

Draft REPORT

16th meeting of GRRF Informal Working Group on Automatically Commanded Steering Function

Venue: AP Ichigaya - 1-10 Goban-cho Chiyoda-ku, Tokyo Japan
Chairman: Mr. Hiroshi Morimoto (J) and Mr. Christian Theis (D)
Secretariat: Mr. Jochen Schaefer (CLEPA)
Dates: 23. – 25. January 2018
Website: [ACSF 16th session](#)

1. Participants:

see special attachment

2. Welcome and Introduction

The chairmen welcomed the delegates to the 16th session of the IWG ACSF.

3. Approval of the report of the 15th Session

The report of the 15th Session was approved by the delegates

[ACSF-15-15-Rev.1 - \(Secretary\) Report of 15th session](#)

4. Approval of the agenda

The agenda was adopted and confirmed by the delegates without amendments.

[ACSF-16-02-Rev.2 - \(Chair\) Agenda 16th session](#)

Abbreviations used in this document :

LC: Lane Change
DI: Direction Indicator
TS: Technical Service
VM: Vehicle manufacturer
IWG: Informal Working Group

5. List of Documents:

IG ACSF - 16. Meeting (Tokyo, 23. - 25. January 2018)	UNECE WEBSITE (editable)
ACSF-16-01 - (Secretary) - Info to the 16th meeting	Doku
ACSF-16-02 - (Chair) Provisional agenda 16th session	Doku Rev.1
ACSF-16-03 - (Sweden) Preliminary Position to ACSF of Categories C2 and B2	Doku
ACSF-16-04 - (OICA) Proposal for ACSF C2	Doku
ACSF-16-05 - (OICA) Category B2 with Level2 and-or Level3	Doku
ACSF-16-06 - (OICA and CLEPA) Industry expectations on B2 and C2	Doku
ACSF-16-07 - (OICA and CLEPA)- Draft Amendment for ACSF C2	Doku
ACSF-16-08 - (OICA) Take Over Request for Level 3_systems	Doku
ACSF-16-09 - (Germany) Proposal, how to proceed with Category B2	Doku
ACSF-16-10 - (OICA) Draft Amendment for 2-step HMI ACSF C	Doku
ACSF-16-11 - (Secretary) Provisions for Category 2 - Level 3 - drafted while the 16th session	Doku

6. Target of the meeting

Target of the meeting was to define basic requirements on Category B2. With regard to Level 3 the chairman remind the delegates, that there is a comment from B. Frost (Chairman of GRRF) that the next steps in defining Level 3 requirements should be agreed by GRRF and WP.29. The basic requirements shall be presented to GRRF in the 86th session.

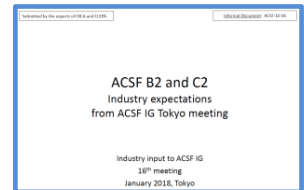
7. Industry position on ACSF Categories C2 and B2

7.1. OICA presented [ACSF-16-06](#):

They explained which systems have been regulated in the last sessions of the IWG ACSF.

Industry interest to:

- develop requirements for Cat B2 based on Level 2 and Level 3
- drafting requirements for C2 (special interest for HCVs)

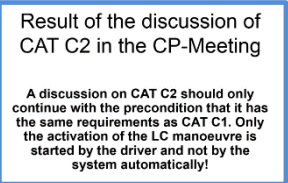


(EC): Is CAT B2 more important as CAT C2?

(OICA): both in parallel.

7.1.1. CAT C2:

(Chair-D, in the following C-D): presented a summary of the discussion in the CP-meeting, which has taken place prior to this meeting. The CPs, who have participated in the CP-meeting request, that also for a CAT C2 system (especially the rear monitoring) should be the same as required for a CAT C1 system.



(OICA): The CAT C2 system would have two actions by the driver. CAT C1 is starting the LC-manoevre automatically, so we believe, that the monitoring to the rear is only necessary for CAT C1 and not for CAT C2.

(C-D): CPs discussed the need for the rear monitoring for the CAT C2 system. The conclusion of the discussion was, that the CPs cannot agree to a reduced performance of the rear monitoring e.g. with Blind Spot only.

CPs can only agree to the second action, but not to reduce the requirements for the rear monitoring.

(OICA): Then we have no solution for HCVs, as trucks have better mirrors as passenger vehicles, there should be a solution for HCVs with Blind Spot only possible.

(NL): Is not in favour of CAT C2 at all.

(C-D): Does not see advantages for trucks at all, as the driver has to “override” the CAT B1 function in any case. Thinks the Blind Spot is not sufficient.

(OICA): Thinks it will support the driver.

(C-D): In the CP-meeting, there was no support for an exemption for trucks.

HOMEWORK: In case OICA is still interested in CAT C2, they shall provide a new proposal for the next meeting considering the decisions of this meeting, incl. initiation by the driver and the necessary test procedures.

7.1.2. CAT B2 – Level 2 or Level 3

(Chair-J in the following C-J): What are the expectations from industry to CAT B2 with Level 2 and/or Level 3.

OICA presented [ACSF-16-05](#)

(D): How do you want to avoid, that the driver is doing side tasks?

(OICA): e.g. with a camera.

(EC): Is the Operational Design Domain (ODD) for Level 2 and Level 3 different?

(OICA): Yes, the system performance can be different.

(D): Is there a difference in the transition time, as also a Level 2 system with hands off will definitely have a transition time?

