characterization by assessing the generated uncertainty (e.g. comparing the output of different modelling approaches whenever possible).);	14.3.6.5.9.4 於M&S結構內不確定度之特性化 申請者應提供模型化假設係由評估所產生不確定度（例如可行時，比較不同模型化方法之輸出）相關定量特性化指定之證據；	14.3.6.5.9.4 於M&S結構內不確定度之特性化 申請者應提供模型化假設係由評估所產生不確定度（例如可行時，比較不同模型化方法之輸出）相關定量特性化指定之證據；
3.6.5.9.5. Characterization of aleatory vs. epistemic uncertainty The manufacturer should aim to distinguish between the aleatory component of the uncertainty (which can only be estimated but not reduced) and the epistemic uncertainty deriving from the lack of knowledge in the virtualization of the process.	3.6.5.9.5. Characterization of aleatory vs. epistemic uncertainty The manufacturer should aim to distinguish between the aleatory component of the uncertainty (which can only be estimated but not reduced) and the epistemic uncertainty deriving from the lack of knowledge in the virtualization of the process.	14.3.6.5.9.5 偶然不確定度對認知不確定度之特性化 申請者應使目標朝向過程視覺化中，將介於不確定度之偶然性部分（僅能預估，不能減少）以及從知識缺乏所推導之認知不確定度進行判別。	14.3.6.5.9.5 偶然不確定度對認知不確定度之特性化 申請者應使目標朝向過程視覺化中，將介於不確定度之偶然性部分（僅能預估，不能減少）以及從知識缺乏所推導之認知不確定度進行判別。
4. Documentation structure	4. Documentation structure	14.4 文件結構	14.4 文件結構

修訂內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.1. This section will define how the aforementioned information will be collected and organized in the documentation provided by the manufacturer to the relevant authority. (a) The manufacturer should produce a document (a “simulation handbook”) structured using this outline to provide evidence for the topics presented; (b) The documentation should be delivered together with the corresponding release of the toolchain and appropriate supporting data; (c) The manufacturer should provide clear reference that allows tracing the documentation to the corresponding parts of the toolchain and the data; (d) The documentation should be maintained throughout the whole lifecycle of the toolchain utilization. The assessor may audit the manufacturer through assessment of their documentation and/or by conducting physical tests.	4.1. This section will define how the aforementioned information will be collected and organized in the documentation provided by the manufacturer to the relevant authority. (a) The manufacturer should produce a document (a “simulation handbook”) structured using this outline to provide evidence for the topics presented; (b) The documentation should be delivered together with the corresponding release of the toolchain and appropriate supporting data; (c) The manufacturer should provide clear reference that allows tracing the documentation to the corresponding parts of the toolchain and the data; (d) The documentation should be maintained throughout the whole lifecycle of the toolchain utilization. The assessor may audit the manufacturer through assessment of their documentation and/or by conducting physical tests.	14.4.1 本節將定義前述資訊將如何被收集並彙整於由申請者提供相關機構之文件中。 (a) 申請者應產出使用本大綱進行架構之文件（一份「模擬手冊」），以對所呈現主題提供證據； (b) 文件應併同工具鏈之對應發佈以及合適支援資料檢送； (c) 申請者應提供明確參考，以使文件對工具鏈及資料之對應部分追蹤可行； (d) 文件應於工具鏈使用之整個生命週期受到維護。評估者可透過其文件之評估及／或藉由執行物理試驗以稽核申請者。	14.4.1 本節將定義前述資訊將如何被收集並彙整於由申請者提供相關機構之文件中。 (a) 申請者應產出使用本大綱進行架構之文件（一份「模擬手冊」），以對所呈現主題提供證據； (b) 文件應併同工具鏈之對應發佈以及合適支援資料檢送； (c) 申請者應提供明確參考，以使文件對工具鏈及資料之對應部分追蹤可行； (d) 文件應於工具鏈使用之整個生命週期受到維護。評估者可透過其文件之評估及／或藉由執行物理試驗以稽核申請者。

圖表增訂部分

UN內容	基準內容												
(UN) Table of paragraph 5.5.4.2.6.5.4 <table><tr><th>Vehicle Speed (km/h)</th><th>Latest EOR timing (s)</th></tr><tr><td>130 km/h</td><td>3.5</td></tr><tr><td>10 km/h to 60 km/h</td><td>5.0</td></tr></table>	Vehicle Speed (km/h)	Latest EOR timing (s)	130 km/h	3.5	10 km/h to 60 km/h	5.0	(基準) 規定5.5.4.2.6.5.4之表 <table><tr><th>車輛速度 (公里／小時)</th><th>最晚 EOR 時間點</th></tr><tr><td>一百三十公里／小時</td><td>三點五</td></tr><tr><td>十公里／小時至六十公里／小時</td><td>五點零</td></tr></table>	車輛速度 (公里／小時)	最晚 EOR 時間點	一百三十公里／小時	三點五	十公里／小時至六十公里／小時	五點零
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(UN)Figure of Annex 4, paragraph 4.2.5.2.4.1.1. 	(基準) 規定13.4.2.5.2.4.1.1之圖 												

修訂內容	原內容
	(UN) Figure of paragraph 5.5.1  <pre> graph TD Off["“Off” System is prevented from providing assistance to the driver"] On["“On” System or a DCAS feature has been requested to provide assistance to the driver"] subgraph StandBy ["“Stand-by” System or a DCAS feature is not providing control output"] Inactive["“Inactive” System or a DCAS feature considers itself to be outside system boundaries or preconditions not met"] Passive["“Passive” System or a DCAS feature considers itself to be within the system boundaries and preconditions are met"] end Active["“Active” Control output being provided by the system or feature"] Off <--> On On --- StandBy StandBy --- Active Inactive --- Passive Passive <--> Active </pre> The diagram illustrates the states of a system or DCAS feature. At the top, a box labeled “Off” states "System is prevented from providing assistance to the driver". Below it, a double-headed vertical arrow connects to a large box labeled “On” which states "System or a DCAS feature has been requested to provide assistance to the driver". Inside the “On” box, there is a dashed-line box labeled “Stand-by” with the text "System or a DCAS feature is not providing control output". Inside the “Stand-by” box are two smaller boxes: “Inactive” ("System or a DCAS feature considers itself to be outside system boundaries or preconditions not met") and “Passive” ("System or a DCAS feature considers itself to be within the system boundaries and preconditions are met"). To the right of the “Stand-by” box is another dashed-line box labeled “Active” ("Control output being provided by the system or feature"). A horizontal double-headed arrow connects the “Stand-by” box to the “Active” box. Additionally, a horizontal double-headed arrow connects the “Inactive” box to the “Passive” box.

修訂內容	原內容
	(基準) 規定5.5.1之圖 <pre> graph TD Closed["「關閉」 系統已被防止對駕駛人提供協助"] <--> Open["「開啟」 系統或一個 DCAS 功能已被要求對駕駛人提供協助"] subgraph Standby_Box [「待機」 系統或一個 DCAS 功能未提供控制輸出] subgraph Active_Box [「非主動」 「被動」] NotActive["「非主動」 系統或一個 DCAS 功能將本身視為位於系統邊界之外或未滿足前置條件"] Passive["「被動」 系統或一個 DCAS 功能將本身視為位於系統邊界內且滿足前置條件"] end Active_Box <--> Active["「主動」 正由系統或功能提供控制輸出"] end </pre>
	(UN) Figure of paragraph 5.5.4.2.3.1.1  Example 1.  Example 2.

修訂內容	原內容
	(基準) 規定5.5.4.2.3.1.1之圖  範例一 範例二 解釋性文字

2(UN) Table 1 of paragraph 7.2.3.1

Frequency of Occurrence (Total, <i>with</i> related hours of operation <i>and</i> distance travelled unless specified)
1. Safety-critical occurrences known to the manufacturer
2. Number of vehicles equipped with the system, and aggregated distance driven with the system in 'passive' and 'active' mode
3. Number of events resulting in a driver unavailability response
4. Number of system-initiated deactivations of the system or its features due to:
4.a. Detected System failures
4.b. Exceeding system boundaries
4.c. Other (if applicable)
5. Percentage of total distance travelled with a driver-set speed limit above the system-determined speed limit while the system is in 'active' mode
6. Disablement of the system due to insufficient driver engagement.
6.a. Number of events where the system was disabled due to insufficient engagement by the driver according to paragraph 5.5.4.2.8.2.:
6.b. Number of events where the powertrain was deactivated less than 5 minutes after the system was disabled due to insufficient engagement by the driver.
6.c. Number of events where the system was disabled due to repeated EOR warnings, including a description of the number of warnings and the time interval defined by the manufacturer as per paragraph 5.5.4.2.8.3.
6.d. Number of events where the system was disabled due to repeated HOR warnings, including a description of the number of warnings and the time interval defined by the manufacturer as per paragraph 5.5.4.2.8.3.
7. Repeated HORs/EORs

(UN) Table 1 of paragraph 7.2.3.1

Frequency of Occurrence (Total <i>and</i> related hours of operation <i>or</i> distance travelled unless specified)
1. Safety-critical occurrences known to the manufacturer
2. Number of vehicles equipped with the system, and aggregated distance driven with the system in 'passive' and 'active' mode
3. Number of events resulting in a driver unavailability response
4. Number of system-initiated deactivations of the system or its features due to:
4.a. Detected System failures
4.b. Exceeding system boundaries
4.c. Other (if applicable)
5. Percentage of total distance travelled with a driver-set speed limit above the system-determined speed limit while the system is in 'active' mode

修訂內容			原內容
	7.a. Number of events where 5 EORs are issued within a 10-minute period while the system is active. Once this event is recorded, counting of EOR is reset for the purpose of reporting. 7.b. Number of events where 5 HORs are issued within a 10-minute period while the system is active. Once this event is recorded, counting of HOR is reset for the purpose of reporting. 8. During phases of withholding HORs without driver override of the longitudinal control (if applicable). 8.a. Number of events where an upcoming boundary condition is detected and a HOR is given at least 5s in advance (see 5.5.4.2.6.5.1). 8.b. Number of events where an upcoming boundary condition is detected and a HOR is given but not at least 5s in advance (see 5.5.4.2.6.5.1). 8.c. Driving distance and time while the system is withholding HORs. 9. Number of aborted System-Initiated Manoeuvres (if applicable).		

修訂內容	原內容																															
(基準) 規定7.2.3.1之表一	(基準) 規定7.2.3.1之表一																															
<table><tr><td>事件發生之頻率 (總數，包含除另有說明外之相關運作時數或所行駛距離)</td></tr><tr><td>1. 申請者已知之安全關鍵的事件發生</td></tr><tr><td>2. 配有系統之車輛數，以及系統於「被動」及「主動」模式下所行駛之總計距離</td></tr><tr><td>3. 導致駕駛人無法參與回應之事件數</td></tr><tr><td>4. 因下述項目導致之系統或其功能的系統起始解除數：</td></tr><tr><td>4.a. 已偵測之系統故障</td></tr><tr><td>4.b. 超出系統邊界</td></tr><tr><td>4.c. 其他（依實際情形）</td></tr><tr><td>5. 於系統位於「啟動」模式下，駕駛人設定速度限制高於系統測定速度限制於已行駛總距離之百分比</td></tr><tr><td>6. 系統因駕駛人未充分參與之解除情形</td></tr><tr><td>6.a 系統依照規定 5.5.4.2.8.2，因駕駛人未充分參與而解除之事件數量：</td></tr><tr><td>6.b 於系統因駕駛人未充分參與而解除後，動力系統被解除少於五分鐘之事件數量。</td></tr><tr><td>6.c 系統因重複 EOR 警示而被解除之事件數量，其中包含規定 5.5.4.2.8.3 所述警示數量之說明以及申請者定義之時間區間。</td></tr><tr><td>6.d 系統因重複 HOR 警示而被解除之事件數量，其中包含規定 5.5.4.2.8.3 所述警示數量之說明以及申請者定義之時間區間。</td></tr><tr><td>7. 重複之 HOR/EOR</td></tr><tr><td>7.a 系統啟動下，於十分鐘內發出五個 EOR 之事件數量；一旦此事件受到紀錄，重置 EOR 之計算數以達成回報之目的</td></tr><tr><td>7.b 系統啟動下，於十分鐘內發出五個 HOR 之事件數量；一旦此事件受到紀錄，重置 HOR 之計算數以達成回報之目的</td></tr><tr><td>8. 於駕駛人未取代縱向控制之保留中 HOR 的階段期間（依實際狀況）</td></tr><tr><td>8.a 偵測到即將到來之邊界條件且 HOR 已提前至少五秒提供之事件數量（參考規定 5.5.4.2.6.5.1）</td></tr><tr><td>8.b 偵測到即將到來之邊界條件且雖已提供 HOR 惟未提前至少五秒之事件數量（參考規定 5.5.4.2.6.5.1）</td></tr><tr><td>8.c 系統保留 HOR 時之行駛距離及時間</td></tr><tr><td>9. 被放棄之系統起始操作數量（依實際狀況）</td></tr></table>	事件發生之頻率 (總數，包含除另有說明外之相關運作時數或所行駛距離)	1. 申請者已知之安全關鍵的事件發生	2. 配有系統之車輛數，以及系統於「被動」及「主動」模式下所行駛之總計距離	3. 導致駕駛人無法參與回應之事件數	4. 因下述項目導致之系統或其功能的系統起始解除數：	4.a. 已偵測之系統故障	4.b. 超出系統邊界	4.c. 其他（依實際情形）	5. 於系統位於「啟動」模式下，駕駛人設定速度限制高於系統測定速度限制於已行駛總距離之百分比	6. 系統因駕駛人未充分參與之解除情形	6.a 系統依照規定 5.5.4.2.8.2，因駕駛人未充分參與而解除之事件數量：	6.b 於系統因駕駛人未充分參與而解除後，動力系統被解除少於五分鐘之事件數量。	6.c 系統因重複 EOR 警示而被解除之事件數量，其中包含規定 5.5.4.2.8.3 所述警示數量之說明以及申請者定義之時間區間。	6.d 系統因重複 HOR 警示而被解除之事件數量，其中包含規定 5.5.4.2.8.3 所述警示數量之說明以及申請者定義之時間區間。	7. 重複之 HOR/EOR	7.a 系統啟動下，於十分鐘內發出五個 EOR 之事件數量；一旦此事件受到紀錄，重置 EOR 之計算數以達成回報之目的	7.b 系統啟動下，於十分鐘內發出五個 HOR 之事件數量；一旦此事件受到紀錄，重置 HOR 之計算數以達成回報之目的	8. 於駕駛人未取代縱向控制之保留中 HOR 的階段期間（依實際狀況）	8.a 偵測到即將到來之邊界條件且 HOR 已提前至少五秒提供之事件數量（參考規定 5.5.4.2.6.5.1）	8.b 偵測到即將到來之邊界條件且雖已提供 HOR 惟未提前至少五秒之事件數量（參考規定 5.5.4.2.6.5.1）	8.c 系統保留 HOR 時之行駛距離及時間	9. 被放棄之系統起始操作數量（依實際狀況）	<table><tr><td>事件發生之頻率 (除另說明外，總計及相關運作時數或所行駛距離)</td></tr><tr><td>1. 申請者已知之安全關鍵的事件發生</td></tr><tr><td>2. 配有系統之車輛數，以及系統於「被動」及「主動」模式下所行駛之總計距離</td></tr><tr><td>3. 導致駕駛人無法參與回應之事件數</td></tr><tr><td>4. 因下述項目導致之系統或其功能的系統起始解除數：</td></tr><tr><td>4.a. 已偵測之系統故障</td></tr><tr><td>4.b. 超出系統邊界</td></tr><tr><td>4.c. 其他（依實際情形）</td></tr><tr><td>5. 於系統位於「啟動」模式下，駕駛人設定速度限制高於系統測定速度限制於已行駛總距離之百分比</td></tr></table>	事件發生之頻率 (除另說明外，總計及相關運作時數或所行駛距離)	1. 申請者已知之安全關鍵的事件發生	2. 配有系統之車輛數，以及系統於「被動」及「主動」模式下所行駛之總計距離	3. 導致駕駛人無法參與回應之事件數	4. 因下述項目導致之系統或其功能的系統起始解除數：	4.a. 已偵測之系統故障	4.b. 超出系統邊界	4.c. 其他（依實際情形）	5. 於系統位於「啟動」模式下，駕駛人設定速度限制高於系統測定速度限制於已行駛總距離之百分比
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修訂內容	原內容																								
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修訂內容	原內容																								
	(基準) 規定9.1.1之表 <table><tr><th>功能</th><th>系統最低 速度</th><th>系統最高 速度</th><th>啟動之其他相關前置條件 (例如車道寬度、道路類型、 時段、天氣條件)</th></tr><tr><td>於所行駛車道中定位</td><td></td><td></td><td></td></tr><tr><td>駕駛人起始之變換車道 (如有其他樣態請描述)</td><td></td><td></td><td></td></tr><tr><td>駕駛人確認之變換車道 (如有其他樣態請描述)</td><td></td><td></td><td></td></tr><tr><td>其他操作 (如有其他樣態請描述)</td><td></td><td></td><td></td></tr><tr><td>系統起始之變換車道 (待申請者完善相關內容)</td><td></td><td></td><td></td></tr></table>	功能	系統最低 速度	系統最高 速度	啟動之其他相關前置條件 (例如車道寬度、道路類型、 時段、天氣條件)	於所行駛車道中定位				駕駛人起始之變換車道 (如有其他樣態請描述)				駕駛人確認之變換車道 (如有其他樣態請描述)				其他操作 (如有其他樣態請描述)				系統起始之變換車道 (待申請者完善相關內容)			
功能	系統最低 速度	系統最高 速度	啟動之其他相關前置條件 (例如車道寬度、道路類型、 時段、天氣條件)																						
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	(UN) Table of paragraph 9.1.2 <table><tr><th>Feature</th><th>Non-Highway</th><th>Highway</th></tr><tr><td>Positioning in the lane of travel</td><td></td><td></td></tr><tr><td>Driver-initiated lane change (Please specify variants if any)</td><td></td><td></td></tr><tr><td>Driver-confirmed lane change (Please specify variants if any)</td><td></td><td></td></tr><tr><td>Other manoeuvres (Please specify variants if any)</td><td></td><td></td></tr><tr><td>System-initiated lane change</td><td></td><td></td></tr><tr><td>(To be completed by the manufacturer)</td><td></td><td></td></tr></table>	Feature	Non-Highway	Highway	Positioning in the lane of travel			Driver-initiated lane change (Please specify variants if any)			Driver-confirmed lane change (Please specify variants if any)			Other manoeuvres (Please specify variants if any)			System-initiated lane change			(To be completed by the manufacturer)					
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修訂內容	原內容																		
	(UN) Table of paragraph 9.1.8 <table><tr><th><i>Situation</i></th><th><i>Will the system continue to provide lateral control assistance in those situations? (yes/no)</i></th><th><i>Operating domain requirement</i></th></tr><tr><td>Lane marking(s) listed in UN Regulation No. 130</td><td></td><td>Highway</td></tr><tr><td>Lane marked with only a single marking</td><td></td><td>Non-Highway</td></tr><tr><td>Road edges</td><td></td><td>Non-Highway</td></tr><tr><td>Lane demarked by something other than a lane marking (parked cars, curb, construction infrastructure)</td><td></td><td>Non-Highway</td></tr><tr><td><i>(To be completed by the manufacturer)</i></td><td></td><td></td></tr></table>	<i>Situation</i>	<i>Will the system continue to provide lateral control assistance in those situations? (yes/no)</i>	<i>Operating domain requirement</i>	Lane marking(s) listed in UN Regulation No. 130		Highway	Lane marked with only a single marking		Non-Highway	Road edges		Non-Highway	Lane demarked by something other than a lane marking (parked cars, curb, construction infrastructure)		Non-Highway	<i>(To be completed by the manufacturer)</i>		
<i>Situation</i>	<i>Will the system continue to provide lateral control assistance in those situations? (yes/no)</i>	<i>Operating domain requirement</i>																	
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<i>(To be completed by the manufacturer)</i>																			
	(基準) 規定9.1.8之表 <table><tr><th>情況</th><th>系統將會於相關情形中持續提供側向控制協助與否？ (是／否)</th><th>運作區域要求</th></tr><tr><td>附件七十、車道偏離輔助警示系統所列之車道標線</td><td></td><td>高／快速公路</td></tr><tr><td>車道僅有單一標記</td><td></td><td>非高／快速公路</td></tr><tr><td>道路邊緣</td><td></td><td>非高／快速公路</td></tr><tr><td>由非屬車道標記之物消除標記的車道（停駐車輛、路緣、建設基礎設施）</td><td></td><td>非高／快速公路</td></tr><tr><td>（待申請者完善相關內容）</td><td></td><td></td></tr></table>	情況	系統將會於相關情形中持續提供側向控制協助與否？ (是／否)	運作區域要求	附件七十、車道偏離輔助警示系統所列之車道標線		高／快速公路	車道僅有單一標記		非高／快速公路	道路邊緣		非高／快速公路	由非屬車道標記之物消除標記的車道（停駐車輛、路緣、建設基礎設施）		非高／快速公路	（待申請者完善相關內容）		
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道路邊緣		非高／快速公路																	
由非屬車道標記之物消除標記的車道（停駐車輛、路緣、建設基礎設施）		非高／快速公路																	
（待申請者完善相關內容）																			

修訂內容				原內容			
(UN)Table of Annex 3, Appendix 4, paragraph 1				(UN)Table of Annex 3, Appendix 4, paragraph 1			
Scenario	Max. operational speed up to which the system is able to avoid a collision with a deceleration demand not exceeding 5m/s ²	Max. operational speed up to which the system/vehicle is able to avoid a collision requiring a deceleration demand exceeding 5m/s ²	Operating domain	Scenario	Max. operational speed up to which the system is able to avoid a collision with a deceleration demand not exceeding 5m/s ²	Max. operational speed up to which the system/vehicle is able to avoid a collision requiring a deceleration demand exceeding 5m/s ²	Operating domain
Stationary vehicle ahead on a straight section of road (Annex 4, par. 4.2.5.2.1.1.)			Highway	Stationary vehicle ahead on a straight section of road (Annex 4, par. 4.2.5.2.1.1.)			Highway
Stationary vehicle ahead on a curved section of road (Annex 4, par. 4.2.5.2.2.1.)			Highway	Stationary vehicle ahead on a curved section of road (Annex 4, par. 4.2.5.2.2.1.)			Highway
Slower moving vehicle ahead on straight section of road (Annex 4, par. 4.2.5.2.3.1.)			Highway	Slower moving vehicle ahead on straight section of road (Annex 4, par. 4.2.5.2.3.1.)			Highway
Cut-out of lead vehicle (Annex 4, par. 4.2.5.2.5.1.)			Highway	Cut-out of lead vehicle (Annex 4, par. 4.2.5.2.5.1.)			Highway
Cut-in vehicle from adjacent lane – Type 1 (Annex 4, par. 4.2.5.2.6.1.) ⁸	Yes/No	Yes/No	Highway	Cut-in vehicle from adjacent lane – Type 1 (Annex 4, par. 4.2.5.2.6.1.) ⁸	Yes/No	Yes/No	Highway
Cut-in vehicle from adjacent lane – Type 2 (Annex 4, par. 4.2.5.2.6.1.) ⁹	Yes/No	Yes/No	Highway	Cut-in vehicle from adjacent lane – Type 2 (Annex 4, par. 4.2.5.2.6.1.) ⁹	Yes/No	Yes/No	Highway
Stationary pedestrian ahead in lane (Annex 4, par. 4.2.5.2.7.1.)			Non-Highway	Stationary pedestrian ahead in lane (Annex 4, par. 4.2.5.2.7.1.)			Non-Highway
Stationary bicycle ahead in lane (Annex 4, par. 4.2.5.2.8.1.)			Non-Highway	Stationary bicycle ahead in lane (Annex 4, par. 4.2.5.2.8.1.)			Non-Highway
Decelerating lead vehicle up to 4 ms ⁻² (Annex 4, par. 4.2.5.2.4.1.)			Highway and Non-Highway	Pedestrian target crossing into the path of the VUT (Annex 4, par. 4.2.5.2.9.1.)			Non-Highway
Pedestrian target crossing into the path of the VUT (Annex 4, par. 4.2.5.2.9.1.)			Non-Highway	Bicycle target crossing into the path of the VUT (Annex 4, par. 4.2.5.2.10.1.)			Non-Highway
Bicycle target crossing into the path of the VUT (Annex 4, par. 4.2.5.2.10.1.)			Non-Highway	(To be completed by the manufacturer)			
(To be completed by the manufacturer)				⁸ The manufacturer is expected to declare whether a system response can be expected. ⁹ The manufacturer is expected to declare whether a system response can be expected.			

⁸ The manufacturer is expected to declare whether a system response can be expected.

⁹ The manufacturer is expected to declare whether a system response can be expected.

修訂內容				原內容			
(基準) 規定12.9.1之表				(基準) 規定12.9.1之表			
情境	最高運作速度至系統能夠以不超過五公尺／秒平方之減速要求迴避碰撞	最高運作速度至系統／車輛能夠以需要超過五公尺／秒平方之減速要求迴避碰撞	運作區域	情境	最高運作速度至系統能夠以不超過五公尺／秒平方之減速要求迴避碰撞	最高運作速度至系統／車輛能夠以需要超過五公尺／秒平方之減速要求迴避碰撞	運作區域
前方於道路直線區域上之靜態車輛(依規定 13.4.2.5.2.1.1)			<u>高／快速公路</u>	前方於道路直線區域上之靜態車輛(依規定 13.4.2.5.2.1.1)			高速公路
前方於道路彎道區域上之靜態車輛(依規定 13.4.2.5.2.2.1)			<u>高／快速公路</u>	前方於道路彎道區域上之靜態車輛(依規定 13.4.2.5.2.2.1)			高速公路
前方於道路直線區域上之緩慢移動車輛 (依 規 定 13.4.2.5.2.3.1)			<u>高／快速公路</u>	前方於道路直線區域上之緩慢移動車輛 (依 規 定 13.4.2.5.2.3.1)			高速公路
前導車輛之切出 (依 規 定 13.4.2.5.2.5.1)			<u>高／快速公路</u>	前導車輛之切出 (依 規 定 13.4.2.5.2.5.1)			高速公路
自相鄰車道之切入車輛－類型一 (依規定 13.4.2.5.2.6.1；申請者被預期宣告系統回應是否可被預期)	是／否	是／否	<u>高／快速公路</u>	自相鄰車道之切入車輛－類型一 (依規定 13.4.2.5.2.6.1；申請者被預期宣告系統回應是否可被預期)	是／否	是／否	高速公路
自相鄰車道之切入車輛－類型二 (依規定 13.4.2.5.2.6.1；申請者被預期宣告系統回應是否可被預期)	是／否	是／否	<u>高／快速公路</u>	自相鄰車道之切入車輛－類型二 (依規定 13.4.2.5.2.6.1；申請者被預期宣告系統回應是否可被預期)	是／否	是／否	高速公路
前方於車道內之靜態行人 (依規定 13.4.2.5.2.7.1)			非 <u>高／快速公路</u>	前方於車道內之靜態行人 (依規定 13.4.2.5.2.7.1)			非高速公路
前方於車道內之靜態自行車 (依規定 13.4.2.5.2.8.1)			非 <u>高／快速公路</u>	前方於車道內之靜態自行車 (依規定 13.4.2.5.2.8.1)			非高速公路
<u>減速中前導車輛至最高四公尺／秒平方 (依 規 定 13.4.2.5.2.4.1)</u>			<u>高／快速公路及非高／快速公路</u>	穿越進入受測試車輛之路徑的行人目標 (依 規 定 13.4.2.5.2.9.1)			非高速公路
穿越進入受測試車輛之路徑的行人目標 (依 規 定 13.4.2.5.2.9.1)			非 <u>高／快速公路</u>	穿越進入受測試車輛之路徑的自行車目標 (依 規 定 13.4.2.5.2.10.1)			非高速公路
穿越進入受測試車輛之路徑的自行車目標 (依 規 定 13.4.2.5.2.10.1)			非 <u>高／快速公路</u>				
(待申請者完善相關內容)				(待申請者完善相關內容)			

修訂內容	原內容								
	(UN)Table of Annex 3, Appendix 4, paragraph 2 <table><tr><th><i>Speed range(s)</i></th><th><i>Minimum Lateral Acceleration</i></th><th><i>Maximum lateral acceleration</i></th><th><i>Specific conditions (e.g., paragraph 6.1.1.)</i></th></tr><tr><td><i>(To be completed by the manufacturer)</i></td><td></td><td></td><td></td></tr></table>	<i>Speed range(s)</i>	<i>Minimum Lateral Acceleration</i>	<i>Maximum lateral acceleration</i>	<i>Specific conditions (e.g., paragraph 6.1.1.)</i>	<i>(To be completed by the manufacturer)</i>			
<i>Speed range(s)</i>	<i>Minimum Lateral Acceleration</i>	<i>Maximum lateral acceleration</i>	<i>Specific conditions (e.g., paragraph 6.1.1.)</i>						
<i>(To be completed by the manufacturer)</i>									
	(基準) 規定12.9.2之表 <table><tr><th>速度範圍</th><th>最低側向加速度</th><th>最高側向加速度</th><th>特定條件（例如規定 6.1.1）</th></tr><tr><td>（待申請者完善相關內容）</td><td></td><td></td><td></td></tr></table>	速度範圍	最低側向加速度	最高側向加速度	特定條件（例如規定 6.1.1）	（待申請者完善相關內容）			
速度範圍	最低側向加速度	最高側向加速度	特定條件（例如規定 6.1.1）						
（待申請者完善相關內容）									

修訂內容						原內容					
(UN)Table of Annex 3, Appendix 4, paragraph 2.1						(UN)Table of Annex 3, Appendix 4, paragraph 2.1					
Road <i>attribute</i>	Considered a system boundary for the system/specific features? (yes/no)	System will not be able to respond to this road <i>attribute</i>	System will be able to respond upon detection	System will be able to provide an early warning	Operating domain	Road <i>event</i>	Considered a system boundary for the system/specific features? (yes/no)	System will not be able to respond to this road <i>event</i>	System will be able to respond upon detection	System will be able to provide an early warning	Operating domain
Toll station					Highway	Toll station					Highway
End of highway					Highway	End of highway					Highway
Permanent lane ending					Highway	Permanent lane ending					Highway
Temporary lane ending (e.g. due to broken down car)					Highway	Temporary lane ending (e.g. due to broken down car)					Highway
Long-Term Construction zone					Highway	Long-Term Construction zone					Highway
Railway crossings					Non-Highway	Railway crossings					Non-Highway
Intersections					Non-Highway	Intersections					Non-Highway
Roundabouts					Non-Highway	Pedestrian crossing					Non-Highway
Pedestrian crossing					Non-Highway	Traffic lights					Non-Highway
Stop sign					Non-Highway						
Give-way sign					Non-Highway						
Traffic lights					Non-Highway						

修訂內容						原內容					
(基準) 規定12.9.2.1之表						(基準) 規定12.9.2.1之表					
道路 <u>性質</u>	對系統／特 定功能考量 系統邊界與 否? (是／否)	系統將不能 對此道路 <u>性</u> <u>質</u> 回應	系統將能於 偵測到時回 應	系統將能提 供較早之警 示	運作區域	道路 <u>事件</u>	對系統／特 定功能考量 系統邊界與 否? (是／否)	系統將不能 對此道路 <u>事</u> <u>件</u> 回應	系統將能於 偵測到時回 應	系統將能提 供較早之警 示	運作區域
收費站					高／快速公 路	收費站					高速公路
高／快速公路 終點					高／快速公 路	高／快速公路 終點					高速公路
永久之道路終 點					高／快速公 路	永久之道路終 點					高速公路
暫時之道路終 點 (例如因損 壞之車輛造 成)					高／快速公 路	暫時之道路終 點 (例如因損 壞之車輛造 成)					高速公路
長期施工區域					高／快速公 路	長期施工區域					高速公路
鐵路穿越道					非高／快速 公路	鐵路穿越道					非高速公路
路口					非高／快速 公路	路口					非高速公路
<u>圓環</u>					非高／快速 公路	行人穿越道					非高速公路
行人穿越道					非高／快速 公路	交通號誌					非高速公路
<u>停止標誌</u>					非高／快速 公路						
<u>讓道標誌</u>					非高／快速 公路						
交通號誌					非高／快速 公路						

修訂內容	原內容																				
	(UN)Table of Annex 3, Appendix 4, paragraph 3 <table><tr><th></th><th><i>Rear (m)</i></th><th><i>Front (m)</i></th><th><i>Side (m)</i></th><th><i>Conditions</i></th></tr><tr><td>Range at which the system is able to respond to a motorcycle</td><td></td><td></td><td></td><td></td></tr><tr><td>Range at which the system is able to respond to a blocked target lane</td><td>Not applicable</td><td></td><td>Not applicable</td><td></td></tr><tr><td>Types of obstacles the vehicle is able to respond to (<i>To be completed by the manufacturer</i>)</td><td>Not applicable</td><td></td><td>Not applicable</td><td></td></tr></table>		<i>Rear (m)</i>	<i>Front (m)</i>	<i>Side (m)</i>	<i>Conditions</i>	Range at which the system is able to respond to a motorcycle					Range at which the system is able to respond to a blocked target lane	Not applicable		Not applicable		Types of obstacles the vehicle is able to respond to (<i>To be completed by the manufacturer</i>)	Not applicable		Not applicable	
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	(基準) 規定12.9.3之表 <table><tr><th></th><th><i>後方（公尺）</i></th><th><i>前方（公尺）</i></th><th><i>側方（公尺）</i></th><th><i>條件</i></th></tr><tr><td>系統能夠對機車反應之範圍</td><td></td><td></td><td></td><td></td></tr><tr><td>系統能夠對受阻目標車道反應之範圍</td><td>不適用</td><td></td><td>不適用</td><td></td></tr><tr><td>車輛能夠對反應之障礙類型 (<i>待申請者完善相關內容</i>)</td><td>不適用</td><td></td><td>不適用</td><td></td></tr></table>		<i>後方（公尺）</i>	<i>前方（公尺）</i>	<i>側方（公尺）</i>	<i>條件</i>	系統能夠對機車反應之範圍					系統能夠對受阻目標車道反應之範圍	不適用		不適用		車輛能夠對反應之障礙類型 (<i>待申請者完善相關內容</i>)	不適用		不適用	
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修訂內容	原內容																																	
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修訂內容	原內容												
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	(UN)Table of Annex 3, Appendix 4, paragraph 6 <table> <tr> <th>Potentially relevant traffic rule</th><th>Will the system be designed to obey this rule?</th></tr> <tr> <td>Not to unintentionally cross a solid lane marking during a system-initiated manoeuvre</td><td></td></tr> <tr> <td>Not to change lanes when prohibited by a dedicated sign</td><td></td></tr> <tr> <td>Yielding to other road users when turning left/right at an intersection as part of a system-initiated manoeuvre</td><td></td></tr> <tr> <td>Yielding to other road users when exiting a roundabout as part of a system-initiated manoeuvre</td><td></td></tr> <tr> <td>(To be completed by the manufacturer)</td><td></td></tr> </table>	Potentially relevant traffic rule	Will the system be designed to obey this rule?	Not to unintentionally cross a solid lane marking during a system-initiated manoeuvre		Not to change lanes when prohibited by a dedicated sign		Yielding to other road users when turning left/right at an intersection as part of a system-initiated manoeuvre		Yielding to other road users when exiting a roundabout as part of a system-initiated manoeuvre		(To be completed by the manufacturer)	
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修訂內容	原內容												
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(UN)Table A4/1 of Annex 4, paragraph 4.1.1

<i>Requirements or system aspect to be assessed</i>	<i>Physical test scenario or audit</i>	<i>Reference in main text</i>
Driver Information, Driver Disengagement and Warnings to the Driver	Annex 3 4.1.1.	Paras. 5.1.1. and 5.5.4.
System Assurance of Absence of Driver Disengagement	Annex 3 4.1.1.	Paras. 5.1.2. and 5.5.4.2
Reasonably foreseeable misuse	Annex 3 4.1.1.	Para. 5.1.3.
System override	Annex 3 4.1.1.	Paras. 5.1.4. and 5.5.3.4.
Equivalent performance of other safety systems (UN Regulations Nos. 79, No. 130, No. 131 and No. 152)	4.2.5.2.1.1 4.2.5.2.2.1. 4.2.5.2.3.1. 4.2.5.2.4. 4.2.5.2.8.1. 4.2.5.2.9.1. 4.2.5.2.10.1. 4.2.5.2.11.1.	Para. 5.1.5.
Functional requirements	*	Para. 5.3.
Assessment and response to surroundings as required for the functionality	4.2.5.2.5.1. 4.2.5.2.6.1.	Para. 5.3.2., 5.3.7.1.2.
Vehicle behaviour in traffic (Avoid disruption of traffic flow, maintain appropriate distance from other road users, reduce risk of collision, deceleration/acceleration, traffic rules, headway distance)	4.3.1. 4.3.2.	Paras. 5.3.4., 5.3.7.2., 5.3.7.5., 5.4.2.,
Activating relevant vehicle systems	Annex 3 4.1.1.	Para. 5.3.3.
Detecting and Reaching DCAS boundaries	Annex 3 4.1.1.	Paras. 5.3.5., 5.3.7.1.4.
Controllability	Annex 3 4.1.1.	Para. 5.3.6.
Positioning in the lane of travel	4.2.4. 4.2.5.1.1.	Paras. 5.3.7.1., 6.1
Driver-initiated manoeuvres	4.2.5.1.2.	Para. 5.3.7.2.2.
Driver-confirmed manoeuvres	4.2.5.1.3.	Para. 5.3.7.2.3., 5.5.4.1.8.
System-initiated manoeuvres	4.2.4. 4.2.5.1.1. 4.2.5.1.3.	Para. 5.3.7.2.4., 5.5.4.1.9.

(UN)Table A4/1 of Annex 4, paragraph 4.1.1

<i>Requirements or system aspect to be assessed</i>	<i>Physical test scenario or audit</i>	<i>Reference in main text</i>
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Reasonably foreseeable misuse	Annex 3 4.1.1.	Para. 5.1.3.
System override	Annex 3 4.1.1.	Paras. 5.1.4. and 5.5.3.4.
Equivalent performance of other safety systems (UN Regulations No. 131, No. 152, No. 79 and No. 130)	4.2.5.2.1.1 4.2.5.2.2.1. 4.2.5.2.3.1. 4.2.5.2.4. 4.2.5.2.8.1. 4.2.5.2.9.1. 4.2.5.2.10.1. 4.2.5.2.11.1.	Para. 5.1.5.
Functional requirements	*	Para. 5.3.
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Activating relevant vehicle systems	Annex 3 4.1.1.	Para. 5.3.3.
Detecting and Reaching DCAS boundaries	Annex 3 4.1.1.	Paras. 5.3.5., 5.3.7.1.4.
Controllability	Annex 3 4.1.1.	Para. 5.3.6.
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Driver-initiated manoeuvres	4.2.5.1.2.	Para. 5.3.7.2.2.
Driver-confirmed manoeuvres	4.2.5.1.2.	Para. 5.3.7.2.3., 5.5.4.1.8.
System-initiated manoeuvres	4.2.4. 4.2.5.1.1.	Para. 5.3.7.2.4., 5.5.4.1.9.
Driver unavailability response	*	Para. 5.3.7.3.

修訂內容			原內容		
Driver unavailability response	*	Para. 5.3.7.3.	Speed limit assistance	4.3	Para. 5.3.7.4.
Speed limit assistance	4.3	Para. 5.3.7.4.	Failure response	*	Para. 5.4.
Failure response	*	Para. 5.4.	DCAS operation, driver interaction and driver information	*	Para. 5.5.
DCAS operation, driver interaction and driver information	*	Para. 5.5.	Lane change	*	Para. 6.2.
Lane change	*4.2.5.1.2.	Para. 6.2.	Driver-confirmed lane changes	*	Para. 6.2.9.1.
Driver-confirmed lane changes	*4.2.5.1.3.	Para. 6.2.9.1.	System-initiated Lane Change	4.2.4.	Para. 6.2.9.2.
System-initiated Lane Change	4.2.4.	Para. 6.2.9.2.		4.2.5.1.1.	
	4.2.5.1.1.		Other manoeuvres	4.3.3.	Para. 6.3.
	4.2.5.1.3.				
Other manoeuvres	4.3.3.	Para. 6.3.			

