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**News Letter
of
N A C O T A**

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NACOTA Web Site:
[Http://www.nacota.org/](http://www.nacota.org/)
by
**North America
China Overseas
Transportation
Association**

From the Editor

NACOTA has witnessed a substantial growth over the last few years, both in terms of membership and the maturity as a professional association. This success would not have been possible without the unfailing support of all our members and the strong leadership demonstrated by the last several Boards. The News Letter of NACOTA is an integral part of the association. It is one of the bridges to link our members together. The News Letter has been a major medium to report news about NACOTA activities and to carry articles written by NACOTA members and friends on the subject of common interest. In this edition, we add two more features. One is a collection of news about the transport sector development in China, a subject that we all care in our hearts. The second is Notes from NACOTA Members, which is expected to provide a channel for NACOTA members to exchange information about themselves, their on-going and/or planned activities, their researches, business plans, and any other suggestions to improve NACOTA's activities, status, and organizational structure. We sincerely hope that all NACOTA members to take ownership of the News Letter and contribute to it one way or the other. We welcome and appreciate your inputs.

NACOTA News

The Newly Elected 2001/02 NACOTA Board

The change of NACOTA Board took place during NACOTA's Annual Conference in January 2001. Five Board members, Wang Jun, Peng Yue, Liu Guoxin, Yang Qi, and Teng Hualiang stepped down. They had dutifully served the association for the last term. Let's thank them for their hard work and leadership role that greatly contributed to the continued success of NACOTA.

The five newly elected Board members were Fang Yingwu, Liu Zhi, Tao Zongwei, Wang Quanlu, and Xu Lei. They joined Lu Jian, Sun Wei, and Yu Lei to form the Year 2001/02 NACOTA Board.

Report from the First Board Meeting

The 2001/02 Board held its first meeting in the evening of January 9, 2001, immediately after the five new Board members were elected. The Board discussed the major activities to pursue in the coming year, and assigned the duties and responsibilities for each Board members. One important issue raised in the meeting was how to promote NACOTA's role in the transport sector development in China. Based in the US, NACOTA possesses great potential to become a bridge for idea exchange and business collaboration between transport professionals from the US and China.

It was agreed that NACOTA should expand its activities and explore opportunities in the following areas, in addition to its regular events:

- NACOTA should seek to establish partnership with transportation firms to enhance the future role of NACOTA.
- To sponsor future NACOTA activities, NACOTA should explore more funding resources.
- NACOTA web pages need to be upgraded and more information is needed.
- NACOTA News Letter needs to be improved by changing the contents and collecting more news.
- NACOTA will place greater emphasis on its link with transport professionals in China, and on its direct involvement and participation in China's transport sector development.

The duties and responsibilities for each Board member were also assigned, as follows:

- President – Lu Jian
- Vice President – Yu Lei
- Webpage Enhancement and Management - Fang Yingwu
- NACOTA Letter Head Design - Fang Yingwu
- Annual Conference - Yu Lei
- Joint Conference in China - Lu Jian and Sun Wei
- E-mail Link and Membership - Xu Lei
- News Letter - Liu Zhi
- Treasurer - Xu Lei
- Business Development - Tao Zongwei and Wang Quanlu

Highlights of the NACOTA Annual Conference, January 2001

The Fourth Annual Conference of NACOTA was successfully held on January 7, 2001, in Washington, D.C., with the participation of more than 150 members and friends.

On January 9, 2001, NACOTA held its annual meeting and annual reception at the Marriot Wardman Park Hotel. It was a great party for our members and friends to get together.

A few NACOTA members generously made donation to support the annual reception. They are Li Jing (\$250), Yu Lei (\$100), Yi Ping (\$100), and Lu Jian (\$100).

Update of NACOTA Conference in Shanghai

In association with Tongji University, NACOTA is organizing a conference in Shanghai, to be held during July 16 - 17, at Bai Yu Lan Hotel near Tongji University. The Chinese Embassy in the US is one of the sponsors of the conference.

The major topics to be discussed in the conference include the following: (a)

transport development in Western China; (b) road safety; (c) environment and transport development; and (d) ITS. In addition, panel discussion will be arranged. The conference will also feature a marketplace for domestic and overseas participants to introduce their on-going and planned work and research.

It is planned that NACOTA will host a reception in the evening of July 16, for professionals, academic, researchers, business representatives, and government officials from the transport sector. The reception is intended to promote the future collaboration between NACOTA and the transport sector in China. On July 18, NACOTA delegation will meet with a vice mayor of Shanghai.

