

News From The Centres

ICBC—Canada

Unlike much of Europe, Western Canada experienced another cold and snowy winter this year. High amounts of snowfall meant that highways maintenance crews spread thousands of tons of crushed rock “aggregate” on British Columbia’s mountain highways for improved winter traction.



One of the effects of all this aggregate on the highways is a large number of claims for broken windshields. In 2006, ICBC replaced almost 100,000 windshields for a total cost of more than \$35 million (plus \$20 million more paid by our customers for deductible portions).

ICBC is now investigating the use of clear polymer plastic coatings on the outside of windshields as a method of protecting them from rock damage. Investigation includes field use of some of these coatings on our fleet vehicles, as well as laboratory tests for abrasion resistance and compliance with Canadian Motor Vehicle Safety Standards. If successful, ICBC will also look into ways to encourage motorists to install these protective coatings – such as premium reductions, reduced deductible levels, etc. A report on this research is anticipated for the 2007 Brazil conference.



(ICBC are at: www.icbc.com)

Centro Zaragoza—Spain

A Spanish Government Delegation in Aragon, Centro Zaragoza and C.A.I. Promote the First Vehicle Passive Safety Campaign

The main goal is to reduce the number of road accidents, as well as the number of road casualties and serious injuries. On 26 January this year the Spanish Government Delegation in Aragon, CENTRO ZARAGOZA and C.A.I. (Savings Bank) signed an agreement to launch the first **Vehicle Passive Safety Campaign in Aragon**, whose slogan is “**Before starting, check your safety**”. The agreement was signed by Mr. Fernández (Spanish Government Delegate in Aragon), Mr. Carcaño (General Manager of CENTRO ZARAGOZA) and Mr. Camarero (Manager of the C.A.I. (Savings Bank) Social and Cultural Department).



The Spanish Government Delegate in Aragon opened proceedings with the campaign presentation. Immediately after, Mr. Rubio (Spanish Government Deputy Delegate in Aragon) transmitted the aim and working process during the development of the campaign. After that, Mr. Carcaño provided the assistants with all the technical information about the four elements of passive safety which the campaign is based on. Finally, Mr. Camarero stated how proud he was to belong to the initiative financed by his savings bank.

News From The Centres

Centro Zaragoza—Spain (continued)

The Vehicle Passive Safety Campaign means a pioneering initiative in Spain which will take place at the car dealerships in Aragon. The car dealers will provide their clients with information about the correct use of the safety belt; right distance between the driver seat and the steering wheel; headrest regulation and safest babies and children way of transportation.

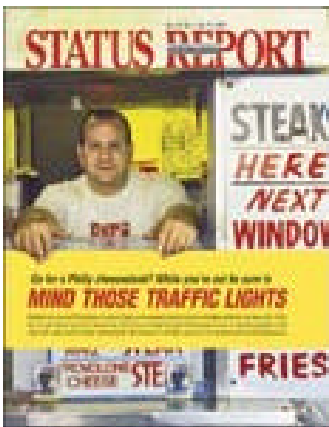
Engineers specialized in road safety from CENTRO ZARAGOZA will be responsible for training the car dealers, during two courses of two hours, in each of the three capitals of Aragon.

CENTRO ZARAGOZA works actively on the research and spreading of the factors that are involved in road accidents with the aim of reducing the number of road casualties and injuries they produce.

CENTRO ZARAGOZA has designed all the necessary material for the development of the campaign: DVD that will back up the car dealers training with short films; three-page leaflet with the safety recommendations for the clients and a sticker, which could be seen at the doors the car dealerships that join the campaign.

