



A fisherman and his son on the Lijiang River of Guangxi Zhuang Autonomous Region. Photo by  $Xuan\ Zi$ 



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#### China's Stability Vital to the World

□ With the recent changes in Eastern Europe, some foreigners abroad hoped that China would follow suit and reconsider the road they should follow, asserting that "socialism has come to an end." This arbitrary conclusion is not in line with China's situation. The socialist road is the choice of the Chinese people, who are working hard to achieve the strategic goals of development. Most important to achieving this end is a peaceful international environment and stable domestic situation. Maintaining stability in China is an act of responsibility to the world. (p. 4).

### China's Basic Democratic System

☐ This article introduces China's system of people's congresses, its election, structure and role. The people of China, as masters of the country, exercise state power, formulate laws and supervise all administrative, judicial and procuratorial work through their elected national and local people's congresses (p. 13).

### **Beijing and Moscow: Normalization Continues**

☐ The normalization of Sino-Soviet ties has promoted the general trend towards detente in the world, and especially in the Asian-Pacific region. As well, increases in economic exchanges, cultural contacts and scientific and technological co-operation have benefited both sides (p. 8).

#### **Progress in China's Rocket Technology**

□ China's Long March-2 cluster rocket, successfully launched on July 16 at the Xichang Launch Site in the nation's southwest, marked a new stage in the country's carrier rocket technology. The new carrier rocket provides customers with another option when they look for international commercial satellite launch service (p. 23).

#### **China's First Expressway Starts Operation**

□ The 375-kilometre expressway linking Shenyang and Dalian in northeastern China has recently been open to traffic on a trial basis. Designed and constructed by Chinese engineers and workers, the expressway is called by the local officials "a runway for the takeoff of the Liaodong Peninsula's major industrial centres." (p. 5).

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**COVER:** The newly developed Long March 2 cluster high-capacity carrier rocket was successfully launched in China. Photo shows the Xichang Satellite Telecontrol Centre.

Photo by Zhang Tongsheng

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# China's Stability— A Responsibility to the World

by Mu Youlin

fter the rapid change in the situation in Eastern Europe, some foreigners hoped that China would follow suit. Believing that "socialism has come to an end," they wanted China to reconsider the road it should follow. Even if such an idea were thought up out of concern for China's future and the world's destiny, to translate it into reality would have just the opposite effect.

First, the statement that "socialism has come to an end" lacked analysis and was made in an arbitrary manner. At least such a conclusion does not apply to China. An unbiased person can see that China's achievements in its 40 years of socialist construction are without compare in old China and by no means inferior to other countries under similar conditions but practising capitalism. The setbacks and errors which China has had in the past are not the faults of the socialist system itself, but, rather, were caused by erroneous guidelines and a rigid management system and methodology. With the implementation of the policy of reform and opening to the outside world since late 1978, China has corrected these shortcomings and errors and brought the superiority of socialism into fuller play. This constitutes a decisive factor for the doubling of the 1980 gross national product (GNP) in the 1980s.

It should be noted that the socialist road, an historical choice of the Chinese revolution, accords with the wishes of the Chinese people and has been written into the Constitution; it is the foundation of the country. If China, a large country with a population of 1.1 billion, gave up socialism and followed the capitalist road, it would inevitably lead to polarization between the poor and the rich. Even if 100 million people became wealthy, there would still be 1 billion people living in poverty. The overwhelming majority of the Chinese people thus will never let this happen. To follow the capitalist road would undermine the political and economic foundation of the country's unification, dissipate the cohesive force which political stability and unity rely on, and result in different political factions and turmoil.

In fact, many people involved themselves in Beijing's turmoil last year out of discontent over corruption, official profiteering, inflation and unfair income distribution. Unlike the turmoil-plotters' demand for capitalism, their motive carried an anti-capitalist nature.

Having experienced the decade-long chaotic "cultural revolution" (1966-76), the Chinese people still have a fresh memory of its disastrous consequences

and abhor turmoil. If the conspiracy to negate socialism and create internal disorder in China were allowed to succeed, it would mean recurrence of civil war. There would be a forest of factions, each dominating a region, each doing things in its own way and, in the process, each trying to eliminate the other. Factory production would stop, traffic would come to a halt, farmers would leave the farms and people's livelihood would be insecure. Under such a situation, what human rights would there be? People would flee the country and there would be, not just 1 million or 10 million, but 100 million Chinese refugees. Suppose 1 million people flocked to Hong Kong, or if tens of millions of people swarmed to Southeast Asia, could Hong Kong and Southeast Asia bear the pressure? No country, including the United States, in the world could put up with such a situation. As has already been seen, the appearance of Vietnamese, Kampuchean and Afghan refugees created a situation so serious that some countries and regions had difficulties coping. If millions of Chinese refugees emerged worldwide, what kind of picture would they create in the world? It can be said with certainty that such an event would cause international unrest and that the part of the world to be affected first would be the most hopeful Asia-Pacific region.

Therefore, a responsible statesman should not throw China into chaos, nor should China take disturbances on itself. Maintaining stability in China is not only in China's own interests, but also a responsibility to the world and humanity.

China plans to achieve its second strategic goal of development in the 1990s of redoubling its 1980 GNP and reach its third development strategic goal by the early 21st century. The most important conditions for these tasks are a peaceful international environment and a stable domestic situation. To maintain domestic stability and unity, China must follow the socialist road. The historical facts of the past 41 years after the founding of New China clearly demonstrate that the problem facing China today is no longer one of which road to take, but one of how, motivated by the policy of reform and opening up, to continue to eliminate the drawbacks in our current system and work, gradually perfect the socialist system and give full play to its superiority. This great historical process started 11 years ago has brought tremendous benefits to China and has won the support of the Chinese people. It is therefore irreversible and there is no reason whatsoever to change it.

### China's First Expressway Open to Traffic

hina's first expressway in northeastern China, linking Shenyang, the capital of Liaoning Province, and the port of Dalian, went into operation on August 20.

The longest expressway in China, Taiwan included, stretches 375 kilometres, is 26 metres wide and has a raised roadbed an average of 2.8 metres above the ground. The Shenyang-Dalian expressway (see map) has four lanes divided by a threemetre-wide median. It is designed to handle 50,000 vehicles a day at speeds of 100 to 120 kilometres an hour. Annually, a total of 80 million tons of cargo and 130 million passengers are expected to use the expressway, of which tolls are charged on 358 kilometres.

Construction of the expressway—a project designed and constructed by Chinese engineers and workers—began in June, 1984. It involved the building of 16 bridges spanning more than 100 metres each, 26 cloverleafs, 75 flyovers and 384 medium-sized and small pedestrian bridges. The project cost 2.2 billion yuan, of which about 80 percent was raised by Liaoning Province itself.

Between Shenyang and Dalian, 13 microwave telecommunications stations and six service centres providing gasoline, repairs, food and lodging have been set up, in addition to seven traffic control posts.

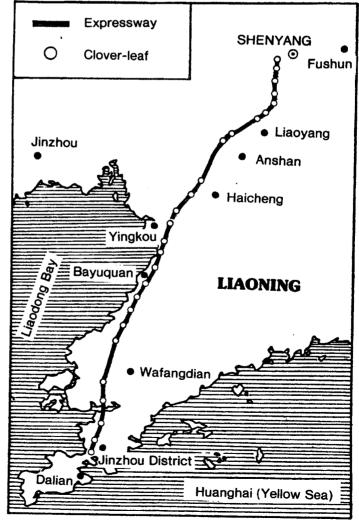
Local officials call the expressway "a runway for the takeoff of the Liaodong Peninsula's major industrial centres," including Liaoyang, a petrochemical centre, and Anshan, China's largest steel producer. The expressway will also provide a link between the international airports of Shenyang, the leading machinebuilding centre in China, and Dalian, northeastern China's biggest port and a major shipbuilding centre. As well, it will connect the economic development and export zones in these two cities and in Yingkou, and provide a link between the major railways in northeastern China.

"The expressway has almost turned Shenyang, Liaoyang and Anshan into 'coastal' cities because of the shortened travel time to the coast," said Lian Chengzhi, director of the Provincial Communications Bureau. An automobile trip from Shenyang to Dalian, which used to take 12 hours, now

takes four. A trip from Shenyang to Yingkou now takes 2.5 hours instead of more than five hours. Traffic has been heavy since the expressway was partly opened to traffic, with tens of thousands of Shenyang residents swarming to Bayuchuan, a beach near Yingkou.

Lian said the province plans to build three more expressways, one to link Shenyang with Fushun, another petrochemical centre; a second to link Shenyang with Benxi, a steel producing city; and

A Sketch Map of The Shenyang-Dalian Expressway



the third to stretch between Shenyang and Changchun, the capital of Jilin Province to the north. ■

## Youths Told To Be Patriotic

As the vital force in China's current modernization drive, Chinese youths will take the nation into the next century, said top Communist Party leader Jiang Zemin on August 20.

"All the young people, including students, must honour their responsibilities and duties to China since they are all masters of our country," said the general secretary during a four-hour meeting with 49 representatives of the All-China Youth Federation and All-China Students Federation. The two federations were then in session in Beijing.

"No matter what happens in the world, we are fully confident of the future of socialism," Jiang said.

And because young people represent the future and hope of China, "we have always had confidence in them while setting strict demands on them," the Party chief explained.

Jiang said he hoped that the young people would learn something about Chinese history and try to turn themselves into a generation that has high ideals and morality and is well-educated and well-disciplined.

The first session of the Seventh Committee of the All-China Youth Federation and the 21st National Congress of All-China Students Federation opened on August 19 in Beijing.

Premier Li Peng, on behalf of the Central Committee of the Communist Party of China (CPC) and the State Council, delivered a speech to the joint opening session.

He said that since the Third Plenary Session of the 11th CPC Central Committee in 1978, the central authorities, with Deng Xiaoping taking the lead, have integrated Marxism with China's reality and pioneered a new period for China's modernization drive. The Chinese youths have made active contributions to the drive, he said.

Facts show that the youths of contemporary China are a new hopeful generation with high ideals, a higher educational level, and a strong sense of ethics and discipline, Li said.

He noted that through learning and training, young students have strengthened their ability to distinguish between right and wrong politically and enhanced their awareness of the importance of social stability. Therefore, he said, China's youths are truly trustworthy. Li also pointed out that the key to their healthy growth rests with the correct guidance of the Party.

Under the leadership of the Party Central Committee with Jiang Zemin as its leading core, Li said, it is the historic mission of China's youth to unite as one and strive to build socialism with Chinese characteristics.

The premier added that he hoped China's young people would love the motherland and carry forward the glorious tradition of patriotism, work to consolidate and develop the political situation of stability and unity, study hard and persist in the working style of hard struggle.

During the federation meetings, a student leader said the spirit of devotion to the modernization drive has become the mainstream of today's student movement in China.

Huang Wei, a student studying for a doctoral degree at Beijing University and chairman of the All-China Students Federation, said that in recent years university students have learned to understand, analyse and solve social and economic problems with what they have learned in class.