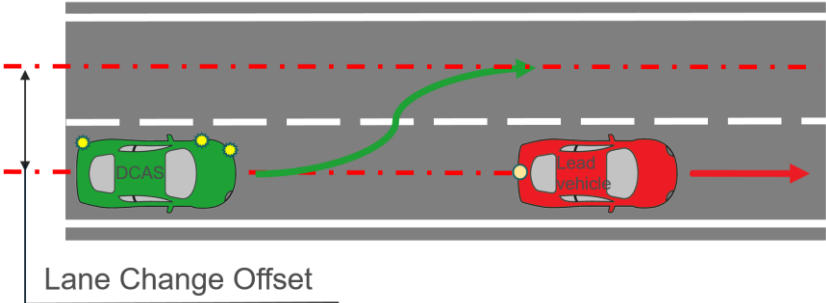
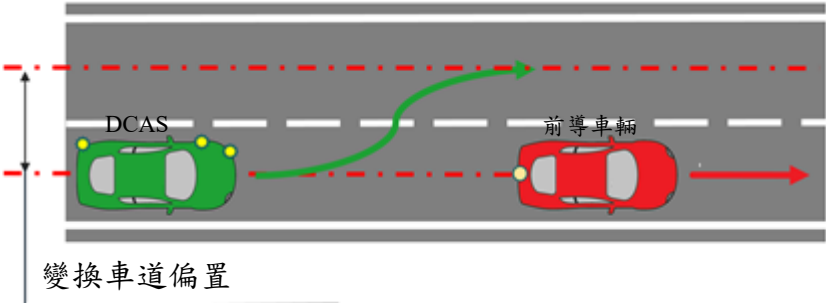
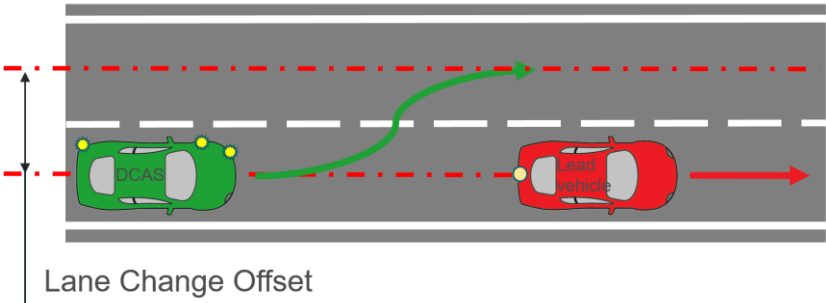
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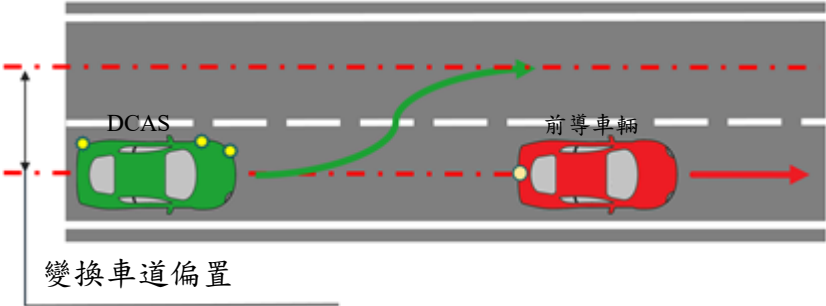
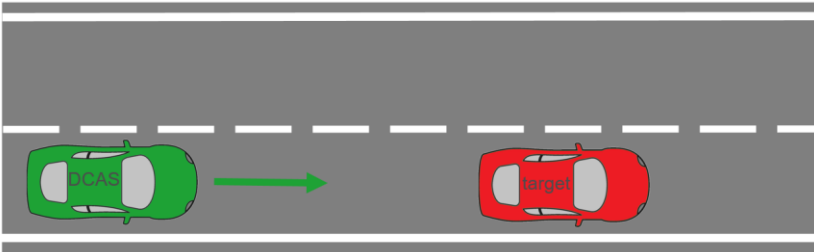
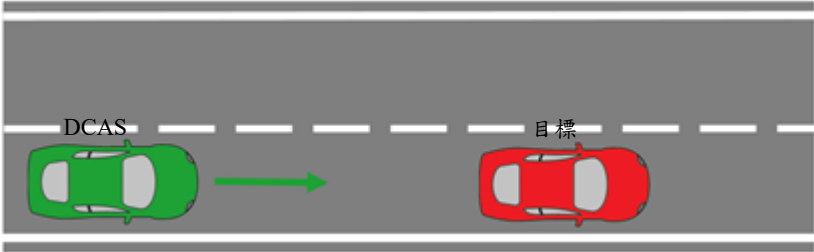
待評估之要求或系統層面	物理試驗情境或稽核	參考節次
駕駛人資訊、駕駛人未參與以及對駕駛人之警示	規定 12.4.1.1	規定 5.1.1 及規定 5.5.4
駕駛人未參與之存在的系統確認	規定 12.4.1.1	規定 5.1.2 及規定 5.5.4.2
合理可預見之誤用	規定 12.4.1.1	規定 5.1.3
系統取代	規定 12.4.1.1	規定 5.1.4 及規定 5.5.3.4.
其他安全系統之同等性能(附件四十七之四、附件七十、 附件七十二 ，以及 附件一百)	規定 13.4.2.5.2.1.1 規定 13.4.2.5.2.2.1. 規定 13.4.2.5.2.3.1. 規定 13.4.2.5.2.4. 規定 13.4.2.5.2.7.1. 規定 13.4.2.5.2.8.1. 規定 13.4.2.5.2.9.1. 規定 13.4.2.5.2.10.1.	規定 5.1.5
功能要求	*	規定 5.3
如功能性所需之對環境的評估及回應	規定 13.4.2.5.2.5.1. 規定 13.4.2.5.2.6.1.	規定 5.3.2、規定 5.3.7.1.2
於交通中之車輛行為(避免干擾車流、與其他道路使用者維持適當距離、減少碰撞風險、減速／加速、交通規則、車前距離)	規定 13.4.3.1. 規定 13.4.3.2.	規定 5.3.4、 規定 5.3.7.2、 規定 5.3.7.5、 規定 5.4.2
啟動相關車輛系統	規定 12.4.1.1	規定 5.3.3
偵測且達到 DCAS 邊界	規定 12.4.1.1	規定 5.3.5、規定 5.3.7.1.4.
控制能力	規定 12.4.1.1	規定 5.3.6
行駛車道中之定位	規定 13.4.2.4. 規定 13.4.2.5.1.1.	規定 5.3.7.1、 規定 6.1
駕駛人起始之操作	規定 13.4.2.5.1.2.	規定 5.3.7.2.2
駕駛人確認之操作	規定 13.4.2.5.1.3.	規定 5.3.7.2.3、 規定 5.5.4.1.8.
系統起始之操作	規定 13.4.2.4. 規定 13.4.2.5.1.1 規定 13.4.2.5.1.3	規定 5.3.7.2.4、 規定 5.5.4.1.9.

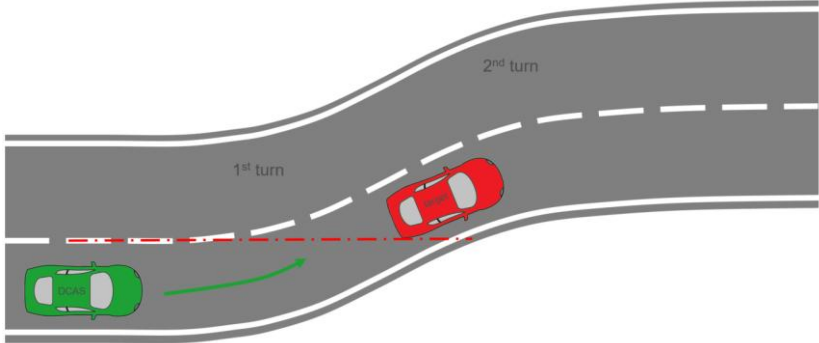
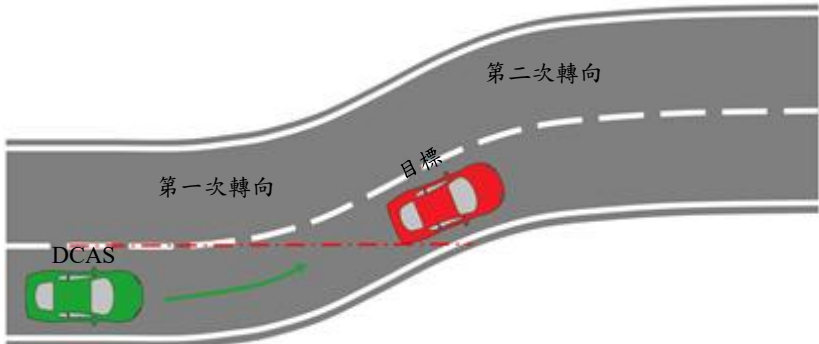
(基準) 規定13.4.1.1之表

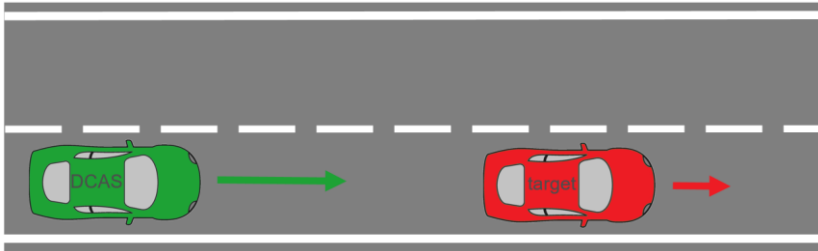
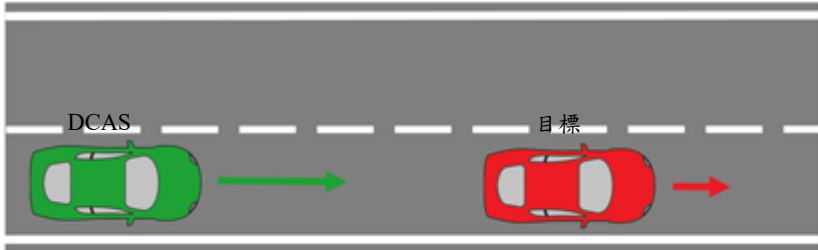
待評估之要求或系統層面	物理試驗情境或稽核	參考節次
駕駛人資訊、駕駛人未參與以及對駕駛人之警示	規定 12.4.1.1	規定 5.1.1 及規定 5.5.4
駕駛人未參與之存在的系統確認	規定 12.4.1.1	規定 5.1.2 及規定 5.5.4.2
合理可預見之誤用	規定 12.4.1.1	規定 5.1.3
系統取代	規定 12.4.1.1	規定 5.1.4 及規定 5.5.3.4.
其他安全系統之同等性能(附件七十二 、 附件一百 、附件四十七之四，以及附件七十	規定 13.4.2.5.2.1.1 規定 13.4.2.5.2.2.1. 規定 13.4.2.5.2.3.1. 規定 13.4.2.5.2.4. 規定 13.4.2.5.2.7.1. 規定 13.4.2.5.2.8.1. 規定 13.4.2.5.2.9.1. 規定 13.4.2.5.2.10.1.	規定 5.1.5
功能要求	*	規定 5.3
如功能性所需之對環境的評估及回應	規定 13.4.2.5.2.5.1. 規定 13.4.2.5.2.6.1.	規定 5.3.2、規定 5.3.7.1.2
於交通中之車輛行為(避免干擾車流、與其他道路使用者維持適當距離、減少碰撞風險、減速／加速、交通規則、車前距離)	規定 13.4.3.1. 規定 13.4.3.2.	規定 5.3.4、 規定 5.3.7.2、 規定 5.3.7.5、 規定 5.4.2
啟動相關車輛系統	規定 12.4.1.1	規定 5.3.3
偵測且達到 DCAS 邊界	規定 12.4.1.1	規定 5.3.5、規定 5.3.7.1.4.
控制能力	規定 12.4.1.1	規定 5.3.6
行駛車道中之定位	規定 13.4.2.4. 規定 13.4.2.5.1.1.	規定 5.3.7.1、 規定 6.1
駕駛人起始之操作	規定 13.4.2.5.1.2.	規定 5.3.7.2.2
駕駛人確認之操作	規定 13.4.2.5.1.2.	規定 5.3.7.2.3、 規定 5.5.4.1.8.
系統起始之操作	規定 13.4.2.4. 規定 13.4.2.5.1.1	規定 5.3.7.2.4、 規定 5.5.4.1.9.
駕駛人無法參與回應	*	規定 5.3.7.3、

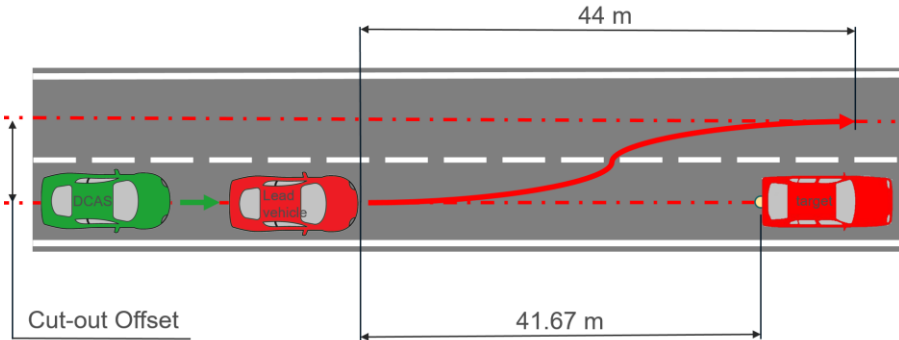
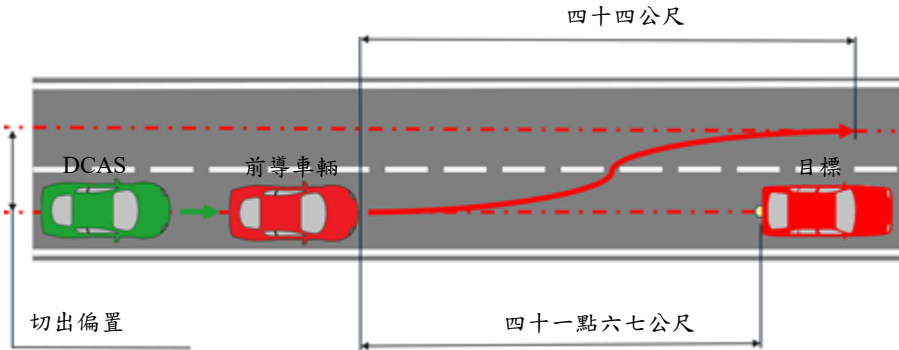
修訂內容			原內容		
駕駛人無法參與回應	*	規定 5.3.7.3、	速度限制輔助	規定 13.4.3	規定 5.3.7.4
速度限制輔助	規定 13.4.3	規定 5.3.7.4	故障反應	*	規定 5.4
故障反應	*	規定 5.4	DCAS 運作、駕駛人互動，以及駕駛人資訊	*	規定 5.5
DCAS 運作、駕駛人互動，以及駕駛人資訊	*	規定 5.5	變換車道	*	規定 6.2
變換車道	* 規定 13.4.2.5.1.2.	規定 6.2	駕駛人確認之變換車道	*	規定 6.2.9.1
駕駛人確認之變換車道	* 規定 13.4.2.5.1.3.	規定 6.2.9.1	系統起始之變換車道	規定 13.4.2.4. 規定 13.4.2.5.1.1.	規定 6.2.9.2
系統起始之變換車道	規定 13.4.2.4. 規定 13.4.2.5.1.1. 規定 13.4.2.5.1.3	規定 6.2.9.2	其他操作	規定 13.4.3.3.	規定 6.3
其他操作	規定 13.4.3.3.	規定 6.3	(UN)Table of Annex 4, paragraph 4.2.4.1		
				<i>Clothoid parameter</i>	<i>Radius (m)</i> <i>Length (m)</i>
			<i>First turn (Any direction)</i>	153.7	- 30.0
				-	787 57.1
				105.0	- 14.0
			<i>Second turn (Opposite direction to the 1st turn)</i>	98.6	- 26
				-	374 5.1
				120.8	- 39
			(基準) 規定13.4.2.4.1之表		
				<i>克羅梭參數</i>	<i>半徑 (公尺)</i> <i>長度 (公尺)</i>
			<i>第一次轉向 (任意方向)</i>	一百五十三點七	- 三十點零
				-	七百八十七 五十七點一
				一百零五點零	- 十四點零
			<i>第二次轉向 (與第一次轉向相 反之方向)</i>	九十八點六	- 二十六
				-	三百七十四 五點一
				一百二十點八	- 三十九

修訂內容	原內容
	(UN)Figure of Annex 4, paragraph 4.2.5.1.2.1.3  Lane Change Offset
	(基準) 規定13.4.2.5.1.2.1.3之圖  變換車道偏置
	(UN)Figure of Annex 4, paragraph 4.2.5.1.4.1.2  Lane Change Offset

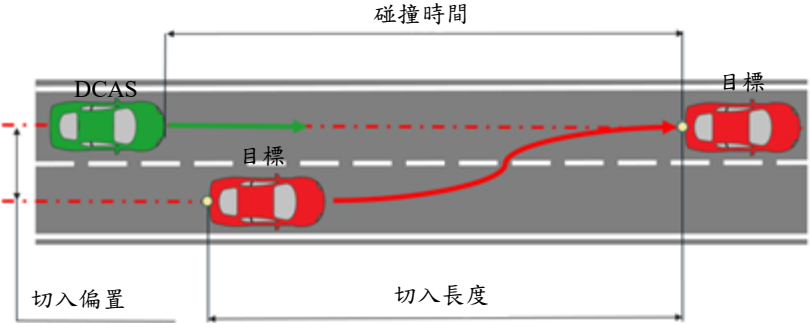
修訂內容	原內容
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	(UN)Figure of Annex 4, paragraph 4.2.5.2.1.2 
	(基準) 規定13.4.2.5.2.1.2之圖 

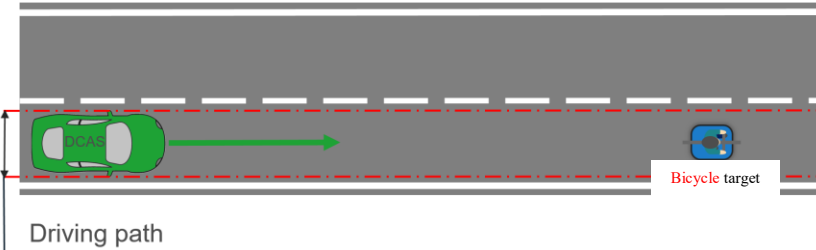
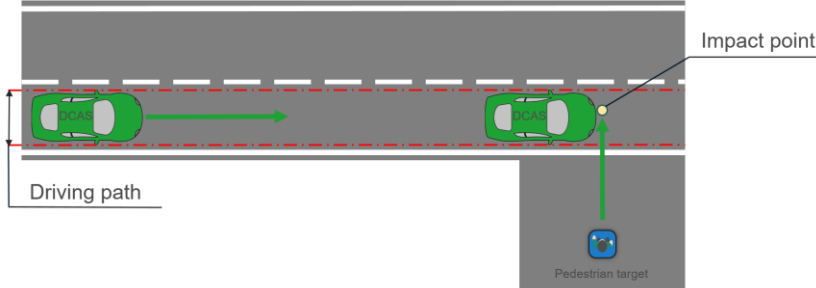
修訂內容	原內容
	(UN)Figure of Annex 4, paragraph 4.2.5.2.2.1.2 
	(基準) 規定13.4.2.5.2.2.1.2之圖 

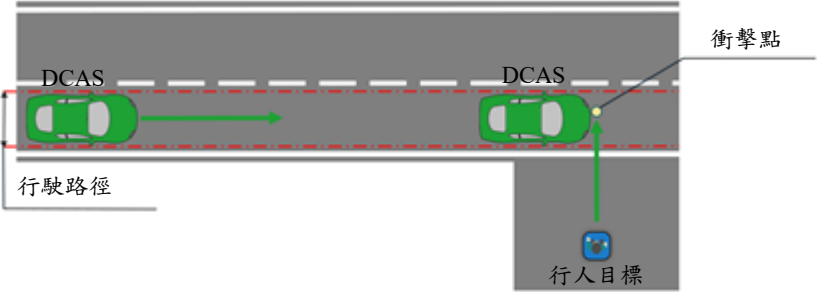
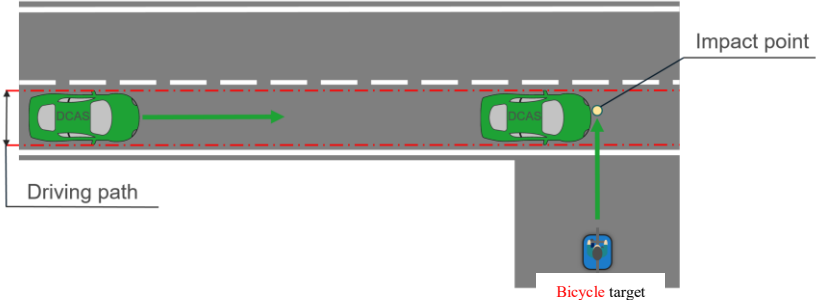
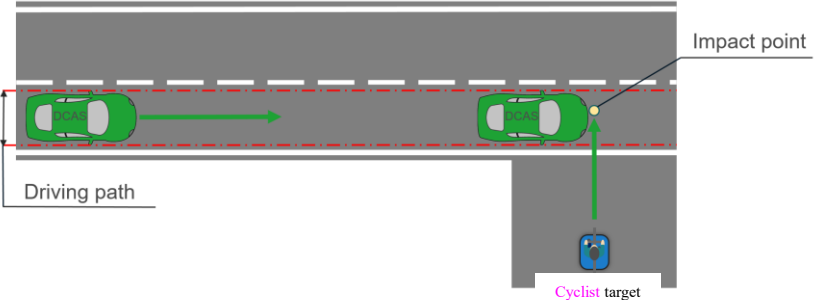
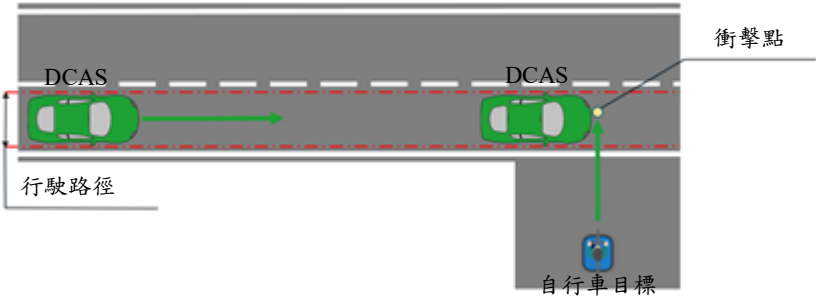
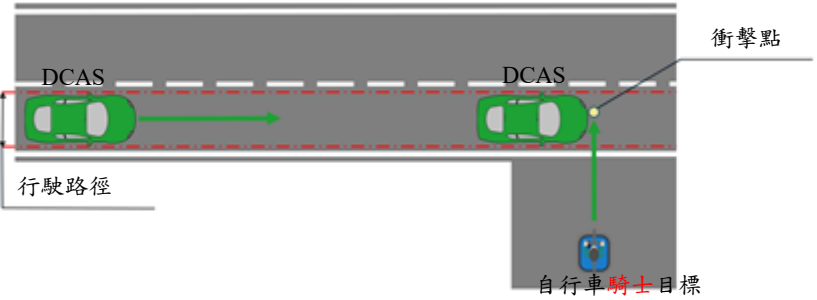
修訂內容	原內容															
	(UN)Figure of Annex 4, paragraph 4.2.5.2.3.1.2 															
	(基準) 規定13.4.2.5.2.3.1.2之圖 															
	(UN)Table of Annex 4, paragraph 4.2.5.2.5.1.3 <table><tr><th rowspan="2">Cut-out test</th><th rowspan="2">VUT</th><th rowspan="2">Lead vehicle (M1 Category)</th><th colspan="3">Lane change manoeuvre of SOV</th></tr><tr><th>Lateral acceleration</th><th>Lane change length</th><th>Radius of turning segment</th></tr><tr><td>Cut-out at TTC = 3 s</td><td>70 km/h</td><td>50 km/h</td><td>1.5 m/s²</td><td>44 m</td><td>130 m</td></tr></table>	Cut-out test	VUT	Lead vehicle (M1 Category)	Lane change manoeuvre of SOV			Lateral acceleration	Lane change length	Radius of turning segment	Cut-out at TTC = 3 s	70 km/h	50 km/h	1.5 m/s ²	44 m	130 m
Cut-out test	VUT				Lead vehicle (M1 Category)	Lane change manoeuvre of SOV										
		Lateral acceleration	Lane change length	Radius of turning segment												
Cut-out at TTC = 3 s	70 km/h	50 km/h	1.5 m/s ²	44 m	130 m											

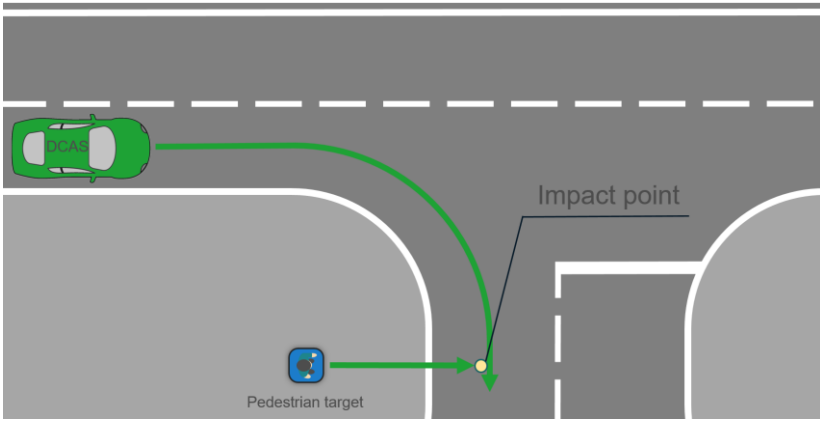
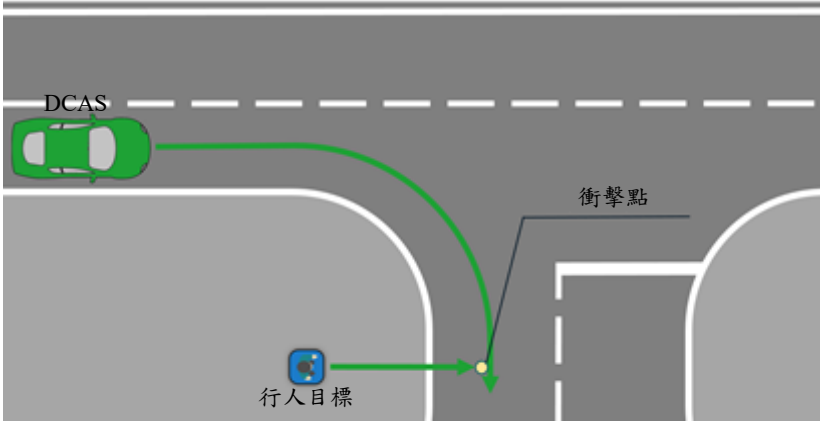
修訂內容	原內容															
	(基準) 規定13.4.2.5.2.5.1.3之表 <table><tr><th rowspan="2">切出試驗</th><th rowspan="2">受測試車輛</th><th rowspan="2">前導車輛 (M1 類)</th><th colspan="3">SOV 之變換車道操作</th></tr><tr><th>側向加速度</th><th>變換車道長度</th><th>轉向部分之半徑</th></tr><tr><td>於 TTC 等於 三秒時切出</td><td>七十公里／ 小時</td><td>五十公里／ 小時</td><td>一點五公尺 ／秒平方</td><td>四十四公尺</td><td>一百三十公尺</td></tr></table>	切出試驗	受測試車輛	前導車輛 (M1 類)	SOV 之變換車道操作			側向加速度	變換車道長度	轉向部分之半徑	於 TTC 等於 三秒時切出	七十公里／ 小時	五十公里／ 小時	一點五公尺 ／秒平方	四十四公尺	一百三十公尺
切出試驗	受測試車輛				前導車輛 (M1 類)	SOV 之變換車道操作										
		側向加速度	變換車道長度	轉向部分之半徑												
於 TTC 等於 三秒時切出	七十公里／ 小時	五十公里／ 小時	一點五公尺 ／秒平方	四十四公尺	一百三十公尺											
	(UN)Figure of Annex 4, paragraph 4.2.5.2.5.1.3 															
	(基準) 規定13.4.2.5.2.5.1.3之圖 															

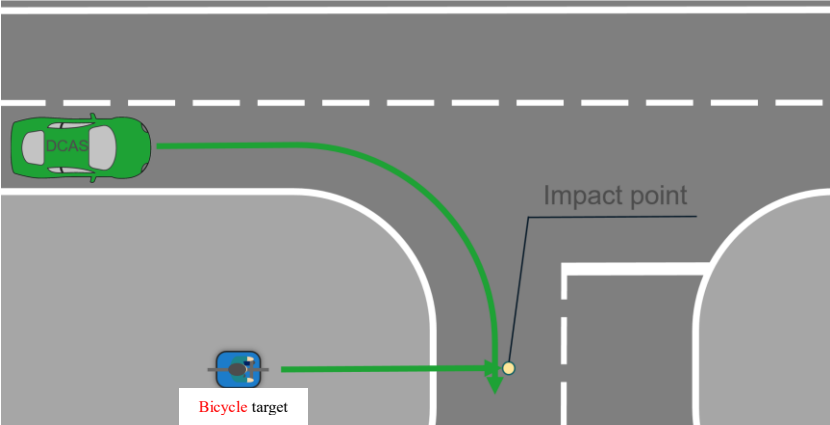
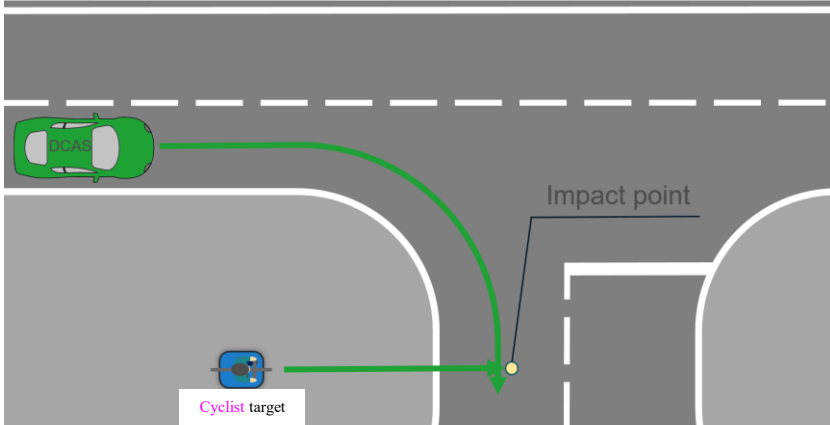
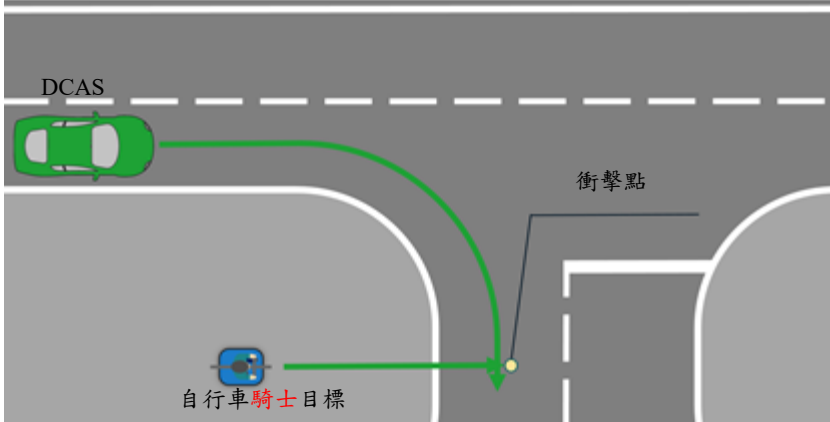
修訂內容	原內容																								
	(UN)Table of Annex 4, paragraph 4.2.5.2.6.1.3 <table><tr><th><i>Cut-in test</i> <i>(Paragraph 4.2.5.2.6.1.2.)</i></th><th><i>VUT</i></th><th><i>Global Vehicle Target (GVT)</i></th><th colspan="3"><i>Lane change manoeuvre of the GVT</i></th></tr><tr><th></th><th></th><th></th><th><i>Lateral acceleration</i></th><th><i>Lane change length</i></th><th><i>Radius of turning segment</i></th></tr><tr><td>Type 1- Cut-in at TTC = 0 s</td><td>50 km/h</td><td>10 km/h</td><td>0.5 m/s²</td><td>14 m</td><td>15 m</td></tr><tr><td>Type 2 - Cut-in at TTC = 1.5 s</td><td>120 km/h</td><td>70 km/h</td><td>1.5 m/s²</td><td>60 m</td><td>250 m</td></tr></table>	<i>Cut-in test</i> <i>(Paragraph 4.2.5.2.6.1.2.)</i>	<i>VUT</i>	<i>Global Vehicle Target (GVT)</i>	<i>Lane change manoeuvre of the GVT</i>						<i>Lateral acceleration</i>	<i>Lane change length</i>	<i>Radius of turning segment</i>	Type 1- Cut-in at TTC = 0 s	50 km/h	10 km/h	0.5 m/s²	14 m	15 m	Type 2 - Cut-in at TTC = 1.5 s	120 km/h	70 km/h	1.5 m/s²	60 m	250 m
<i>Cut-in test</i> <i>(Paragraph 4.2.5.2.6.1.2.)</i>	<i>VUT</i>	<i>Global Vehicle Target (GVT)</i>	<i>Lane change manoeuvre of the GVT</i>																						
			<i>Lateral acceleration</i>	<i>Lane change length</i>	<i>Radius of turning segment</i>																				
Type 1- Cut-in at TTC = 0 s	50 km/h	10 km/h	0.5 m/s²	14 m	15 m																				
Type 2 - Cut-in at TTC = 1.5 s	120 km/h	70 km/h	1.5 m/s²	60 m	250 m																				
	(基準) 規定13.4.2.5.2.6.1.3之表 <table><tr><th><i>切入試驗</i> <i>(規定 13.4.2.5.2.6.1.2)</i></th><th><i>受測試車輛</i></th><th><i>全球車輛目標(GVT)</i></th><th colspan="3"><i>GVT 之變換車道操作</i></th></tr><tr><th></th><th></th><th></th><th><i>側向加速度</i></th><th><i>變換車道長度</i></th><th><i>轉向部分之半徑</i></th></tr><tr><td>型式一：於 TTC 等於零秒時切入</td><td>五十公里／小時</td><td>十公里／小時</td><td>零點五公尺／秒平方</td><td>十四公尺</td><td>十五公尺</td></tr><tr><td>型式二：於 TTC 等於一點五秒時切入</td><td>一百二十公里／小時</td><td>七十公里／小時</td><td>一點五公尺／秒平方</td><td>六十公尺</td><td>二百五十公尺</td></tr></table>	<i>切入試驗</i> <i>(規定 13.4.2.5.2.6.1.2)</i>	<i>受測試車輛</i>	<i>全球車輛目標(GVT)</i>	<i>GVT 之變換車道操作</i>						<i>側向加速度</i>	<i>變換車道長度</i>	<i>轉向部分之半徑</i>	型式一：於 TTC 等於零秒時切入	五十公里／小時	十公里／小時	零點五公尺／秒平方	十四公尺	十五公尺	型式二：於 TTC 等於一點五秒時切入	一百二十公里／小時	七十公里／小時	一點五公尺／秒平方	六十公尺	二百五十公尺
<i>切入試驗</i> <i>(規定 13.4.2.5.2.6.1.2)</i>	<i>受測試車輛</i>	<i>全球車輛目標(GVT)</i>	<i>GVT 之變換車道操作</i>																						
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	(UN)Figure of Annex 4, paragraph 4.2.5.2.6.1.3																								

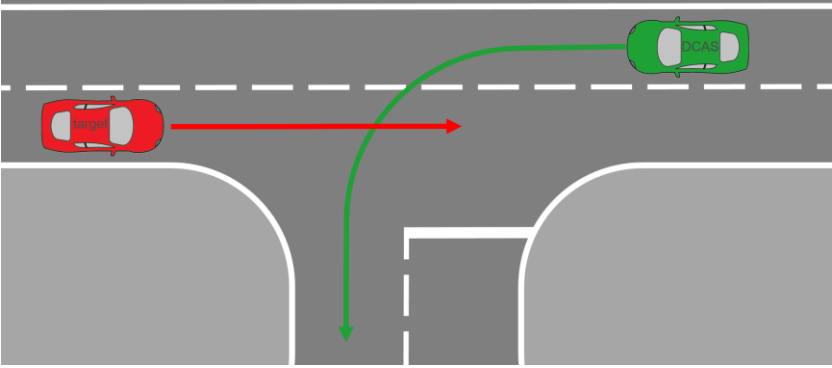
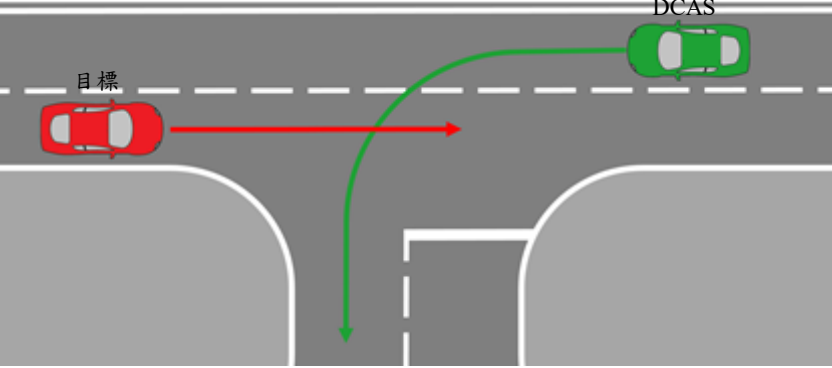
修訂內容	原內容
	(基準) 規定13.4.2.5.2.6.1.3之圖 
	(UN)Figure of Annex 4, paragraph 4.2.5.2.8.1.2 
	(基準) 規定13.4.2.5.2.7.1.2之圖 

修訂內容	原內容
(UN)Figure of Annex 4, paragraph 4.2.5.2.9.1.2 	(UN)Figure of Annex 4, paragraph 4.2.5.2.9.1.2 
(基準) 規定13.4.2.5.2.8.1.2之圖 	(基準) 規定13.4.2.5.2.8.1.2之圖 
	(UN) Figure of Annex 4, paragraph 4.2.5.2.10.1.3 

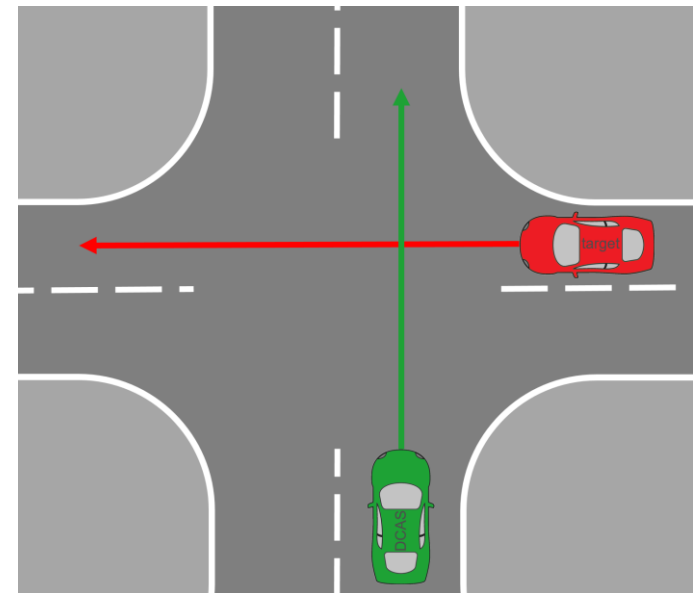
修訂內容	原內容
	(基準) 規定13.4.2.5.2.9.1.3之圖 
(UN) Figure of Annex 4, paragraph 4.2.5.2.11.1.1 	(UN) Figure of Annex 4, paragraph 4.2.5.2.11.1.1 
(基準) 規定13.4.2.5.2.10.1.1之圖 	(基準) 規定13.4.2.5.2.10.1.1之圖 

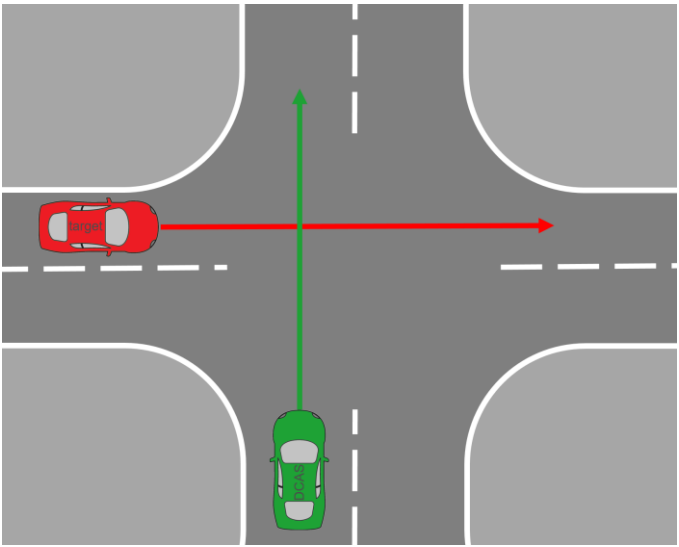
修訂內容	原內容
	(UN) Figure of Annex 4, paragraph 4.2.5.2.12.1.1  The diagram shows a top-down view of a vehicle labeled 'DCAS' in green, positioned in the left lane of a road and turning right. A green arrow indicates the vehicle's path. A pedestrian target, represented by a blue icon with a red dot, is located in the crosswalk. A green arrow points from the pedestrian target to a yellow dot labeled 'Impact point' on the vehicle's path. The road has a dashed white line for the center and solid white lines for the edges. The intersection area is marked with white lines.
	(基準) 規定13.4.2.5.2.11.1.1之圖  The diagram is identical to the one above, showing a top-down view of a vehicle labeled 'DCAS' in green, positioned in the left lane of a road and turning right. A green arrow indicates the vehicle's path. A pedestrian target, represented by a blue icon with a red dot, is located in the crosswalk. A green arrow points from the pedestrian target to a yellow dot labeled 'Impact point' on the vehicle's path. The road has a dashed white line for the center and solid white lines for the edges. The intersection area is marked with white lines.