(Centro Zaragoza are at: www.centro-zaragoza.com)

IIHS—USA



January Status Report covered Red Light Censors, Why Beginners Crash, Vehicle Size in relation to safety and fuel economy, Airbags and a listing of new HLDI publications. In a study carried out by the Institute in Philadelphia's six sites where cameras had been set up at intersections were closely monitored. The cameras were prominently placed and signs announced their presence, so motorists knew they were not being ambushed. The actual sites were chosen for photo enforcement after being identified as some of the highest crash locations in the United States. The idea of cameras is to reduce signal violations and, in turn, the number of serious crashes. The results were quite dramatic based on red light violations per 10,000 vehicles at one site reduced from 251 to fewer than 2 per 10,000. This success was replicated at the 5 other sites. A measure to introduce longer yellow light times was also successful in reducing violations but not so dramatically as the enforcement cameras. A report, "Reducing red light running through longer yellow signal timing and red light camera enforcement: results of a field investigation", by R A Retting et al, is available from the Institute.

The Institute has been studying the reasons why teenagers get involved in crashes in order to suggest ways of reducing such crashes. Attention and distraction seem to be important issues, together with speeding, particularly by young males. A copy of "Crashes of novice teenage drivers: characteristics and contributing factors" by K A Braitman et al is available from the Institute.

The January Status Report also covered the relationship between fuel economy and safety and highlighted a publication in November 2006 American Journal of Public Health, "Blood and Oil: vehicle characteristics in relation to fatality risk and fuel economy" by L S Robertson. A paper given by Brian O'Neill, Past President of the Institute, was also highlighted in the report. "Airbags: Yesterday, Today, and Tomorrow" by Brian O'Neill is available from the Institute.

The March Status Report is a special issue on Bumper Performance. The report is damning of the current state of bumpers. The Institute has been testing bumpers for 38 years and bad bumpers are the norm. they have now revamped their bumper test programme so that it reflects real world experience more closely and the result....bumpers are still bad.

The Institute explains the test and reasons for changing the testing regime. It also provides results and examples. It comments on cost and on safety and makes the point that the current designs are a triumph of style versus function. In other words, cars looks good with sleek, wrap-around bumpers but they do not do the job they were designed to do.

An example of a good performer from the past is the 1981 Ford Escort which was retested recently and sustained minimal damage. This was compared with current vehicles such as the Nissan Maxima with \$1,732 damage in one test alone and more than \$9,000 total damage in 4 bumper tests. 16 other current models showed similar poor results. However, whilst the Nissan Maxima was the worst performer, the Mitsubishi Gallant was the best performer in low-speed crash tests, but it still sustained more than \$4,000 damage.

(IIHS is at: www.iihs.org)



The Phenomenon of the Automobile in China

By Jason Yat-Sen Li, Head of Research, CAA.



One of the enduring images of China for visitors in the past was the sea of bicycles everywhere. No longer. Visitors to China now may marvel at the revolution that is taking place on China's roads: the millions of Chinese who now drive cars. So many, in fact, that a large number of China's roads are frustratingly congested and the traffic infrastructure of some large cities such as Beijing and Shanghai are at or near capacity. This explosion in automobile sales and ownership is not only exciting as a sign of China's economic rise, but also has given rise to serious issues: those of environmental impact and a rising road toll, the world's largest. It has also spawned the entire gamut of automotive related industries: insurance, auto-repair and body-shops, automobile clubs, driving schools, auto-accessories and car related media.

Cars and China's Economic Rise

In 1978 China officially began opening up its economy to the rest of the World. 1992, however, is often quoted as the real start of economic liberalization following Deng Xiaoping's "spring tour" to south-east China. China has since experience breathtaking and continuous levels of economic growth. GDP growth for 2005 beat both government and international forecast and hit 10.5%, quite in spite of Chinese government attempts to cool the economy by curbing housing market speculation and debt-fuelled investment in certain sectors. The Director General of the China Bureau of Statistics, Qui Xiaohua, predicted in 2006 that the Chinese economy will surpass that of Germany in 5 years, that of Japan in 10 years and that of the US in 30 years.



