**DRAFT AGENDA**

**SG-EDR-23**

**Conference Call Meeting**

(Secretary Notes in Red)

June 8, 2022

**Time:** Start: CET 13:00, EST 7:00, JST 20:00

End: CET 15:00, EST 9:00, JST 22:00

**Venue:** GoToMeeting Conference Call ONLY

**Contact:** Mr. Scott Schmidt (Cell: +1 202 841 2139)

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**Chairpersons**:  **The Netherlands: Mr. Tim Guiting**

**Japan: Mr. Hidenori Nonaka**

**USA: Mrs. Jane Doherty**

**Secretariat**: OICA Mr. Scott Schmidt

1. **General:**
   1. **Welcome and Introduction**
   2. **Anti-trust rules**

Secretary provided antitrust guidance to industry delegates.

* 1. **Approval of the reports of the previous sessions**

Document: SG-EDR-22-01-Agenda 22nd SG-EDR conference call meeting secretarys notes

Secretary’s notes were adopted as presented.

* 1. **Approval of the agenda**

Document: SG-EDR-23-01-Agenda 23rd SG-EDR conference call meeting rev 1

Agenda was approved as presented.

1. **Discussion regarding potential EDR specifications for heavy duty vehicles**
   1. **Scope and contents of deliverable work products**

Documents: SG-EDR-23-03 - EDR HDV scope – with OICA proposal

SG reviewed the OICA proposed additions to the Scope. The following alternative text was proposed: **[\* Requirements of this regulation are deemed to be fulfilled if the requirements of Regulation 160 are fulfilled.]** Secretary was tasked to update the draft and circulate it for SG-EDR for review and acceptance.

* 1. **Event triggers**

John Steiner provided the SG with additional background/justifications supporting the SAE triggering elements and threshold values. He also indicated that he will be able to provide some additional supporting test data in future calls.

With respect to the ½ second persistence specification for the acceleration trigger, the ½ second is needed to filter out the ABS brake pulses where the wheel momentarily achieves 100% slip (lock-up).

With respect to the Last Stop trigger there were cases where last stop data was lost when the vehicle was moved as part of the crash reconstruction. To prevent this J2728 specifies that, the last stop trigger cannot reoccur (and overwrite data of interest) until the vehicle speed reaches a speed of 24.0 km/h (14.9 mph) or more for a minimum of 6 seconds.

China presented their research and proposal for HD EDR acceleration trigger (SG-EDR-23-04 China Proposal for HVEDR Trigger). In their presentation China concluded/recommended:

* If the threshold of acceleration trigger too big, some important event would not be recorded.
* If the threshold of acceleration trigger too small , too many events would be recorded. And that would present a challenge to the performance and capacity of HVEDR.
* We need to choose a suitable mechanism of acceleration for HVEDR to record more events under the acceptable cost.
  + - 7 km/h/s or lower
    - Integrate more than one conditions (vehicle status, brake or stop)simultaneously

It was noted that 7km/h/s close to the lower acceleration threshold in SAE 2728 (8km/h/s).

Secretary was tasked to add China’s proposal to the SG’s trigger worksheet.

Aptiv noted that R160 has different thresholds for capturing data and writing data and questioned whether J2728 envisions these to be triggers for writing data. SAE replied that for the most part these triggers do result in writing data to non-volatile memory. However, unlike R160, there are no requirements to lock the data and thus it can be subsequentially overwritten.

The concern about losing data due to power loss was discussed. It was noted that some systems, write the data upon triggering and other systems write when the key is turned off or the parking brake applied. Such systems can be prone to losing data when power is lost before those actions are/can be initiated.

Chair tasked OICA to work with SAE (J Steiner) on an updated industry proposal that will include justifications for the J2728 threshold values and incorporate/consider China’s proposal.

* 1. **Data elements**

Documents: SG-EDR-23-02 EDR for Heavy Duty data element-event trigger worksheet inc OICA

Chair indicated that there is not enough time in this meeting to have a substantive discussion on the Data Elements.

Secretary suggested a “speed dating” approach where the SG quickly reviews and identifies the non-controversial (“no brainer”) data element first and highlights them in green before initiating the more detailed discussions needed to agree on the remaining potential data elements. This approach was favourably viewed.

OICA suggested that discussion on the data element could also split consideration of the data elements between “Header Data” and “Rolling Buffer” data elements.

Chair indicated that there will be a dedicated SG meeting (SG-EDR-25) to discuss Data Elements on July 6, 2022, 7-9am (US Eastern). Secretary to circulate calendar invitation for this meeting.

1. **Discussion regarding potential modification of R160 acceleration data element accuracy requirements.**

Documents: SG-EDR-19-02 (TESLA) ECE R160 - EDR Accuracy Assessment

SG-EDR-21-03 SAE EDR Accel & Delta V Tolerance Analysis

SG-EDR-22-04 Proposal for acceleration accuracy verification-China

SG-EDR-23-05 China Proposal for Acceleration Accuracy Validation

China provided a presentation on their work to develop a bench (component) test to validate accelerometer accuracy. The concluded/suggested that:

* Bench test is more feasible to validate the acceleration accuracy.
* Time alignment of acceleration data should be considered.
  + Time aberration can be due to data processing, transmission, and different sample frequencies.
* More EDR experiments are scheduled to be conducted and experiments on this topic are expected to find better solutions.

Aptiv noted that allowing time alignment is key and it will need to be permitted in order make accuracy specification on a bench test viable.

OICA noted that currently the accuracy of the sensors is specified by their primary purpose (e.g., firing an air bag, sensing wheel speed for ABS) and thus the EDR requirements should not specify sensor accuracy (that is already controlled by the functional requirements of the primary system that the sensor supports).

This issue will be further discussed at the next SG meeting. In the meantime, perhaps OICA and China could work off-line to develop a proposed way forward on this issue.

1. **List of action items and schedule of future conference call meetings**

**Next SG meetings:**

June 27, 2022, 7-9am (US Eastern time)

July 6, 2022, 7-9am (US Eastern time)

**Action Items:**

* Secretary was tasked to circulate revised Scope language and solicit comments on the alternative text before the next meeting.
* Secretary was tasked to add China’s proposal on EDR triggers to the SG’s trigger worksheet.
* OICA was tasked to work with SAE (J Steiner) on an updated industry proposal that will include justifications for the J2728 threshold values and incorporate/consider China’s proposal.
* Secretary task to send out calendar invites (and other meeting materials) for the July 6, 2022 SG call dedicated to “Data elements”.

1. **Adjourn**