Since 1983, he said, more than

one million university students and over 10 million middle school students have gone to enterprises and villages to conduct surveys.

More than 30,000 cultural societies have been set up on campuses throughout the country, Huang added.

## Cambodians On Peace Mission

he coalition government of Cambodia is ready for a meeting in Jakarta with Hun Sen, head of the Vietnamese-installed Phnom Penh regime, said President Norodom Sihanouk during his talks with Chinese Premier Li Peng on August 21 in Beijing.

The three parties of Democratic Cambodia support the convocation of another Paris international conference on the Cambodian issue, he said.

Sihanouk, Premier Son Sann and Vice-President Khieu Samphan were in China's capital for a three-day meeting in an intensified effort to map out a strategy for a comprehensive political solution to the 12-year-old Cambodian conflict.

Premier Li welcomed the three leaders to Beijing to hold what he described as "an important meeting" at a "critical moment" in search of a political solution to the Cambodian issue.

He briefed the Cambodian leaders on areas of common ground he had reached with the leaders of Indonesia, Singapore and Thailand during his visit to the three members of the Association of Southeast Asian Nations in early August.

The four countries agreed that now was the time for the international community to resolve the Cambodian issue and that the two documents on the military and political aspects of a solution for the transitional period, which were worked out by the five permanent members of the UN Security Council in July, provided a basic framework for a comprehensive political settlement of the issue and should be implemented.

They also agreed that it was time to set up a Cambodian Supreme National Council (CSNC) under the leadership of Sihanouk and comprised of the four Cambodian factions. The council would be the legitimate authority in Cambodia throughout the transitional period. As well, the four countries agreed to convene a four-party Cambodian conference in Jakarta to facilitate the establishment of the council.

Li stressed that the Cambodian people have won great victories in their long and arduous struggle under the leadership of Sihanouk.

"The time is ripe for a political solution," he said.

He declared that China was willing to join other parties concerned in promoting a comprehensive, just and reasonable settlement of the Cambodian issue.

Sihanouk congratulated the Chinese leader on the success of his visit.

"We support and respect the just position held by China and the three (ASEAN) countries on the Cambodian issue," he said.

"We also support and accept the documents worked out by the five permanent members of the UN Security Council on the issue and accept the proposal made by the co-chairmen of the Paris international conference on the convening of the four-party Jakarta conference," he stated on behalf of the three parties of the Coalition Government of Democratic Cambodia.

A seven-point joint statement issued by the Cambodian leaders in Beijing on August 22 says that they will be pleased to attend the meeting of the four Cambodian parties and to discuss in the spirit of compromise the establishment of the CSNC at the earliest possible date.

They stressed that Sihanouk should be president of the CSNC.

They also feel that the United Nations should play a vital role in search of a comprehensive political settlement.

### China Goes on To Wipe Out Illiteracy

Since last September, more than 7.15 million people throughout China have attended literacy classes and programmes, and 4.29 million have learnt how to read and write.

Speaking at the 1990 National Work Conference on Eliminating Illiteracy, Teng Teng, vice-minister of the State Education Commission, said that China plans to eradicate illiteracy by the end of this century.

This year, he added, the State Council has allocated 5 million yuan to support anti-illiteracy education.

A sample poll of 1 percent of the population in 1987 showed that there were 220 million illiterate people in China, of whom 70 million were between the ages of 15 and 40.

Premier Li Peng, who attended the meeting, pointed out that teaching this number of people the basic reading and writing skills has an important bearing on the success of China's modernization drive.

Most of China's illiterates live in underdeveloped areas, and most of them were women, he noted.

"I believe the most important thing in the International Year of Anti-Illiteracy is to link our antiilliteracy effort to the needs and lives of illiterate people," Li said.

Illiterate people, he added, should know that learning to read and write would help improve their standard of living.

In China, anyone who knows fewer than 500 characters is considered illiterate. It is reported that there are at least 2 million more illiterates each year.

The meeting urged various de-

partments to co-operate and support the anti-illiteracy work in terms of personnel, funds and the training of teachers. Local governments, it stressed, should strive to popularize primary education and help those children who have quit school return to classes.

## Why China Votes For Resolution 665?

hina's ambassador to the United Nations Li Daoyu said that China is "not in favour of using force in the name of the United Nations in handling the Gulf crisis."

Explaining why China voted for Resolution 665 of the UN Security Council on August 25, Li said that measures must be taken within the framework of Resolution 661 which does not provide for the use of force. Naturally, he added, it will not allow force to be used to implement that resolution.

In order to prevent the situation from worsening, implement the previous resolutions and avert any escalation of the armed conflict, Li said, China is in principle "againt military involvement by the big powers."

Speaking after the vote was cast, Li said, "Based on the above considerations, we proposed to delete the wording 'minimum use of force' from the draft. Consequently the draft resolution as amended by various parties is limited to the implementation of Resolution 661 and there is no reference to 'the minimum use of force'."

He pointed out that in the present resolution the wording "use such measures commensurate to the specific circumstances as may be necessary" does not entail the concept of using force.

Based on the above understanding, and considering that amendments proposed by China had been accepted, he said, China voted in favour of the draft resolution.

### **Sino-Soviet Ties Grow Steadily**

by Gu Guanfu and Chun-tu Hsueh

The normalization of Sino-Soviet ties, initiated by Soviet leader Mikhail Gorbachev's China trip last year and pushed forward by Chinese Premier Li Peng's return visit to Moscow this year, has progressed steadily in political and economic and cultural areas, drawing worldwide attention.

#### Realistic Sino-Soviet Ties

Over the past four decades, Sino-Soviet relations have undergone many twists and turns. In the 1950s, China and the Soviet Union formed an alliance. But in the following decade, the alliance collapsed, followed by sharp hostilities in the 1970s.

In the 1980s, tensions in Sino-Soviet relations began to ease, and last year the two big neighbours normalized their links. By drawing from historical lessons, both sides have taken a realistic attitude towards the problems in their relations. As Chinese senior leader Deng Xiaoping put it: "We end up the past and open up the future." This attitude has quickened the process of normalization.

The development of ties during the past year showed that both sides have come down to earth in dealing with bilateral

Gu Guanfu is a senior research fellow with the China Institute of Contemporary International Relations. Dr. Chuntu Hsueh is President of the Huang Hsing Foundation (USA). He has taught at Harvard, Columbia and the University of Maryland.

relations:

1. Economic relations have taken priority and have developed rapidly. Last year, Sino-Soviet trade volume totalled 2.4 billion roubles (US\$3.8 billion), a 20 percent increase over the year before, and this year it is expected to increase 36 percent. Last year's trade volume was 17 times that of 1981 (US\$220 million).

During Premier Li's Moscow trip, the two sides signed six agreements:

- —The Long-term Cooperation and Development Programme of Economy, Science and Technology between the People's Republic of China and the Union of Soviet Socialist Republics;
- —The Co-operation Agreement on Peaceful Use and Studies of Space Between the Government of the People's Republic of China and the Government of the Union of Soviet Socialist Republics;
- The Agreement Between the Government of the People's Republic of China and the Government of the Union of Soviet Socialist Republics on Mutual Reduction of Military Forces in the Sino-Soviet Border Areas and Guiding Principles of Enhancing Trust in the Military Fields;
- —The Protocol on Consultations Between the Foreign Ministry of the People's Republic of China and the Foreign Ministry of the Union of Soviet Socialist

Republics;

- The Agreement Between the Governments of the People's Republic of China and the Union of Soviet Socialist Republics on Governmental Credit for Daily-use Commodities Provided by China to the Soviet Union:
- The Memorandum Between the People's Republic of China and the Union of Soviet Socialist Republics on the Construction of a Nuclear Power Plant in China and a Soviet Government Loan to China.

Among the above agreements, two-thirds were related to economic, scientific and technological co-operation.

The agreements have widened the scope of economic cooperation. The fact that the two countries, with economies that complement each other, decided to extend loans to each other is a reflection of their economic potential. This kind of co-operation is equally fair, beneficial and satisfactory.

2. A positive attitude to remove military confrontation on the border exists. China's national security is, in fact, threatened by the Soviet Union with its superior military forces. China, which has consistently kept an eye on the situation, made the withdrawal of Soviet troops from Sino-Soviet borders, including Sino-Mongolian borders, one of the preconditions for normalizing relations.

The Soviets said they would

cut 200,000 troops in Asia and withdraw three-quarters of their troops from Mongolia during 1989 and 1990. But the problem has not been completely resolved. It was one of the main topics when the two sides exchanged senior visits. Because the border issue is linked closely with the full normalization of relations and genuine political trust, teams of diplomatic and military experts from China and the Soviet Union are now discussing the situation.

3. There should be no ideological obstacles to the development of state relations. The rift in Sino-Soviet relations was caused by ideological differences. Learning from the past bitter experiences, the two sides have now managed to avoid interfering in each other's internal affairs and no longer use harsh language that would hurt bilateral relations.

Last year, the international situation changed dramatically and both the Soviet Union and China were confronted with domestic difficulties. The two nations have their own views on the world situation and have tried to find ways to resolve their problems in line with their own concrete conditions. Some Western scholars had said that an ideological dispute between Beijing and Moscow would erupt again, but their prediction failed to come true. Sino-Soviet relations continue to develop. When answering questions from Soviet journalists this year, Premier Li Peng said: "The socialist road needs to be continuously explored. The Soviet Union has its pattern and China has one too. This poses no obstacles to developing normal state-to-state and party-to-party relations."

Last year's Sino-Soviet Joint Communique stated: "Their differences on certain matters should not stand in the way of



On October 7, 1989, Chinese Premier Li Peng attended a banquet hosted by Oleg Troyanovski, Soviet ambassador to China, to celebrate the 40th anniversary of the establishment of Sino-Soviet diplomatic ties.

progress of bilateral relations."

### Ties Based on Principles

The normalization of Sino-Soviet ties marked a new page in the history of the two countries. The two neighbours decided to establish a "new type of relations" and set principles that would be mutually observed for realizing this relationship, as highlighted by the Sino-Soviet joint communique issued during Gorbachev's visit to Beijing last year.

1. The Five Principles of

Peaceful Coexistence guide state-to-state relations. China is one of the five founding states of the five principles, which are mutual respect of sovereignty and territorial integrity; mutual non-aggression; noninterference in each other's internal affairs; equality and mutual benefit and peaceful coexistence. China has insisted constantly that the five principles should apply to relations between socialist countries. As Deng Xiaoping has repeatedly pointed out, "The Five Principles of Peaceful Coexistence are

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the best way to handle state-tostate relations. Other practices, such as 'one big family,' 'bloc politics' or 'spheres of influence,' will lead to confrontations on the international stage. The history of international relations has shown that the Five Principles of Peaceful Coexistence are the most enduring principles, full of vitality. It has been found that compliance with the principles can eliminate the hot spots or flash points in global disputes."

In the past, Moscow emphasized the biased "internationalist principle" and carried out the "theory of Moscow centre" and the "theory of socialist big family," violating the sovereignty of other socialist countries and interfering in their domestic matters. Under such circumstances, Sino-Soviet relations worsened.