Notes from NACOTA Members

Dr. Quanlu Wang joining the Board of Energy Foundation

Dr. Quanlu Wang was asked in early May 2001 by the Energy Foundation to serve on its Board of Directors. The Foundation, based in San Francisco, is a major private funding organization supporting world-wide research activities regarding efficient use of energy. It is extremely encouraging and celebratory to see a SINO-ECO member holding such an elite and influential position in such a major foundation.

The Energy Foundation was created in 1991 by three Foundations: the Rockefeller Foundation, the John D. and Catherine T. MacArthur Foundation, and the Pew Charitable Trusts. They felt that a joint effort was necessary to affect the enormous energy sector. In the years since, the Joyce Mertz-Gilmore Foundation, the McKnight Foundation, and the David and Lucile Packard Foundation have joined the Energy Foundation. The Energy Foundation's board of directors consists of 12 members ranging from corporation CEOs and former DOE (Department of Energy) assistant secretaries and a former congressman. Every year, the Energy Foundation provides grants to non-

profit organizations and universities to promote energy efficiency in all economic sectors. The board of directors review the foundation's grant directions and major proposals. The Foundation has established a program in China with seven staff members stationed in Beijing to promote energy efficient and clean technologies primarily in China's utility and transportation sector. (For more information, you may go to the Foundation's webpage: www.ef.org.)

We need a foundation to sustain NACOTA's efforts to enhance mobility in China

by: Fong-Ping Lee, Ph.D., P.E., T.E., PTOE

Modern traffic engineering is one of the keys for China to continue her journey for modernization because China needs mobility enhancement in all of its cities. A foundation if can be established would help NACOTA to work with professionals in China to achieve the following enhancements:

- Establish a mechanism abided by all public agencies and private sectors to guide the land development by the Volume/Capacity (V/C) control procedure and to mandate the mitigation measures to improve life quality, mobility, and traffic safety.
- Establish a procedure through the planning process to require all developments in China to include traffic planners working with architects, urban planners to determine the traffic forecast based on the proposed project and neighboring projects and identify future mobility issues such as potential bottleneck locations, as well as to program mitigation measures.
- Enhance the Urban Planning Bureau and Municipal Engineering Administration Bureau to annually review the existing bottleneck locations and to program mitigation measures.

- Enhance the Traffic Police to manage traffic more by systems and less by officers.
- Establish an industry of traffic engineering construction.
- Establish an industry of traffic control system manufacturing.

The criteria to assess the success of the aforementioned foundation will be the following:

- Chinese folks who have visited North American or European or Japanese cities and returned home would vote to say Chinese urban transportation system are competitively good or better, and
- Chinese corporations would be awarded engineering contracts (particularly planning and design) of urban transportation system in other countries through open competition.

The above ideas are my personal interests. Whoever can make the ideas work, please advise me at fpl@earthlink.net.

An Overview of China's Transport Infrastructure

Source: Reuters Business Briefings

Due to its enormous size, Chinese infrastructure is tremendously variable in its coverage and quality. Rural areas in the interior have scant provision and although transport in coastal areas around the Special Economic Zones (SEZs) are adequate, even here the rapid increase in economic activity and the population have placed a strain on connections. Partly as a response to this and partly as a Keynesian measure to boost output and hopefully stimulate demand, the government has embarked on a vast infrastructure renewal programme.

Road

There are 1.18 million km of highways in China, of which 241,300 km are paved, and a large amount is single lane in each

direction. Demand for road transport is increasing sharply, and government policy has been to encourage the use of the roads for short-haul freight to take pressure off the rail network. The result has been increased congestion and pollution. The cost of upkeep to over-used roads alone is more than Rmb1 billion (US\$121 million) per year.

The majority of Chinese people, especially in cities, depend of bicycles and motor cycles for private transport. There has been an increase in car ownership in recent years and, with several foreign manufacturers now producing cars in China, this number is set to expand - with predictable consequences for congestion and pollution on the road network. There are plans for a motorway link between Beijing and Shanghai.

Rail

There is a total of 64,900 km of track in China, of which 61,300 km is standard gauge. The country has 10,400 km of electrified track and 18,540 km of double track. It has been estimated that about a third more capacity is required to cope with increased demand for rail transport from commercial users. In 1999, the government announced plans to increase railway investment in line with infrastructure targets. The sector has attracted considerable amounts of foreign investment.

The largest project under development is a proposed high-speed rail link between Beijing and Shanghai. The project, which would cost US\$12 billion, is being heavily promoted by the Japanese government. Although development is at an early stage, the project will be financed by concessionary loans but, more importantly for Beijing, will involve massive transfers of technology to China. Other ambitious plans include a rail bridge into Tibet.

