

Report on the 61st JASIC Asia Expert Meeting in Cambodia

Created: March 13, 2020

Dates: February 5, 2020 9:00 - 17:00

: February 6, 2020 8:30 - 16:30

Place: Conference Room, Ministry of Industry and Handicraft Institute of Standards of Cambodia (MIH-ISC), Cambodia

Participants

Cambodia: MIH-ISC

Mr. Chan Sopha, Director General, and 19 other people

MOP	1
MOLVT	1
MOE	1
MLMUPC	1
MOC	1
Consumers	2
Importers	4

Japan: NTSEL: Mr. Takuya Watanabe, Mr. Wataru Nishimura

JAMA: Mr. Satoshi Watanabe, Mr. Yosuke Ito

JASIC Jakarta Office: Mr. Nakatani

JASIC: Mr. Ishibashi

Overview:

- In response to a request from MIH-ISC for an expert meeting on 19 UN

Regulations and results of adjustments, a meeting was held to explain the technical requirements and test procedures of 10 UNRs (R13, R13H, R17, R25, R28, R39, R41, R46, R51, and R79) as well as a presentation on UNRs and the 1958 Agreement.

- In response to a call from MIH-ISC, many other ministries and agencies sent their members to the meeting, including the Ministry of Planning (MoP), the Ministry of Environment (MoE), the Ministry of Labour and Vocational Training (MoLVT), the Ministry of Land Management, Urban Planning and Construction (MLMUPC), and the Ministry of Commerce (MoC).

- The presentations by Japanese experts were followed by many questions from the audience, suggesting an increasing interest among the government and industry officials in the UN Regulations the government has decided to adopt in the years to come. The questions revealed that the level of understanding among the officials was still low as to the purpose, the necessity, and the technical aspects of those regulations. The questions covered generally basic interest in the specifications and use of motorcycles and four-wheeled vehicles people are familiar with in the country or comments based on impressions.

- The meeting was followed by an exchange of information and views among participants on the versions of UNRs to be adopted in Cambodia, how to manage them, and future direction of activities.

Day 1: Wednesday, February 5, 2020

1. Opening Speeches

1.1 Welcome speech by Mr. Chan Sopha, Director General, MIH-ISC

On behalf of the MIH-ISC, I would like to thank all Japanese experts for coming to help us. The regulations that you are going to present are important regulations for Cambodia, on which we have been working since 2016, they have

been adopted as national regulations. When we adopt it as a domestic regulation, we need to implement it within three months, but we keep postponing the implementation. What is happening is that, through discussions with importers, we managed to adopt certain regulations for categories M1 and N1 in 2020. We have imported more than 50 kinds of vehicles, all of them being in compliance with the regulations. That said we are facing various challenges in implementing the regulations, realizing we are yet to learn a lot more to advance. This meeting will be a good opportunity for us to learn more about regulations and testing. We would appreciate if you could teach us how to do on-site inspections as necessary.

1.2 Greeting by Mr. Ikuo Nakatani of JASIC Jakarta Office

On behalf of Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and JASIC, I would like to give my greetings. First of all, I would like to thank you all for participating in this meeting. I would like to thank Mr. Chan Sopha, Director General, MIH-ISC and all other people at MIH-ISC for organizing this meeting. The purpose of this JASIC Expert Meeting is twofold. The first is to share the UN regulations with you all in Cambodia and the second is to promote the cooperation between the peoples of Asia through this Expert Meeting. Japan is well aware that the ASEAN has been working hard to make MRA a reality. In this meeting, we are going to share with you what the regulations are coming under the ASEAN MRA and what the certification criteria are. What we are talking about reflects the latest developments of UN regulations, so please feel free to ask questions at any time during our presentations. In closing, I hope this meeting can contribute to the development of the Cambodian government and the automotive industry. Thank you.

2. Expert Meeting

2.1 Overview of the UN Regulations and the 1958 Agreement

Mr. Nakatani from JASIC Jakarta Office gave a presentation on the overview of the UN Regulations and the 1958 Agreement, which was followed by a Q&A session.

Q&A

Q: Can I understand that, on Slide 13 on vehicle categories, three-wheelers are classified into Category L?

Another question: Which category do vehicles with three or more axes fall into?

A: Three-wheelers are in Category L.

Trucks are judged by their weight, regardless of the number of axles.

Q: In Cambodia, some trucks are modified to carry more than 7 tons. Will those kinds of trucks be prohibited from running?

