

行政院所屬各機關因公出國人員報告書

(出國類別：其他(國際會議))

亞太經濟合作會議(APEC) 第四十三次運輸工作小組會議報告

服務機關：交通部

姓名職稱：林采蓁秘書

出國地點：馬來西亞吉隆坡

出國期間：105年9月4日至9月10日

報告日期：105年12月8日

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亞太經濟合作會議第四十三次運輸工作小組會議報告

一、會議目的

整合區域內運輸系統，發展智慧型運輸科技，訂定運輸技術與安全標準，促成運輸技術合作，並加速運輸部門自由化，以促進亞太地區之貿易自由與經濟發展。

二、會議時間與地點

會議時間：105年9月4日至10日。

會議地點：馬來西亞吉隆坡皇家朱蘭飯店。

三、我國與會代表

我國出席本次運輸工作小組會議代表團員總計 17 人，由本部運輸研究所黃副所長新薰擔任領隊；出席會議代表依陸海空領域分工，詳如下表：

| 序次 | 姓名 | 單位 | 職銜 | 備註 |
|----|-----|----------------|---------|------|
| 1 | 黃新薰 | 交通部運輸研究所 | 副所長 | 領隊 |
| 2 | 周家慶 | 交通部運輸研究所 | 高級運輸分析師 | 複合運輸 |
| 3 | 賴宜弘 | 交通部運輸研究所 | 副研究員 | 複合運輸 |
| 4 | 徐台生 | 交通部道路交通安全督導委員會 | 組長 | 陸運 |
| 5 | 林采蓁 | 交通部路政司 | 秘書 | 陸運 |
| 6 | 許志成 | 財團法人車輛安全審驗中心 | 處長 | 陸運 |
| 7 | 黃鴻凰 | 台灣區車輛工業同業公會 | 經理 | 陸運 |
| 8 | 林上閔 | 交通部航政司 | 技正 | 海運 |
| 9 | 張嘉紋 | 交通部航港局 | 復組長 | 海運 |
| 10 | 陳俊銘 | 臺灣港股股份有限公司 | 經理 | 海運 |
| 11 | 葉佳魁 | 交通部民航局 | 技正 | 空運 |
| 12 | 朱衍達 | 交通部民航局 | 技正 | 空運 |
| 13 | 張任緯 | 交通部民航局 | 專員 | 空運 |
| 14 | 顏君聿 | 財團法人台灣經濟研究院 | 組長 | 專案 |
| 15 | 劉禹伸 | 財團法人台灣經濟研究院 | 副研究員 | 專案 |
| 16 | 柯樹人 | 圓桌會議顧問股份有限公司 | 執行長 | 專案 |
| 17 | 柯智騰 | 圓桌會議顧問股份有限公司 | 專案副理 | 專案 |



圖 1 我國代表團合照

交通部路政司林秘書采蓁及財團法人車輛安全審驗中心許志成處長、台灣區車輛工業同業公會黃鴻凰經理共同參加陸運專家小組之車輛標準調和次級專家小組會議（LEG-VHSG）。



圖 2 車輛標準調和次級專家小組會議全體成員合影

四、會議議程

本次運輸工作小組會議各日會議重點摘要如下：

9月5日 星期一 (TPTWG 相關會議)

| 時間 | 會議及主題 | 擬議出席代表說明 |
|-----------|-------------------------------------|--|
| 9月4日 | 代表團陸續抵達 | |
| 0930-1730 | TPTWG 組織架構內部檢視特別會議(簡稱 TPTWG 內部檢視會議) | 1. 主事成員、計畫指導員及各專家小組主席 2. 請領隊、*運研所周家慶高級運輸分析師、賴宜弘副研究員、台經院人員代表出席 |
| 0930-1730 | 發展門戶港連結性促進區域經濟整合研討會(簡稱門戶港研討會) | 請*航政司林上閔技正代表出席 |

9月6日 星期二 (DAY 1 of TPTWG43)

| 時間 | 會議及主題 | 擬議出席代表說明 |
|-----------|------------------------------------|--|
| 0800-1700 | 各會員體代表報到 | |
| 0900-1030 | ◆周邊會議 1 (Side Meeting) 女性參與運輸 | 請賴宜弘副研究員、*台經院人員代表出席 |
| 1030-1100 | 休息時間(Coffee Break) | |
| 1100-1230 | 第 1 次領隊會議(HOD1)與管理會議 | 1. 主事成員、計畫指導員及各專家小組主席 2. 請領隊、運研所周家慶高級運輸分析師、賴宜弘副研究員、*台經院人員代表出席 |
| 1230-1400 | 午餐時間 | |
| 1400-1530 | ◆周邊會議 2 (Side Meeting) APEC 運輸卡 | 請路政司林采蓁秘書、運研所周家慶高級運輸分析師、*台經院人員代表出席 |
| 1530-1700 | 大會開幕式 | 請全體代表出席 |

9月7日 星期三 (DAY 2 of TPTWG43)

| 時間 | 會議及主題 | 擬議出席代表說明 |
|-----------|----------|----------|
| 0900-1030 | 專家小組分組會議 | |

