**Programme** 

#### Conclave on 1958 Agreement (UNECE WP.29)

Organised by:

Ministry of Shipping, Road Transport & Highways, Government of India in association with:

るの ACMA ARAI SIAM NATRIP CAT 27<sup>th</sup> Sept -2007 (Thursday) Dav-1 (at Long Champ, Hall, Hotel Taj Mahal, Mansingh Road, New Delhi) Registration 0830 hrs to 0930 hrs 0930 hrs to 0940 hrs Welcome Address by Mr S K Dash, Joint Secretary Ministry of Shipping Road Transport & Highways 0940 hrs to 0950 hrs Address by Mr Akiba Tadaomi Executive Director, JASIC Japan Automobile Standards Internationalization Center- (JASIC) 0950 hrs to 1015 hrs Inaugural Keynote Address by Mr Brahm Dutt, Secretary Ministry of Shipping Road Transport & Highways 1015 hrs to 1025 hrs Vote of Thanks by Dr Ajay Sehgal, Director Ministry of Shipping Road Transport & Highways 1025 hrs to 1100 hrs Tea/ Coffee Break **Technical Session – I** 1100 hrs to 1300 hrs 1100 hrs to 1130 hrs Rule Making in India by Mr S K Dash, Joint Secretary Ministry of Shipping Road Transport & Highways 1130 hrs to 1300 hrs Technical and Commercial Implications for Joining 1958 Agreement by JASIC Followed by Question & Answers 1300 hrs to 1400 hrs Lunch **Technical Session-II** 1400 hrs to 1700 hrs **Perspective on Accession to 1958 Agreement** 1. Mr Juan Ramos- Garcia, UNECE Transport Division, Chief of the Technology Section 2. Mr Shigeo Yoshizawa, JAMA

28 <sup>th</sup> Sept -2007 (Friday) Day-							
(at Napoleon Hall - II, Hotel Le Meridien, Janpath, New Delhi)							
Technical Session-III							
0930 hrs to 1200 hrs							
0930 hrs to 1030 hrs	Emerging Testing and Technical Services Requirement for						
	1958 Agreement by						
	Mr Susumu Umezawa, Chief Engineer,						
	Automobile Type Approval Test Department						
	National Traffic Safety and Environment Laboratory (NTSEI						
	Japan						
	(Followed by Question & Answers)						
	(Ponowed by Question & Answers)						
1030 hrs to 1100 hrs	Tea/ Coffee Break						
1100 hrs to 1200 hrs	Accession to 1958 Agreement – Indian Perspective						
	• Country Presentation by Dr G K Sharma, Director,						
	(Technical), NATRIP						
	<ul> <li>Industry Presentation by SIAM &amp; ACMA</li> </ul>						
Panal Discussion							
1200 hrs to 1330 hrs							
1200 hrs to 1330 hrs	<b>Open House Panel Discussion</b>						
	Chairman: Mr S K Dash, Joint Secretary						
	Ministry of Shipping, Road Transport & Highways						
1220 have to 1420 have	Level						
1330 nrs to 1430 nrs	Lunch						



#### JAPAN AUTOMOBILE STANDARDS INTERNATIONALIZATION CENTER

#### SPEECH AT THE 10<sup>TH</sup> ASIA EXPERT MEETING

- \* Good Morning! Mr. S K Dash, Joint Secretary, Ministry of Shipping Road Transport and Highways, and ladies and gentlemen. My name is Tadaomi Akiba, Executive Director of Japan Automobile Standards Internationalization Center, JASIC.
- On behalf of JASIC, I would like to extend our heartfelt appreciation to all the people who are kindly taking part in this 10th Asia Expert Meeting which Ministry of Shipping, Road Transport & Highways, Government of India organizes on a theme for Accession to the 1958 Agreement. Also I am very pleased that Ministry of Shipping, Road Transport & Highways, Government of India accepted us, National Traffic Safety and Environment Laboratory (NTSEL) and JASIC as experts from Japan.

On this occasion, I would like to introduce you one of activity of NTSEL. The Automobile Type Approval Test Department, one division of the NTSEL, is the only organization in Japan that performs official tests of Motor Vehicles about the conformity with safety, environment, fuel consumption and other standards of Japan from a fair and neutral standpoint.

This department is the only one technical service assigned by Ministry of Land, Infrastructure and Transport in accordance with the rule of the 1958 Agreement. Accordingly the department has a great deal of knowledge on not only domestic type approval system but also international type approval system, therefore I expect that his participation can bring active discussion among participants concerned at this Expert Meeting.

- \* The common understanding on concept of the Expert Meeting is that the meeting is to be held voluntarily based on each country's needs as well as to be steered by Asia G/I Meeting.
   At the G/I Meeting held in Jakarta in last November, it was evident that holding the Expert Meeting is very useful and helpful for the people examining the contents of the 1958 Agreement, ECE regulation as sole international technical regulations and Mutual Recognition of Approvals among Asian region. In fact, four countries, including your country, have an intention to hold the Expert Meeting on the Accession to the 1958 Agreement this year.
- \* I think that all stake holders not only government organizations of transport, industry and environment but also academy and private sectors are invited in this meeting. All stake holders are expected to gain common recognition and deep understanding about the contents of the 1958 Agreement as well as Mutual Recognition of Approvals.



#### JAPAN AUTOMOBILE STANDARDS INTERNATIONALIZATION CENTER

Besides I expect this meeting will be a trigger of agreement formation of direction toward accession to the 1958 Agreement and improvement of domestic regulation & type approval system.

- \* As most of you may be aware, next G/I Meeting will be held in the Philippines at the end of November this year, where representatives from each country will discuss the harmonization of regulation and type approval system under 4<sup>th</sup> series which aim is to discuss continuously "Accession to 1958 Agreement and improved Asian presence at WP29".
   I do hope that the outcome of this Expert Meeting will be informed at the G/I Meeting, and many government/ Industry people concerned in your country will participate in the Meeting.
- I would like to thank you again for the participation of so many government and industry members.
   Your presence here gives me confidence that interest in harmonization and the mutual recognition of approvals is growing in your country.
- \* Please feel free to take part in discussions today so that this Expert Meeting will prove beneficial in enhancing traffic safety and environmental protection in your country. Now, I finish my opening address, hoping that the good friendship between you and JASIC will continue for a long time to come.

Thank you very much for your attention.

Tadaomi Akiba Executive Director, JASIC

# The 10<sup>th</sup> Asia Expert Meeting On Accession to the 1958 Agreement

27 / Sept / 2007

Tadaomi AKIBA, Yuki TOBA

JASIC



JAPAN AUTOMOBILE STANDARDS INTERNATIONALIZATION CENTER http://www.jasic.org

# Contents

- **1. Current activities of JASIC** 
  - 1) Purpose and organization

2)Harmonization activities for WP29

- 2. Long term action program of JASIC
- 3. MRA and Vehicle Type Approval system under the 1958 Agreement
- 4. UN/ECE/WP29 and the 1958 Agreement -Right and Duty-

# **1. Current activities of JASIC**

# Purpose and organization Harmonization activities for WP29

### 1) Purpose and organization

Assist the MLIT-Japan in promoting the international harmonization of automobile technical regulations and certification system with government and industry cooperation

# Cooperation between government & industry for promoting international harmonization



# 2) Harmonization activities for WP29 in JASIC



## **Contribution to WP29 activities - 1**

Since JASIC was established in 1987, we have been promoting worldwide harmonization work



1) JASIC contributed to the harmonization work at WP29, especially in the following areas

**Passenger Brake** 

ECE R13H

ECE R48

Installation of lighting and light-signaling devices

2) JASIC contributed to modify 1958 Agreement. As a result, the door was opened to the world.

E/ECE/TRANS/505/Rev.2

### **Contribution to WP29 activities -2**



- Output of JASIC activity
  - Continuously increase the number of applying ECE regulations based on the 1958 Agreement

Applying 37 regulations in JAPAN

 Actively take part in the work to establish gtrs based on the 98 Agreement

Contribution to develop 5gtrs and SR1

- Support the new activities on ITS
  - **ITS informal meetings and reported in March 2007**
- Welcome the moves in Asian countries towards activities under WP29

→ Welcome several new member countries

# 2. Long term action program of JASIC



### Long term action program of JASIC

#### Subject of JASIC activities

- I. Promotion of international harmonization and mutual recognition of approvals under UN/ECE/WP29
- II. Studying the issues involved in the future mutual recognition of a whole vehicle certification and development its proposal to UN

III. Identifying the trends of the motor vehicle inspection/maintenance system

**IV. JASIC** public relations activities

#### Goal in FY2015



Establish 12 gtrs, New gtrs unified with UN/ECE Regulations



\*Recommended as regulation necessary for mutual recognition of the whole vehicle certification. Studies shall be started M1 category. Recommended as regulation necessary for M1 category

51 ECE regulations

R3, R4, R6, R7, R10, R11, R12, R13H, R14, R16, R17, R19, R21, R23, R24, R25, R26, R28, R30, R34, R37, R38, R39, R42, R43, R44, R45, R46, R48, R49, R51, R55, R64, R77, R79, R83, R85, R87, R91, R94, R95, R98, R99, R101, R112, R116, R117, R119, R121, R122, R123

# Elements for mutual recognition of the whole vehicle certification

Vehicle type				
Category				
Weight				
Dimension				
Application documents				
<b>Test condition</b>				

**Unique regulation** 



# Framework of Mutual Recognition of Whole Vehicle Type Approval



3. MRA and Vehicle Type Approval system under the 1958 Agreement

# Vehicle type approval

 Vehicle type approval is a system whereby the government assures that every motor vehicle has complied with the technical regulations concerning safety, the environment, etc. before motor vehicles are registered.