A: Every truck is specified up to how much load it can withstand. All modification to a truck beyond that limit isn't acceptable. If a 5-ton truck is modified to a 7-ton truck, it changes from a truck of Category N1 to that of Category N2 and the applicable regulation changes to that for Category N2.

Q: What is the maximum loading capacity of trucks in Japan?

A: Depends on the conditions of the road you take, but the maximum loading capacity of trucks in Japan is 25 tons. There are special cases where you carry railroad cars. Then the question is whether the road withstand such a load. So sometimes you carry more than that, basically it's 25 tons.

Q: In Japan, which ministry is in charge of IWVTA certification?

A: It is MLIT that is in charge of IWVTA certification. Slide 11 depicts the type approval system. The manufacturer files an application with MLIT. MLIT has NTSEL check its compliance with regulations. Once conformity is confirmed, MLIT issues a certificate.

Q: In future, Cambodia will join the 1958 Agreement, but not yet now. Is there any problem with using UNRs in such a status?

A: In general, I'd like to recommend you think very carefully which UN regulations you should adopt in the first stage. Even if you bring latest hi-tech UN regulations into ASEAN *as is*, you might have difficulty localizing them effectively.

Q: Why? Looking at how the automotive industry is in Cambodia, there wouldn't be any problem in adopting the latest UN regulations, would we?

A: If you discuss with the automotive industry in advance and decide together, then it will be OK.

Q: Which of the 57 countries have adopted IWVTA?

A: IWVTA is defined in UN0. Not all of the 57 countries have adopted it, but Japan and European countries have adopted them. UN0 has been around since April last year and Japan has issued certification.

2.2 Technical requirements of R28

Mr. Watanabe from JAMA explained the technical requirements of R28

Q&A

Q: Has R28 differed from the old version?

A: You asked if the basic requirements have changed from the original, right? Yes, the minimum sound pressure on board has lowered in the new version, since urban environment is now quieter.

Q: The R28 used in Cambodia is Revision 1. Revision 1 does not have Category L.

A: The one we presented today is the latest version.

Q: The reason I asked this question is that I wanted to know if there's any difference between Revision 1 and the latest version.

A: Now, let me ask you a question the other way. The application plan MIH announced last year showed no revision number for R28. Does that mean that you can't use but Revision 1 or you can use any version up to the latest one?

Q: It's only Revision 1 published in 1972. Applying the latest version would affect production plants so we adopted 1972 version (This matter is discussed below in Q&A on UNR adoption plan for Cambodia.)

A: Can we use both Revision 1 and the latest version?

Q: Only Revision 1 applies, so conforming to the latest version doesn't pose any problem.

2.3 Organization and activities of NTSEL; overview of R28 testing procedure

Mr. Watanabe from NTSEL presented the organization and activities of NTSEL and then the overview of R28 testing procedures.

Q&A

Q: How does NTSEL determine the test items?

A: We determine test items in consultation with manufacturers.

Q: Is NTSEL a national agency?

A: It carries out activities in facilities provided by the government, but it's an organization independent from the government.

Q: If a company is capable of doing reliable tests on its own, will the government allow it to do tests on its own?

A: If it's really capable, yes, it's possible the government gives it such an authority.

2.4 Overview of technical requirements of R39

Mr. Ito from JAMA gave an overview of the technical requirements of R39.

Q&A

Q: If a customer riding a car with R14 tyres when shipped changes to R16 tyres, does the speed meter display change?

A: The tyre size is not determined only by R14 and R16, but by considering also many other factors such as rubber thickness, etc.

Q: In my experience, there was about 2 km/h difference in actual speed between R14 and R15 tyres.

A: It depends on also where you measure the speed. If you measure the speed from the transmission, changing tyres changes the speed.

That said, I understand that there is certain difference as you say.

Q: In my opinion, I think it makes about 5% different as the tyres get bigger.

A: When you use tyres different from those recommended by manufacturers, that can make an unexpected difference.

2.5 Overview of testing procedures of R39

Mr. Watanabe from NTSEL gave an overview of testing procedures of R39.

Q&A

Q: Where is the sensor on the fifth wheel?

A: It is about in this area of the photo.

Q: What does the plate serve that you see in front of the fifth wheel?

A: The plate serves to connect the fifth wheel with the vehicle.

Q: Where do you see the speed from?

A: There is a separate display unit.

Q: Is the monitor together or separate?