| 時間 | 會議及主題 | 擬議出席代表說明 |
|-----------|-------------------------|---|
| | -海運專家小組(MEG) | 請*航政司林上閔技正、航港局張嘉紋副組長、港務公司陳俊銘經理代表出席 |
| | -陸運專家小組(LEG) | 請道安會徐台生組長、*路政司林采蓁秘書、車安中心許志成處長、車輛公會(國瑞汽車)黃鴻鳳經理代表出席 |
| | -空運專家小組(AEG) | 請民航局葉佳魁技正、朱衍達技正、*張任緯專員代表出席 |
| | -複合運輸與智慧型運輸系統專家小組(IIEG) | 請運研所周家慶高級運輸分析師、賴宜弘副研究員、*台經院人員代表出席 |
| 1030-1100 | 休息時間(Coffee Break) | |
| | 次級專家小組分組會議 | |
| | -海運專家小組(MEG) | 請*航政司林上閔技正代表出席 |
| | -車輛標準調和次級專家小組(LEG-VSHG) | 請*路政司林采蓁秘書、車安中心許志成處長、車輛公會(國瑞汽車)黃鴻鳳經理代表出席 |
| | -航空服務次級專家小組(AEG-SRV) | 請*民航局張任緯專員代表出席 |
| 1100-1230 | -複合運輸與智慧型運輸系統專家小組(IIEG) | 請運研所周家慶高級運輸分析師、賴宜弘副研究員、*台經院人員代表出席 |
| | -航空安全次級專家小組(AEG-SAF) | 請*民航局朱衍達技正代表出席 |
| | -航空保安次級專家小組(AEG-SEC) | 請*民航局葉佳魁技正代表出席 |
| | -海運保安次級專家小組(MEG-SEC) | 請*航港局張嘉紋副組長、港務公司陳俊銘經理代表出席 |
| | -道路與軌道安全次級專家小組(LEG-SAF) | 請*道安會徐台生組長代表出席 |
| 1230-1400 | 午餐時間 | |
| 1400-1530 | 次級專家小組分組會議(延續) | 請相關代表續依任務分配原則代表出席 |
| 1530-1600 | 休息時間(Coffee Break) | |
| 1600-1730 | 次級專家小組分組會議(延續) | 請相關代表續依任務分配原則代表出席 |
| 2000-2130 | 迎賓晚宴 | 全體代表出席 |

9月8日 星期四 (DAY 3 of TPTWG43)

| 時間 | 會議及主題 | 擬議出席代表說明 |
|-----------|--------------------------------|-------------------|
| 0900-1030 | 次級專家小組準備總結報告 (完成後提送所屬專家小組) | 請相關代表續依任務分配原則代表出席 |
| 1030-1100 | 休息時間(Coffee Break) | |
| 1100-1230 | 專家小組會議 | 請相關代表續依任務分配原則代表出席 |
| | -海運專家小組(MEG) | |
| | -陸運專家小組(LEG) | |
| | -空運專家小組(AEG) | |
| | -複合運輸與智慧型運輸系統 專家小組(IIEG) | |
| 1230-1400 | 午餐時間 | |
| 1400-1530 | 專家小組分組會議(延續) | 請相關代表續依任務分配原則代表出席 |
| 1530-1600 | 休息時間(Coffee Break) | |
| 1600-1730 | 專家小組準備總結報告 (完成後提送領隊會議及閉幕大會) | 請相關代表續依任務分配原則代表出席 |

9月9日 星期五 (DAY 4 of TPTWG43)

| 時間 | 會議及主題 | 擬議出席代表說明 |
|-----------|--------------------|--|
| 0900-1015 | 第2次領隊會議(HOD2) | 1. 主事成員、計畫指導員及各專家小組主席 2. 請領隊、運研所周家慶高級運輸分析師、賴宜弘副研究員、*台經院人員代表出席 |
| 1015-1045 | 休息時間(Coffee Break) | |
| 1045-1215 | 閉幕大會 | 請全體代表出席 |
| 1215-1430 | 午餐時間 | |
| 1500-1900 | 文化之旅 | 由代表自行決定 |
| 9月10日 | 代表團離境 | |

五、車輛標準調和次級專家小組會議

1. 本次車輛標準調和次級專家小組會議(VSHG)由南韓(Mr. Lee, Changgi, 第一次)擔任主席，及澳洲(Mr. Andrew Dankers, 第二次)擔任副主席。
2. 參與經濟體有南韓、澳洲、日本、巴布新幾內亞、馬來西亞、新加坡、美國、越南及中華台北。另有觀察員澳門。
3. 我方交通部路政司代表為林采蓁秘書，車安中心許志成處長及業界代表車輛公會黃鴻凰經理一同與會。
4. 各經濟體目前導入聯合國法規(簡稱 UN 法規)狀況更新(主席也再次提醒各經濟體配合 VSHG 同意之每次會議前更新資料庫維護如 Certification Circle 與 UN 法規採用進度)：

(1) 澳洲 - 40 項 UN 法規 (考慮未來 18 項)

(2) 南韓 - 47 項 UN 法規

(3) 我方 - 69 項 UN 法規+1 Guideline RE3

(4) 新加坡 - 97 項 UN 法規

(5) 日本 - 67 項 UN 法規 (已排定 2016 導入 R136 電動機車電氣安全/R117 輪胎濕地抓地力等 4 項)

(6) 加拿大 - 17 項 UN 法規

(7) 香港 - 44 項 UN 法規

(8) 印尼 - 7+3 項 UN 法規(規畫依據 ASEAN 腳步, 第一階段 2015 年 19 項, 第二階段 32 項)

(9) 馬來西亞 - 77(2015)/99(2017)/134(2020)項 UN 法規
(包含有排污與噪音) (可以作為我國後續導入項目參考)

(10) 越南 - 14 項 UN 法規

(11) 中國 - 70 項 UN 法規

5. 關於全球法規調和論壇 WP29, 目前的法規調和活動重點資訊:

(1) 1958 協定現有 49 國家(最新的是埃及, 2013.02.03, 編號為 E62)。

(A) 其中 APEC 經濟體有日本/澳洲/紐西蘭/南韓/馬來西亞/
俄羅斯/泰國等 7 個

(2) 1998 協定現有 36 國家(最新的是 San Marino, 2011)。

(A) 其中 APEC 經濟體有日本/澳洲/紐西蘭/南韓/馬來西亞/
俄羅斯/美國/加拿大/中國大陸等 9 個

(3) 全球技術法規(GTR)到目前為止已有十六項如下:

-- 與車輛安全相關的有十項(如底線粗體)

(A) 門門與鉸鍊(此項已轉入 UN 法規, 交通部已於 99 年 8
月公告)