## **Certification Process-2**



entering into service

## **Conformity of production** specified in Appendix 2 of the 1958 Agreement

- 1. Initial assessment
  - ISO 9002 or equivalent accreditation standard
- 2. Conformity of production
  - The existence of adequate arrangements and documented control plans
  - para 2.3. Requirements for the holder of the approval
  - **Image of the set of t**

# List of administrative department and technical services (TRANS/WP29/343/Rev.XX)

#### EXAMPLE

	Contracting party	Administrative department	Technical service	
(E1)	GERMANY	1 administrative departments	33 technical services	
(E <sub>13</sub> )	LUXEMBOURG	2 administrative departments	4 technical services	
(E <sub>31</sub> )	BOSNIA AND HERZEGOVINA	1 administrative department		
(E <sub>43</sub> )	JAPAN	1 administrative department	1 technical service	
(E44)	AUSTRALIA			

TRANS/WP.29/343/Rev.13 page 61

Designated **Administrative Department and Designated Technical Service** 

Indicated in the document o TRANS/WP.29/343/Rev.XX

	Date of entry into force of.					
	Latest (XX)	series of amendments:				
rea	<b></b>	-				
	ECE symbol	Country	Date of country application	Designated Administrative Department(s)	Designated Technical Service(s)	
A	E1	GERMANY	11. 5.98	1/A	1/G; 1/H; 1/J; 1/K; 1/L; 1/Q; 1/AP	
	E2	FRANCE	11. 5.98	2/C	2/E	
	E 3	ITALY	11. 5.98			
	E4	NETHERLANDS	11. 5.98	4/A	4/A; 4/I; 4/M; 4/N; 4/P; 4/Q; 4/AE; 4/U; 4/AF	
	E 5	SWEDEN	11. 5.98	5/A		
	E 6	BELGIUM	11. 5.98			
	E7	HUNGARY	11. 5.98	7/A	7/C; 7/G	
LAIM	E 8	CZECH REPUBLIC	11. 5.98	8/A	8/C	
	E 9	SPAIN	11. 5.98	9/A	9/D; 9/E	
-	E 10	SERBIA AND MONTENEGRO	11. 5.98			
	E 11	UNITED KINGDOM	11. 5.98	11/A	11/A; 11/E; 11/F; 11/H; 11/L; 11/M; 11/N	
<b>e</b> 0	E 12	AUSTRIA	11. 5.98			
	E 13	LUXEMBOURG	11. 5.98	13/A	13/B (a), (b), (c)	
	E 14	SWITZERLAND	11. 5.98	14/A	14/C (a)	
	E 15					
	E 16	NORWAY	11. 5.98			
	E 17	FINLAND	11. 5.98			
	E 18	DENMARK	11. 5.98			
	E 19	ROMANIA	11. 5.98	19/A	19/B; 19/E; 19/I	
	E 20	POLAND	11. 5.98			
	E 21	PORTUGAL	11. 5.98			
	E 22	RUSSIAN FEDERATION	11. 5.98	22/A	22/B	
	E 23	GREECE	11. 5.98			
	E 24	IRELAND 1/	14.7.01			
	E 25	CROATIA	11. 5.98			
for the second of	E 26	SLOVENIA	11. 5.98	26/A	26/B	
ocument of	E 27	SLOVAKIA	11. 5.98	27/A		
	E 28	BELARUS	11. 5.98			
	E 29	ESTONIA	11. 5.98			
$2/D \rightarrow VV$	E 30					
J/Rev_XX	E 31	BOSNIA AND HERZEGOVINA	11.5.98			
	E 32	LATVIA	18.1.99	32/A		
	E 33					
	E 34	BULGARIA	21.1.00			
	E 35					
	E 36	LITHUANIA	29.3.02	36/A	36/A	
	E 37	TURKEY	11.5.98			
	E 38					
	E 39	AZERBAIJAN	14.6.02			
	E 40	F.Y.R. OF MACEDONIA	11.5.98			
	E 41					
	E 42	EUROPEAN COMMUNITY 2/				
	E 43	JAPAN	24.11.98	43/A	43/B	
	E 45	AUSTRALIA				
	E 46		8 10 02	48/A (a) (b)	48/B	
	F 47	SOUTH AFRICA	17 8 01	TOIR (a), (b)		
	E 48	NEW ZEALAND	11.0.01			
	E 49	CYPRUS 3/	1.5.04			
	E 50	MALTA 3/	1.5.04			
	E 51	REPUBLIC OF KOREA				

REGULATION NO. 13-H

on the approval of passenger cars with regard to braking

By virtue of accession to the Agreement by the European Community. Approvals are granted by its Member States using their respective ECE symbol.

By virtue of accession to the European Union on 1 May 2004.



4. UN/ECE/WP29 and 1958 Agreement -Right and Duty-



# Subject to be considered

for the implementation of type approval system as Contracting Party to the 1958 Agreement

- Rule Making Process in line with 1958 Agreement
- Participation in ECE/WP29 discussion Human Resources
- Certification System
  - Administrative body Qualification system of Application Body

### Technical Service

Human resources Facility COP

#### WP29: World Forum for Harmonization of Vehicle Regulations

#### **TERMS OF REFERENCE OF WP.29**

Initiate and pursue actions aiming at the harmonization or development of technical regulations or amendments to such regulations

-Foster the reciprocal recognition of approvals, certificates and periodical technical inspections among Contracting Parties

-Serve as the specialized technical body for the relevant Agreements established under the auspices of UN-ECE

-Foster world-wide participation in its activities by encouraging cooperation and collaboration with countries not yet participating in WP.29 activities

-Encourage all its participants to apply or adopt into their law world-wide harmonized technical regulations

#### Principal Elements of 1958 Agreement Summary-1

#### **Major Constitution of 1958 Agreement**

- 1. Application of the ECE Regulations under type approval system (Article 1 para.1)
- 2. Technical requirements and test methods (Article 1 para.2)
- 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts (Article 1 paras.2-4, Article paras. 1-2, Article 12 paras. 1-3, Appendix 1)
- 4. Conditions for granting type approval and their mutual recognition including approval markings

(Article 1, paras. 5-6, Article 2, Article 3, Article 4, Article 5)

5. Conditions for ensuring conformity of production (COP) (Appendix 2)

#### Principal Elements of 1958 Agreement Summary-2

#### **Eligibility to become Contracting Party (Article 6)**

- Members of UN/ECE
- Members of UN
- **Regional Economic Integration Organizations (REIOs) that**
- participate in UNECE activities

#### Administrative Committee (AC1) (Article 1 para.1-2)

ECE regulations (new and amendment) are established by Vote of two-thirds majority of Contracting Parties. Established ECE regulations enter into force within six-month

### Principal Elements of 1958 Agreement Summary-1

#### **Major Constitution of 1958 Agreement**

- 1. Application of the ECE Regulations under type approval system (Article 1 para.1)
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(Article 1, paras. 5-6, Article 2, Article 3, Article 4, Article 5)

5. Conditions for ensuring conformity of production (COP) (Appendix 2)
### **Elements of 1958 Agreement -1**

### 1. Application of the ECE Regulations Under Type Approval System

- Type Approval pursuant to a Regulation means...
- -An administrative procedure by the authorities of Contracting Party
- -the Authority declares that a vehicle or part submitted by the manufacturer meets the requirements of the given Regulation after carrying out the required test
- -then the manufacturer certifies that each vehicle or part on the market were produced to be identical with the approved product

### 1. Application of the ECE Regulations Under Type Approval System

#### Alternative procedure for applying the Regulation

-There could be various administrative procedures alternative to type approval

-Self-certification is generally known and applied as an alternative procedure applied in certain Member States of ECE.

#### **Self-certification:**

The manufacturer certifies, without any preliminary administrative control, that each product put on the market conforms to the given Regulation; the competent administrative authorities may verify by random sampling on the market that the self-certified products comply with the requirements of the given Regulation.

### Principal Elements of 1958 Agreement Summary-1

### **Major Constitution of 1958 Agreement**

- 1. Application of the ECE Regulations under type approval system (Article 1 para.1)
- 2. Technical requirements and test methods (Article 1 para.2)
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- 4. Conditions for granting type approval and their mutual recognition including approval markings

(Article 1, paras. 5-6, Article 2, Article 3, Article 4, Article 5)

5. Conditions for ensuring conformity of production (COP) (Appendix 2)

### **Elements of 1958 Agreement -2**

#### **2. Technical Requirements and Test Methods**

(extract from Article 1 para.2)

The Regulation shall cover the following:
(a) Wheeled vehicles, equipment or parts concerned;
(b) Technical requirements, which if necessary may include alternatives;
(c) Test methods by which any performance requirements are to be demonstrated;
(d) Conditions for granting type approval and their reciprocal recognition including any approval markings and conditions for ensuring conformity of production.

(e) The date(s) on which the Regulation enters into force.