(OICA): If we consider the “hands movement” we may have to consider ~1s at a Level 2 system.

(EC): How do you want to maintain the driver in the loop at a Level 2 system?

In his view, this would require a very complex system for the driver monitoring.

(NL): If you have a hands off system, the driver will think he has an automatic system and gets punished if he is doing something (which is not allowed). We should concentrate on Level 3.

(OICA): We think there is a need for both, Level 2 and Level 3.

(EC): Is there a priority for Level 2 or Level 3?

(OICA): No.

(C-D): Can we assure to have a driver monitoring as necessary (e.g. when the driver has sun glasses)?

(OICA): A 100% detection is not possible. If sun glasses are detected, the function will be disabled. In a traffic jam this is a clear advantage for the driver.

(C-D): Understands the traffic jam, but is it really useful, if you are not allowed to do anything?

It is an “offer” for the driver to misuse the system!

(OICA): Yes, the benefit for the driver with a Level 3 system is definitely higher.

(C-D): Are there studies available, which prove, that the driver wants to remove the hands from the steering wheel without doing any side task?

Believe, that it is not realistic that the driver is **not** doing anything else.

(C-J): Can OICA prioritize Level 2 or Level 3?

(OICA): No.

(C-D): Can OICA Propose, what doing first?

(OICA): No preference.

(NL): Proposes to start with Level 3, as they do not see the need for Level 2.

(D): Start with Level 3

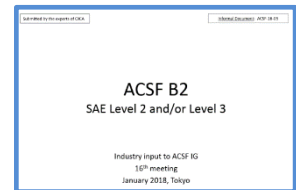
(ROK): Start with Level 3

(EC): Start with Level 3

(J): Both Levels are needed. Start with Level 3 is ok.

(F): Start with Level 3

(C-D): Decision: Start with Level 3, but not “throw away” Level 2 – maybe GRRF should decide.



8. Requirements Category B2 with Level 3

Based on the document from D: [ACSF-16-09](#)
and the OICA document: [ACSF-16-05](#)
a new document [ACSF-16-11](#) was created within the meeting.

Target of the document, which should be used for a presentation of the outcome at the next GRRF, was to collect some basic/fundamental requirements, which shall be used for the definition of the requirements for a category B2 system for a Level 3.

Highlights of the discussion:

Detection of a police officer/emergency vehicle:

There was a lengthy discussion, whether/how a detection of a signal of a police officer and/or the detection of the sirens of an emergency vehicle can be realized, in case the driver is doing a side task.

It was clear, that the driver has the task to be vigilant, but this is more or less dedicated to “listen”.

The discussion was finalized without conclusion.

Automatically switch of the system: Level 2 ↔ Level 3

(OICA): Yes, this should be open for the vehicle manufacturer to do or not.

(NL): It should be clear, that the driver is always aware of the current CAT/Level. He prefers a manual and not an automatically switch between the Levels.

CAT B2 – Level 3: only on highways*?

After a discussion it was *decided, that the CAT B2 – Level 3 system should only be possible on highways**. Further ODDs should be discussed later, e.g. as the CAT B2 system has no overtake function, the use on roads with single lanes may be permitted *: Highway means a road section as defined in CAT C.

CPs view to have CAT B2 with Level 3 in Regulation 79 or in a new regulation:

(NL): Thinks, if we have to include requirements for e.g. braking, a new regulation will be appropriate.

(D): Including in Regulation 79

(J): Including in Regulation 79

(ROK): no position

(EC): Prefers a new regulation

(F): no position

Dynamic driving task and transition time:

It was clear, that the system must perform all dynamic driving tasks during the “active” time and also while the transition period (police officer see above).

The transition time is currently defined to 4 seconds.

HOMEWORK: J and D (BAST) to provide a new study in the next meeting.

Minimal Risk Manoeuvre (MRM):

(OICA): We should keep it open.

(Secr.): Strongly supports to have a “may”, as the behaviour law (at least in D) does not permit the stop of the vehicle within the lane or the emergency lane without “emergency reason”. It should not be mandated, that the system has to decide, whether there is an “emergency reason” or not.

(NL): Proposes to have a MRM as there is no reason for the driver not to react.

Conclusion: MRM remains in the proposal and may be discussed later.

Human Machine Interface (HMI):

(C-D): Is the monitoring system detecting, that the driver is not using the on-board systems?

(OICA): This is not possible and not necessary.

(C-D): Is it necessary to define the side task, which can be done by the driver.

Proposal by the secretary:

Would it not be the solution, that the driver can do everything, provided, that he is able to resume control within the transition time.

(NL): Supports this proposal

(D): supports this as well.

(C-D): But it has to be clarified, how this can be combined with the traffic behaviour law. At the moment it is not allowed to e.g. watch videos – this should be clear!

For details of the result of this discussions see:

[ACSF-16-11 - \(Secretary\) Provisions for Category 2 - Level 3 - drafted while the 16th session](#)

9. Secretariat

Jochen Schaefer, Secretary of the Informal Group will retire end of February.

The chairmen thanked him for the work in the last 16 sessions.

The successor will be Rudolf Gerlach (gerlach@de.tuv.com) from TÜV-Rheinland.

10. Next meetings

GRRF-86, Geneva (CH)

12.-16. February 2018

ACSF17, Paris (F)

10.-12. April 2018