修訂內容	原內容
(UN) Figure of Annex 4, paragraph 4.2.5.2.13.1.1 	(UN) Figure of Annex 4, paragraph 4.2.5.2.13.1.1 
(基準) 規定13.4.2.5.2.12.1.1之圖 	(基準) 規定13.4.2.5.2.12.1.1之圖 

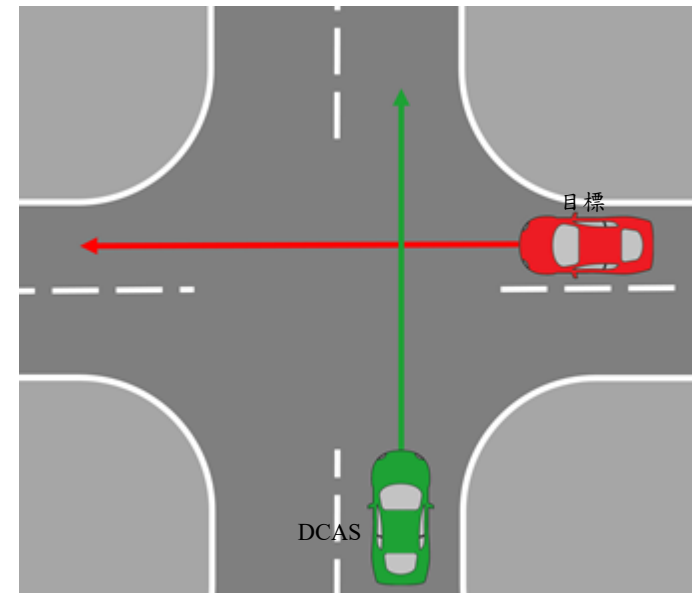
修訂內容	原內容
	(UN) Figure of Annex 4, paragraph 4.2.5.2.14.1.1 
	(基準) 規定13.4.2.5.2.13.1.1之圖 

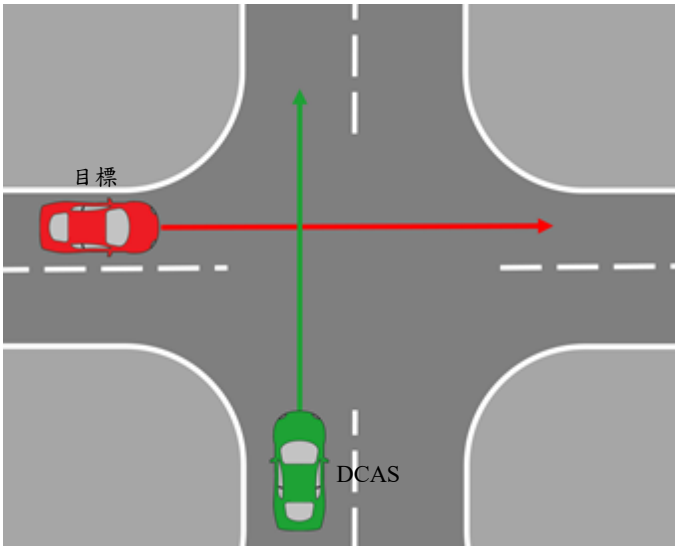
(UN) Figure of Annex 4, paragraph 4.2.5.2.15.1.2



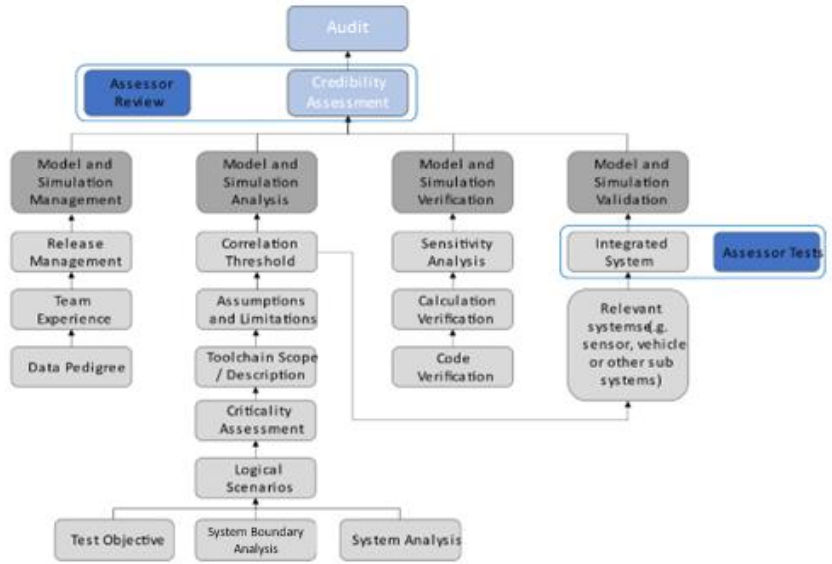
修訂内容	原内容
	

(基準) 規定13.4.2.5.2.14.1.2之圖



修訂內容	原內容
	

修訂內容	原內容																			
	(UN) Table of Annex 4, paragraph 4.3.3.2 <table><tr><th>Category</th><th>Type of scenario</th><th>Specific reference requirements (non-exhaustive list)</th></tr><tr><td rowspan="5">Other manoeuvres</td><td>Lead the vehicle to select a lane</td><td rowspan="5">Paras. 6.3.1. – 6.3.9.4.</td></tr><tr><td>Enter into a roundabout or take an exit when navigating through a roundabout</td></tr><tr><td>Lead the vehicle to leave its lane of travel when this manoeuvre is not a lane change</td></tr><tr><td>Lead the vehicle to take a turn</td></tr><tr><td>Lead the vehicle to depart or arrive at a parked position</td></tr><tr><td rowspan="5">Other system-initiated manoeuvres</td><td>Lead the vehicle to select a lane</td><td rowspan="5">(Reserved)</td></tr><tr><td>Enter into a roundabout or take a specific exit when navigating through a roundabout</td></tr><tr><td>Lead the vehicle to leave its lane of travel when this manoeuvre is not a lane change</td></tr><tr><td>Lead the vehicle to take a turn</td></tr><tr><td>Lead the vehicle to depart or arrive at a parked position</td></tr></table>	Category	Type of scenario	Specific reference requirements (non-exhaustive list)	Other manoeuvres	Lead the vehicle to select a lane	Paras. 6.3.1. – 6.3.9.4.	Enter into a roundabout or take an exit when navigating through a roundabout	Lead the vehicle to leave its lane of travel when this manoeuvre is not a lane change	Lead the vehicle to take a turn	Lead the vehicle to depart or arrive at a parked position	Other system-initiated manoeuvres	Lead the vehicle to select a lane	(Reserved)	Enter into a roundabout or take a specific exit when navigating through a roundabout	Lead the vehicle to leave its lane of travel when this manoeuvre is not a lane change	Lead the vehicle to take a turn	Lead the vehicle to depart or arrive at a parked position		
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	Lead the vehicle to take a turn																			
	Lead the vehicle to depart or arrive at a parked position																			
	(基準) 規定13.4.3.3.2之表 <table><tr><th>類別</th><th>情境之類型</th><th>特定參考要求 (未詳盡列表)</th></tr><tr><td rowspan="4">其他操作</td><td>引導車輛以選擇車道</td><td rowspan="4">規定 6.3.1 至規定 6.3.9.4</td></tr><tr><td>進入圓環或透過圓環導航時前往出口</td></tr><tr><td>於該操作非為變換車道時，引導車輛以離開其行駛車道</td></tr><tr><td>引導車輛轉變</td></tr><tr><td rowspan="5">其他系統起始之操作</td><td>引導車輛以離開或抵達停駐位置</td><td rowspan="5">(保留)</td></tr><tr><td>引導車輛以選擇車道</td></tr><tr><td>進入圓環或透過圓環導航時前往特定出口</td></tr><tr><td>於該操作非為變換車道時，引導車輛以離開其行駛車道</td></tr><tr><td>引導車輛轉變</td></tr><tr><td></td><td>引導車輛以離開或抵達停駐位置</td><td></td></tr></table>	類別	情境之類型	特定參考要求 (未詳盡列表)	其他操作	引導車輛以選擇車道	規定 6.3.1 至規定 6.3.9.4	進入圓環或透過圓環導航時前往出口	於該操作非為變換車道時，引導車輛以離開其行駛車道	引導車輛轉變	其他系統起始之操作	引導車輛以離開或抵達停駐位置	(保留)	引導車輛以選擇車道	進入圓環或透過圓環導航時前往特定出口	於該操作非為變換車道時，引導車輛以離開其行駛車道	引導車輛轉變		引導車輛以離開或抵達停駐位置	
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修訂內容	原內容
(UN) Figure A5/1 of Annex 5, paragraph 1.1	 <pre> graph TD TO[Test Objective] --> SBA[System Boundary Analysis] SBA --> SA[System Analysis] SBA --> LS[Logical Scenarios] LS --> CA[Criticality Assessment] CA --> TSD[Toolchain Scope / Description] TSD --> AL[Assumptions and Limitations] AL --> CT[Correlation Threshold] CT --> MSA[Model and Simulation Analysis] MSA --> ASM[Model and Simulation Management] MSA --> CSA[Code Verification] MSA --> SVA[Model and Simulation Verification] MSA --> MSV[Model and Simulation Validation] ASM --> RM[Release Management] RM --> TE[Team Experience] TE --> DP[Data Pedigree] CSA --> CV[Calculation Verification] CV --> SA[Scalability Analysis] SA --> IS[Integrated System] IS --> RS[Relevant systems e.g. sensor, vehicle or other sub systems] RS --> AT[Assessor Tests] AT --> IS IS --> MSV MSV --> CA CA --> ASM ASM --> AR[Assessor Review] AR --> CA CA --> CA[Creditability Assessment] CA --> Audit[Audit] </pre> The flowchart illustrates the Model and Simulation Assessment process. It begins with 'Test Objective', which leads to 'System Boundary Analysis' and 'System Analysis'. 'System Boundary Analysis' leads to 'Logical Scenarios', which then leads to 'Criticality Assessment'. 'Criticality Assessment' leads to 'Toolchain Scope / Description', which leads to 'Assumptions and Limitations', which leads to 'Correlation Threshold', which leads to 'Model and Simulation Analysis'. 'Model and Simulation Analysis' leads to 'Model and Simulation Management', 'Model and Simulation Verification', and 'Model and Simulation Validation'. 'Model and Simulation Management' leads to 'Release Management', which leads to 'Team Experience', which leads to 'Data Pedigree'. 'Model and Simulation Verification' leads to 'Calculation Verification', which leads to 'Scalability Analysis', which leads to 'Integrated System'. 'Integrated System' leads to 'Relevant systems e.g. sensor, vehicle or other sub systems', which leads to 'Assessor Tests'. 'Assessor Tests' leads to 'Integrated System'. 'Integrated System' leads to 'Model and Simulation Validation'. 'Model and Simulation Validation' leads to 'Code Verification', which leads to 'Assessor Review'. 'Assessor Review' leads to 'Creditability Assessment'. 'Creditability Assessment' leads to 'Audit'.

修訂內容	原內容																														
	(基準) 規定14.1.1之表 <pre>graph TD TO[試驗目標] --> LQ[邏輯情境] SBA[系統邊界分析] --> LQ SA[系統分析] --> LQ LQ --> KE[關鍵性評估] KE --> TC[工具鏈適用範圍／說明] TC --> VD[相關值域] VD --> MM[模型及模擬管理] VD --> MA[模型及模擬分析] VD --> MV[模型及模擬驗證] VD --> MC[模型及模擬確認] MM --> FM[發佈管理] FM --> TE[團隊經驗] TE --> ZL[資料系譜] MA --> VA[靈敏度分析] VA --> CL[計算驗證] CL --> PC[程式碼驗證] MC --> IS[已整合系統] IS --> ST[評估者試驗] ST --> CA[可信度評估] CA --> CR[稽核] CR --> RA[評估者檢視] RA --> CR</pre>																														
	(UN) Table A5/1 of Annex 5, paragraph 3.5.5.2 <table><tr><td rowspan="4">Influence on DCAS</td><td>Significant</td><td rowspan="4">N/A</td><td></td><td></td><td></td></tr><tr><td>Moderate</td><td></td><td></td><td></td></tr><tr><td>Minor</td><td></td><td></td><td></td></tr><tr><td>Negligible</td><td></td><td></td><td>N/A</td></tr><tr><td colspan="2"></td><td>Negligible</td><td>Minor</td><td>Moderate</td><td>Significant</td></tr><tr><td colspan="6">Decision consequence</td></tr></table>	Influence on DCAS	Significant	N/A				Moderate				Minor				Negligible			N/A			Negligible	Minor	Moderate	Significant	Decision consequence					
Influence on DCAS	Significant		N/A																												
	Moderate																														
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	(基準) 規定14.3.5.5.2之表 <table><tr><td rowspan="4">對DCAS之影響</td><td>重大</td><td rowspan="4">不適用</td><td></td><td></td><td></td></tr><tr><td>中度</td><td></td><td></td><td></td></tr><tr><td>輕微</td><td></td><td></td><td></td></tr><tr><td>可忽略</td><td></td><td></td><td>不適用</td></tr><tr><td colspan="2"></td><td>可忽略</td><td>輕微</td><td>中度</td><td>重大</td></tr><tr><td colspan="6">決策後果</td></tr></table>	對DCAS之影響	重大	不適用				中度				輕微				可忽略			不適用			可忽略	輕微	中度	重大	決策後果					
對DCAS之影響	重大		不適用																												
	中度																														
	輕微																														
	可忽略				不適用																										
		可忽略	輕微	中度	重大																										
決策後果																															

UN R157 Automated Lane Keeping Systems 00-S1、00-S2、00-S3、00-S4、00-S5、00-S6 自動車道維持輔助系統

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
00-S6	00 Series		
Introduction The intention of the Regulation is to establish uniform provisions concerning the approval of vehicles with regard to Automated Lane Keeping Systems (ALKS). ALKS ... ALKS can be activated under certain conditions on roads where pedestrians and cyclists are prohibited and which, by design, are equipped with a physical separation that divides the traffic moving in opposite directions and prevent traffic from cutting across the path of the vehicle. In a first step, the original text of this Regulation limits the operational speed to 60 km/h maximum. This Regulation ... (See e.g. Informal Document 4 Revision 1 of the seventy-eight session of WP.1).	Introduction The intention of the Regulation is to establish uniform provisions concerning the approval of vehicles with regard to Automated Lane Keeping Systems (ALKS). ALKS ... ALKS can be activated under certain conditions on roads where pedestrians and cyclists are prohibited and which, by design, are equipped with a physical separation that divides the traffic moving in opposite directions and prevent traffic from cutting across the path of the vehicle. In a first step, the original text of this Regulation limits the operational speed to 60 km/h maximum and passenger cars (M1 vehicles). This Regulation ... (See e.g. Informal Document 4 Revision 1 of the seventy-eight session of WP.1).	附件○、自動車道維持輔助系統（草案） (修訂不影響檢測基準)	附件○、自動車道維持輔助系統(草案)
1. Scope and purpose 1.1. This Regulation applies to the type approval of vehicles of Categories M and N with regards to their Automated Lane Keeping System.	1. Scope and purpose 1.1. This Regulation applies to the type approval of vehicles of Category M1 with regards to their Automated Lane Keeping System.	1. 實施時間及適用範圍 1.1 中華民國一百十八年一月一日起，新型式之具有自動駕駛功能之 M及N類 車輛及中華民國一百二十年一月一日起，各型式之具有自動駕駛功能之 M及N類 車輛應配備符合本基準之自動車道維持輔助系統。	1. 實施時間及適用範圍 1.1 中華民國一百十七年一月一日起，新型式之具有自動駕駛功能之 M1類 車輛及中華民國一百十九年一月一日起，各型式之具有自動駕駛功能之 M1類 車輛應配備符合本基準之自動車道維持輔助系統。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
		...	...
2. Definitions ... 2.5. "Unplanned event" is a situation which is unknown in advance, but assumed as very likely in happening and which requires a transition demand. This may include: road construction, inclement weather, approaching emergency vehicles/enforcement vehicles, missing lane markings, load falling from truck.	2. Definitions ... 2.5. "Unplanned event" is a situation which is unknown in advance, but assumed as very likely in happening, e.g. road construction, inclement weather, approaching emergency vehicle, missing lane marking, load falling from truck (collision) and which requires a transition demand.	... 2. 名詞釋義 ... 2.5. 非預期事件(Unplanned event)：係指未預先了解，但假設極度可能發生且需要轉換需求之狀況， <u>可能包含</u> 道路施工、嚴峻氣候、接近中之緊急車輛／ <u>執法車輛</u> 、車道標線遺失、自貨車掉落之載運貨物。	... 2. 名詞釋義 ... 2.5. 非預期事件(Unplanned event)：係指未預先了解，但假設極度可能發生且需要轉換需求之狀況， <u>例如</u> ：道路施工、嚴峻氣候、接近中之緊急車輛、車道標線遺失、自貨車掉落之載運貨物(<u>碰撞</u>)。
3. Application for approval 3.1. The application for approval of a vehicle type with regard to the ALKS shall be submitted by the vehicle manufacturer or by the manufacturer's authorized representative. 3.2. It shall be accompanied by the documents mentioned below in triplicate: 3.2.1. A description of the vehicle type with regard to the items mentioned in paragraph 2.1.1., together with a documentation package as required in Annex 1 which gives access to the basic design of the ALKS and the means by which it is linked to other vehicle systems or by which it directly controls output variables. The numbers and/or symbols identifying the vehicle type shall be specified. 3.3. A vehicle representative of the vehicle type to be approved shall be submitted to the		4.申請者於申請認證測試時應至少提供一部代表車及下列文件。 ...	4.申請者於申請認證測試時應至少提供一部代表車及下列文件。 ...

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
Technical Service conducting the approval tests.			
Annex 1 - Appendix 1 Addendum 1 to Type approval Communication No ... concerning the type approval of a vehicle type with regard to ALKS pursuant to Regulation No. 157 Information document form for automated lane keeping systems	Annex 4 - Appendix 2 Information document form for automated lane keeping systems to be provided by the manufacturer for the approval	4.2 申請者申請認證時提供之自動車道維持輔助系統之資訊文件表	10.9 申請者申請認證時提供之自動車道維持輔助系統之資訊文件表
1. System description Automated Lane Keeping System	1. System description Automated Lane Keeping System	4.2.1 自動車道維持輔助系統之系統描述	10.9.1 自動車道維持輔助系統之系統描述
1.1. Operational Design Domain (Speed, road type, country, Environment, Road conditions, etc)/ Boundary conditions/ Main conditions for Minimum risk manoeuvres and transition demands	1.1. Operational Design Domain (Speed, road type, country, Environment, Road conditions, etc)/ Boundary conditions/ Main conditions for Minimum risk manoeuvres and transition demands	4.2.1.1 操作適用範圍(速度、道路類型、國家、環境、道路狀況等)/邊界條件/最低風險操作及轉換需求之主要條件	10.9.1.1 操作適用範圍(速度、道路類型、國家、環境、道路狀況等)/邊界條件/最低風險操作及轉換需求之主要條件
1.2. Basic Performance (e.g. Object and Event Detection and Response (OEDR) ...)	1.2. Basic Performance (e.g. Object and Event Detection and Response (OEDR) ...)	4.2.1.2 基本性能(如目標及事件檢測與回應(OEDR)等)	10.9.1.2 基本性能(如目標及事件檢測與回應(OEDR)等)
1.3. The means to activate, override or deactivate the system.	1.3. The means to activate, override or deactivate the system.	4.2.1.3 致動、取代(Override)或解除系統之方法	10.9.1.3 致動、取代(Override)或解除系統之方法
2. Description of the functions of "The System" including control strategies	2. Description of the functions of "The System" including control strategies	4.2.2 「系統」之功能描述, 包含控制策略	10.9.2 「系統」之功能描述, 包含控制策略
2.1. Main automated Driving Functions (functional architecture, environmental perception).	2.1. Main automated Driving Functions (functional architecture, environmental perception).	4.2.2.1 主要自動駕駛功能(功能架構、環境感知)	10.9.2.1 主要自動駕駛功能(功能架構、環境感知)
2.1.1. Vehicle-internal.	2.1.1. Vehicle-internal	4.2.2.1.1 車輛內部	10.9.2.1.1 車輛內部
2.1.2. Vehicle-external (e.g. backend)	2.1.2. Vehicle-external (e.g. backend)	4.2.2.1.2 車輛外部(如後端)	10.9.2.1.2 車輛外部(如後端)
3. Overview major components (units) of "The System"	3. Overview major components (units) of "The System"	4.2.3 「系統」主要零組件(元件)概述	10.9.3 「系統」主要零組件(元件)概述
3.1. Control Units	3.1. Control Units	4.2.3.1 控制元件	10.9.3.1 控制元件

增/修內容	原內容	修訂國內法規條文案草案	對應國內法規條文
3.2. Sensors	3.2. Sensors	4.2.3.2 感測器	10.9.3.2 感測器
3.3. Maps/Positioning	3.3. Maps/Positioning	4.2.3.3 地圖／定位	10.9.3.3 地圖／定位
4. System layout and schematics	4. System layout and schematics	4.2.4 系統配置及示意圖	10.9.4 系統配置及示意圖
4.1. Schematic system layout including sensors for the environmental perception (e.g. block diagram)	4.1. Schematic system layout including sensors for the environmental perception (e.g. block diagram)	4.2.4.1 包含用於環境感知之感測器的圖解系統配置（如方塊圖(Block diagram)）	10.9.4.1 包含用於環境感知之感測器的圖解系統配置(如方塊圖(Block diagram))
4.2. List and schematic overview of interconnections (e.g. block diagram)	4.2. List and schematic overview of interconnections (e.g. block diagram)	4.2.4.2 內部連接之列表及圖解概述（如方塊圖）	10.9.4.2 內部連接之列表及圖解概述（如方塊圖）
5. Specifications	5. Specifications	4.2.5 規格	10.9.5 規格
5.1. Means to check the correct operational status of the system	5.1. Means to check the correct operational status of the system	4.2.5.1 檢查系統正確運作狀態之方法	10.9.5.1 檢查系統正確運作狀態之方法
5.2. Means implemented to protect against simple unauthorized activation/operation and interventions into the system	5.2. Means implemented to protect against simple unauthorized activation/operation and interventions into the system	4.2.5.2 用於防止簡單未經授權之致動／運作及對系統之介入所實施之方法	10.9.5.2 用於防止簡單未經授權之致動／運作及對系統之介入所實施之方法
6. Safety Concept	6. Safety Concept	4.2.6 安全性概念	10.9.6 安全性概念
6.1. Safe Operation – Vehicle Manufacturer Statement	6.1. Safe Operation – Vehicle Manufacturer Statement	4.2.6.1 安全運作-申請者宣告	10.9.6.1 安全運作-申請者宣告
6.2. Outline software architecture (e.g. block diagram)	6.2. Outline software architecture (e.g. block diagram)	4.2.6.2 軟體架構概要（如方塊圖）	10.9.6.2 軟體架構概要(如方塊圖)
6.3. Means by which the realization of the system logic is determined	6.3. Means by which the realization of the system logic is determined	4.2.6.3 決定系統邏輯實現之方法	10.9.6.3 決定系統邏輯實現之方法
6.4. General explanation of the main design provisions built into "The System" so as to generate safe operation and interaction with other road users under fault conditions, under operational disturbances and the occurrence of planned/unplanned conditions that would exceed the ODD	6.4. General explanation of the main design provisions built into "The System" so as to generate safe operation and interaction with other road users under fault conditions, under operational disturbances and the occurrence of planned/unplanned conditions that would exceed the ODD	4.2.6.4 於造成超過 ODD 之故障條件、運作干擾及計劃／非計劃狀況發生下，為產生與其他道路使用者之安全操作及互動，內建於「系統」之主要設計規定之一般說明	10.9.6.4 於造成超過 ODD 之故障條件、運作干擾及計劃/非計劃狀況發生下，為產生與其他道路使用者之安全操作及互動，內建於「系統」之主要設計規定之一般說明
6.5. General description of failure handling main principles, fall-back level strategy including risk mitigation strategy (minimum	6.5. General description of failure handling main principles, fall-back level strategy including risk mitigation strategy (minimum	4.2.6.5 失效處理主要原則之一般描述，包含風險緩解策略(最低風險操作)之備用機制層級策略	10.9.6.5 失效處理主要原則之一般描述，包含風險緩解策略(最低風險操作)之備用機制層級策略

增/修內容	原內容	修訂國內法規條文案草案	對應國內法規條文
risk manoeuvre) 6.6. Driver, vehicle occupants and other road users interaction including warning signals and transition demands to be given to driver 6.7. Validation by the manufacturer for the performance requirements specified elsewhere in the regulation including the OEDR, the HMI, the respect of traffic rules and the conclusion that that the system is designed in such a way that it is free from unreasonable risks for the driver, vehicle occupants and other road users 7. Reserved 8. Data Storage System 8.1. Type of Data stored 8.2. Storage location 8.3. Recorded occurrences and data elements means to ensure data security and data protection 8.4. Means to access the data 9. Cyber security (cross reference to the cyber regulation is possible) 9.1. General description of the cyber security and software update management scheme... 9.2. General description of the different risks	risk manoeuvre) 6.6. Driver, vehicle occupants and other road users interaction including warning signals and transition demands to be given to driver. 6.7. Validation by the manufacturer for the performance requirements specified elsewhere in the regulation including the OEDR, the HMI, the respect of traffic rules and the conclusion that that the system is designed in such a way that it is free from unreasonable risks for the driver, vehicle occupants and other road users 7. Verification and test by the authorities 7.1. Verification of the basic function of "The System" 7.2. Examples for checking the system reaction under the influence of a failure or an operational disturbance, emergency conditions and boundary conditions 8. Data Storage System 8.1. Type of Data stored 8.2. Storage location 8.3. Recorded occurrences and data elements means to ensure data security and data protection 8.4. Means to access the data 9. Cyber security (cross reference to the cyber regulation is possible) 9.1. General description of the cyber security and software update management scheme... 9.2. General description of the different risks	<u>4.2.6.6</u> 駕駛、乘客及其他道路使用者之互動，包含將向駕駛發出之警示訊號及轉換需求 <u>4.2.6.7</u> 申請者對本基準詳述之性能要求的確認，包含 OEDR、HMI、遵守交通規則，以及系統係以不會對駕駛、乘客及其他道路使用者造成不合理風險之方式設計的結論 <u>4.2.7</u> (保留) <u>4.2.8</u> 數據儲存系統 <u>4.2.8.1</u> 數據儲存之型式 <u>4.2.8.2</u> 儲存位置 <u>4.2.8.3</u> 記錄事件發生及數據元素以確保數據安全及數據保護之方式 <u>4.2.8.4</u> 存取數據之方式 <u>4.2.9</u> 網路安全(可對照網路法規) <u>4.2.9.1</u> 網路安全及軟體更新管理方式之一般描述	<u>10.9.6.6</u> 駕駛、乘客及其他道路使用者之互動，包含將向駕駛發出之警示訊號及轉換需求 <u>10.9.6.7</u> 申請者對本基準詳述之性能要求的確認，包含 OEDR、HMI、遵守交通規則，以及系統係以不會對駕駛、乘客及其他道路使用者造成不合理風險之方式設計的結論 <u>10.9.7</u> 機構之驗證及試驗 <u>10.9.7.1</u> 「系統」基本功能之驗證 <u>10.9.7.2</u> 於失效或運作干擾、緊急狀況及邊界條件之影響下檢查系統反應之範例 <u>10.9.8</u> 數據儲存系統 <u>10.9.8.1</u> 數據儲存之型式 <u>10.9.8.2</u> 儲存位置 <u>10.9.8.3</u> 記錄事件發生及數據元素以確保數據安全及數據保護之方式 <u>10.9.8.4</u> 存取數據之方式 <u>10.9.9</u> 網路安全(可對照網路法規) <u>10.9.9.1</u> 網路安全及軟體更新管理方式之一般描述

增/修內容	原內容	修訂國內法規條文案	對應國內法規條文
and measures put in place to mitigate these risks 9.3. General description of the update procedure 10. Information provisions to users 10.1. Model of the information provided to users (including expected driver's tasks within the ODD and when going out of the ODD 10.2. Extract of the relevant part of the owner's manual	and measures put in place to mitigate these risks 9.3. General description of the update procedure 10. Information provisions to users 10.1. Model of the information provided to users (including expected driver's tasks within the ODD and when going out of the ODD 10.2. Extract of the relevant part of the owner's manual	<u>4.2.9.2</u> 不同風險及減輕前述風險所採取措施之一般描述 <u>4.2.9.3</u> 更新程序之一般描述 <u>4.2.10</u> 提供使用者之資訊 <u>4.2.10.1</u> 提供給使用者之資訊模型 (包含 ODD 內及離開 ODD 時之預期駕駛人的作業 <u>4.2.10.2</u> 車主手冊相關內容摘錄	<u>10.9.9.2</u> 不同風險及減輕前述風險所採取措施之一般描述 <u>10.9.9.3</u> 更新程序之一般描述 <u>10.9.10.</u> 提供使用者之資訊 <u>10.9.10.1.</u> 提供給使用者之資訊模型(包含 ODD 內及離開 ODD 時之預期駕駛人的作業 <u>10.9.10.2.</u> 車主手冊相關內容摘錄.....
5. System Safety and Fail-safe Response 5.1. General Requirements The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5. ... 5.1.2.The activated system shall comply with traffic rules relating to the DDT in the country of operation, including responding to emergency/enforcement vehicles. ... 5.1.7.The effectiveness of the system shall not be adversely affected by magnetic or	5. System Safety and Fail-safe Response 5.1. General Requirements The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5. ... 5.1.2. The activated system shall comply with traffic rules relating to the DDT in the country of operation. ... 5.1.7.The effectiveness of the system shall not be adversely affected by magnetic or	5. 系統安全及故障安全響應 5.1 通則 為滿足本規定，申請者應於安全方法檢查期間作為規定 <u>11</u> 評估之一部分（特別是對於未於規定 <u>12</u> 下試驗之條件），並依據規定 <u>12</u> 相關試驗向檢測機構展演。 ... 5.1.2 已啟動之系統應遵守我國對動態行駛作業(DDT)之相關交通規則， <u>包含對緊急／執法車輛之反應</u> 。 ... (車輛所對應電磁相容性版本依車型	5.系統安全及故障安全響應 5.1通則 為滿足本規定，申請者應於安全方法檢查期間作為規定 <u>10</u> 評估之一部分（特別是對於未於規定 <u>11</u> 下試驗之條件），並依據規定 <u>11</u> 相關試驗向檢測機構展演。 ... 5.1.2 已啟動之系統應遵守我國對動態行駛作業(DDT)之相關交通規則。 ... 5.1.7 系統的有效性不應受到磁場

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
electrical fields. This shall be demonstrated by fulfilling the technical requirements and respecting the transitional provisions of 07 or later series of amendments to UN Regulation No. 10.	electrical fields. This shall be demonstrated by compliance with the 05 or later series of amendments to UN Regulation No. 10.	有所不同，將依照實際規定符合要求，故修訂不影響檢測基準內容)	或電場等之不利影響，且應符合本基準中「電磁相容性」規定。
...	...	...	...
5.2. Dynamic Driving Task	5.2. Dynamic Driving Task	5.2 動態行駛作業	5.2 動態行駛作業
The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5.	The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5.	為滿足本規定，申請者應於安全方法檢查期間作為規定11評估之一部分（特別是對於未於規定12下試驗之條件），並依據規定12相關試驗向檢測機構展演。	為滿足本規定，申請者應於安全方法檢查期間作為規定10評估之一部分（特別是對於未於規定11下試驗之條件），並依據規定11相關試驗向檢測機構展演。
...	...	...	...
5.2.3. The activated system shall control the speed of the vehicle.	5.2.3. The activated system shall control the speed of the vehicle.	5.2.3 已啟動之系統應控制車輛速度。	5.2.3 已啟動之系統應控制車輛速度。
...	...	...	...
5.2.3.3. The activated system shall detect the distance to the next vehicle in front as defined in paragraph 7.1.1. and shall adapt the vehicle speed in order to avoid collision.	5.2.3.3. The activated system shall detect the distance to the next vehicle in front as defined in paragraph 7.1.1. and shall adapt the vehicle speed in order to avoid collision.	5.2.3.3 已啟動之系統應如規定 7.1.1 定義偵測本車與前方車輛間之距離，並應調適車輛速度以避免碰撞。	5.2.3.3 已啟動之系統應如規定 7.1.1 定義偵測本車與前方車輛間之距離，並應調適車輛速度以避免碰撞。
While the ALKS vehicle is not at standstill, the system shall adapt the speed to adjust the distance to a vehicle in front in the same lane to be equal or greater than the minimum following distance.	While the ALKS vehicle is not at standstill, the system shall adapt the speed to adjust the distance to a vehicle in front in the same lane to be equal or greater than the minimum following distance.	於 ALKS 車輛非靜止狀態時，系統應調適速度以調整本車與同一車道前方車輛之距離，使其等於或大於最低跟車距離。	於 ALKS 車輛非靜止狀態時，系統應調適速度以調整本車與同一車道前方車輛之距離，使其等於或大於最低跟車距離。
In case the minimum time gap cannot be respected temporarily because of other road users (e.g. vehicle is cutting in, decelerating lead vehicle, etc.), the vehicle shall readjust	In case the minimum time gap cannot be respected temporarily because of other road users (e.g. vehicle is cutting in, decelerating lead vehicle, etc.), the vehicle shall readjust	因其他道路使用者行為（例如車輛切	因其他道路使用者行為（例如車輛切

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the minimum following distance at the next available opportunity without any harsh braking unless an emergency manoeuvre would become necessary. The minimum following distance shall be calculated using the formula: $d_{\min} = V_{\text{ALKS}} * t_{\text{front}}$ Where: $d_{\min}$ = the minimum following distance V_{ALKS} = the present speed of the ALKS vehicle in m/s t_{front} = minimum time gap in seconds between the ALKS vehicle and a leading vehicle in front as per the table below: (表如頁末所示) For speed values not mentioned in the table, linear interpolation shall be applied. Notwithstanding the result of the formula above for present speeds below 2 m/s the minimum following distance shall never be less than 2 m for M1, N1 and 2.4 m for M2, M3, N2, N3. ... 5.2.5. The activated system shall detect the risk of collision in particular with another road user ahead or beside the vehicle, due to a decelerating lead vehicle, a cutting in vehicle or a suddenly appearing obstacle and shall automatically perform appropriate manoeuvres to minimize risks to safety of	the minimum following distance at the next available opportunity without any harsh braking unless an emergency manoeuvre would become necessary. The minimum following distance shall be calculated using the formula: $d_{\min} = V_{\text{ALKS}} * t_{\text{front}}$ Where: $d_{\min}$ = the minimum following distance V_{ALKS} = the present speed of the ALKS vehicle in m/s t_{front} = minimum time gap in seconds between the ALKS vehicle and a leading vehicle in front as per the table below: (表如頁末所示) For speed values not mentioned in the table, linear interpolation shall be applied. Notwithstanding the result of the formula above for present speeds below 2 m/s the minimum following distance shall never be less than 2 m. ... 5.2.5. The activated system shall detect the risk of collision in particular with another road user ahead or beside the vehicle, due to a decelerating lead vehicle, a cutting in vehicle or a suddenly appearing obstacle and shall automatically perform appropriate manoeuvres to minimize risks to safety of	入使前車減速等)而暫時無法遵循最小之時間間隔時,車輛應於下一次可行機會且未有任何急煞車之狀況下,重新調整最低跟車距離,並在非緊急操作必要情況下避免緊急煞車。 最低跟車距離應使用以下公式計算: $d_{\min} = V_{\text{ALKS}} * t_{\text{front}}$ 其中: $d_{\min}$ = 最低跟車距離 V_{ALKS} = ALKS 車輛之現在速度,以公尺/秒為單位 t_{front} = ALKS 車輛與前方先行車輛間之最小時間間隔(以秒為單位),如下表所示: (表如頁末所示) 對於表中未提及之速度值,應採用線性內插法計算。 無論上述公式之計算結果,對於現在速度低於二公尺/秒者,<u>M1 及 N1 類車輛之最小跟車距離不應小於二公尺,而 M2、M3、N2 及 N3 類車輛之最小跟車距離不應小於二點四公尺。</u> ... 5.2.5 已啟動之系統應偵測碰撞風險,特別是車輛與前方或側方其他道路使用者之間,因前方車輛減速、車輛切入或障礙物突然出現之碰撞風	入使前車減速等)而暫時無法遵循最小之時間間隔時,車輛應於下一次可行機會且未有任何急煞車之狀況下,重新調整最低跟車距離,並在非緊急操作必要情況下避免緊急煞車。 最低跟車距離應使用以下公式計算: $d_{\min} = V_{\text{ALKS}} * t_{\text{front}}$ 其中: $d_{\min}$ = 最低跟車距離 V_{ALKS} = ALKS 車輛之現在速度,以公尺/秒為單位 t_{front} = ALKS 車輛與前方先行車輛間之最小時間間隔(以秒為單位),如下表所示: (表如頁末所示) 對於表中未提及之速度值,應採用線性內插法計算。 無論上述公式之計算結果,對於現在速度低於二公尺/秒者,最小跟車距離不應小於二公尺。 ... 5.2.5 已啟動之系統應偵測碰撞風險,特別是車輛與前方或側方其他道路使用者之間,因前方車輛減速、車輛切入或障礙物突然出現之碰撞風