Thus, when the two countries began normalizing relations, the Five Principles of Peaceful Coexistence became the princi-

ples that must be observed by both sides in a bid to guarantee the normal development of relations. The joint communique was explicit: "The two sides stated that the People's Republic of China and the Union of Soviet Socialist Republics would develop their relations on the basis of the universal principles guiding state-to-state relations, namely, mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit and peaceful coexistence."

2. State-to-state relations are based on good neighbourliness and mutual trust. China and the Soviet Union are neighbouring countries sharing more than 7,000 kilometres of borders. Being on good terms is vital to their relations.

Late in the 1960s, the Soviet Union began increasing troops along the Sino-Soviet border and frequently held military manoeuvres using China as its imaginary enemy. The actions resulted in border conflicts and strained relations. But now, both sides have decided to pursue a principle of good neighbourliness by eliminating military hostility on the borders, settling disputes over territorial sovereignty and opening and developing various exchanges and contacts in border areas. Judging from the past year, China and the Soviet Union have basically restored good neighbourly relations.

3. Four principles guide party-to-party relations. Last year's Sino-Soviet summit meeting not only marked the normalization of state-to-state relations but also the restoration of party-to-party relations. During talks, the two sides discussed the principles that should apply to the handling and development of party-to-party relations. The joint communique stated that "the two sides agreed that the Communist Party of China and the

Communist Party of the Soviet Union would develop their contacts and exchanges in accordance with the principles of independence, complete equality, mutual respect and non-interference in each other's internal affairs."

The four principles are a sum-up of the experiences of the Communist Party of China gained in establishing and developing relations with foreign political parties and groups and have been written into the Party Constitution adopted by the 12th Congress of the Chinese Communist Party.

In the past, the Soviet Communist Party made many mistakes in the international Communist

In Beijing last September, Anatoli Lukyanov, then vice-chairman of the Supreme Soviet of the USSR, met with Peng Chong, vice-chairman of the National People's Congress Standing Committee.

MA JUNTIAN



movement by issuing orders and treating other socialist parties not as its equals. Party-to-party relations based on the four principles reflect the fact that the two parties have become more mature in their dealings. In the past year, they have exchanged party delegations that have personified the stability and progress of party-to-party relations.

4. Improvement of Sino-Soviet links is not directed against any third country. The joint communique stated: "The normalization of Sino-Soviet relations is not directed at any third country, nor does it harm its interests. The two sides stated that neither side would seek hegemony of any form in the Asian-Pacific region or other parts of the world. Both deemed it essential to denounce the attempt or action of any country to impose its will on others or seek hegemony of any form anywhere in the world.'

Engaging in reform, both China and the Soviet Union need a peaceful international environment and, in particular, are eager to improve relations with their neighbouring countries. They will not threaten the interests of any third country. This is also a precondition to guaranteeing the long-term stability and development of Sino-Soviet relations.

### Potential of Sino-Soviet Ties

1. Economics. The Sino-Soviet trade volume, though considerably increased compared with one or two decades ago, is only 3.5 percent of China's total foreign trade volume or about 1.5 percent of the Soviet Union's. It is far from reaching the level of the two countries' economic capacity. In 1989, Soviet-Chinese trade volume (US\$3.8 billion) was less than Soviet-Japanese trade volume (US\$6.9 billion)

and Soviet-US (US\$5 billion). In objective terms, China and the Soviet Union have many favourable conditions for developing economic relations, namely, their economic structures are complementary — one possesses what the other lacks. Linked by land and rivers, the two countries enjoy convenient transportation. Having a small economic gap, they co-operate easily.

technological co-operation. In addition to border trade, there are labour exchanges, joint ventures and project contracts, as well as instruction in technology, processing of supplied materials, the opening of harbours in boundary regions, mutual instalment of stores selling the other country's products, the establishment of trade fairs, tourism and government loans. These mea-

In Blagoveshchensk, a border city, Soviet pupils learn the Chinese language.

XINHUA



Pioneer co-operation in many fields is possible as the two nations pursue policies of reform and opening up to the outside world. Also helpful is the fruitful experience of past cooperation.

In practical terms, Sino-Soviet economic relations are growing. In trade, for example, the Commodities Fair held in June in Harbin in northeast China's Heilongjiang Province led to the signing of contracts worth 1.8 billion Swiss francs (US\$1.2 billion) between China and the Soviet Union and East European countries within 10 days.

Currently, Sino-Soviet economic ties are characterized by multi-channel and multi-level economic, trade, scientific and

sures are helping to broaden economic relations.

The Soviet Union has made ambitious plans to develop Siberia and the far eastern parts of the country. It is preparing to open cities in the region and invite neighbouring countries to join in the building of special economic zones.

China's relevant provinces are also planning to "revitalize frontier provinces by trade" and have mapped an economic development strategy. These plans are conducive to the expansion of economic relations.

2. Further improvement of political ties by settling some problems. First, an agreement to reduce military levels on the border is possible. Governments



Chinese technicians teach Soviet workers about electronic toy assembly at a Soviet factory.

of the two countries have already reached a preliminary agreement and teams of experts are negotiating the details that will bring about concrete results. Second, the border issue is reported to have made progress satisfying both sides and agreement is expected. Third, exchanges have become normal practice and are occurring more frequently. Governmental links as well as non-governmental contacts have developed greatly. This has strengthened the mutual trust and deepened the mutual understanding in the thinking and feelings of both countries.

3. Improvement of Sino-Soviet ties is keeping abreast of the international trend towards detente.

The current bipolar world is evolving into a multipolar world; dialogues in various forms and through various channels are frequent. Countries, big and small, are generally improving their relations and economies have become intertwined. The international division of labour continues to develop. The

reduction in military confrontation between the two superpowers has benefitted the peace and development of the world. This climate provides objective guarantees for the normalization and healthy development of Sino-Soviet relations.

Developing Sino-Soviet relations, however, is a gradual process and is limited by old problems from the past, which require time to overcome. In the over-all strategy of the Soviet Union, its ties with China play only a certain role. While Moscow improves relations with Beijing, it aims to carry out its policy on the Asian-Pacific region, which stress Soviet interests.

#### **Positive Influence**

1. Normal Sino-Soviet relations have helped to promote further detente in international relations. First, Moscow quickened its pace in withdrawing from the third world and abandoned the doctrine of former Soviet leader Leonid Brezhnev (for example, Moscow withdrew Soviet troops from Afghanistan).

Second, normal Sino-Soviet relations have facilitated the improvement of relations between some countries that were affected by Sino-Soviet ties, such as relations between China and India, India and Pakistan, China and Viet Nam, and between Indo-China and the Association of Southeast Asian Nations. Third. normal Sino-Soviet relations have added greatly to the atmosphere of general detente, "to promote a fundamentally healthy development of international relations."

2. Improvement of

Sino-Soviet relations has carried forward the trend towards peace and co-operation in the Asian-Pacific region. The most direct effect is that Moscow has made overtures to reduce military levels in the region, which subsequently forced Washington to reduce its military forces there as well. The Soviet plans to develop Siberia and its far eastern reaches needs the participation of neighbouring countries, thus creating a good environment for relevant countries to strengthen economic relations. A relatively stable situation is appearing in Asia and friendly co-operation has been strengthened.

3. Sino-Soviet normalization has widened the path for new state-to-state relations. China and the Soviet Union have laid down the principles of establishing innovative state-to-state relations, which will positively affect over-all international relations. The principles are a new model for the proper handling of state-to-state relations.

CORRECTION: In our correspondent Lu Yun's recent interview with the mayor of Jinan, which was carried in our issue No. 32, p. 11, the mayor's name should be read Zhai Yongbo.

### **NPC: The Supreme Power of the People**

by Our Staff Reporter Wu Naitao

All rights in China belong to the people. This is the basic principle of China's socialist political democracy and is carried out mainly through the system of the people's congresses, the cardinal political system in China. The Chinese people exercise their state power through the National People's Congress (NPC) at the national level and people's congresses at the local levels. These congresses formulate laws and supervise the work of all administrative, judicial and procuratorial organs.

n the west side of Tiananmen Square in central Beijing stands a striking grey building, its main doors topped with a huge national emblem. This is the Great Hall of the People, the site of the highest organ of state power. The building is where NPC sessions are held and houses the standing body which performs the tasks entrusted by

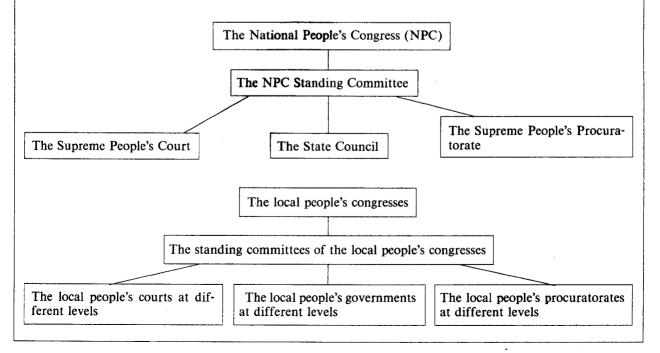
the Constitution.

### The Highest Organ

Some Westerners see the Chinese People's Congress as a parliament. In fact, however, they are different.

In general, the Western capitalist countries exercise a political system in which the parliament, government and court exercise legislative, executive and judicial powers respectively. At the same time, these three power organs condition each other in order to maintain a balance of power. A superstructure built on a capitalist economy of private ownership, this system helps to continuously readjust the contradictions and conflicts between different in-

### The Structure of the State Organs of the People's Republic of China





ZHENG SHUFU

NPC deputies inspect the Beijing Printing and Dyeing Factory.

terest groups within the capitalist class.

China's main economic structure is the socialist public ownership of the means of production. There is no antithesis between capital and labour and no contradictions and conflicts between different groups within the ruling class such as is inherent in capitalist countries. People of various nationalities are unanimous in their fundamental interests. This reality inevitably calls for a socialist political system to represent the interests of the people of the whole country in the exercise of state power. To this end, China chose the people's congress as its basic political system.

The Chinese people, through their elected people's congresses at various levels, exercise state power and decide on state affairs in the principle of democratic centralism. The National People's Congress, the highest organ of state power, not only exercises legislative power but also produces and supervises the state administrative, judicial and procuratorial organs which are accountable to and supervised by

the congress. On the premise of the people's congresses' exercise of state power, these organs have different tasks which they fulfil in co-ordination with one another.

### **Permanent Organs**

The National People's Congress is elected for a term of five years and meets in session once a year, and at each session a presidium is elected to preside over it. The current NPC is the seventh and was elected in 1988. The Constitution stipulates that the NPC exercises 15 functions and powers. The main functions are: 1. to amend the Constitution and to supervise its enforcement, to enact and amend basic laws and to alter or annul inappropriate decisions of the NPC Standing Committee; 2. to examine and approve the plan for national economic and social development and the report on its implementation, and to examine and approve the state budget and the report on its implementation; 3. to elect, decide and dismiss state leading members including the chairman, vice-chairmen,

secretary-general and members of the NPC Standing Committee, the president and vicepresident of the People's Republic of China. the premier and vicepremiers of the State Council, the state councillors, the ministers in charge of ministries or commissions, the chairman of the Central Military Commission, the president of the Supreme People's Court and the procurator-general of the Supreme People's Procuratorate; and 4. to approve the establishment of provinces, autonomous regions and municipalities directly under the central government,

to decide on the establishment of special administrative regions and the systems to be instituted there and to decide on questions of war and peace.