(B) 二輪機車氣態污染排放與油耗量測程序(簡稱 WMTC)

(無關車輛安全)

(C)機車煞車(此項已轉入 UN 法規，交通部已於 99 年 8 月公告)

(D)重型引擎 -- 壓縮點火引擎及火星塞點火引擎(使用天然氣與液態瓦斯) -- 污染排放量測程序(簡稱 WHDC)
(無關車輛安全)

(E)車上診斷系統技術要求(OBD) (無關車輛安全)

(F)安全玻璃(2008)(已納入 UN R43.01 版，交通部已於 103 年 1 月公告)

(G)頭枕(2008) (目前修訂中，GRSP 討論後會進行納入 UN R17 的程序)

(H)ESC(2008) (ECER13/R13H 都有相關規定，交通部此項已於 103 年 1 月公佈)

(I)行人安全保護 (2009) (UN 法規 127，我國已納入全球車輛安全法規推動規劃案並報部，惟國內無檢測能量建置規劃)

(J)非標準循環污染排放 (Off-Cycle Emission, OCE, 無關車輛安全)(2009)

(K)非道路移動機具 (NRMM, Non-Road Mobile

Machinery)(無關檢測基準項目)(2009)

(L)機車控制器標誌(2011) (已納入 UN R60. S4 版, 已完成於 102 年下半年 UN 法規增修案討論)

(M)氫燃料電池車輛(hydrogen fuel cell vehicle (HFCV, 2014. 11 已通過為 UN 法規項目, 後續再參考於國內討論對應期程)(2013)

(N)側方立桿碰撞防護(Pole Side Impact) (2014. 11 已通過為 UN 法規項目, 後續再參考於國內對應期程討論)(2013)

(O)全球輕型車輛汙染測試程序(2014, WLTP, 與車輛安全無關)

(P)輪胎(2014, 待其轉換為 UN 法規, 再進行國內對應期程討論)

(4)自上次 APEC 會議日期至今, WP29 有一次會議, 有以下相關的 UN / GTR 法規增修版定案, 分別納為我方 105 年上半年及下半年基準增修案討論案

| 調和事項 | WP29 會議 |
|----------|---|
| | 169 次會議 |
| UN 法規增修版 | 30 項 (基準相關的有被動安全性能 4 項, 行駛配備 9 項, 一般安全性能 1 項, 燈光性能 1 項等) |
| 新 UN | 4 項 |

| | |
|------------|---|
| 調和事項 | WP29 會議 |
| | 169 次會議 |
| 法規項目 | (煞車輔助系統(BAS), 車輛穩定性電子式控制系統 (ESC), 胎壓偵測輔助系統(TPMS), 輪胎安裝規定) |
| GTR 增修版 | 0 項 |
| 新 GTR 法規項目 | 0 項 |

(5) 討論中的安全相關新 GTR 法規

(A) 電動車輛安全提升與性能整合(行駛中及碰撞後, 將展開七個工作小組進行每個部分的討論) - EVS 方面的防水及電池管理系統功能驗證等技術爭議尚未有定案

(B) 電動車輛低速警示音(美國再度更新 FMVSS 預計公告日期資訊)

(C) 自動駕駛(已確立網路保安 E_Security 及數據保護 E_Safety 概念以避免無預期地導致事故, 正討論自動級別定義)

6. 我方提供與聯合國 Decade of Action for Road Safety(Pillar 3 - Safer Vehicle)有關之資訊, 說明已完成之車輛相關較重大安全法規建立, 包含 1 項新聯合國法規項目(R70)公告及未來第三群組規劃現況。

7. 這次會議獲得以下法規發展資訊：

(1) 新法規項目定案--輪胎安裝規定

(2) BAS, ESC 及 TPMS 皆分別從 R13H 及 R64 獨立列為單一項法規

(3) 既有燈具法規 42 項將於 2019 年整併為三項法規(道路照明/訊號/反光裝置)

8. 國際整車型式認證制度(IWVTA)

(1) 技術法規清單 41→43 項(近期有新增 R48), 還陸續討論新增當中, 預計 2017.03 定案

(2) 1958 協定改版 預計 2016.11 交付 WP29 表決即定案(EU 已同意 4/5 票決制)

9. 南韓預計 2020 年讓半自動駕駛車輛(依照 NHTSA 分級 3-Limited Self-Driving Automation, 車輛完全自主運行與監控判斷於適當時機回歸駕駛控制)完成商業化產品, 日本則規畫於 2020 年東京奧運呈現半自動駕駛車輛(也是 NHTSA 分級 3 為主, 加上限定區域完全自動駕駛, 包含 AEBS/ACC 跟車巡航/LKAS/ACSF 自動變換車道/限定區域完全自動駕駛等, 2025 年實現全面完全自動駕駛)

10. 下次會議預定明(2017)年上半年地點在台北。

六、結論與建議

1. APEC 會議為少數我國能參與之國際會議，而運輸工作小組會議陸運專家小組下設之車輛標準調和次級專家小組會議 LEG-VSHG，為我國參與及瞭解國際車輛安全法規調和及發展趨勢之重要管道之一，本次會議由交通部路政司及審驗機構財團法人車輛安全審驗中心、國內業界台灣區車輛工業同業公會等共同派員參與會議，收穫成果豐碩，應持續派員參加會議。
2. 車輛標準調和次級專家小組會議（LEG-VSHG）主要目的在資訊分享交流及促進國際合作，本次 LEG-VSHG 小組會議，我國代表就國內車輛安全法規調和進展與各國代表交換意見，並同時瞭解 APEC 各經濟體辦理車輛安全法規調和發展情形，圓滿達成本次會議目標。
3. 觀察 LEG-VSHG 會議各國報告目前調和導入聯合國 UN/ECE 車輛安全法規狀況，各國均持續導入並積極參與全球法規調和論壇 WP29，我國除定期每年 2 次檢視 UN/ECE 法規增修狀況並檢討導入國內實施之法規項目、內容及其實施期程外，104 年起針對聯合國相關新增訂重要車輛安全法規，責請審驗機構財團法人車輛安全審驗中心納入全球車輛安全