Water

The expansion of China's economy and trading sector has placed a huge burden on the country's ports. The government planned to invest US\$10 billion between 1996-2000 on upgrading facilities. The final figure was

not available in early 2001 but extensive redevelopment of facilities at Shanghai, Qinhuangdao and Dalian, a process that has been ongoing for several years, should greatly improve the situation.

There are 110,600 navigable waterways in China, a figure that has been reduced in recent years due to neglect and silting. The Chinese merchant marine sector has 1,708 ships with a total of 16.1 million in gross registered tonnage.

Air

China has 206 airports of which 192 have paved runways; 18 of these have runways over 3,047 metres, 65 have runways of 2,438-3,047 metres and a further 90 have runways of 1,524-2,437 metres. The European consortium, Airbus Industrie, estimates that 1,381 new aircraft with 70 or more seats will be needed by 2017, at a cost of US\$130 billion. Despite a downturn in earnings in 1998, internal traffic is growing swiftly and with overseas investment the outlook for Chinese air travel is bright.

During the late 1990s, the government instigated a US\$1.2 billion investment programme to update the country's patchy air traffic control network. A contract worth US\$100 million was tendered for Beijing in 1999 with tenders for other cities following. Concerns in the US relating to the possible dual use of such technology were voiced in 1999, but it is unlikely that this will affect the upgrading process.

QUEST ECONOMICS DATABASE
(SELECT)

WORLD OF INFORMATION COUNTRY
REPORT 08/05/2001 P38

News from China

Railway development

China will continue to be the hotbed for railway construction. The Tenth Five-Year Plan for the railway sector proposes construction of 6,000 km new single tracks and 3,000 km double tracks, and

electrification of 5,000 km. These compare to the completion of 4,800 km new single tracks and 4,100 double tracks, and electrification of 4,300 km during the 9th FYP period.

Qinghai-Tibet Railway

This is one of the four mega-projects proposed by the Tenth "Five-Year Plan."¹ It has been a long dream for generations, but its chance to come true is higher in the next few years than ever. The railway will be 1,118 km long, linking Lhasa with the trunk railway network via Xining. The project is going to be an engineering challenge.

Highway development plan for Western China

It is estimated that a total of public expenditures of Rmb 700 – 800 billion Yuan will be spent for highway development in the Western Region of China for the next 10 years. This ambitious program includes the construction and upgrading of 350,000 km highways and rural roads.

China's Unwieldy State Railways to Privatize Along UK Lines

Source: Reuters Business Briefings

By Joanna Walters, 05/13/2001

CHINA's privatisation of its vast railways will copy the British model by splitting them into passenger operators and a version of Railtrack for the lines and signalling. But there will be two vital variations. First, the 'Chinese Railtrack' will do all its own maintenance rather than contracting it out - a practice that in Britain contributed to last year's Hatfield crash, where a cracked rail was ignored. Second, despite China's vast

¹ The other three mega-projects are: (a) channelizing water resources from Southern to Northern China; (b) construction of a 4,200 km pipeline for transporting natural gas from Western Xinjiang to Shanghai and Eastern China; and (c) large scale hydro and thermal power development in Western China and transmission to Eastern China.

size, it plans to break up passenger services into only eight operating companies, compared with 25 in the UK.

The Chinese railways employ a staggering 3.2 million workers, and an industry source said the government had decided this was no longer manageable. It is likely to transfer the railways into a state corporation, giving it more commercial freedom while it stayed in government ownership. Later it will be transferred entirely to the private sector.

Chinese officials have been in the UK for the past six months looking at the UK system, which has been in chaos since Hatfield. They have also visited the US, India and parts of Europe. China's railways span vast distances but do not give a comprehensive service. They cover only around 38,000 miles, compared with 11,000 miles in the UK network. The Chinese want to expand theirs, and plan a line to Tibet.

The commercial banking arm of Abbey National, which already owns the UK rolling stock leasing firm Porterbrook, is considering taking a stake in a new, private freight line to be built from Hong Kong to Canton in mainland China.

Beijing welcomes private and overseas investments for the construction of the No. 5 Subway Line

Source: Beijing, Asia Pulse, 08/12/2000

Costing about 11.9 billion yuan, the south-north subway line starts in Songjiazhuang in Fengtai District and ends in Taipingzhuang in Changping County. The Beijing municipal government has set up a company responsible for seeking overseas investment for the project, according to Sinoprojects.com, a leading website on investment projects in China. Two investors from Hong Kong and Canada have shown interest in the project. Negotiations are still underway between the company and the two investors. The No. 5 Subway Line is one of Beijing's 100 listed infrastructure projects seeking private funds. The listed projects also include sewage treatment plants, roads and water supply plants. Investors can

obtain project-owner starts through bidding. The annual fiscal revenue of Beijing is 32 billion yuan. Billions of yuan is needed for infrastructure projects in the capital city. The city plans to build 13 rail transit lines. At present, sewage plants are only capable of handling 30% of all the city's waste water. Only 50% of the city's rubbish is treated. Infrastructure projects in the capital have become a prerequisite as Beijing is working harder for the 2008 Olympic Games bid. The Beijing municipal government will release a set of detailed regulations on injecting funds into infrastructure projects, according to Sinoprojects.