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the vehicle occupants and other road users. For conditions not specified in paragraphs 5.2.4., 5.2.5. or its subparagraphs, this shall be ensured at least to the level at which a competent and careful human driver could minimize the risks. This shall be demonstrated in the assessment carried out under Annex 4 and by taking guidance from Annex 3. ... 5.2.5.2. The activated system shall avoid a collision with a cutting-in vehicle, (a) Provided the cutting in vehicle maintains its longitudinal speed which is lower than the longitudinal speed of the ALKS vehicle and (b) Provided that the lateral movement of the cutting in vehicle has been visible for a time of at least 0.72 seconds before the reference point for TTCLaneIntrusion is reached, (c) When the distance between the vehicle's front and the cutting in vehicle's rear corresponds to a TTC calculated by the following equation: $TTCLaneIntrusion > vrel / (2 \cdot \times 6 \text{ m/s}^2) + 0.35 \text{ s}$ Where: Vrel = Relative velocity between both vehicles, positive for vehicle being faster than the cutting in vehicle TTCLaneIntrusion = The TTC value,	the vehicle occupants and other road users. For conditions not specified in paragraphs 5.2.4., 5.2.5. or its subparagraphs, this shall be ensured at least to the level at which a competent and careful human driver could minimize the risks. This shall be demonstrated in the assessment carried out under Annex 4 and by taking guidance from Appendix 3 to Annex 4. ... 5.2.5.2. The activated system shall avoid a collision with a cutting in vehicle, (a) Provided the cutting in vehicle maintains its longitudinal speed which is lower than the longitudinal speed of the ALKS vehicle and (b) Provided that the lateral movement of the cutting in vehicle has been visible for a time of at least 0.72 seconds before the reference point for TTCLaneIntrusion is reached, (c) When the distance between the vehicle's front and the cutting in vehicle's rear corresponds to a TTC calculated by the following equation: $TTCLaneIntrusion > vrel / (2 \cdot 6 \text{ m/s}^2) + 0.35 \text{ s}$ Where: Vrel = relative velocity between both vehicles, positive for vehicle being faster than the cutting in vehicle TTCLaneIntrusion = The TTC value, when the outside of the tyre of the intruding	險，並應自動執行適當之操作以對車輛乘員及其他道路使用者之安全風險降至最低。 對於規定5.2.4、5.2.5及其下相關規定未敘述之情況，應至少確保系統能達到稱職且小心之駕駛所能將風險降至最低之等級。應依照規定11執行評估且藉由規定10作為導引進行展演。 ... (修訂不影響檢測基準)	險，並應自動執行適當之操作以對車輛乘員及其他道路使用者之安全風險降至最低。 對於規定5.2.4、5.2.5及其下相關規定未敘述之情況，應至少確保系統能達到稱職且小心之駕駛所能將風險降至最低之等級。應依照規定10執行評估且藉由規定10.10作為導引進行展演。 ... 5.2.5.2 已啟動之系統應避免於下述狀況碰撞切入車輛： (a) 於切入車輛維持其縱向速度，且低於 ALKS 車輛之縱向速度時，及 (b) 於到達 TTCLaneIntrusion 之參考點之前，切入車輛之側向移動已可見至少零點七二秒時， (c) 車輛前端及切入車輛之後端間之距離，對應由下述公式計算之 TTC 時： $TTCLaneIntrusion > vrel / (2 \cdot 6 \text{ m/s}^2) + 0.35 \text{ s}$ 其中：

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when the outside of the tyre of the intruding vehicle's front wheel closest to the lane markings crosses a line 0.3 m beyond the outside edge of the visible lane marking to which the intruding vehicle is being drifted. ... 5.2.5.4. It is recognised that the fulfilment of the requirement in paragraph 5.2.5. may not be fully achieved in other conditions than those described above. However, the system shall not deactivate or unreasonably switch the control strategy in these other conditions. This shall be demonstrated in accordance with Annex 4 of this Regulation. ... 5.2.6. Reserved (Lane Change) 5.2.7. For conditions not specified in paragraphs 5.2.4., 5.2.5. or its subparagraphs, the performance of the system shall be ensured at least to the level at which a competent and careful human driver could minimize the risks. The attentive human driver performance model and related parameters in the traffic critical disturbance scenarios from Annex 3 may be taken as guidance. The capabilities of the system shall be demonstrated in the assessment carried out under Annex 4. ... 5.3. Emergency manoeuvre The fulfilment of the provisions of this	vehicle's front wheel closest to the lane markings crosses a line 0.3 m beyond the outside edge of the visible lane marking to which the intruding vehicle is being drifted. 5.2.5.4. It is recognised that the fulfilment of the requirement in paragraph 5.2.5. may not be fully achieved in other conditions than those described above. However, the system shall not deactivate or unreasonably switch the control strategy in these other conditions. This shall be demonstrated in accordance with Annex 4 of this Regulation. 5.3. Emergency Manoeuvre The fulfilment of the provisions of this paragraph shall be demonstrated by the	... 5.2.5.4 除上述之外的其他情況下，可能無法完全符合規定5.2.5之要求。惟於前述之其他情況下，系統不應關閉或不合理的改變控制策略。應依照規定<u>11</u>進行展演以符合前述要求。 ... <u>5.2.6 保留（車道變換）</u> <u>5.2.7 對於規定 5.2.4 及 5.2.5 或以下規定未描述之條件，應至少確保系統性能與一位可將風險降至最低之稱職且謹慎的駕駛等級相同。注意力集中之人類駕駛性能模型及交通關鍵干擾情境，可依規定 10 之相關參數作為指引。系統能力應於規定 11 之評估中進行展演。</u>	Vrel = 兩車之間的相對速度，正值表示車輛速度快於切入車輛。 TTCLaneIntrusion = TTC值，於切入車輛最靠近車道標線之前輪的輪胎外側，跨越切入車輛所偏移之可視車道標線的外側邊緣一個零點三公尺之線段時之相關數值。 ... 5.2.5.4 除上述之外的其他情況下，可能無法完全符合規定5.2.5之要求。惟於前述之其他情況下，系統不應關閉或不合理的改變控制策略。應依照規定<u>10</u>進行展演以符合前述要求。 ...

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paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5. 5.3.1.An Emergency Manoeuvre shall be carried out in case of an imminent collision risk. 5.3.1.1. Any longitudinal deceleration demand of more than 5.0 m/s² of the system shall be considered to be an emergency manoeuvre. ... 5.3.4.The vehicle shall implement a logic signal indicating emergency braking as specified in UN Regulation No. 13-H or 13, as appropriate. ... 5.4. Transition demand and system operation during transition phase The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5. 5.4.1.The activated system shall recognise all situations in which it needs to transition the control back to the driver. Types of situations in which the vehicle will generate a transition demand to the driver	manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5. 5.3.1.An Emergency Manoeuvre shall be carried out in case of an imminent collision risk. 5.3.1.1. Any longitudinal deceleration demand of more than 5.0 m/s² of the system shall be considered to be an EM. ... 5.3.4.The vehicle shall implement a logic signal indicating emergency braking as specified in UN Regulation No. 13-H. ... 5.4. Transition demand and system operation during transition phase The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5. 5.4.1.The activated system shall recognise all situations in which it needs to transition the control back to the driver. Types of situations in which the vehicle will generate a transition demand to the driver shall be declared by the vehicle	... 5.3 緊急操作 為滿足本規定，申請者應於安全方法檢查期間作為規定11評估之一部分，並依據規定12相關試驗向檢測機構展演。 5.3.1 於立即性碰撞風險產生時，系統應執行緊急操作。 ... (英文縮寫調整，故修訂不影響檢測基準) (修正後與中文解釋相同，故修訂不影響檢測基準) 5.4 駕駛模式轉換需求與系統運作 為滿足本規定，申請者應於安全方法檢查期間作為規定11評估之一部分（特別是對於未於規定12下試驗之條件），並依據規定12相關試驗向檢測機構展演。	5.3 緊急操作 為滿足本規定，申請者應於安全方法檢查期間作為規定10評估之一部分，並依據規定11相關試驗向檢測機構展演。 5.3.1 於立即性碰撞風險產生時，系統應執行緊急操作。 ... 5.3.1.1 系統任何之縱向減速度需求超過五點零公尺秒平方者，應被視為緊急操作。 ... 5.3.4 車輛應依照本基準中「動態煞車」之規定，實施緊急煞車致動之邏輯信號。 ... 5.4 駕駛模式轉換需求與系統運作 為滿足本規定，申請者應於安全方法檢查期間作為規定10評估之一部分（特別是對於未於規定11下試驗之條件），並依據規定11相關試驗向檢測機構展演。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
shall be declared by the vehicle manufacturer and included in the documentation package required in Annex 4. ... 5.5. Minimum Risk Manoeuvre The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5. ... 5.5.2. The minimum risk manoeuvre shall bring the vehicle to standstill unless the system is deactivated by the driver during the manoeuvre. 5.5.3. A minimum risk manoeuvre shall only be terminated once the system is deactivated or the system has brought the vehicle to a standstill. 5.5.4. The system shall be deactivated at the end of any minimum risk manoeuvre. The hazard warning lights shall remain activated unless deactivated manually and the vehicle shall not move away after standstill without manual input. 5.5.5. Reactivation of the system after the end of any minimum risk manoeuvre shall only be possible after a new initiation of the	manufacturer and included in the documentation package required in Annex 4. ... 5.5. Minimum Risk Manoeuvre The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 (in particular for conditions not tested under Annex 5) and according to the relevant tests in Annex 5. ... 5.5.2. The minimum risk manoeuvre shall bring the vehicle to standstill unless the system is deactivated by the driver during the manoeuvre. 5.5.4. A minimum risk manoeuvre shall only be terminated once the system is deactivated or the system has brought the vehicle to a standstill. 5.5.5. The system shall be deactivated at the end of any minimum risk manoeuvre. The hazard warning lights shall remain activated unless deactivated manually and the vehicle shall not move away after standstill without manual input. 5.5.6. Reactivation of the system after the end of any minimum risk manoeuvre shall only be possible after each new engine start/run cycle.	5.4.1 已啟動之系統應能辨識所有需要轉換由駕駛控制之情況。 前述車輛產生對駕駛人之轉換需求的情況型式應由申請者宣告，並包含於規定11所要求之檔案中。 ... 5.5 最低風險操作 為滿足本規定，申請者應於安全方法檢查期間作為規定11評估之一部分（特別是對於未於規定12下試驗之條件），並依據規定12相關試驗向檢測機構展演。 ... (原始基準草案編號已調整正確，故修訂不影響檢測基準) (原始基準草案編號已調整正確，故修訂不影響檢測基準) (原始基準草案編號已調整正確，故修訂不影響檢測基準)	5.4.1 已啟動之系統應能辨識所有需要轉換由駕駛控制之情況。 前述車輛產生對駕駛人之轉換需求的情況型式應由申請者宣告，並包含於規定10所要求之檔案中。 ... 5.5 最低風險操作 為滿足本規定，申請者應於安全方法檢查期間作為規定10評估之一部分（特別是對於未於規定11下試驗之條件），並依據規定11相關試驗向檢測機構展演。 ... 5.5.2 除駕駛於操作過程中解除系統外，否則最低風險操作應將車輛停止。 5.5.3 最低風險操作僅於系統解除或系統將車輛停止後終止。 5.5.4 系統應於任何最低風險操作結束時解除。 除手動解除外，危險警示燈應維持致

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powertrain³. ³ As defined in Mutual Resolution No. 2 (M.R.2) of the 1958 and the 1998 Agreements containing vehicle propulsion system definitions, see document ECE/TRANS/WP.29/1121.		5.5.5 於任何最低風險操作結束後，系統僅應於<u>全新動力系統啟動</u>後重新啟動。 (聯合國共同協議第二號相關定義說明，故不影響檢測基準內容)	動，且車輛於未有手動輸入之狀況下不應移動。 5.5.5 於任何最低風險操作結束後，系統僅應於<u>每個新引擎啟動/運行循環開始</u>後重新啟動。
6. Human Machine Interface/operator information The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5. 6.1. Driver Availability Recognition System ... 6.1.3.1. Criteria for deeming driver availability ... Justification for the number and combination of availability criteria, in particular with regard to the corresponding time interval, shall be provided by the manufacturer by documented evidence. However, the time interval required for any availability criteria shall not exceed 30 seconds. This shall be demonstrated by the manufacturer and	6. Human Machine Interface/operator information 6.1. Driver Availability Recognition System The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5. ... 6.1.3.1. Criteria for deeming driver availability Justification for the number and combination of availability criteria, in particular with regard to the corresponding time interval, shall be provided by the manufacturer by documented evidence. However, the time interval required for any availability criteria shall not exceed 30 seconds. This shall be demonstrated by the manufacturer and	6. 人機界面／操作者資訊 <u>為滿足本規定，申請者應於安全方法檢查期間作為規定 11 評估之一部分，並依據規定 12 相關試驗向檢測機構展演。</u> <u>6.1 駕駛人狀態辨識系統</u> ... 6.1.3.1 駕駛人狀態標準 ... 申請者應藉由資料解釋狀態標準之數量及組合，特別是對應之時間間隔。惟任何狀態標準所需之時間間隔不應超過三十秒。此應由申請者進行展演，並由檢測機構依規定<u>11</u>進行評估。	6. 人機界面／操作者資訊 <u>6.1 駕駛人狀態辨識系統</u> <u>為滿足本規定，申請者應於安全方法檢查期間作為規定 10 評估之一部分，並依據規定 12 相關試驗向檢測機構展演。</u> ... 6.1.3.1 駕駛人狀態標準 ... 申請者應藉由資料解釋狀態標準之數量及組合，特別是對應之時間間隔。惟任何狀態標準所需之時間間隔不應超過三十秒。此應由申請者進行展演，並由檢測機構依規定<u>10</u>進行評估。

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assessed by the technical service according to Annex 4.	assessed by the technical service according to Annex 4.		
6.2. Activation, Deactivation and Driver Input The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5.	6.2. Activation, Deactivation and Driver Input The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5.	6.2. 致動、解除與駕駛人輸入 為滿足本規定，申請者應於安全方法檢查期間作為規定11評估之一部分，並依據規定12相關試驗向檢測機構展演。	6.2. 致動、解除與駕駛人輸入 為滿足本規定，申請者應於安全方法檢查期間作為規定10評估之一部分，並依據規定11相關試驗向檢測機構展演。
...	...	...	...
6.2.2.The default status of the system shall be the off mode at the initiation of the powertrain ³ .	6.2.2.The default status of the system shall be the off mode at the initiation of each new engine start/run cycle.	6.2.2 系統之預設狀態於動力系統啟動時，應為關閉模式。 (聯合國共同協議第二號相關定義說明，故不影響檢測基準內容)	6.2.2 系統之預設狀態於每個新引擎啟動/運行循環開始時，應為關閉模式。
³ As defined in Mutual Resolution No. 2 (M.R.2) of the 1958 and the 1998 Agreements containing vehicle propulsion system definitions, see document ECE/TRANS/WP.29/1121.			
A new engine start (or run cycle) which is performed automatically, e.g. by the operation of a stop/start system, shall not be considered an “initiation of the powertrain” wherever that term is used in this Regulation.	This requirement does not apply when a new engine start/run cycle is performed automatically, e.g. by the operation of a stop/start system.	於自動執行之新引擎啟動(或運轉循環)，例如：怠速起步系統(stop/start system)之作動，無論名詞於本附件中何處使用，皆不應視為「動力系統啟動」。	於新引擎啟動/運行循環係自動執行時不適用此要求，例如藉由怠速起步系統之運作。
...	...	...	...
6.2.5.In addition to paragraph 6.2.4., the system shall not be deactivated by any driver input other than those described below in paragraphs 6.2.5.1. to 6.2.5.4.	6.2.5.In addition to paragraph 6.2.4., the system shall not be deactivated by any driver input other than those described below in paragraphs 6.2.5.1. to 6.2.5.4.	6.2.5 除規定6.2.4要求外，系統不應藉由非規定6.2.5.1至6.2.5.4所述之任何駕駛人輸入而被解除。	6.2.5 除規定6.2.4要求外，系統不應藉由非規定6.2.5.1至6.2.5.4所述之任何駕駛人輸入而被解除。
...	...	...	...
6.2.5.4. Deactivation in case of a severe	6.2.5.4. Deactivation in case of a severe	6.2.5.4 於嚴重車輛故障或嚴重	6.2.5.4 於嚴重車輛故障或嚴重

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vehicle failure or a severe ALKS failure ... These different strategies shall be declared by the manufacturer and their effectiveness shall be assessed by the Technical Service with regard to ensuring a safe transition of control from the system to the human driver according to Annex 4. ... 6.3. System override 6.3.1.A driver input to the steering control shall override the lateral control function of the system when the input exceeds a reasonable threshold designed to prevent unintentional override. ... These thresholds and the rational for any variation shall be demonstrated to the Technical Service during the assessment according to Annex 4. 6.3.1.1. Driver attentiveness ... The specification for confirming these or equally safe criteria must be declared by the manufacturer and supported by documented evidence. This shall be assessed by the technical service according to Annex 4. ...	vehicle failure or a severe ALKS failure ... These different strategies shall be declared by the manufacturer and their effectiveness shall be assessed by the Technical Service with regard to ensuring a safe transition of control from the system to the human driver according to Annex 4. ... 6.3. System override 6.3.1.A driver input to the steering control shall override the lateral control function of the system when the input exceeds a reasonable threshold designed to prevent unintentional override. ... These thresholds and the rational for any variation shall be demonstrated to the Technical Service during the assessment according to Annex 4. 6.3.1.1. Driver attentiveness ... The specification for confirming these or equally safe criteria must be declared by the manufacturer and supported by documented evidence. This shall be assessed by the technical service according to Annex 4. ... 6.3.7. The fulfilment of the provisions in paragraph 6.3 and its subparagraphs shall be demonstrated by the manufacturer to the	ALKS故障發生時之系統解除 ... 依規定<u>11</u>要求，前述之不同策略應由申請者宣告，且其有效性應由檢測機構評估，以確保自系統對駕駛人之控制的安全轉換。 ... 6.3 系統取代 6.3.1 於輸入超越設計用於防止無意間取代之合理閾值時，駕駛人對轉向控制器之輸入應取代系統之側向控制功能。 ... 前述閾值及任何變化之合理性應依規定<u>11</u>於評估期間向檢測機構展演。 6.3.1.1 駕駛人注意力 ... 用於確認前述要求之規範或同等安全標準應由申請者宣告並透過文件支持。此應由檢測機構依規定<u>11</u>評估。 ...	ALKS故障發生時之系統解除 ... 依規定<u>10</u>要求，前述之不同策略應由申請者宣告，且其有效性應由檢測機構評估，以確保自系統對駕駛人之控制的安全轉換。 ... 6.3 系統取代 6.3.1 於輸入超越設計用於防止無意間取代之合理閾值時，駕駛人對轉向控制器之輸入應取代系統之側向控制功能。 ... 前述閾值及任何變化之合理性應依規定<u>10</u>於評估期間向檢測機構展演。 6.3.1.1 駕駛人注意力 ... 用於確認前述要求之規範或同等安全標準應由申請者宣告並透過文件支持。此應由檢測機構依規定<u>10</u>評估。 ... <u>6.3.7 為滿足規定 6.3 之所有要求，作為規定 10 評估之一部分，申請者應於安全方法檢查期間向檢測機構</u>

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6.4. Information to the driver ... 6.4.4. Where examples are given above, an adequate and equally perceptible interface design for the optical signals may be used instead. This shall be demonstrated by the manufacturer and shall be supported by documented evidence. This shall be assessed by the Technical Service according to Annex 4.	technical service during the inspection of the safety approach as part of the assessment to Annex 4. 6.4. Information to the driver ... 6.4.4. Where examples are given above, an adequate and equally perceptible interface design for the optical signals may be used instead. This shall be demonstrated by the manufacturer and shall be supported by documented evidence. This shall be assessed by the Technical Service according to Annex 4.	6.4 對駕駛人之資訊 ... 6.4.4 於上述範例中，可對光學訊號使用適當且可同等受到感知之介面設計作為替代。此應由申請者展演並透過文件支持。此應由檢測機構依規定11進行評估。	<u>展演。</u> 6.4 對駕駛人之資訊 ... 6.4.4 於上述範例中，可對光學訊號使用適當且可同等受到感知之介面設計作為替代。此應由申請者展演並透過文件支持。此應由檢測機構依規定10進行評估。
7. Object and Event Detection and Response (OEDR) ... The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5. 7.1. Sensing requirements The ALKS vehicle shall be equipped with a sensing system such that, it can at least determine the driving environment (e.g. road geometry ahead, lane markings) and the traffic dynamics: (a) Across the full width of its own traffic lane, the full width of the traffic lanes immediately to its left and to its right, up to	7. Object and Event Detection and Response (OEDR) ... 7.1. Sensing requirements The fulfilment of the provisions of this paragraph shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4 and according to the relevant tests in Annex 5. The ALKS vehicle shall be equipped with a sensing system such that, it can at least determine the driving environment (e.g. road geometry ahead, lane markings) and the traffic dynamics: (a) Across the full width of its own traffic lane, the full width of the traffic lanes immediately to its left and to its right, up to	7. 目標、事件偵測及反應 ... 為滿足本規定，申請者應於安全方法檢查期間作為規定11評估之一部分，並依據規定12相關試驗向檢測機構展演。 <u>7.1 感測系統要求</u> ALKS車輛應配備感測系統，其應可至少測定駕駛環境（例如前方道路之幾何、車道標線）及交通動態： (a) 跨越所行駛車道以及緊鄰其左側和右側車道之全寬，直至前方縱向偵測範圍極限；	7. 目標、事件偵測及反應 ... <u>7.1 感測系統要求</u> 為滿足本規定，申請者應於安全方法檢查期間作為規定10評估之一部分，並依據規定11相關試驗向檢測機構展演。 ALKS車輛應配備感測系統，其應可至少測定駕駛環境（例如前方道路之幾何、車道標線）及交通動態： (a) 跨越所行駛車道以及緊鄰其左側和右側車道之全寬，直至前方縱向偵測範圍極限；

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the limit of the forward detection range; (b) Along the full length of the vehicle or combination and up to the limit of the lateral detection range. The requirements of this paragraph are without prejudice to other requirements in this Regulation, most notably paragraph 5.1.1. and 5.1.2. 7.1.1.Forward detection range ... The Technical Service shall verify that the distance at which the vehicle sensing system detects a road user during the relevant test in Annex 5 is equal or greater than the declared value. 7.1.2.Lateral detection range The manufacturer shall declare the lateral detection range. The declared range shall be sufficient to cover the full width of the lane immediately to the left and of the lane immediately to the right of the vehicle or combination. The Technical Service shall verify that the vehicle sensing system detects vehicles during the relevant test in Annex 5. This range shall be equal or greater than the declared range. 7.1.3.The ALKS shall implement strategies to detect and compensate for environmental conditions that reduce the detection range, e.g. prevent enabling the system, disabling	the limit of the forward detection range; (b) Along the full length of the vehicle and up to the limit of the lateral detection range. The requirements of this paragraph are without prejudice to other requirements in this Regulation, most notably paragraph 5.1.1. 7.1.1.Forward detection range ... The Technical Service shall verify that the distance at which the vehicle sensing system detects a road user during the relevant test in Annex 5 is equal or greater than the declared value. 7.1.2.Lateral detection range The manufacturer shall declare the lateral detection range. The declared range shall be sufficient to cover the full width of the lane immediately to the left and of the lane immediately to the right of the vehicle. The Technical Service shall verify that the vehicle sensing system detects vehicles during the relevant test in Annex 5. This range shall be equal or greater than the declared range. 7.1.3.The ALKS shall implement strategies to detect and compensate for environmental conditions that reduce the detection range, e.g. prevent enabling the system, disabling the system and transferring the control back	(b) 沿車輛或車輛組合之全長直至側向偵測範圍極限。 本項要求並不影響本項法規之其他要求，特別是規定5.1.1及5.1.2。 7.1.1 前向偵測範圍 ... 檢測機構應驗證車輛感測系統依規定12進行相關試驗期間，偵測道路使用者之距離等於或大於所宣告數值。 7.1.2 側向偵測範圍 申請者應宣告其側向偵測範圍。所宣告範圍應足以涵蓋車輛或車輛組合左側及右側之車道全寬。 檢測機構應驗證車輛感測系統於規定12之相關試驗期間偵測到車輛。此偵測距離應等於或大於所宣告範圍。 7.1.3 ALKS應實施策略以對降低偵測範圍之環境條件進行偵測及補償，例如防止系統啟動、關閉系統並將控制轉回駕駛者，以及於能見度過	(b) 沿車輛之全長直至側向偵測範圍極限。 本項要求並不影響本項法規之其他要求，特別是規定5.1.1。 7.1.1 前向偵測範圍 ... 檢測機構應驗證車輛感測系統依規定11進行相關試驗期間，偵測道路使用者之距離等於或大於所宣告數值。 7.1.2 側向偵測範圍 申請者應宣告其側向偵測範圍。所宣告範圍應足以涵蓋車輛左側及右側之車道全寬。 檢測機構應驗證車輛感測系統於規定11之相關試驗期間偵測到車輛。此偵測距離應等於或大於所宣告範圍。 7.1.3 ALKS應實施策略以對降低偵測範圍之環境條件進行偵測及補償，例如防止系統啟動、關閉系統並將控制轉回駕駛者，以及於能見度過

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the system and transferring the control back to the driver, reducing the speed when visibility is too low. These strategies shall be described by the manufacturer and assessed according to Annex 4. ... 7.1.5.The fulfilment of the provisions of paragraph 7.1. and its subparagraphs shall be demonstrated to the technical service and tested according to the relevant tests in Annex 5. Where the ALKS can operate with a vehicle combination, the manufacturer shall demonstrate to the Technical Service at the time of type approval the strategies implemented to ensure that the sensing capability is always sufficient for the length of trailer attached. 7.1.6.A single perception malfunction without failure should not induce hazardous event. The design strategies put in place shall be described by the vehicle manufacturer and their safety shall be demonstrated to the satisfaction of the technical service in accordance with Annex 4.	to the driver, reducing the speed when visibility is too low. These strategies shall be described by the manufacturer and assessed according to Annex 4. ... 7.1.5.The fulfilment of the provisions of paragraph 7.1. and its subparagraphs shall be demonstrated to the technical service and tested according to the relevant tests in Annex 5. 7.1.6.A single perception malfunction without failure should not induce hazardous event. The design strategies put in place shall be described by the vehicle manufacturer and their safety shall be demonstrated to the satisfaction of the technical service in accordance with Annex 4.	低時降低速度。前述策略應由申請者說明，並依規定<u>11</u>進行評估。 ... 7.1.5 為滿足規定7.1及其相關規定，應向檢測機構展演，並依據規定<u>12</u>進行相關試驗。 <u>於 ALKS 可於車輛組合上運作者，申請者應於型式認證時向檢測機構展演所實施之策略，以確保感測能力總是足以涵蓋所連接之拖車長度。</u> 7.1.6 未造成故障之單一感測失效不應導致危險事件。所實施之設計策略應由申請者說明，且為滿足檢測機構要求，其安全性應依規定 <u>11</u> 向檢測機構展演。	低時降低速度。前述策略應由申請者說明，並依規定<u>10</u>進行評估。 ... 7.1.5 為滿足規定7.1及其相關規定，應向檢測機構展演，並依據規定<u>11</u>進行相關試驗。 7.1.6 未造成故障之單一感測失效不應導致危險事件。所實施之設計策略應由申請者說明，且為滿足檢測機構要求，其安全性應依規定<u>10</u>向檢測機構展演。
8. Data Storage System for Automated Driving The fulfilment of the provisions of paragraph 8 shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the	8. Data Storage System for Automated Driving 8.1. Each vehicle equipped with ALKS (the system) shall be fitted with a DSSAD that meets the requirements specified below. The fulfilment of the provisions of paragraph 8	8. 自動駕駛數據儲存系統 <u>為滿足本規定，申請者應於安全方法檢查期間作為規定 11 評估之一部分，向檢測機構展演。</u>	8. 自動駕駛數據儲存系統 <u>8.1 每一部配備 ALKS(以下簡稱系統)之車輛皆應安裝符合下述要求之 DSSAD。為滿足本規定，申請者應於安全方法檢查期間作為規定 10 評</u>

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assessment to Annex 4. 8.1 Fitment Each vehicle equipped with ALKS (the system) shall be fitted with a DSSAD that meets the requirements specified below. ... 8.4. Data availability ... 8.4.3. Retrievalability of data 8.4.3.1. For vehicles of Category M1 and N1 the data shall be retrievable even after an impact of a severity level set by UN Regulations Nos. 94, 95 or 137 as applicable. 8.4.3.2. For vehicles of Categories M2, M3, N2 and N3, the following applies. Either: (a) The data shall be retrievable even after a mechanical shock of a severity level as specified in the component test of Annex 9C of the 03 series of amendment to UN Regulation No. 100, and (b) The DSSAD shall be mounted in a position such as to be protected against mechanical damage resulting from a typical vehicle crash (e.g. frontal impact). This shall be demonstrated to the technical service together with appropriate documentation (e.g. calculations or simulations); Or, alternatively, Sufficient crash protection may be	shall be demonstrated by the manufacturer to the technical service during the inspection of the safety approach as part of the assessment to Annex 4. ... 8.4. Data availability ... 8.4.3. The data shall be retrievable even after an impact of a severity level set by UN Regulations Nos. 94, 95 or 137. If the main on-board vehicle power supply is not available, it shall still be possible to retrieve all data recorded on the DSSAD, as required by national and regional law.	8.1 設備 <u>每一部配備 ALKS (以下簡稱系統) 之車輛皆應安裝符合下述要求之 DSSAD。</u> ... 8.4 資料可用性 ... 8.4.3 資料可回收性 8.4.3.1 對於 M1 及 N1 類車輛而言， <u>資料即使受到本基準「前方碰撞乘員保護」或「側方碰撞乘員保護」所設定嚴重程度之碰撞後仍應可進行回收。</u> 8.4.3.2 對於 M2、M3、N2 及 N3 類車輛而言，應符合下述其中一項規定： <u>(a) 資料即使受到本基準「電動汽車之電氣安全」中規定 13.5 之組件測試所設定嚴重程度之機械衝擊後，數據仍應可找回，及</u> <u>(b) DSSAD 應安裝於保護其避免典型車輛碰撞(如前方碰撞)所造成之機械損害之位置。應併同適當文件(如計算結果或模擬結果)向檢測機構展演。</u> 或是做為替代，	<u>估之一部分，向檢測機構展演。</u> ... 8.4 資料可用性 ... 8.4.3 資料即使受到本基準「前方碰撞乘員保護」或「側方碰撞乘員保護」所設定嚴重程度之碰撞後仍應可進行回收。若主要車載能源供給不可用時，則其應仍可依我國法律之要求回收 DSSAD 記錄之所有資料。

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demonstrated by the manufacturer by fulfilling the requirements of paragraph 8.4.3.1. (e.g. for M2 / N2 vehicles derived from M1 / N1). 8.4.3.3. If the main on-board vehicle power supply is not available, it shall still be possible to retrieve all data recorded on the DSSAD, as required by national and regional law.		可由申請者藉由符合規定 8.4.3.1 要求 (如 M1/N1 類車輛衍生之 M2/N2 類車輛者), 展演車輛已具備足夠之碰撞保護。 8.4.3.3 若主要車載能源供給不可用時, 則其應仍可依我國法律之要求回收 DSSAD 記錄之所有資料。	
9. Cyber Security and Software-Updates 9.1. Cyber security and cyber security management system The effectiveness of the system shall not be adversely affected by cyber-attacks, cyber threats and vulnerabilities. The effectiveness of the security measures shall be demonstrated by compliance with UN Regulation No. 155. 9.2. Software update and software updates management system If the system permits software updates, the effectiveness of the software update procedures and processes shall be demonstrated by compliance with UN Regulation No. 156. 9.3. Requirements for software identification. 9.3.1. The vehicle manufacturer shall have a valid approval according to UN Regulation No. 156 (Software Update and Software Update Management System).	9. Cybersecurity and Software-Updates 9.1. The effectiveness of the system shall not be adversely affected by cyber-attacks, cyber threats and vulnerabilities. The effectiveness of the security measures shall be demonstrated by compliance with UN Regulation No. 15Z. 9.2. If the system permits software updates, the effectiveness of the software update procedures and processes shall be demonstrated by compliance with UN Regulation No. 15Y. 9.3. Requirements for software identification 9.3.1. For the purpose of ensuring the software of the System can be identified, an R157SWIN may be implemented by the vehicle manufacturer. If R157SWIN is not	9. 網路安全及軟體更新 9.1 <u>網路安全及網路安全管理系統</u> 系統之有效性不應受到來自網路攻擊、網路威脅及漏洞之負面影響。安全措施之有效性應藉由符合本基準「附件九十六、網路安全及網路安全管理系統」之規定進行展演。 9.2 <u>軟體更新及軟體更新管理系統</u> 若系統允許軟體更新, 則軟體更新程序及過程之有效性應藉由符合本基準「附件九十七、軟體更新及軟體更新管理系統」之規定進行展演。 9.3 軟體標誌之要求 9.3.1 <u>申請者應依照檢測基準軟體更新及軟體更新管理系統獲得有效認可。</u>	9.網路安全及軟體更新 9.1 系統之有效性不應受到來自網路攻擊、網路威脅及漏洞之負面影響。安全措施之有效性應藉由符合本基準「網路安全及網路安全管理系統」之規定進行展演。 9.2 若系統允許軟體更新, 則軟體更新程序及過程之有效性應藉由符合本基準「軟體更新及軟體更新管理系統」之規定進行展演。 9.3 軟體識別之要求 9.3.1 <u>為確保系統軟體可被識別, 申請者可實施 R157SWIN。若未實施 R157SWIN, 則應實施替代之軟體識別系統(如軟體版本)。</u>

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9.3.1.1. As specified in the Software Update and Software Update Management System Regulation, for the purpose of ensuring the software of the System can be identified, an R157SWIN shall be used. The R157SWIN may be held on the vehicle or, if R157SWIN is not held on the vehicle, the manufacturer shall declare the software version(s) of the vehicle or single ECUs with the connection to the relevant type approvals to the Approval Authority. 9.3.2. The vehicle manufacturer shall provide the following information in the communication form of this Regulation: (a) The R157SWIN; (b) How to read the R157SWIN or software version(s) in case the R157SWIN is not held on the vehicle. 9.3.3. The vehicle manufacturer may provide in the communication form of this Regulation a list of the relevant parameters that will allow the identification of those vehicles that can be updated with the software represented by the R157SWIN. The information provided shall be declared by the vehicle manufacturer and may not be verified by an Approval Authority. 9.3.4. The vehicle manufacturer may obtain a	implemented, an alternative software identification system (i.e. software version) shall be implemented. 9.3.2. If the manufacturer implements an R157WIN*/ the following shall apply: 9.3.2.1. The vehicle manufacturer shall have a valid approval according to UN Regulation No. 156 (Software Update and Software Update Management System). 9.3.2.2. The vehicle manufacturer shall provide the following information in the communication form of this Regulation: (a) The R157SWIN (b) How to read the R157SWIN or software version(s) in case the R157SWIN is not held on the vehicle 9.3.2.3. The vehicle manufacturer may provide in the communication form of this Regulation a list of the relevant parameters that will allow the identification of those vehicles that can be updated with the software represented by the R157SWIN. The information provided shall be declared by the vehicle manufacturer and may not be verified by an Approval Authority. 9.3.3. The vehicle manufacturer may obtain a	9.3.1.1 依照軟體更新及軟體更新管理系統法規之規定，為確保系統軟體可被識別，應使用 R₁₅₇SWIN。R₁₅₇SWIN 可安裝於車輛，或者，若 R₁₅₇SWIN 未安裝於車輛，申請者應向審驗機構宣告車輛或單個 ECU 之軟體版本，並與相關型式認可相關聯。 9.3.2 申請者應以本項規定之通訊形式提供下述資訊： (a) R₁₅₇SWIN； (b) 於 R₁₅₇SWIN 未留存於車輛上之狀況，說明讀取 R₁₅₇SWIN 或軟體版本之方式。 9.3.3 申請者可提供相關參數列表，其將允許車輛識別可藉由 R₁₅₇SWIN 代表之軟體進行更新。所提供之資訊應由申請者宣告且可不經過審驗機構確認。 9.3.4 為區分使用中車輛與新車輛	9.3.2 若申請者實施 R₁₅₇SWIN，則應適用下述規定： 9.3.2.1 申請者應具備依照本基準「軟體更新及軟體更新管理系統」之有效認可。 9.3.2.2 申請者應提供下述資訊： (a) R₁₅₇SWIN (b) 於 R₁₅₇SWIN 未安裝於車輛之狀況，說明讀取 R₁₅₇SWIN 或軟體版本之方式。 9.3.2.3 申請者可提供相關參數列表，其將允許車輛識別可藉由 R₁₅₇SWIN 代表之軟體進行更新。所提供之資訊應由申請者宣告且可不經過審驗機構確認。 9.3.3 為區分使用中車輛與新車輛

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new vehicle approval for the purpose of differentiating software versions intended to be used on vehicles already registered in the market from the software versions that are used on new vehicles. This may cover the situations where type approval regulations are updated, or hardware changes are made to vehicles in series production. In agreement with the testing agency, duplication of tests shall be avoided where possible.	new vehicle approval for the purpose of differentiating software versions intended to be used on vehicles already registered in the market from the software versions that are used on new vehicles. This may cover the situations where type approval regulations are updated or hardware changes are made to vehicles in series production. In agreement with the testing agency, duplication of tests shall be avoided where possible.	上所使用之軟體版本，申請者可申請新車輛型式認可。此可涵蓋批量生產中車輛之更型式認可法規更新或改變硬體之情況。經與檢測機構協議，應盡可能避免重複測試。	上所使用之軟體版本，申請者可申請新車輛型式認可。此可涵蓋批量生產中車輛之更型式認可法規更新或改變硬體之情況。經與檢測機構協議，應盡可能避免重複測試。
Annex1 Appendix 2 Addendum 2 to Type approval Communication No ... concerning the type approval of a vehicle type with regard to ALKS pursuant to UN Regulation No. 157 Additional information Contracting Parties where the vehicle manufacturer has declared that the ALKS had been assessed to comply with local traffic rules: ...	Annex1 Appendix Addendum to Type approval Communication No ... concerning the type approval of a vehicle type with regard to ALKS pursuant to Regulation No. 157 Additional information Contracting Party regions where the vehicle manufacturer has declared that the ALKS had been assessed to comply with local traffic rules: ...	修訂內容不影響國內基準	
Annex 3 Guidance on Traffic disturbance critical scenarios for ALKS 1. General 1. This document clarifies derivation process to define conditions under which Automated Lane Keeping Systems (ALKS) shall avoid a collision. Conditions under which ALKS	Annex 4 - Appendix 3 Guidance on Traffic disturbance critical scenarios for ALKS 1. General 1. This document clarifies derivation process to define conditions under which Automated Lane Keeping Systems (ALKS) shall avoid a collision. Conditions under which ALKS	<u>10</u> ALKS 交通干擾關鍵情景指引 <u>10.1</u> .通則 <u>10.1.1</u> 本文件闡明推導過程以定義自動車道維持輔助系統(ALKS)應避免碰撞之狀況。ALKS 應避免碰撞之狀況係藉由通用模擬程式配合下述注	<u>10.10</u> ALKS 交通干擾關鍵情景指引 <u>10.10.1</u> .通則 <u>10.10.1.1</u> 本文件闡明推導過程以定義自動車道維持輔助系統(ALKS)應避免碰撞之狀況。ALKS 應避免碰撞之狀況係藉由通用模擬程式配合下述