The NPC Standing Committee, a permanent organ of the NPC, is responsible to the NPC and reports to the NPC on its work. It is composed of the chairman, vice-chairmen, secretary-general and other members. No member from the NPC Standing Committee may hold any post in any of the state administrative, judicial or procuratorial organs at the same time. The current Standing Committee has 155 members and its chairman is Wan Li. The Standing Committee is elected for the same term as the NPC. The chairman takes charge of the work of the Standing Committee and chairs its meetings while executive meetings with the participation of the chairman, vicechairmen and secretary-general handle the important day-to-day work of the NPC Standing Committee. The Standing Committee in general has a meeting every two months. According to the Constitution, the Standing Com-

mittee exercises 21 functions and powers. They mainly are: 1, to interpret the Constitution and supervise its enforcement, to interpret statutes, to annul those administrative rules and regulations, decisions or orders of the State Council that contravene the Constitution or the statues, and to annul those local regulations or resolutions of the state power organs in various provinces, autonomous regions and municipalities directly under the central government that contravene the Constitution, the statutes or the administrative rules and regulations: 2. to enact and amend statutes with the exception of those which should be enacted by the NPC. and to enact, when the NPC is not in session, partial supplements and amendments to statutes enacted by the NPC provided that they do not contravene the basic principles of these statutes: 3, to examine and approve, when the NPC is not in session, partial adjustments to the plan for national economic and social development and to the state budget that prove necessary in the course of their implementation; and 4. to supervise the work of the State Council, the Central Military Commission, the Supreme People's Court and the Supreme People's Procuratorate, and to exercise such other functions and powers as the NPC may assign to it, including deciding on the granting of special pardons, on the enforcement of martial law throughout the country or in particular provinces, autonomous regions or municipalities directly under the central govern-

According to the Constitution, the NPC is in charge of establishing seven special committees: the Nationalities Committee, the Law Committee, the Interior Service and Judicial Committee and the Financial and Economic Committee, the Education, Science, Culture and Public Health Committee, the Foreign Affairs Committee, the Foreign Affairs Committee and the Overseas Chinese

Committee. These committees work under the direction of the NPC Standing Committee when the congress is not in session and are composed of 157 members, 115 of whom are NPC Standing Committee members. The special committees examine, discuss and draw up relevant bills and draft resolutions under the direction of the NPC and its Standing Committee. Their work is: 1. to examine and approve the proposals handed over by the NPC presidium and the NPC Standing Committee: 2, to hand over to the NPC presidium and the Standing Committee the proposals which are related to these special committees and within the power of the NPC and its Standing Committee; 3. to examine and approve the statutes, decisions and orders of the State Council, the orders. directives and regulations of various ministries or commissions of the State Council, the statutes and resolutions of the local people's congresses or their standing committees of various provinces. autonomous regions and municipalities and the decisions, orders and regulations of the local governments of the provinces, autonomous regions and municipalities, on conditions of all these decisions, demands and regulations which contravene laws and the Constitution and to make reports on them; 4. to examine and approve the inquiries handed over by the NPC presidium and Standing Committee and listen to the answers to these inquiries and report to the NPC presidium and the Standing Committee if necessary; and 5. to investigate the problems which are related with these special committees and within the power of the NPC and its Standing Committee and make proposals.

Also under the NPC Standing Committee are the General Office and the Legislation Work Committee. The General Office, under the leadership of the secretary-general, mainly holds meetings, handles documents and contacts deputies and the local people's congresses. It also handles the election of local people's congresses and responds to letters and calls made by the public. The main tasks of the Legislation Work Committee are to draw up, study and revise the draft law for the NPC and its Standing Committee, to provide them with the basic reference for drafting the law, and to make proposals on the main problems in the draft law.

### Legislation, Supervision

The NPC and its Standing Committee, the highest state power organ in China, exercise legislative power in order to maintain the unification and the sanctity of the socialist law. The local people's congresses and their standing committees in various provinces, autonomous regions and municipalities enact local statutes according to concrete local conditions and practical needs, on the premise that these statutes do not contravene the Constitution, law and administrative statues, and report on them to the NPC Standing Committee and the State Council for the record.

Thanks to the NPC's high sense of responsibility for the people, legislative work has made rapid progress in the last decade. Peng Chong, vice-chairman and secretary-general of the NPC Standing Committee, told reporters in March this year that since 1979 the NPC and its Standing Committee have examined and approved 88 laws, excluding the Constitution, and made decisions on complementing and revising another 20 laws and solving 45 legal problems. The NPC and its Standing Committee have also clarified 134 laws and decrees. Major legislative progress has changed the prior situation in which there were no laws to go by in political, economic and social life. Now a socialist legal system with the Constitution as its basis

has been initially formed. Peng also said that more legislative work needs to be done in order to meet the demands of the reform. the opening to the outside world and the socialist construction. Since a number of important and urgently needed laws should be enacted, the legislative work of the NPC and its Standing Committee is still arduous. A presidential meeting pointed out clearly that the NPC and its Standing Committee should, according to the principles of the Party Central Committee to readjust the economy and deepen the reform. further solidify its legislative work.

Another important task of the NPC Standing Committee is to oversee the implementation of the Constitution and laws. The main tasks are the supervision of the actions of the State Council, the Supreme People's Court and the Supreme People's Procuratorate which go against the Constitution and law, and the actions of the local power organs in various provinces, autonomous regions and municipalities which run counter to the Constitution, law

and the administrative statutes. Special committees will help the NPC Standing Committee with its supervision. The main forms for this are as follows. 1. The secretary-general sends the local statutes which are handed over to the NPC Standing Committee for placement in the records to the related special committee for examination. If these statutes contravene the Constitution and the law, they should be handed over to the NPC Standing Committee for a decision. In handling the administrative statutes of the State Council, the Legislation Work Committee and other relevant committees should, if they discover something which contravenes the Constitution and law, make some proposals for correction and report to the NPC for a decision. As for the regulations on administering autonomous regions handed over by the autonomous regions, the Nationalities Committee should raise suggestions for revision or approval and report to the NPC Standing Committee for decision. 2. The NPC Standing Committee should check the implementation of

some important statues. If illegalities are discovered, including illegal actions by judicial organs in handling key cases, the NPC Standing Committee should propose how to deal with them to the relevant law-enforcing organs and supervise their strict enforcement of the law. Law enforcement organs should report the results of the treatment of these problems to the NPC Standing Committee, which can, if necessary, organize a special group to investigate the problem and make a relevant decision. Last year, the NPC Standing Committee established an inspection group to check implementation of the Forestry Law. The group inspected six provinces and autonomous regions and got an all-round understanding of the major problems in the implementation of the law. After investigation, the group stressed the need to protect the forest according to the law and to resolutely fight against the criminal offence in the destruction of the forest. The group also proposed perfecting the forestry legal system. The Education, Science, Culture and Public

Deputies to the Seventh NPC listen to work reports by the central government, the Supreme People's Court and the Supreme Procuratorate.





Deputies to the Beijing International Tourism Symposium visit Tiananmen Square.

### **China's Flourishing Tourism**

In the first half of this year, China's tourism has made a lot of progress. The total number of visitors and tourists entering China reached 13.234 million, 2.6 percent more than the corresponding period of last year. Of this number, 1.257 million were hosted by tourist departments, a 10.5 percent rise over the same period of last year.

Beginning this year, tourist departments at all levels have opened new tourist sites and

Beginning this year, tourist departments at all levels have opened new tourist sites and organized excursions to attract tourists. Communication, transportation and hotel services have also improved. During the 11th Asian Games between September 22 and October 7, the

number of tourists is expected to greatly increase.





A scene of the First Wutaishan International Tourist Month celebration held in Shanxi Province.

Ma Jianquan, a guide for pany, gives an account of



Foreign tourists shopping in Lhasa.



Tourists in the Be



Foreign tourists don ancient Chinese garments for snapshots at the Summer Palace.







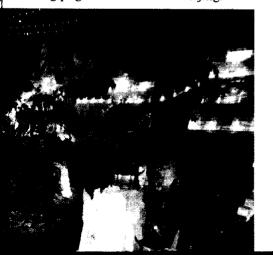
the Beijing Xinhua Tourist Group Comhe Imperial Palace to Malaysian tourists.



g's watermelon festival.



Chinese and foreign tourists visit Longqingxia Reservoir in Beijing.





The special grasslands tour of the Mongolian traditional Nadam Fair.

Mainland and Taiwan business people hold trade talks.



A trade delegation composed of chairmen of boards from Taiwan visits the Beijing Textile Equipment Plant.

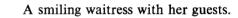




Foreign friends learn Chinese cooking at the Beijing Cooking School.



The Taiwan Hotel offers fine services.





Foreign friends attend a Christmas evening party at the Beijing Great Wall-Sheraton Hotel.

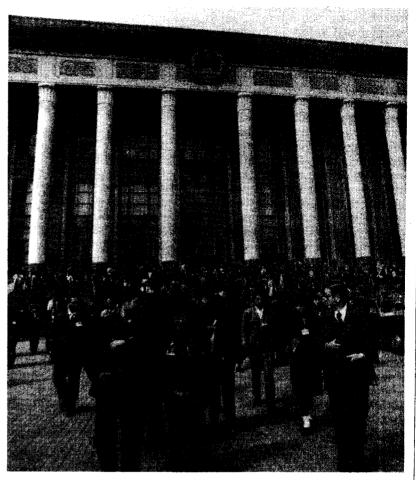


Photos by Xin Hua, Liu Zhankun, Chen Zonglie and Xue Chao

Health Committee also investigated and checked the implementation of the Law on Compulsory Education in ten provinces, autonomous regions and municipalities. 3. The special committees conscientiously handles the appeals, accusations and information provided by the public. If the cases of the accused, who are state officers elected, decided on and appointed by the NPC and its Standing Committee, are serious, the NPC Standing Committee asks the relevant departments to investigate and handle the cases. The Supreme People's Court, the Supreme People's Procuratorate, the Ministry of Supervision and the standing committees of the local people's congresses are entrusted with the right to handle other appeals, accusation and information provided by the people about illegal activity and report the results to the NPC Standing Committee. The NPC Standing Committee last year responded to more than 80,000 letters from the public and received hundreds upon thousands of visits. It had the facts checked through relevant departments to correct 105 unjust, false and wrong cases and handled 131 letters with information on illegal activities. Such actions greatly promoted law enforcement.

