RCAR

Research Council for Automobile Repairs

Newsletter

www.rcar.org

June 2010

From the Secretary-General

Hello Again!

Last time, I acknowledged what a great job the folks from State Farm and Allstate did in organizing and hosting our 2009 RCAR Conference in Chicago.

Now, it's time to remind you that our 2010 Conference is just three months away! Being hosted by NARC in Oslo, Norway from September 12 – 17, early indications are that our 2010 Conference will be just as interesting and successful as in all previous years!

Judging from the number of quality submissions received, as listed to the right, our current edition of the Newsletter should prove as interesting, informative, and valuable as ever!

In this edition, you will find 2 submissions from Centro Zaragoza on reducing the effects of whiplash and illegal traffic of vehicles; 3 articles from IIHS on low-speed vehicles & mini-trucks sharing the road with regular vehicles, the benefits of antilock brakes on motorcycles, and the impact (or lack of same) of US laws banning hand-held phone use on crashes; an article from AZT on their 2010 Genius Safety Prize; an informative explanation of Folksam's Car Purchase Policy; three submissions from CESVI Brasil on their world-wide driver licencing survey, Brazil's first traffic safety seminar, and accident reduction in Brazil; two interesting articles from KTI on vehicle electronics and magnetic dent removal; three offerings from Thatcham on active safety research, redevelopment of their Training Academy, and new vehicle safety products; an in-depth submission from KART on electric vehicle research; an article from CESVI Mexico on their participation in the 20th annual Insurers Convention; three articles from CESVIMAP Spain on dismantling of end-of-life vehicles, renewal of their bodywork textbooks, and their after-sales specialist qualification; two interesting pieces from AXA on motorcycles and ABS brakes, and the dangers of city traffic; two submissions from MRC on a joint venture with Thatcham, and MRC in China; an informative article from ICBC on excessively-raised vehicles; and two brief but interesting pieces from CESVI Argentina on its new driving test track and the launch of the "we are pART" campaign.

Once again, I extend my thanks to all who contributed! Your participation is greatly appreciated. Enjoy!

Wilf Bedard

Of Special Interest:

Inside this Issue:

From Centro Zaragoza:

CENTRO ZARAGOZA, ZARAGOZA CITY COUNCIL, MAZ MUTUA & QUIRON HOSPITAL SIGN AGREEMENT TO REDUCE 'WHIPLASH' EFFECTS IN TRAFFIC ACCIDENTS

Representatives at Signing Ceremony

CENTRO ZARAGOZA (CZ), Zaragoza City Council, MAZ Mutua and Quiron Hospital of Zaragoza recently signed a collaboration agreement whose aim is to reduce the effects of whiplash in rear-end collision traffic accidents as well as to avoid this type of accident by intensifying dissemination of safety habits among all age groups.

Whiplash is a common injury in collisions between vehicles, which also generates a lot of suffering for those affected. Thus, the signatories, who work with injured people in different areas, have decided to join forces and participate in a research project to prevent accidents that generate these injuries.

In this sense, it must be highlighted that one of the main objectives of the research project, which is going to be started up thanks to this collaboration, is the creation of a database, a pioneer in the world, which will enable all the cases recorded to be traced. In other words, with respect to each case, it will be possible to know not only the harm or injuries suffered by the vehicle's occupants, objectified as much as possible by highly specialised medical teams, and with the most advanced diagnosis means, but it will also be possible to reconstruct the mechanics of the accident that produced that result and the impact, in biomechanical terms, that this accident had on the occupants' bodies.

The knowledge provided by this database can be put to many uses in different areas, such as prevention, as the most effective measures can be modified to prevent the injuries based on a more in-depth knowledge of the injury mechanisms, as well as evaluation, as for the first time precise information will be available about the causal relationship between collisions of different intensities and the injuries associated with them.

The research work that CZ has been developing for more than 20 years in the automobile sector and the experience accumulated over this time have made it possible for CZ to actively and voluntarily contribute to social improvement and institutional collaboration in the research and promotion of road safety initiatives.

2nd CONFERENCE ON ILLEGAL TRAFFIC OF VEHICLES

The Conference in Progress

The 2nd "Conference on Illegal Traffic of Vehicles", organised and called jointly by the Secretary of State for Security and Centro Zaragoza (CZ), as the technical liaison appointed by UNESPA with the State Security Forces and Corps (F.C.S.E.), was held last April 27 & 28 in the assembly hall of the Ministry of the Interior.

This conference was attended by more than 100 people – civil servants from the National Police Corps, Civil Guard and Regional Police, as well as representatives from the Insurance Sector.

Informative presentations relating to the identification of vehicles were delivered by technical personnel from 11 automobile manufacturers and importers representing the national market, who were invited to attend this 2nd Conference: CITROËN SPAIN, PEUGEOT SPAIN, SEAT SPAIN, TOYOTA SPAIN, PORSCHE SPAIN, FIAT-LANCIA and ALFA ROMEO SPAIN, SUBARU SPAIN, LANDROVER SPAIN and JAGUAR SPAIN.

Other speakers participating included ANIACAM – National Association of Importers of Automobiles, Lorries and Buses and Motorbikes, and Centro Zaragoza, who spoke on the collaboration of their research centre with the F.C.S.E. on the illegal traffic of vehicles.

The closing session and presentation of diplomas to the participants was carried out by representatives from the Secretary of State for Security –the Director of the Coordination Office (Fernando Santafé) and the Chief Commissioner and Coordinator of Areas and Reports (Eusterio Perez Gago)-, and by CZ's General Manager (José Manuel Carcaño) and Head of the Stolen Vehicle Location Dept. (José Angel Rodrigo).

This Conference has generated a great deal of interest on the part of the participants, guest speakers, and organizers, so it is safe to assume that the continuity of this type of Conference in future is guaranteed.

From IIHS:

LOW-SPEED VEHICLES & MINI-TRUCKS SHOULDN'T SHARE THE ROAD WITH REGULAR TRAFFIC

Low-Speed Vehicle Crash Test

A growing number of US states are allowing relatively new kinds of vehicles on public roads, and new IIHS crash tests show how the mix of these low-speed vehicles (LSVs) and minitrucks with regular traffic can be deadly. LSVs are designed for use in residential neighborhoods, and minitrucks are for hauling cargo off-road. While these vehicles have a lot of appeal as a way to reduce emissions and cut fuel use, they don't have to meet the basic safety standards that cars and pickups do, and they aren't designed to protect their occupants in crashes.

Forty-five of the 50 US states allow LSVs, also called neighborhood electric vehicles, on certain roads, mostly with 35 mph or lower speed limits. Minitrucks are legal to operate on some roads in 16 US states, even though they weren't designed to meet US safety or emissions standards. The trend to grant minitrucks access to regular roads began in 2007 and is growing at a quick pace. On one hand, these vehicles were designed for low-risk, controlled environments or farm use, but on the other hand they're being driven on highways without regard for occupant safety.

To demonstrate the risks, IIHS researchers tested two GEM e2 electric vehicles and a Changan Tiger Star minitruck. The first GEM test was a side impact in which a moving barrier representing a pickup or SUV crashes into the test vehicle at 31 mph. It's the most demanding crashworthiness test the Institute runs. Dummy measures suggest severe or fatal injury to a real person in the GEM. To show that the injury risk isn't only due to the aggressive barrier, a second test was run with a Smart Fortwo, the smallest car that meets US safety standards, crashing into a stationary GEM at 31 mph. The Smart's front intruded into the GEM's side so much that the belted dummy's head came close to hitting the Smart's windshield. The GEM dummy had injury measures indicating serious or fatal injury for real occupants. In contrast, the Smart's airbags and safety cage protected the dummy from serious injury in an earlier side barrier test.