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shall avoid a collision are determined by a general simulation program with following attentive human driver performance model and¹ related parameters in the traffic critical disturbance scenarios. 2. Traffic critical scenarios 2.1. Traffic disturbance critical scenarios are those which have conditions under which ALKS may not be able to avoid a collision. 2.2. Following three are traffic critical scenarios: (a) Cut-in: the 'other vehicle' suddenly merges in front of the 'ego vehicle' (b) Cut-out: the 'other vehicle' suddenly exits the lane of the 'ego vehicle' (c) Deceleration: the 'other vehicle' suddenly decelerates in front of the 'ego vehicle' 2.3. Each of these traffic critical scenarios can be created using the following parameters/elements: (a) Road geometry (b) Other vehicles' behavior/ maneuver 3. Performance model of ALKS 3.1. Traffic critical scenarios of ALKS are divided into preventable and unpreventable scenarios. The threshold for preventable/unpreventable is based on the simulated performance of a skilled and attentive human driver. It is expected that some of the "unpreventable" scenarios by human standards may actually be	shall avoid a collision are determined by a general simulation program with following attentive human driver performance model and¹ related parameters in the traffic critical disturbance scenarios. 2. Traffic critical scenarios 2.1. Traffic disturbance critical scenarios are those which have conditions under which ALKS may not be able to avoid a collision. 2.2. Following three are traffic critical scenarios: (a) Cut-in: the 'other vehicle' suddenly merges in front of the 'ego vehicle' (b) Cut-out: the 'other vehicle' suddenly exits the lane of the 'ego vehicle' (c) Deceleration: the 'other vehicle' suddenly decelerates in front of the 'ego vehicle' 2.3. Each of these traffic critical scenarios can be created using the following parameters/elements: (a) Road geometry (b) Other vehicles' behavior/ maneuver 3. Performance model of ALKS 3.1. Traffic critical scenarios of ALKS are divided into preventable and unpreventable scenarios. The threshold for preventable/unpreventable is based on the simulated performance of a skilled and attentive human driver. It is expected that some of the "unpreventable" scenarios by human standards may actually be	意力集中之人類駕駛性能模型及交通關鍵干擾情境之相關參數而定。 <u>10.2.</u> 交通關鍵情境 <u>10.2.1</u> 交通干擾關鍵情境係 ALKS 可能無法避免碰撞之狀況。 <u>10.2.2</u> 下述三個係交通關鍵情境： (a)切入：「其他車輛」突然併入「本身車輛」前方 (b)切出：「其他車輛」突然駛離「本身車輛」之車道 (c)減速：「其他車輛」於「本身車輛」前方突然減速 <u>10.2.3</u> 使用下述參數／元素建立交通關鍵情境： (a)道路幾何 (b)其他車輛之行為／操作 <u>10.3.</u> ALKS 之性能模型 <u>10.3.1</u> ALKS 之交通關鍵情境分為可預防及不可預防之情境。可預防／不可預防之閾值係基於技術成熟且注意力集中之人類駕駛的模擬性能。預期部分以人類標準「不可預防」之情境可實際由 ALKS 系統進行預防。	注意力集中之人類駕駛性能模型及交通關鍵干擾情境之相關參數而定。 <u>10.10.2.</u> 交通關鍵情境 <u>10.10.2.1</u> 交通干擾關鍵情境係 ALKS 可能無法避免碰撞之狀況。 <u>10.10.2.2</u> 下述三個係交通關鍵情境： (a)切入：「其他車輛」突然併入「本身車輛」前方 (b)切出：「其他車輛」突然駛離「本身車輛」之車道 (c)減速：「其他車輛」於「本身車輛」前方突然減速 <u>10.10.2.3</u> 使用下述參數/元素建立交通關鍵情境： (a)道路幾何 (b)其他車輛之行為/操作 <u>10.10.3.</u> ALKS 之性能模型 <u>10.10.3.1</u> ALKS 之交通關鍵情境分為可預防及不可預防之情境。可預防/不可預防之閾值係基於技術成熟且注意力集中之人類駕駛的模擬性能。預期部分以人類標準「不可預防」之情境可實際由 ALKS 系統進行預防。

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preventable by the ALKS system. 3.2. In a low-speed ALKS scenario, the avoidance capability of the driver model is assumed to be only by braking. The driver model is separated into the following three segments: "Perception"; "Decision"; and, "Reaction". The following diagram is a visual representation of these segments: 3.3. To determine conditions under which Automated Lane Keeping Systems (ALKS) shall avoid a collision, performance model factors for these three segments in the following table should be used as the performance model of ALKS considering attentive human drivers' behavior with ADAS. Figure 1 Skilled human performance model ... Table 1 Performance model factors for vehicles ... 3.4. Driver model for the three ALKS scenarios: 3.4.1. For Cut in scenario: The lateral wandering distance the vehicle will normally wander within the lane is 0.375m. The perceived boundary for cut-in occurs when the vehicle exceeds the normal lateral wandering distance (possibly prior to actual lane change)	preventable by the ALKS system. 3.2. In a low-speed ALKS scenario, the avoidance capability of the driver model is assumed to be only by braking. The driver model is separated into the following three segments: "Perception"; "Decision"; and, "Reaction". The following diagram is a visual representation of these segments: 3.3. To determine conditions under which Automated Lane Keeping Systems (ALKS) shall avoid a collision, performance model factors for these three segments in the following table should be used as the performance model of ALKS considering attentive human drivers' behavior with ADAS. Figure 1 Skilled human performance model ... Table 1 Performance model factors for vehicles ... 3.4. Driver model for the three ALKS scenarios: 3.4.1. For Cut in scenario: The lateral wandering distance the vehicle will normally wander within the lane is 0.375m. The perceived boundary for cut-in occurs when the vehicle exceeds the normal lateral wandering distance (possibly prior to actual lane change)	10.3.2 於低速 ALKS 情境中，駕駛模型之迴避能力係假設僅藉由煞車實現。駕駛模型分為下述三個部分：「感知」、「決策」及「反應」。下圖係前述模型各部分之視覺表現： 10.3.3 為決定自動車道維持輔助系統 (ALKS) 應避免發生碰撞之狀況，下表中對應前述模型各部分之性能模型因素應於考量注意力集中之人類駕駛於使用 ADAS 時之行為下，作為 ALKS 性能模型使用。 圖一：技術成熟之駕駛性能模型 ... 表一：車輛性能模組 ... 10.3.4 三個 ALKS 情境之駕駛模型： 10.3.4.1 對於切入情境： 車輛於車道內之側向漂移距離通常為零點三百七十五公尺。 於車輛超越正常側向漂移距離時（可能於實際車道變換之前），針對切入所感知邊界即出現。	10.10.3.2 於低速 ALKS 情境中，駕駛模型之迴避能力係假設僅藉由煞車實現。駕駛模型分為下述三個部分：「感知」、「決策」及「反應」。下圖係前述模型各部分之視覺表現： 10.10.3.3 為決定自動車道維持輔助系統 (ALKS) 應避免發生碰撞之狀況，下表中對應前述模型各部分之性能模型因素應於考量注意力集中之人類駕駛於使用 ADAS 時之行為下，作為 ALKS 性能模型使用。 圖一：技術成熟之駕駛性能模型 ... 表一：車輛性能模組 ... 10.10.3.4 三個 ALKS 情境之駕駛模型： 10.10.3.4.1 對於切入情境： 車輛於車道內之側向漂移距離通常為零點三百七十五公尺。 於車輛超越正常側向漂移距離時（可能於實際車道變換之前），針對切入所感知邊界即出現。

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The distance a. is the perception distance based on the perception time [a]. It defines the lateral distance required to perceive that a vehicle is executing a cut-in manoeuvre a. is obtained from the following formula; a.= lateral movement speed x Risk perception time [a] (0.4sec) The risk perception time begins when the leading vehicle exceeds the cut-in boundary threshold. Max lateral movement speed is real world data in Japan. Risk perception time [a] is driving simulator data in Japan. 2sec* is specified as the maximum Time To Collision (TTC) below which it was concluded that there is a danger of collision in the longitudinal direction. Note: TTC = 2.0sec is chosen based on the UN Regulation guidelines on warning signals. Figure 2 Driver model for the cut-in scenario ... 3.4.2. For Cut out scenario: The lateral wandering distance the vehicle will normally wander within the lane is 0.375m. The perceived boundary for cut-out occurs when the vehicle exceeds the normal lateral wandering distance (possibly prior to actual lane change) The risk perception time [a] is 0.4 seconds #and begins when the leading vehicle	The distance a. is the perception distance based on the perception time [a]. It defines the lateral distance required to perceive that a vehicle is executing a cut-in manoeuvre a. is obtained from the following formula; a.= lateral movement speed x Risk perception time [a] (0.4sec) The risk perception time begins when the leading vehicle exceeds the cut-in boundary threshold. Max lateral movement speed is real world data in Japan. Risk perception time [a] is driving simulator data in Japan. 2sec* is specified as the maximum Time To Collision (TTC) below which it was concluded that there is a danger of collision in the longitudinal direction. Note: TTC = 2.0sec is chosen based on the UN Regulation guidelines on warning signals. Figure 2 Driver model for the cut-in scenario ... 3.4.2. For Cut out scenario: The lateral wandering distance the vehicle will normally wander within the lane is 0.375m. The perceived boundary for cut-out occurs when the vehicle exceeds the normal lateral wandering distance (possibly prior to actual lane change) The risk perception time [a] is 0.4 seconds #and begins when the leading vehicle	距離 a.係基於感知時間[a]之感知距離。其定義感知車輛切入所需之側向距離。 a.自下述公式獲得： a.= 側向移動速度 x 風險感知時間[a] (零點四秒) 風險感知時間於前車超越切入邊界閾值時開始。 最大側向移動速度係日本之真實數據。 風險感知時間[a]係日本之行駛模擬器數據。 二秒*被定為最大碰撞時間(TTC)，低於該時間則據以判斷於縱向存在危險。 備註：TTC = 二點零秒係基於對警告訊號之聯合國法規指引所選擇。 圖二：切入情境之駕駛模型 ... <u>10.3.4.2</u> 對於切出情境： 車輛於車道內之側向漂移距離通常為零點三百七十五公尺。 於車輛超越正常側向漂移距離時（可能於實際車道變換之前），針對切入	距離 a.係基於感知時間[a]之感知距離。其定義感知車輛切入所需之側向距離。 a.自下述公式獲得： a.= 側向移動速度 x 風險感知時間[a] (零點四秒) 風險感知時間於前車超越切入邊界閾值時開始。 最大側向移動速度係日本之真實數據。 風險感知時間[a]係日本之行駛模擬器數據。 二秒*被定為最大碰撞時間(TTC)，低於該時間則據以判斷於縱向存在危險。 備註：TTC = 二點零秒係基於對警告訊號之聯合國法規指引所選擇。 圖二：切入情境之駕駛模型 ... <u>10.10.3.4.2</u> 對於切出情境： 車輛於車道內之側向漂移距離通常為零點三百七十五公尺。 於車輛超越正常側向漂移距離時(可能於實際車道變換之前)，針對切入

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exceeds the cut-out boundary threshold. The time 2 sec is specified as the maximum Time Head Way (THW) for which it was concluded that there is a danger in longitudinal direction. Note: THW = 2.0sec is chosen according to other countries' regulations and guidelines. Figure 3 Cut in scenario ... 3.4.3. For Deceleration scenario: The risk perception time [a] is 0.4 seconds. The risk perception time [a] begins when the leading vehicle exceeds a deceleration threshold 5m/s². Figure 4 Deceleration scenario ... 4. Parameters 4.1. Parameters below are essential when describing the pattern of the traffic critical scenarios in section 2.1. 4.2. Additional parameters could be added according to the operating environment (e.g. friction rate of the road, road curvature, lighting conditions). Table 2 Additional parameters (表如頁末所示) 4.3. Following are visual representations of parameters for the three types of scenarios Figure 5 Visualisation ...	exceeds the cut-out boundary threshold. The time 2 sec is specified as the maximum Time Head Way (THW) for which it was concluded that there is a danger in longitudinal direction. Note: THW = 2.0sec is chosen according to other countries' regulations and guidelines. Figure 3 Cut in scenario ... 3.4.3. For Deceleration scenario: The risk perception time [a] is 0.4 seconds. The risk perception time [a] begins when the leading vehicle exceeds a deceleration threshold 5m/s². Figure 4 Deceleration scenario ... 4. Parameters 4.1. Parameters below are essential when describing the pattern of the traffic critical scenarios in section 2.1. 4.2. Additional parameters could be added according to the operating environment (e.g. friction rate of the road, road curvature, lighting conditions). Table 2 Additional parameters (表如頁末所示) 4.3. Following are visual representations of parameters for the three types of scenarios Figure 5 Visualisation ...	所感知邊界即出現。 風險感知時間[a]係零點四秒，並於前車超越切出邊界閾值時開始。 二秒之時間被定為最大車前時距(THW)，據以判斷於縱向存在危險。 備註：THW = 二點零秒係依照其他國家之法規及指引所選擇。 圖三：切出情境 ... <u>10.3.4.3</u> 對於減速情境 風險感知時間[a]係零點四秒。於前車超過減速閾值五公尺／秒平方時，風險感知時間[a]開始。 圖四：減速情境 ... <u>10.4</u> 參數 <u>10.4.1</u> 於描述規定 <u>10.2.1</u> 中交通關鍵情境時，下述為必要之參數 <u>10.4.2</u> 可依照運作環境增加額外參數（如道路之摩擦率、道路曲率、光照狀況）。 表二：額外參數 (請參考頁末表格)	所感知邊界即出現。 風險感知時間[a]係零點四秒，並於前車超越切出邊界閾值時開始。 二秒之時間被定為最大車前時距(THW)，據以判斷於縱向存在危險。 備註：THW = 二點零秒係依照其他國家之法規及指引所選擇。 圖三：切出情境 ... <u>10.10.3.4.3</u> 對於減速情境 風險感知時間[a]係零點四秒。於前車超過減速閾值五公尺／秒平方時，風險感知時間[a]開始。 圖四：減速情境 ... <u>10.10.4</u> 參數 <u>10.10.4.1</u> 於描述規定 <u>10.10.2.1</u> 中交通關鍵情境時，下述為必要之參數 <u>10.10.4.2</u> 可依照運作環境增加額外參數(如道路之摩擦率、道路曲率、光照狀況)。 表二：額外參數 (請參考頁末表格)

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
5. Reference Following data sheets are pictorial examples of simulations which determines conditions under which ALKS shall avoid a collision, taking into account the combination of every parameter, <i>at and below</i> the maximum permitted ALKS vehicle speed. 5.1. Cut in Figure 6 Parameters ... (Data sheets image) Figure 7 Overview ... Figure 8 For Ve0 = 60 kph ... Figure 9 For Ve0 = 50 kph ... Figure 10 For Ve0 = 40 kph ... Figure 11 For Ve0 = 30 kph ... Figure 12 For Ve0 =20 kph ... 5.2. Cut out It is possible to avoid all the deceleration (stop) vehicles ahead of the preceding vehicle cut-	5. Reference Following data sheets are pictorial examples of simulations which determines conditions under which ALKS shall avoid a collision, taking into account the combination of every parameter, <i>at and below</i> the maximum permitted ALKS vehicle speed. 5.1. Cut in Figure 6 Parameters ... (Data sheets image) Figure 7 Overview ... Figure 8 For Ve0 = 60 kph ... Figure 9 For Ve0 = 50 kph ... Figure 10 For Ve0 = 40 kph ... Figure 11 For Ve0 = 30 kph ... Figure 12 For Ve0 =20 kph ... 5.2. Cut out It is possible to avoid all the deceleration (stop) vehicles ahead of the preceding vehicle cut-	10.4.3 下下述係針對三個類型之場景的參數視覺表現 圖五：視覺化 ... 10.5 參考 下述數據表係模擬之圖形化範例，其於考量每個參數之組合的狀況下，決定 ALKS 處於及低於最高允許 ALKS 車速時應避免發生碰撞之情況。 10.5.1 切入 圖六：參數 ... 圖七：總覽 ... 圖八：本身車輛速度等於六十公里／小時 ... 圖九：本身車輛速度等於五十公里／小時 ... 圖十：本身車輛速度等於四十公里／小時 ... 圖十一：本身車輛速度等於三十公里／小時 ... 圖十二：本身車輛速度等於二十公里／小時	10.10.4.3 下下述係針對三個類型之場景的參數視覺表現 圖五：視覺化 ... 10.10.5 參考 下述數據表係模擬之圖形化範例，其於考量每個參數之組合的狀況下，決定 ALKS 處於及低於最高允許 ALKS 車速時應避免發生碰撞之情況。 10.10.5.1 切入 圖六：參數 ... 圖七：總覽 ... 圖八：本身車輛速度等於六十公里／小時 ... 圖九：本身車輛速度等於五十公里／小時 ... 圖十：本身車輛速度等於四十公里／小時 ... 圖十一：本身車輛速度等於三十公里／小時 ... 圖十二：本身車輛速度等於二十公里／小時

增/修內容	原內容	修訂國內法規條文案草案	對應國內法規條文
out in the following running condition at THW 2.0 sec. Figure 13 Parameters ... (Data sheets image) ... 5.4. Deceleration It is possible to avoid sudden deceleration of - 1.0G or less in the follow-up driving situation at THW 2.0sec. (Data sheet image) ... (Data sheets image) ...	out in the following running condition at THW 2.0 sec. Figure 13 Parameters ... (Data sheets image) ... 5.4. Deceleration It is possible to avoid sudden deceleration of - 1.0G or less in the follow-up driving situation at THW 2.0sec. (Data sheet image) ... (Data sheets image) ...	... <u>10.5.2</u> 切出 其可能於車輛以車前時距(THW)為二點零秒進行跟車行駛之狀況下，閃避於前車切出後於其前之所有減速（停止）車輛。 圖十三：參數 ... <u>10.5.3</u> 減速 其可能於車輛以車前時距(THW)為二點零秒進行跟車行駛之狀況下，閃避以負一點零 G 或更少數值突然減速之車輛。 ...	... <u>10.10.5.2</u> 切出 其可能於車輛以車前時距(THW)為二點零秒進行跟車行駛之狀況下，閃避於前車切出後於其前之所有減速（停止）車輛。 圖十三：參數 ... <u>10.10.5.3</u> 減速 其可能於車輛以車前時距(THW)為二點零秒進行跟車行駛之狀況下，閃避以負一點零 G 或更少數值突然減速之車輛。 ...
Annex 4 Special requirements to be applied to the functional and operational safety aspects of Automated Lane Keeping Systems (ALKS) 1. General The requirements of this annex are intended to ensure that an acceptable thorough consideration of functional and operational safety for the automated system that provides the function(s) regulated by the ALKS Regulation has been performed by the manufacturer during the design and development processes and will continue to be done throughout the vehicle type	Annex 4 Special requirements to be applied to the functional and operational safety aspects of Automated Lane Keeping Systems (ALKS) 1. General This annex is intended to ensure that an acceptable thorough consideration of functional and operational safety for the automated system that provides the function(s) regulated by the ALKS Regulation has been performed by the manufacturer during the design and development processes and will continue to be done throughout the vehicle type	<u>11.</u> 自動車道維持輔助系統(ALKS)功能性及操作安全方面之特殊要求 <u>11.1</u> 通則 本項之要求旨在確保申請者於設計及開發程序期間，對提供受 ALKS 法規監管功能之自動化系統，進行可接受之功能性及運作性安全之通盤考量，且將於整個車輛型式生命週期（設計、開發、生產、實地運作、除役）持續執行。	<u>10.</u> 自動車道維持輔助系統(ALKS)功能性及操作安全方面之特殊要求 <u>10.1</u> 通則 本項旨在確保申請者於設計及開發程序期間，對提供受 ALKS 法規監管功能之自動化系統，進行可接受之功能性及運作性安全之通盤考量，且將於整個車輛型式生命週期（設計、開發、生產、實地運作、除役）持續執行。

增/修內容	原內容	修訂國內法規條文案草案	對應國內法規條文
lifecycle (design, development, production, field operation, decommissioning). The requirements cover the documentation which must be disclosed by the manufacturer to the type-approval authority or the technical Service acting on its behalf (hereafter referred as type-approval authority), for type approval purposes and verification to be carried out by the type-approval authority. This documentation shall demonstrate that automated lane keeping system meets the performance requirements specified in paragraphs 5., 6., 7. and 8. of this UN Regulation, as that system is designed and developed to operate in such a way that it is free of unreasonable safety risks to the driver, passengers and other road users. ... 2. Definitions For the purposes of this annex, 2.1. "The system" means a "Higher-Level Electronic Control" system and its electronic control system(s) that provide the automated driving function. This also includes any transmission links to or from other systems that are outside the scope of this Regulation that acts on the automated lane keeping function. 2.2. "Safety Concept" is a description of the measures designed into the system, for	lifecycle (design, development, production, field operation, decommissioning). It covers the documentation which must be disclosed by the manufacturer to the type-approval authority or the technical Service acting on its behalf (hereafter referred as type-approval authority), for type approval purposes. This documentation shall demonstrate that automated lane keeping system meets the performance requirements specified in this UN Regulation, that it is designed and developed to operate in such a way that it is free of unreasonable safety risks to the driver, passengers and other road users. ... 2. Definitions For the purposes of this annex, 2.1. "The system" means a "Higher-Level Electronic Control" system and its electronic control system(s) that provide the automated driving function. This also includes any transmission links to or from other systems that are outside the scope of this Regulation that acts on the automated lane keeping function. 2.2. "Safety Concept" is a description of the measures designed into the system, for	<u>此要求</u>涵蓋申請者必須對審驗機構或執行測試或評估之檢測機構揭露之文件，<u>並由檢測機構進行驗證</u>。 該文件應證明自動車道維持輔助系統符合本基準<u>規定 5.、6.、7.及 8</u>之性能要求，其<u>系統</u>設計及開發以不會對駕駛、乘客及其他道路使用者造成不合理安全風險之方式運作。 ... <u>11.2</u> 名詞釋義 對於規定 <u>11</u>.而言 <u>11.2.1</u> 系統(The system)：係指提供自動駕駛功能之「高層次電子控制」系統及其電子控制系統。此亦包含與本項法規範圍外，其作用於自動車道維持功能之其他系統之間之任何傳輸連接。 <u>11.2.2</u> 安全性概念(Safety Concept)：係指一種設計在系統中的措施，例	<u>其</u>涵蓋申請者必須對審驗機構或執行測試或評估之檢測機構揭露之文件。 該文件應證明自動車道維持輔助系統符合本基準之性能要求，其設計及開發以不會對駕駛、乘客及其他道路使用者造成不合理安全風險之方式運作。 ... <u>10.2</u> 名詞釋義 對於規定 <u>10</u>.而言 <u>10.2.1</u> 系統(The system)：係指提供自動駕駛功能之「高層次電子控制」系統及其電子控制系統。此亦包含與本項法規範圍外，其作用於自動車道維持功能之其他系統之間之任何傳輸連接。 <u>10.2.2</u> 安全性概念(Safety Concept)：係指一種設計在系統中的措施，例

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example within the electronic units, so that the vehicle operates in such a way that it is free of unreasonable safety risks to the driver, passengers and other road users under faults and non-fault conditions. The possibility of a fallback to partial operation or even to a back-up system for vital vehicle functions shall be a part of the safety concept. 2.3. "Electronic control system" means a combination of units, designed to co-operate in the production of the stated automated lane keeping function by electronic data processing. Such systems, commonly controlled by software, are built from discrete functional components such as sensors, electronic control units and actuators and connected by transmission links. They may include mechanical, electro-pneumatic or electro-hydraulic elements. 2.4. "Higher-Level Electronic Control" systems are those which employ processing and/or sensing provisions to realize the dynamic driving task. 2.5. "Units" are the smallest divisions of system components which will be considered in this annex, since these combinations of components will be treated as single entities for purposes of identification, analysis or replacement.	example within the electronic units, so that the vehicle operates in such a way that it is free of unreasonable safety risks to the driver, passengers and other road users under faults and non-fault conditions. The possibility of a fallback to partial operation or even to a back-up system for vital vehicle functions shall be a part of the safety concept. 2.3. "Electronic control system" means a combination of units, designed to co-operate in the production of the stated automated lane keeping function by electronic data processing. Such systems, commonly controlled by software, are built from discrete functional components such as sensors, electronic control units and actuators and connected by transmission links. They may include mechanical, electro-pneumatic or electro-hydraulic elements. 2.4. "Higher-Level Electronic Control" systems are those which employ processing and/or sensing provisions to realize the dynamic driving task. 2.5. "Units" are the smallest divisions of system components which will be considered in this annex, since these combinations of components will be treated as single entities for purposes of identification, analysis or replacement.	如電子控制單元內，使車輛於故障及非故障條件下以此方式運行，不會對駕駛、乘客及其他道路使用者造成不合理之安全風險。部分操作功能的持續或有一個備用系統維持車輛功能，也是安全性概念的部分。 11.2.3 電子控制系統(Electronic control system)：係指電子單元組合設計，經由電子式資料處理來進行自動道路維持功能。這系統由軟體控制，連結不同的功能元件例如感知器、電子控制單元和作動器，且其元件間由傳輸連結線連接。其可能包含機械、電動氣動或電動液壓元件。 11.2.4 高層次電子控制(Higher-Level Electronic Control)：係指運用處理及／或傳感裝置以實現動態行駛作業之系統。 11.2.5 元件(Unit)：係指本項規定所述系統零組件(Component)之最小組合單元，以將這些零組件組合視為一個被識別、分析或替換之整體。 11.2.6 傳輸連接 (Transmission	如電子控制單元內，使車輛於故障及非故障條件下以此方式運行，不會對駕駛、乘客及其他道路使用者造成不合理之安全風險。部分操作功能的持續或有一個備用系統維持車輛功能，也是安全性概念的部分。 10.2.3 電子控制系統(Electronic control system)：係指電子單元組合設計，經由電子式資料處理來進行自動道路維持功能。這系統由軟體控制，連結不同的功能元件例如感知器、電子控制單元和作動器，且其元件間由傳輸連結線連接。其可能包含機械、電動氣動或電動液壓元件。 10.2.4 高層次電子控制(Higher-Level Electronic Control)：係指運用處理及／或傳感裝置以實現動態行駛作業之系統。 10.2.5 元件(Unit)：係指本項規定所述系統零組件(Component)之最小組合單元，以將這些零組件組合視為一個被識別、分析或替換之整體。 10.2.6 傳輸連接 (Transmission

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2.6. "Transmission links" are the means used for inter-connecting distributed units for the purpose of conveying signals, operating data or an energy supply. This equipment is generally electrical but may, in some part, be mechanical, pneumatic or hydraulic.	2.6. "Transmission links" are the means used for inter-connecting distributed units for the purpose of conveying signals, operating data or an energy supply. This equipment is generally electrical but may, in some part, be mechanical, pneumatic or hydraulic.	links)：係指用於內部連結各配置元件，以傳送信號、作動數據或能源供給。一般而言，此等設備為電氣式，惟其可有部分為機械式、氣壓式或液壓式。	links)：係指用於內部連結各配置元件，以傳送信號、作動數據或能源供給。一般而言，此等設備為電氣式，惟其可有部分為機械式、氣壓式或液壓式。
2.7. "Range of control" refers to an output variable and defines the range over which the system is likely to exercise control.	2.7. "Range of control" refers to an output variable and defines the range over which the system is likely to exercise control.	11.2.7 控制幅度(Range of control)：係指輸出之變數，其定義系統可能進行操控之幅度。	10.2.7 控制幅度(Range of control)：係指輸出之變數，其定義系統可能進行操控之幅度。
2.8. "Boundary of functional operation" defines the boundaries of the external physical limits within which the system is able to perform the dynamic driving tasks (i.e. including the transition demands and minimum risk manoeuvres).	2.8. "Boundary of functional operation" defines the boundaries of the external physical limits within which the system is able to perform the dynamic driving tasks (i.e. including the transition demands and minimum risk manoeuvres).	11.2.8 功能性作動範圍(Boundary of functional operation)：其定義外部實體限制之範圍，讓系統能執行動態行駛作業（如包含轉換需求及最低風險操作）。	10.2.8 功能性作動範圍(Boundary of functional operation)：其定義外部實體限制之範圍，讓系統能執行動態行駛作業（如包含轉換需求及最低風險操作）。
2.9. "Operational Design Domain (ODD)" of the automated lane keeping system defines the specific operating conditions (e.g. environmental, geographic, time-of-day, traffic, infrastructure, speed range, weather and other conditions) within the boundaries fixed by this regulation under which the automated lane keeping system is designed to operate without any intervention by the driver.	2.9. "Operational Design Domain (ODD)" of the automated lane keeping system defines the specific operating conditions (e.g. environmental, geographic, time-of-day, traffic, infrastructure, speed range, weather and other conditions) within the boundaries fixed by this regulation under which the automated lane keeping system is designed to operate without any intervention by the driver.	11.2.9 自動車道維持系統之操作適用範圍(Operational Design Domain (ODD))：其定義由本基準於自動車道維持輔助系統設計為無需駕駛任何介入即可運作之狀況下所固定邊界內的特定操作條件（如環境、地理、時間、交通、基礎設施、速度範圍、天氣及其他條件）。	10.2.9 自動車道維持系統之操作適用範圍(Operational Design Domain (ODD))：其定義由本基準於自動車道維持輔助系統設計為無需駕駛任何介入即可運作之狀況下所固定邊界內的特定操作條件（如環境、地理、時間、交通、基礎設施、速度範圍、天氣及其他條件）。
2.10. "Automated Driving Function" means a function of "The System" that is capable of performing the dynamic driving task of the vehicle.	2.10. "Automated Driving Function" means a function of "The System" that is capable of performing the dynamic driving task of the vehicle.	11.2.10 自動駕駛功能(Automated Driving Function)：係指一個系統之能夠執行車輛動態行駛作業的功能。	10.2.10 自動駕駛功能(Automated Driving Function)：係指一個系統之能夠執行車輛動態行駛作業的功能。
2.11. "Control strategy" means a strategy to ensure robust and safe operation of the	2.11. "Control strategy" means a strategy to ensure robust and safe operation of the	11.2.11 控制策略(Control strategy)：係指一個系統用於回應一組特定環境及／或運作條件（如路面狀況、交	10.2.11 控制策略(Control strategy)：係指一個系統用於回應一組特定環境及／或運作條件（如路面狀況、交

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function(s) of "The System" in response to a specific set of ambient and/or operating conditions (such as road surface condition, traffic intensity and other road users, adverse weather conditions, etc.). This may include the automatic deactivation of a function or temporary performance restrictions (e.g. a reduction in the maximum operating speed, etc.). 2.12. "Functional safety": absence of unreasonable risks under the occurrence of hazards caused by a malfunctioning behaviour of electric/electronic systems (safety hazards resulting from system faults). 2.13. "Fault": abnormal condition that can cause an element (system, component, software) or an item (system or combination of systems that implement a function of a vehicles) to fail. 2.14. "Failure" means the termination of an intended behaviour of an element or an item. 2.15. "Operational safety" means the absence of unreasonable risk under the occurrence of hazards resulting from functional insufficiencies of the intended functionality (e.g. false/missed detection), operational disturbances (e.g. environmental conditions like fog, rain, shadows, sunlight, infrastructure) or by reasonably foreseeable misuse/errors by the driver, passengers and	function(s) of "The System" in response to a specific set of ambient and/or operating conditions (such as road surface condition, traffic intensity and other road users, adverse weather conditions, etc.). This may include the automatic deactivation of a function or temporary performance restrictions (e.g. a reduction in the maximum operating speed, etc.). 2.12. "Functional safety": absence of unreasonable risks under the occurrence of hazards caused by a malfunctioning behaviour of electric/electronic systems (safety hazards resulting from system faults). 2.13. "Fault": abnormal condition that can cause an element (system, component, software) or an item (system or combination of systems that implement a function of a vehicles) to fail. 2.14. "Failure" means the termination of an intended behaviour of an element or an item. 2.15. "Operational safety" means the absence of unreasonable risk under the occurrence of hazards resulting from functional insufficiencies of the intended functionality (e.g. false/missed detection), operational disturbances (e.g. environmental conditions like fog, rain, shadows, sunlight, infrastructure) or by reasonably foreseeable misuse/errors by the driver, passengers and	通強度及其他道路使用者、惡劣天氣條件等) 狀況下確保功能之穩健及安全運作的策略。此可包含自動解除功能或暫時之性能限制 (如降低最大運作速度等)。 11.2.12 功能安全(Functional safety)：係指由電氣／電子系統之故障行為 (由系統故障導致之安全危害) 所引起之危險發生狀況下未存在不合理風險之狀況。 11.2.13 故障(Fault)：係指可造成元件 (系統、零組件、軟體) 或項目 (實現車輛功能之系統或系統組合) 發生故障之異常情況。 11.2.14 失效(Failure)：係指元件或項目之預期行為的終止。 11.2.15 操作安全 (Operational safety)：係指在由於預期功能性之功能不足 (如錯誤／漏檢)、操作干擾 (如霧、雨、陰影、陽光、基礎設施等環境條件) 或源於駕駛、乘客及其他道路使用者之合理可預見之誤用／錯誤 (安全性危害—系統未故障) 所導致之危險發生狀況下未存在不合理風險之狀況。	通強度及其他道路使用者、惡劣天氣條件等) 狀況下確保功能之穩健及安全運作的策略。此可包含自動解除功能或暫時之性能限制 (如降低最大運作速度等)。 10.2.12 功能安全(Functional safety)：係指由電氣／電子系統之故障行為 (由系統故障導致之安全危害) 所引起之危險發生狀況下未存在不合理風險之狀況。 10.2.13 故障(Fault)：係指可造成元件 (系統、零組件、軟體) 或項目 (實現車輛功能之系統或系統組合) 發生故障之異常情況。 10.2.14 失效(Failure)：係指元件或項目之預期行為的終止。 10.2.15 操作安全 (Operational safety)：係指在由於預期功能性之功能不足 (如錯誤／漏檢)、操作干擾 (如霧、雨、陰影、陽光、基礎設施等環境條件) 或源於駕駛、乘客及其他道路使用者之合理可預見之誤用／錯誤 (安全性危害—系統未故障) 所導致之危險發生狀況下未存在不合理風險之狀況。

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other road users (safety hazards — without system faults). 2.16. "Unreasonable risk" means the overall level of risk for the driver, vehicle occupants and other road users which is increased compared to a competently and carefully driven manual vehicle. 3. Documentation 3.1. Requirements The manufacturer shall provide a documentation package which gives access to the basic design of "The System" and the means by which it is linked to other vehicle systems or by which it directly controls output variables. The function(s) of "The System", including the control strategies, and the safety concept, as laid down by the manufacturer, shall be explained. Documentation shall be brief, yet provide evidence that the design and development has had the benefit of expertise from all the system fields which are involved. For periodic technical inspections, the documentation shall describe how the current operational status of "The System" can be checked. Information about how the software version(s) and the failure warning signal status can be readable in a standardized way via the use of an electronic communication interface, at	other road users (safety hazards — without system faults). 2.16. "Unreasonable risk" means the overall level of risk for the driver, vehicle occupants and other road users which is increased compared to a competently and carefully driven manual vehicle. 3. Documentation 3.1. Requirements The manufacturer shall provide a documentation package which gives access to the basic design of "The System" and the means by which it is linked to other vehicle systems or by which it directly controls output variables. The function(s) of "The System", including the control strategies, and the safety concept, as laid down by the manufacturer, shall be explained. Documentation shall be brief, yet provide evidence that the design and development has had the benefit of expertise from all the system fields which are involved. For periodic technical inspections, the documentation shall describe how the current operational status of "The System" can be checked. Information about how the software version(s) and the failure warning signal status can be readable in a standardized way via the use of an electronic communication interface, at	<u>11.2.16</u> 不合理風險 (Unreasonable risk): 係指對於駕駛、乘客及其他道路使用者而言，與採勝任且小心手動駕駛的車輛相較有所增加之整體風險等級。 <u>11.3.</u> 文件 <u>11.3.1</u> 要求 申請者應提供「系統」基本設計資料，及其與車輛其他系統間之連結方式或直接控制輸出變量之方式。 應解釋「系統」之功能，包含申請者規定之控制策略及安全性概念。 文件應簡短，惟提供證據表明設計及開發已受益於所有相關系統領域之專業。 對於定期技術檢查，文件應描述如何檢查「系統」之現在運作狀態。 關於軟體版本及失效警告訊號狀態可透過使用電子通訊介面以標準化方式讀取之資訊，至少為標準介面（OBD 連接埠）。	<u>10.2.16</u> 不合理風險 (Unreasonable risk): 係指對於駕駛、乘客及其他道路使用者而言，與採勝任且小心手動駕駛的車輛相較有所增加之整體風險等級。 <u>10.3.</u> 文件 <u>10.3.1</u> 要求 申請者應提供「系統」基本設計資料，及其與車輛其他系統間之連結方式或直接控制輸出變量之方式。 應解釋「系統」之功能，包含申請者規定之控制策略及安全性概念。 文件應簡短，惟提供證據表明設計及開發已受益於所有相關系統領域之專業。 對於定期技術檢查，文件應描述如何檢查「系統」之現在運作狀態。 關於軟體版本及失效警告訊號狀態可透過使用電子通訊介面以標準化方式讀取之資訊，至少為標準介面（OBD 連接埠）。

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least be the standard interface (OBD port). The Type-approval authority shall assess the documentation package to show that "The System": (a) Is designed and was developed to operate in such a way that it is free from unreasonable risks for the driver, passengers and other road users within the declared ODD and boundaries; (b) Respects, under the performance requirements specified elsewhere in this UN Regulation; (c) Was developed according to the development process/method declared by the manufacturer and that this includes at least the steps listed in paragraph 3.4.4. 3.1.1. Documentation shall be made available in three parts: (a) Application for type approval: The information document which is submitted to the type approval authority at the time of type approval application shall contain brief information on the items listed in Appendix 1 to Annex 1. It will become part of the approval. (b) The formal documentation package for the approval, containing the material listed in this paragraph 3. (with the exception of that of paragraph 3.4.4.) which shall be supplied to the Type Approval Authority for the purpose of conducting the product	least be the standard interface (OBD port). The Type-approval authority shall assess the documentation package to show that "The System": (a) Is designed and was developed to operate in such a way that it is free from unreasonable risks for the driver, passengers and other road users within the declared ODD and boundaries; (b) Respects, under the performance requirements specified elsewhere in this UN Regulation; (c) Was developed according to the development process/method declared by the manufacturer and that this includes at least the steps listed in paragraph 3.4.4. 3.1.1. Documentation shall be made available in three parts: (a) Application for type approval: The information document which is submitted to the type approval authority at the time of type approval application shall contain brief information on the items listed in Appendix 2. It will become part of the approval. (b) The formal documentation package for the approval, containing the material listed in this paragraph 3. (with the exception of that of paragraph 3.4.4.) which shall be supplied to the Type Approval Authority for the purpose of conducting the product	審驗機構應評估文件以顯示「系統」: (a) 其設計及開發係於所宣告之ODD及邊界內,以未對駕駛、乘客及其他道路使用者造成不合理風險之方式運作; (b) 於本基準中其他規定所述之性能要求下,遵循相關規定; (c) 係依照申請者所宣告之開發流程/步驟進行開發,並至少包含規定11.3.4.4規定所列出之步驟。 11.3.1.1 文件應分成三個部分: (a) 型式認可申請:申請型式認可時向審驗機構檢送之資訊文件應包含規定4.2所列項目之簡明資訊,其將成為認可之一部分。 (b) 對認可之正式文件,包含規定11.3條列之資料(規定11.3.4.4之資料除外),其係為執行產品評估/過程審核而提供給審驗機構。該文件應由審驗機構作為規定11.4驗證過	審驗機構應評估文件以顯示「系統」: (a) 其設計及開發係於所宣告之ODD及邊界內,以未對駕駛、乘客及其他道路使用者造成不合理風險之方式運作; (b) 於本基準中其他規定所述之性能要求下,遵循相關規定; (c) 係依照申請者所宣告之開發流程/步驟進行開發,並至少包含規定10.3.4.4規定所列出之步驟。 10.3.1.1 文件應分成三個部分: (a) 型式認可申請:申請型式認可時向審驗機構檢送之資訊文件應包含規定10.9所列項目之簡明資訊,其將成為認可之一部分。 (b) 對認可之正式文件,包含規定10.3條列之資料(規定10.3.4.4之資料除外),其係為執行產品評估/過程審核而提供給審驗機構。該文件應由審驗機構作為規定10.4驗證過