The growth of car ownership is one of the products of this rapid economic development. It is also underpinned by the rise of the so-called Chinese "middle class", defined roughly as those households with annual incomes of between US\$10,000-40,000 and whose number has been estimated at up to 300 million, rapidly growing, and as rapidly consuming luxury products, residential real-estate and, of course, cars. At the end of 2005 China had 320,000 millionaires, compared with 2.7 million in the USA.

What is special, however, about the car in China is that it is a powerful symbol of personal freedom. For millions of Chinese citizens who have emerged from 50 years of a tightly controlled planned economy, a luxury car or, in many second tier cities, simply owning any car is the ultimate status symbol, a powerful sign of having "made it". But perhaps even more profoundly, the ability to drive to work each morning rather than take the bus or train means the freedom of mobility that is personal, customizable and individual.

The car has become a powerful symbol not only for the economic rise of China and its people but also of personal freedom and individualism for Chinese people. China is a place now where you can see Ferraris racing past donkey-driven carts on country roads; Bentleys worth \$US250,000 parked outside the trendiest clubs and restaurants where the wait-staff would earn an average of \$200/month; car enthusiasts joining in "drive-travel" excursions with the families in convoys of hundreds of cars all driving together for leisure to a scenic spot to lunch, compare cars, relax and share in the camaraderie of others for whom the car has become an essential lifestyle accessory.

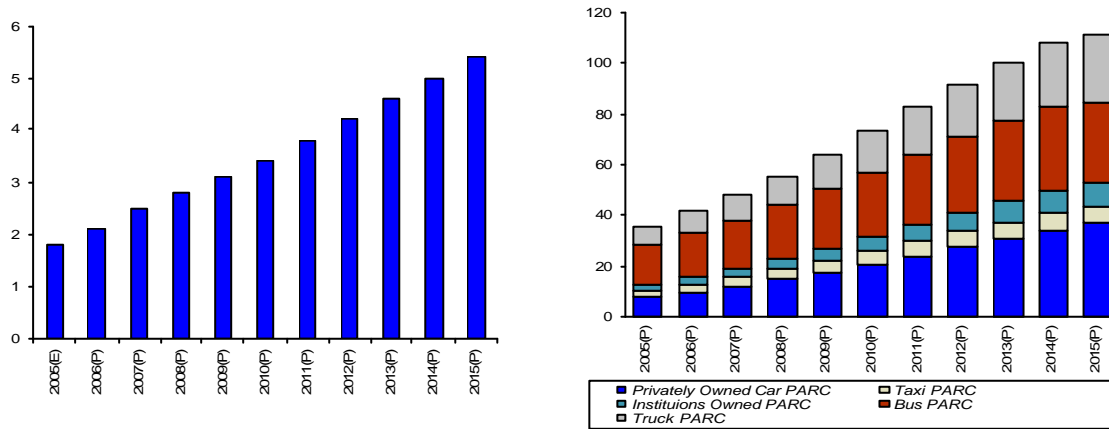
The Phenomenon of the Automobile in China (continued)

Growth of the automobile market and ownership

There are currently about 40 million vehicles on Chinese roads. Of these, approximately 10 million are privately owned passenger cars, just marginally less than the number of privately owned cars in Australia. By 2010, the number of passenger cars is expected to double to 20 million and to reach 35 million by 2015.



In 2006, China overtook Japan to become the world's No.2 vehicle market behind the USA. According to the China Association of Automobile Manufacturers, China's overall vehicle sales (including trucks and buses) rose 25.1% to 7.2 million in 2006 and passenger car sales rose to 3.8 million. General Motors announced that sales in China grew by 32% in 2006 to 876,747 units with the flagship Buick brand achieving 24.9% growth. Rival Ford announced that its China sales rose 87% to 166,722 units whilst Volkswagen reported a 24% increase in sales to 711,000 vehicles.