The Tiger minitruck struck a Ford Ranger XL regular cab pickup in a frontal offset test. The Tiger has safety belts but no airbags and, without airbags, the dummy's head hit the steering wheel hard. Measures indicate the likelihood of serious neck injury. In contrast, the Ranger dummy emerged unscathed. The Tiger's outdated cab-forward design put the dummy's legs into the crush zone, resulting in severe injuries. The left leg and right foot were trapped by the clutch pedal and intruding structure.

There's a world of difference between regular passenger vehicles that meet crashworthiness standards and those that don't. IIHS is conducting these tests to alert consumers to the real dangers of using LSVs and minitrucks for regular driving.

Mini-Truck Crash Test

BENEFITS OF ANTILOCK BRAKES ON MOTORCYCLES

Recent IIHS research demonstrates the benefits of antilock brakes for motorcycles. Based on findings that antilocks significantly reduce motorcycle crashes, including fatal ones, by more than a third, IIHS is seeking a US-government requirement that manufacturers equip all new motorcycles with antilocks. This feature can help in an emergency by reducing brake pressure when the technology detects impending lockup and then increasing the pressure again when traction is restored.

IIHS researchers compared the fatal crash experience of antilock-equipped motorcycles against their nonantilock counterparts during 2003-08. The main finding is that motorcycles with antilocks versus those without are 37 percent less likely to be in fatal crashes per 10,000 registered vehicle years. Bolstering this finding is a separate study by the IIHS-affiliated Highway Loss Data Institute that analyzed insurance claims filed for crash damage to motorcycles. Bike models with antilocks have 22 percent fewer claims for crash damage per insured vehicle year than the same models without antilocks.

US LAWS BANNING PHONE USE WHILE DRIVING AREN'T REDUCING CRASHES

Hand-Held Phone in Use in Vehicle

A new Highway Loss Data Institute (HLDI) study finds no reductions in crashes after hand-held phone bans take effect. Comparing insurance claims for crash damage in 4 US jurisdictions before and after such bans, the researchers find steady claim rates compared with nearby jurisdictions without such bans. (HLDI is an affiliate of IIHS).

The finding that insurance claims aren't going down in jurisdictions with phone bans is surprising in light of previous IIHS studies. For example, a study that relied on driver phone records found a 4-fold increase in the risk of injury crashes associated with phone use while driving. A study in Canada found a 4-fold increase in the risk of crashes involving property damage. Separate IIHS surveys of driver behavior before and after hand-held phone bans show reductions in the use of such phones while driving.

Yet month-to-month trends in collision claim rates didn't change from before to after the phone bans were enacted in New York, the District of Columbia, Connecticut, and California. Nor did the patterns change in comparison with trends in nearby US jurisdictions that didn't have such laws. Thus, the bans aren't reducing crashes even though they're reducing phone use while driving and this practice is known to be hazardous. This doesn't auger well for any safety payoff from all the new laws that ban phone use and texting while driving.

IIHS and HLDI are gathering data to figure out the mismatch in findings. One reason might be that some drivers in jurisdictions with hand-held phone bans are switching to hands-free phones (no US state currently bans all drivers from using such phones), and research indicates that hands-free phones are just as distracting as hand-held. Other drivers may be engaging in different distracting behavior when they stop using their phones.

To arrive at HLDI's new findings, researchers calculated monthly collision claims per 100 insured vehicle years for vehicles up to 3 years old during the months immediately before and after hand-held phone use was banned while driving. Comparable data were collected for nearby US jurisdictions without such bans. This method controlled for possible changes in collision claim rates unrelated to the bans — changes in the number of miles driven due to the economy, seasonal changes in driving patterns, etc.

From AZT:

LIGHTS ON! OPEL AWARDED THE ALLIANZ GENIUS 2010 SAFETY PRIZE

Rita Forst, Member of the Management Board, Engineering, Adam Opel GmbH, with Christoph Lauterwasser of AZT at the Genius Award Ceremony in Leipzig

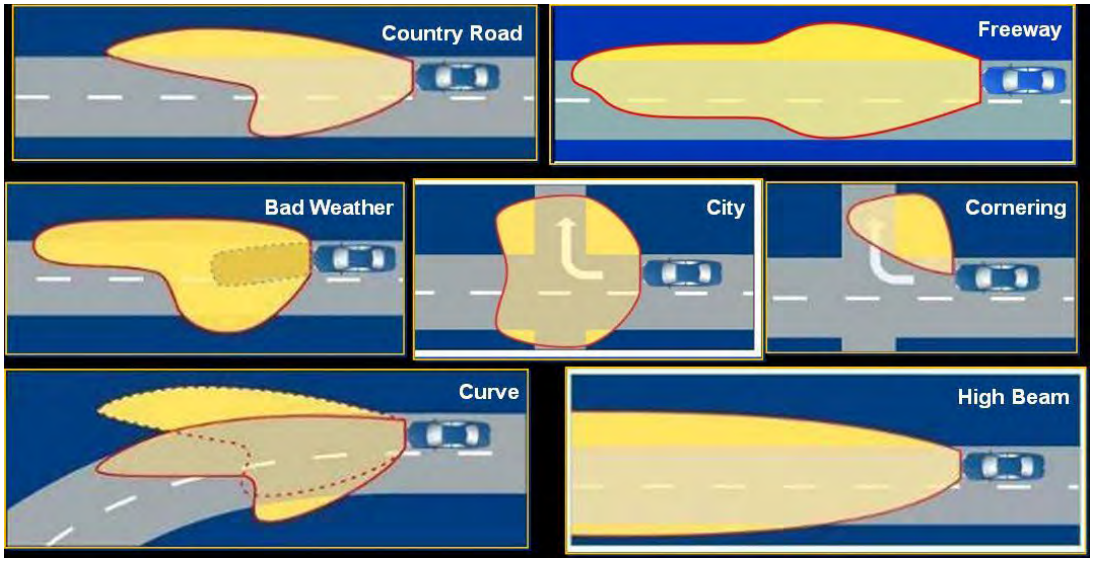
Allianz has awarded its Genius safety prize for the sixth time. This year's winner is Adam Opel GmbH for the development and introduction of an innovative headlamp system that automatically adjusts to many different driving situations. With the prize, Allianz recognizes the dedication of the automotive industry and works to increase the popularity of safety systems.

Karsten Crede, Board Member of Allianz Global Corporate & Specialty AG, and Christoph Lauterwasser, Managing Director of AZT, awarded the Allianz Genius 2010 safety prize to Rita Forst, engineering manager of Adam Opel GmbH, at the AMI Leipzig on April 15. Opel received the prize for its adaptive AFL+ headlamps. The new lighting concept makes it possible to maximize visual range and illumination of the roadside without blinding oncoming traffic. The AFL+ became available in the Opel Insignia for the first time in 2008 and has been offered with the new Astra since fall 2009.

More than 40 percent of all fatal accidents happen at night, particularly between 11:00 pm and 4:00 am," says Lauterwasser. "The victims are often pedestrians and bicyclists who are seen too late." Car drivers feel safer with a good lighting system. They can see better, there is less glare, and they can recognize bicycle riders and pedestrians right away and react appropriately. This year's prizewinner has successfully developed innovative technology for difficult driving situations, thereby improving safety."

How do the AFL+ adaptive lights work?

The new AFL+ adaptive headlamp has been introduced by Adam Opel AG for the first time as the most advanced system available. It has nine different light functions, each of which is automatically activated depending on the driving situation, ensuring optimum lighting of the road. Numerous vehicle sensors – including speed, steering wheel angle, and rain sensors, as well as the optical sensor of the advanced driver assistance system – provide information to the steering electronics about road profile, driving style, and visual conditions. Software determines in fractions of a second which light function is best for any individual situation. For example, at low speeds in city traffic, broad distribution of the light makes it easier to see pedestrians and less well-lit objects at the side of the road. Using AFL+ when driving on freeways also increases the power of the xenon headlamps from 33 to 38 watts, with considerable improvement to illumination and safety. When switching from low beams to high beams or vice versa, the color and intensity of the light remains unchanged, which is easier on the eye. –The new headlamp system makes it possible to maximize the visual range and illumination of the roadside without blinding other drivers. That considerably reduces the risk of accidents at twilight and at night," says Dr. Lauterwasser.