A: Depends on the product, but usually the monitor is somewhere else. It's not in this photo, either.

Q: What is the official name of the test equipment?

A: It's called Fifth Wheel.

Q: If a factory produces 1,000 vehicles, do you need to make measurements with each of the 1,000 vehicles?

A: Measuring one vehicle is sufficient at the type approval stage.

Q: Do we need to calibrate test equipment?

A: Yes, you ask an outside calibration agency to calibrate them.

Q: What are the names of devices that calibrate those devices?

A: I don't know well.

A: Ask the manufacturer who made the test equipment to calibrate them.

Q: Is this the same method as calibrating a tachometer?

A: The idea is the same.

Q: There was no mention of head-up displays on the windshield or of the speedometer on a motorcycle.

A: What to do is the same for motorcycles. As for the head-up display, we don't regard it as a display device because its speedometer isn't in compliance with R39. There's no mention of head-up displays in the report of UN regulations. It is only talked about in the manufacturer's manual.

Q: But head-up displays are becoming more and more important. Don't you think it's in the report?

A: It's not mentioned in the requirements for certification. For the time being, the consensus is it's not necessary.

2.6 Overview of the technical requirements in R46

Mr. Watanabe from JAMA overviewed the technical requirements in R46.

No questions asked.

2.7 Overview of the testing procedures in R46

Mr. Watanabe from NTSEL overviewed the testing procedures in R46.

No questions asked.

2.8 Overview of the technical requirements for R17 and R25

Mr. Ito from JAMA overviewed the technical requirements for R17 and R25

No questions asked.

Day 2: Thursday, February 6, 2020

2.9 Overview of the testing procedures of R17 and R25

Mr. Nishimura from NTSEL gave an overview of the testing procedures of R17 and R25.

No questions asked.

2.10 Overview of the technical requirements of R13 and R13H

Mr. Watanabe from JAMA gave an overview of the technical requirements of R13 and R13H.

Q&A

Q: Does an electric parking brake (EPB) slow the car down if a child turns it on while driving?

A: Yes, it slows it down. There is no provision in the regulation, but to prevent malfunctioning, it is designed in such a way, for example, that, even if you apply EPB it won't work unless you hold the button for 2 seconds or so while pulling it up.

Q: I've seen the brakes worked when you just pressed the button. Wouldn't it be better to set EPB disabled?

A: That, it's hard to say. What you think about safety varies from a manufacturer to another. One of the reasons EPBs have spread is that, to respond to advanced technologies and automated driving, etc., more and more people want to see the parking brake, too, automatically controlled.

Q: It's not good to have it activated while running at a high speed. Shouldn't we prevent EPB from being activated while driving?

A: I know what you mean. If we will have many accidents from misused EPB, we might see amendments proposed to UN regulations for prohibitional requirements.

Q: The parking brake generally applies to the rear wheels. How about the EPB? Does it apply to all the wheels or to the rear wheels?

A: To the rear wheels only. Technically it works the same way as a manual brake. A motor winds up the wires instead of a hand.

Q: Does the EPB work with the engine off?

A: It only works when the power is on.

Q: With latest models, you step on the service brake at a stoplight and the parking brake is applied. You press the accelerator and it's released. With certain models, you press the button and it's activated. Talking about auto hold.

A: The current regulation doesn't say you can't automatically control the parking

brake. European automakers particularly like auto hold. How to use the hold switch is not written in the regulation, but the certifying bodies that check those vehicles with the EPB for compliance with the regulation make sure the EPB is designed to work safely before sending them to the market. If you find yourself in such a position, you will need to make black-and-white decisions on those gray areas.

Q: If the EPB fails and doesn't work, the automaker says you can set the lever into gear. If it's a gasoline car, it's OK, but, with a diesel car, it can be dangerous if you parked it on a slope because it's compression ignition.

A: I've also had to push my car after the battery ran out, but if the power isn't on, the engine won't start whether it's a diesel car or a gasoline car. Further, the compression force is so strong the car stays parked.

Q: The reason I asked the question is I remembered what I learned from a college teacher back in 1987.

Q: How about when you are driving a car with an ESC and one of the rear brakes failed. Do you keep your stability?

A: If the ESC fails, you cannot keep stability, but the warning light comes on and tells you to repair it.

Q: In some recent models, the rear-wheel cylinders themselves are electrically powered and can work either hardly or softly (electric suspension, etc.). If a cylinder fails, how long can you keep the car stable?