#### Supervision

The Constitution invests the NPC and its Standing Committee with the important responsibility to supervise the work of the state's administrative, judiciary and procuratorial organs. Basically speaking, the NPC and its Standing Committee supervise the government, court and procuratorate by hearing and examining their work reports. In recent years, the NPC and its Standing Committee, focusing on major issues concerning socialist modernization, the reform and opening to the outside world, have regularly listened to and examined the



XUE CHAO

Deputies to a session of the Seventh NPC.

work reports of the government, court and procuratorate which involve the national economy, financial budget, industrial and agricultural production, education, price, social security, the screening and consolidation of companies, the strengthening of a clean government and the antipornography movement.

The deputies, motivated by a high sense of responsibility for the state and people, made many constructive suggestions while discussing the reports. For instance, at a session of the Seventh NPC held in 1988, some deputies raised differing opinions regarding the State Council plans to disband the Ministry of Railways and the Ministry of Communications and set up a Ministry of

Transportation. The State Council adopted their suggestions and kept the original organizational system intact. At the Ninth Session of the Seventh NPC standing Committee held last August, members raised many sharp criticism and suggestions when discussing the report on the reorganization of companies submitted by the State Administration for Industry and Commerce. The State Council took the matter seriously and immediately called a meeting, at which several measures were formulated to clean up and readjust companies, and set up a national leading group to oversee the work. In addition, NPC deputies, members of the Chinese People's Political Consultative Conference (CPPCC) and

members of democratic parties were invited to join in the work.

The NPC does not directly deal with specific cases when it supervises the work of the court and procuratorate. It can address inquiries if it has different opinions regarding the two organ's work. It can require the court or the procuratorate to report, or organize an investigation if it has different opinions on major cases by the court or procuratorate. It can instruct the court or the procuratorate to correct the cases in light of legal procedures if they proved to be wrongly adjudged. For instance, citizens of the Taian County, Liaoning Province, wrote to the Standing Committee of the ▶PC to protest the illegally arrest of three county lawyers on charges of "covering up evil deeds" simply because they had spoken for defendants involved in a lawsuit. An investigation by the NPC Standing Committee and relevant departments found that the charges were a frame-up, and the three lawyers were thus exonerated.

As the system of the people's congresses has been gradually improved, supervision of the government, court and procuratorate has become more diversified and varied. In recent years, the NPC has instituted a system whereby the members have an identity card, thus allowing them to more easily supervise and examine the work of all circles, anytime, anywhere. The people's congresses and their committees at different levels also organized various inspection groups to conduct thorough investigations, raising many constructive suggestions in the process. To institutionalize and standardize their supervision work, the standing committees of some local people's congresses have formulated related regulations and rules and specified more clearly the content and scope, procedures and methods of such supervision. Currently the NPC Standing Committee is discussing a draft of an NPC supervision law for the NPC.

### **Improvement**

Over the past decade, the National People's Congress, China's fundamental political system, has been steadily improved and strengthened. This is manifest in the following aspects:

-Expanded power of the NPC Standing Committee. The Constitution adopted in 1982 stipulates that the Standing Committee can exercise part of the functions and powers which were originally within the scope of the National People's Congress. These are: the right to formulate any law besides the basic laws, and the authority to supplement and modify part of the laws adopted by the National People's Congress. When the NPC is not in session, the Standing Committee is authorized to discuss and approve adjustments to the state planning and budget, and to appoint and remove ministers of the ministries and commissions under the State Council.

Established standing committees of people's congresses at and above the county level. This is an important reform in regard to local power structure and helps people supervise local governments, courts and procuratorates through their own deputies, people's congresses and standing committees, and also helps people exercise their right to manage state affairs.

—Strengthened, organizationally, the people's congresses and their standing committees at all levels. Since 1983, the Sixth National People's Congress has set up seven special committees. They deliberated, approved and drafted relevant proposals under the leadership of the NPC and its Standing Committee. The people's congresses of the various provinces, autonomous regions and municipalities have also set up special committees or working

committees, thus strengthening the research work of the Standing Committees.

—Reformed of the election system. Since 1979, direct election has been expanded to the county level. The people's deputies at all levels adopted the method of multi-candidate elections conducted with the method of secret ballots instead of voting by a show of hands at grassroots levels.

-Strengthened the direct relationship between the NPC Standing Committee and the deputies. This includes the convening of a deputies' forum, directly listening to the opinions of deputies; distributing drafts to all or part of the deputies in order to solicit opinions before the Standing Committee discusses important proposals and make major resolutions; inviting deputies familiar with the topics for discussion to attend the conference and join in discussion when it is held by the NPC Standing Committee; and establishing reception rooms at the NPC to listen to deputies' reactions on all aspects of its work.

-Strengthened construction of the institutionalization and legalization work of the NPC. The Second Session of the Seventh National People's Congress in March last year passed the NPC Rules of Debate which is the procedural method for the highest organ of state power to exercise authority and function. This ensured that members and deputies could speak out freely at the conference, allowing the airing of all kinds of opinions, and the solving of problems in accordance with the principle of democratic centralism and legal procedures, giving consideration to both democratization of policy decisions and improving the efficiency of debates.

As the system of the National People's Congress is further strengthened and perfected, there will appear a new form of socialist political democracy with distinctive Chinese features.

### **Progress in Carrier Rocket Technology**

by Xu Jian

t 9:40 a.m., Beijing daylight savings time, on July 16, the Long March-2 cluster carrier, a newly developed high-capacity booster rocket, was successfully launched at the Xichang Launch Site in southwest China. The successful

launch added new dimension to China's carrier rocket series and was an indicator of China's ability to launch heavy satellites. It marked a new stage for China's carrier rocket technology.

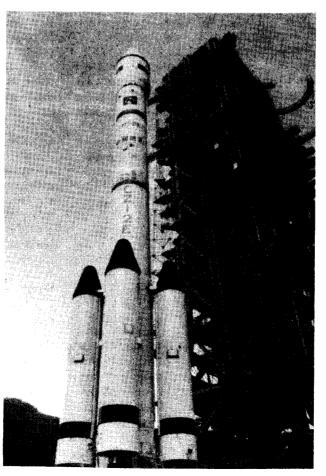
### **Long March Series**

Before that successful launch, China's astronautics industry had already developed the rocket series of Long March-1. Long March-2, Long March-3 and Long March-4. Since April 1970, with the Long March serial rockets, China has successfully launched 27 communications and retrievable remote sensing satellites.

The author is a staff member of the Ministry of Aeronautics and Astronautics Industry. The Long March-1 rocket was the first to send the "Dongfang-hong-1" satellite into space, the prelude to China's activities in outer space. The rocket has a length of 29.45 metres, a maximum diameter of 2.25 metres, a take-off weight of 81.6 tons and

The Long March-2 cluster high-capacity carrier rocket on the launch pad.

ZHANG TONGSHENG

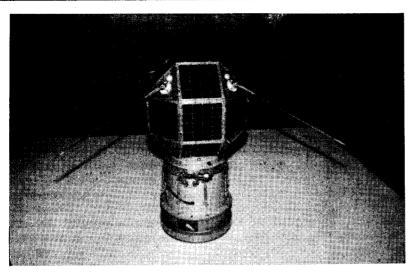


a useful load of 300 kg. The rocket has successfully launched two satellites.

In 1975, the Long March-2 rocket was formally put into service. A two-stage liquid rocket, the Long March-2 rocket has a length of 35 metres, a maximum

diameter of 3.35 metres and a weight of 191 tons. It is capable of sending a 2.5-ton payload into near-earth orbit 200-400 km high. The Long March-2 used a tri-axial, stable square and digital computer and a rocking engine to provide thrust vector control for the first time. The Long March-2 has successfully launched 11 retrievable remote sensing satellites since 1975.

The Long March-3 is a three-stage rocket, the first and second stage boosters of which were improved on the basis of China's long-distance carrier rocket. Its third stage booster adopted the crucial rocket technology of hydro-oxygen and hydro-hydrogen, high-energy, lowtemperature fuel rocket now being used by only a few countries. Chinese scientists mastered the technique by which a



ZHANG TONGSHENG

Pakistan's first meteorological satellite was successfully launched using a Long

March-2 cluster rocket.

three-stage rocket can be started twice under zero gravity of space and a high vacuum. This marked a breakthrough in overcoming the orbit control difficulties previously faced when launching earth stationary orbit satellite at a place far removed from the equator. The Long March-3 rocket has a length of 43.25 metres, a maximum diameter of 3.35 metres, a take-off weight of 202 tons and a take-off thrust of 280 tons. Capable of sending a 1.4-ton payload into earth stationary orbit 36,000 km high over the equator, the Long March-3 has proven to be of good quality and high reliability. So far, China has launched seven such rockets. Except for the first, because of a failure in the secondary ignition of the three-stage rocket engine which prevented the satellite from entering into transfer orbit, the remaining six launches were all successful. Overall, the launch rate has been 93 percent successful, a rate better than that found in carrier rockets abroad.

In September 1989, the Long March-4 rocket successfully launched China's first experimental meteorological satellite —Fengyun-1—at the Taiyuan Satellite Launch Centre. The Long March-4 is a multipurpose, constant-temperature fuel three-stage rocket. With a total length of 41.9 metres, a maximum diameter of 3.35 metres and a take-off thrust of 300 tons, it is capable of placing a 1.5-ton payload into a 900-kmhigh orbit synchronous with the sun and a 3.8-ton payload into a round orbit 400 km high at a dip angle of 70 degree. The Long March-4 rocket uses relatively advanced technology for the power system, guidance and stabilization and surveying system. It is suitable for different satellite launch sites and launching different types of applied satellites and scientific and technological experimental satellites into different orbits.

The successful development of the above rockets placed China among the ranks of those countries with the ability to launch satellites into near-earth orbit and simultaneous synchronous sun and earth static orbit.

#### **Cluster Rocket**

The development of Long March-2 cluster rocket was approved by the State Council Work Conference chaired by Premier Li Peng on December 14, 1988. It was designed on the basis of Long March-2 by lengthening the first stage by 4.6 metres and the second stage by 5.2 metres. The first stage rocket had four boosters 2.25 metres in diameter and 15 metres in height. Both the upper stage and the payload are installed in a cowling 4.2 metres in diameter and 10.5 metres in height. The rocket has a length of 51 metres, a take-off weight of 464 tons and a take-off thrust of 600 tons. It is capable of taking an 8.8-ton payload into near-earth orbit 200-400 km high.

Similar to using an aircraft to launch a satellite, the Long March-2 cluster rocket first pushes the upper stage rocket and satellite to the near-earth orbit where it then ignites the upper stage rocket and, in a "relay," sends the 2.5-3.2-ton heavy communications satellite to the geosynchronous transfer orbit 36,000 km high. If a mixture of hydrogen and oxygen is used for the upper stage, it is capable of pushing a 4.5-ton satellite to the geosynchronous transfer orbit. The July 16 launch was a test conducted according to the requirements specified in a contract signed between the China Great Wall Industry Corp. and the Hughes Aircraft Co. of the United States for the launching of two large Australian communications satellites in 1991 and 1992. During the test, a simulation satellite of Aussat-B and a Pakistan scientific experimental satellite with a total mass of 7.4 tons were sent into the space.