法規推動規劃案進行檢討，並研議規劃建置相關檢測能量，以期積極維護國人車輛使用安全。

4. 本次 LEG-VSHG 會議我國代表積極參與各項議題討論，無論是簡報我國車輛安全法規調和情形，以及對其他 APEC 經濟體的報告提供意見，均獲主席肯定。我國應妥善運用本項國際會議場域，擴大培養我國國際人才，並積極安排更多人員參與會議，以利人脈關係建立及經驗傳承。
5. 我國係下一屆 APEC 運輸工作小組會議主辦國（預定 2017 年 4 月 25 日至 28 日於臺北舉行），諸多經濟體皆表達來臺參加之高度興趣，我國應善用地主優勢，針對重要交通管理議題於相關分組會議進行簡報及提案，增進我國於國際舞台之曝光及能見度。

七、附件

本次會議資料。

APEC TPTWG-43

Chinese Taipei's Updated Report On Regulation Harmonization

Economy : Chinese Taipei

Meeting Name : VSHG

Presenter : Simon Hsu

Director

Vehicle Safety Certification Center

43RD APEC TRANSPORTATION WORKING GROUP MEETING

6-9 SEPTEMBER 2016, KUALA LUMPUR, MALAYSIA

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CONTENTS

- Amendment/Revision as considering UN Regulations
- Plan for Introducing New UN Regulations
- Summary

Amendment/Revision as considering UN Regulations

1. Periodical Review :

Twice a year (1st half & 2nd half),

2. Proposal by any interest group

- ① Extensive concerns
- ② Clarification
- ③ Harmonization issue

Amendment/Revision on considering UN Regulations

Periodical Review : Twice a year (1st half & 2nd half),

| Category | Item | 2 nd half of 2015 | 1 st half of 2016 |
|----------|---|------------------------------|------------------------------|
| GRRF | Tyre | UN R54 00-S20 | |
| | Mechanical coupling device or component | | R55 01-R2 |

| Category | Item | Amendment/Revisions | |
|-------------|--|------------------------------|------------------------------|
| | | 2 nd half of 2015 | 1 st half of 2016 |
| GRSP | Protection against steering mechanics | | UN R12 04-S4 |
| | Side collision | UN R95 03-S5 | UN R95 03-S6 |
| | Frontal collision | UN R94 02-S5 | UN R94 02-S6 、 03 |
| | Seat Belt | UN R16 06-S5 | UN R16 06-S6 |
| | Belt anchorage | UN R14 07-S6 | |
| | Seat | UN R17 08-S3 UN R80 03-S1 | |
| | Electrical safety for electric vehicle | UN R100 01-S4 | |

| Category | Item | Amendment/Revisions | |
|-----------------------|------------------------------|------------------------------|------------------------------|
| | | 2 nd half of 2015 | 1 st half of 2016 |
| GRSG (1/2) | Speedometer | | UN R39 01 |
| | Rearview Mirror Installation | | UN R46 04-S2 、 04-S3 |
| | Rearview Mirror | | UN R46 04-S2 |
| | Glass | UN R43 01-S3 、 01-S4 | |
| | Fuel Tank | UN R34 03 | |
| | Tell-tales and indicators | UN R121 01 | |

| Category | Item | Amendment/Revisions | |
|-----------------------|---|------------------------------|------------------------------|
| | | 2 nd half of 2015 | 1 st half of 2016 |
| GRSG (2/2) | Installation of audible warning devices | UN R28 00-S4 | |
| | Audible warning devices | UN R28 00-S4 | |
| | Prevention of fire risks for the large passenger vehicle | | UN R107 05-S4 、 06-S4 |
| | External Projection for M1 | | UN R26 00-S3 |
| | External projections of commercial vehicles | | UN R61 00-S3 |

| Category | Item | Amendment/Revisions | |
|------------|---|------------------------------|---|
| | | 2 nd half of 2015 | 1 st half of 2016 |
| GRE | Light Installation | | UN R74 01-S8-C1 UN R48 04-S16 、 05-S9 、 06-S7 |
| | HID Headlamp | | UN R98 01-S7 |
| | Filament lamp and HID light source | UN R37 03-S44 | UN R99 00-S11 |
| | LED Light Source | UN R128 00-S4 | |
| | EMC | | UN R10 04-S3 、 05-S1 |
| | Direction Indicator | | UN R50 00-S18 |

Plan for Introducing New UN Regulations

UN DECADE OF ACTION FOR ROAD SAFETY

Pillar 3 :

Safer Vehicles

APEC TPTWG-43
Kuala Lumpur, Malaysia



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Plan for Introducing New UN Regulations

| No | UN Reg. | Title | Status Quo |
|------|---------|---|------------------------|
| 1-1 | R58 | RUPD | Drafted for discussion |
| 1-2 | R73 | LPD | |
| 1-3 | R93 | FUPD | |
| 1-4 | R26 | External Projection for M1 | announced |
| 1-5 | R61 | External projections of commercial vehicles | announced |
| 1-6 | R87 | DRL | announced |
| 1-7 | R121 | Location and identification of hand controls, tell-tales and indicators | announced |
| 1-8 | R128 | LED Light Source | announced |
| 1-9 | R89 | Speed limitation devices | announced |
| 1-10 | R130 | LDW(S) | announced |
| 1-11 | R127 | Pedestrian Safety | Drafted for discussion |
| 1-12 | R131 | AEBS | announced |