### Principal Elements of 1958 Agreement Summary-1

### **Major Constitution of 1958 Agreement**

- 1. Application of the ECE Regulations under type approval system (Article 1 para.1)
- 2. Technical requirements and test methods (Article 1 para.2)
- 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts (Article 1 paras.2-4, Article paras. 1-2, Article 12 paras. 1-3, Appendix 1)
- 4. Conditions for granting type approval and their mutual recognition including approval markings

(Article 1, paras. 5-6, Article 2, Article 3, Article 4, Article 5)

5. Conditions for ensuring conformity of production (COP) (Appendix 2)

### **Elements of 1958 Agreement -3**

### 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts

1) Establishment of new regulation

When a regulation is established

-The Administrative Committee (A.C.1) communicates it to the Secretary-General of the United Nations.

-Then the Secretary-General notify the Regulation to the Contracting Parties.

#### The Regulation will be considered as adopted

-unless more than one-third of the Contracting Parties inform the Secretary-General of their disagreement within six months after the notification

#### When a Regulation has been adopted

-The Secretary-General notify all the Contracting Parties

-At the notification, it is specified which Contracting Parties have objected and that the Regulation shall not enter into force to that Contracting Party

#### The adopted Regulation shall enter into force

-On the date(s) specified as a Regulation for all Contracting Parties for all Contracting Parties which did not oppose to the Regulation.

# 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts

2) Amendment of the existing regulation

Idea of alternatives within the existing regulations

-Where necessary, an amendment may include the existing requirements as an alternative

-Contracting Parties specify which alternatives within the Regulation they apply.

-Contracting Parties applying alternative(s) do not have to accept approvals to preceding alternative(s)

-Contracting Parties applying only the latest version of the regulation do not have to accept approvals to preceding amendments or to unamended Regulations.

-Contracting Parties applying an earlier series of amendments or the unamended Regulation shall accept approvals granted to a later amendment series.

When an amendment to a regulation is established

-The Administrative Committee (A.C.1) communicates it to the Secretary-General of the United Nations.

-Then the Secretary-General notify the Regulation to the Contracting Parties <u>applying the</u> <u>Regulation</u>

# 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts

#### 2) Amendment of the existing regulation

An amendment to a Regulation is considered and adopted -unless more than one-third of the Contracting Parties applying that Regulation inform the Secretary-General of their disagreement with the amendment within six months from the notification

If the Secretary-General has not received declarations of disagreement of more than one-third of the Contracting Parties applying the Regulation, the Secretary-General declares the amendment as adopted and binding upon those Contracting Parties applying the Regulation who did not declare themselves opposed to it.

When at least one-fifth of the Contracting Parties applying the unamended Regulation declare that they wish to continue to apply the unamended Regulation

-the unamended Regulation will be regarded as an alternative to the amended Regulation

-it will be incorporated formally as such into the Regulation with effect from the date of adoption of the amendment or its entry into force

# 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts 3) Voting procedure

### To establish a new regulation

-Proposed new Regulations shall be put to the vote.

-Each country, Contracting Party to the Agreement

shall have one vote

-A quorum consisting of not less than half of the Contracting Parties

is required

\*the regional economic integration organizations, being Contracting Parties to the Agreement, vote with the number of votes of their Member States

-New Draft Regulation is established by a two-thirds majority of

those present and voting

3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts
3) Voting procedure

### To establish an amendment to the existing regulations

-Proposed amendments to Regulations shall be put to the vote

-Each country, Contracting Party to the Agreement applying the Regulation shall have one vote

-A quorum of not less than half of the Contracting Parties applying the Regulation is required

\*the regional economic integration organizations, being Contracting Parties to the Agreement, vote with the number of votes of their Member States

-Draft Amendments to Regulations shall be established by a two-thirds majority of those present and voting



### Principal Elements of 1958 Agreement Summary-1

### **Major Constitution of 1958 Agreement**

- 1. Application of the ECE Regulations under type approval system (Article 1 para.1)
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- 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts (Article 1 paras.2-4, Article paras. 1-2, Article 12 paras. 1-3, Appendix 1)
- 4. Conditions for granting type approval and their mutual recognition including approval markings

(Article 1, paras. 5-6, Article 2, Article 3, Article 4, Article 5)

5. Conditions for ensuring conformity of production (COP) (Appendix 2)

### **Elements of 1958 Agreement -4**

4. Conditions for granting type approval and their mutual recognition including approval markings

Each Contracting Party applying Regulations largely through type approval shall grant the type approvals and approval markings described in any Regulation for the types of wheeled vehicles, equipment or parts covered by the Regulation, provided that it has the technical competence and is satisfied with the arrangements for ensuring conformity of the product with the approved type as set out in Appendix 2. Each Contracting Party applying a Regulation through type approval shall refuse the type approvals and approval markings covered by the Regulation if the above-mentioned conditions are not complied with.

### Principal Elements of 1958 Agreement Summary-1

### **Major Constitution of 1958 Agreement**

- 1. Application of the ECE Regulations under type approval system (Article 1 para.1)
- 2. Technical requirements and test methods (Article 1 para.2)
- 3. Development/Amendment of Regulation for wheeled vehicle, equipment or parts (Article 1 paras.2-4, Article paras. 1-2, Article 12 paras. 1-3, Appendix 1)
- 4. Conditions for granting type approval and their mutual recognition including approval markings

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5. Conditions for ensuring conformity of production (COP) (Appendix 2)

### **Elements of 1958 Agreement**

### 5. Conditions for ensuring conformity of production (COP)

#### Appendix 2

**Initial assessment** 

– ISO 9002 or equivalent accreditation standard

#### **Conformity of production**

- The existence of adequate arrangements and documented control plans
- para 2.3. Requirements for the holder of the approval
- para 2.4. Requirements for the authority

### **Conformity of production** stated in the Appendix 2 of 1958 Agreement After granting type approval...

"Every vehicle, equipment or part approved under Regulation annexed to this Agreement must be so manufactured as to conform to the type approved by meeting the requirements of this Appendix and of the said Regulation." (Para. 2.1)

"The authority which has granted type approval may at any time verify the conformity control methods applied in each production facility. The normal frequency of these verifications must be consistent with the arrangements (if any) accepted under paragraph 1.2. or 1.3. of this Appendix and be such as to ensure that the relevant controls are reviewed over a period consistent with the climate of trust established by the approval authority." (Para. 2.4)

#### In order to verify the conformity...

Requirements for the holder of type approval (Para.2.3)
Rights and Requirements for the approval authority (Para.2.4)

# **Conformity of production** specified in Appendix 2 of the 1958 Agreement

#### **Requirements for the Holder of the Approval**

2.3.1. Ensure the existence of procedures for effective control of the conformity of products (vehicles, equipment or parts) to the type approval;

2.3.2. Have access to the testing equipment necessary for checking the conformity to each approved type;

2.3.3. Ensure that the test results' data are recorded and that annexed documents remain available for a period to be determined in agreement with the approval authority. (max.10 years)

2.3.4. Analyze results of each type of test, in order to verify and ensure the stability of the product characteristics, making allowance for variation of an industrial production;

2.3.5. Ensure that for each type of product, at least the checks prescribed in this Appendix and the tests prescribed in the applicable Regulations are carried out;

2.3.6. Ensure that any set of samples or test pieces giving evidence of nonconformity in the type of test in question gives rise to a further sampling and test. All the necessary steps must be taken to restore conformity of the corresponding production.

# **Conformity of production** specified in Appendix 2 of the 1958 Agreement

#### **Rights and Requirements for the Authority**

2.4.1. At every inspection, the test records and production records must be available to the visiting inspector.

2.4.2. Where the nature of the test is appropriate, the inspector may select samples at random to be tested in the manufacturer's laboratory (or by the Technical Service where the Regulation annexed to this Agreement so provides). The minimum number of samples may be determined according to the results of the manufacturer's own verification.

2.4.3. Where the level of control appears unsatisfactory, or when it seems necessary to verify the validity of the tests carried out in application of paragraph 2.4.2., the inspector must select samples to be sent to the Technical Service which conducts the type approval tests.

2.4.4. The approval authority may carry out any check or test prescribed in this Appendix or in the applicable Regulation annexed to this Agreement.

2.4.5. In cases where unsatisfactory results are found during an inspection, the approval authority must ensure that all necessary steps are taken to restore conformity of production as rapidly as possible.



### Elements of 1958 Agreement Conformity of production (COP) Procedures





#### The Rights and Duties of the 1958 Agreement -2

**Approval Authority and Technical Service** 

(defined in the document ECE/TRANS/WP29/1059)

"<u>Approval Authority</u>" means the authority of a Contracting Party with competence for all aspects of the approval of wheeled vehicles, equipment and parts, for issuing and, if appropriate, withdrawing approval certificates, for acting as the contact point for the Approval Authorities of other Contracting Parties, for designating the Technical Services and for ensuring that the manufacturer meets the obligations regarding the conformity of production.

