

**Draft Minutes from the 1st meeting of the Informal Working Group (IWG) on
Safer Transport of Children in Buses and Coaches – 9th July 2019**

Place: **Ministerio de Industria, Comercio y Turismo P^o de la Castellana, 160, room E
28046 Madrid**

1. Welcome and Roll call

Marta Angles, the Chair, welcomed all attendees, as well as those online, and asked everyone to introduce themselves. Farid Bendjellal, on behalf of CLEPA, will be the Secretary of this IWG.

Mr José Pablo Laguna Gómez, Regulations and Vehicle Type-Approval Department, welcomed the attendees on behalf of the Spanish Ministry of Industry, Trade and Tourism

2. Adoption of the agenda – (STCBC-01-01)

Was adopted as proposed by Marta.

3. Definition of the ToR.

3.1. Objective of the IWG

The objective of the IWG was established after the discussion that took place under agenda item 3.2.1 (current situation in each country)

Initially, the title of the IWG was the “Informal Group on child restraint systems on buses and coaches”. This was also proposed as the main objective of the Group (i.e. to develop a regulation for child restraint systems). However, Ronald Vroman (ANEC) noted that the European Commission had previously suggested that seat belt reminder systems might be a useful topic for this group and hence we should not limit our scope at this early stage. Thomas Gold (Daimler) warned that seat belt reminders might not be a practical solution for coaches seating up to 49 people. Nevertheless, the group agreed to set a broader objective:

To develop a new UN Regulation on the safer transport of children when travelling in buses and coaches.

The name of the IG was amended to:

The Informal Group on safer transport of children in buses and coaches.

3.2. Current situation

3.2.1. In each country

Chair: Formulated 3 objectives for today’s discussion

- Establish the Objective of the IWG
- Discuss current situation in various countries
- Defining a New Regulation

Presentations

Dinos Visvikis (CYBEX/CLEPA): Showed national statistics on child casualties in accidents in buses and coaches in Great Britain (GB) and Germany (**STCBC-01-02**)

- GB data: The availability, use and type of restraints was not recorded in the data. Nevertheless, one child fatality has occurred since 2010, with on average, 10 to 15 children injured seriously each year.
- The reduction in casualties observed since the millennium might be the result of legislative interventions in 1996, 2001 and 2006 on the construction of vehicles and the use of seat belts.
- In general, children in the UK must wear a seat belt, if available. Most buses and coaches have at least 2-point safety belts (except urban buses with standing passengers).
- German data: Once again, the condition and availability of restraint was not recorded. The German data comprised ‘children’ from birth to 15y, they were killed and seriously injured. There were three fatalities since 2010, with no age breakdown.
- Bus & Coach casualties vs cars, very low

Marta Angles (Chair/IDIADA): Although we see low numbers, when accidents happen, the outcomes are in general serious

Global NCAP presentation (Gonzalo Casas) – (**STCBC-01-03**)

The study was done 10 y ago in Montevideo.

A study performed with G Rodriguez Memorial foundation at the request of School Buses Union from Montevideo highlighted some problems in actual school buses: poor seat structure, sharp edges, inadequate position of the upper belt anchorage. Videos from tests with lap belt only were shown: one with larger space between seats and one with a smaller space. Similarly, a sled test performed at ADAC at 30 km/h with a P10 dummy restrained with a lap belt resulted in a submarining.

A prototype solution including a 3point belt restraint and a seat back comprising energy absorption feature was tested in a 48 km/h sled test.

A joint research project with Mercedes has been conducted. Key points to consider for the scope of the IWG:

- Vehicle structures
- Anchorages, seat belts
- Seats must have ISOFIX / i-Size anchorages

Since 2019, School buses with 3-point belts and adjustable upper anchorages are mandatory in Montevideo.

Thomas – If R80 is made mandatory in Uruguay that will could improve the situation.

Marta – Requiring ISOFIX on these vehicles might go too far

Short presentation by Farid of the Swedish Presentation at GRSP May 2019 session – **STCBC**

01-04

Highlights

Presentation by Shingo Morita of Japan study – (STCBC-01-05)

Research was done focusing on city school buses.