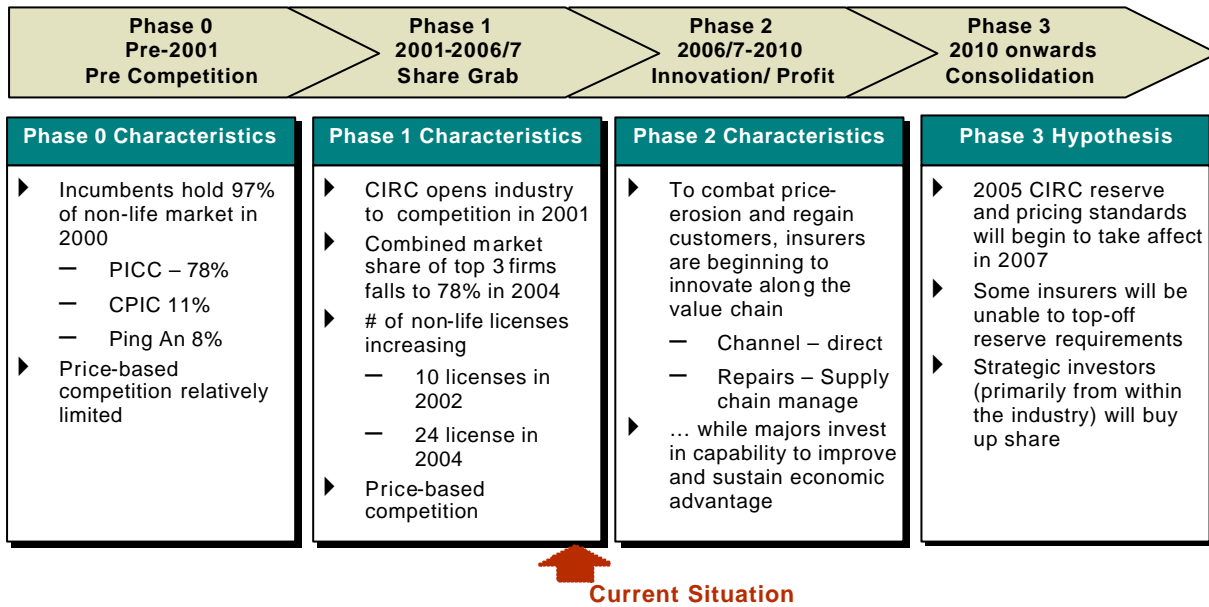
Source: China Auto Yearbook; China Statistical Yearbook; Morgan Stanley; Goldman Sachs; Booz

The export of Chinese manufactured cars to overseas markets has also been attracting significant attention. Indeed, the government has publicly stated its ambition to become a major power in the global auto-manufacturing market and RCAR members may be researching China-made cars for their home markets sooner rather than later. In the first half of 2006, China exported 34,500 sedans, surpassing the total export volume of 2005. Chinese manufacturers now export to 207 countries and regions. From 2000 to 2005, Chinese auto and auto-component exports grew at an average of 40%, whilst exports of complete vehicles grew at an astounding 70% each year on average.

Trends in the Auto Insurance Market

The size of auto insurance market in China is expected to reach USD \$30B by 2010. The auto insurance industry in China could be characterized as in the "market share grab" stage of industry evolution. Please see figure below. This stage features intense competition (often after recent industry deregulation), a host of entrants each desperately trying to win market share, often by irrational pricing strategies and price-wars.

The Phenomenon of the Automobile in China (continued)



The past 2 years has seen the three dominant market players, People Insurance Company of China (PICC), China Pacific Property Insurance Company (CPIC) and Ping An Insurance Company’s combined market share fall from holding 97% of the non-life market in 2000, to just over 70% now. PICC has seen its individual market share plummet from almost 80% 6 years ago to about 40% now.

Most of this market share has been lost to a variety of new, smaller, hungry players who have strong government backing and capitalizations and have carved out significant positions in niche markets.