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assessment / process audit. This documentation package shall be used by the Type Approval Authority as the basic reference for the verification process set out in paragraph 4. of this annex. The Type Approval Authority shall ensure that this documentation package remains available for a period determined of at least 10 years counted from the time when production of the vehicle type is definitely discontinued.	assessment / process audit. This documentation package shall be used by the Type Approval Authority as the basic reference for the verification process set out in paragraph 4. of this annex. The Type Approval Authority shall ensure that this documentation package remains available for a period determined of at least 10 years counted from the time when production of the vehicle type is definitely discontinued.	程之基本參考使用。審驗機構應確保將此份文件留存一段時間，由該車輛型式完全停止生產起留存至少十年。	程之基本參考使用。審驗機構應確保將此份文件留存一段時間，由該車輛型式完全停止生產起留存至少十年。
(c) Additional confidential material and analysis data (intellectual property) of paragraph 3.4.4. which shall be retained by the manufacturer, but made open for inspection (e.g. on-site in the engineering facilities of the manufacturer) at the time of the product assessment / process audit. The manufacturer shall ensure that this material and analysis data remains available for a period of 10 years counted from the time when production of the vehicle type is definitely discontinued.	(c) Additional confidential material and analysis data (intellectual property) of paragraph 3.4.4. which shall be retained by the manufacturer, but made open for inspection (e.g. on-site in the engineering facilities of the manufacturer) at the time of the product assessment / process audit. The manufacturer shall ensure that this material and analysis data remains available for a period of 10 years counted from the time when production of the vehicle type is definitely discontinued.	(c) 依規定 11.3.4.4 之額外機密資料及分析數據（智慧財產），申請者應保有此等資料，惟應於產品評估／過程審核中開放予檢測機構（如於申請者之工程設施現場）。申請者應確保該資料及分析數據自該車輛型式完全停止生產起留存至少十年。	(c) 依規定 10.3.4.4 之額外機密資料及分析數據（智慧財產），申請者應保有此等資料，惟應於產品評估／過程審核中開放予檢測機構（如於申請者之工程設施現場）。申請者應確保該資料及分析數據自該車輛型式完全停止生產起留存至少十年。
3.2. Description of the functions of "The System" including control strategies A description shall be provided which gives a simple explanation of all the functions including control strategies of "The System" and the methods employed to perform the dynamic driving tasks within the ODD and the boundaries under which the automated lane keeping system is designed to operate,	3.2. Description of the functions of "The System" including control strategies A description shall be provided which gives a simple explanation of all the functions including control strategies of "The System" and the methods employed to perform the dynamic driving tasks within the ODD and the boundaries under which the automated lane keeping system is designed to operate,	11.3.2 包含控制策略之「系統」的功能說明 應提供對所有功能進行簡要說明之描述，包含「系統」之控制策略及於自動車道維持輔助系統設計以運作之 ODD 及邊界內執行動態行駛作業所採用之方法，包含對實施控制之機制說明。申請者應描述系統與駕駛、	10.3.2 包含控制策略之「系統」的功能說明 應提供對所有功能進行簡要說明之描述，包含「系統」之控制策略及於自動車道維持輔助系統設計以運作之 ODD 及邊界內執行動態行駛作業所採用之方法，包含對實施控制之機制說明。申請者應描述系統與駕駛、

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including a statement of the mechanism(s) by which control is exercised. The manufacturer shall describe the interactions expected between the system and the driver, vehicle occupants and other road users as well as Human-Machine-Interface (HMI). Any enabled or disabled automated driving functions for which the hardware and software are present in the vehicle at the time of production, shall be declared and are subject to the requirements of this annex, prior to their use in the vehicle. The manufacturer shall also document the data processing in case of continuous learning algorithms are implemented.	including a statement of the mechanism(s) by which control is exercised. The manufacturer shall describe the interactions expected between the system and the driver, vehicle occupants and other road users as well as Human-Machine-Interface (HMI). Any enabled or disabled automated driving functions for which the hardware and software are present in the vehicle at the time of production, shall be declared and are subject to the requirements of this annex, prior to their use in the vehicle. The manufacturer shall also document the data processing in case of continuous learning algorithms are implemented.	乘客及其他道路使用者以及人機界面(HMI)之間的預期互動。 對於任何車輛於生產時即具備相關硬體及軟體之可使用或禁止使用的自動駕駛功能，應於車輛上使用之前被宣告且符合規定 11 之要求。於實施持續學習演算法之狀況下，申請者應記錄數據處理。	乘客及其他道路使用者以及人機界面(HMI)之間的預期互動。 對於任何車輛於生產時即具備相關硬體及軟體之可使用或禁止使用的自動駕駛功能，應於車輛上使用之前被宣告且符合規定 10 之要求。於實施持續學習演算法之狀況下，申請者應記錄數據處理。
3.2.1.A list of all input and sensed variables shall be provided and the working range of these defined, along with a description of how each variable affects system behaviour.	3.2.1.A list of all input and sensed variables shall be provided and the working range of these defined, along with a description of how each variable affects system behaviour.	11.3.2.1 應隨著每一變數如何影響系統行為之說明，提供所有輸入與感測變數清單，以及定義工作範圍。	10.3.2.1 應隨著每一變數如何影響系統行為之說明，提供所有輸入與感測變數清單，以及定義工作範圍。
3.2.2.A list of all output variables which are controlled by "The System" shall be provided and an explanation given, in each case, of whether the control is direct or via another vehicle system. The range of control (paragraph 2.7.) exercised on each such variable shall be defined.	3.2.2.A list of all output variables which are controlled by "The System" shall be provided and an explanation given, in each case, of whether the control is direct or via another vehicle system. The range of control (paragraph 2.7.) exercised on each such variable shall be defined.	11.3.2.2 應提供由「系統」所控制之輸出變數清單，及各變數由系統直接控制或由其他車輛系統控制之說明。應定義於各變數實施之控制幅度（依規定 11.2.7 規定）。	10.3.2.2 應提供由「系統」所控制之輸出變數清單，及各變數由系統直接控制或由其他車輛系統控制之說明。應定義於各變數實施之控制幅度（依規定 10.2.7 規定）。
3.2.3.Limits defining the boundaries of functional operation including ODD-limits shall be stated where appropriate to automated lane keeping system performance.	3.2.3.Limits defining the boundaries of functional operation including ODD-limits shall be stated where appropriate to automated lane keeping system performance.	11.3.2.3 應於適用於自動車道維持輔助系統性能之情況下，說明用於定	10.3.2.3 應於適用於自動車道維持輔助系統性能之情況下，說明用於定

增/修內容	原內容	修訂國內法規條文案草案	對應國內法規條文
3.2.4.Interaction concept with the driver when ODD limits are reached shall be explained including the list of types of situations in which the system will generate a transition demand to the driver.	3.2.4.Interaction concept with the driver when ODD limits are reached shall be explained including the list of types of situations in which the system will generate a transition demand to the driver.	義包含 ODD 限制之功能性作動範圍的極限。	義包含 ODD 限制之功能性作動範圍的極限。
3.2.5. Information shall be provided about the means to activate, override or deactivate the system including the strategy how the system is protected against unintentional deactivation. This shall also include information about how the system detects that the driver is available to take over driving control along with specification and documented evidence of the used parameter to identify driver attentiveness as well as the influence on the steering thresholds.	3.2.5. Information shall be provided about the means to activate, override or deactivate the system including the strategy how the system is protected against unintentional deactivation. This shall also include information about how the system detects that the driver is available to take over driving control along with specification and documented evidence of the used parameter to identify driver attentiveness as well as the influence on the steering thresholds.	11.3.2.4 應解釋於到達 ODD 極限時之與駕駛的交互概念，包含系統將產生對駕駛發出轉換需求之情況類型的列表。 11.3.2.5 應提供有關啟動、取代或停用系統之方法的資訊，包含如何保護系統以防止意外解除之策略。此應包含隨用以識別駕駛注意力及於轉向值域上的影響所使用參數之規格及所記錄之證據之資訊，說明系統如何檢測駕駛可接掌駕駛控制。	10.3.2.4 應解釋於到達 ODD 極限時之與駕駛的交互概念，包含系統將產生對駕駛發出轉換需求之情況類型的列表。 10.3.2.5 應提供有關啟動、取代或停用系統之方法的資訊，包含如何保護系統以防止意外解除之策略。此應包含隨用以識別駕駛注意力及於轉向值域上的影響所使用參數之規格及所記錄之證據之資訊，說明系統如何檢測駕駛可接掌駕駛控制。
3.3. System layout and schematics 3.3.1.Inventory of components. A list shall be provided, collating all the units of "The System" and mentioning the other vehicle systems which are needed to achieve the control function in question. An outline schematic showing these units in combination, shall be provided with both the equipment distribution and the interconnections made clear. This outline shall include: (a) Perception and objects detection including mapping and positioning (b) Characterization of Decision-making	3.3. System layout and schematics 3.3.1.Inventory of components. A list shall be provided, collating all the units of "The System" and mentioning the other vehicle systems which are needed to achieve the control function in question. An outline schematic showing these units in combination, shall be provided with both the equipment distribution and the interconnections made clear. This outline shall include: (a) Perception and objects detection including mapping and positioning (b) Characterization of Decision-making	11.3.3 系統佈線圖及示意圖 11.3.3.1 零組件清單 應提供一份清單，彙整系統所有單元 (Unit)，及說明所需控制功能之其他車輛系統。 應提供一份所有單元組合之簡要示意圖，明確標示裝置配置與內部連接。 該簡要示意圖應包含：	10.3.3 系統佈線圖及示意圖 10.3.3.1 零組件清單 應提供一份清單，彙整系統所有單元 (Unit)，及說明所需控制功能之其他車輛系統。 應提供一份所有單元組合之簡要示意圖，明確標示裝置配置與內部連接。 該簡要示意圖應包含：

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
(c) Remote supervision and remote monitoring by a remote supervision centre (if applicable). (d) The data storage system (DSSAD). 3.3.2.Functions of the units The function of each unit of "The System" shall be outlined and the signals linking it with other units or with other vehicle systems shall be shown. This may be provided by a labelled block diagram or other schematic, or by a description aided by such a diagram. 3.3.3.Interconnections within "The System" shall be shown by a circuit diagram for the electric transmission links, by a piping diagram for pneumatic or hydraulic transmission equipment and by a simplified diagrammatic layout for mechanical linkages. The transmission links both to and from other systems shall also be shown. 3.3.4.There shall be a clear correspondence between transmission links and the signals carried between Units. Priorities of signals on multiplexed data paths shall be stated wherever priority may be an issue affecting performance or safety. 3.3.5.Identification of units Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware, and by marking or software output for software content) to provide corresponding	(c) Remote supervision and remote monitoring by a remote supervision centre (if applicable). (d) The data storage system (DSSAD). 3.3.2.Functions of the units The function of each unit of "The System" shall be outlined and the signals linking it with other units or with other vehicle systems shall be shown. This may be provided by a labelled block diagram or other schematic, or by a description aided by such a diagram. 3.3.3.Interconnections within "The System" shall be shown by a circuit diagram for the electric transmission links, by a piping diagram for pneumatic or hydraulic transmission equipment and by a simplified diagrammatic layout for mechanical linkages. The transmission links both to and from other systems shall also be shown. 3.3.4.There shall be a clear correspondence between transmission links and the signals carried between Units. Priorities of signals on multiplexed data paths shall be stated wherever priority may be an issue affecting performance or safety. 3.3.5.Identification of units Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware, and by marking or software output for software content) to provide corresponding	(a) 包含映射及定位之感知及物體偵測。 (b) 決策之特性化。 (c) 由遠端監管中心進行之遠端監管及遠端監控（依實際狀況）。 (d) 數據儲存系統(DSSAD)。 <u>11.3.3.2</u> 單元功能 應概述「系統」各單元之功能，及顯示與其他單元或其他車輛系統間互相連結之信號。此文件可為附有標示之方塊圖(Block diagram)或其他示意圖，或由此等圖面輔助之說明。 <u>11.3.3.3</u> 「系統」內部連接之電氣傳輸連結，應以電路圖表示；氣壓或液壓傳動裝置之連接，應以管路圖表示；機械連接應以簡要配置圖表示。應表示傳輸連結對其他系統之進出。 <u>11.3.3.4</u> 單元間之傳輸連結與信號應彼此明確對應。信號優先順序可能會影響本法規相關之性能或安全性者，應說明多工路傳輸數據通路(Multiplexed data path)上之信號優先順序。 <u>11.3.3.5</u> 單元識別	(a) 包含映射及定位之感知及物體偵測。 (b) 決策之特性化。 (c) 由遠端監管中心進行之遠端監管及遠端監控（依實際狀況）。 (d) 數據儲存系統(DSSAD)。 <u>10.3.3.2</u> 單元功能 應概述「系統」各單元之功能，及顯示與其他單元或其他車輛系統間互相連結之信號。此文件可為附有標示之方塊圖(Block diagram)或其他示意圖，或由此等圖面輔助之說明。 <u>10.3.3.3</u> 「系統」內部連接之電氣傳輸連結，應以電路圖表示；氣壓或液壓傳動裝置之連接，應以管路圖表示；機械連接應以簡要配置圖表示。應表示傳輸連結對其他系統之進出。 <u>10.3.3.4</u> 單元間之傳輸連結與信號應彼此明確對應。信號優先順序可能會影響本法規相關之性能或安全性者，應說明多工路傳輸數據通路(Multiplexed data path)上之信號優先順序。 <u>10.3.3.5</u> 單元識別

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
hardware and documentation association. Where software version can be changed without requiring replacement of the marking or component, the software identification must be by software output only. Where functions are combined within a single unit or indeed within a single computer, but shown in multiple blocks in the block diagram for clarity and ease of explanation, only a single hardware identification marking shall be used. The manufacturer shall, by the use of this identification, affirm that the equipment supplied conforms to the corresponding document. 3.3.5.1. The identification defines the hardware and software version and, where the latter changes such as to alter the function of the unit as far as this Regulation is concerned, this identification shall also be changed. 3.3.6. Installation of sensing system components The manufacturer shall provide information regarding the installation options that will be employed for the individual components that comprise the sensing system. These options shall include, but are not limited to, the location of the component in/on the vehicle, the material(s) surrounding the component, the dimensioning and geometry	hardware and documentation association. Where software version can be changed without requiring replacement of the marking or component, the software identification must be by software output only. Where functions are combined within a single unit or indeed within a single computer, but shown in multiple blocks in the block diagram for clarity and ease of explanation, only a single hardware identification marking shall be used. The manufacturer shall, by the use of this identification, affirm that the equipment supplied conforms to the corresponding document. 3.3.5.1. The identification defines the hardware and software version and, where the latter changes such as to alter the function of the unit as far as this Regulation is concerned, this identification shall also be changed. 3.3.6. Installation of sensing system components The manufacturer shall provide information regarding the installation options that will be employed for the individual components that comprise the sensing system. These options shall include, but are not limited to, the location of the component in/on the vehicle, the material(s) surrounding the component, the dimensioning and geometry	各單元應能被清楚且明確地辨識（例如：藉由硬體之標示、軟體內容之標示或軟體輸出），以提供硬體與文件間之相對應關聯。於無需更換標示或零組件即可更改軟體版本者，其僅應藉由軟體輸出進行軟體識別。為能清楚並簡易說明而以多方塊形式表示於方塊圖之單一單元或單一電腦內多項功能者，僅應使用單一硬體識別標示。申請者應藉由使用此識別以確認所供應之配備與相對應文件一致。 <u>11.3.3.5.1</u> 單元識別定義出硬體及軟體之版本，且軟體之改變（例如改變該單元與本基準相關功能），亦應改變此單元識別。 <u>11.3.3.6</u> 感測系統零組件之安裝 申請者應提供有關將於組成感測系統之個別零組件實施之安裝選項的資訊。前述選項應包含但不限於一旦安裝於車輛時之零組件於車輛中／車輛上之位置、零組件周圍之材質、	各單元應能被清楚且明確地辨識（例如：藉由硬體之標示、軟體內容之標示或軟體輸出），以提供硬體與文件間之相對應關聯。於無需更換標示或零組件即可更改軟體版本者，其僅應藉由軟體輸出進行軟體識別。為能清楚並簡易說明而以多方塊形式表示於方塊圖之單一單元或單一電腦內多項功能者，僅應使用單一硬體識別標示。申請者應藉由使用此識別以確認所供應之配備與相對應文件一致。 <u>10.3.3.5.1</u> 單元識別定義出硬體及軟體之版本，且軟體之改變（例如改變該單元與本基準相關功能），亦應改變此單元識別。 <u>10.3.3.6</u> 感測系統零組件之安裝 申請者應提供有關將於組成感測系統之個別零組件實施之安裝選項的資訊。前述選項應包含但不限於一旦安裝於車輛時之零組件於車輛中／車輛上之位置、零組件周圍之材質、

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
of the material surrounding the component, and the surface finish of the materials surrounding the component, once installed in the vehicle. The information shall also include installation specifications that are critical to the system's performance, e.g. tolerances on installation angle. Changes to the individual components of the sensing system, or the installation options, shall be notified to the Type Approval Authority and be subject to further assessment. 3.4. Safety concept of the manufacturer 3.4.1.The manufacturer shall provide a statement which affirms that the "The System" is free from unreasonable risks for the driver, passengers and other road users. 3.4.2.In respect of software employed in "The System", the outline architecture shall be explained and the design methods and tools used shall be identified (see 3.5.1). The manufacturer shall show evidence of the means by which they determined the realization of the system logic, during the design and development process. 3.4.3.The manufacturer shall provide the Type Approval Authority with an explanation of the design provisions built into "The System" so as to ensure functional and operational safety. Possible design provisions in "The System" are for example:	of the material surrounding the component, and the surface finish of the materials surrounding the component, once installed in the vehicle. The information shall also include installation specifications that are critical to the system's performance, e.g. tolerances on installation angle. Changes to the individual components of the sensing system, or the installation options, shall be notified to the Type Approval Authority and be subject to further assessment. 3.4. Safety concept of the manufacturer 3.4.1.The manufacturer shall provide a statement which affirms that the "The System" is free from unreasonable risks for the driver, passengers and other road users. 3.4.2.In respect of software employed in "The System", the outline architecture shall be explained and the design methods and tools used shall be identified (see 3.5.1). The manufacturer shall show evidence of the means by which they determined the realization of the system logic, during the design and development process. 3.4.3.The manufacturer shall provide the Type Approval Authority with an explanation of the design provisions built into "The System" so as to ensure functional and operational safety. Possible design provisions in "The System" are for example:	零組件周圍材質之尺寸及幾何，以及零組件周圍材質之表面處理。該資訊亦應包含對系統性能重要之安裝規範，如安裝角度之容許誤差。 感測系統之個別零組件或安裝選項之改變應通知審驗機構並接受進一步評估。 <u>11.3.4</u> 申請者之安全性概念 <u>11.3.4.1</u> 申請者應提供說明文件，確保「系統」不會對駕駛、乘客及其他道路使用產生不合理風險。 <u>11.3.4.2</u> 對於使用於系統內之軟體，應說明該軟體之概要架構，及識別出所用之設計方法與工具（依規定<u>11.3.4.1</u>）。申請者應出示證明文件以說明於設計及開發階段時所確定實現系統邏輯之方法。 <u>11.3.4.3</u> 申請者應向審驗機構說明系統內建之設計機制，該機制用於故障發生時執行安全運行。「系統」故障設計機制範例如下：	零組件周圍材質之尺寸及幾何，以及零組件周圍材質之表面處理。該資訊亦應包含對系統性能重要之安裝規範，如安裝角度之容許誤差。 感測系統之個別零組件或安裝選項之改變應通知審驗機構並接受進一步評估。 <u>10.3.4</u> 申請者之安全性概念 <u>10.3.4.1</u> 申請者應提供說明文件，確保「系統」不會對駕駛、乘客及其他道路使用產生不合理風險。 <u>10.3.4.2</u> 對於使用於系統內之軟體，應說明該軟體之概要架構，及識別出所用之設計方法與工具（依規定<u>10.3.4.1</u>）。申請者應出示證明文件以說明於設計及開發階段時所確定實現系統邏輯之方法。 <u>10.3.4.3</u> 申請者應向審驗機構說明系統內建之設計機制，該機制用於故障發生時執行安全運行。「系統」故障設計機制範例如下：

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
(a) Fall-back to operation using a partial system. (b) Redundancy with a separate system. (c) Removal of the automated driving function(s). 3.4.3.1. If the chosen provision selects a partial performance mode of operation under certain fault conditions (e.g. in case of severe failures), then these conditions shall be stated (e.g. type of severe failure) and the resulting limits of effectiveness defined (e.g. initiation of a minimum risk manoeuvre immediately) as well as the warning strategy to the driver. 3.4.3.2. If the chosen provision selects a second (back-up) means to realise the performance of the dynamic driving task, the principles of the change-over mechanism, the logic and level of redundancy and any built in back-up checking features shall be explained and the resulting limits of back-up effectiveness defined. 3.4.3.3. If the chosen provision selects the removal of the automated driving function, this shall be done in compliance with the relevant provisions of this regulation. All the corresponding output control signals associated with this function shall be inhibited.	(a) Fall-back to operation using a partial system. (b) Redundancy with a separate system. (c) Removal of the automated driving function(s). 3.4.3.1. If the chosen provision selects a partial performance mode of operation under certain fault conditions (e.g. in case of severe failures), then these conditions shall be stated (e.g. type of severe failure) and the resulting limits of effectiveness defined (e.g. initiation of a minimum risk manoeuvre immediately) as well as the warning strategy to the driver. 3.4.3.2. If the chosen provision selects a second (back-up) means to realise the performance of the dynamic driving task, the principles of the change-over mechanism, the logic and level of redundancy and any built in back-up checking features shall be explained and the resulting limits of back-up effectiveness defined. 3.4.3.3. If the chosen provision selects the removal of the automated driving function, this shall be done in compliance with the relevant provisions of this regulation. All the corresponding output control signals associated with this function shall be inhibited.	(a) 使用部分系統運作之備用機制 (Fall-back)。 (b) 具有獨立系統之冗餘 (Redundancy)。 (c) 解除自動駕駛功能。 11.3.4.3.1 若選定於某些故障情況下使用部分性能運作模式（如於嚴重失效之情況下），則應說明該些故障情況（如嚴重失效之型式）並界定其產生之效益極限（如立即啟動最低風險操作）以及對駕駛之警告策略。 11.3.4.3.2 若選定備用系統以實現動態行駛作業之性能，則應說明其更換機制之原理、邏輯、冗餘度(Level of redundancy)與任何內建之備用檢查功能，並界定其產生之備用系統效益極限。 11.3.4.3.3 若選定解除自動駕駛功能，則應符合本基準相關規定。應禁止所有與該功能相關之對應輸出控制信號。	(a) 使用部分系統運作之備用機制 (Fall-back)。 (b) 具有獨立系統之冗餘 (Redundancy)。 (c) 解除自動駕駛功能。 10.3.4.3.1 若選定於某些故障情況下使用部分性能運作模式（如於嚴重失效之情況下），則應說明該些故障情況（如嚴重失效之型式）並界定其產生之效益極限（如立即啟動最低風險操作）以及對駕駛之警告策略。 10.3.4.3.2 若選定備用系統以實現動態行駛作業之性能，則應說明其更換機制之原理、邏輯、冗餘度(Level of redundancy)與任何內建之備用檢查功能，並界定其產生之備用系統效益極限。 10.3.4.3.3 若選定解除自動駕駛功能，則應符合本基準相關規定。應禁止所有與該功能相關之對應輸出控制信號。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
3.4.4.The documentation shall be supported, by an analysis which shows, in overall terms, how the system will behave to mitigate or avoid hazards which can have a bearing on the safety of the driver, passengers and other road users. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for inspection by the Type Approval Authority at the time of the type approval. The Type Approval Authority shall perform an assessment of the application of the analytical approach(es): (a) Inspection of the safety approach at the concept (vehicle) level. This approach shall be based on a Hazard / Risk analysis appropriate to system safety. (b) Inspection of the safety approach at the system level including a top down (from possible hazard to design) and bottom up approach (from design to possible hazards). The safety approach may be based on a Failure Mode and Effect Analysis (FMEA), a Fault Tree Analysis (FTA) and a System-Theoretic Process Analysis (STPA) or any similar process appropriate to system functional and operational safety. (c) Inspection of the validation/verification plans and results including appropriate acceptance criteria. This shall include	3.4.4.The documentation shall be supported, by an analysis which shows, in overall terms, how the system will behave to mitigate or avoid hazards which can have a bearing on the safety of the driver, passengers and other road users. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for inspection by the Type Approval Authority at the time of the type approval. The Type Approval Authority shall perform an assessment of the application of the analytical approach(es): (a) Inspection of the safety approach at the concept (vehicle) level. This approach shall be based on a Hazard / Risk analysis appropriate to system safety. (b) Inspection of the safety approach at the system level including a top down (from possible hazard to design) and bottom up approach (from design to possible hazards). The safety approach may be based on a Failure Mode and Effect Analysis (FMEA), a Fault Tree Analysis (FTA) and a System-Theoretic Process Analysis (STPA) or any similar process appropriate to system functional and operational safety. (c) Inspection of the validation/verification plans and results including appropriate acceptance criteria. This shall include	<u>11.3.4.4</u> 應以分析資料作為佐證文件，說明系統於整體而言將如何運作以減輕或避免可能對駕駛、乘客及其他道路使用者之安全產生危險影響。 所選擇之分析方法應由申請者建置及維持，惟應於認證過程中開放予審驗機構。 審驗機構應對分析方法之應用進行評估： (a) 於概念(車輛)層級之安全方法的檢驗。 該方法應基於適合系統安全之危害／風險分析。 (b) 於系統層級之安全方法的檢驗，包含由上而下(從潛在危險至設計)及由下而上之方法(從設計至潛在危險)。安全方法可基於失效模式及影響分析(FMEA)、故障樹分析(FTA)及系統理論過程分析(STPA)或任何適用於系統功能及操作安全之相似程序。	<u>10.3.4.4</u> 應以分析資料作為佐證文件，說明系統於整體而言將如何運作以減輕或避免可能對駕駛、乘客及其他道路使用者之安全產生危險影響。 所選擇之分析方法應由申請者建置及維持，惟應於認證過程中開放予審驗機構。 審驗機構應對分析方法之應用進行評估： (a) 於概念(車輛)層級之安全方法的檢驗。 該方法應基於適合系統安全之危害／風險分析。 (b) 於系統層級之安全方法的檢驗，包含由上而下(從潛在危險至設計)及由下而上之方法(從設計至潛在危險)。安全方法可基於失效模式及影響分析(FMEA)、故障樹分析(FTA)及系統理論過程分析(STPA)或任何適用於系統功能及操作安全之相似程序。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
validation testing appropriate for validation, for example, Hardware in the Loop (HIL) testing, vehicle on-road operational testing, testing with real end users, or any other testing appropriate for validation/verification. Results of validation and verification may be assessed by analysing coverage of the different tests and setting coverage minimal thresholds for various metrics. The inspection shall confirm that at least each of the following items is covered where applicable under (a)-(c): (i) Issues linked to interactions with other vehicle systems (e.g. braking, steering); (ii) Failures of the automated lane keeping system and system risk mitigation reactions; (iii) Situations within the ODD when a system may create unreasonable safety risks for the driver, passengers and other road users due to operational disturbances (e.g. lack of or wrong comprehension of the vehicle environment, lack of understanding of the reaction from the driver, passenger or other road users, inadequate control, challenging scenarios) (iv) Identification of the relevant scenarios within the boundary conditions and management method used to select scenarios and validation tool chosen. (v) Decision making process resulting in the	validation testing appropriate for validation, for example, Hardware in the Loop (HIL) testing, vehicle on-road operational testing, testing with real end users, or any other testing appropriate for validation/verification. Results of validation and verification may be assessed by analysing coverage of the different tests and setting coverage minimal thresholds for various metrics. The inspection shall confirm that at least each of the following items is covered where applicable under (a)-(c): (i) Issues linked to interactions with other vehicle systems (e.g. braking, steering); (ii) Failures of the automated lane keeping system and system risk mitigation reactions; (iii) Situations within the ODD when a system may create unreasonable safety risks for the driver, passengers and other road users due to operational disturbances (e.g. lack of or wrong comprehension of the vehicle environment, lack of understanding of the reaction from the driver, passenger or other road users, inadequate control, challenging scenarios) (iv) Identification of the relevant scenarios within the boundary conditions and management method used to select scenarios and validation tool chosen. (v) Decision making process resulting in the	(c) 確認／驗證計畫及結果之檢驗，包含適當接受準則。此應包含適於確認之確認試驗，如硬體迴路(HIL)試驗、車輛道路運作試驗、真實終端用戶試驗或任何其他適合確認／驗證之試驗。確認及驗證之結果可藉由分析不同試驗之覆蓋率及對各種度量設置覆蓋率最小閾值進行評估。 檢驗應確認至少於(a)-(c)下（依實際狀況）包含下述各項： (i) 與其他車輛系統互動相關之問題（如煞車、轉向）； (ii) 自動車道維持輔助系統及系統風險緩解反應之故障； (iii) 於系統因操作干擾（如對車輛環境缺乏或錯誤理解，缺乏對駕駛、乘客或其他道路使用者反應之了解，控制不足，具有挑戰性之情境）而可能對駕駛、乘客及其他道路使用者造成不合理安全風險之 ODD 內狀況。 (iv) 於邊界條件內之相關場景、用於	(c) 確認／驗證計畫及結果之檢驗，包含適當接受準則。此應包含適於確認之確認試驗，如硬體迴路(HIL)試驗、車輛道路運作試驗、真實終端用戶試驗或任何其他適合確認／驗證之試驗。確認及驗證之結果可藉由分析不同試驗之覆蓋率及對各種度量設置覆蓋率最小閾值進行評估。 檢驗應確認至少於(a)-(c)下（依實際狀況）包含下述各項： (i) 與其他車輛系統互動相關之問題（如煞車、轉向）； (ii) 自動車道維持輔助系統及系統風險緩解反應之故障； (iii) 於系統因操作干擾（如對車輛環境缺乏或錯誤理解，缺乏對駕駛、乘客或其他道路使用者反應之了解，控制不足，具有挑戰性之情境）而可能對駕駛、乘客及其他道路使用者造成不合理安全風險之 ODD 內狀況。 (iv) 於邊界條件內之相關場景、用於

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performance of the dynamic driving tasks (e.g. emergency manoeuvres), for the interaction with other road users and in compliance with traffic rules (vi) Reasonably foreseeable misuse by the driver (e.g. driver availability recognition system and an explanation on how the availability criteria were established), mistakes or misunderstanding by the driver (e.g. unintentional override) and intentional tampering of the system. (viii) Cyber-attacks having an impact on the safety of the vehicle (can be done through the analysis done under the UN Regulation No 155 on Cyber Security and Cyber Security Management System). The assessment by the approval authority shall consist of spot checks of selected hazards (or cyber threats) to establish that argumentation supporting the safety concept is understandable and logical and implemented in the different functions of the systems. The assessment shall also check that validation plans are robust enough to demonstrate safety (e.g. reasonable coverage of chosen scenarios testing by the validation tool chosen) and have been completed. It shall demonstrate that the vehicle is free from unreasonable risks for the driver; vehicle occupants and other road users in the	performance of the dynamic driving tasks (e.g. emergency manoeuvres), for the interaction with other road users and in compliance with traffic rules (vi) Reasonably foreseeable misuse by the driver (e.g. driver availability recognition system and an explanation on how the availability criteria were established), mistakes or misunderstanding by the driver (e.g. unintentional override) and intentional tampering of the system. (viii) Cyber-attacks having an impact on the safety of the vehicle (can be done through the analysis done under the UN Regulation No 155 on Cyber Security and Cyber Security Management System). The assessment by the approval authority shall consist of spot checks of selected hazards (or cyber threats) to establish that argumentation supporting the safety concept is understandable and logical and implemented in the different functions of the systems. The assessment shall also check that validation plans are robust enough to demonstrate safety (e.g. reasonable coverage of chosen scenarios testing by the validation tool chosen) and have been completed. It shall demonstrate that the vehicle is free from unreasonable risks for the driver; vehicle occupants and other road users in the	選擇場景之管理方法，以及所選擇確認工具的識別。 (v) 針對與其他道路使用者互動並符合交通規則而言，造成動態行駛效能（如緊急操作）之決策過程。 (vi) 來自駕駛之合理且可預期的誤用（如駕駛人狀態辨識系統及如何建立狀態標準之說明）、來自駕駛之錯誤或誤解（如無意圖之取代）及系統之刻意篡改。 (vii) 對車輛安全造成影響之網路攻擊（可透過完成本基準「網路安全及網路安全管理系統」規定之分析以對應本項規定）。 審驗機構之評估應包含所選擇之危害（或網路威脅）的抽查，以確認支持安全概念之論證係可理解、合乎邏輯，且於系統之不同功能中實施。評估亦應檢查確認計劃 (validation plan) 是否足夠穩健以展現安全性（如以所選確認工具對所選情境執行試驗之合理覆蓋範圍）並已完成。	選擇場景之管理方法，以及所選擇確認工具的識別。 (v) 針對與其他道路使用者互動並符合交通規則而言，造成動態行駛效能（如緊急操作）之決策過程。 (vi) 來自駕駛之合理且可預期的誤用（如駕駛人狀態辨識系統及如何建立狀態標準之說明）、來自駕駛之錯誤或誤解（如無意圖之取代）及系統之刻意篡改。 (vii) 對車輛安全造成影響之網路攻擊（可透過完成本基準「網路安全及網路安全管理系統」規定之分析以對應本項規定）。 審驗機構之評估應包含所選擇之危害（或網路威脅）的抽查，以確認支持安全概念之論證係可理解、合乎邏輯，且於系統之不同功能中實施。評估亦應檢查確認計劃 (validation plan) 是否足夠穩健以展現安全性（如以所選確認工具對所選情境執行試驗之合理覆蓋範圍）並已完成。

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operational design domain, i.e. through: (a) An overall validation target (i.e., validation acceptance criteria) supported by validation results, demonstrating that the entry into service of the automated lane keeping system will overall not increase the level of risk for the driver, vehicle occupants, and other road users compared to a manually driven vehicles; and (b) A scenario specific approach showing that the system will overall not increase the level of risk for the driver, passengers and other road users compared to a manually driven vehicles for each of the safety relevant scenarios; and The Type Approval Authority shall perform or shall require performing tests as specified in paragraph 4. to verify the safety concept. 3.4.4.1. This documentation shall itemize the parameters being monitored and shall set out, for each failure condition of the type defined in paragraph 3.4.4. of this annex, the warning signal to be given to the driver/vehicle occupants/other road users and/or to service/technical inspection personnel. 3.4.4.2. This documentation shall also describe the measures in place to ensure the "The System" is free from unreasonable risks for the driver, vehicle occupants, and other road users when the performance of	operational design domain, i.e. through: (a) An overall validation target (i.e., validation acceptance criteria) supported by validation results, demonstrating that the entry into service of the automated lane keeping system will overall not increase the level of risk for the driver, vehicle occupants, and other road users compared to a manually driven vehicles; and (b) A scenario specific approach showing that the system will overall not increase the level of risk for the driver, passengers and other road users compared to a manually driven vehicles for each of the safety relevant scenarios; and The Type Approval Authority shall perform or shall require performing tests as specified in paragraph 4. to verify the safety concept. 3.4.4.1. This documentation shall itemize the parameters being monitored and shall set out, for each failure condition of the type defined in paragraph 3.4.4. of this annex, the warning signal to be given to the driver/vehicle occupants/other road users and/or to service/technical inspection personnel. 3.4.4.2. This documentation shall also describe the measures in place to ensure the "The System" is free from unreasonable risks for the driver, vehicle occupants, and other road users when the performance of	其應證明車輛不會對操作適用範圍內之駕駛、乘客及其他道路使用者造成不合理之風險，如透過： (a) 由確認結果支持之整體確認目標（如確認驗收標準），展現投入使用之自動車道維持輔助系統與手動駕駛車輛相比，整體上不會增加駕駛、乘客及其他道路使用者之風險等級；及 (b) 一個特定場景方法，顯示系統於每個安全相關場景與手動駕駛車輛相比，整體上不會增加駕駛、乘客及其他道路使用者之風險等級；及 審驗機構應執行或應要求執行規定 11.4 之試驗，以驗證安全性概念。 11.3.4.4.1 該文件應詳列所監測之參數，並依照規定 11.3.4.4 所述該型式之各故障情況，列出發送給駕駛／乘客／其他道路使用者及／或維修／技術性檢查人員之警告訊號。 11.3.4.4.2 該文件亦應描述已就緒之措	其應證明車輛不會對操作適用範圍內之駕駛、乘客及其他道路使用者造成不合理之風險，如透過： (a) 由確認結果支持之整體確認目標（如確認驗收標準），展現投入使用之自動車道維持輔助系統與手動駕駛車輛相比，整體上不會增加駕駛、乘客及其他道路使用者之風險等級；及 (b) 一個特定場景方法，顯示系統於每個安全相關場景與手動駕駛車輛相比，整體上不會增加駕駛、乘客及其他道路使用者之風險等級；及 審驗機構應執行或應要求執行規定 10.4 之試驗，以驗證安全性概念。 10.3.4.4.1 該文件應詳列所監測之參數，並依照規定 10.3.4.4 所述該型式之各故障情況，列出發送給駕駛／乘客／其他道路使用者及／或維修／技術性檢查人員之警告訊號。 10.3.4.4.2 該文件亦應描述已就緒

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"The System" is affected by environmental conditions e.g. climatic, temperature, dust ingress, water ingress, ice packing. 3.5. Safety management system (Process Audit) 3.5.1. In respect of software and hardware employed in "The System", the manufacturer shall demonstrate to the type approval authority in terms of a safety management system that effective processes, methodologies and tools are in place, up to date and being followed within the organization to manage the safety and continued compliance throughout the product lifecycle (design, development, production, operation including respect of traffic rules, and decommissioning). 3.5.2. The design and development process shall be established including safety management system, requirements management, requirements' implementation, testing, failure tracking, remedy and release 3.5.3. The manufacturer shall institute and maintain effective communication channels between manufacturer departments responsible for functional/operational safety, cybersecurity and any other relevant disciplines related to the achievement of vehicle safety. 3.5.4. The manufacturer shall have processes to	"The System" is affected by environmental conditions e.g. climatic, temperature, dust ingress, water ingress, ice packing. 3.5. Safety management system (Process Audit) 3.5.1. In respect of software and hardware employed in "The System", the manufacturer shall demonstrate to the type approval authority in terms of a safety management system that effective processes, methodologies and tools are in place, up to date and being followed within the organization to manage the safety and continued compliance throughout the product lifecycle (design, development, production, operation including respect of traffic rules, and decommissioning). 3.5.2. The design and development process shall be established including safety management system, requirements management, requirements' implementation, testing, failure tracking, remedy and release 3.5.3. The manufacturer shall institute and maintain effective communication channels between manufacturer departments responsible for functional/operational safety, cybersecurity and any other relevant disciplines related to the achievement of vehicle safety. 3.5.4. The manufacturer shall have processes to	施，以確保系統於性能受到環境條件影響時，如氣候、溫度、粉塵入侵、進水、冰封，將不會對駕駛、乘客及其他道路使用者帶來不合理之風險。 <u>11.3.5</u> 安全管理系統（程序審查） <u>11.3.5.1</u> 對於「系統」使用之軟體及硬體，申請者應向審驗機構展演安全管理系統於整個產品生命週期（設計、開發、生產、運作，包含遵守交通規則及除役），其有效程序、方法論及工具皆已就緒、更新至最新狀態，並由組織內追蹤以管理安全性及持續符合性。 <u>11.3.5.2</u> 應建立設計及開發程序，包含安全管理系統、要求管理、要求之實施、試驗、故障追蹤、改正及釋出。 <u>11.3.5.3</u> 申請者應建立並維持與負責功能／運作安全、網路安全，以及與達成車輛安全有關之任何其他相關規則之申請者單位之間的有效溝通管道。	之措施，以確保系統於性能受到環境條件影響時，如氣候、溫度、粉塵入侵、進水、冰封，將不會對駕駛、乘客及其他道路使用者帶來不合理之風險。 <u>10.3.5</u> 安全管理系統（程序審查） <u>10.3.5.1</u> 對於「系統」使用之軟體及硬體，申請者應向審驗機構展演安全管理系統於整個產品生命週期（設計、開發、生產、運作，包含遵守交通規則及除役），其有效程序、方法論及工具皆已就緒、更新至最新狀態，並由組織內追蹤以管理安全性及持續符合性。 <u>10.3.5.2</u> 應建立設計及開發程序，包含安全管理系統、要求管理、要求之實施、試驗、故障追蹤、改正及釋出。 <u>10.3.5.3</u> 申請者應建立並維持與負責功能／運作安全、網路安全，以及與達成車輛安全有關之任何其他相關規則之申請者單位之間的有效溝通管道。

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monitor safety-relevant incidents/ crashes/collisions caused by the engaged automated lane keeping system and a process to manage potential safety-relevant gaps post-registration (closed loop of field monitoring) and to update the vehicles. They shall report critical incidents (e.g. collision with another road users and potential safety-relevant gaps) to the type-approval authorities when critical incidents. 3.5.5.The manufacturer shall demonstrate that periodic independent internal process audits are carried out to ensure that the processes established in accordance with paragraphs 3.5.1 to 3.5.4. are implemented consistently. 3.5.6.Manufacturers shall put in place suitable arrangements (e.g. contractual arrangements, clear interfaces, quality management system) with suppliers to ensure that the supplier safety management system comply with the requirements of paragraphs 3.5.1. (except for vehicle related aspects like "operation" and "decommissioning"), 3.5.2, 3.5.3 and 3.5.5. 4. Verification and tests Taking into account the results of the analysis of the manufacturer's documentation package referred to in paragraph 3, the Type Approval Authority shall request the tests to be performed or witnessed by the Technical Service to check specific points arisen from	monitor safety-relevant incidents/ crashes/collisions caused by the engaged automated lane keeping system and a process to manage potential safety-relevant gaps post-registration (closed loop of field monitoring) and to update the vehicles. They shall report critical incidents (e.g. collision with another road users and potential safety-relevant gaps) to the type-approval authorities when critical incidents. 3.5.5.The manufacturer shall demonstrate that periodic independent internal process audits are carried out to ensure that the processes established in accordance with paragraphs 3.5.1 to 3.5.4. are implemented consistently. 3.5.6.Manufacturers shall put in place suitable arrangements (e.g. contractual arrangements, clear interfaces, quality management system) with suppliers to ensure that the supplier safety management system comply with the requirements of paragraphs 3.5.1. (except for vehicle related aspects like "operation" and "decommissioning"), 3.5.2, 3.5.3 and 3.5.5. 4. Verification and tests	11.3.5.4 申請者應具備程序以監控由已啟動之自動車道維持輔助系統所引起之安全相關事故／撞擊／碰撞，以及管理註冊後潛在安全相關漏洞(場域監控之閉迴路)及更新車輛的程序。於重大事故發生時，申請者應向審驗機構報告重大事故(如與其他道路使用者之碰撞及潛在之安全相關漏洞)。 11.3.5.5 申請者應展演定期之獨立內部程序審核已完成實施，以確保依規定 11.3.5.1 至 11.3.5.4 所建立程序之持續執行。 11.3.5.6 申請者與供應商合適之協議(如合約協議、明確之對應窗口、品質管理系統)應已就緒，以確保供應商之安全管理系統符合規定 11.3.5.1 (「運作」及「除役」等車輛相關方面除外)、11.3.5.2、11.3.5.3 及 11.3.5.5 之要求。 11.4. 驗證及試驗 考量 11.3 提及之申請者文件之分析結	10.3.5.4 申請者應具備程序以監控由已啟動之自動車道維持輔助系統所引起之安全相關事故／撞擊／碰撞，以及管理註冊後潛在安全相關漏洞(場域監控之閉迴路)及更新車輛的程序。於重大事故發生時，申請者應向審驗機構報告重大事故(如與其他道路使用者之碰撞及潛在之安全相關漏洞)。 10.3.5.5 申請者應展演定期之獨立內部程序審核已完成實施，以確保依規定 10.3.5.1 至 10.3.5.4 所建立程序之持續執行。 10.3.5.6 申請者與供應商合適之協議(如合約協議、明確之對應窗口、品質管理系統)應已就緒，以確保供應商之安全管理系統符合規定 10.3.5.1 (「運作」及「除役」等車輛相關方面除外)、10.3.5.2、10.3.5.3 及 10.3.5.5 之要求。 10.4. 驗證及試驗 ...