APEC TPTWG-43
Kuala Lumpur, Malaysia



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Plan for Introducing New UN Regulations

| No | UN Reg. | Title | Status Quo |
|-----|---------|-----------------------------|--------------------------------------|
| 2-1 | R21 | INTERIOR FITTINGS | Drafted for discussion |
| 2-2 | R29 | CAB OF A COMMERCIAL VEHICLE | Drafted for discussion |
| 2-3 | R70 | REAR MARKING PLATES | Ready for announcement 2017.01.01 |
| 2-4 | R125 | THE FORWARD FIELD OF VISION | Drafted for discussion |

Plan for Introducing New UN Regulations

#3rd Group Candidates

- UN R32-00-R1-C1 - Rear-end collision;
- UN R34-03-R2-C2 - Prevention of fire risks in the event of collision
- UN R35-00-S1 - Foot controls;
- UN R111-00-S1 - Handling and stability of vehicles;
- UN R117-00 - Tyres, rolling resistance, rolling noise and wet grip
- UN R134-00-S1 - Hydrogen and fuel cell vehicles (HFCV)
- UN R135-00 - Pole Side Impact (PSI)
- UN R136-00 - Electric vehicles of category L (EV-L)
- UN R138-00 - Quiet road transport vehicles.

SUMMARY

Amendment/Revisions

1. Keep moving

2 times yearly, Periodical Review on updating of UN Regulations and just completed the discussion with industry

2. 2nd half of 2015 ready for announcement

GRSG: 5 items 2nd half of 2015 / 7 items 1st half of 2016

GRRF : 1 items 2nd half of 2015 /1 items 1st half of 2016

GRSP: 7 items 2nd half of 2015 / 5 items 1st half of 2016

GRE: 2 items 2nd half of 2015 / 9 items 1st half of 2016

SUMMARY

Plan for Introducing New UN Regulations

3. Introducing more UN Regulations

- 1st Group of 12 candidates
 - 8 announced
 - 4 Draft regulations
- 2nd Group of 4 candidates (UN R21, 70, 125, 29)
 - 1 announced
 - 3 Draft Regulations
- 3rd Group of 9 candidates

感謝您的關注

Thank you for your attention

APEC TPTWG-43
Kuala Lumpur, Malaysia





2016-TPTWG43/LEG-VSHG/01

Agenda Item: N/A

Final Report

Vehicle Standards Harmonization Sub-Group (LEG-VSHG)

Purpose: information

Submitted by: LEG-VSHG Chair (Korea)

8 Sep. 2016



APEC PERU
2016

43rd Transportation Working Group Meeting

6 – 9 September 2016

Kuala Lumpur, Malaysia

Vehicle Standards Harmonization Sub-Group Final Report

1. The 43rd LEG-VSHG meeting was held on 7 September 2016, chaired by Mr Lee, Changgi of the Republic of Korea. 10 economies attended, including Australia, Japan, Korea, Macau China, Malaysia, Papua New Guinea, Singapore, United States, Chinese Taipei and Vietnam.
2. Korea provided an overview of the outcomes of the 169th meeting of the World Forum for Harmonization of Vehicle Regulations (WP.29).
3. As an ongoing activity within LEG-VSHG, Korea and Chinese Taipei presented their progress on harmonizing with UN regulations by updating and sharing agreed templates. Australia also provided reports during the meeting.
4. Japan provided an update on major activities relating to the development of IWVTA as well as Revision 3 of the 1958 Agreement. Japan emphasized that harmonizing vehicle regulations has benefits for governments, users and manufacturers. Japan highlighted that Revision 3 includes attractive voting arrangements for new members. The Revision was endorsed by WP.29 at its June session. Japan expects that Revision of the 1958 agreement will enter into force beyond May 2017. Draft UN R0 will be submitted to WP.29 for consideration at its March 2017 session.
5. Japan delivered a presentation summarizing the results of the 9th ITS-AD IWG and the current status of automated vehicles activity in Japan. Japan highlighted promotion of automated vehicles via the ASV and SIP programs. Japan chairs the WP.29 ITS/AD and ACSF working groups.
6. Korea provided a presentation on automated vehicle policy in Korea. Korea outlined a master plan incorporating four major strategies to support the commercialization of automated vehicles.
7. Korea outlined activities within WP.29 concerning Vehicle Interior Air Quality (VIAQ) and panoramic sunroofs. After five meetings chaired by Korea, the IWG on VIAQ has drafted a new Mutual Resolution to address open issues. The objective of the IWG is to achieve WP.29 endorsement at its November 2017 session. The IWG on panoramic sunroofs, co-chaired by Korea and Germany, agreed to insert a new definition of overhead glazing and discussed limiting the ceramic print area of panoramic sunroofs at its 5th meeting in June.
8. The US proposed VSHG discussion of fuel economy and emissions, especially green house gases. Australian outlined activity to develop regulation impact statements for the introduction of Euro 6/Euro VI noxious emissions standards for light and heavy vehicles and fuel efficiency standards for light vehicles. Economies are encouraged to consider preparing comments at the 44th VSHG meeting in Chinese Taipei in April 2017.
9. In terms of efforts to implement the UN Decade of Action for Road Safety 2011-20, Korea provided a presentation on activity to amend UN R16 for the mandatory installation of Seat Belt Reminder (SBR) for the back seat of passenger vehicles. Korea highlighted that this amendment will take effect from September 2019 and will substantially help to minimize passenger injury in traffic accidents. Australia reported on steps towards improving domestic serious injury reporting, including the compilation of police and hospital data.
10. Malaysia presented on a project proposal for a Vehicle Safety Standards Forum and its Malaysian Regulation and ASEAN NCAP Initiative.
11. Korea delivered a presentation summarizing a commission inquiry into defeat devices in Volkswagen vehicles with diesel engines. The research was conducted by German KBA in order to provide information to affected economies. Korea outlined report recommendations including mandatory software functionality disclosures; re-examination and monitoring of products; and, the use of independent technical services.