In response to the rampant price competition, the Chinese Insurance Regulatory Commission (CIRC) is widely expected to exert far greater regulatory control over pricing, underwriting and reserving the new future. In addition, as the industry soon moves out of the “market share grab” phase to enter the “Innovation/Profit” phase we will expect to see a push among Chinese insurers to exert far greater control over their vehicle repair supply-chain and to engage significantly in research and operational activities aimed at lowering the costs of auto-repair.

Cars and the environment

The phenomenon of the car in China is not without its downsides. One of these is the contribution of car and traffic -related pollution to China’s massive environmental problems. As cars are such a status symbol and expression of individual freedom and lifestyle in China, people actually use their cars a lot, a whole lot. Even if taking public transport to work may be both cheaper and faster, a majority of car owners still like to drive to work each day, preferring the personal space and comfort of their own vehicle to a crowded bus, subway or other mass transport. This is the new era of individualized consumerism in China and it is this that is impacting dramatically on China’s environment.

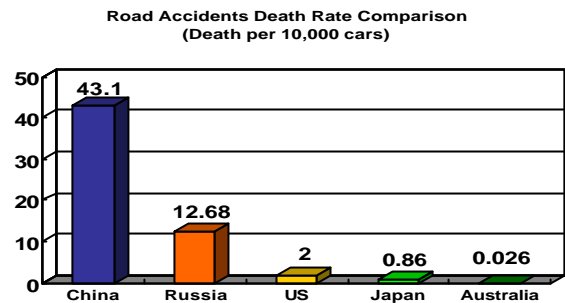
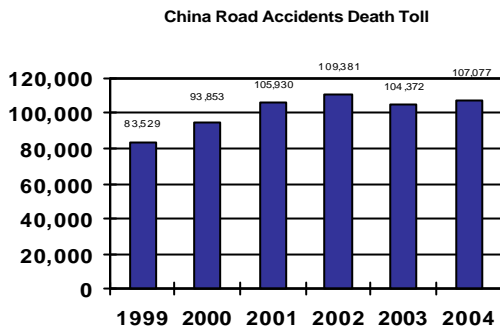
According to World Bank research, of the world’s 20 most polluted cities, China has 16. On many days in China’s large cities the yellow-brown smog that hangs over the cities can reduce visibility to a couple of meters, and yellowish stains appear on clothing from drizzle, the rain drops containing a mix of pollutants. The Chinese government is very upfront about this challenge and openly admits to China having missed most of its environmental goals in the previous 10th 5-year plan that ran from 2001 to 2006. Only Beijing and five other provinces, for instance, achieved the target of reducing energy consumption per unit of GDP by 4% and pollutants by 2% in 2006. For 2007, a new 11th 5-year plan has come into force and a feature of that plan is its environmental targets that are ambitious, but widely recognized as critical to the country’s future. The overall goal for the current 5-year plan which runs until 2010 is to reduce energy consumption by 20% and pollutants by 10%.

As part of industry efforts to contribute to these environmental goals, PetroChina, China’s largest petrol producer, announced plans to produce 2 million tones of ethanol per year from non-grain crops by 2010 and 200,000 tonnes of bio-diesel fuel by 2010.

The Phenomenon of the Automobile in China (continued)

Road Safety

Official Chinese government statistics state that just over 100,000 people perished on China's roads last year. A number of unofficial statistics put this figure much higher. Whichever set of figures you believe, the road-toll in China is astronomical compared to other countries, even developing countries. The graph below shows the fatality rate per 10,000 vehicles in China, compared to that of Russia, the USA, Japan and Australia.



If, as predicted, the number of passenger cars in China doubles by 2010 and then doubles again by 2020, without dramatic progress in reducing the number of road fatalities, the road toll could conceivably reach 200,000 in 2010 and 400,000 by 2020.