Interesting Websites to Explore

<http://www.ita.doc.gov/td/transport/china.htm>

This website contains useful information on China's transport infrastructure projects. It is part of the the US Department of Commerce, International Trade Administration, Transportation Infrastructure page, which lists transportation infrastructure projects from around the world.

<http://www.worldbank.org/html/fpd/transport/>

The transport page of the World Bank Website. It contains most of the recent publications of the World Bank on the transport sector. It also provides various links to other transport websites. It is worthwhile to explore this webpage for anyone who is interested in transport development in developing countries.

<http://www.bpdweb.org/grsp/index.htm>

The Global Road Safety Partnership (GRSP) is an informal partnership of private sector, civil society, government and bi-/multi-lateral development organizations who share the premise that road safety conditions in the world, especially

in developing countries, can be improved by working in partnership.

<http://www.ppiaf.org/>

The Public-Private Infrastructure Advisory Facility (PPIAF) is a multi-donor program to help eliminate poverty and achieve sustainable development through private sector involvement in infrastructure. It was established in July 1999 as a resource to assist developing country governments improve the quality of their infrastructure through private sector involvement. Since it became operational, PPIAF has received about 140 applications covering a diverse range of activities in all regions and numerous infrastructure sectors. Applications have come from developing country officials, international financial institutions, bilateral and multilateral donors, and other groups (e.g., NGOs, academia). PPIAF can fund technical assistance to governments on a variety of issues related to private sector involvement in infrastructure, including infrastructure development strategies, policy, regulatory and institutional reforms, pioneering transactions, and consensus and capacity building.

NACOTA Membership

Anyone who would like to join the NACOTA membership, please contact Xu Lei, by email to leixu@kittelson.com.

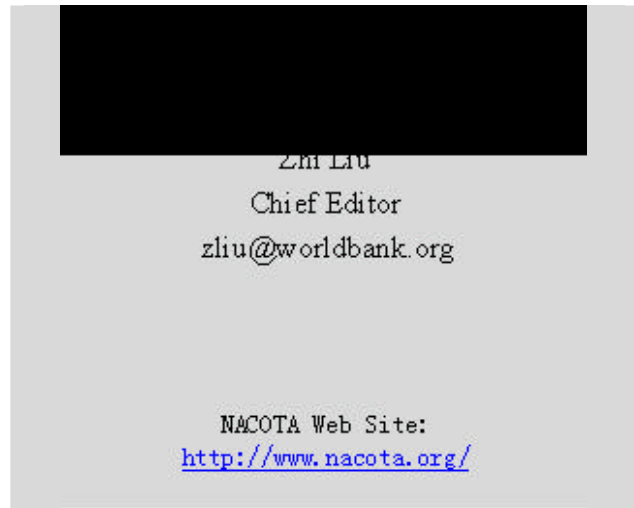


Fig 2: Location plot. Shows intersections (circles) & non-intersection (triangles) accidents. Higher stack of particles means more accidents.

Fig 3: Worst accident locations. Shows locations with 3 or more accidents in 1993*. Higher stack of particles means more accidents.

Fig 4: Collision diagram*

AIMS: GIS Accident Software

(AIMS = Accident Information Management System)

AIMS can:

- Plot worst locations on map.
- Plot collision diagram for location you clicked or typed.
- Retrieve data for areas you clicked or criteria you specified.
- Plot data on map (Fig. 2, 3, 5, 6).
- Perform queries.
- Plot bar, pie or line graph.
- Export plot/data to other software.
- Run on Windows[®](3.x, 9x, NT), Mac[®], Sun[®] or HP[®] platform.

*Data are for illustration only
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Unique Features:

- 3-dimension plot - See Fig. 2, 3 & 5.
- No change in data - It works with your data format.
- Multiple GIS platforms - Can use map & data from ARC/INFO[®], ArcView[®], AutoCAD[®], MapInfo[®],...
- Easy to maintain - You add, delete or modify data by clicking a few buttons or typing a few letters.
- Future expansion - It is modular structured, you can add other data (volumes, signs, drawings, etc.).

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Fig 5: Location plot. Shows accidents on Olney & Fillmore streets, 1991-93*. Higher stack of circles means more accidents.

Fig 6: Location plot. Shows locations with accidents involving pedestrians in 1993*.