Clarify current situation

Farid Bendjellal (Britax/CLEPA) from previous LAB study:

- Children (and other passengers) not restrained
- Children ejected from the seat, stay in buses or ejected outside

Dinos explained that current collision data shows that some children are injured seriously in buses and coaches, but we don't know whether they were restrained or not, or even whether they were seated in a bus that was required to have seat belts fitted (as urban, city buses are included in the statistics). It is very difficult, therefore, to set priorities. Instead, the main problem is that anyone that wants to provide a child restraint for children is likely to find it very difficult to find a product that is compatible with buses and coaches (unless any seating positions have R16 universal approval)

Rudolf Gerlach (TÜV): Agreed; we have buses with 2 pts belt and CRSs approved with 3 pts!

Can a CRS withstand a loading from a 2 pt belt, need to see if CRS approved with 3 pts can be arranged/adapted to the 2 pts system, need to focus on the main problem: prevent ejection

Louis Martinez (UPM): 2 pts belt only could be a problem, in frontal impact

Dinos/Ronald: it's the problem of compatibility that we have to solve, as CRS are approved for M1 vehicle only

Formulating and describing the problem

- **Unrestrained occupants**
- **Ejection from the seat, or outside of the bus /coach**
- **CRS approved for 3 pts and in M1 and most of buses and coaches may have only 2 pts belt**
- **There are just a few products in the market that are compatible and approved for use for buses and coaches.**
- **For particular buses like in Japan, the problems may be different**

Note FB: some sitting positions are approved under R16 as universal sitting position

Japan would like to see more accident data

3.2.2. Focus. Children age to be focused

Marta asking for input: shall we consider 2 phases, below 3 y and above?

Rudolf: no separation, we should consider the whole age range

Ronald: consider instead the stature rather than age from instance from 40 – to 135cm. need to cover not only school buses but also the regular buses for other purposes.

Conclusion: Need to consider the whole range: birth to 150 cm

3.2.3. Type of accidents on buses and coaches

Question: which type of accident we need to focus on:

Thomas: Rollover could be number 1 followed by frontal. For class 1 (city type) frontal impact is more frequent but with low severity

Decision: To be considered by IWG! Frontal Impact and Rollover

Also IWG to Consult GRSG experts on this

3.2.4. Requirements on M2 and M3 vehicles

Action: Luis and Rudolf to establish a matrix summarising key requirements on M2 and M3 vehicles for next meeting

3.2.5. Restraint System in M2-M3 vehicles

- As M2 vehicles are not “so far” from M1 3 pt belt to be mandatory below 3.5 T. This could allow the use of present CRSs
- For M3 2-point belt acceptable if they fulfil other requirements, we may consider another category of CRS
- Restraint systems could be tested at different levels

Action: look at the pulse in R100 regulation

3.3. Definition of a new regulation – Will be discussed next meeting

3.3.1 Requirements for M2-M3

3.3.2 Requirements for the CRS

3.3.3 Tests to be considered

3.3.4 Test bench

3.3.5 Dummies to be used

3.3.6 CRS and built in CRS

3.3.7 Possibility to use a CRS already approved (R-44/R-129)

4 Work plan of the IWG – (STCBC-01-06)

Plan proposed by Martha was agreed

- 4 meetings per year, with regular reporting to GRSP and GRSG
- Duration of the IWG work 3 years
- Deadline for submitting the New Regulation to GRSP: December 2022

Ronald: Limiting the R129 products use only for M1?

Conclusion: Ronald’s comment to be discussed next time

5 Operating principles – STCh-01-06

Marta’s document discussed and agreed as amended

Terms of Reference: discussed and approved for submission as a formal document for GRSP

session December 2019. (STCh-01-06)

6 Next meetings

30 October, IDIADA, Tarragona Spain

7 A.O.B.

Action Marta: Ask Edoardo if the IWG should wait for WP29 approval of the ToR or can proceed with its planned meetings.