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the audit evaluation. 4.1. The functional operation of "The System", as laid out in the documents required in paragraph 3., shall be tested as follows: 4.1.1. Verification of the function of "The System" The Type approval authority shall verify "The System" under non-failure conditions by testing on a track a number of selected functions from those described by the manufacturer in paragraph 3.2. above, and by checking the overall behaviour of the system in real driving conditions including the compliance with traffic rules. These tests shall include scenarios whereby the system is overridden by the driver. These tests can be based on scenarios listed in Annex 5 and/or on additional scenarios not covered by Annex 5. 4.1.1.1. The test results shall correspond with the description, including the control strategies, provided by the manufacturer in paragraph 3.2. and shall comply with the requirements of this Regulation. 4.1.2. Verification of the safety concept of paragraph 3.4. The reaction of "The System" shall be checked under the influence of a faults in any individual unit by applying corresponding	4.1. The functional operation of "The System", as laid out in the documents required in paragraph 3., shall be tested as follows: 4.1.1. Verification of the function of "The System" The Type approval authority shall verify "The System" under non-failure conditions by testing on a track a number of selected functions from those described by the manufacturer in paragraph 3.2. above, and by checking the overall behaviour of the system in real driving conditions including the compliance with traffic rules. These tests shall include scenarios whereby the system is overridden by the driver. Tests according to this Annex shall take into account tests already conducted in Annex 5 of this Regulation. 4.1.1.1. The verification results shall correspond with the description, including the control strategies, provided by the manufacturer in paragraph 3.2. and shall comply with the requirements of this regulation. 4.1.2. Verification of the safety concept of paragraph 3.4. The reaction of "The System" shall be checked under the influence of a faults in any individual unit by applying corresponding	果，審驗機構應要求進行試驗或由檢測機構見證，以檢查審核評估中出現之特定問題點。 ... <u>11.4.1 「系統」之功能運作，應依規定 11.3 要求之相關文件內容，進行下列條件試驗：</u> <u>11.4.1.1 「系統」功能之驗證</u> 審驗機構應於非故障狀況下藉由於道路上試驗一數量由申請者於規定 11.3.2 所述功能中所選擇之功能，並藉由檢查系統於包含符合交通規則等實際駕駛情形下之整體行為驗證「系統」。 試驗應包含系統由駕駛取代之場景。 <u>相關試驗可基於規定 12 列出之情境及／或規定 12 未涵蓋之其他情境。</u> <u>11.4.1.1.1 試驗</u>結果應對應申請者於規定 11.3.2 所提供包含控制策略之描述，並應符合本基準之要求。	10.4.1 「系統」之功能運作，應依規定 10.3 要求之相關文件內容，進行下列條件試驗： 10.4.1.1 「系統」功能之驗證 審驗機構應於非故障狀況下藉由於道路上試驗一數量由申請者於規定 10.3.2 所述功能中所選擇之功能，並藉由檢查系統於包含符合交通規則等實際駕駛情形下之整體行為驗證「系統」。 試驗應包含系統由駕駛取代之場景。 <u>依照本項執行試驗應考慮已於規定 11 執行之試驗。</u> 10.4.1.1.1 驗證結果應對應申請者於規定 10.3.2 所提供包含控制策略之描述，並應符合本基準之要求。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
output signals to electrical units or mechanical elements in order to simulate the effects of internal failure within the unit. The Type approval authority shall conduct this check for at least one individual unit, but shall not check the reaction of "The System" to multiple simultaneous failures of individual units. The Type Approval Authority shall verify that these tests include aspects that may have an impact on vehicle controllability and user information (HMI aspects e.g. transition scenarios). 4.1.2.1. The Type Approval Authorities shall also check a number of scenarios that are critical for the Object and Event Detection and Response (OEDR) and characterization of the decision-making and HMI functions of the system (e.g. object difficult to detect, when the system reaches the ODD boundaries, traffic disturbance scenarios) as defined in the regulation. 4.1.2.2. The verification results shall correspond with the documented summary of the hazard analysis, to a level of overall effect such that the safety concept and execution are confirmed as being adequate and in compliance with the requirements of this regulation. 4.2. Simulation tool and mathematical models for verification of the safety concept may be	output signals to electrical units or mechanical elements in order to simulate the effects of internal failure within the unit. The Type approval authority shall conduct this check for at least one individual unit, but shall not check the reaction of "The System" to multiple simultaneous failures of individual units. The Type Approval Authority shall verify that these tests include aspects that may have an impact on vehicle controllability and user information (HMI aspects e.g. transition scenarios). 4.1.2.1. The Type Approval Authorities shall also check a number of scenarios that are critical for the Object and Event Detection and Response (OEDR) and characterization of the decision-making and HMI functions of the system (e.g. object difficult to detect, when the system reaches the ODD boundaries, traffic disturbance scenarios) as defined in the regulation. 4.1.2.2. The verification results shall correspond with the documented summary of the hazard analysis, to a level of overall effect such that the safety concept and execution are confirmed as being adequate and in compliance with the requirements of this regulation. 4.2. Simulation tool and mathematical models for verification of the safety concept may be	<u>11.4.1.2</u> 規定 <u>11.3.4</u> 之安全性概念驗證 應藉由對電氣單元或機械元素施加對應輸出訊號以模擬單元內之內部故障效果，以於任何獨立單元中單一故障之影響下檢查「系統」反應。審驗機構應至少檢查一個獨立單元，惟不應檢查「系統」對單一單元之多個同時故障之反應。 審驗機構應驗證這些試驗包含可能對車輛控制性及使用者資訊（HMI 方面，如轉換場景）造成衝擊之層面。 <u>11.4.1.2.1</u> 審驗機構亦應檢查一數量如本基準所定義之對目標及事件偵測與回應(OEDR)以及系統決策及 HMI 功能之特性至關重要之場景（如於系統達到 ODD 邊界、交通干擾情境）。 <u>11.4.1.2.2</u> 驗證結果應對應危害分析之彙整總結，至一層級之整體影響如安全性概念及執行係充分且符合本	<u>10.4.1.2</u> 規定 <u>10.3.4</u> 之安全性概念驗證 應藉由對電氣單元或機械元素施加對應輸出訊號以模擬單元內之內部故障效果，以於任何獨立單元中單一故障之影響下檢查「系統」反應。審驗機構應至少檢查一個獨立單元，惟不應檢查「系統」對單一單元之多個同時故障之反應。 審驗機構應驗證這些試驗包含可能對車輛控制性及使用者資訊(HMI 方面，如轉換場景）造成衝擊之層面。 <u>10.4.1.2.1</u> 審驗機構亦應檢查一數量如本基準所定義之對目標及事件偵測與回應(OEDR)以及系統決策及 HMI 功能之特性至關重要之場景（如於系統達到 ODD 邊界、交通干擾情境）。 <u>10.4.1.2.2</u> 驗證結果應對應危害分析之彙整總結，至一層級之整體影響如安全性概念及執行係充分且符

增/修內容	原內容	修訂國內法規條文案草案	對應國內法規條文
used in accordance with Schedule 8 of Revision 3 of the 1958 Agreement, in particular for scenarios that are difficult on a test track or in real driving conditions. Manufacturers shall demonstrate the scope of the simulation tool, its validity for the scenario concerned as well as the validation performed for the simulation tool chain (correlation of the outcome with physical tests). Simulation shall not be a substitute for physical tests in Annex 5 to this UN Regulation. 6. Reserved 7. Competence of the auditors/assessors The assessments under this Annex shall only be conducted by auditors/assessors with the technical and administrative knowledge necessary for such purposes. They shall in particular be competent as auditor/assessor for ISO 26262-2018 (Functional Safety - Road Vehicles), and ISO/PAS 21448 (Safety of the Intended Functionality of road vehicles); and shall be able to make the necessary link with cybersecurity aspects in	used in accordance with Schedule 8 of Revision 3 of the 1958 Agreement, in particular for scenarios that are difficult on a test track or in real driving conditions. Manufacturers shall demonstrate the scope of the simulation tool, its validity for the scenario concerned as well as the validation performed for the simulation tool chain (correlation of the outcome with physical tests). 6. Communication to other Type Approval Authorities (Appendix 2) containing: (a) Description of the ODD and the high-level functional architecture focusing on the functions available to the driver, vehicle occupants and other road users. (b) Test results during the verification process by the type approval authorities. 7. Competence of the auditors/assessors The assessments under this Annex shall only be conducted by auditors/assessors with the technical and administrative knowledge necessary for such purposes. They shall in particular be competent as auditor/assessor for ISO 26262-2018 (Functional Safety - Road Vehicles), and ISO/PAS 21448 (Safety of the Intended Functionality of road vehicles); and shall be able to make the necessary link with cybersecurity aspects in	基準之要求。 <u>11.4.2</u> 可依照聯合國 1958 協定修訂版 3 之附表 8 使用用於驗證安全性概念之模擬工具及數學模型，特別係對於難以於試驗道路或實際駕駛狀況執行之場景。申請者應展演模擬工具之適用範圍，其對相關情境以及對模擬工具鏈執行之確認（以實體試驗之結果的相關性）之有效性。<u>規定 12 之實體試驗不應以模擬方式替代。</u> ... <u>11.6. （保留）</u> <u>11.7. 稽核員／評估員之能力</u> 規定 <u>11</u> 之評估僅應由具備此類目的所需之技術及管理知識之稽核員／評估員執行。前述人員應勝任 ISO 26262-2018（功能安全-道路車輛）	合本基準之要求。 <u>10.4.2</u> 可依照聯合國 1958 協定修訂版 3 之附表 8 使用用於驗證安全性概念之模擬工具及數學模型，特別係對於難以於試驗道路或實際駕駛狀況執行之場景。申請者應展演模擬工具之適用範圍，其對相關情境以及對模擬工具鏈執行之確認（以實體試驗之結果的相關性）之有效性。... <u>10.6. 與其他審驗機構（依規定 10.9）之溝通，其中包含：</u> (a) <u>ODD 及高階功能性架構之描述，聚焦於駕駛、乘客及其他道路使用者可用之功能。</u> (b) <u>由審驗機構於驗證程序期間之試驗結果。</u> <u>10.7. 稽核員／評估員之能力</u> 規定 <u>10</u> 之評估僅應由具備此類目的所需之技術及管理知識之稽核員／評估員執行。前述人員應勝任 ISO 26262-2018（功能安全-道路車輛）

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
accordance with UN Regulation No 15Z and ISO/SAE 21434)*/. This competence should be demonstrated by appropriate qualifications or other equivalent training records. */ JASIC's Note: Although this closing parenthesis appears to be unnecessary here, JASIC will leave it as it is in the original text.	accordance with UN Regulation No 155 and ISO/SAE 21434). This competence should be demonstrated by appropriate qualifications or other equivalent training records.	及 ISO/PAS 21448 (道路車輛預期功能安全)之稽核員／評估員；並應依照基準「網路安全及網路安全管理系統」之規定及 ISO/SAE 21434 建立與網路安全方面必要之連結)。此應藉由適當資格或其他同等培訓記錄以展演相關人員之適任性。 (此處修訂僅調整法規編號，故不影響檢測基準)	及 ISO/PAS 21448 (道路車輛預期功能安全)之稽核員／評估員；並應依照基準「網路安全及網路安全管理系統」之規定及 ISO/SAE 21434 建立與網路安全方面必要之連結)。此應藉由適當資格或其他同等培訓記錄以展演相關人員之適任性。
Annex 4 - Appendix 1 Model assessment form for Automated Lane Keeping System Test report No: 1. Identification 1.1. Make: 1.2. Vehicle Type: 1.3. Means of system identification on the vehicle: 1.4. Location of that marking: 1.5. Manufacturer's name and address: 1.6. If applicable, name and address of manufacturer's representative: 1.7. Manufacturer's formal documentation package: Documentation reference No: Date of original issue: Date of latest update: 2. Test vehicle(s)/system(s) description 2.1. General description: 2.2. Description of all the control functions of "The System", and methods of operation:	Annex 4 - Appendix 1 Model assessment form for Automated Lane Keeping System Test report No: 1. Identification 1.1. Make: 1.2. Vehicle Type: 1.3. Means of system identification on the vehicle: 1.4. Location of that marking: 1.5. Manufacturer's name and address: 1.6. If applicable, name and address of manufacturer's representative: 1.7. Manufacturer's formal documentation package: Documentation reference No: Date of original issue: Date of latest update: 2. Test vehicle(s)/system(s) description 2.1. General description: 2.2. Description of all the control functions of "The System", and methods of operation:	11.8 自動車道維持輔助系統之型號評估表範本 試驗報告編號： <u>11.8.1</u> 識別 <u>11.8.1.1</u> 廠牌： <u>11.8.1.2</u> 車輛型式： <u>11.8.1.3</u> 車輛之系統識別方式： <u>11.8.1.4</u> 標記之位置： <u>11.8.1.5</u> 申請者名稱及地址： <u>11.8.1.6</u> 申請者代表之名稱及地址 (依實際情況)： <u>11.8.1.7</u> 申請者之正式文件： 文件參考編號： 原始發行日期： 最近更新日期： <u>11.8.2</u> 試驗車輛／系統描述 <u>11.8.2.1</u> 一般說明： <u>11.8.2.2</u> 「系統」之所有控制功能，以及運作方式之說明：	10.8 自動車道維持輔助系統之型號評估表範本 試驗報告編號： <u>10.8.1</u> 識別 <u>10.8.1.1</u> 廠牌： <u>10.8.1.2</u> 車輛型式： <u>10.8.1.3</u> 車輛之系統識別方式： <u>10.8.1.4</u> 標記之位置： <u>10.8.1.5</u> 申請者名稱及地址： <u>10.8.1.6</u> 申請者代表之名稱及地址 (依實際情況)： <u>10.8.1.7</u> 申請者之正式文件： 文件參考編號： 原始發行日期： 最近更新日期： <u>10.8.2</u> 試驗車輛／系統描述 <u>10.8.2.1</u> 一般說明： <u>10.8.2.2</u> 「系統」之所有控制功能，以及運作方式之說明：

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
2.3. Description of the components and diagrams of the interconnections within "The System":	2.3. Description of the components and diagrams of the interconnections within "The System":	11.8.2.3 「系統」內之零組件及內部連接圖之說明：	10.8.2.3 「系統」內之零組件及內部連接圖之說明：
2.4. Description of all the control functions of "The System", and methods of operation:	2.4. Description of all the control functions of "The System", and methods of operation:	11.8.2.4 「系統」之所有控制功能及運作方式之說明：	10.8.2.4 「系統」之所有控制功能及運作方式之說明：
2.5. Description of the components and diagrams of the interconnections within "The System":	2.5. Description of the components and diagrams of the interconnections within "The System":	11.8.2.5 「系統」內之零組件及內部連接圖之說明：	10.8.2.5 「系統」內之零組件及內部連接圖之說明：
3. Manufacturer's safety concept	3. Manufacturer's safety concept	11.8.3 申請者之安全性概念	10.8.3 申請者之安全性概念
3.1. Description of signal flow and operating data and their priorities:	3.1. Description of signal flow and operating data and their priorities:	11.8.3.1 訊號流程及運作資料及其優先順序之說明：	10.8.3.1 訊號流程及運作資料及其優先順序之說明：
3.2. Manufacturer's declaration: The manufacturer(s) affirm(s) that the "The System" is free from unreasonable risks for the driver, vehicle occupants and other road users.	3.2. Manufacturer's declaration: The manufacturer(s) affirm(s) that the "The System" is free from unreasonable risks for the driver, vehicle occupants and other road users.	11.8.3.2 申請者宣告： 申請者.....確認「系統」不會對駕駛、乘客及其他道路使用者造成不合理風險。	10.8.3.2 申請者宣告： 申請者.....確認「系統」不會對駕駛、乘客及其他道路使用者造成不合理風險。
3.3. Software outline architecture and the design methods and tools used:	3.3. Software outline architecture and the design methods and tools used:	11.8.3.3 軟體概要架構及使用之設計方法及工具：	10.8.3.3 軟體概要架構及使用之設計方法及工具：
3.4. Explanation of the safety concept of "The System":	3.4. Explanation of the safety concept of "The System":	11.8.3.4 「系統」安全概念說明：	10.8.3.4 「系統」安全概念說明：
3.5. Documented analyses of the behaviour of "The System" under individual hazard or fault conditions:	3.5. Documented analyses of the behaviour of "The System" under individual hazard or fault conditions:	11.8.3.5 於單一危害或故障狀況下對「系統」行為之記錄分析：	10.8.3.5 於單一危害或故障狀況下對「系統」行為之記錄分析：
3.6. Description of the measures in place for environmental conditions:	3.6. Description of the measures in place for environmental conditions:	11.8.3.6 對環境狀況所預備措施之描述：	10.8.3.6 對環境狀況所預備措施之描述：
3.7. Provisions for the periodic technical inspection of "The System":	3.7. Provisions for the periodic technical inspection of "The System":	11.8.3.7 「系統」定期技術檢查規定：	10.8.3.7 「系統」定期技術檢查規定：
3.8. Results of "The System" verification test, as per para. 4.1.1. of Annex 4 to UN Regulation No. 157:	3.8. Results of "The System" verification test, as per para. 4.1.1. of Annex 4 to UN Regulation No. 157:	11.8.3.8 依本基準規定 11.4.1.1 ，「系統」驗證試驗之結果：	10.8.3.8 依本基準規定 10.4.1.1 ，「系統」驗證試驗之結果：
3.9. Results of safety concept verification	3.9. Results of safety concept verification	11.8.3.9 依本基準規定 11.4.1.2 ，安全	10.8.3.9 依本基準規定 10.4.1.2 ，安全

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
test, as per para. 4.1.2. of Annex 4 to UN Regulation No. 157: 3.10. Date of test(s): 3.11. This test(s) has been carried out and the results reported in accordance with to UN Regulation No. 157 as last amended by the series of amendments. Technical Service carrying out the test Signed: Date: 3.12. Comments:	test, as per para. 4.1.2. of Annex 4 to UN Regulation No. 157: 3.10. Date of test(s): 3.11. This test(s) has been carried out and the results reported in accordance with to UN Regulation No. 157 as last amended by the series of amendments. Technical Service carrying out the test Signed: Date: 3.12. Comments:	性概念驗證試驗之結果： <u>11.8.3.10</u> 試驗日期： <u>11.8.3.11</u> 試驗已完成且結果依照基準 ○○進行報告。 執行試驗之檢測機構 簽名： 日期： <u>11.8.3.12</u> 備註：	性概念驗證試驗之結果： <u>10.8.3.10</u> 試驗日期： <u>10.8.3.11</u> 試驗已完成且結果依照基準 ○○進行報告。 執行試驗之檢測機構 簽名： 日期： <u>10.8.3.12</u> 備註：
Annex 4 - Appendix 2..shall be deleted		(中文部分已移動至規定 4.2)	
Annex 5 Test Specifications for ALKS 1. Introduction This annex defines tests with the purpose to verify the technical requirements on ALKS. All the tests in this annex shall be performed or witnessed by the Technical Service during the approval process as specified below. Until such time that specific test provisions have been agreed, the specific test parameters for each test shall be selected by the Technical Service and shall be recorded in the test report in such a manner that allows traceability and repeatability of the test setup. Pass- and Fail-Criteria for tests are derived	Annex 5 Test Specifications for ALKS 1. Introduction This annex defines tests with the purpose to verify the technical requirements on ALKS. Until such time that specific test provisions have been agreed, the Technical Service shall ensure that the ALKS is subject to at least the tests outlined in Annex 5. The specific test parameters for each test shall be selected by the Technical Service and shall be recorded in the test report in such a manner that allows traceability and repeatability of the test setup. Pass- and Fail-Criteria for tests are derived	<u>12.</u> ALKS 試驗規範 <u>12.1.</u> 引言 本附件定義具備驗證 ALKS 技術要求目的之試驗。 <u>本章節之所有試驗應於下述規定之認可過程中由檢測機構執行或監測。</u> 直至特定試驗規定協定同意之前，針對每一試驗之特定試驗參數應由檢測機構選擇，並以允許試驗設置之可追溯性及可重複性的方式記錄於試驗報告中。 試驗之通過／失敗標準係僅由規定	<u>11.</u> ALKS 試驗規範 <u>11.1.</u> 引言 本附件定義具備驗證 ALKS 技術要求目的之試驗。 直至特定試驗規定協定同意之前， <u>檢測機構應確保 ALKS 至少符合規定 11 概述之試驗。</u> 針對每一試驗之特定試驗參數應由檢測機構選擇，並以允許試驗設置之可追溯性及可重複性的方式記錄於試驗報告中。 試驗之通過/失敗標準係僅由規定 <u>11.5</u>

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
solely from the technical requirements in paragraphs 5 to 7 of the Regulation. These requirements are worded in a way that they allow the derivation of pass-fail-criteria not only for a given set of test parameters, but for any combination of parameters in which the system is designed to work (e.g. operating speed range, operating lateral acceleration range, curvature range as contained in the system boundaries). The test specifications in this document are meant to be a minimum set of tests, the technical service authorities may perform any other test within the system boundaries and may then compare the measured results against the requirements (concrete: expected test outcome).	solely from the technical requirements in paragraphs 5 to 7 of the Regulation. These requirements are worded in a way that they allow the derivation of pass-fail-criteria not only for a given set of test parameters, but for any combination of parameters in which the system is designed to work (e.g. operating speed range, operating lateral acceleration range, curvature range as contained in the system boundaries). The test specifications in this document are meant to be a minimum set of tests, the technical service authorities may perform any other test within the system boundaries and may then compare the measured results against the requirements (concrete: expected test outcome).	<u>12.5</u> 至 <u>12.7</u> 之技術要求推導而出。前述要求係以允許通過／失敗標準之推導不僅針對給定試驗參數之組合，亦針對任何系統設計用以運作之參數組合（如運行速度範圍、側向運行加速度範圍、系統邊界中包含之曲率範圍等）的措辭表示。 此規定之試驗規範係作為最低之試驗組合，檢測機構可於系統邊界範圍內執行任何其他試驗，且可將試驗結果與要求進行比較（具體為預期試驗結果）。	至 <u>11.7</u> 之技術要求推導而出。前述要求係以允許通過/失敗標準之推導不僅針對給定試驗參數之組合，亦針對任何系統設計用以運作之參數組合(如運行速度範圍、側向運行加速度範圍、系統邊界中包含之曲率範圍等)的措辭表示。 此規定之試驗規範係作為最低之試驗組合，檢測機構可於系統邊界範圍內執行任何其他試驗，且可將試驗結果與要求進行比較(具體為預期試驗結果)。
2. Definitions For the purposes of this Annex, 2.1. "<i>Time to Collision</i>" (TTC) means the value of time obtained by dividing the longitudinal distance (in the direction of travel of the subject vehicle) between the subject vehicle and the target by the longitudinal relative speed of the subject vehicle and the target, at any instant in time 2.2. "<i>Offset</i>" means the distance between the vehicle's and the respective target's longitudinal median plane in driving direction, measured on the ground, normalized by the half the vehicle width	2. Definitions For the purposes of this Annex, 2.1. "<i>Time to Collision</i>" (TTC) means the value of time obtained by dividing the longitudinal distance (in the direction of travel of the subject vehicle) between the subject vehicle and the target by the longitudinal relative speed of the subject vehicle and the target, at any instant in time 2.2. "<i>Offset</i>" means the distance between the vehicle's and the respective target's longitudinal median plane in driving direction, measured on the ground, normalized by the half the vehicle width	<u>12.2.</u> 名詞釋義 對於此規定而言 <u>12.2.1</u> 碰撞時間 (TTC)(Time to collision)：係指於時間內任一瞬間，藉由將試驗車輛與目標之間的縱向距離(沿試驗車輛之行駛方向)除以試驗車輛與目標之縱向相對速度所取得之時間值。 <u>12.2.2</u> 偏移(Offset)：係指於地面上測量之車輛沿著行駛方向之縱向中心平面與個別目標之縱向中心平面之間的距離，藉由排除間接視野裝置後之一半車輛寬度進行標準化，	<u>11.2.</u> 名詞釋義 對於此規定而言 <u>11.2.1</u> 碰撞時間 (TTC)(Time to collision)：係指於時間內任一瞬間，藉由將試驗車輛與目標之間的縱向距離(沿試驗車輛之行駛方向)除以試驗車輛與目標之縱向相對速度所取得之時間值。 <u>11.2.2</u> 偏移(Offset)：係指於地面上測量之車輛沿著行駛方向之縱向中心平面與個別目標之縱向中心平面之間的距離，藉由排除間接視野裝置後之一半車輛寬度進行標準化，並加

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
excluding devices for indirect vision and corrected by adding 50 per cent.	excluding devices for indirect vision and corrected by adding 50 per cent.	並加上百分之五十進行校正。	上百分之五十進行校正。
2.3. "Pedestrian Target" means a soft target that represents a pedestrian.	2.3. "Pedestrian Target" means a soft target that represents a pedestrian.	12.2.3 行人目標(Pedestrian target)：係指代表行人之軟式目標。	11.2.3 行人目標(Pedestrian target)：係指代表行人之軟式目標。
2.4. "Passenger car Target" means a target that represents a passenger car vehicle.	2.4. "Passenger car Target" means a target that represents a passenger car vehicle.	12.2.4 轎式車輛目標(Passenger car Target)：係指代表轎式車輛之目標。	11.2.4 轎式車輛目標(Passenger car Target)：係指代表轎式車輛之目標。
2.5. "Powered Two-Wheeler Target (PTW)" means a combination of a motorcycle and motorcyclist.	2.5. "Powered Two-Wheeler Target (PTW)" means a combination of a motorcycle and motorcyclist.	12.2.5 機動二輪車輛目標(PTW)(Powered Two-Wheeler Target)：係指機車及機車騎士之組合。	11.2.5 機動二輪車輛目標(PTW)(Powered Two-Wheeler Target)：係指機車及機車騎士之組合。
3. General principles	3. General principles	12.3 一般原理	11.3 一般原理
3.1. Test conditions	3.1. Test conditions	12.3.1 試驗條件	11.3.1 試驗條件
3.1.1. The tests shall be performed under conditions (e.g. environmental, road geometry) that allow the activation of the ALKS.	3.1.1. The tests shall be performed under conditions (e.g. environmental, road geometry) that allow the activation of the ALKS.	12.3.1.1 試驗應於允許啟動 ALKS 之條件下(如環境、道路幾何)執行。	11.3.1.1 試驗應於允許啟動 ALKS 之條件下(如環境、道路幾何)執行。
3.1.2. If system modifications are required in order to allow testing, e.g. road type assessment criteria or road type information (map data), it shall be ensured that these modifications don't have an effect on the test results. These modifications shall in principle be documented and annexed to the test report. The description and the evidence of influence (if any) of these modifications shall be documented and annexed to the test report.	3.1.2. If system modifications are required in order to allow testing, e.g. road type assessment criteria or road type information (map data), it shall be ensured that these modifications don't have an effect on the test results. These modifications shall in principle be documented and annexed to the test report. The description and the evidence of influence (if any) of these modifications shall be documented and annexed to the test report.	12.3.1.2 若為進行試驗而需進行系統修改，如道路型式評估標準或道路型式資訊(地圖數據)，則應確保前述修改不會影響試驗結果。前述修改原則上應彙整為文件並檢附於試驗報告中。前述修改之影響(若有)的說明及證據應彙整為文件並隨附於試驗報告中。	11.3.1.2 若為進行試驗而需進行系統修改，如道路型式評估標準或道路型式資訊(地圖數據)，則應確保前述修改不會影響試驗結果。前述修改原則上應彙整為文件並檢附於試驗報告中。前述修改之影響(若有)的說明及證據應彙整為文件並隨附於試驗報告中。
3.1.3. The test surface shall afford at least the adhesion required by the scenario in order to achieve the expected test result.	3.1.3. The test surface shall afford at least the adhesion required by the scenario in order to achieve the expected test result.	12.3.1.3 為達成預期試驗結果，試驗路面應至少具備場景所需之抓地力。	11.3.1.3 為達成預期試驗結果，試驗路面應至少具備場景所需之抓地力。

增/修內容	原內容	修訂國內法規條文案	對應國內法規條文
3.1.4. Test Targets 3.1.4.1. The target used for the vehicle detection tests shall be a regular high-volume series production vehicle of Category M or N or alternatively a "soft target" representative of a vehicle in terms of its identification characteristics applicable to the sensor system of the ALKS under test according to ISO 19206-3:2018. The reference point for the location of the vehicle shall be the most rearward point on the centreline of the vehicle. 3.1.4.2. The target used for the Powered-Two-wheeler tests shall be a test device according to ISO CD 19206-5 or a type approved high volume series production motorcycle of Category L3 with an engine capacity not exceeding 600 cm³. The reference point for the location of the motorcycle shall be the most backward point on the centreline of the motorcycle 3.1.4.3. The target used for the pedestrian detection tests shall be an "articulated soft target" and be representative of the human attributes applicable to the sensor system of the AEBS under test according to ISO 19206-2:2018. 3.1.4.4. Details that enable the target(s) to be specifically identified and reproduced shall be recorded in the vehicle type approval documentation.	3.1.4. Test Targets 3.1.4.1. The target used for the vehicle detection tests shall be a regular high-volume series production vehicle of Category M or N or alternatively a "soft target" representative of a vehicle in terms of its identification characteristics applicable to the sensor system of the ALKS under test according to ISO 19206-3:2018. The reference point for the location of the vehicle shall be the most rearward point on the centreline of the vehicle. 3.1.4.2. The target used for the Powered-Two-wheeler tests shall be a test device according to ISO CD 19206-5 or a type approved high volume series production motorcycle of Category L3 with an engine capacity not exceeding 600 cm³. The reference point for the location of the motorcycle shall be the most backward point on the centreline of the motorcycle 3.1.4.3. The target used for the pedestrian detection tests shall be an "articulated soft target" and be representative of the human attributes applicable to the sensor system of the AEBS under test according to ISO 19206-2:2018. 3.1.4.4. Details that enable the target(s) to be specifically identified and reproduced shall be recorded in the vehicle type approval documentation.	<u>12.3.1.4</u> 試驗目標 <u>12.3.1.4.1</u> 用於車輛偵測試驗之目標應為一般大量生產之 M 或 N 類車輛，或以依照 ISO 19206-3:2018 於識別性質上，一部適用於試驗中 ALKS 感測系統之車輛的體現之「軟式目標」作為替代。車輛位置之參考點應為車輛中心線上最後點。 <u>12.3.1.4.2</u> 用於機動二輪車試驗之目標應為依照 ISO CD 19206-5 之試驗裝置，或經型式認可且具備不超過六百立方公分之引擎排氣量的大量生產 L3 類機車。機車位置之參考點應為機車中心線上最後點。 <u>12.3.1.4.3</u> 用於行人偵測試驗之目標應為「鉸接 (Articulated) 軟式目標」，且為依照 ISO 19206-2:2018，適用於試驗中 AEBS 感測系統之人類屬性的體現。 <u>12.3.1.4.4</u> 使目標可被具體識別及複製之細節應記錄於車輛型式認可文件中。	<u>11.3.1.4</u> 試驗目標 <u>11.3.1.4.1</u> 用於車輛偵測試驗之目標應為一般大量生產之 M 或 N 類車輛，或以依照 ISO 19206-3:2018 於識別性質上，一部適用於試驗中 ALKS 感測系統之車輛的體現之「軟式目標」作為替代。車輛位置之參考點應為車輛中心線上最後點。 <u>11.3.1.4.2</u> 用於機動二輪車試驗之目標應為依照 ISO CD 19206-5 之試驗裝置，或經型式認可且具備不超過六百立方公分之引擎排氣量的大量生產 L3 類機車。機車位置之參考點應為機車中心線上最後點。 <u>11.3.1.4.3</u> 用於行人偵測試驗之目標應為「鉸接 (Articulated) 軟式目標」，且為依照 ISO 19206-2:2018，適用於試驗中 AEBS 感測系統之人類屬性的體現。 <u>11.3.1.4.4</u> 使目標可被具體識別及複製之細節應記錄於車輛型式認可文件中。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
3.2. Test parameter variation The manufacturer shall declare the system boundaries to the Technical Service. The Technical Service shall define different combinations of test parameters (e.g. present speed of the ALKS vehicle, type and offset of target, curvature of lane) in order to cover scenarios in which a collision shall be avoided by the system as well as those in which a collision is not expected to be avoided, where applicable. If this is deemed justified, the Technical Service may test additionally any other combination of parameters. If a collision cannot be avoided for some test parameters, the manufacturer shall demonstrate either by documentation or, if possible, by verification/testing that the system doesn't unreasonably switch its control strategy. 4. Test scenarios to assess the performance of the system with regard to the dynamic driving task At the time of type approval, the Technical Service shall conduct or shall witness at least the following tests to assess the behaviour of the ALKS: 4.1. Lane Keeping 4.1.1. The test shall demonstrate that the ALKS does not leave its lane and maintains a stable position inside its ego lane across the speed	3.2. Test parameter variation The manufacturer shall declare the system boundaries to the Technical Service. The Technical Service shall define different combinations of test parameters (e.g. present speed of the ALKS vehicle, type and offset of target, curvature of lane) in order to cover scenarios in which a collision shall be avoided by the system as well as those in which a collision is not expected to be avoided, where applicable. If this is deemed justified, the Technical Service may test additionally any other combination of parameters. If a collision cannot be avoided for some test parameters, the manufacturer shall demonstrate either by documentation or, if possible, by verification/testing that the system doesn't unreasonably switch its control strategy. 4. Test scenarios to assess the performance of the system with regard to the dynamic driving task 4.1. Lane Keeping 4.1.1. The test shall demonstrate that the ALKS does not leave its lane and maintains a stable position inside its ego lane across the speed	<u>12.3.2</u> 試驗參數變化 申請者應向檢測機構宣告系統邊界。檢測機構應定義不同之試驗參數組合(如 ALKS 車輛之現在速度、目標之類型及偏移、車道曲率等),以涵蓋應由系統迴避之碰撞的情境,以及未預期迴避之碰撞的情境(依實際情況)。 於認為合理之狀況下,檢測機構可試驗額外任何其他參數組合。 若於某些試驗參數中無法迴避碰撞時,申請者應藉由文件,或若可行時藉由驗證/試驗,以展演系統不會不合理的切換其控制策略。 <u>12.4</u> 用以評估動態行駛作業相關之系統性能的試驗情境 <u>於型式認可時,檢測機構應進行或應至少見證下述試驗以評估 ALKS 之行為:</u> <u>12.4.1</u> 車道維持 <u>12.4.1.1</u> 試驗應展演 ALKS 不會離開其車道,且於橫跨其系統邊界範圍	<u>11.3.2</u> 試驗參數變化 申請者應向檢測機構宣告系統邊界。檢測機構應定義不同之試驗參數組合(如 ALKS 車輛之現在速度、目標之類型及偏移、車道曲率等),以涵蓋應由系統迴避之碰撞的情境,以及未預期迴避之碰撞的情境(依實際情況)。 於認為合理之狀況下,檢測機構可試驗額外任何其他參數組合。 若於某些試驗參數中無法迴避碰撞時,申請者應藉由文件,或若可行時藉由驗證/試驗,以展演系統不會不合理的切換其控制策略。 <u>11.4</u> 用以評估動態行駛作業相關之系統性能的試驗情境 <u>11.4.1</u> 車道維持 <u>11.4.1.1</u> 試驗應展演 ALKS 不會離開其車道,且於橫跨其系統邊界範圍內