As in other parts of the world, road fatalities in China are caused by a combination of driver error, poor roads and poor safety performance in vehicles. The reality is that in a country that is developing at the pace of China, the majority of drivers are novice drivers. For most new car owners, the car they have just purchased is the first car they have ever owned. As such, drivers in China simply lack the driving experience of road-users in other parts of the world.

Road-safety education in China must really start at the very beginning. Even seat-belt use is poor in China due to lack of awareness and understanding, or myths and misconceptions. It is a common misunderstanding, for example, that if one's car is fitted with an airbag, there is no need to wear a seat-belt as in the event of a collision the occupants will be cushioned and protected by a number of fluffy pillows.

China Automobile Association

It is again this backdrop of the extraordinary growth of the automobile in China that China Automobile Association (CAA) goes about its day to day work. CAA was founded over 10 years ago in 1995 and is China's largest and oldest auto club and road-side assistance provider.

Founded by a Chinese entrepreneur who had been impressed by the automobile associations of the US, Europe and Australia, CAA was purchased by Insurance Australia Group, an RCAR member, in 2003. And like other automobile clubs around the world, CAA offers a range of road-side assistance, towing, motoring and club membership services and benefits. CAA provides:

- 24/7 road-side assistance and towing;
- Auto insurance and claims processing;
- Member benefits programs that offer member discounts at a range of retail businesses;
- Motoring activities and maps for car owners who are eager to enjoy the lifestyle associated with car ownership.

But there are also significant differences: one of CAA's most popular activities is the organization of what is known as "drive-travel tours". As car ownership is such a new luxury in China, Chinese car owners often organize their lifestyles around their automobiles. To enjoy the use of their car, to show it off and to mingle with other car owners, Chinese drivers often bundle their entire families into the car on weekends, and in a convoy of sometimes hundreds of vehicles, will drive together in a CAA organized tour to a scenic spot an hour or two outside of town. There, the families will lunch together, perhaps enjoy the scenery or a number of CAA organized games & activities, and then set off again for home.

The Phenomenon of the Automobile in China (continued)



However, it is also impossible to operate in the auto-industry in China without being acutely aware and concerned about the issue of road-safety. CAA's commitment to and work to improve road-safety in China has been a cornerstone of CAA's corporate social responsibility programs and one of the core values of the company.

In 2005, CAA launched a road safety partnership with China's premier university, Tsinghua University. The campaign, which covered 5 topics including the use of seatbelts and airbags, the dangers of speeding, the protection of children and drink driving reached millions of Chinese consumers through the mass media.

China is a developing country. For a people who are just now experiencing the freedom and the personal symbolism of freedom that the automobile affords, it is no wonder that automobile ownership and sales have been growing astronomically. It is also no surprise that there is a raft of serious environmental and safety issues surrounding the rapid development of the automobile industry in China. In a globalised world, a serious problem in one country of the world, very quickly becomes an issue of global significance. The environment impacts of car ownership and use in China spill across into neighbouring countries and even so far as Europe and North America. The safety impacts of Chinese cars will be felt globally as Chinese-made cars are exported.

It is in this context, in light of these great opportunities and challenges that CAA conducts its business, and is proud to be a new associate member of RCAR and a great supporter of RCAR mission, objectives and work.

Finland in the Snow



These photographs were taken by Tapani Alaviiri of VAT in Levi—Finland: the land of snow, reindeers, bears and wolves. It is about 120 km north of the arctic circle and about 1,000 km from Helsinki where the 1997 RCAR Conference was held. "Flying Boy" (top right) is Tapani's 16 year old son.

All photographs ©2007 Tapani Alaviiri

Pound House
Lockeridge
Marlborough, Wiltshire
SN8 4EL United Kingdom

Phone: +44 1672 861072
Fax: +44 870 705 8565
Email: michael.smith@rcar.org

Dates For Your Diary

SAE 2007 World Congress is to be held in Detroit, Michigan, 16-20 April 2007.