"<u>Technical Service</u>" means an organization or body designated by the Approval Authority of a Contracting Party as a testing laboratory to carry out tests, or as a conformity assessment body to carry out the initial assessment and other tests or inspections on behalf of the Approval Authority, it being possible for the Approval Authority itself to carry out those functions. The Rights and Duties of the 1958 Agreement - 3

Summary

### Rule making: Rights

- Participate in the voting of UN-ECE regulations
  - \* establishment of new regulations
  - \* amendments to existing regulations
- Choose the UN-ECE regulations to apply
- Cease applying the regulations
- Apply the UN-ECE regulations anytime

### The Rights and Duties of the 1958 Agreement - 4

**Rule making: Duties** 

 Declare to the UN Secretary-General concerning the UN-ECE regulations to apply

Summary

- Apply the adopted new regulation if not opposing to it
- Apply the adopted amendment to the regulation which you apply if not opposing to the amendment



- markings
- Advise the competent authorities of nonconformity to the approved types
- Prohibit the sale and use in case of nonconformity



- Accept the type approval issued by the other Contracting Party
- Confirm the COP when granting type approvals
- Take measures against the nonconformity to the approved type in case of receiving such information





### Brochure "WP29-How it works/How to Join it"

### **Contents:**

History and organization of UN/ECE/WP29 Terms of Reference and Rules of Procedure of WP29 Whole text of

the 1958 Agreement, the 1997 Agreement, and the 1998 Agreement

This brochure is available on the UN/ECE website:



URL http://www.unece.org/trans/main/welcwp29.htm

### ADVANTAGES OF ACCESSION TO THE 1958 AGREEMENT AND ADOPTION OF ECE REGULATIONS

- 1. Promotes the export of vehicles and their parts from your country
- 2. Prevents your country from distributing the poor level of vehicles and their parts under the framework of the international mutual recognition system
- 3. Improves the technical level and capability of quality control of the manufacturers



# Subject to be considered

for the implementation of type approval system as Contracting Party to the 1958 Agreement

- Rule Making Process in line with 1958 Agreement
- Participation in ECE/WP29 discussion Human Resources
- Certification System
  - Administrative body Qualification system of Application Body

### Technical Service

Human resources Facility COP

### Thank you for your attention





Japan Automobile Standards Internationalization Center

> Contact address : jasic@jasic.org



# The UN 1958 Agreement on vehicle regulations

New Delhi, India 27 and 28 September 2007

By Juan RAMOS-GARCIA, Chief, Technology Section Transport Division, Economic Commission for Europe

27 September 2007

**UNECE** Transport Division

1



# WP. 29: How everything started

- Created in 1952 as a Working Party of experts on technical requirements of vehicles.
- 1956 Rome Agreement: first step to harmonize vehicle regulations.
- The 1958 Agreement (20 June 1959) on uniform conditions of approval and mutual recognition of approvals of vehicles, components and parts.
  - Active and passive safety
  - Protection of the environment
  - Anti-theft protection



- The 1997 Agreement (27 January 2001) on periodical technical inspections
- The 1998 Global (Parallel) Agreement (25 August 2000) on global technical regulations
- In 2000 WP.29 became the World Forum for **Harmonization of Vehicle Regulations**



# **Participation in WP.29**

- Open to all UN Member States and Regional Economic Integration Organizations (EC)
   – Governments and Technical services
- Inter-Governmental Organizations
- Non-Governmental Organizations
  - ISO, Road Users, Vehicle and spare parts Manufacturers, Consumers ...



- Administrative Committee (WP.29/AC.2)
- 6 Subsidiary Bodies, technical Working Parties
  - Active safety: Lighting and light-signalling devices (GRE)

- Braking and running gear (GRRF)

- Passive Safety (GRSP)
- Environmental protection: Pollution and Energy (GRPE)

- Noise (GRB)

- General safety (GRSG)
- Informal groups of experts




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### Agreements administered by WP.29 (1)

- Concluded under UNECE auspices
- International law
- Elaborated by consensus
- Main legal text, Technical Annexes
- Amended as the needs arise
- The Depositary is the UN S-G.
- Follow well-established UN legal procedures



### Agreements administered by WP.29 (2)

- Open to all UN Member States and REIO
- Many non-ECE States are already Parties
- To become a Party, deposit an instrument with the S-G
- No accession fee



### Agreements administered by WP.29 (3)

- 1958 Agreement on construction of vehicles their type approval and their mutual recognition (Revised 1995)
- 1998 Agreement (parallel) on construction of vehicles
- 1997 Agreement on periodical technical inspections of registered vehicles



### The 1958 Agreement (1)

### **Objectives:**

Increase vehicle and road safety, vehicle environmental performance and facilitate vehicles' trade through:

- Uniform prescriptions for vehicles and their parts (UNECE Regulations annexed to the Agreement)
- Type approval of vehicles and their parts
- Reciprocal recognition of approvals granted



# 1958 Agreement (2)

### **Key Provisions (1)**

- Regulations are a part of the Agreement. They are international law
- CPs are free to be bound by all, some or no Regulation
- Regulations apply to vehicles and their parts



# 1958 Agreement (3)

#### **Key Provisions (2) Regulations to include:**

- technical prescriptions and alternative requirements as appropriate
- test methods and conditions for granting type approvals
- type approvals and their mutual recognition,
- markings
- prescriptions for conformity of production



## 1958 Agreement (4)

### **Key Provisions (3)**

- Tests conducted by aproved technical services
- Designated Administrative Departments grant type-approvals, if tests are passed
- Mutual recognition for CPs applying a Regulation
- Open to self certification procedures, but focussed on type approval



### **Key Provisions (4)**

- Adoption of a new Regulation by 2/3 majority of the Administrative Committe (AC.1)
- The UN S-G. notifies new Regulation to CPs.
- New Regulations apply to all CPs that do not notify to the S-G. their objection
- Same procedure for updating of Regulations



### **Key Provisions (5) Being a Contracting Party:**

- Not obliged to apply existing Regulations
- Not obliged to apply new Regulations
- Elaboration of new Regulations and on the amendment of the existing ones
- Possibility to apply/cease Regulations



- 127 Regulations annexed to the Agreement
- Amendment work: 60-70 Regulations amended per year to updated them



#### **Contracting Parties: 45 States + European Community**

(Germany, France, Italy, Netherlands, Sweden, Belgium, Hungary, Czech Republic, Spain, Serbia and Montenegro, UK, Austria Luxembourg, Switzerland, Norway, Finland, Denmark, Romania, Poland Portugal, Russian Federation, Greece, Ireland, Croatia, Slovenia, Slovakia, Belarus, Estonia, Bosnia and Herzegovina, Latvia, Bulgaria, Lithuania, Turkey, Azerbaijan, Macedonia, EC, Japan, Australia, Ukraine, South Africa, Cyprus, Malta, Rep. of Korea, Malaysia, Thailand and Montenegro)

Indonesia, Philippines and India are considering to accede to the Agreement Other countries participate in WP.29's work Some countries apply UNECE Regulations on a national basis (no mutual recognition)





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# Why to become a Contracting Party to the 1958 Agreement ? (1)

- Participation in the regulatory process influencing it
  - By Governments and their technical services,
  - National manufactures
- Possibility of granting approvals concerning Regulations applied by the country
- Approvals granted are accepted by the other CPs applying the Regulation



# Why to become a Contracting Party to the 1958 Agreement ? (2)

- Facilitates putting vehicles into other markets
  - European Communities are referring to the prescriptions of the UNECE Regulations in its law (CARS 21 report)
- Increase vehicle safety and environmental performance
- Participation in the decision making procedure affecting vehicle construction



# Why to become a Contracting Party to the 1958 Agreement ? (3)

- Need to base national/regional requirements on well established international UNECE Regulations
- UNECE Regulations provide mechanism for mutual recognition
- Reduce administrative certification burden



# How to become a Contracting Party to the 1958 Agreement ? (1)

#### • Who?

All UN countries can become CPs (Article 6) Regional economic integration organizations of that countries No fee requested Free participation in WP.29 and its SBs Each country has a vote in the decision-making process.



# How to become a Contracting Party to the 1958 Agreement ? (2)

- The Agreement is closed for signature.
- Eligible States may become parties to the Agreement by expressing their consent to be bound through <u>either</u>:
  - <u>Ratification, acceptance or approval</u>: if a State has signed a treaty, it may become a party by depositing an instrument of ratification, acceptance or approval with the Secretary-General; OR
  - <u>Accession</u>: if a State has not signed a treaty, it may become a party by depositing an instrument of accession with the Secretary-General.

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Requirements for a valid instrument of ratification, acceptance, approval or accession

- Agreement must be identified
- Declaration of undertaking
  - Expression of intent of the Government to be bound by the Agreement and to undertake faithfully to observe and implement its provisions.
- Issued and signed
  - Head of State or Government or the MFA or by a person exercising the power of one of these authorities *ad interim*.
- Dated



### Model of an instrument of accession

WHEREAS the [title of agreement] was concluded [adopted, etc.] at [place] on [date],

NOW THEREFORE I, [name and title of the head of State or Government or MFA), declare that the Government of [name of State], having considered the above mentioned [agreement], accedes to the same and undertakes faithfully to perform and carry out the stipulations therein contained.

IN WITNESS WHEREOF I have signed this instrument of accession at [place] on [date].