Functionality of the Adaptive Forward Lighting+ with dynamic beam patterns, smart beam camera-based automatic high beam switching and daytime running lights (Source: Adam Opel GmbH)

The Allianz Genius Safety Prize

Allianz is the only German insurance company that presents a safety award. The prize goes to a technical development that has already been implemented and that helps make traffic safer by demonstrably and lastingly helping to reduce the frequency and severity of accidents. Allianz established the Genius award in the hope of strengthening drivers' safety awareness and motivating car makers to optimize their products and install outstanding safety systems in their products. The previous award winners were Robert Bosch GmbH (2005) for developing and introducing the Electronic Stability Program (ESP), DaimlerChrysler AG (2006) for the braking assistant, and BERU AG (2007) for its tire pressure monitoring Tire Safety System (TSS), Valeo (2008) for its Park4U™parking assistance, and Volvo Car Germany GmbH for the City Safety system. The spherical trophy shows a person surrounded by five meridians that symbolize a zone of protection around the body. The figure's seated position, similar to that of a car passenger, establishes the association with an automobile, and emphasizes the effort to improve protection for both rider and vehicle. The award's name also reflects this meaning: besides meaning an inspired thinker, the word "genius" refers to an ancient Roman guardian spirit – a "protector of humanity."

From Folksam:

FOLKSAM'S CAR PURCHASE POLICY

Every year Folksam publishes a list of cars fulfilling the car purchase policy at Folksam addressing safety and environmental criteria. The policy concerns all company cars and also all rental cars for car insurance customers who need a rental car while their own vehicle is being repaired following an accident. The aim is to influence the standard of car fleets by setting requirements for safety and emissions. Many large fleet buyers, such as large companies and local authorities, also use the same requirements.

The first list was published in 1996. By 2010, only 12 per cent of the car models for sale in Sweden fulfilled the requirements. When studying the safety and fuel consumption requirements separately, 37% fulfilled the safety requirements and 27% the fuel consumption requirements. But the important aspect from a societal aspect is to promote cars that fulfill both requirements. Fortunately, there are lots of cars that are both safe and has low fuel consumption, so consumers do not have to chose between safety and low fuel consumption. The requirements are tightened every year, both regarding safety and fuel consumption, to encourage and promote the development of both aspects.

The safety requirements are mainly based on performance in the Folksam report ~~–~~How Safe Is Your Car?" and the Euro NCAP crash tests. But important safety equipment requirements are also included, such as whiplash protection, ESC and seat belt reminders. Below is a summary of the requirements.

Criteria for Folksam's Car Purchase Policy for 2010

Maximum fuel consumption is set for each size class. The requirements are based on the average emission targets in the EU for 2015 agreed upon by the automotive industry and the EU. The target is **130 grams of carbon dioxide per km**, which corresponds to a petrol consumption of **5.5 litres per 100 km**. The requirements are tightened each year so that the final level is reached by 2015.

Diesel cars have lower consumption requirements than petrol consumption cars. In each size class the maximum consumption is 20% lower than for petrol cars. This level results in lower emissions of carbon dioxide than the equivalent gasoline-powered car. Cars that run on ethanol, but also on gasoline, are allowed a higher consumption of petrol than those cars that run solely on gasoline. In 2010, they are allowed to have 15% higher consumption than equivalent size gasoline-only cars. This percentage is reduced progressively to the year 2016, when the figure goes down to zero percent.

Size class	Petrol l/100 km	Diesel 1/100 km	Cars that can run on both petrol and ethanol (E85) 1/100 km
Super minis	5,4	4,5	6,2
Small family cars	6,3	5,1	7,2
Family cars	7,0	5,7	8,0
Large cars	7,8	6,3	9,0
Small MPVs	7,5	6,1	8,6
Large MPVs	8,6	7,0	9,9
Small SUVs	7,0	5,7	8,0
Large SUVs	7,8	6,3	9,0

Chart Showing Fuel Consumption Criteria for each Size Class of Vehicle

Area	Requirement
Crashworthiness	- At least 30% better than average in Folksam's report ~~–~~How safe is your car?" or - At least 5 stars in Euro NCAP. If the car is only tested by ANCAP (Australian NCAP) at least 5 stars is accepted.
Safety equipment	1 The car model must have a whiplash protection with documented effectiveness, that can be shown by; • Results from real-world crashes, where the effectiveness must be in the same level as those shown to be effective in both real-world crashes and in crash test, such as Volvo, Saab and Toyota. • Results from crash tests. At least one of the following criteria must be fulfilled - "Green" in Folksam/SRA crash tests - "Good" in IIWPG - At least 3 points in Euro NCAP's rear-end performance
	2 The car model must be equipped with ESC (often named ESP, VSC, DSTC etc)
	3 The car model must be equipped with seat belt reminder on the driver seat that fulfils requirements similar to Euro NCAP.
Maximum weight	The maximum weight is 1900 kg.
Area	**Recommendations**
Pedestrian test	The car model should have at least 3 stars in the Euro NCAP pedestrian test.
Seat belt reminders	The car model should have seat belt reminders also in the front passenger seat and in the rear seat.

Chart Showing Safety Criteria for each Size Class of Vehicle

by Anders Kullgren, Head of Road Traffic Safety Research at Folksam Insurance Group

From CESVI Brasil:

CESVI BRASIL DRIVER LICENCING SURVEY

With the support of members of RCAR, CESVI BRASIL carried out a survey that compared procedures for obtaining a driving license around the world. The subject is under discussion in Brazil, which recently approved a law that establishes compulsory, practical driving lessons at night for complying with the process for teaching people to drive.

The survey indicated that most of the countries from which the information was collected regarding the driving qualification process dispense with compulsory attendance at courses in driving schools, making it possible for theoretical distance learning courses and learning practical driving skills under parental supervision. The information indicated that each country adopts a particular way, generally associated with its culture, and particularly the notion of citizenship. The application of penalties for violators follows the same line.

The entity, by its very essence as a road safety research center, provides support for actions that are intended to make traffic safer, especially when the starting point of this transformation is education.

CESVI BRAZIL appreciates the support of all RCAR centers that contributed to supplying information from their countries and that provided the content required for carrying out the research.

CESVI Magazine, issue 68, has exclusive material on driver training, which highlights the information obtained from the research. For access to the research and the institutional publication, simply contact CESVI BRAZIL.

CESVI BRASIL ATTENDS 1st BRAZIL TRAFFIC SAFETY SEMINAR

Jose Aurelio Ramalho, Director of CESVI Brasil, addresses the Seminar

On May 5 this year, José Aurelio Ramalho, director of CESVI BRASIL, was one of the speakers at the Ist Brazilian Traffic Safety Seminar, held in the House of Representatives in the country's capital, Brasilia. The seminar was divided into two panels.

During the first panel, the participants discussed the Decade of Action for Road Safety, recommended by the UN (United Nations), its implications and prospects in Brazil. The second panel was devoted to discussion of the National Plan to Reduce Traffic Deaths and Injuries, the author of which was Congressman Beto Albuquerque, reported on by Congressman Hugo Leal.

The center introduced for debate the actions that it has been carrying out , such as its ‗Enough of Accidents' campaign, which argues the need for the creation of a National Road Safety Plan in Brazil, in line with the Decade of Action for Road Safety.

In his presentation, Ramalho said that traffic needs to be seen by our leaders as a strategic issue: "It's necessary to address the reduction in numbers of traffic victims as government policy," he said. Ramalho also presented the suggestions of Abramet (Brazilian Association of Traffic Medicine), ANTP (National Association of Public Transport) and CESVI so that Brazil comes in line with UN recommendations.