List of acronyms

| | |
|--------|---|
| AD | Automated Driving |
| ACSF | Automatically Controlled Steering Function |
| AEBS | Advanced Emergency Braking System |
| AFSS | Automatic Fire Suppression System |
| ASEAN | Association of Southeast Asian Nations |
| ASV | Advanced Safety Vehicle |
| BAS | Brake Assist System |
| DETA | Database for Exchange of Type Approvals |
| ESC | Electronic Stability Control |
| GR | WP.29 expert group |
| GTR | Global Technical Regulation |
| ITS | Intelligent Transport System |
| ITS-AD | Intelligent Transport Systems-Automated Driving |
| IWG | Informal Working Group |
| IWVTA | International Whole Vehicle Type Approval |
| LDWS | Lane Departure Warning System |
| LKAS | Lane Keeping Assist System |
| NHTSA | National Highway Safety Traffic Administration |
| OLA | Office of Legal Affairs (UN) |
| R0 | UN Regulation No. 0 |
| RDE | Real Driving Emissions |
| SAE | Society of Automotive Engineers |
| SBR | Seat Belt Reminder |
| SIP | Cross-ministerial Strategic Innovation Promotion Program |
| ToR | Terms of Reference |
| TPMS | Tire Pressure Monitoring System |
| UN | United Nations |
| VIAQ | Vehicle Interior Air Quality |
| WP.29 | United Nations World Forum for Harmonization of Vehicle Regulations |

Agenda Item 1. Welcome and Introductions

The 43rd LEG-VSHG meeting was held on 7 September 2016, chaired by Mr Lee, Changgi of the Republic of Korea and assisted by the Deputy Chair, Dr Andrew Dankers of Australia.

The Chair welcomed delegates from Australia, Japan, Korea, Macau China, Malaysia, Papua New Guinea, Singapore, United States, Chinese Taipei and Vietnam.

The Chair asked for active participation and cooperation by all delegates. He noted the meeting is about sharing information and is an opportunity to foster close international cooperation.

Agenda Item 2. Adoption of agenda

The agenda was adopted.

Agenda Item 3. Summary of outcomes from the 42nd LEG-VSHG meeting

Ten economies attended the previous VSHG meeting. Economies reported on their progress with harmonizing their local vehicle standards with United Nations (UN) regulations and Global Technical Regulations (GTRs).

Korea, Japan, Chinese Taipei, Vietnam and Australia delivered presentations on a range of topics including:

- activities within the World Forum for Harmonization of Vehicle Regulations (WP.29) including progress on IWVTA and Revision 3 of the 1958 Agreement;
- automated driving (AD) technology;
- efforts to implement the UN Decade of Action for Road Safety 2011-2020;
- the key elements of Chinese Taipei's type approval system;
- Korean ASV and VIAQ;
- pedestrian and road safety initiatives including significant trauma reductions in Vietnam;
- motorcycle helmets and UN Regulation No. 22; and,
- Japanese support towards introducing international regulations in ASEAN members such as Malaysia.

Agenda Item 4. Progress reports of action plans to introduce UN regulations and GTRs

4.1. Summary of recent WP.29 sessions

Korea summarized the outcomes of 169th meeting of WP.29 held in June. Thirty-three contracting parties attended, including four APEC economies.

New items, 169th meeting

- 1958 Agreement (UN regulations) – Four new UN regulations (Braking Assistance System (BAS), Electronic Stability Control (ESC), Tyre pressure Monitoring System (TPMS) and Tyre installation) and 30 amendments of UN regulations were adopted.
- 1998 Agreement (UN GTRs) – One new special resolution No. 2(S.R.2) was adopted

Korea gave an overview of the recent session of the six WP.29 expert working groups, GRB (noise), GRRF (brakes and running gear), GRSG (general safety), GRE (lights and light-signalling), GRSP (passive safety), and GRPE (pollution and energy), as well as several key issues and activities within the Informal Working Groups (IWGs) on Automated Driving (ITS-AD) and IWVTA (International Whole Vehicle Type Approval). Notably, WP.29 shared information on the commission inquiry of Volkswagen defeat devices by German government.

US asked about steps to include Euro 6 into UN Regulation 83. Korea outlined that RDE standards are under development at WP.29. Chinese Taipei asked about outcomes of UN Regulation 0 pre-testing and the separation of BAS and ESC into individual regulations. Korea mentioned the development of a WP.29 report and implications for DETA budgeting; and, that the separation of R13 and 13H should not present significant issues.

4.2. Harmonization progress – economy reports

As an ongoing activity within VSHG, before each meeting economies are required to update three templates designed to share information on their progress with harmonizing with UN regulations as well as contact details of representatives for each of the WP.29 expert groups (GRs), where applicable.

Some economies provided this information before the meeting and presented their reports to VSHG, including Australia, Japan, Korea, Malaysia and Chinese Taipei, as reflected in the latest templates.

Korea provided an update on the status of harmonization with UN Regulations. Chinese Taipei asked about vehicle classes covered by UN Regulation 107 (AFSS) and if UN Regulation 130 (LDWS) covered existing vehicles. Korea responded that

this was motivated by several major accidents. US asked about coverage of older vehicles; Korea responded that existing, not only new, vehicles were covered.

Chinese Taipei reported on the amendment and revision of regulations for the adoption of UN Regulations and plans to introduce new UN Regulations. Chinese Taipei conducts a periodical review (twice a year) of UN Regulations and has recently completed regulation adoption discussions with industry. Of a primary group of 12 candidate regulations, 8 have been announced and 4 are in draft. Of a further group of 4 candidates one has been announced and 3 are in draft. A list of 9 additional candidate regulations will be considered in the future.

The Chair emphasised the importance of providing harmonization updates before VSHG meetings and request to all economies to continue to update these templates as necessary.

Agenda Item 5. Policy and technical discussions

5.1. Progress towards IWVTA and Revision 3 of the 1958 Agreement

Japan provided an update on major activities relating to the development of IWVTA and Revision 3 of the 1958 Agreement. Japan emphasized that harmonizing vehicle regulations has benefits for governments, users and manufacturers.