Details: www.sae.org

Crash Test Expo Europe 2007 is to be held in Stuttgart, Germany, 8-10 May 2007.

Details: www.crashtest-expo.com

International Bodyshop Industry Symposium (IBIS) is to be held in Martinez Hotel, Cannes, 30 May—1 June 2007.

Details: www.ibisworldwide.com

20th International Technical Conference on the Enhanced Safety of Vehicles (ESV) is to be held in Lyons, France, 18-21 June 2007.

E-mail: esv2007@inrets.fr

Annual RCAR Conference 2007 is to be held in Salvador, Brasil 23-29 September 2007 and will be hosted by CESVI Brasil.

51st Annual Conference of the Association for the Advancement of Automotive Medicine (AAAM) is to be held in Melbourne, Australia, 15-16 October 2007.

Details: www.carcrash.org

51st Annual STAPP Conference is to be held in the Catamaran Resort Hotel, San Diego, 29-31 October 2007

Details: www.stapp.org

NACE 2007 is to be held at Mandalay Convention Center, Las Vegas, 31 October-3 November 2007.

Details: www.naceexpo.com

The RCAR Network

Of the 26 RCAR Centres in 20 countries, 25 have web sites. Addresses are to be found on www.rcar.org.

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 Brasil	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
VAT Finland	www.liikennevakuutuskeskus.fi
Folksam Auto Sweden	www.folksamauto.com
ICBC Canada	www.icbc.com
IHS USA	www.highwaysafety.org

KTI Germany	www.k-t-i.de
Lansforsakringar Sweden	www.lansforsakringar.se
MPI Canada	www.mpi.mb.ca
JKC Japan	www.jikencenter.co.jp
KART Korea	www.kidi.co.kr
MRC Malaysia	www.e-mrc.com.my
FNH Norway	www.fnh.no
IAG Australia	www.nrma.com.au
State Farm USA	www.statefarm.com
Tech-Cor USA	www.tech-cor.com
Thatcham UK	www.thatcham.org
AXA-Winterthur Switzerland	www.winterthur.com

From the Secretary General

Welcome to the March 2007 RCAR Newsletter. We have news from eight of our members with a longer article by Jason Yat-sen Li of China Automobile Association (CAA), our newest RCAR Member. Welcome to RCAR, Jason, and thank you for a very interesting insight into the rapid growth of motoring in your country.

It seems to have been a rather long winter and at times it has been quite cold (at least for us in UK) - cold being defined by me as below -5°C . However experience of some of my colleagues in Canada and Finland at approaching a factor of ten times as cold as this make the UK look like a warm country in the winter. Some of you in the southern hemisphere and warmer climes will be amused to see some real snow on the roads of British Columbia (see ICBC) or in China (see CAA article). Some photographs sent to me by Tapani Alaviiri of VAT Finland last week take the art of photography a step nearer to perfection. They make me feel very cold! To give you a taste I include four on Page 15 and thank Tapani for sharing them with us.

José Ramalho of CESVI Brasil and his team are busy planning the detail of our forthcoming RCAR annual conference and I shall be able to report progress in the June newsletter. I do recommend you visit the website set up by CESVI Brasil to provide background information on the country and the conference.

In the automobile manufacturing field, I thought that with Honda's launch of the FCX Concept Car and press releases relating to their fuel cell technology plans, this would be a good time to review this emerging technology. However I soon discovered that because of competitive pressures it was extremely difficult to get up-to-date information from the car manufacturers. I also found it difficult to get a clear view on infrastructure progress. There are, of course, conflicting views on the best research route and in particular the use of water or acid as a pathway to success. We are probably about ten years away from commercially developed fuel cell power units and I can understand the natural secrecy surrounding their development. However we did produce an article in this newsletter some three years ago setting out the basic technology and it is about time we had a technical article updating matters. I would be very grateful for help from Members in this area.

Very best wishes,

Michael Smith