CESVI BRASIL APPOINTED TO ACCIDENT REDUCTION COMMITTEE

The Committee in Session (note CESVI Brasil Director Jose Aurelio Ramalho seated at center-right)

Members of the Brazilian Mobilization Committee for Health, Safety and Peace in Traffic met last April in Brasilia to discuss the definition of a plan to reduce accidents and increase road safety for the period 2011 to 2020, relative to the Decade of Action.

CESVI BRAZIL was unanimously appointed to officially participate on the Committee. This Committee consists of representatives from five Ministries and three Secretariats, and its mission is to define inter-sectoral strategies for further improving the safety, health, and a ‗peace culture' in traffic. The end of road traffic impunity and the results and needs of the ‗Enough of Accidents' movement, which was created in September 2009, were topics of discussion among participants.

Led by the Director of Denatran (National Traffic Department), Alfredo Peres, the Committee includes the participation of Congressman Bob Albuquerque, Chairman of the Parliamentary Front in Defense of Traffic Safety, Aurelio José Ramalho, Director of CESVI Brasil, and José Antonio Oka, Supervisor of Road Safety for CESVI.

For further information, send your message to Eduardo Magrini, e-mail: emagrini@cesvibrasil.com.br.

From KTI:

KTI FOCUSES ON VEHICLE ELECTRONICS

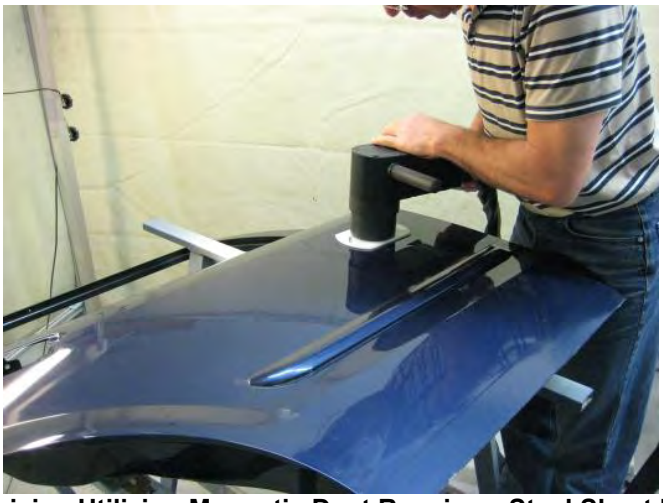
Laptop with Software

KTI has recently made a business decision to generate a tool for identifying the number and kind of ECU‘s (electronic control units) in vehicles, and checking their functionality. This will not only be of assistance to legal experts, technical employees, and mechanics in identifying individual electronic equipment, but will also serve as a tool to determine exact claims amounts. With the German Insurance Association (GDV) also interested in reducing the cost of repair, they have assured financial support for this project.

DEKRA and BOSCH Diagnostics, a premium supplier of diagnostic tools, have been invited to serve as strategic partners to assure the best practical result. At the moment, the final tests of the software developed for this initiative are being performed.

The developed software will be available in July, with BOSCH ESI[tronic]‘s 2010/03 update.

MAGNETIC DENT REMOVAL



Technician Utilizing Magnetic Dent Repair on Steel Sheet Metal

KTI has conducted a study on the suitability for daily use of magnetic dent removal during car body repair.

The equipment removes dents from 0.5 to 1.5 mm width car steel sheets. Being magnetic, the process only works on ferromagnetic materials (steel body sheet metal). Particular areas of application would include repairs of parking dents and hail dents.

The technological process is clean and does not adversely affect the environment. The equipment itself works in two stages. The damaged spot is preheated with induction heating in the first stage. The heating temperature depends on the dent size and steel sheet properties. Quick induction heating is followed by dent extraction by means of a magnetic field. The extraction force required depends on dent dimensions, as well as the characteristics and properties of the steel sheet.

Magnetic Dent Repair Device Tested

The tests were carried out on several cars and sizes of dents. It was found that dents as deep as 2 mm are reparable using this method. However, the equipment costs 30,000 €.

In the foreseeable future, KTI will perform further tests with other less-expensive devices.

From Thatcham:

THATCHAM CONTINUES ACTIVE SAFETY RESEARCH

Funded by Euro NCAP, the Crash and Safety Department carried out tests on over 40 new vehicles, based on the internationally recognised GTR (Global Technical Regulation) procedure

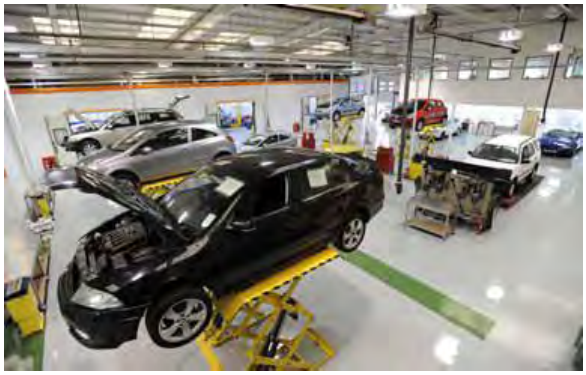
Thatcham has been publishing fitment ratings for ESC (Electronic Stability Control) since 2006 to raise awareness of this important safety technology and to encourage drivers to buy cars fitted with the system as standard.

ESC fitment is now also a key component of Euro NCAP's overall car assessment in the area of Safety Assist. The aim of Thatcham's dynamic ESC tests is to assess whether the ESC systems sold on cars will actually operate effectively. ESC prevents the driver losing control in a skid, automatically controlling the vehicle by comparing the steering and braking actions carried out by the driver to what the vehicle is actually doing. If the ESC system senses that the vehicle is veering from the required course – a skid – it automatically brakes selected wheels to bring the car back into line. The tests involve the car being driven at 50mph and being subjected to a double lane change – a typical high speed avoidance maneuver under the control of a sophisticated steering robot.

Thatcham holds „Key' Safety Event in May

On 12th, 13th and 14th May Thatcham hosted a „Key" technology event at Upper Heyford for press and insurers. On show were new safety technologies such as the „Youth key' and „Alcolock key' and other new developments aimed at reducing whiplash and pedestrian casualties. These technologies address areas of particular significance to insurers as they fall into the main claims area where costs tend to be less predictable. As young drivers are four times as likely to be involved in accidents, the „Youth' key reduces the performance of the vehicle, demonstrated by a Ford Taurus. IIHS kindly assisted in the provision of the car which, as a North American car not on sale in Europe, created a great deal of interest. The „Alcolock' key disallows any driver to take charge of the vehicle where excess alcohol limits are detected. Also on show were the latest Volvo collision avoidance vehicle on the yet to be launched new Volvo S60, and Mercedes „E' class with Active Bonnet system which would give increased pedestrian protection in the event of a crash.

THATCHAM REDEVELOPS ITS TRAINING ACADEMY



In early 2010 Thatcham undertook a £500K refurbishment of its Automotive Academy. The refurbishment entailed a complete strip and redevelopment with state-of-the-art IT-equipped training rooms and the workshop training floor.

NEW VEHICLE SAFETY PRODUCTS TO BE UNVEILED BY THATCHAM IN MID-2010

Thatcham's Vehicle Security Department have developed the TRI (Thatcham Recognised Installer) Scheme database.

This replaces the old Vehicle Security Installation Board scheme for both Vehicle Security and Thatcham Quality Accreditation ready to be launched to aftermarket system installers at the Lloyd's building in London on July 12th. This is critical in ensuring that new vehicle security systems are installed properly and so providing adequate risk reduction.

In partnership with the UK MLA (Master Locksmiths Association) and ALA (Auto Locksmiths Association) Thatcham are introducing the „Thatcham Recognised Locksmith' (TLI) database.