[Signature]



### 1958/1998 Agreements Comparison

1958	1998
Almost global	Expected to be global over time
Certification	No certification
Mutual recognition of certification	No mutual recognition
Free choice to accept, refuse, mandate, but once a CP has signed a Regulation, it must at least accept	In effect, virtually since as 1958 Agreement, but CP are expected to mandate
Different levels of stringency not automatically foreseen – but provisions exist	Different levels of stringency foreseen – but unknown how it will work
System in effect since long time with good experience	Brand new system, no experience thus far
Short to long international harmonisation potential	Long term harmonisation potential



 1958 Agreement offers best short + medium term opportunities and equal opportunities for long term 1998 Agreement offers medium + long term opportunities
Both Agreements are complementary to each other Need to join both in order to influence further development



### The World Forum for Harmonization of Vehicle Regulations (WP.29)

Aiming at the harmonization of technical regulations world-wide

<u>www.unece.org/trans/main/welcwp29.htm</u>

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# THANK YOU FOR YOUR ATTENTION

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29





#### **Content of the Presentation:**

- 1. Role and Organization of NTSEL
- 2. Automobile Type Approval System (Vehicle and Equipment Type Designation)
- 3. Technical Service
- 4. Type Approval Tests Facilities



### **1. Role and Organization of NTSEL**



### The Role of NTSEL

Automobiles, railways, and other means of transportation are Indispensable to our everyday life. However, we are facing serious social problems including traffic accidents, air pollution and global warming.

The National Traffic Safety and Environment Laboratory (NTSEL) contribute to a safe and Environmentally friendly traffic circumstance through activities such as research and automobile type approval tests.



#### National Traffic Safety and Environment Laboratory





#### **Organization of NTSEL**

Number of Employees: 96 Capital: 22600 million yen invested entirely by the Government Budget: 4110 million yen in FY2007



#### Principal Areas of Research in Environment Research Department

To improve and preserve the global and local environments and to save energy resources, the Environment Research Department works toward an understanding of the actual situations of automobile emission gases, fuel consumption ratio, and noises; establishes their measurement methods; analyses ways of reducing the environmental load; researches and develops automobile technical standards, and conducts tests and investigations.

- After treatment systems, Urea SCR system and DPF
- Assessment Technique of Automobile Energy Consumption Efficiency
- Environmental Performance Evaluation with Chassis Dynamometer Test etc.







National Traffic Safety and Environment Laboratory

#### Principal Areas of Research in Traffic System Research Department

It is necessary to promote a public transportation system that is safe, with a smaller environmental load to prevent global warming, and to reduce the number of fatalities from traffic accidents. The Traffic System Research Department evaluates advanced public transportation systems before their commercialization and studies the expected effects of their introduction on society.

The Department also researches the safety and convenience of new technologies developed for railways, cableways, and buses.

- •Research on Safety Evaluation of New Railway Traffic Systems.
- •Research on Expected Effect of New Traffic Systems Including Light Rail Transit System.
- •Research on Safety of Cable-driven Transportation Systems etc.





#### Major Fields of Research in Automotive Safety Research Department

To secure and improve the automobile safety performance crashworthiness vehicle maneuverability, braking performance, lighting performance, signaling system characteristics, and durability and reliability of the electromagnetic waves of the built-in vehicle mountable electrical devices are studied and tested.

Also, evaluation methods and technical standards that will accelerate commercialization of fuel cell vehicles are studied and tested.

- •Research on Occupant Protection in Side Impact.
- •Research on Pedestrian Safety.
- Analysis on Occupant Injuries at Collisions and Research on Crashworthiness Test methods etc.







### Automobile Recall Technical Verification Department

#### Verification Test

The laboratory verify problem information and various investigation results from MLIT, and if necessary, carry out real car test at our facilities, in order to verify causes of problems, or reform measure concerning submission of recall inform to MLIT.





National Traffic Safety and Environment Laboratory

### 2. Automobile Type Approval System (Vehicle and Equipment Type Designation)



#### **Automobile Equipments Tests**




### BRIEF DESCRIPTION OF TYPE DESIGNATION STANDARDS FOR DEVICES IN JAPAN (Adoption)

- 1. PNEUMATIC TYRES FOR MOTOR CYCLES AND MOPEDS
- 2. PNEUMATIC TYRES FOR PASSENGER MOTOR VEHICLES
- 3. PNEUMATIC TYRES FOR TRUCKS, BUSES AND THEIR TRAILERS
- 3-2 OCCUPANT PROTECTIVE DEVICE IN COLLISION OF STEERING SYSTEM
- 4. LOCKING DEVICE FOR MOTOR CYCLES
- 4-2. LOCKING DEVICE FOR PASSENGER MOTOR VEHICLES
- 4-3. IMMOBILIZERS
- 5. BRAKE SYSTEM USE OF FOUR-WHEELED MOTOR VEHICLES
- 5-2. BRAKE SYSTEM USE OF MOTOR CYCLES AND MOPEDS
- 5-3. OCCUPANT PROTECTIVE DEVICE IN OFFSET COLLISION
- 6. OCCUPANT PROTECTIVE DEVICE IN LATERAL COLLISION
- 7. EXTERNAL PROJECTION
- 8. LUGGAGE RACKS OF EXTERNAL PROJECTIONS



9. RADIO RECEIVING AND TRANSMITTING AERIALS OF EXTERNAL PROJECTIONS **10.REAR UNDERRUN PROTECTIVE DEVICES (RUPDS) 11.INSTALLATION OF REAR UNDERRUN PROTECTIVE DEVICES** 11-2.FRONT UNDERRUN PROTECTIVE DEVICES (RUPDS) 11-3. INSTALLATION OF FRONT UNDERRUN PROTECTIVE DEVICES **12 THE SEATS AND THEIR ANCHORAGES 13.THE SEATS AND THEIR HEAD RESTRAINTS 13-2.THE SEATS FOR BUSES 13-3.THE SEATS BELT ANCHORAGES** 14.HEAD RESTRAINTS (HEADRESTS), WHETHER OR NOT **INCORPORATED IN VEHICLE SEATS 14-2.CHILD RESTRAINMT 15.DOOR LATCHES AND DOOR RETENTION COMPONENTS** 15-2. HEADLAMP(AFS) **16.HEADLAMP CLEANERS 17.INSTALLATION OF HEADLAMP CLEANERS** 



**18. FRONT FOG LAMPS 18-2.CORNERING LAMPS 19.POSITION LAMPS** 20.REAR POSITION LAMPS 21.STOP LAMPS 22.AUXILIARY STOP LAMPS 23. FRONT END-OUTLINE MARKER LAMPS 24.REAR END-OUTLINE MARKER LAMPS **25.SIDE-MARKER LAMPS** 26.REAR FOG LAMPS 27.PARKING LAMPS 28. REVERSING LAMPS 29 FRONT REFLEX REFLECTORS **30.SIDE REFLEX REFLECTORS 31.REAR REFLEX REFLECTORS** 31-2.LARGE-SIZED REAR REFLEX REFLECTORS **31-3.RETRO-REFLECTIVE MARKINGS** 



32.AUDIBLE WARNING DEVICES OF HORNS
33.HORNS
34.WARNING TRIANGLES
34-2.UNAUTHORIZED USE ALARM DEVICES
35.DIRECTION INDICATOR LAMPS
35-2.INATALLATION OF LAMPS, REFLEXREFLECTORS AND DIRECTION INDICATOR LAMPS
36.REAR-VIEW MIRRORS FOR MOTOR CYCLES
37.INSTALLATION OF REAR-VIEW MIRRORS FOR MOTOR CYCLES
38.SPEEDOMETERS

As of Sep, 2007



BRIEF DESCRIPTION OF TYPE DESIGNATION STANDARDS FOR DEVICES IN JAPAN (Non-Adoption)

- 1. NOISE CONTROL DEVICE
- 2. EXHAUST EMISSION CONTROL DEVICE
- 3. HEAD LAMP
- 4. TACHOGRAPHS
- 5. SPEED INDICATION DEVICE

As of Sep, 2007



### Adoption of UN/ECE regulation

As of Sep, 2007

UN/ECE regulation	Date of adoption
R3 Reflex Reflectors	Nov,1998
R6 Direction Indicators	Mar,2000
R7 Front and Rear Position (Side) Lamps, Stop Lamps, and End-Outline Marker Lamps	Nov,1998
R11 Door Latches and Hinges	Sep,2002
R12 Steering mechanism	Oct,2004
R13H Braking (M1)	Nov,1998
R14 Safety-belt Anchorages	Oct,2006
R16 Safety-belt (regulation only)	
R17 Seats	Sep,2002
R19 Front Fog Lamps	Nov,1998
R23 Reversing Lamps	Mar,2000
R25 Head Restraints	Sep,2002
R26 External Projections	Jun,2001
R27 Warning Triangles	Mar,2000
R28 Audible Warning Devices	Nov,1998



R30 Pneumatic Tires(Passenger Vehicle)	Jun,2003
R38 Rear Fog Lamps	Mar,2000
R39 Speedometer	Jun,2001
R44 Child Restraint Systems	Oct,2006
R45 Headlamp Cleaners	Jun,2001
R48 Installation of Lights and Light-signaling devices	Oct,2004
R54 Pneumatic Tires(Commercial Vehicle)	Jun,2003
R58 Rear Underrun Protection	Sep,2002
R62 Protection Against Unauthorized Use (Motor Cycle)	Mar,2000
R70 Large-sized Rear Reflex Reflectors	Apr,2007
R75 Pneumatic Tires (Moped, Motor Cycle)	Jun,2003
R77 Parking Lamps	Jun,2001
R78 Braking (L)	Jun,2007
R80 Seat (Large Passenger Vehicle)	Oct,2006
R81 Rear-view Mirrors (Motor Cycle)	Jun,2001
R91 Side-marker Lamps	Jun,2001



R93 Front Under Run Protection	Apr,2007
R94 Protection of the Occupants in the event of a Frontal Collision	Apr,2007
R95 Protection of the Occupants in the event of a Lateral Collision	Mar,2000
R104 Retro-reflective Markings for Heavy and Long Vehicles	Oct,2004
R116 Protection Against Unauthorized Use	Apr,2005
R119 Cornering Lamps	Apr,2005
R123 AFS	Jun,2005



### **Automobile Tests**





# **3. Technical Service**







### Flow of Examination in Test Service





1.Worst Case Meeting

(a sample in the case of Lateral Collision Test)

- Purpose : Decision of test vehicle
  - The application vehicle is verified to decide the minimum test vehicle
  - The contents that are to be selected are Item A and Item B.
  - <u>Item A</u>: A test is necessary for each vehicle because the advantage / disadvantage cannot be judged when comparing the vehicles.
  - <u>Item B</u>: The test can be omitted because the advantage/disadvantage can be judged when comparing the vehicles.