The successful launch marked a major progress in China's car-

rier rocket technology and launch facilities. Improved as it was on the basis of Long March-2, the rocket used new technology in the five major system areas—power, remote survey, outer survey, structure and control. It solved a series of major technological problems in parallel structural mechanism. reduced propellant residue. and improved engine function. heavy satellite cowling, heavy ground launch pad and a full rocket vibration tower. New structures, new materials and new technology were also developed, thereby opening up an effective way for China to develop still more powerful carrier rockets and to launch heavy space crafts cheaper and more quickly.

#### **New Alternative**

Along with the world's economic and cultural development, more and more countries have

begun developing their own space technology. Now, more than 20 countries have designed different types of aerospace crafts and over 170 countries and regions use satellite technology. With a considerable number of satellites waiting to be launched every year, the international commercial satellite launch market is very brisk.

Most of the satellites requiring a launch, however, are new generation satellites. Their weight generally ranges between 2.5-3.5 tons; those weighing less than 2.5 tons are very few. The few rocket models developed by China originally thus could not meet either international or domestic needs. The successful development of the Long March-2 cluster rocket provides a new option for the international commercial satellite-launching market.

In 1985, the Chinese government announced the Long March serial carrier rockets en-

tered the international commercial satellite-launching service market.

In 1987 and 1988, Chinese retrievable satellites launched by Long March-2 provided services for France and the Federal Republic of Germany in microgravity tests.

In November 1987, China signed a contract with the Swedish Space Co. to carry and launch postal satellites.

In November 1988, China signed a contract with the Hughes Aircraft Co. of the United States to launch two Australian communications satellites manufactured by the US company.

In January 1989, China signed a contract with the Asian Satellite Co. to launch the Asia-1 communications satellite. This was successfully launched on April 7 of this year.

In January 1990, the China Great Wall Industry Corp. won a bid to launch a communica-

The laser cinetheodolite at the Xichang Satellite Launch Centre tracks the carrier rocket.

ZOU YI





Experts in the launch site's technical measurement room follow the carrier rocket's course.

tions satellite for the Arab Satellite Organization.

Since 1985, China has used the Long March serial rockets to launch ten of its own satellites, far more than the number launched by the corporation for foreign countries in the past and more is expected in the future. This supports the Chinese government position reiterated on many occasions: China's development of carrier rocket technology is primarily intended at meeting its domestic modernization needs, and, at the same time, if it has surplus capability, to provide commercial services for the world market. China will thus join its foreign counterparts to actively develop outer space for the benefit of mankind.

After the successful launch of the Asia-1 satellite, Liu Jiyuan, vice-minister of aeronautics and astronautics industry, said that China's launch service is intended as a useful supplement to the international launch market and that it won't become a rival to European and American rocket manufacturing companies, much less become a threat to

them. He noted that China's carrier rocket production capacity and launch facilities are limited and that the purpose of the service is to provide a greater range of options for customers.

### Why the Low Price

Some foreigners worry that China's launch service for foreign countries will be at the expense of other countries by forcing down prices. It is true that the prices and terms for launch services which were agreed upon between the China Great Wall Industry Corp. and various clients are a better deal than offered elsewhere. This is because China's carrier rockets are practical and reliable, have a high rate of success and use all domestically made materials and components. In addition, China's labour cost is low. Of course, the China Great Wall Industry Corp.'s quoted price won't be lower than its actual cost and the government, moreover, won't subsidize the corporation. After the successful launch of the Long March-2 cluster rocket, Chen Shouchun,

vice-president of the China Great Wall Industry Corp., said that his company assumed sole financial responsibility for profits and losses and that the company's quoted price was based on cost plus reasonable profits. "All the costs for the manufacture of the Long March-2 cluster rocket," he said, "came from the commercial loans provided by the Scientific and Technological Service Co. under the People's Bank of China: we received neither loans nor subsidies from the government." Since the rocket was developed and assembled in only 18 months. compared with three to four vears in Western countries. there was also a substantial reduction in costs. Chen added that the price for the launch of a communications satellite is generally quoted to include the entry of the satellite into the geosynchronous transfer orbit. The Long March-2 cluster rocket, however, was sent into orbit in two stages: first, sending the satellite together with the perigee rocket into a near-earth orbit: second, using the foreign perigee rocket to send the satellite from near-earth orbit into the synchronous transfer orbit. The former's quoted price originates with the Great Wall Industry Corp. the latter's quoted price with foreign company. Together, the two add up to an overall price. Some foreign concerns mistook China's quoted price as the total for the entire launch service, making it appear that the price of the Great Wall Industry Corp. was dramatically low.

In short, China's guidelines and policies on launch services for foreign countries are consistent, open and aboveboard. These policies not only benefit China, but also facilitate the advancement of world space technology.

### Chinese, Foreign Folk Artists Dazzle Beijing

by Our Intern Reporter Xiong Sihao

The recently ended First China International Folk Art Festival will promote folk arts in the world, strengthen solidarity and friendship among artists and the people of all nations, and contribute to world peace.

these days, I don't know where they went," lamented a kara-oke club manager.

Where they went between August 14 and 21 was the First China International Folk Art Festival in Beijing. Nearly all the kara-oke clubs in China's capital, the popular nightclubs frequented by young Beijingers, were affected by the festival. They had fewer customers. Some young people wanted to attend the festival so badly they spared no expense to get tickets.

"Beijingers hanker after modern music and dance, but they also like Beijing Opera and other folk arts," said an official with the festival's organizing committee.

The festival, sponsored by the China Federation of Literary and Art Circles, opened August 14 at the newly-built Yuetan Gymnasium. In the opening speech, Seypidin Aze, the festival's honorary president and vice-chairman of the National People's Congress Standing Committee, said the theme of the festival was "folk art with peace and friendship."

He said he believes the festival will promote folk arts in the world, strengthen solidarity and friendship among artists and the people of all nations, and contribute to world peace.

A total of 350 Chinese and foreign artists captivated the audience of 3,000 on opening night with their songs, dances and unique costumes.

One of the most colourful performances was by the Belgian Gelmelzwaaiers Flagwaving Group, who presented "flagwaying," an old Flemish folk custom. They waved huge flags, two metres by two, each weighing about four kilograms. Flagwaving, a test of technique, strength and suppleness, reached its peak in popularity in the 17th century. The standard-bearer's uniform comes from the Burgundian period and is designed after the model of standard-bearers of Duke John. They carry the coat of arms of the County of Hoogstraten.

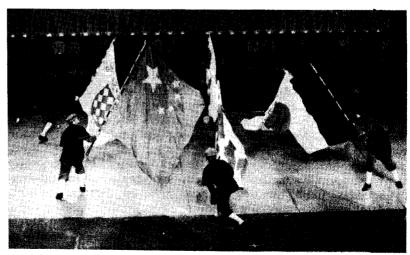
This performance consisted of 14 standardbearers and a drummer. The group's leader, Etienne Vandeirsbilck, is also vicechairman of the International Organization of Folk Art. The oldest standard-bearers in the group have been waving flags for more than 25 years. The group's performances are welcomed both in Belgium and abroad.

The "Bachl-Chor" mixed choir also performed at the festival. providing a selection of music, mixed choir pieces and folk songs. The choir comes from Austria or the "country of music" that has produced such world famous composers as Mozart. Bruckner and the Strauss family. The young choir singers, dressed in the traditional national costumes of Austria, contributed to their country's amiable image and good reputation. There have been many occasions when the choir has been asked to represent Austria because of its high artistic standard.

From Mongolia, the Mongoli-

Flagwaving dance presented by Belgian Gelmelzwaaiers Flagwaving Group.

QIN XUZHI





QIN XUZHI

The Polynesian Cultural Centre Dancers perform a central Pacific island dance.

an Hogh Tenger (Blue Sky) Song and Dance Ensemble presented such folk dances as *Pastoral Landscape*, *Mongolian Women* and *Ancient Dance*. There were also a traditional folk music solo played on a four-stringed instrument, folk songs and dancing that showed the bold and unrestrained character of the Mongolian people and their folk customs.

The Rocky Mountain Dancers from Salt Lake City, Utah, in the United States gave a performance of clog dancing, a combination of English immigrant and local Indian dances. The group was founded in 1980 by its current director, George Frandsen, vice-president of the International Organization of Folk Art and president of the National Folk Organization of the United States of America.

Also dancing at the festival were the Cagliari Quartiere Villanova Group and the Citta di Tempio Group, which were sent by the Federation of Italian Folk Traditions. Quartiere Villanova showed Beijingers the ancient dances of Sardinia, accompanied by the archaic sound of the "Launneddas" and by the diatonic accordion. The dancers were dressed in the rich costumes popular in Cagliari during the 13th century. Their dancing reflected

the religious and social-political traditions typical of Sardinia at the time.

The second Italian group, Citta di Tempio, presented a selection of traditional dances that have managed to keep their originality and authenticity throughout the centuries in Gallura. The troupe is composed of students and workers.

The Polynesian Cultural Centre Dancers, who comes from Hawaii, offered Beijingers a rare opportunity to admire the unique customs of the central Pacific islands. The Polynesian Cultural Centre has been striving to protect Polynesian traditions since it was founded in 1963. The dancers presented the festival audience with splendid dances and songs typical of Hawaii, Samoa, Tonga, Tahiti and Fiji. All the dancers are students from Brigham Young University Hawaii Campus.

"No trip to Hawaii would be complete without visiting the Polynesian Cultural Centre and enjoying the fantastic Polynesian folk dances and songs," said a Hawaii dancer with pride.

A member of the audience said, "Their performance left the deepest impression on the audiences" throughout the festival.

Russian folk dances, performed by Lunoct Folk Group,

were also well received for their unique local flavour, graceful melody and vigorous movements. Coming from Barnaul in Altai, the group is composed of gifted students from professional schools and was awarded the Altai Lenin Komsomol Prize at the Soviet Union Art Festival for its high-quality performances.

Two Indian art troupes—the Seraikela Chhau Dance Troupe and the Pung Cholam Group—presented the Chhau dance and the Manipuri dance and were greatly appreciated by festival audiences.

Chhau is a kind of lyrical and poetic dance style that is prevalent in the eastern part of India. The dancers, wearing masks of clay and paper, use their bodies to show the flight of birds and butterflies, the waves of the sea. In the Manipuri dance, the dancer and drummer are one—the dancer plays the drum as he dances. The drum can produce the softest whispers and the most thunderous roar of wild beats. The dancer leaps high into the air, and spins, not for a moment stopping the drumming. This dance can be danced by a solo performer or as many as 100 men. Women never perform the Manipuri.

Also participating in the First China International Folk Art Festival was the Taicuba Trio, consisting of Cuban artists Baz Tabrane, Jose Luis Martinez and Barbaro A. Valdes-Cataneo Ezquivel, and headed by Abel Prieto, chairman of the Union of Writers and Artists of Cuba. Among the dozen interesting items in their programme, there were Spanish guitar performances of such songs as Sun Music from the Hill, Give Me a Drink and Black Byes. They also sang The Tall Girl, Night in Cuba, Havana and Peanut Seller.