This is a new industry product which enables accredited locksmiths to record vehicle keys onto a central system. The database will show how many keys have been produced for any specific vehicle, which should identify if extra keys have been cut and have subsequently got into the wrong hands. Insurers, repairers and the general public can access the list of recognized locksmiths via our website.

For more information on any of these articles please contact Andrew Miller, Thatcham's Director of Research at andrew.miller@thatcham.org

From KART:

ELECTRIC VEHICLE RESEARCH

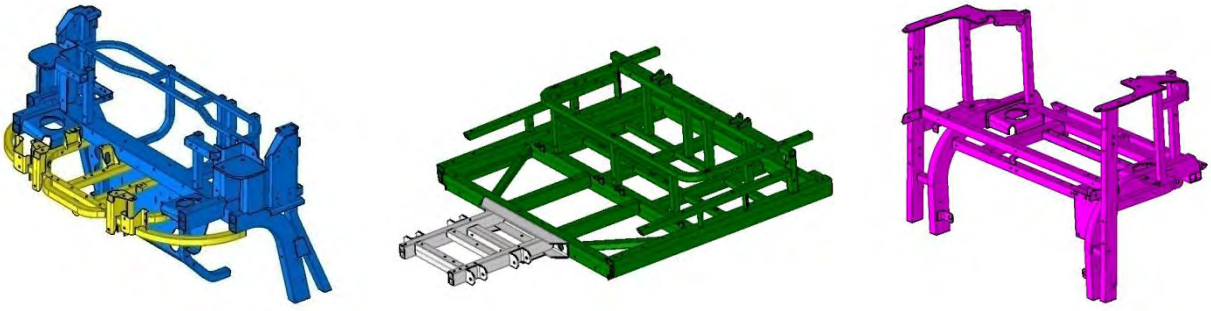
Electric vehicles have a good opportunity of launching into the market due to the recent Korean Government strong policy of promoting green industry. A low-speed and zero-emission electric vehicle (EV) ~~-e-~~Zone," manufactured by CT&T has just launched in Korea and we conducted a RCAR low speed crash test and repair time research for the group rating before launch. This compact sized 2 door EV was made of aluminum frame structure & all plastic outer body and it has maximum speed 60km/h, 100km drive for one charge, rear wheel drive, curb weight 520kg.

Due to their low max speed, Government must amend existing laws & regulations to allow low speed EVs to operate legally on city roads and streets, other than highways.

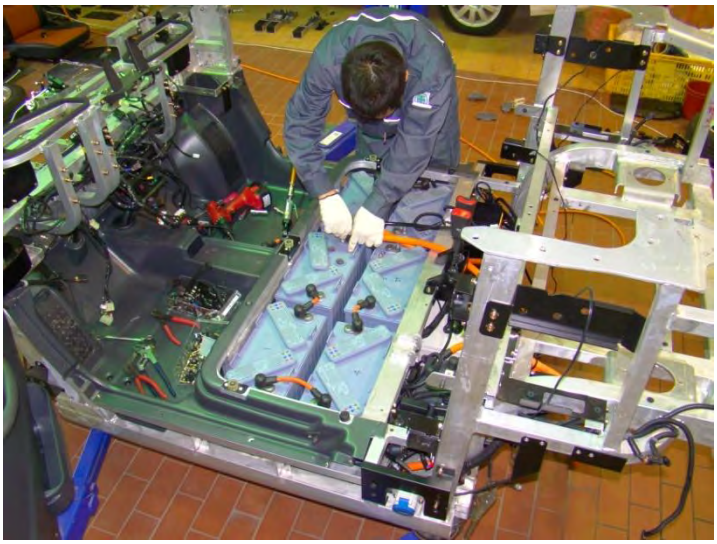
As shown in the above photo, many people from car manufacturer CT&T came to see the test. For the front test, we used a pendulum, while for rear, we used a moving barrier, in accordance with RCAR standards.

Damage was fairly severe compared to similar-sized vehicles, due to inappropriate design. Repair costs coincided with the damage severity. As a result of repair cost evaluation for both front & rear, it was found that the cost of repair for both front and rear was 5 times higher, compared to the lowest-repair-cost model we tested.

The frame structure is divided into 3 pieces, as shown in the pictures on the following page, with no crush box in either the front or the rear. As a result, both the front & rear frame had to be replaced, which played a critical role in increasing the overall repair cost. In discussing the estimate, the car manufacturer (CT&T) expressed a strong desire to improve the structural design for the front frame, including the front end vulnerable frame structure (the yellow portion of the first image on the next page). All cosmetic parts were supplied with painted ones, so we did not include the paint cost as part of the overall repair cost. Because of its simple bolt-on joining, the overall repair time for the aluminum frame was not as high.



To repair the aluminum frame, aluminum MIG welding was essential, requiring a MIG welder. However, no detailed repair manual, nor repair method, was provided. We were told that they had never researched or considered such repair procedures. According, we asked them to develop repair methods to allow such vehicles to be repaired following a traffic accident.



The group was rated 8 out of 21 (in our group rating system group, 1 is the worst, with 21 being the best), which is the worst result among vehicles of this size. We communicated the rating results to the car manufacturers as well as insurers for the normal process of auto insurance underwriting. We are also going to monitor any subsequent changes and readjust the group according to our group rating procedures.

Fortunately, the high voltage battery was not damaged. If it had been damaged, the rating would have been worse. Most of the EV battery is located in the safest place under the (rear) seat in the rear part of the vehicle. With the RCAR low-speed test, it is almost impossible to evaluate the unique characteristics of EVs. However, as the green car market is growing, it is necessary to consider the potential risk of EVs in such areas as batteries and electric motors.

A few other low-speed EVs are scheduled to be introduced in Korea soon. Accordingly, we will be contacting their manufacturers to allow them to take part in this group rating procedure.

For additional information, please go to the CT&T Website: http://eng.ctnt.co.kr/.

From CESVI Mexico:

CESVI MEXICO PARTICIPATES IN THE 20TH ANNUAL INSURERS CONVENTION

The Conference in Progress

The Mexican RCAR member had a relevant participation during the XXth annual Convención Nacional de Aseguradores organized by AMIS – the Mexican Association of Insurance Institutions - which saw important domestic and foreign specialists and authorities gather to discuss the present and the future of the insurance business in Mexico.

CESVI Mexico CEO Ángel Martínez Álvarez Addresses the Conference

Ángel Martínez Álvarez, CESVI Mexico's CEO, made a presentation to the Conference entitled "Consideraciones en la reparación de autos" - *Car repair considerations* - in which he explained the economical relevance of the 60 most substituted vehicle parts as a result of car crashes to insurance companies.

In addition, CESVI's CEO informed the attendees that, with the total cost of the Mexican repair market projected to reach $1.5 billion annually in 2010, and the cost of parts represents almost 70 per cent of this figure, there was obviously a lot of work to do!

He also said that the average cost of a vehicle repair in Mexico this year would be $1,140, an increase of 5.9% compared to last year.

CESVI Mexico CEO Ángel Martínez Álvarez Making a Point at the Conference

Despite this, the Cesvi Mexico Executive showed that the average repair hours have decreased about 5% over the last 5 years, down to 27.37 hours per car as of the first trimester of 2010.

Finally, Mr. Martínez Álvarez commented that, with good estimating practices, it would be possible to achieve an average repair cost of $756 per car, compared to $1,154 per vehicle when using ‗poor' estimating practices.

From CESVIMAP:

20,000 VEHICLES DISMANTLED AT CESVI RECAMBIOS

The CESVI Recambios Team Celebrates Vehicle #20,000

Cesvi Recambios, CESVIMAP's Authorized Treatment Centre (CAT) for End-of-Life Vehicles, dismantled vehicle number 20,000 in April of this year.

Although the earliest activity at the end of the 1990s was experimental, as part of the viability study for this project, this activity became gradually more and more important, up to the opening of our installations in 2004; more than 8 million euros was invested in these installations for the dismantling and decontamination of vehicles, and the sale of the used parts recovered from these vehicles.