# Item A

- 1. Basic structure of vehicle frame, basic shape and section size
- 2. Vehicle structure
- 3. Presence of side air bag, etc.
- 4. Basic seating position of occupant



# Item B

- 1. HP on driver's seat & passenger seat design
- 2. Kind of side airbag, etc.
- 3. Kind of door and door trim
- 4. Distance between occupant and outermost side of door
- 5. Underbody
- 6. Ground clearance of vehicle
- 7. Reference mass
- 8. Piping route of fuel
- 9. Other specifications affecting performance



### 2. Verification of Test Vehicle

The test vehicle is verified for its identity with the application vehicle.

- Type
- Variant
- Chassis number
- Engine number
- Specification etc.



# Test Method (Outline)

- The mobile deformable barrier is collided into the lateral side of a test vehicle in stationary position.
- •The mobile deformable barrier speed at the moment of impact shall be  $50\pm1$  km/h.
- The dummy is mounted on the front seat of the struck side.
- The degree of injury to the dummy is verified after the collision.
- Items to be measured on the dummy: head performance criterion, chest deflection, chest injury, pubic symphysis peak force, abdominal peak force

...etc.



### The Mobile Deformable Barrier









### 3. Preparation of Motor Vehicle

- The side windows on the struck side shall be closed.
- The doors shall be closed, but not locked.
- The transmission shall be placed in neutral and the parking brake disengaged.
- The comfort adjustments of the seats, if any, shall be adjusted to the position specified by the vehicle manufacturer.
- Tires shall be inflated to the pressure specified by the vehicle manufacturer.
- Vehicles with suspension enabling their ground clearance to be adjusted shall be tested under the normal conditions of use at 50 km/h as defined by the vehicle manufacturer.



### 4. Enforcement of Test (Before Lateral Collision Test)





### Vehicle Condition (After Lateral Collision Test





## Performance Criteria (Dummy)

- 1. Head performance criterion (HPC): Less than or equal to 1000
- Thorax performance criterion
   Rib deflection criterion (RDC): Less than or equal to 42mm
   Soft tissue criterion (VC): Less than or equal to1.0 m/sec
- Pelvis performance criterion
   Pubic symphysis peak force (PSPF): Less than or equal to 6 kN
- Abdomen performance criterion Abdominal peak force (APF): Less than or equal to 2.5kN internal force



### Particular Requirements (Vehicle)

- 1. No door shall open during the test.
- 2. After the impact, it shall be possible without the use of tools to:
- (a) open a sufficient number of doors provided for normal entry and exit of passengers, and if necessary tilt the seatbacks or seats to allow evacuation of occupants;
- (b) release the dummy from the protective device;
- (c) remove dummy from the vehicle
- 3. No interior device or component shall become detached in the vehicle interior in such a way as noticeably to increase the risk of injury from sharp projections or jagged edges.
- 4. Ruptures, resulting from permanent deformation, are acceptable, provided these do not increase the risk of injury.
- 5. If there is a continuous leakage of liquid from the fuel system after the collision, the rate of leakage shall not exceed 30 g/min.



4. Final Meeting

Purpose

- 1. Verify test vehicle
- 2. Create test report
- 3. Discuss problems of test procedures, etc.



#### Head performance criterion(HPC)





NTSEL

# Test Report (1/2)

# (a sample in the case of Lateral Collision)

TRIAS 47-3-2000 付表 Attached Table 側面衝突時の乗員保護装置の試験成績 OCCUPANT PROTECTION LATERAL COLLISIONS TEST DATA RECORD FORM 試験期日 年 月 日 試験場所 NTSEL 試験担当者 Proving Ground 2007. 02. 06. Test Data Test Site Tested by Sakura 1. 試験自動車 Test Vehicle 車名·型式(類別) 車 台 番 号 Shinsa · DBA-NTSEL123 Chassis Number NTSEL12356789 Make • Type(Variant) 試験自動車重量 乗員保護装置 Test Vehicle Weight 1,205 Occupant kg -Protection Device 2.ダミー Dummy (1) ダミーの種類 Kind of dummy EUROSID-2 ダミー搭載位置 運転者席 · 反対側席 Dummy position : Driver's Seat · Opposing side seat (2) 3. 試験成績 Test Results (1) 試験速度. Test speed 49.9 km/h (2)衝突点のずれ 前後方向 上下方向 Deviation from : Front and Top and impact point back course 3 bottom course 3 mm mm (3) 性能要件 Performance criteria 傷 害 値 備 考 Remarks Injury criteria 頭部性能基準(HPC) Head performance criterion 99 胸部変位(RDC Rib deflection criterion 胸部性能基準 46 mm Thorax performance 胸部傷害値(VC) criteria Soft tissue criterion 0.9 m/s 腰部性能基準 恥骨荷重(PSPF Pelvis performance Pubic symphysis peak 4.7 kN criterion force 腹部性能基準 腹部荷重(APF Abdomen Abdominal peak force 2.1 kN performance criterion



Test Report (2/2)

# (a sample in the case of Lateral Collision)

#### 個別要件 (4)Particular requirements ① 試験中はいずれのドアも開かないこと。 否(否の状況 No door shall open during the test Pass · Fail (Fail situation (2) 衝突後、工具を使わずに次の作業が可能であること。 After the impact, it shall be possible without the use of tools to: (a) 全ての乗員が脱出できるように、通常の乗降用扉を十 分な数だけ開け、必要な場合にはシートバック又は座 席を傾けること。 適・否(否の状況 ) Open a sufficient number of doors provided for normal entry and of passengers, and if necessary tilt the seat-Pass Fail (Fail situation backs or seats to allow evacuation of all occupants (b) ダミーを保護装置から開放できること。 適 ・ 否 (否の状況) Release the dummy from the protective system Pass Fail (Fail situation 否(否の状況 (c) ダミーを自動車から取り出すことができること。 Remove the dummy from the vehicle Pass Fail (Fail situation ③ 装置又は構成部品は、鋭い突起や尖った先端により乗員 の傷害の危険性を明らかに増すように車室内で剥離しな いこと。 適・否(否の状況 No interior device or component shall become detached in such a way as noticeably to increase the risk of injury from Pass Fail (Fail situation sharp projections or jagged edges ④ 恒久的な変形の結果生じる破裂は、乗員の傷害の危険性 を増すものでないならば、あってもよい。 ・ 否 (否の状況) Ruptures, resulting from permanent deformation are acceptable, provided these do not increase the risk of injury Pass Fail (Fail situation ⑤ 衝突後に燃料供給装置から液体が漏れた場合には、その 漏洩率が30g/分を超えないこと。 適・否(否の状況 ) If there is continuous leakage of liquid from the fuel-feed installation after the collision, the rate of leakage shall not Pass Fail (Fail situation exceed 30g/min ) 4. 備 老 Remarks (注)頭部性能基準(HPC)において、頭部の接触がない場合は、測定又は計算は行わず、頭部性能基準(HP C)の備考欄に「頭部接触なし」と記載すること。 Note: When there is no head contact, the head performance criterion(HPC) shall not be measured or calculated. Mention it in the remarks column of head performance criterion(HPC) with "No Head Contact"



### Contents of Test Report (1/3)

### OCCUPANT PROTECTION LATERAL COLLISIONS TEST DATA RECORD FORM

Test Date <u>Y. ## M. ## D. ##</u>

Test Site #####

Tested by #####

### 1. Test Vehicle

Make/Type (Variant) Chassis Number Test Vehicle Weight Occupant Protection Device

### 2. Dummy

Kind of dummy Dummy position; Driver's Seat / Opposing side seat



## Contents of Test Report (2/3)

### 3. Test Results

- 1) Test speed
- 2) Deviation from impact point
- 3) Performance criteria
  - Head performance criterion
  - Thorax performance criteria; Rib deflection criterion/Soft tissue criterion
  - Pelvis performance criterion
  - Abdomen performance criterion
- 4) Particular requirements
  - (a) No door shall open during the test
  - (b) After the impact, it shall be possible without the use of tools to:
    - Open a sufficient number of doors provided for normal entry and of passengers, and if necessary tilt the seat-backs or seats to allow evacuation of all occupants
    - Release the dummy from the protective system
    - Remove the dummy from the vehicle



## Contents of Test Report (3/3)

- (c) No interior device or component shall become detached in such a way as noticeably to increase the risk of injury from sharp projections or jagged edges
- (d) Ruptures, resulting from permanent deformation are acceptable, provided these do not increase the risk of injury
- (e) If there is continuous leakage of liquid from the fuel-feed installation after the collision, the rate of leakage shall not exceed 30g/min