Other dances which were wellreceived by festival audiences included the Changgo-Drum Dance performed by the Pyongyang Art Troupe from the Democratic People's Republic of Korea; Pandanggo and Maglalatik performed by the Hwa Yi Ethnic Dance Centre in the Philippines, and dances depicting wedding ceremonies and harvest time, which were performed by the Turkish Karagoz Folk Dance Group.

At the end of the opening cer-

emony, Chinese artists performed the lantern-dragon dance and the lion dance. The merry-making of a 50-metre-long dragon and six big lions brought the house down.

During the week-long festival, foreign artists visited the Forbidden City, the Great Wall and other scenic spots in Beijing. For most of them it was their first time in China and they were eag-

er to see as much of the country as possible. As well as performing in Beijing, the foreign artists performed in Chengde, Tangshan and Qinghuangdao in Hebei Province, and Haicheng, Anshan, Liaoyang, Yingkou and Benxi in northeast China's Liaoning Province between August 22 and 30. The festival ended on August 30.

### **New Development Zones in Shanghai**

hanghai's three new development zones Minhang, Hongqiao and Caohejing, opened in 1986 and 1988 with the approval of the State Council, have, by absorbing foreign funds and yielding quick economic returns, added new dimensions to China's effort of reform and opening to the outside world.

The Minhang Economic and Technological Development Zone. The corporate income tax rate in the zone is 15 percent while that in Hong Kong, Taiwan and Singapore is 18.5 percent, 25 percent and 40 percent respectively. The monthly payment for labour is less than US\$100 per- person, whereas the cost in Taiwan, South Korea and Hong Kong averages more than US\$300. The cost of water and electricity in the zone is 40 percent lower than elsewhere in Asia. The cost of commercial housing is 20 percent cheaper. Foreign investment in the zone has kept pouring in over the past four years, with the number of foreign-funded projects and the amount of investment nearly double each year. To date, Il countries and regions, including the United States, Japan, Federal Germany, Australia, Canada, Singapore, Thailand, Switzerland, Italy, Hong Kong and Macao, and Taiwan Province have signed contracts for the establishment of 61 foreign-fund enterprises in the

zone, and 4l of which have begun operation. By the end of March this year, foreign investment in the zone which covers 2.13 square km had totalled US\$22l million. More than 84 percent of the foreign-funded enterprises in the zone are export-oriented or equipped with advanced technology, such as the Globe Toy Co., the Sino-US Shanghai Squibb Pharmaceutical Ltd., the Mitsubishi Elevator Co., the Qiangsheng Co. and Coca Cola Co.

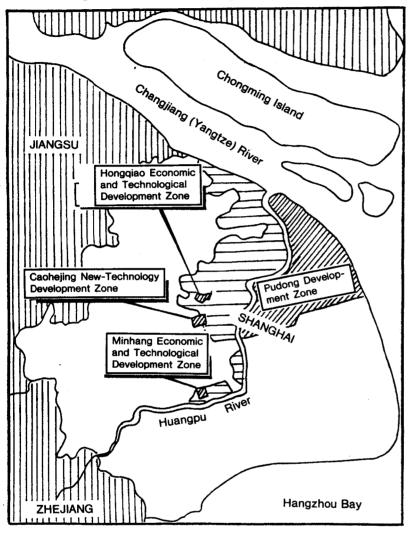
In the development zone, a 110,000-volt substation and two 10,000-volt power distribution stations have been completed. The Minhang No. 2 Waterworks, which is able to supply 100,000 tons of water daily, has been put into operation, so has been a 2,000-channel programmecontrolled telephone service network. A public bonded warehouse has been put into use. A single building provides all the services for foreign businessmen, ranging from customs and commodity inspection to foreign trade turnover. bank, tax, foreign exchange, insurance foreign steamer agent, accounting and legal affairs, in addition to express mail and water, electricity and gas supply.

The Mitsubishi Elevator Co. gained profits the same year it started business and its foreign exchange balance showed a surplus. The Shenming Electrical Machi-

nery Plant built a 7,000-squaremetre workshop within six months and started production three and a half months after the agreement was signed. The scale and output of production in the first year already exceeded the goals for third year. The Globe Toy Co. recouped its total investment two and a half years after it started production. By the end of 1989 it had netted 17.58 million vuan in profits and earned US\$16.38 million in foreign exchange. Its products are exported to Western Europe, the United States, Australia, Japan and Hong Kong, and sold in 27 provinces and municipalities in China. Statistics indicate that 38 percent of the enterprises began to export their products the year they went into production. In 1989, the total industrial output value of enterprises in operation reached 680 million yuan and their total turnover amounted to 670 million yuan. The foreign exchange earnings of productive businesses hit US\$49.08 million, up 4.34 times from 1988. For years, the zone's net foreign exchange earnings have ranked first among the 14 coastal economic and development zones.

The Hongqiao Economic and Technological Development Zone. It is the smallest development zone in China but attracts the highest investment. The total investment by

### Sketch Map of the Three Development Zones in Shanghai



contract on the zone's 65.2 hectares (one hectare=15 mu) of land amounts to US\$620 million, over half of which is direct overseas investment.

A total of US\$1 billion will be pooled in the zone for the building of a foreign economic and trade centre. Composed of 23 buildings, the complex will include an international trade centre, a sales exhibition market for foreign trade commodities, hotels, office buildings, service facilities, sports and recreational centres and buildings for foreign consulates. In June 1990, one of

America's largest real estate businesses signed a protocol for the building of a large, modern international trade commodities sales exhibition centre. The Japanese Sun's Enterprise Co. Ltd. won the bidding for the development of 12.900 square metres of land in the zone while the Puhao Investment Co. Ltd. of Hong Kong won the bidding for the development of another piece of land totalling 3,600 square metres with a term of 50 years. Construction of the Sun Square Building and the Xietai Central Building is under way. Caohejing New-Technology Development Zone. Approved by the State Council, it is to be opened as the only high-tech development zone on China's coast. Inside and around the zone, there are more than 20 universities, including Shanghai Jiaotong University, Shanghai Teachers University and East China Institute of Chemical Technology, and more than 120 research institutes, including Shanghai Microelectronics Research and Development Base, Shanghai Biology Engineering Centre under the Chinese Academy of Sciences and Shanghai Laser Technology Research Institute. A number of foreign businesses, such as the 3M Co., the Foxboro and the AT & T Communications Apparatus Co. Ltd. of the United States, Philips Co. of Holland, Liquefaction Gas Co. Ltd. of France, the Bell Co. of Belgium, the Japanese Data Processing Co. and other enterprises from Hong Kong and Australia have set up 19 jointly funded or exclusively foreign-funded high-tech enterprises in the zone involving total investments of US\$210 million. Some high-tech enterprises funded jointly by Shanghai and the various ministries under the State Council, such as the Shanghai Optical Fibre Communications Engineering Co., the Special Electronics Testing and Controlling Centre affiliated to the Ministry of Machine-Building and Electronics Industry, and the Electronics Centre under the Ministry of the Aeronautics and Astronautics Industry, have also begun operation. The more than 60 Chinese and foreign enterprises in the zone are involved in such high-tech fields as microelectronics, aeronautics and astronautics, optical fibre communications, biology engineering, computer and new materials. In 1989, the total industrial output value of the zone amounted to 1.84 billion vuan and its foreign exchange earnings from export reached US\$43.933 million. A booming high-tech industrial group is taking shape here.

## Foreign Agents for Chinese Ginseng

Since ginseng product labelled "Double-Dragon Ginseng" processed by the Hebei Qinhuangdao Meihekou Ginseng and Antler Products Co-operative Plant of China became available on the market in the autumn of 1989, it has attracted keen attention from foreign businessmen. The China International Marketing Co. in Britain considered the products of good quality, reasonable price and more competitive ability as compared with Korean ginseng, and it is willing to do its best to help promote marketing. This company recently signed a marketing agreement with the Hebei Pharmaceutical Health Products Import and Export Corp. and preposes to sell 18 tons this year. Meanwhile, it is making further efforts to act as the agent throughout the world.

"Double-Dragon Ginseng" is prepared from China's high-quality red ginseng and a variety of nourishing drugs with modern technology. By appraisal of related departments, the product both in form, colour, quality, health standards and chemical content reaches or exceeds the namebrand product "South Korea Ginseng."

After having tasted "Double-Dragon Ginseng," Mr Lian, general manager of the Korea Ginseng General Agency in China and Southeast Asia, appraised it highly. He noted that products like this could brighten the image of China's export high-grade processed ginseng products in the world. He also expressed his willingness to consider acting as an agent for "Double-Dragon Ginseng."

The methods and prescriptions for processing the medicine and chemical reagents were developed by Li Xianggao, China's famous ginseng expert and a professor from the Jilin Agricultural University. His inventions won gold

medals at the Eureka Fair held in Brussels in 1986 and at the Geneva Fair in 1987.

Tong Xuesong, chairman of the board of the Meihekou Ginseng Plant, said that in addition to the above mentioned product, his plant is now trying to develop other similar products including "Double-Dragon Tea," "Double-Dragon Ginseng Chips," "Double-Dragon Oral Liquid," and "Double-Dragon Capsules." With its processing capacity of 80 tons, the plant has signed agreements to export 48 tons of "Double-Dragon Ginseng" valued at US\$5.875 million.

Representatives from the United States, Canada, Britain, Australia and Singapore as well as from Hong Kong and Taiwan held talks with the factory and sought permission to act as agents for "Double-Dragon Ginseng".

by Li Ming

### 'Peacock' Carpet Catches On

The Zhuozhou Oriental Rug Trading Co. Ltd. in Hebei Province, China's largest oriental carpet producer and exporter, is about 60 kilometres from Beijing. It can produce and export 80 percent of China's total output of carpets. The company's export was US\$9 million in 1989 and is estimated to be US\$10 million this year.

According to Jiang Entao, the company's deputy general manager, the Peacock-brand oriental carpets developed in 1983, are different from Chinese traditional carpets. The Peacock carpets are a combination of the Persian design and the creativity of Chinese art designers and woven by veteran carpet weavers. At present, carpets with 150, 180, 200, 230, 260 and 300 strings are available; there is an annual output of 1.5 to 2 million square feet. The company's 260-string oriental carpets won a gold prize at the Leipzig Fair held in 1989.

Jiang also said that in the first half of this year, the company's orders increased 9 percent over the same months of last year. They have enjoyed brisk sales in Western Europe, North America, Japan, Singapore and other countries. In addition to wholesale, the Zhuozhou company can also process carpets with customers' materials, design and combine colours at clients' request.

To satisfy the competitive requirements of the international market, the company is making efforts to develop new oriental carpets which will soon be on sale on the world market.

by Yao Jianguo

### New Medicine For Diabetes

A preparation of traditional Chinese medicine for the cure of diabetes was tested by the Singapore Central Hospital and approved for production and use in the country.

The medicine called 8804 and 8805 was developed by Chong Lianjin, China's diabetes expert and director of the Red Cross Hospital of Chaoyang District in Beijing after 1984. The product can promote growth of the B cells of pancreas islet and increase the secretion of pancreas islet insulin so as to regulate sugar metabolism. After the medicine was applied to early- and moderate-stage diabetic patients for two to three courses (one course lasts three months), their condition is brought under control. More than 80,000 patients have taken the medicine with a cure rate of more than 85 percent, the highest ever recorded in the world.