Of particular note is an automatic system for the movement of the vehicles, and an innovative automatic warehouse of 60,000 cubic metres, with capacity for 12,000 parts containers. This enables vehicle dismantling to increase at an ever greater rate, reaching an annual average of 3,000 in the last few years, with the possibility of reaching 15,000.

Cesvi Recambios is characterized by the systematic approach in its working processes, its management and control methods, and commitment to quality for its clients.

During this time, more than 105,000 litres of oil, 1,500,000 litres of fuel, more than 30,000 litres of anti-freeze, and more than 10,000 tons of scrap metal have been extracted from the vehicles, and made available for subsequent recycling and reuse. In addition, Cesvi Recambios recovers reusable parts from the vehicles to put them onto the market again, with a guarantee of their working condition and at a price which is considerably lower than that of new parts. All this activity has led to an average figure for movement of parts and groups of parts of around 130,000 parts per year.

More info: www.cesvirecambios.com lpelayo@cesvimap.com

CESVIMAP RENEWS ITS BODYWORK BOOKS FOR STUDENTS

CESVIMAP has renewed its publishing line of text books aimed at secondary students studying Bodywork, who want to join the working world without taking a university course.

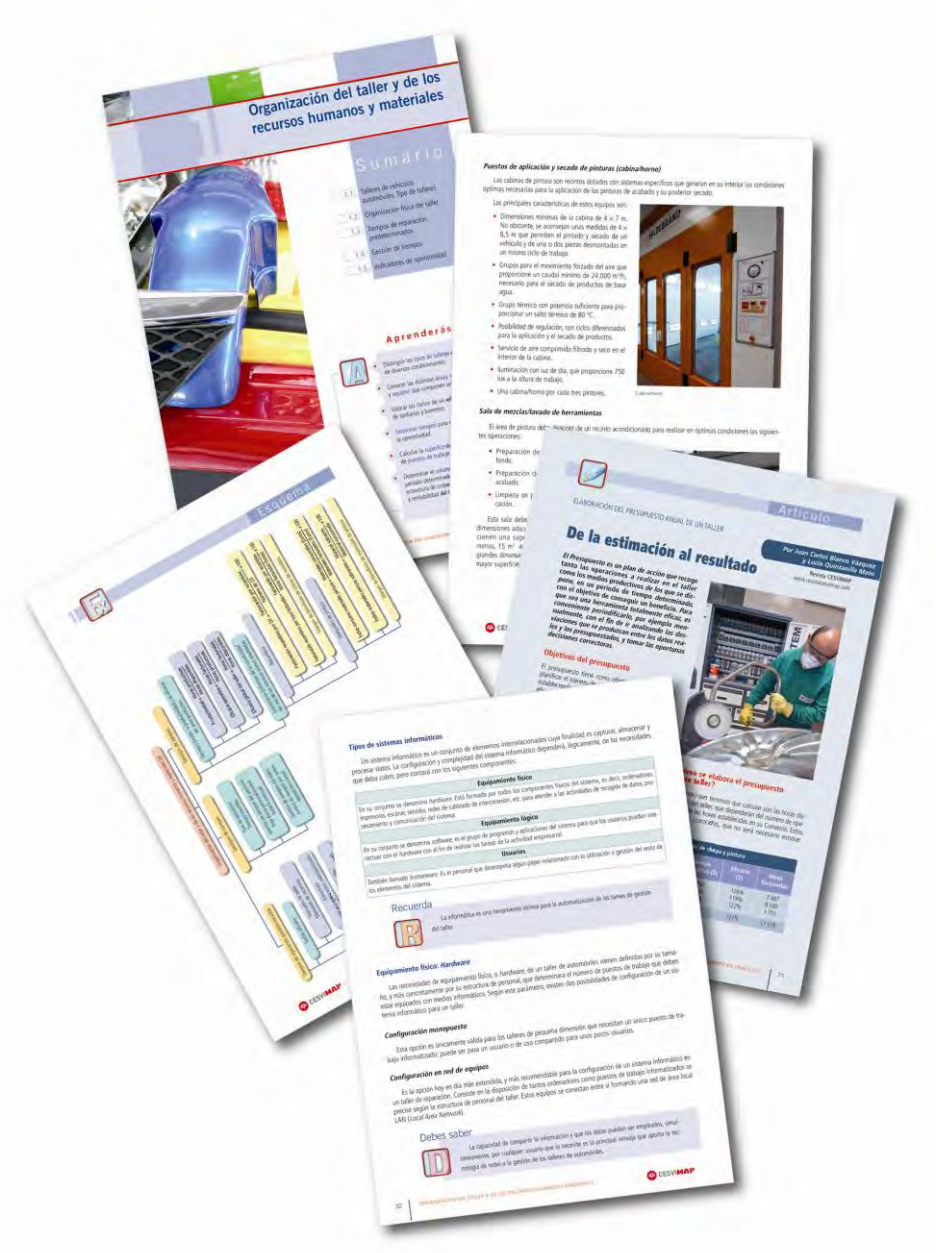
The updated titles are *Surface Enhancement, Surface Preparation* and *Vehicle Maintenance Management and Logistics.* Published in full colour, these books for technical college training courses have simple language and provide added extras for the student such as exercises in theoretical and practical evaluation in the repair shop, and outlines of each chapter.

They are also very graphic in style, so that the contents can be learned with ease.

The two first titles contain real repair processes, step by step, carried out in the CESVIMAP repair shop, and *Vehicle Maintenance Management and Logistics* includes the practical management of a repair shop or of a fleet line.

In this way, CESVIMAP's know-how and research reach even further.

The previous editions of these three titles sold more than 10,665 copies.



More info: www.cesvimap.com majeroni@cesvimap.com

SPECIALIST IN AUTOMOBILE AFTER-SALES QUALIFICATION

Within the scope of the CESVIMAP University Chair established with the *Universidad Católica de Ávila*, the on-line Postgraduate course is reaching its conclusion, giving students the qualification of **Specialist/Expert in Automotive After-Sales**.

For 675 hours (27 ECTS, adapted to the Bologna Process), 17 students have studied subjects relating to the life cycle of the automobile, the management of automotive companies: business rules and regulations and financial analysis, the automotive repair shop as a business, computerized management of the repair shop and its value process as a business.

Likewise, part of CESVIMAP's research has made itself evident in the know-how taught on automobile repair, automobile maintenance, the client, business keys, appraiser and damage valuation, spare parts and warehouse management, and other vehicles – such as industrial vehicles, motorcycles, buses and agricultural machinery. Consultancy work and repair shop certification, fleet organization and management, quality control and environmental management systems, risk prevention, research into fires and accidents, technological innovations in the automobile, and the future of the repair shop -- these all form part of the subjects studied.

To complete the postgraduate course, students have to carry out, present and defend a compulsory end-of-course piece of work (5 ECTS). Some of the topics chosen have been: *Analysis of fire produced in vehicles* and *Technical repair reports.*

Ist CESVIMAP Lecture Season

As part of this postgraduate course, the Ist CESVIMAP Lecture Season has come into being, which can be attended in person, or on line.