# Example Form of Certificate (R95)

(a sample in the case of Lateral Collision)

別紙 1 Annex1			
(最大A4判 (210 × 297mm)) (maximum format: A4 (210 x 297 mm))			
	通知 COMMUNICATION		
(	-43)		
	国土交通省		
	Ministry of Land, infrastructure and Transport		
側面	「衝突時の乗員保護装置の装置型式指定基準に基づく側面衝突時の乗員保護装置を		
個ス	- Sel 動車の型式に係る 型式の指定注2 指定の変更承認 指定の拒否 生産の中止 - 生産の中止 - Sel の 中心		
につ	Regulation No. 95		
型式	指定番号 指定の変更承認番号		
App	roval No. Extension No.		
1.	自動車の商号又は商標 Trade name or mark of the power-driven vehicle		
2.	自動車の型式 Vehicle type		
3.	指定製作者等の名称及び所在地 Manufacturer's name and address		
4.	指定製作者等の代理人の名称及び所在地(該当する場合) If applicable, name and address of manufacturer's representative		
5.	指定申請日 Vehicle submitted for approvalon		
6.	使用する側面衝突ダミー ES-1 / ES-2 /2 Side impact dummy utilized ES-1 / ES-2 2/.		
7.	指定試験の実施を担当する技術機関 Technical service responsible for conducting approval tests		
8.	試験成績書発行日 Date of test report		
9.	試験成績書番号 Number of test report		
10.	型式指定/指定の拒否/変更承認/指定の取消し 注 2		
	1		



ECE 95

# **Example Form of Certificate (R95)**

(a sample in the case of Lateral Collision)

Approval granted/ refused/ extended/ withdrawn 2/
<ol> <li>型式指定番号等の表示位置</li> <li>Position of approval mark on the vehicle</li> </ol>
12. 場 所 Place
13. 日 付 Date
14. 署 名 Signature
<ol> <li>型式指定を行った行政庁が保管している書類の一覧表を本通知書に添付する。これは、要 望があれば交付する。</li> <li>The list of documents deposited with the administrative service which has granted approval is annexed to this communication and may be obtained on request.</li> </ol>
<ul> <li>注1 型式の指定/指定の変更承認/指定の拒否/指定の取消しを行った国番号</li> <li>注2 該当しないものを抹消すること。</li> <li>┘ Distinguishing number of the country which has granted /extended / refused / withdrawn approval (see approval provisions in the Regulation).</li> <li>2/ Strike out what does not apply.</li> </ul>
2



ECE 95



# Contents of Certificate (1/3)

### specified in Annex 1

(maximum format: A4 (210 x 297 mm))

### COMMUNICATION



Ministry of Land , Infrastructure and Transport

concerning:<sup>2/</sup>

APPROVAL GRANTED APPROVAL EXTENDED APPROVAL REFUSED APPROVAL WITHDRAWN PRODUCTION DEFINITELY DISCONTINUED

of a vehicle type with regard to protection of occupants in the event of a lateral collision pursuant to Regulation No.95

Approval No .....

Extension No.....



# Contents of Certificate (2/3)

- 1. Trade name or mark of the power-driven vehicle
- 2. Vehicle type
- 3. Manufacturer's name and address
- 4. If applicable, name and address of manufacturer's representative
- 5. Vehicle submitted for approval on
- 6. Side impact dummy utilized ES-1  $\angle$  ES-2 2/.
- 7. Technical service responsible for conducting approval tests
- 8.Date of test report
- 9. Number of test report



# Contents of Certificate (3/3)

- 10.Approval granted/ refused/ extended/ withdrawn 2/
- 11.Position of approval mark on the vehicle
- 12.Place
- 13.Date
- 14.Signature
- 15. The list of documents deposited with the administrative service which has granted approval is annexed to this communication and may be obtained on request.

- <sup>1/</sup> Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see provisions in the Regulation).
- 2/ Strike out what does not apply.


**Approval mark** specified in Annex 2







National Traffic Safety and Environment Laboratory

TRANS/WP.29/343/Rev.13 page 61

Designated **Administrative Department and** Designated **Technical Service** 

Indicated in the document of TRANS/WP.29/343/Rev.13

	Original vers Latest (XX)	series of amendments:	B		
ated [	ECE symbol	Country	Date of country application	Designated Administrative Department(s)	Designated Technical Service(s)
	E1	GERMANY	11. 5.98	1/A	1/G; 1/H; 1/J; 1/K; 1/L; 1/Q; 1/AP
	E 2	FRANCE	11. 5.98	2/C	2/E
	E 3	ITALY	11. 5.98		
	E 4	NETHERLANDS	11. 5.98	4/A	4/A; 4/I; 4/M; 4/N; 4/P; 4/Q; 4/AE; 4/U; 4/AF
	ED	SWEDEN	11. 5.98	AVC	
· • • • • • •	EB	BELGIUM	11.5.98		
	E/	HUNGARY	11.5.98	//A	//C; //G
	E 8	CZECH REPUBLIC	11.5.98	8/A	800
nt and	E 10	SERVIA AND MONTENEGRO	11.5.96	8/A	8/D, 8/E
	E 10	UNITED KINGDOM	11.5.86		
	E 12		11.5.00	100	TUA, TUE, TUE, TUE, TUE, TUE, TUM, TUN
	E 12		11.5.86	12/A	12/B (a) (b) (a)
	E 14	SWITZERI AND	11.5.00	14/A	14/C (a)
	E 15		11. 3.80		
	E 18	NORWAY	11.5.09		
	E 10	FINLAND	11.5.86		
	E 17	DENMARK	11.5.80		
	E 10	POMANIA	11.5.00	10/A	10/B- 10/E- 10/I
	E 20	POLAND	11.5.98	180	
	E 21	PORTUGAL	11.5.00		
	E 27		11.5.00	22/A	22/B
	E 23	GREECE	11.5.80	220	
	E 24	IRELAND 1/	14 7 01		
	E 25	CROATIA	11.5.98		
	E 26	SLOVENIA	11 5 98	28/4	26/B
	E 20	SLOVAKIA	11.5.98	27/A	200
	E 28	BELARUS	11.5.98		
	E 29	ESTONIA	11.5.98		
i i	E 30				
	E 31	BOSNIA AND HERZEGOVINA	11.5.98		
document of	E 32	LATVIA	18,1,99	32/A	
	E 33				
	E 34	BULGARIA	21.1.00		
	E 35				
ζ/ <sup>-</sup> ζ/ <b>μ</b> Δι/ 1 <sup>-</sup> ζ	E 36	LITHUANIA	29.3.02	36/A	36/A
J7J/ NCV. IJ 📗	E 37	TURKEY	11.5.98		
	E 38				
	E 39	AZERBAIJAN	14.6.02		
	E 40	F.Y.R. OF MACEDONIA	11.5.98		
	E 41				
	E 42		19.7.01		
$\Box \Delta P \Delta N \longrightarrow $	E 43	JAPAN	24.11.98	43/A	43/B
	E 44				
	E 45	AUSTRALIA			
	E 46	UKRAINE	8.10.02	46/A (a), (b)	46/B
	E 47	SOUTH AFRICA	17.6.01		
	E 48	NEW ZEALAND	15.00		
	E 49	GTPRUS 3/	1.5.04		
	E 50		1.5.04		
	E 01	I BECUBLIC OF NUREA			

REGULATION NO. 13-H Uniform provisions concerning the approval of passenger cars with regard to braking

Date of entry into force of:

By virtue of accession to the Agreement by the European Communi Approvals are granted by its Member States using their respective B

on to the European Union on 1 May 2004

# Organization of the Automobile Type Approval Test Department (Number of Engineets)





## **4.Type Approval Tests Facilities**



### **Occupant Protection in Frontal Impact Test**

This is a test to secure the occupants' safety in the case of frontal collision. A test vehicle is collided head-on into a barrier (concrete wall) at a speed of 50km/h. Degree of injury to a dummy (modeling an occupant) mounted on a vehicle is measured by an accelerometer.





### **Occupant Protection in Side Impact Test**

This is a test to secure the occupants' safety in the case of lateral collision. A test trolley fitted with a barrier is collided into the lateral side of a stationary vehicle at a speed of 50km/h. Degree of injury to a dummy mounted on a vehicle is measured by an accelerometer.





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### **Test of Pedestrians' Head Protection**

This is a test intended to reduce the deaths of pedestrians whose heads are collided against the bonnet in accidents where pedestrians are hit by cars. A head impactor is collided into a bonnet at a speed of 32km/h. The degree of head injury is measured by an accelerometer.







### High Speed Brake Test



at 100km/h



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#### Anti-Lock Brake System (ABS) Test



This test is to verify that a motor vehicle can make a secure stop without wheel-locking when suddenly applying brakes on a slippery road. The brakes are suddenly applied when running at a high speed on a sprinkled and slippery road.



#### Exhaust Emission Tests in 10.15 and 11-mode



The weight of CO, HC and NOx contained in the exhaust emissions of motor vehicles and twowheeled motor vehicles running at specific test modes is measured. For diesel-powered motor vehicles, the weight of PM (particulate matters) is measured in addition. When conducting exhaust emission tests, fuel economy tests are conducted simultaneously.



