

IWG on EDR/DSSAD Status Report

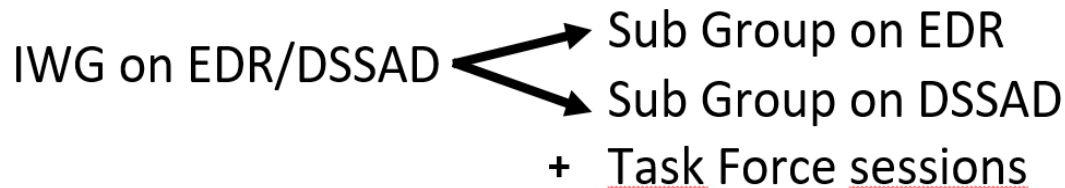
October 2023

Background IWG on EDR/DSSAD

In accordance with the 'Framework Document on automated/autonomous Vehicles' (WP.29-178 June 2019):



The IWG shall develop draft proposals for Event Data Recorder (EDR) for conventional vehicles and automated/autonomous vehicles and for Data Storage System for Automated Driving (DSSAD).



Broad participation (CPs to the 1958 and 1998 Agreements, industry, accident reconstructionists, etc.)

Organisation

Chairpersons:

The Netherlands:	Mr. Tim Guiting
Japan:	Mr. Hisao Matsukawa - NEW
USA:	Mrs. Jane Doherty

Secretariat:

OICA	Mr. Mike Hernandez – NEW
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Activities since GRSG-125:

1 3-day hybrid IWG session.

9 virtual IWG sessions, including:

- Sub Groups on DSSAD,
- Sub Groups on EDR,
- Task Force on Data Elements.

Activities

EDR	DSSAD
<u>Completed:</u>	
<ul style="list-style-type: none">• EDR Performance Elements appropriate for Adoption in 1958 and 1998 Agreement Resolutions or Regulations. → UN Reg. 160 on EDR for light duty.	<ul style="list-style-type: none">• DSSAD requirements within UN Regulation 157 on ALKS (and update)
<ul style="list-style-type: none">• UN Reg. 160 01 and 02 Series, and Supplements 1 and 2.	<ul style="list-style-type: none">• Primary purposes of DSSAD, Prioritization of discussion topics.
<u>Current:</u>	
<ul style="list-style-type: none">• EDR for Heavy Duty Vehicles. (GRSG-126-02)	<ul style="list-style-type: none">• DSSAD performance elements guidance document (June 2024). (working doc. EDR-DSSAD-23)
<ul style="list-style-type: none">• EDR performance elements for ADS (June 2024).	<p>(See status report GRVA-17-28)</p>
<u>Future:</u>	
<ul style="list-style-type: none">• EDR Step 2, future and advanced requirements (Nov. 2024, GRSG-126-09)	

State of play - EDR for HDVs

The IWG developed proposals on EDR for Heavy Duty Vehicles (trucks and busses):

- **‘Guidance document on EDR for HDV appropriate for adoption in 1958 and 1998 Agreement Resolutions or Regulations’**
ECE/TRANS/WP29/GRSG/2023/14 amended by GRSG-125-08.
More consideration by the IWG on this document is necessary.
- **‘UN Regulation on EDR for HDV’**
GRSG-126-02 superseding ECE/TRANS/WP29/GRSG/2023/13 as amended by GRSG-125-07 and as transposed into official document ECE/TRANS/WP.29/2023/134 for WP.29 Nov. 2023.

GRSG is invited to consider proposal GRSG-126-02

State of play - EDR for HDVs

- Heavy duty vehicle requirements based on:
 - EDR for light duty vehicles,
 - SAE J2728,
 - data, analyses, research from IWG delegates.
- Unique is triggering, how to trigger a crash event:
 - **acceleration trigger**: but usually low delta-v (due to large weight disparity between HDV and LDV/VRU);
 - **safety system trigger**: but HDVs often not equipped with SRS, etc.;
 - **last stop trigger**: captures an event when the vehicle has come to a complete stop for a period of time, but data is collected of many non-crash related events.
- Survivability testing: instead of whole vehicle crash testing, optional component test based on UN R100 introduced.
- Data elements.

State of play - EDR for HDVs

Yet undecided:

- Inclusion of [last stop] trigger.
- The IWG agrees that, instead of the EDR-HDV requirements, manufacturers may comply with the EDR-LDV requirements for vehicles with GVW up to 8/12t, but
 - not agreed whether this should be addressed in the scope or in the approval section (Par. 4), and
 - not agreed whether for GVW between 8-12t, an additional demonstration by the manufacturer to the approval authority is necessary to evidence effective triggering.

GRSG is invited to consider these issues

State of play - EDR for ADS

The IWG is focusing on discussing the 'DSSAD Performance Elements Guidance Document' to submit to WP.29 June 2024. This includes EDR for ADS.

(Working document [EDR-DSSAD-23](#))

State of play - EDR Step 2

The IWG already identified some issues that may need to be part of the 'Step 2' future and advanced requirements.

See [GRSG-126-09](#) (for informational purposes only).

This may include additional data elements, new triggering criteria (e.g. 'jerk'), durability provisions and test procedures in particular reinforcing data survivability requirements including fire resistance and water penetration.

The next IWG EDR-activities will focus on:

- updating the inventory of all items to be considered under EDR Step 2,
- substantial discussions on requirements for each of these items.

IWG on EDR/DDSAD deliverables/timelines

GRSG Programme of Work, on EDR:
(ECE/TRANS/WP.29/2023/1/Rev.2)

Table 6 Subjects under consideration by the Working Party on General Safety Provisions (GRSG)

Title	Tasks / Deliverables	References	Timeline (GRSG adoption)	Timeline (WP.29 adoption)
EDR	EDR performance elements for ADS		Oct 2023 Apr 2024	June 2024
EDR	Common technical elements document for creation of a UN regulation on EDR for heavy duty vehicles (trucks and busses)	GRSG-126-02	{ Mar 2023 } {Oct 2023}	{Nov 2023} { Mar 2024 }
EDR	EDR Step#2 - consideration of amendments to Step#1 requirements		Oct 2023 Oct 2024	Mar 2024 Mar 2025

Thank you for your attention!