Revision of the 1958 Agreement in WP.29

Japan noted that the purpose of revising the agreement is to achieve true harmonization of regulations and mutual recognition of certification and that participation is open to emerging economies. The revised 1958 Agreement was endorsed in the June meeting of WP29 this year. Official notification from UN Secretary General to CP was expected in August. Entry in to force of Revision 3 is expected beyond May 2017.

Draft UN Regulation No.0

Japan provided an overview of the IWVTA process and updated VSHG on the status of IWVTA developments at WP.29. UN R48 was added in List A of UNR0 in June meeting of WP.29. The number of UN Regulations included IWVTA will increase. It is planned that final proposal for UN R0 will be submitted to WP.29 in March 2017.

Australia asked if OLA and/or the UN Secretary General were to officially transmit Revision 3 of the 1958 Agreement as expected (August 2016), and advised that Australia's interest analysis required official transmission. Japan offered to assist in establishing confirmation. Chinese Taipei asked about the addition of UN R48 to the increasing number of List A regulations; Japan described that several List B regulations were considered for transfer to List A. The US asked about timing of voting; Japan expects UN Secretary General agreement to commence from March 2017.

5.2. Status of Intelligent Transport Systems (ITS) / Automated Driving (AD)

Japan delivered a presentation summarizing the results of the 9th ITS-AD IWG and the current status of automated driving in Japan, which included:

- draft guidelines on cyber security and data protection for automated driving technologies for securing safety of automated driving.
- the schedule of developing automated driving in Japan.

Japan noted that automated driving could be a solution for several social problems including traffic accidents, traffic jams, and mobility for the elderly. Japan is promoting automated driving via both government and industry initiatives and the ASV and SIP programs. Japan highlighted the importance of cyber security. Japan also noted leading participation in WP.29 discussions as Chair of ITS/AD and ACSF working groups.

US encouraged economies to consider attending the upcoming APEC Automotive Dialogue meeting. US mentioned that eSecurity may be a difficult issue to regulate and that policies may need to be defined before regulations are finalised. The Chair encouraged economy participation in APEC Automotive Dialogue.

Korea provided a presentation on automated vehicle policy in Korea. Korea outlined a master plan incorporating four major strategies to support the commercialization of automated vehicles - introducing relevant systems; expanding infrastructure; support for developing technologies; and industry promotion. Korea highlighted an objective to commercialize automated vehicles (Level 3) by 2020.

US asked if Korea used SAE levels of Automation. Korea responded that it has used NHTSA levels but that the levels were similar. Singapore asked about automated vehicle testing requirements. Korea described that testing was to support development, that drivers were required to monitor system performance and be ready to resume control. Blackboxes were used in addition to cameras to detect the driver's hands were on the steering wheels.

5.3. Status of VIAQ and panoramic sunroofs at WP.29

Korea outlined activities within WP.29 regarding VIAQ and panoramic sunroofs.

VIAQ

In 2013, Korea proposed the development of a GTR on VIAQ at WP.29. In January 2015, draft ToR and Rules of Procedure were established for an IWG on VIAQ under GRPE. Korea Chairs the IWG meetings. Eight working items have been concluded including test measurement modes, and identifying the most relevant substances requiring measurement. The IWG has prepared a draft document covering VIAQ

recommendations. The IWG intends to finalize remaining open issues by January 2017. The IWG plans to submit a final document for WP.29 endorsement at the November 2017 session.

Panoramic sunroofs

Korea gave a summary on activity of the IWG to amend to GTR No.6 and UN Regulation No.43.

The IWG decided to focus discussion on limiting the ceramic printed area and a new definition of overhead glazing. NHTSA submitted open questions and requested including a survey into the defects of panoramic sunroofs. The IWG agreed to respond to NHTSA's questions by October 2016.

The IWG may request an extension of mandate from GRSG in order to establish limitations of the ceramic printed area on toughened glass.

5.4. Introduction of Policy, Technical Discussion and Type Approval Systems

No economies provided content.

5.5. Progress Towards Promoting Green Technology in Transportation

The US proposed VSHG discussions to cover the promotion of fuel economy and vehicle emission reductions, especially greenhouse gases.

Australia reported on greenhouse and noxious vehicle emissions. A Government discussion paper was released in February 2016 that examined ways to reduce health and environmental impacts from motor vehicle emissions. The Australian Government is currently developing regulation impact statements to introduce Euro 6/Euro VI noxious emissions standards for light and heavy vehicles and fuel efficiency standards for light vehicles.

US finalized standards for medium and heavy duty vehicles that will improve fuel efficiency and cut carbon pollution while bolstering energy security and manufacturing innovation. The program promotes a new generation of cleaner, more fuel efficient trucks by encouraging wider application of currently available technologies and the development of new cost effective technologies.

The US asked economies to consider providing comments at the 44th VSGH meeting in Chinese Taipei in April 2017.

Agenda Item 6. Policy under TMM9, UN Decade of Action for Road Safety, and the Joint Transport and Energy Ministerial Conference (TEMC)

6.1. Efforts to implement the UN Decade of Action for Road Safety

6.1.1 Update on the Decade of Action for Road Safety

Korea provided a presentation on activity to amend UN R16 for the mandatory installation of Seat Belt Reminder (SBR) for the back seat of passenger vehicles. Korea highlighted that this amendment will take effect from September 2019 and will substantially help to minimize passenger injury in traffic accidents.

Australia reported on steps towards improving domestic serious injury reporting, including the compilation of police and hospital data.

6.2. Motorcycle helmets

Economies agreed to delete this item, including from subsequent agendas, due to lack of reported content.

Agenda Item 7. Other Business

7.1. Project proposal for a Vehicle Safety Standards Forum

Malaysia provided an update on the proposal for a workshop encouraging economies in the use and harmonization of UN regulations and UN GTRs. The scope (GTRs and/or UN Regulations) will be defined following discussions with interested economies.