#### Exhaust Emission Test in 13-mode



The weight of CO, HC and NOx contained in the exhaust emission emitted from engines of heavyduty motor vehicles such as trucks and buses running in a specified test mode is measured. For diesel-powered motor vehicles, the weight of PM (particulate matter) is measured in addition.



### Noise Test Site

Noise levels are measured when the motor vehicle is running at a constant speed and when accelerating from a constant speed on a road prescribed in the International Standards (ISO road surface).





### **Headrest Test**

Force is applied to the headrest using a headform to confirm deformation and breakage.

### **Test of Child Restraint**

A test is conducted simulating a frontal collision at a speed equivalent to 50km/h using a collision test device to measure the degree of injury, etc. of a child dummy.





### Lighting System Test

Tests for headlamps are conducted to measure illuminance and other photometric characteristics by emitting light onto a screen placed 25m ahead of the lens. Direction indicator lamps, fog lamps, etc. are also tested.

### **Tire Test**

A tire is rotated for a long period of time to verify its durability and heat generation.





### **Test of Digital Tachograph**

The tachograph is tested by measuring the accuracy after applying vibrations from all directions and by checking the data retention after causing an impact. Additionally, the functionality of the analysis software and the speed recorder, etc. are confirmed.





### Main Test Facilities Expenses

- 1. Crash-worthiness Test Equipment
- 2. Pedestrians' Head Protection Equipment
- 3. Slippery road (ABS Test Section)
- 4. Test Course
- 5. Exhaust Emission Tests Site (Chassis)
- 6. Exhaust Emission Tests Site (Engine)
- 7. Noise Test Equipment
- 8. Headrest Test Equipment
- 9. Child Restraint Test Equipment
- 10.Lighting System Test Equipment
- 11.Tire Test Equipment

530 million yen
100 million yen
100 million yen
500 million yen
260 million yen
550 million yen
20 million yen
40 million yen
40 million yen
40 million yen



### Automobile Proving Ground (1st)

**Automobile Proving** Ground is equipped with a 1,350m long test crash Worthiness Safety Test course. The total land Building area is 246,000m<sup>2</sup>. Lighting System Test Building L-sized Motor Vehicle Test Building Engine Test Building Safety Function Test Building ABS Test Section Exhaust Emission Test Building Vehicle Adjustment Building General Confirmation and **Dimension Building**  Motor Cycle Exhaust Emission Test **Building etc.** 



### Automobile Proving Ground (2nd)

The 2nd Automobile Proving Ground is equipped with a 270m long test course. The total land area is 50,000m<sup>2</sup>.

1st Test Building

2nd Test Building



### Main Office and Facilities

The total land area is 22,000m<sup>2</sup>.

Administration Building
 Low Emission Vehicle Test
Building
 Acoustic Test Building
 Anechoic Reverberation Test
Building
 Motion Performance Test
Building etc.



National Traffic Safety and Environment Laboratory

# Thank you for your attention.



#### 10<sup>th</sup> Asia Expert Meeting (India)

JASIC Secretariat

Thursday and Friday, 27-28 September, 2007

Venue: On the 27<sup>th</sup>: Long Champ Hall, The Taj Mahal Hotel

On the 28<sup>th</sup>: Napoleon Hall II, Hotel Le Meridien

Hosted by: Indian Ministry of Shipping, Road Transport & Highways

Number of Participants: About 70

Indian Ministry of Shipping, Road Transport & Highways, the National Automotive Testing and R&D Infrastructure Project of India (NATRIP), the Society of Indian Automobile Manufacturers (SIAM), the Automotive Component Manufacturers Association of India (ACMA), JASIC, WP29 Secretariat, JAMA, JAPIA, Automobile Type Approval Test Department of the National Traffic Safety and Environment Laboratory of Japan, etc.

#### 1. Greetings and Presentations

#### Mr. Dash from MoSRT&H on Rulemaking in India

Explanation was given on the legislative system in India. A committee has been established with related organizations under MoSRT&H to examine automobile related laws. Laws are examined and established also in line with the ECE Regulations. India's type certification system and COP (emissions only) were also explained.

#### **JASIC**

JASIC explained MRA based on the 1958 Agreement, the concept of mutual recognition of vehicles based on the Agreement in JASIC's long term project plan, and the rights and obligations of the contracting parties to the 1958 Agreement.

#### Mr. Ramos from the UN/ECE WP29 Secretariat

At the outset of the speech, Mr. Ramos said that discussions would be necessary within India to a satisfactory extent on its plan about accession to the 1958 Agreement. Then, he explained the history of WP29 and the 1958 Agreement in comparison with the 1998 Agreement to which India is a contracting party, and emphasized the importance of the accession to the 1958 Agreement.

He also said that a guideline document was agreed upon at WP29 last March on the requirements of technical services designated by the contracting parties.

The Global Technical Regulations set under the 1998 Agreement are unified standards but there are no established method for adoption by the contracting parties and certification requirements. Several modules and options are also possible. Therefore, there is no guarantee that contracting parties which have adopted the same gtr have exactly the same regulation. On the contrary, the contracting parties to the 1958 Agreement are not allowed to modify any ECE Regulations set forth by the 1958 Agreement when they adopt them. It means that contracting parties applying the same Regulation share exactly the same standard, which is the complete harmonization of the standard, and MRA can be thus achieved.

The WP29 Secretariat does not check whether the contracting parties observe their rights and obligations because the 1958 Agreement is established on the basis of mutual trust.

#### <u>JAMA</u>

JAMA supports India's accession to the 1958 Agreement and expects India to adopt the ECE Regulations (without modifications) as a contracting party. JAMA would like to suggest that India adopts the ECE Regulations step by step, for example, with regard to emission control, first Euro 2 and then Euro 4 without adopting Euro 3.

#### <u>Automobile Type Approval Test Department of the National Traffic Safety and</u> <u>Environment Laboratory of Japan</u>

A briefing was made on the National Traffic Safety and Environment Laboratory of Japan. Then, the organization of the Automobile Type Approval Test Department as a sole technical service in Japan, certification test procedures and facilities were explained in details.

#### <u>Mr. Sharma from NATRIP on India's Accession to the 1958 Agreement: Key Issues and</u> <u>Challenges</u>

NATRIP believes that India cannot fully enjoy advantages from its accession to the 1958 Agreement if the country does not adopt the ECE Regulations. Therefore, the current domestic laws should be examined and evaluated.

Under the decision making system by two-thirds majority, NATRIP thinks that non-European nations are in disadvantageous positions since EC now have 27 votes under the 1958 Agreement.

#### ACMA-SIAM on Perspective on the 1958 Agreement

ACMA-SIAM supports India's accession to the 1958 Agreement as industry. But to realize that, there are many issues to be tackled such as the improvement of internal systems for the certification system based on the ECE Regulations. ACMA-SIAM would like to make a roadmap and advance preparations toward the accession.

#### 2. Panel Discussion

#### Panelists:

Mr. Sharma (NATRIP), Mr. Bhanot, Mr. Ramos (UN/ECE/WP29), Mr. Dash (MoSRT&H), Mr. Marathe (ARAI), Mr. Akiba (JASIC), and Mr. Sehgal (MoSRT&H)

#### Main Discussions

MRA based on the ECE Regulations are often thought as being done only among the contracting parties which have adopted the given Regulations, but this is not the case. Explanations were made repeatedly on this point.

The 1958 Agreement permits a self-certification system as a means of type certification. In fact, Korea has not adopted any ECE Regulations though it is a contracting member to the Agreement because it has introduced a self-certification system. There was high interest in this point among the participants and many questions related to this were asked.

There was an opinion that non-European nations were at disadvantage under the majority voting system of the 1958 Agreement due to European members having many votes, in comparison with the unanimity rule of the 1998 Agreement. The WP29 Secretariat said that this system had been working fairly well without serious problems. In the case of WMTC gtr, voting was put off at AC3 and discussions were continued as a result of respecting the opinions of India, which was not a contracting party to the 1998 Agreement at that time. Referring to this case, the Secretariat responded that different opinions of participating countries including observers were fully respected for proceeding with discussions at WP29 (whether under the 1958 or 1998 Agreement) and that currently there were no problems.

#### Final Remark by Mr. Dash from MoSRT&H

Discussions on various issues toward India's accession to the 1958 Agreement were

made at the meeting for the past two days. The Ministry will soon have the domestic committee discuss the future direction based on the outcome of this meeting and make a report, and then will determine government policy. His remarks indicated further development toward the accession to the 1958 Agreement. The meeting was then closed.

#### Comments:

We have a feeling that both Indian government and industry at practical levels have studied well about the 1958 Agreement and that they are serious about the accession to the Agreement. Since several organizations are involved in the legislation and certification systems for automobiles, they recognize the challenge of streamlining regarding specific methods to adopt the ECE Regulations in the future and role sharing among certification bodies and technical services and are examining how they should tackle this challenge toward the goal of accession.

On the other hand, some participants did not yet fully understand even the basic point that the contracting parties to the 1958 Agreement mutually certify their regulations with each other once they have adopted the ECE Regulations.

Last not but least, we would like to express our heartfelt thanks to SIAM of India, Mr. Ramos of the UN/ECE WP29 Secretariat, JAMA, and the Automobile Type Approval Test Department of the National Traffic Safety and Environment Laboratory of Japan for their cooperation to this expert meeting.