A: Performance isn't guaranteed during a failure. If the EPB fails, the warning lamp comes on and tells you the performance isn't ensured.

2.11 Overview of the test procedures of R13 and R13H

Mr. Watanabe from NTSEL gave an overview of the test procedures of R13 and R13H.

Q&A

Q: How do you carry out a recall?

A: The automaker notifies the customer of the recall by mail, have them take the vehicle to the dealer. The automaker repairs and returns it.

Q: Automakers produce vehicles, have them certified by NTSEL and ship them to the market, but if automakers are cunning, won't they lower the quality and sell them?

A: There is a misunderstanding. NTSEL tests and certifies vehicles, but the automakers need to make the same vehicles for sale. MLIT makes sure automakers make the same vehicles. They go to the factory and audit the whole production process and make sure they make the same vehicles as those certified.

Q: NIPPON DENSO manufactures and sells automotive parts, but there are variations in the quality and value of the same ND product made in China, Thailand, and Malaysia. I guess ND components and products are originally tested and certified by NTSEL, but I suspect what actually circulates outside Japan is of different quality and specifications than those certified by NTSEL, because when I use them, I find the quality and price are different. In those cases, isn't it meaningless that NTSEL, who gave the certification, do the test?

A: The definition of using the same parts means that there is no change in the compliance with the regulation for the same parts. If the materials and durability of the parts change significantly, then they are judged not to be the same parts. If MLIT finds that the manufacturer uses materials and parts different from those tested by NTSEL, then the ministry revokes the type approval. The manufacturer finds itself severely penalized, not only the type approval revoked but also selling the vehicles discontinued. And if a vehicle is found no longer in compliance with relevant UNRs, the automaker will be ordered to recall all those sold. Furthermore, the vehicle will no longer pass the vehicle inspection in Japan. If all that happens, the automaker would go bankrupt, so there's no automakers

in Japan and worldwide who would cheat as you say.

Q: Is there a rule for the frequency of that MLIT visit, such as annually or every few years?

A: Usually they visit the factory once a year. Beside the onsite inspection, they gather a variety of information. They listen to motorists' voices about defects, etc. If there are specific complaints, they do focused investigation into the manufacturers.

2.12 Overview of the ABS test procedure

Mr. Watanabe from NTSEL gave an overview of ABS test procedure.

Q&A

Q: Is there any technology for trailers that allows you to stop at 2 to 3 meters from the point you suddenly hit the brakes?

A: The stopping distance of 70 meters is a legal requirement. In reality you can stop at shorter distances, but I've never seen any vehicle that can stop at 2 to 3 meters.

Q: I've seen a video of loaded trailers stopping. What kind of system is that?

A: There's a new regulation called R131. They keep sensing distance with preceding vehicles. That kind of vehicles are already in circulation.

Q: There's a Ford model, of which the braking system activates a pre-conditioned assist when running at 80 km/h or below and automatically activates the brakes.

A: Various manufacturers are introducing various types of automation. In Japan, too, some cars detect people and stop automatically.

Q: There's a new car that Toyota introduced in 2020 with an automatic sensing brake system called TSS. The system detects obstacles with cameras and automatically applies the brakes.

2.13 Overview of the technical requirements for the R79

Mr. Ito from JAMA gave an overview of the technical requirements for the R79.

2.14 Overview of the test procedures of R79

Mr. Watanabe from NTSEL gave an overview of the test procedures of the R79.

Q&A

Q: Does the steering system of tractors carrying agricultural materials need to be tested?

A: Not required in Japan.

Q: When testing vehicles at maximum speeds, is there someone onboard?

A: Yes, there's always a driver onboard.

2.15 Overview of the technical requirements of R51

Mr. Watanabe from JAMA gave an overview of the technical requirements of R51.

Q&A

Q: What is the distance between A and B on the test track?

A: The distance A - B is 20 meters.

Q: I believe asbestos is banned in Japan, but what material do you use inside the muffler?

A: Mainly glass wool, thin glass fibers woven in sheet.

2.16 Technical requirements for R41

Mr. Ito from JAMA described the technical requirements for R41.

2.17 Overview of the test procedures of R51

Mr. Watanabe from NTSEL gave an overview of the test procedures of R51.

Q&A

Q: What is the vehicle speed between A and B?

A: The test starts at 50 km/h, the accelerator pressed down to the floor. The speed varies with the vehicle's performance. Measurement is done but not recorded.

