

## ***JAMA's Recommendation on the implementation of UNECE R51 (Noise Emission)***

*In recent years, the ACCSQ-APWG (ASEAN Consultative Council for Standard and Quality Automotive Product Working Group), a ASEAN governments' meeting on standard and quality of vehicle has started to look at UNECE R51 (Noise emission) regulation as a priority item for technical harmonization of vehicle regulations. In effect, more ASEAN member countries have commenced the formulation of plans to harmonize their national regulations for noise emission with UNECE R51.*

The UNECE R51 regulation is a type approval regulation for system approval under the 1958 Agreement. JAMA supports ASEAN member countries in the adoption of UNECE regulations so as to make full use of the benefits of the Mutual Recognition of Approval under the 1958 Agreement when a ASEAN country becomes a Contract Party under this agreement.

To facilitate the smooth implementation of R51, JAMA's Vehicle Noise Committee members have recently visited ASEAN countries to exchange information and share some pointers with concerned policy makers in these countries.

### **1) Acceleration Test (with limit value) and Stationary Test (without limit value) under R51 for new vehicle, and the possible conflicts when authorities place a limit value on Stationary test in vehicle inspection and road side checking for in-use vehicle**

Although R51 requires both acceleration and stationary test during its type approval requirement for new vehicle, a limit value is

specified on acceleration test only under this regulation. The rationale is that a limit value on stationary test is unnecessary when a limit value on acceleration test, which is already able to capture total noise emission (including the exhaust noise measured by stationary test), is in place. Moreover, as the stationary test in R51 is simply for recording purpose to check if the vehicle is able to maintain its original condition in future vehicle inspection, a limit value is not necessary.

On the other hand, it is impossible to carry out acceleration test on road side checking. Even when periodical vehicle inspection of in-use vehicles is carried out in inspection centers, it is also not possible to conduct acceleration test since it is not feasible to install test tracks in inspection centers. As such, authorities are left with only one choice for vehicle inspection and road side checking to monitor vehicle noise level on in-use vehicle, i.e. the stationary test. At the same time, many

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authorities tend to place a limit value on stationary test to monitor in-use vehicles.

The limit value set by authorities on in-use vehicle for stationary test during inspection may, nonetheless, conflict with R51 which does not specify a noise limit value on new vehicle in type approval during its stationary test.



A vehicle undergoing the R51 acceleration test.

**2) Recommendation to monitor in-use vehicles after implementation of R51**

For countries that may have already set a noise limit on stationary test for in-use car inspection, it may be necessary to withdraw the limit value and replace it with another regulative guideline.

JAMA recommends the UNECE regulation that is used for in-use vehicles known as the R.E.3. The R.E.3 is a guideline on stationary noise test for in-use vehicle established based on R51. For new vehicles that have passed the acceleration test limit under R51 during type approval, a stationary test would be conducted to have its value recorded. When the vehicle has expired as new car and is due for inspection, the passing guideline for stationary test will be based on its recorded value with an allowance of +5 db(A). For

example, when vehicle A has passed its acceleration test noise limit with a record of 90 db(A) in its stationary test during type approval, it will pass its in-use car inspection test with 95 db(A).

**3) Test Track requirements under R51, and its alternative solution when test track is not available**

Under R51, a test track is specified to carry out the acceleration test. ASEAN member countries having plans to construct a test track would need to consider its specification. Alternatively, countries may choose to accept manufacturers' test data in accordance to R51 or ECE certificates, if the test track is not available domestically.

**4) Lead Time**

JAMA recommends that, prior to the enforcement of any vehicle regulations on new vehicle models, a two-year lead time from the date of gazette is required. Another two-year lead time is further required for existing model; in other words, four years after the date of gazette.

Nonetheless, in R51, extra care has to be taken when HDV (heavy duty vehicles) are concerned, especially because of the various technical challenges such as cooling issues. With R51 implemented, a noise cover would have to be installed on HDV, which poses further challenges on cooling issues. The availability of counter-technologies meeting such challenges has to be ensured prior to the implementation of R51. Hence, authorities would have to re-confirm on the requirement of lead time of HDV manufactures or distributors with their local representative associations prior to the implementation.

## Friends of JAMA

### Japan Automobile Federation

## Striving for a Sustainable and Well-Balanced Motorized Society

In 1963, as Japan was first entering the era of widespread private car-ownership, the Japan Automobile Federation (JAF) was established as an organization representing the interests of motorists. Over the subsequent 46 years, JAF has provided reassurance and support for motorists by providing breakdown cover in addition to acting as the governing body for motorsports, promoting road safety, campaigning for reform of the automobile

taxation system and working to prevent global warming. Through these various contributions to society, JAF has strived to contribute to the development of a sounder motorized society which is balanced between concern for citizens and the natural environment. In this edition of Friends of JAMA, we speak to Mr. Masato Yamaguchi, General Manager of the JAF Public Relations Department about his organization's chief activities.