7.2. Status of Intelligent and Connected Vehicles (ICV) in China

China was not available to provide an update on this item.

7.3. Exchange of Information related to Volkswagen defeat devices

Korea delivered a presentation summarizing a commission inquiry into Volkswagen defeat devices in diesel engine vehicles. Research was conducted by German KBA for the purpose of providing information and recommendations to affected economies. The Inquiry was launched in September 2016 following detection of the issue by US EPA.

An aim of the investigation was to clarify the extent to which Volkswagen Group vehicles are affected by the allegations related to defeat devices. It was reported that

53 models of Euro 5/Euro 6 diesel vehicles in the Volkswagen Group range were involved.

Most of vehicles, even those without defeat devices, could not comply with RDE (Real Driving Emission) test mode requirements which will be included new EU regulation in September 2017.

Korea highlighted report recommendations including mandatory software functionality disclosure; re-examination and monitoring; and, independent technical services.

US asked when the inquiry report was released. Korea responded that initial discussions occurred at the previous WP.29 session and that the report was recently made public. US highlighted that WP.29 requested that Contracting Parties consider how to detect defeat devices and to report where vulnerabilities may remain in regulations.

7.4. Malaysian Regulation and ASEAN NCAP Initiative

To date Malaysia has gazetted 100 UN Regulations and enforced 78 UN Regulations. It is expected that Malaysia will enforce the 100 UN Regulations by 2017. With respect to ASEAN NCAP a new protocol for years 2017-2020 has been launched recently and it would be effective by next year.

7.5. Future directions for VSHG

No variations were proposed.

Attachment 1 – VSHG attendance

| Economy | Name | Organization | Position | Email |
|-------------|---------------------|---|---|--------------------------------------|
| Australia | Dr Andrew Dankers | Department of Infrastructure and Regional Development | Senior Engineer | andrew.dankers@infrastructure.gov.au |
| Korea | Mr Changgi Lee | Ministry of Land, Infrastructure and Transport | Senior Deputy Director | Cglee724@gmail.com |
| Korea | Mr Dae-soon Park | Ministry of Land, Infrastructure and Transport | Director | pos1@korea.kr |
| Korea | Ms Ki-Rim Lee | Ministry of Land, Infrastructure and Transport | Deputy Director | Krlee1118@korea.kr |
| Korea | Mr Hyoung-gu KIM | Korea Automobile Testing and Research Institute | Chief Researcher | hyoungu72@naver.com |
| Korea | Mr Youn-Su KIM | Korea Automobile Testing and Research Institute | Senior Researcher | kysdustn@ts2020.kr |
| Japan | Mr Takeshi KORENORI | Japan Automobile Standards Internationalization Center | Chief Representative Jakarta Representative Office | korenori@jasic.org |
| Japan | Mr Koyhei Oshima | Ministry of Land, Infrastructure, Transport and Tourism | Official | ohshima.k22k@mlit.go.jp |
| Macau/China | Mr Daniel Pedro | Transport Bureau | Head of Vehicle Division | dppedro@dsat.gov.mo |
| Macau/China | Mr Lo Ka Meng | Transport Bureau | Functional Chief | lok@dsat.gov.mo |

| Economy | Name | Organization | Position | Email |
|------------------|---------------------------|--|-----------------------|-------------------------|
| Papua New Guinea | Wilson WARIAKA | Road Traffic Authority | Deputy Director | wariakawilson@yahoo.com |
| Papua New Guinea | Ponege Poya | National Roads Authority | CEO | ponegepoya@gmail.com |
| Malaysia | Azzaharin Allias | ROAD TRANSPORT DEPARTMENT | Asst. Director | azzaharin@jpp.gov.my |
| Malaysia | Mohd Syazwan Solah | Malaysia Institute of Road Safety Research | Research Officer | Syazwan@miros.gov.my |
| Malaysia | Mohd. Affizul Ariff Salim | ROAD TRANSPORT DEPARTMENT | Asst. Director | AffizulAriff@jpp.gov.my |
| Singapore | Mr Gabriel Ng | Land Transport Authority | Principal Engineer | ng_lok_yee@lta.gov.sg |
| Chinese Taipei | Mr Simon HSU | Vehicle Safety Certification Center | Director | simon@vscc.org.tw |
| Chinese Taipei | Ms. Tsai Chen Lin | Ministry of Transportation and Communications | Secretary | tsc_lin@motc.gov.tw |
| USA | Mr Martin Koubek | DoT. NHTSA | Senior Policy Advisor | Martin.Koubek@dot.gov |
| Vietnam | Mr PHAM MINH THANH | MOT-VR-VMTC | Director | minhthanhvr@gmail.com |
| Vietnam | Mr NGUYEN VAN PHUONG | MOT-VIETNAM REGISTER-Vehicle Certification Dept. | Deputy Director | phuongnv@vr.org.vn |

Attachment 2 – Economy presentations/reports

Chinese Taipei

- Progress Report on Harmonization

Japan

- Progress Towards IWVTA and Revision 3 of 1958 Agreement
- Current status of ITS/AD under UN/ECE/WP29

Korea

- Overall Status of Recent WP29
- Status of Harmonization with UN Regulation
- Policy for Automated Vehicle in Korea
- Current Status of VIAQ and PSG
- Mandatory installation of SBR on the backseat of passenger vehicles
- Summary of the report of inquiry of VW by BMVI

Malaysia

- Project proposal for a Vehicle Safety Standards Forum
 - Malaysian Regulation and ASEAN NCAP Initiative
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Attachment 3 – Templates of Certification Circle, Summary of Progress on Promotion of UN Regulation, and Status of adopted /accepted/referred UN Regulation list

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| Chinese Taipei | • Updated |
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| Japan | • Updated |
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| Korea | • Updated |
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| Malaysia | • Updated |
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| Australia | • Updated |
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