Q: What are the noise levels of Japanese living environment?

A: The level of sounds in mountains and rivers is less than 40 dB(A). If there are birds chirping, etc. the level may rise to 50 dB(A).

Q: Where does NTSEL do its tests?

A: (Shows the test sites with photos).

Q: Why do you take measurements at an angle of $45^\circ \pm 5^\circ$?

A: If you measure from right behind the car, you end up measuring the wind pressure. If you measure right from the side, you can't measure sounds.

Q: There are three devices you can use when measuring the vehicle speed: GPS, the fifth wheel, and the speedometer, but which one is used for the noise test?

A: Anything is OK, but it's better to avoid the fifth-wheel, because you pick up extra noise through vibration.

Q: When NTSEL chooses a device to measure the speed with, who makes the decision and how? Is there any rule?

A: We use GPS as a result of comprehensive judgement.

Q: When testing motorcycles under R41, you must use a microphone. Is that written somewhere in the regulation?

A: Yes, it's written there. The same as four-wheel vehicles.

Q&A on Cambodia's UNR introduction plan (Q: Japan, A: MIH)

Q: Regarding your UNR introduction plan you announced on your website late last year, could you tell us how you plan to proceed with the UNR series?

A: It is still a clean slate. We can choose from what's decided under ASEAN MRA and the latest series of amendments, but basically it will be what's decided under ASEAN MRA.

Q: The UNRs on tyres and glass have been in operation since January and some products have been certified. The conformity report submitted at the time does not reflect the latest series. According to the information from CAIF, it is concluded in discussion with MIH that any of the series would be OK. Am I correct?

A: The series to be adopted have not been clearly decided yet. Cambodia will adopt what the ASEAN MRA decides to adopt. At present, there is no problem in your adopting any series in the reports you submit.

We are going to adopt the Euro 4 EM regulation, since the fuels we currently use on the Cambodian market is Euro 4.

Q: According to the materials MIH published in December 2019 (see attached), you plan to implement R83 in 2024, while MoE has announced that Euro 4 will be effective from 2022. Which one is correct?

A: The ministerial ordinance issued by MoE is a decree of Cambodian government, so 2022 is correct.

(Director General) With respect to the series of UNRs, Cambodia will implement them in accordance with what is decided under ASEAN MRA. There's nothing

wrong with adopting rules severer than MRA, but, when adopting a new version, we will do so in consultation with the auto industry.

UNRs to be adopted in Cambodia are applicable to both new and used vehicles.

Used vehicles need not be tested, but they need to be inspected regularly.

With regard to Euro 4, MIH published its adoption plan in 2019, followed by MoE's ministerial order issued in January 2020 that it will adopt Euro 4 in 2022.

MIH will correct its adoption plan.

For four-wheel vehicles, we will adopt Euro 5 effective January 2027. For motorcycles, we will adopt Euro 3 effective January 2023.

3. Closing Speeches

3.1 Closing Speech by Chan Sopha, Director General

On behalf of MIH-ISC, I want to express our great thanks to the expert team of JASIC for their valuable support. I look forward also to being able to host more meetings with JASIC in the future to address the remaining regulations.

Cambodia's policy is to adopt the regulations selected by ASEAN MRA, but we would like to adopt other regulations as well, so we would much appreciate it if you could help us on those subjects. Cambodia intends to adopt world class regulations, i.e., the regulations adopted by the EU and other countries. Further, we have this lack of skill, this lack of knowledge among the people in Cambodia in charge of ASEAN MRA regarding testing. So, we would like to have the opportunity to see first-hand how tests are being done in Japan. We have had an opportunity to visit the plants of automakers, but not yet to see tests being done. The number of the regulations applicable at the automaker's plant seemed smaller, but we would like to consider introducing regulations adopted worldwide. We would much appreciate if we could set priorities and host expert meetings in the years to come. Finally, I would like to express great thanks again

to JASIC people for the valuable two days' education.

3.2 Greetings by Mr. Nakatani, JASIC Jakarta Office

Thank you, Mr. Chan Sopha, for those very kind words and thank you to all the other participants in this meeting. Please let us know if you have any additional questions and concerns. We are going to keep organizing expert meetings in the years to come and we count on your cooperation. As to the visit to test sites in Japan just mentioned, we would discuss what tests under what regulations to select, etc. between Cambodia and JASIC and arrange for you to come to Japan. Thanks so much for all your cooperation.

A scene from the meeting



Commemorative photo