Except for Africa, many countries throughout the world have asked to sell the products on a commission basis. Singapore and Indonesia, for example, are preparing to jointly invite Professor Chong to set up a special diabetes hospital in Indonesia.

by Hong Lanxing

### Asiad 'Villagers' Stage Dress Rehearsal

ore than 1,000 Chinese athletes and officials representing 38 teams from the member states of the Olympic Council of Asia checked into the Asian Games Village on July 29 in the second dress rehearsal for the 11th Asian Games.

State Councillor Li Tieying registered as a kungfu master on the Chinese team. He was among the proxy villagers who inspect-

ed every aspect of the complex and made criticisms and suggestions.

The first dress rehearsal, which took place in mid-July, focused mainly on the competition facilities. About 8,300 Chinese athletes, referees, organizers and 10,000 spectators were involved in 27 mock events held at 30 venues.

The second dress rehearsal was to test the function of mon-

ordination between sub-systems, focusing on solving problems exposed during the first rehearsal. The third large-scale rehearsal took place in mid-August. The organizers hope to discover all hidden problems to guarantee a flawless Asiad, which begins September 22.

systems

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On the morning of July 30, armed police were stationed around the Games village. After passing metal detectors, 200 Chinese journalists entered the village's Intercontinental Hotel where journalists will stay during the Games. Photo-journalists had to snap a shot before entering the facilities, which is an international practice.

At a press conference called by the Asian Games Organizing Committee's publicity department and the Beijing Public Security Bureau, a bureau spokesman stressed that all security measures were designated according to international practice and the special conditions of China. Their purpose was to guarantee the safety and success of the Games.

Seventeen of the 19 shuttlebus lines for the Games had a trial run. Police motorcycles escorted the buses, which took the athletes and referees to most of the designated sports grounds.

On the hockey field at the Olympic Sports Centre, the Chinese national men's team, representing South Korea, was playing the Locomotive Hockey Team of China, representing Japan. Cheering squads urged on the players with the beating of loud drums. Many people who failed to get a ticket stood outside the fences to watch the match. Medical workers were ready for any emergency.

A men's hockey match at the hockey field of the Olympic Sports Centre.



Presenters prepare for the award-giving ceremony.

Photos by XU XLANGJUN





The audio amplifying system for the 11th Asian Games was checked and approved in Shanghai.

YANG PUTAO

In the centre's natatorium, "Indian" swimmer Cai Miaomiao won fist place in the women's 100-metre breaststroke. The band played the Indian national anthem, the Indian flag was hoisted and the award ceremony was conducted.

State Councillor Li Tieying and Wu Shaozu, executive chairman of the Asian Games Organizing Committee, received information from all venues within one hour through the advanced communication facilities located in the International Conference Centre.

The stand-in villagers were also invited to sample the dishes prepared at the Athletes Dining Hall. The hall has two sections, one on the first floor for general dining and the other on the second floor for Muslims. The general dining hall provides Chinese, Asian and Western food while the cooks in the Muslim dining hall follow Islamic dietary rules. The athletes seemed satisfied with the service.

The dress rehearsal showed that the situation in general was encouraging but there were still some problems. For example, journalists complained that the separate press centres in various stadiums needed improved management and there was a lack of co-ordination between different centres.

by Lou Linwei

## **Botanical Gene Project Successful**

hinese scientists have made major breakthroughs in botanical genetic engineering, developing insect-resistant rice, CMV-resistant tomatoes and tobacco and herbicideresistant soybeans. These achievements are in the forefront of international genetic research.

Botanical genetic engineering has developed rapidly in China in recent years. Such technology can isolate genes that are resistant to diseases or insects and transplant them into other plants, which then acquire the same disease or insect-resistant qualities.

Scientists at the Botanical Technology Research Centre under the Chinese Academy of Agricultural Sciences separated a gene resistant to lepidoptera insects and transplanted it into the nucleus of a rice cell. After further breeding, scientists got lepidoptera-resistant rice plants.

Scientists from the Institute of Microbiology under the Chinese Academy of Sciences successfully transplanted the CMV gene into tomato cells. Field experiments show that such tomatoes have strong disease-resistant qualities and their descendents inherit this trait.

The soybean strain resistant to herbicide was developed by scientists from the Institute of Genetics of the Chinese Academy of Sciences. These soybean plants are not affected by direct contact with herbicide during spraying to kill weeds.

Most of these achievements are still in the laboratory stage and some have been applied in the fields on a trial basis. But authorities said that these breakthroughs proved China's potential for breeding more diseaseand insect-resistant, high-yielding, improved strains of farm crops.

### Largest Dinosaur Fossils Found

hinese and Canadian scientists recently discovered, in northwest China's Gobi Desert, the fossils of the skull of what is believed to be the world's largest dinosaur. The discovery was made in June in the Junggar Basin in the Xinjiang Uygur Autonomous Region.

Dinosaurs were the largest land creatures that ever lived on earth. But after 140 million years of dominance, they suddenly became extinct about 60 million years ago, bequeathing scientists a great mystery.

The Xinjiang findings include a complete skull and ten pieces of cervical vertebrae. The fossils were buried in hard sandstone formed about 140 million years ago and the excavation was especially difficult.

The joint Sino-Canadian expedition completed their field work in mid-June and shipped the fossils to Beijing. Now scientists are doing restoration work and performing laboratory analysis. Judging from the length of the cervical vertebrae, scientists estimated that the dinosaur could have been 30 metres long, making it the largest ever found in the world.

The Sino-Canadian team began operations in 1986 and has carried out field work in the Gobi desert, Inner Mongolia and in the Canadian Arctic and Alberta. More than 30 tons of dinosaur fossils have been discovered so far, including those of trachodons (duckbilled dinosaurs) and plesiosaurids (snake-necked dinosaur), found in Canada, ankylosaurs (armored dinosaurs) and protoceratops found in Ghina.

According to the Sino-Canadian dinosaur project, the dinosaur specimens and other fossils from China will be featured in a global travelling exhibition in 1992.

## Marsh Research and Its Exploitation

hinese scientists have completed a 30-year survey of the country's marsh regions and its peat and reed resources.

Scientists carried out investigations on marshes in the northeast "three-river plain" (Heilongjiang, Wusulijiang and Songhuajiang rivers), the Greater and Lesser Hinggan Mountain Ranges, Changbaishan Mountain, the Zoige and Tibetan plateaus, Xinjiang, Shengnongjia, Hengduanshan Mountain and

coastal areas. The results show that there are nearly 110,000 square kilometres of marshland in China—more in the north than in the south—taking up one-tenth of all cultivated land. Plateau marsh, distributed widely in China, is relatively rare in the world. Research on the Zoige Plateau on the boundaries of Sichuan, Qinghai and Gansu provinces in the 1980s showed that its area is 4,500 square kilometres, the largest expanse of peat in China.

Since the 1970s, remotesensing has been used during the study of marsh resources to overcome natural obstacles and has greatly raised the precision of survey work. In 1981, by using air remote-sensing, the Changchun Geological Research Institute determined the precise area of the marsh on the banks of Bosten (Bagrax) Lake in Xinjiang. From 1983 to 1985, the institute used the latest air remotesensing data combined with field experience to produce a 1: 200,000 scale marsh map of the northeast three-river plain.

In the 1980s environmental degradation caused by the exploitation of marshes began to arouse the concern of specialists.

Prior to the 1950s, the threeriver plain area was largely vacant because of the more than one metre of water that covered the surface. Since then, however, it entered a period of rapid exploitation and now has about 1.13 million hectares of cultivated land, becoming an important grain base.

The opening up of this vast area of wasteland, however, has caused the peat in some areas to turn into ashes. Forests have also been seriously damaged, leading to drought caused by wind erosion.

The three-river plain marsh area is a major state reserve for rare animals, such as the redcrowned crane, white crane and swan. In recent years, due to the dry weather and damage to marshes, the population of these precious waterfowl species has decreased.

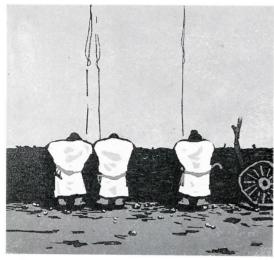
Specialists believe that marshlands play a role in regulating the climate similar to that of forests. The marshes covering 22 percent of the three-river plain have the same function as 38-percent forest cover. The idea of drying out the marsh completely to plant trees is against the law of nature.

In recent years, the Changchun Geological Institute and Heilongjiang Natural Resources Institute have established the Exploitation and Experimental Demonstration Area to reform and utilize marshland. They have established 27 hectares for comprehensive development of rice, reed, and fish and opened up an artificial ecological model, fulfilling the call for comprehensive utilization of water resources. The average per-hectare rice output in marshes is 5,250 kilogrammes. Compared with reclaimed arid land. marshes remain damp and avoid water and wind erosion. The large water surface and rich plant and animal life provide good living conditions for waterfowl and other birds.

Success has also been achieved in growing such south China water vegetables as wild rice stems and lotus. They are larger than those grown in the south. Two hundred hectares of lowoutput reed fields have been reformed, raising the per-hectare output to more than 3,750 kilogrammes compared to the previous 1,500 kilogrammes. The technique will be spread to nearly 7.000 hectares in the next five years, laying a solid foundation for building the largest reed production base in China.

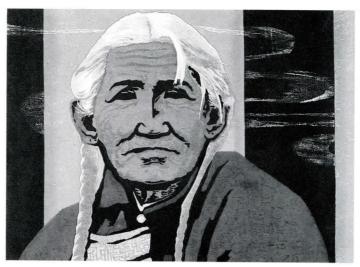
by Wei Liming

### ART PAGE



Herdsmen.

by Tian Hongtu

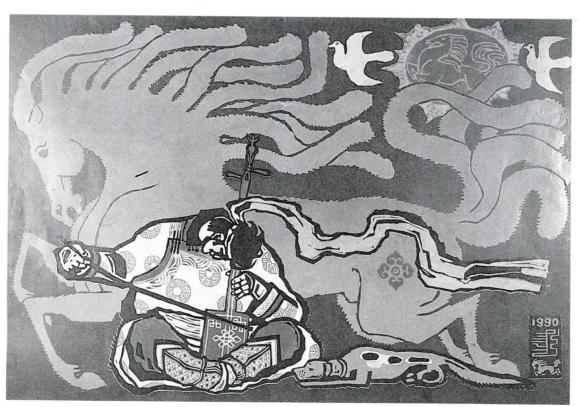


Mother.

by Sa Yinzhang

### Engravings From Inner Mongolia

These engravings are selected from Inner Mongolia's Jirem League Engraving Exhibition which has just closed in Beijing. The works show the life style of the Mongolian people and give a rich, intoxicating view of Inner Mongolia's vast pasturelands.



Music From a Horse Head Bow Stringed Instrument.

by Han Daigin

If you want to know Chinese women, please subscribe to WOMEN OF CHINA in English.

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