During the months of October, December, April and June, there have been lecture days which have brought together more than 500 people in Avila. The season has dealt with such topics as: *–Today's automotive sector, manufacture, sales, after-sales and recycling", "Automotive repair shop resource management: constitution, resources and technology", "Influences in the automotive repair shop: technological advances and the client"* and *"Looking at the future of automobile after-sales".*

This 1st Season has been a great success, both as a result of the companies taking part and as a result of the lecturers who have presented their know-how. It has enjoyed the participation of automobile manufacturers such as BMW, FORD and Volvo; the presence of the most important associations in the sector, ANCERA, the Spanish National Association of Automotive Equipment, Spare Parts and Accessories; ANFAC, the Spanish Association of Automobile and Truck Manufacturers; ANIACAM, the Spanish National Association of Importers; GANVAM, the Association of Motor Vehicle Sellers; and SERNAUTO, the Spanish National Association of Component Manufacturers; manufacturers of equipment and components, such as 3M, Bosch or Würth; institutions such as the Avila Chamber of Commerce, the local Avila Savings Bank, *Caja de Ávila*, the *Universidad Católica de Ávila*; MAPFRE, with its Human Resources, Renting and Automobile Insurance departments; the Appraisers' Association, APCAS; the repair shop representatives, CETRAA and CONEPA; as well as suppliers of software for damage valuation such as Audatex and GT Motive. Other renowned brands and companies in the Spanish market such as BASF, DuPont, Eurotaller, PPG and Sikkens, ICEA, COGITI, AUTASTEC, EUROPCAR, FITSA, have also been present.

All of the speakers expressed confidence in the future of after-sales, as the part of automotive activity which has best weathered the current difficult financial situation, and as the basis for recovery in the future.

More info: www.cesvimap.com lmayorga@cesvimap.com

From AXA:

MOTORCYCLES & ABS BRAKES

In 2009 the bachelor thesis of Andreas Meier – a collaboration between the HTWG Konstanz (technical university of Constance) and AXA Winterthur, Accident Research – showed that ABS in motorcycles could prevent about 25% of all motorcycle accidents.

The research looked at three different questions: How many accidents could be prevented by ABS? How many motorcycles have ABS as standard equipment? How does a motorcycle equipped with ABS perform during a crash test?

Although the most popular brands of motorcycles do offer at least some models with standard-equipped ABS, in Switzerland only 15.7% of all motorcycles offered for sale in 2009 were provided with standard ABS. An additional 5% of all motorcycles could be bought with or without ABS (ABS was an option). These numbers are far too low.

To show the difference between the breaking characteristics of a motorbike with and without ABS very clearly, AXA Winterthur decided to conduct two crash tests. Pictures 1 to 5 show the two crash tests at exactly the same time after the start of braking. It is evident that the motorcycle with ABS is able to decelerate stably until it stands still (t=2.0s) whereas the dummy on the motorcycle without ABS blockades the front wheel on applying the brakes, and as a result, falls and crashes into the car while sliding.

Picture 1: Both motorcycles at t=0s with a velocity of 50 km/h, starting to brake

Picture 2: Both motorcycles at t=0.5s, braking. On the right part of the picture: motorcycle without ABS falling.

Picture 3: Both motorcycles at t=1s. With ABS controlled braking (left), without ABS (right).

Picture 4: Both motorcycles at t=1.5s. With ABS (left) still braking, without ABS (right) already crashed into the car.

Picture 5: Both motorcycles at t=2.0s. With ABS (left) the motorcycle was able to stop in front of the car.

The core of this study was research based on 65 motorcycle accidents which had been reconstructed and analysed in detail. For every single accident it was verified whether ABS would have had an influence or not. ABS is only able to influence the outcome of an accident when the driver is able to apply the brakes before colliding. In only 45% of all analysed motorcycle accidents this was the case. For those drivers who were able to apply the brakes, 41% fell down. ABS would have had a huge impact for these drivers: using ABS, the collision would have been avoided in 75% of cases.

Looking at the growing number of motorcycles in Switzerland, driven mainly as a spare-time activity, we strongly recommend the purchase of motorcycles with ABS. ABS has shown itself to be very important for preventing motorcycle accidents, and not only on Swiss roads.

More information about the study is available at AXA Winterthur, Accident Research (please contact Bettina Sinzig, bettina.sinzig@axa.ch).

ON FOOT, IN THE SADDLE, BEHIND THE WHEEL – HOW DANGEROUS IS CITY TRAFFIC?

This is the title of the crash test program of AXA Winterthur Accident Research and DEKRA for 2010. Every year since 1985 AXA Winterthur (CH) and DEKRA (D) have shown crash tests to about 100 media people and about 800 customers. The main goal of these crash tests is to inform people via media about one special, actual, and interesting issue of road safety.

This year, the focus is on traffic in the city, especially the new means of transportation: the electrically powered bicycles. Swiss and German law outlines two different categories of pedal electric bicycles, so called Pedelecs: if the electrical motor has less than 250W power and the support works only below 25kph, the pedelec is treated like a bicycle. If the motor support works above 25kph and the motor has up to 500W power, the pedelec is treated like a light motorbike. As opposed to operators of normal light motorbikes, drivers of pedelecs do not have to wear helmets. This exception is one of the main reasons why researchers from AXA Winterthur and DEKRA focussed on city traffic in the crash tests in Wildhaus on July 1st.

For more information, contact: AXA Winterthur, Accident Research (Bettina Sinzig, bettina.sinzig@axa.ch)

From MRC:

MRC MALAYSIA WITH PARTNER THATCHAM CONDUCTS PROTON'S NEW VEHICLE SECURITY ASSESSMENT (NVSA)

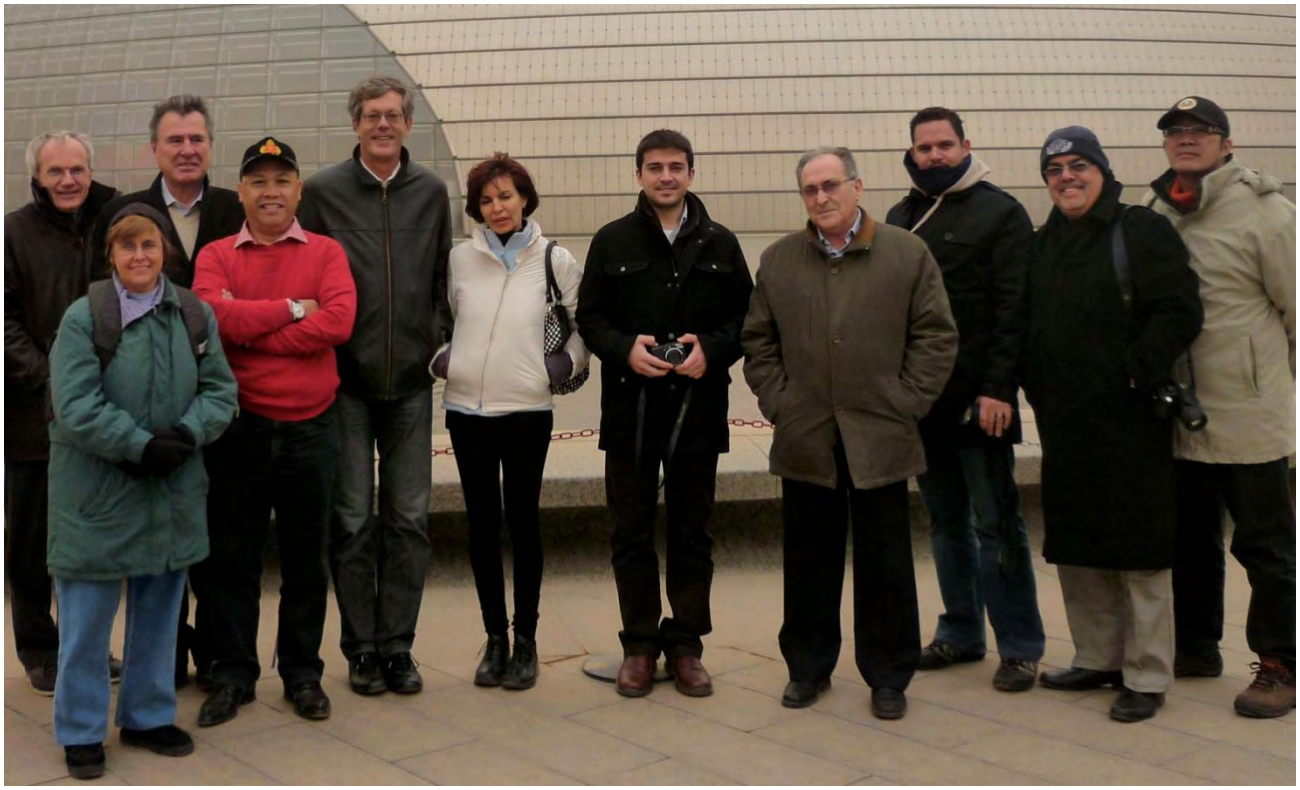
Thatcham – Proton collaboration through MRC Malaysia saw a recent enhancement. Thatcham Security Department experts Michael Briggs, Stephen Launchbury and Dennis Means conducted Proton's New Vehicle Security Assessment (NVSA) at the Proton Plant in Shah Alam, Malaysia from March 1 to March 4, 2010.

