This document, transmitted by the Co-Chairs of the IWG on EDR-DSSAD, provides the GRVA with the current draft of the Data Storage Requirements for Draft ALKS Regulation. Since there are aspects of this draft where the Contracting Parties have not achieved consensus, they welcome any guidance the GRVA can provide on the sections in brackets.

Data Storage Requirements for Draft ALKS Regulation

CP discussion on 1/30/20

Scope: National and regional laws may provide for additional requirements regarding the data elements collected and their availability. This Regulation is without prejudice to national and regional laws governing access to data, privacy and data protection.

1.   Specifications

Each vehicle equipped with an ALKS shall be fitted with a DSSAD that meets the requirements specified below:

2.   Recorded occurrences

Each vehicle equipped with a DSSAD shall at least record an entry for each of the following occurrences:

    a)   Activation of the ALKS

    b)   Deactivation of the ALKS

        1.   Use of dedicated means for the driver to deactivate the system

        2.   Override on steering control

        3.   Override by accelerator control while holding steering control

        4.   Override by braking control while holding steering control

    c)   Transition Demand by the ALKS, (due to:

        1.   Planned event

        2.   Unplanned event

        3.   Driver unavailability

        4.   ALKS failure

5. System override by braking input

6. System override by accelerator input

d) Suppression of driver input

e) Emergency Maneuver

f) Detected risk of imminent collision by ALKS system

g) Detected end of imminent risk of collision by ALKS system

h) EDR trigger input

i) [Collision detected by ALKS system]

j) Minimal Risk Maneuver engagement by the ALKS

k) Severe ALKS failure

l) Severe vehicle failure

m) [Lane crossing event

n) Software update relevant to the ALKS

o) Windscreen wipers on

p) Windscreen wipers off

q) Headlamp on

r) Headlamp off]

3. Data Elements

For each event listed in Section 2, the DSSAD shall record the following data elements in a clearly identifiable way:

- The occurrence flag, as listed in section 2

- Reason for the occurrence, as appropriate, and listed in Section 2.

- [Old and new software versions in the event of a software update]

- Date

- Timestamp

A single timestamp may be allowed for multiple elements recorded simultaneously within the timing resolution of the specific data elements. If more than one element is recorded with the same timestamp, the information from the individual elements should indicate the chronological order.

4.   Data availability

DSSAD data shall be available subject to requirements of national and regional law [1].

Once these storage limits of the DSSAD are achieved, existing data may be overwritten following a first in first out procedure.

The data shall be retrievable even after an impact of a severity level set by UN-R94, /95 or /137, or other relevant national crash test procedures. 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.

Data stored in the DSSAD can shall be easily readable in a standardized way via the use of an electronic communication interface, at least through the standard interface (OBD port).

Instructions from the manufacturer shall be provided on how to access the data.

5.   Protection against manipulation

It shall be ensured that there is adequate protection against manipulation of stored data

such as anti-tampering design. (this language can be deleted pending confirmation that this is covered by cybersecurity

x.x Definitions:

Define "occurrences" [the action, fact or instance of occurring.   Something that happens, event or incident.]

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[1] (NOTE: Based on a recent CP data study, the IWG on EDR/DSSAD is considering that the text specifies several timestamps specifications of 2500 timestamps to correspond with a period of 6 months of use.