Mr. Masato Yamaguchi, General Manager of the JAF Public Relations Department

**NFJ:** Would you give us an overview of the work that JAF does?

The impetus for the foundation of JAF was provided by the 1964 Tokyo Olympics as well as the rapid growth in the automobile manufacturing sector that Japan was experiencing at the time. With the Olympics scheduled to be held in Tokyo, there were predictions of large numbers of foreign visitors bringing their cars to Japan. In order to cater for these visitors, it was seen as essential to review issues such as temporary import of private cars and international licenses, and bring various regulations more in line with international standards. In addition, there

was a lot of discussion about the necessity of providing after-sales support for motorists as automobile manufacturing developed with the start of mass production. This led groups including automobile manufacturers, dealers, car owners, organizations involved with motor sports and government bodies connected to the industry to come together to establish JAF.

Over the course of the next 46 years, membership of JAF has grown to top 17 million, and as many as one person out of every five holders of a driving license in Japan belong to our organization. We are proud to say that we are the second biggest automobile association in the FIA (Fédération Internationale de l'Automobile), after our American equivalent. We also have a monthly publication called "JAFMate" which we send to our members. With a circulation in the region of 11.7 million,

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this actually has the highest circulation of any monthly publication in Japan.



A road service car

I'd like to give you an overview of the main services that JAF provides. With regard to breakdown cover, we have a network spanning the entire country that comprises 272 dedicated facilities that we operate directly and 1837 partner garages, offering emergency breakdown cover 24 hours a day, 365 days a year. Whether someone has a flat battery, a puncture, a loose wheel or they've locked themselves out of their car, they can receive rapid assistance with just a single phone call. Over the course of a year, we are called out to deal with around 2.74 million calls to assist motorists. It actually works out that we are called out to deal with a breakdown or other issue every 11.5 seconds. When Japanese motorists think about JAF, they tend to think that we are simply a breakdown support service. In fact there are a number of other major strands to our organization's activities.

The first of these other activities that I would like to talk about is our involvement with motorsports. Since it was established, JAF has acted as the governing body for four-wheeled motorsports in

Japan. We are recognized as such by the FIA and our representative is working hard to promote the world motorsports as member of the FIA World Motor Sports Council. Motor racing clubs and organizations totaling some 1175 belong to JAF and together they host 1000 official races nationwide annually, including speed events such as races, rallies, gymkhana and dirt trials, as well as events such as kart racing. Overseas, the JAF-authorized Super GT event was held at the Sepang International Circuit in Malaysia. From issuing licenses to stipulating the rules, JAF plays an important role in motorsports at present, there are around 55,000 members who have obtained licenses from our organization and who are therefore able to enjoy participating in motorsports.



JAF has been working to promote and spread the popularity of motor sports in the country

In terms of our work in the international sphere, we provide a translation service for motorists who wish to exchange their foreign driving licenses for Japanese ones. We have also teamed-up with overseas automobile associations who are also members of the FIA. This means that when JAF members travel overseas, in more than 60 countries, they will be able to count on the same service from local automobile organizations that members in that

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country receive.

**NFJ:** Do you have links with automobile associations in the rest of Asia?

There are 17 automobile associations that belong to the FIA Asia Pacific group (FIA Region II) and currently (March 2009) JAF President Setsuo Tanaka is acting as chairman of this group. There is an FIA Region II conference taking place from 14th -15th April at which the members will discuss issues such as the reciprocal system between all member organizations (the services such as breakdown cover, cover when travelling and use of facilities shared mutually between members). During this conference, JAF is scheduled to give a presentation about issues such as the services they provide to members and environmental protection.

In addition, with regard to motorsports, we are energetically promoting events in cooperation with other automobile organizations across the region at which drivers from each of the Asia-Pacific nations can compete.

Our international activities are not limited to Asia. Our president Setsuo Tanaka is also very active as vice-president of the World Council for Mobility and the Automobile of the FIA. In Europe, there are a number of automobile associations boasting histories extending over more than a century; in Asia too, there are a number of long-established associations. Among them, JAF actually counts as a relative new-comer. But even so, JAF aims to continue to work hard

to foster cooperative relations with other automobile associations worldwide and particularly in Asia, and work to promote improvements in reciprocal services and overall cover for motorists not just in Japan, but across the region.



A declaration on global road safety by FIA members

**NFJ:** It seems that you are putting a lot of energy into increasing public awareness of a range of issues. Could you give us some specific details of the kind of work you are doing in this field?

JAF is promoting what is known as “Eco Drive” which is a way of driving that minimizes CO2 emissions, which are a cause of global warming. As part of this effort, we are holding hands-on “Eco Training” sessions at which participants can actually drive cars and receive practical advice on minimizing emissions, as well as lectures on the same theme. We are engaged in a variety of activities to promote public awareness of this, including one idea aimed at encouraging drivers who are putting “Eco Drive” techniques into practice – we have produced a sticker which says “Eco Drive in Action”.

Regarding road safety, we hold practical “Safety Training” and “Senior Driver School”

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workshops, as well as nationwide courses giving advice about such issues as how to correctly attach a child seat and what to check daily in your car. Also, after receiving requests from industry, schools, local government and other organizations, we are active in sending instructors to give lectures on being aware of dangers on the road or about road safety based on JAF data. We also carry out nationwide surveys on issues such as seatbelt use and use of child seats, and we publicize the results of these surveys widely. In this way, we are appealing to all motorists to fasten their seat belts and use child seats.