This initiative was carried out to improvise chassis, electrical, equipment and body features of Proton's future models (P321A), especially for the domestic market. A recommendation for Proton vehicles security level was produced based on NVSA tests performed on two of Proton's latest models -- Exora (MPV) and face-lifted Persona (sedan).

MRC Malaysia with her partner (THATCHAM), continue to play an important role in adding value to the Malaysian automotive industry while striving to spread its wings to other ASEAN and ASIAN markets.

MRC IN CHINA

AMR-Auto Maintenance & Repair 2010, 53rd China International Trade Fair for Auto-Aftermaket, March 18-21, Beijing, China National Convention Center (MRC Malaysia managing director 6th from left)



International delegates from the US, Australia, France, Spain, Malaysia and South Africa at the AMR-Auto Maintenance & repair 2010 (www.auto-maintenance.com.cn)

Managing Director & CEO MRC Malaysia speaking at Automechanika Shanghai, China

From ICBC:

EXCESSIVELY-RAISED VEHICLES

Excessively-Raised Vehicles can present serious safety risks for motorists on today's roads. An excessively-raised vehicle refers to modifications made after manufacturing, resulting in a significant increase in original ride height (*see photo below*) from the installation of aftermarket lift kits and/or oversize replacement tires. In many cases, these modifications can have a serious impact on road safety – relating to the performance of the braking system, steering, suspension, lighting and bumper height. In general, Canadian jurisdictions do not have specific regulations to address excessively raised vehicles, but instead have provisions that speak to individual items such as suspension height, head lamp, tail lamp, reflector height, mudguards and replacement bumper positions.

ICBC, as a member of the CCMTA (Canadian Council of Transport Administrators) is participating in a technical working group comprised of representatives from seven provinces with a mandate from the CCMTA to develop a national best practice document for regulating excessively-raised vehicles.

The image below was taken to specifically illustrate the increased height of a front bumper on a light truck equipped with an aftermarket suspension lift kit and oversize replacement tires in relation to the position of the head and upper torso of a driver seated in a compact car (in this case, a 1990 Honda Civic). More importantly, the image depicts the height of a front bumper that complies with maximum recommended bumper heights that were proposed by the Motor Vehicle Manufacturers' Association in 1988 and later adopted by several jurisdictions to serve as the criteria for regulating the increased ride height of excessively-raised vehicles. Consequently, on the basis of bumper height, the light truck depicted in the image would not, according to most jurisdictions, be considered a vehicle that was excessively raised.

The technical working group reviewed research regarding safety considerations associated with raised vehicles such as: partnering in collisions (geometric alignment of energy management structures), bumper heights, braking effectiveness and roll-over stability. Research reviewed included: recent US and Canadian auto industry MOU's designed to promote the alignment of energy absorbing structures (frames) on passenger cars and light trucks, AAMVA model legislation and jurisdictional practices.

While final recommendations are not complete, the working group is recommending using "frame height" as a single measurement protocol for determining acceptable altered ride height limits for raised vehicles. This approach supports recent industry efforts to improve the alignment of energy management structures in the light-duty fleet and will indirectly assist in the regulation of lighting heights, braking performance and roll-over propensity on raised vehicles.

Several options are being considered to determine the "Measurement Protocol for Regulating the 'Altered' Ride Height of Excessively-Raised Vehicles". The unanimous view of the group was that it is critical to preserve the integrity of the energy absorption mechanisms built into vehicles, to provide the safest outcome in the event of a crash. At the same time, it is recognized that there needs to be some level of flexibility built in for the practical management of raised vehicles – there are legitimate needs to raise vehicles in some circumstances (i.e. postal vehicles, military vehicles, service vehicles used by public and private utilities, vehicles specifically designed primarily for off-road use).

The final outcome will be a CCMTA-recognized Best-Practice Document for Excessively-Raised Vehicles to be submitted later in 2010.

Website Report

www.rcar.org RCAR Research Council for Automobile Repairs

The total number of „visits' to the RCAR Website ranged from 1,312 in February to 1,348 in March to 1,209 in April, while the number of „total pages views' during that same period ranged from 3,555 in February to 3,712 in March to 3,190 in April. After increasing from 2 minutes 7 seconds in February to 2 minutes 28 seconds in March, the average time spent on site decreased to 1 minute 45 seconds in April.

From CESVI Argentina:

NEW DRIVING TEST TRACK

Within the framework of its fifteenth anniversary, CESVI ARGENTINA has inaugurated its new driving test track. In an area of nearly 5000 square meters, the new facility was built for the demanding practices that take place during the Defensive Driving training, as well as various tests and trials to road safety and automotive.

LAUNCHING OF "WE ARE pART" CAMPAIGN

Participants at the Launch of the "We are pART" Campaign

The change is in your hands.

In Argentina, more than 90% of vehicle crashes are caused by reckless driving behavior. Lane invasion, distractions, phoning or texting while driving, tiredness, alcohol consumption and speeding are the principal reasons for more than 75% of vehicle incidents. That is why CESVI ARGENTINA, with the support of the National Agency for Road Safety, is launching the "We are pART" campaign in order to make the society aware of the vial risks. Several Argentine prestigious sculptors will transform the wrecks of crashed vehicles into works of art, as a symbol of the transformation and changing of the society.

The pieces will be showed in several sites across the country to be auctioned. The money collected will be assigned to charitable activities.

On the Move:

Will Kukelko, Director of Physical Damage Management for Manitoba Public Insurance, retired effective April 12 2010, after a distinguished 38-year career with one of Canada's first public auto insurers. Will was an active member of RCAR for many years, having hosted the Annual Conference in Winnipeg in 1996. An advocate of constant improvement in customer service, business processes, and the way vehicles are repaired, Will oversaw the completion of a great number of high-quality research projects at MPI's Physical Damage Research Centre. Several industry innovations originating at MPI developed into accepted vehicle repair methods and processes, saving both time and money. Many of these research initiatives have been presented to RCAR. With his retirement, Will is planning on spending more time with his family at his lakefront property in Lake of the Woods. He is also looking forward to taking some road trips in his Audi TT, pictured at right.

The RCAR Network:

AZT Germany	**www.allianz-azt.de**
Centro Zaragoza Spain	**www.centro-zaragoza.com**
Cesvimap Spain	**www.cesvimap.com**
Cesvi Argentina	**www.cesvi.com.ar**
Cesvi Brazil	**www.cesvibrasil.com.br**
Cesvi Colombia	**www.cesvicolombia.com**
Cesvi France	**www.cesvifrance.fr**
Cesvi Mexico	**www.cesvimexico.com.mx**
CESTAR Italy	**www.cestar.it**
LVK Finland	**www.liikennevakuutuskeskus.fi**
Folksam Auto Sweden	**www.folksamauto.com**
ICBC Canada	**www.icbc.com**
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State Farm USA	**www.statefarm.usa**
Tech-Cor USA	**www.tech-cor.com**
Thatcham UK	**www.thatcham.org**
AXA-Winterhur Switzerland	**www.winterhur.com**

Dates for your Diary:

Annual RCAR Conference, Oslo, Norway, Sep 12-17 2010, hosted by NARC.

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