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
range and different curvatures within its system boundaries. 4.1.2. The test shall be executed at least: (a) With a minimum test duration of 5 minutes; (b) With a passenger car target as well as a PTW target as the lead vehicle / other vehicle; (c) With a lead vehicle swerving in the lane; and (d) With another vehicle driving close beside in the adjacent lane. 4.2. Avoid a collision with a road user or object blocking the lane 4.2.1. The test shall demonstrate that the ALKS avoids a collision with a stationary vehicle, road user or fully or partially blocked lane up to the maximum specified speed of the system. 4.2.2. This test shall be executed at least: (a) With a stationary passenger car target; (b) With a stationary powered two-wheeler target; (c) With a stationary pedestrian target; (d) With a pedestrian target crossing the lane with a speed of 5 km/h; (e) With a target representing a blocked lane; (f) With a target partially within the lane; (g) With multiple consecutive obstacles blocking the lane (e.g. in the following order: ego-vehicle -motorcycle - car); (h) On a curved section of road.	range and different curvatures within its system boundaries. 4.1.2. The test shall be executed at least: (a) With a minimum test duration of 5 minutes; (b) With a passenger car target as well as a PTW target as the lead vehicle / other vehicle; (c) With a lead vehicle swerving in the lane; and (d) With another vehicle driving close beside in the adjacent lane. 4.2. Avoid a collision with a road user or object blocking the lane 4.2.1. The test shall demonstrate that the ALKS avoids a collision with a stationary vehicle, road user or fully or partially blocked lane up to the maximum specified speed of the system. 4.2.2. This test shall be executed at least: (a) With a stationary passenger car target; (b) With a stationary powered two-wheeler target; (c) With a stationary pedestrian target; (d) With a pedestrian target crossing the lane with a speed of 5 km/h; (e) With a target representing a blocked lane; (f) With a target partially within the lane; (g) With multiple consecutive obstacles blocking the lane (e.g. in the following order: ego-vehicle -motorcycle - car); (h) On a curved section of road.	內之速度範圍及不同曲率下，於現行車道內維持穩定位置。 <u>12.4.1.2</u> 試驗執行應至少： (a) 以五分鐘之最短試驗時間執行； (b) 以轎式車輛目標以及 PTW 目標作為前方車輛／其他車輛執行； (c) 以前方車輛於車道內臨時轉向執行；及 (d) 以另一部車輛於相鄰車道內隨側靠近行駛執行。 <u>12.4.2</u> 迴避與道路使用者或阻礙車道之物件的碰撞。 <u>12.4.2.1</u> 試驗應展演 ALKS 於上至系統之最高額定車速下，避免與靜止車輛、道路使用者或完全／部分受阻車道之碰撞。 <u>12.4.2.2</u> 試驗執行應至少： (a) 以靜止之轎式車輛目標執行； (b) 以靜止之機動二輪車輛目標執行； (c) 以靜止之行人目標執行； (d) 以五公里／小時之速度穿過車道之行人目標執行； (e) 以代表受阻車道之目標執行； (f) 以部分位於車道內之目標執行； (g) 以多個連續障礙阻擋車道（如依下述順序：本身車輛-機車-汽車）執	之速度範圍及不同曲率下，於現行車道內維持穩定位置。 <u>11.4.1.2</u> 試驗執行應至少： (a)以五分鐘之最短試驗時間執行； (b)以轎式車輛目標以及 PTW 目標作為前方車輛/其他車輛執行； (c)以前方車輛於車道內臨時轉向執行；及 (d)以另一部車輛於相鄰車道內隨側靠近行駛執行。 <u>11.4.2</u> 迴避與道路使用者或阻礙車道之物件的碰撞。 <u>11.4.2.1</u> 試驗應展演 ALKS 於上至系統之最高額定車速下，避免與靜止車輛、道路使用者或完全/部分受阻車道之碰撞。 <u>11.4.2.2</u> 試驗執行應至少： (a)以靜止之轎式車輛目標執行； (b)以靜止之機動二輪車輛目標執行； (c)以靜止之行人目標執行； (d)以五公里/小時之速度穿過車道之行人目標執行； (e)以代表受阻車道之目標執行； (f)以部分位於車道內之目標執行； (g)以多個連續障礙阻擋車道(如依下述順序：本身車輛-機車-汽車)執行；

增/修內容	原內容	修訂國內法規條文案	對應國內法規條文
4.3. Following a lead vehicle 4.3.1. The test shall demonstrate that the ALKS is able to maintain and restore the required safety distance to a vehicle in front and is able to avoid a collision with a lead vehicle which decelerates up to its maximum deceleration. 4.3.2. This test shall be executed at least: (a) Across the entire speed range of the ALKS (b) For a passenger car target as well as a PTW target as lead vehicle, provided standardized PTW targets suitable to safely perform the test are available (c) For constant and varying lead vehicle velocities (e.g. following a realistic speed profile from existing driving database) (d) For straight and curved sections of road (e) For different lateral positions of lead vehicle in the lane (f) With a deceleration of the lead vehicle of at least 6 m/s ² mean fully developed deceleration until standstill. 4.4. Lane change of another vehicle into lane 4.4.1. The test shall demonstrate that the ALKS is capable of avoiding a collision with a vehicle cutting into the lane of the ALKS vehicle up to a certain criticality of the cut-in manoeuvre. 4.4.2. The criticality of the cut-in manoeuvre shall be determined according to TTC, longitudinal distance between rear-most	4.3. Following a lead vehicle 4.3.1. The test shall demonstrate that the ALKS is able to maintain and restore the required safety distance to a vehicle in front and is able to avoid a collision with a lead vehicle which decelerates up to its maximum deceleration. 4.3.2. This test shall be executed at least: (a) Across the entire speed range of the ALKS (b) For a passenger car target as well as a PTW target as lead vehicle, provided standardized PTW targets suitable to safely perform the test are available (c) For constant and varying lead vehicle velocities (e.g. following a realistic speed profile from existing driving database) (d) For straight and curved sections of road (e) For different lateral positions of lead vehicle in the lane (f) With a deceleration of the lead vehicle of at least 6 m/s ² mean fully developed deceleration until standstill. 4.4. Lane change of another vehicle into lane 4.4.1. The test shall demonstrate that the ALKS is capable of avoiding a collision with a vehicle cutting into the lane of the ALKS vehicle up to a certain criticality of the cut-in manoeuvre. 4.4.2. The criticality of the cut-in manoeuvre shall be determined according to TTC, longitudinal distance between rear-most	行； (h) 於道路之彎曲路段上執行。 <u>12.4.3</u> 跟隨前方車輛 <u>12.4.3.1</u> 試驗應展演 ALKS 能夠維持及恢復與前方車輛之安全距離，且能夠於前方車輛減速至最大減速度時避免與其發生碰撞。 <u>12.4.3.2</u> 試驗執行應至少： (a) 橫跨整個 ALKS 速度範圍； (b) 以轎式車輛目標以及 PTW 目標（若標準化 PTW 目標適於安全進行試驗時）作為前方車輛； (c) 前方車輛以固定及變化之速度（如依照既有駕駛資料庫中之實際速度曲線）； (d) 以直線及曲線路段； (e) 於車道中以不同之側向位置； (f) 前方車輛於減速度以至少六公尺／秒平方之平均減速度，減速直至車輛靜止。 <u>12.4.4</u> 另一部車輛變換車道至車道內 <u>12.4.4.1</u> 該試驗應展演 ALKS 於上至一定危險性之切入操作下，可避免與切入車道之車輛發生碰撞。 <u>12.4.4.2</u> 切入操作之危險性應依照	(h)於道路之彎曲路段上執行。 <u>11.4.3</u> 跟隨前方車輛 <u>11.4.3.1</u> 試驗應展演 ALKS 能夠維持及恢復與前方車輛之安全距離，且能夠於前方車輛減速至最大減速度時避免與其發生碰撞。 <u>11.4.3.2</u> 試驗執行應至少： (a)橫跨整個 ALKS 速度範圍； (b)以轎式車輛目標以及 PTW 目標(若標準化 PTW 目標適於安全進行試驗時)作為前方車輛； (c)前方車輛以固定及變化之速度(如依照既有駕駛資料庫中之實際速度曲線)； (d)以直線及曲線路段； (e)於車道中以不同之側向位置； (f)前方車輛於減速度以至少六公尺/秒平方之平均減速度，減速直至車輛靜止。 <u>11.4.4</u> 另一部車輛變換車道至車道內 <u>11.4.4.1</u> 該試驗應展演 ALKS 於上至一定危險性之切入操作下，可避免與切入車道之車輛發生碰撞。 <u>11.4.4.2</u> 切入操作之危險性應依照

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
point of the cutting in vehicle and front-most point of the ALKS vehicle, the lateral velocity of the cutting-in vehicle and the longitudinal movement of the cutting-in vehicle, as defined in paragraph 5.2.5. of this Regulation. 4.4.3. This test shall be executed taking into consideration at least the following conditions: (a) For different TTC, distance and relative velocity values of the cut-in manoeuvre, covering types of cut-in scenarios in which a collision can be avoided and those in which a collision cannot be avoided; (b) For cutting-in vehicles travelling at constant longitudinal speed, accelerating and decelerating; (c) For different lateral velocities, lateral accelerations of the cut-in vehicle; (d) For passenger car as well as PTW targets as the cutting-in vehicle, provided standardized PTW targets suitable to safely perform the test are available. 4.5. Stationary obstacle after lane change of the lead vehicle 4.5.1. The test shall demonstrate that the ALKS is capable of avoiding a collision with a stationary vehicle, road user or blocked lane that becomes visible after a preceding vehicle avoided a collision by an evasive manoeuvre.	point of the cutting in vehicle and front-most point of the ALKS vehicle, the lateral velocity of the cutting-in vehicle and the longitudinal movement of the cutting-in vehicle, as defined in paragraph 5.2.5. of this Regulation. 4.4.3. This test shall be executed taking into consideration at least the following conditions: (a) For different TTC, distance and relative velocity values of the cut-in manoeuvre, covering types of cut-in scenarios in which a collision can be avoided and those in which a collision cannot be avoided; (b) For cutting-in vehicles travelling at constant longitudinal speed, accelerating and decelerating; (c) For different lateral velocities, lateral accelerations of the cut-in vehicle; (d) For passenger car as well as PTW targets as the cutting-in vehicle, provided standardized PTW targets suitable to safely perform the test are available. 4.5. Stationary obstacle after lane change of the lead vehicle 4.5.1. The test shall demonstrate that the ALKS is capable of avoiding a collision with a stationary vehicle, road user or blocked lane that becomes visible after a preceding vehicle avoided a collision by an evasive manoeuvre.	TTC、切入車輛之最後端與 ALKS 車輛之最前端之間的縱向距離、切入車輛之側向速度，以及切入車輛之縱向移動進行決定，如本基準規定 5.2.5 所述。 <u>12.4.4.3</u> 試驗應至少以下述條件執行： (a) 不同 TTC、切入操作之距離及相對速度值，涵蓋各類型可避免碰撞及無法避免碰撞之切入情境； (b) 切入車輛以固定縱向速度、加速及減速行駛； (c) 切入車輛以不同之側向速度、側向加速度； (d) 以轎式車輛以及 PTW 目標（若標準化 PTW 目標適於安全進行試驗時）作為切入車輛。 <u>12.4.5</u> 前方車變道後之固定障礙物 <u>12.4.5.1</u> 該試驗應證明，當前方車輛通過回避動作避免碰撞後，固定車輛、道路使用者或道路障礙物變得可見，ALKS 能避免與其發生碰撞。	TTC、切入車輛之最後端與 ALKS 車輛之最前端之間的縱向距離、切入車輛之側向速度，以及切入車輛之縱向移動進行決定，如本基準規定 5.2.5 所述。 <u>11.4.4.3</u> 試驗應至少以下述條件執行： (a)不同 TTC、切入操作之距離及相對速度值，涵蓋各類型可避免碰撞及無法避免碰撞之切入情境； (b)切入車輛以固定縱向速度、加速及減速行駛； (c)切入車輛以不同之側向速度、側向加速度； (d)以轎式車輛以及 PTW 目標(若標準化 PTW 目標適於安全進行試驗時)作為切入車輛。 <u>11.4.5</u> 前方車變道後之固定障礙物 <u>11.4.5.1</u> 該試驗應證明，當前方車輛通過回避動作避免碰撞後，固定車輛、道路使用者或道路障礙物變得可見，ALKS 能避免與其發生碰撞。

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
4.5.2. The test shall be executed at least: (a) With a stationary passenger car target centred in lane (b) With a powered two-wheeler target centred in lane (c) With a stationary pedestrian target centred in lane (d) With a target representing a blocked lane centred in lane (e) With multiple consecutive obstacles blocking the lane (e.g. in the following order: ego-vehicle – lane change vehicle – motorcycle – car)	4.5.2. The test shall be executed at least: (a) With a stationary passenger car target centred in lane (b) With a powered two-wheeler target centred in lane (c) With a stationary pedestrian target centred in lane (d) With a target representing a blocked lane centred in lane (e) With multiple consecutive obstacles blocking the lane (e.g. in the following order: ego-vehicle – lane change vehicle – motorcycle – car)	<u>12.4.5.2</u> 試驗時應至少以下述條件執行： (a) 以一部轎式車輛目標靜置於車道中央； (b) 以一部機動二輪車目標置於車道中央； (c) 以行人目標靜置於車道中央； (d) 以代表車道受阻之目標置於車道中央； (e) 以多個連續障礙物阻礙車道（如依下述順序：測試車輛-車道變換車輛-機車-汽車）。	<u>11.4.5.2</u> 試驗時應至少以下述條件執行： (a)以一部轎式車輛目標靜置於車道中央； (b)以一部機動二輪車目標置於車道中央； (c)以行人目標靜置於車道中央； (d)以代表車道受阻之目標置於車道中央； (e)以多個連續障礙物阻礙車道(如依下述順序：測試車輛-車道變換車輛-機車-汽車)。
4.6. Field of View test 4.6.1. The test shall demonstrate that the ALKS is capable of detecting another road user within the forward detection area up to the declared forward detection range and a vehicle beside within the lateral detection area up to at least the full width of the adjacent lane.	4.6. Field of View test 4.6.1. The test shall demonstrate that the ALKS is capable of detecting another road user within the forward detection area up to the declared forward detection range and a vehicle beside within the lateral detection area up to at least the full width of the adjacent lane.	<u>12.4.6</u> 視野試驗 <u>12.4.6.1</u> 該試驗應展演 ALKS 可於前向偵測範圍直至宣告之前向偵測範圍內偵測另一道路使用者，以及於側向偵測範圍直至相鄰車道全寬內之一部車輛。	<u>11.4.6</u> 視野試驗 <u>11.4.6.1</u> 該試驗應展演 ALKS 可於前向偵測範圍直至宣告之前向偵測範圍內偵測另一道路使用者，以及於側向偵測範圍直至相鄰車道全寬內之一部車輛。
4.6.2. The test for the forward detection range shall be executed at least: (a) When approaching a motorcycle target positioned at the outer edge of each adjacent lane; (b) When approaching a stationary pedestrian target positioned at the outer edge of each adjacent lane; (c) When approaching a stationary motorcycle	4.6.2. The test for the forward detection range shall be executed at least: (a) When approaching a motorcycle target positioned at the outer edge of each adjacent lane; (b) When approaching a stationary pedestrian target positioned at the outer edge of each adjacent lane; (c) When approaching a stationary motorcycle	<u>12.4.6.2</u> 對前向偵測範圍之試驗執行應至少： (a) 於接近位於每個相鄰車道外緣之機車目標時； (b) 於接近位於每個相鄰車道外緣之靜止行人目標時；	<u>11.4.6.2</u> 對前向偵測範圍之試驗執行應至少： (a)於接近位於每個相鄰車道外緣之機車目標時； (b)於接近位於每個相鄰車道外緣之靜止行人目標時；

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
target positioned within the ego lane; (d) When approaching a stationary pedestrian target positioned within the ego lane. 4.6.3. The test for the lateral detection range shall be executed at least: (a) With a motorcycle target approaching the ALKS vehicle from the left adjacent lane; (b) With a motorcycle target approaching the ALKS vehicle from the right adjacent lane. 5. Additional verification 5.1. (Reserved) 5.2. Compliance with the following provisions shall be demonstrated by the manufacturer as part of the assessment under Annex 4 and be verified by the Technical Service as part of the tests under paragraphs 4 and 5.4. of this annex: (表如頁末所示) 5.3. Additional other scenarios shall be assessed (e.g. by physical or virtual testing or appropriate documentation) if deemed justified by the Technical Service. Some of the cases may include: (a) Y-split of highway lanes (b) Vehicles entering or exiting the highway (c) Partially blocked ego lane, tunnel (d) Traffic lights (e) Emergency vehicles (f) Construction zones (g) Faded/erased/hidden lane markings (h) Emergency/Service personnel directing	target positioned within the ego lane; (d) When approaching a stationary pedestrian target positioned within the ego lane. 4.6.3. The test for the lateral detection range shall be executed at least: (a) With a motorcycle target approaching the ALKS vehicle from the left adjacent lane; (b) With a motorcycle target approaching the ALKS vehicle from the right adjacent lane. 5. Additional verification 5.1. (Reserved) 5.2. Compliance with the following provisions shall be demonstrated by the manufacturer and assessed by the Technical Service at the time of type approval: (表如頁末所示) 5.3. Additional other test cases may be assessed if it is deemed justified by the Technical Service. Some of the cases may include: (a) Y-split of highway lanes (b) Vehicles entering or exiting the highway (c) Partially blocked ego lane, tunnel (d) Traffic lights (e) Emergency vehicles (f) Construction zones (g) Faded/erased/hidden lane markings (h) Emergency/Service personnel directing	(c) 於接近位於本車道內之靜止機車目標時； (d) 於接近位於本車之車道內的靜止行人目標時。 <u>12.4.6.3</u> 對側向偵測範圍之試驗執行應至少： (a)以自左側相鄰車道駛近 ALKS 車輛之機車目標； (b)以自右側相鄰車道駛近 ALKS 車輛之機車目標。 <u>12.5.</u> 額外驗證 <u>12.5.1</u> (預留) <u>12.5.2</u> 為符合下述規定，應由申請者作為規定 11 評估之一部分進行展演，並由檢測機構作為規定 11 及規定 12.5.4 試驗之一部分進行驗證： (請參考頁末表格) <u>12.5.3</u> 於檢測機構認為合理時，應評估額外之其它情境 (如藉由物理或虛擬試驗或適當文件)。部分之前述案例可包含： (a)Y 字型之高速公路車道 (b)車輛進入或離開高速公路 (c)本車之車道或隧道部分受阻 (d)交通號誌 (e)緊急車輛 (f)施工區	(c)於接近位於本車道內之靜止機車目標時； (d)於接近位於本車之車道內的靜止行人目標時。 <u>11.4.6.3</u> 對側向偵測範圍之試驗執行應至少： (a)以自左側相鄰車道駛近 ALKS 車輛之機車目標； (b)以自右側相鄰車道駛近 ALKS 車輛之機車目標。 <u>11.5.</u> 額外驗證 <u>11.5.1</u>(預留) <u>11.5.2</u> 為符合下述規定，應由申請者進行展演，並由檢測機構於型式認證時進行評估： (請參考頁末表格) <u>11.5.3</u> 於檢測機構認為合理時，可評估額外之其它試驗案例。部分之前述案例可包含： (a)Y 字型之高速公路車道 (b)車輛進入或離開高速公路 (c)本車之車道或隧道部分受阻 (d)交通號誌 (e)緊急車輛 (f)施工區

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
traffic (i) Change in road characteristics (no longer divided, pedestrians permitted, roundabout, intersection) (j) Normal traffic flow resumed (i.e. all vehicles moving > 60km/h) 5.4. Real-world test The Technical Service shall conduct, or shall witness, an assessment of the system, in a fault-free condition, in the presence of traffic (a 'real-world' test). The purpose of this test is to support the Technical Service in understanding the functionality of the system in its operating environment and to complement the assessment of the documentation provided under Annex 4. Together, the assessment of Annex 4 and the real-world test shall enable the Technical Service to identify areas of system performance that may require further assessment, either through testing or further review of Annex 4. During the real-world assessment, the Technical Service shall assess at least: (a) Prevention of activation when the system is outside of its technical boundaries/requirements for ALKS (b) No violation of traffic rules (c) Response to a planned event (d) Response to an unplanned event (e) Detection of the presence of other road	traffic (i) Change in road characteristics (no longer divided, pedestrians permitted, roundabout, intersection) (j) Normal traffic flow resumed (i.e. all vehicles moving > 60km/h) 5.4. Real-world test The Technical Service shall conduct, or shall witness, an assessment of the system, in a fault-free condition, in the presence of traffic (a 'real-world' test). The purpose of this test is to support the Technical Service in understanding the functionality of the system in its operating environment and to complement the assessment of the documentation provided under Annex 4. Together, the assessment of Annex 4 and the real-world test shall enable the Technical Service to identify areas of system performance that may require further assessment, either through testing or further review of Annex 4. During the real-world assessment, the Technical Service shall assess at least: (a) Prevention of activation when the system is outside of its technical boundaries/requirements for ALKS (b) No violation of traffic rules (c) Response to a planned event (d) Response to an unplanned event (e) Detection of the presence of other road	(g)褪色／受擦除／隱藏之車道標示 (h)指揮交通中之緊急／服務人員 (i)道路特徵變化（道路分隔路段即將結束時、行人允許路段、圓環、交叉路口等） (j)車流恢復正常（即所有車輛以超過六十公里／小時之速度行駛時） <u>12.5.4</u> 真實世界試驗 檢測機構應於無故障之狀況下，於交通中（一「真實世界」試驗）執行或見證系統之評估。本項試驗之目的係為支撐檢測機構於了解於系統之運作環境中的功能性，並作為規定 <u>11</u> 下所提文件之評估的補充。 規定 <u>11</u> 之評估及真實世界試驗應一同，使檢測機構能透過試驗或規定 <u>11</u> 之進一步檢視，辨識可能需要進一步評估之系統性能範圍。 於真實世界評估期間，檢測機構應至少評估： (a)於系統位於 ALKS 之技術邊界／要求外時，系統啟動之防止方式。 (b)不會違反交通規則 (c)對預期事件之回應	(g)褪色/受擦除/隱藏之車道標示 (h)指揮交通中之緊急/服務人員 (i)道路特徵變化(道路分隔路段即將結束時、行人允許路段、圓環、交叉路口等) (j)車流恢復正常(即所有車輛以超過六十公里/小時之速度行駛時) <u>11.5.4</u> 真實世界試驗 檢測機構應於無故障之狀況下，於交通中（一「真實世界」試驗）執行或見證系統之評估。本項試驗之目的係為支撐檢測機構於了解於系統之運作環境中的功能性，並作為規定 <u>10</u> 下所提文件之評估的補充。 規定 <u>10</u> 之評估及真實世界試驗應一同，使檢測機構能透過試驗或規定 <u>10</u> 之進一步檢視，辨識可能需要進一步評估之系統性能範圍。 於真實世界評估期間，檢測機構應至少評估： (a)於系統位於 ALKS 之技術邊界/要求外時，系統啟動之防止方式。 (b)不會違反交通規則 (c)對預期事件之回應

增/修內容	原內容	修訂國內法規條文草案	對應國內法規條文
users within the frontal and lateral detection ranges (f) Vehicle behaviour in response to other road users (following distance, cut-in scenario, cut-out scenario etc). (g) System override The location and selection of the test route, time-of-day and environmental conditions shall be determined by the Technical Service. The test drive shall be recorded and the test vehicle instrumented with non-perturbing equipment. The Technical Service may log, or request logs of any data channels used or generated by the system as deemed necessary for post-test evaluation. It is recommended that the real-world test is undertaken once the system has passed all of the other tests outlined in this Annex and upon completion of a risk assessment by the Technical Service.	users within the frontal and lateral detection ranges (f) Vehicle behaviour in response to other road users (following distance, cut-in scenario, cut-out scenario etc). (g) System override The location and selection of the test route, time-of-day and environmental conditions shall be determined by the Technical Service. The test drive shall be recorded and the test vehicle instrumented with non-perturbing equipment. The Technical Service may log, or request logs of any data channels used or generated by the system as deemed necessary for post-test evaluation. It is recommended that the real-world test is undertaken once the system has passed all of the other tests outlined in this Annex and upon completion of a risk assessment by the Technical Service.	(d)對非預期事件之回應 (e)於前向及側向偵測範圍內，其他道路使用者存在之偵測。 (f) 對其他道路使用者做出反應時之車輛行為(跟車距離、切入情境、切出情境等) (g)系統取代(Override) 應由檢測機構決定試驗路線之位置及選擇、當日時段，以及環境條件。 應記錄試驗駕駛情況，且於試驗車輛裝設非干擾設備。於後試驗(post-test)評估視為必要時，檢測機構可記錄或要求由系統所使用或產生之任何數據頻道的紀錄。 建議於系統已通過本規定所概述之所有其他試驗，且檢測機構將完成風險評估時，進行真實世界試驗。	(d)對非預期事件之回應 (e)於前向及側向偵測範圍內，其他道路使用者存在之偵測。 (f) 對其他道路使用者做出反應時之車輛行為(跟車距離、切入情境、切出情境等) (g)系統取代(Override) 應由檢測機構決定試驗路線之位置及選擇、當日時段，以及環境條件。 應記錄試驗駕駛情況，且於試驗車輛裝設非干擾設備。於後試驗(post-test)評估視為必要時，檢測機構可記錄或要求由系統所使用或產生之任何數據頻道的紀錄。 建議於系統已通過本規定所概述之所有其他試驗，且檢測機構將完成風險評估時，進行真實世界試驗。

圖表修訂部分

修訂內容	原內容																																																																																																
Table of paragraph 5.2.3.3	Table of paragraph 5.2.3.3																																																																																																
<table><tr><th colspan="2">Present speed of the ALKS vehicle</th><th>Minimum time gap</th><th>Minimum following distance</th><th>Minimum time gap</th><th>Minimum following distance</th></tr><tr><th colspan="2"></th><th>M_1/N_1</th><th>M_1/N_1</th><th>$M_2/M_3//N_2/N_3$</th><th>$M_2/M_3//N_2/N_3$</th></tr><tr><th>(km/h)</th><th>(m/s)</th><th>(s)</th><th>(m)</th><th>(s)</th><th>(m)</th></tr><tr><td>7.2</td><td>2.0</td><td>1.0</td><td>2.0</td><td>1.2</td><td>2.4</td></tr><tr><td>10</td><td>2.78</td><td>1.1</td><td>3.1</td><td>1.4</td><td>3.9</td></tr><tr><td>20</td><td>5.56</td><td>1.2</td><td>6.7</td><td>1.6</td><td>8.9</td></tr><tr><td>30</td><td>8.33</td><td>1.3</td><td>10.8</td><td>1.8</td><td>15.0</td></tr><tr><td>40</td><td>11.11</td><td>1.4</td><td>15.6</td><td>2.0</td><td>22.2</td></tr><tr><td>50</td><td>13.89</td><td>1.5</td><td>20.8</td><td>2.2</td><td>30.6</td></tr><tr><td>60</td><td>16.67</td><td>1.6</td><td>26.7</td><td>2.4</td><td>40.0</td></tr></table>	Present speed of the ALKS vehicle		Minimum time gap	Minimum following distance	Minimum time gap	Minimum following distance			M_1/N_1	M_1/N_1	$M_2/M_3//N_2/N_3$	$M_2/M_3//N_2/N_3$	(km/h)	(m/s)	(s)	(m)	(s)	(m)	7.2	2.0	1.0	2.0	1.2	2.4	10	2.78	1.1	3.1	1.4	3.9	20	5.56	1.2	6.7	1.6	8.9	30	8.33	1.3	10.8	1.8	15.0	40	11.11	1.4	15.6	2.0	22.2	50	13.89	1.5	20.8	2.2	30.6	60	16.67	1.6	26.7	2.4	40.0	<table><tr><th colspan="2">Present speed of the ALKS vehicle</th><th>Minimum time gap</th><th>Minimum following distance</th></tr><tr><th>(km/h)</th><th>(m/s)</th><th>(s)</th><th>(m)</th></tr><tr><td>7.2</td><td>2.0</td><td>1.0</td><td>2.0</td></tr><tr><td>10</td><td>2.78</td><td>1.1</td><td>3.1</td></tr><tr><td>20</td><td>5.56</td><td>1.2</td><td>6.7</td></tr><tr><td>30</td><td>8.33</td><td>1.3</td><td>10.8</td></tr><tr><td>40</td><td>11.11</td><td>1.4</td><td>15.6</td></tr><tr><td>50</td><td>13.89</td><td>1.5</td><td>20.8</td></tr><tr><td>60</td><td>16.67</td><td>1.6</td><td>26.7</td></tr></table>	Present speed of the ALKS vehicle		Minimum time gap	Minimum following distance	(km/h)	(m/s)	(s)	(m)	7.2	2.0	1.0	2.0	10	2.78	1.1	3.1	20	5.56	1.2	6.7	30	8.33	1.3	10.8	40	11.11	1.4	15.6	50	13.89	1.5	20.8	60	16.67	1.6	26.7
Present speed of the ALKS vehicle		Minimum time gap	Minimum following distance	Minimum time gap	Minimum following distance																																																																																												
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修訂內容						原內容			
規定5.2.3.3之表						規定5.2.3.3之表			
ALKS車輛的現在速度		最小時間間隔 M1/N1	最小跟車距離 M1/N1	最小時間間隔 M2/M3/N2/N3	最小跟車距離 M2/M3/N2/N3	ALKS車輛的現在速度		最小時間間隔	最小跟車距離
公里/小時	公尺/秒	秒	公尺	秒	公尺	公里/小時	公尺/秒	秒	公尺
7.2	2.0	1.0	2.0	1.2	2.4	7.2	2.0	1.0	2.0
10	2.78	1.1	3.1	1.4	3.9	10	2.78	1.1	3.1
20	5.56	1.2	6.7	1.6	8.9	20	5.56	1.2	6.7
30	8.33	1.3	10.8	1.8	15.0	30	8.33	1.3	10.8
40	11.11	1.4	15.6	2.0	22.2	40	11.11	1.4	15.6
50	13.89	1.5	20.8	2.2	30.6	50	13.89	1.5	20.8
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修訂內容		原內容	
(UN) Table of Paragraph 5.2 in Annex 5		(UN) Table of Paragraph 5.2 in Annex 5	
	Test/Check	Reference in main text	Test/Check
6.2.2.	Off mode after new engine start/run	6.2.2.	Off mode after new engine start/run
6.2.3	System can only be activated if (a) The driver is in driver seat & belt is fastened (b) The driver is available (c) No failures (d) DSSAD operational (e) Conditions are within system limits	6.2.3.	System can only be activated if (a) The driver is in driver seat & belt is fastened (b) The driver is available (c) No failures (d) DSSAD operational (e) Environmental and infrastructural conditions are within system limits
6.2.1	Means of deactivating	6.2.1.	Dedicated means for activation and deactivation
6.2.4	Dedicated means to activate and deactivate	6.2.4.	Means of deactivation is protected against unintentional action
6.2.5	protected against unintentional action	6.2.5.	Deactivation by input to driving controls
6.2.6	Steering (a) Holding wheel and brake/accelerate (b) Driver holds steering wheel in response to transition and MRM (c) After deactivation		(a) Holding steering control and brake/accelerate (b) Driver takes hold of steering control in response to transition and MRM (c) Steering while holding the steering control
6.3	Means to override the system (a) Steering control (b) Braking input higher than system (c) Accelerating to speed within system limits	6.3.	Means to override the system (a) Steering control (b) Braking input higher than system (c) Accelerating to speed within system limits
6.1.3.1.	Criteria for deeming driver available	6.3.1.1.	Driver attentiveness
5.1.3	Driver support systems active	6.1.3.1.	Criteria for deeming driver available

修訂內容		原內容	
6.3.1.1.	Driver attentiveness	5.1.3.	Exercise control over systems required to support the driver
5.5	System behaviour during a Minimal Risk Manoeuvre (a) Driver take over (b) Standstill (harzard lights) (c) Re-activation disabled if reached standstill	5.5.	System behaviour during a MRM (a) Termination only upon driver take over or standstill (b) Activation of hazard warning lights when reaching standstill (c) Re-activation disabled if MRM was triggered
5.1.4	Transition demand & behaviour/escalation	5.1.4.	Transition demand & behaviour/escalation
5.1.5	Driver resumes control	5.1.5.	Initiation of an MRM after Transition Demand
5.4	Without driver response (MRM) (a) Planned transition (b) Unplanned transition	5.4.	Events leading to a Transition Demand (a) Planned transition (b) Unplanned transition
6.1.2	Transition demand during operation	6.1.2.	Transition demand when driver not present or unbuckled
6.1.3	Exceed system parameters	5.4.2.3.	Transition Demand in case of Failure
5.4.	Failure (a) Detectable collision (b) Driver not present	5.1.1.	System reaction in case of a detectable collision
5.3	System behaviour for Emergency Manoeuvre (a) Resulting in standstill (b) Not resulting in standstill	5.3.	System behaviour during an EM (a) Resulting in standstill (b) Not resulting in standstill
7.1	System detection areas		
7.1.1	Front		
7.1.2	Sides		
7.1.3	Visibility		

修訂內容		原內容	
(基準) 規定11.5.2之表		(基準) 規定12.5.2之表	
	試驗/檢查	<u>參考條文</u>	試驗/檢查
6.2.2	新引擎啟動/運行後關閉模式	6.2.2	新引擎啟動/運行後關閉模式
6.2.3	系統僅能於下述情況下啟動 (a)駕駛於駕駛座椅上且安全帶已繫妥 (b) 駕駛處於可駕駛狀態 (c)無故障 (d)DSSAD可運作 (e)條件於系統極限內	6.2.3	系統僅能於下述情況下啟動 (a)駕駛於駕駛座椅上且安全帶已繫妥 (b) 駕駛處於可駕駛狀態 (c)無故障 (d)DSSAD可運作 (e) <u>環境及基礎設施</u> 條件於系統極限內
6.2.1	<u>解除方式</u>	6.2.1	<u>用以致動及解除之專用方式</u>
6.2.4	<u>用以致動及解除之專用方式</u>	6.2.4	<u>停用方式，預防無意動作</u>
<u>6.2.5</u>	<u>預防無意動作</u>		<u>藉由駕駛控制輸入停用</u>
<u>6.2.6</u>	<u>轉向</u> <u>(a)維持方向盤及煞車/加速</u> <u>(b) 駕駛為反應轉換及MRM掌握方向盤</u> <u>(c)解除後</u>	<u>6.2.5</u>	<u>(a) 維持轉向控制及煞車/加速</u> <u>(b) 駕駛為反應轉換及MRM掌握轉向控制</u> <u>(c)於掌握轉向控制時進行轉向</u>
6.3	覆蓋系統之方式 (a)轉向控制 (b)煞車輸入高於系統 (c)加速制系統限制內之速度	6.3	覆蓋系統之方式 (a)轉向控制 (b)煞車輸入高於系統 (c)加速制系統限制內之速度
6.1.3.1	駕駛處於可駕駛狀態之評判標準	<u>6.3.1.1</u>	<u>駕駛注意力</u>
		6.1.3.1	駕駛處於可駕駛狀態之評判標準

修訂內容		原內容	
5.1.3	<u>駕駛支援系統致動</u>		準
<u>6.3.1.1</u>	<u>駕駛注意力</u>	5.1.3	<u>致動</u> 支援 <u>駕駛所需之系統</u>
5.5	最低風險操作期間之系統行為 (a) 駕駛接管 (b) 停止 <u>(危險燈)</u> (c) 於停止時禁用重新啟動	5.5	最低風險操作期間之系統行為 (a) <u>僅於</u> 駕駛接管 <u>或停止時終止</u> (b) <u>到達</u> 停止狀態 <u>時啟動</u> 危險 <u>警告燈</u> (c) 於 <u>觸發MRM</u> 時禁用重新啟動
5.1.4	轉換需求及行為/提升	5.1.4	轉換需求及行為/提升
5.1.5	<u>駕駛回復控制</u>	5.1.5	<u>轉換需求後啟動MRM</u>
5.4	<u>無駕駛反應(MRM)</u> (a) 預期轉換 (b) 非預期轉換	5.4	<u>導致轉換需求之事件</u> (a) 預期轉換 (b) 非預期轉換
6.1.2	<u>運作期間</u> 之轉換需求	6.1.2	<u>駕駛不在場或解開安全帶時之</u> 轉換要求
<u>6.1.3</u>	<u>超過系統參數</u>	<u>5.4.2.3</u>	<u>發生失效時之轉換需求</u>
<u>5.4</u>	<u>故障</u> (a) <u>可測得之碰撞</u> (b) <u>駕駛不在場</u>	<u>5.1.1</u>	<u>發生偵測碰撞時之系統反應</u>
5.3	緊急操作之系統行為 (a) 導致停止 (b) 不會導致停止	5.3	緊急操作 <u>期間</u> 之系統行為 (a) 導致停止 (b) 不會導致停止
<u>7.1</u>	<u>系統偵測區域</u>		
<u>7.1.1</u>	<u>前方</u>		
<u>7.1.2</u>	<u>側方</u>		
<u>7.1.3</u>	<u>可見度</u>		

車輛型式安全審驗管理辦法第十四條附表車輛安全檢測基準發布後部分條文修正草案對照表內容彙整（計 1 項）

項次	法規名稱	修訂法規內容	新增之法規項目	頁碼	版本別	內容摘要
1	附件九十八、事件資料紀錄器	◎		P.298	UN R160 01 Series	1.本項附件中規定 5.1 至 5.3 就事件資料紀錄器本體訂有要求，包含資料內容、格式及擷取等設備本身設計相關內容，且主要於車輛設計及生產階段對應及驗證設計是否符合要求。 2.其中設備本體受到廠牌不同須以不同之檢測設備執行測試情形所限制，國際間實務多由車輛製造廠及其供應商配合執行驗證確認。 3.為對應前揭實務情形，增訂申請者得以符合性聲明對應相關要求之規定。

附件九十八、事件資料紀錄器

修訂規定	現行規定	說明
5. 性能要求 配備 EDR 車輛應符合性能要求，包含資料元件、資料格式、資料擷取以及碰撞試驗性能和存活率；<u>規定 5.1 至 5.3 可由申請者確保及聲明符合相關規定</u>。 ...	5. 性能要求 配備 EDR 車輛應符合性能要求，包含資料元件、資料格式、資料擷取以及碰撞試驗性能和存活率。 ...	1. 本項附件中規定 5.1 至 5.3 就事件資料紀錄器本體訂有要求，包含資料內容、格式及擷取等設備本身設計相關內容，且主要於車輛設計及生產階段對應及驗證設計是否符合要求。 2. 其中設備本體受到廠牌不同須以不同之檢測設備執行測試情形所限制，國際間實務多由車輛製造廠及其供應商配合執行驗證確認。 3. 為對應前揭實務情形，增訂申請者得以符合性聲明對應相關要求之規定。