Senior drivers' school

Also, while this does not count as work to increase public awareness, we represent the interests of motorists nationwide and make proposals on many issues to central government as well as relevant government agencies, including calls to improve the automobile taxation system.

**NFJ:** Finally, could you tell us about your organization's goals for the future?

One of the major issues we work towards is to invigorate the movement towards an

improved motorized society. As part of this goal, we are actively working to have highway tolls reduced and for a "green" tax system, which will lead to increased convenience for motorists. While we are conscious that there has been more focus in recent times on the negative aspects of the motorized society, we believe that there are immeasurable benefits brought by the development of this kind of society. As you are aware, the automobile industry constitutes the backbone of Japanese industry, exerting a great influence on society as a whole. This includes of course job creation, but it also contributes to increased mobility, particularly in rural areas, and leads to development in wide variety of ways in different regions of the country. In the future, we believe it will be vital to propose a new type of lifestyle within a motorized society that is in harmony with the natural environment of the planet.

This first entails returning to the fundamental question of what one actually gains by driving a car. What sort of benefits does it bring to the lives of motorists? By further investigating this question, we hope to be able to make our message more widely heard.

By successfully combining the elements of the sheer pleasure of driving a car with aspects like safety and peace of mind as well as consideration for the environment and improved motoring conditions, we hope to help bring about a richer overall lifestyle for motorists.

**NFJ:** Thank you very much for taking the time to speak with us today.

## Changes!

It's been a little over three months since Barack Obama became the 44th U.S. President, having appealed to the American public with campaign slogans such as "Yes, we can!" and "Change we can believe in!" Yet during this short period Obama has begun to implement a host of real changes, enacting legislation and introducing measures intended to provide the stimulus needed to address the present economic crisis, whose depth and scope are said to come along just once in a century.

Now, more than a century since the introduction of the automobile, the auto industry finds itself in a crisis too—an unprecedented one. With automakers struggling to overcome it, many governments have introduced policies and programs to support the industry and spur market growth. In Japan, reductions are in force on the automobile acquisition and tonnage taxes for the purchase of fuel-efficient and low-emission vehicles, while purchasers/owners of next-generation vehicles are exempt from these taxes altogether. Further incentives for purchases of new vehicles meeting stipulated environmental performance criteria have been included in the government's latest economic stimulus package, scheduled for implementation in the near future.

Over the past century, the internal combustion engine—the driving force in motor vehicles and in the motor industry as a whole—was the focus of continuous improvements. But change has arrived in this area, too. With issues like global warming underscoring the need for environmental responsibility on a planetary scale, and countries around the world seeking to end their dependence on

fossil fuels, the challenges of producing next-generation hybrid and electric cars for the mass market have been taken up with urgency. Meanwhile, national initiatives targeting "green" vehicle purchases should lead to the greater use, worldwide, of eco-friendly automobiles.

Such developments could result in changes being made to the way vehicles are built. Electric cars can be manufactured using 30% fewer components than gasoline cars, with electric motors themselves, unlike conventional engines, eliminating the need for the interfacing of parts.

Vehicle market trends are surveyed every year by JAMA. In view of the recent pronounced trend of young people in Japan being less inclined to drive cars, the latest survey included a polling of university students (who are at the age of first-time driver's license eligibility), to explore how their connection with cars might develop in the future. The results of the polling indicated that, notwithstanding the fact that young men living in large cities are indeed increasingly less likely to be car users, the level of interest in cars is, on the whole, not much changed from previous generations. The reason this doesn't translate into more car purchases among young people seems to be attributable to their perception that car ownership is a "burden" that outweighs its advantages.

With the ever-expanding use of mobile phones, computers and other devices, it's now possible for people to communicate with the "outside" world whenever they want. As such possessions grow in popularity, the appeal of car ownership, at least in Japan, has waned in comparison. Also contributing to this trend, it'

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s been said, is the tendency of today’s young adults, who grew up during the country’s post-economic bubble years, to look unfavorably at anything representing a significant financial commitment.

On the other hand, for previous generations—who nevertheless had their own financial pressures when they were the same age, and for whom car ownership was just as much of a cost commitment—the purchase of a car, after graduation and the start of a career, was something to look forward to. Car ownership was attractive, and its appeal typically far outweighed any perceived disadvantages. Therefore, even as the “burden” of vehicle ownership must be reduced as much as possible, so must its appeal to younger generations be enhanced.

Concern over the distancing of young people

from car ownership seems to be limited to Japan for the present. While it’s important to identify the reasons behind this trend, one thing is certain: whether conventional engines are replaced by electric motors or gasoline by hydrogen fuel, automobiles will continue to provide comfortable, convenient and independent mobility. Focusing on these basic points of appeal will doubtless be crucial in attracting new users in the century ahead.

Finally, a notice to our readers: Change has also come to News from JAMA Asia-Pacific Edition! Starting with the next issue, it will appear quarterly, featuring wider-ranging and therefore more informative content. We hope you will enjoy the transformation and continue to read us regularly.

*(By: S. Oka)*

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