THE MAGAZINE OF THE NATIONAL COUNCIL FOR US-CHINA TRADE NOV.-DEC. 1976

VOL.3 NO.6

U.S. CHINA BUSINESS REVIEW®

TRANSLATION SERVICES OF THE NATIONAL COUNCIL

The National Council provides translation services for member companies and other firms wishing to have material translated into modern, simplified Chinese characters.

In all business contacts with the People's Republic of China, having correspondence, brochures, and other information translated into the script presently used in China facilitates communications with China's trade organizations. This is because China has limited translation resources: information received in China in Chinese can be disseminated and responded to much faster than if the correspondence is in English.

It is very important for the Chinese characters used in correspondence with Chinese trade authorities to be clear, fluid, and well-drawn. It is important to recognize that present terminology and style of business correspondence used among overseas Chinese differ considerably from that now in use in the People's Republic of China.

Services Offered

The National Council offers a translation service, with strict quality control, for all companies involved in business with China for translation of:

- Correspondence
- Business Cards
- Brochures and Pamphlets
- Summary of Technical Data
- Advertisements
- Catalogues
- Any other form of communication required

These services also include review, revision and correction of translations, both written and oral, made via other agencies in the U.S. and elsewhere, and referral to printing houses possessing modern Chinese ideographic forms. The Council has a simplified-Chinese typewriter.

As information that companies wish to convey to the Chinese normally includes technical terms, the Council's services also include a reference system of leading Chinese-speaking authorities in the U.S. in all major technical fields. These include those of applied mathematics, physics, biochemistry, civil engineering construction, electrical engineering, medical technology, metallurgy, statistics, computer sciences, heavy engineering, textile machinery, electronics and petroleum technology.

The Council also has an extensive set of reference works available including specialized dictionaries, atlases, and recent literature from China.

In the preparation of Chinese script, the following processes are involved: initial translation, research for technical terms, reference to specialized dictionaries, calligraphic copying, and final checking of contents.

To insure strict quality control, the translators used by the Council have been screened by authorities on modern Chinese usage. The services made available by the Council are also often recommended by the Washington Liaison Office of the People's Republic of China.

Charges

Translation charges depend on the type and extend of translation involved. Charges are increased for work needed at short notice. Fees are based on an hourly charge, plus additional cost if additional translation consultations with specialists are involved. There is a reduced hourly rate for members of the National Council. Non-members pay a higher rate. Estimates may be obtained in advance without charge. All services are provided in the strictest confidence.

VOLUME 3—NUMBER 6—NOVEMBER-DECEMBER 1976

U.S. CHINA BUSINESS REVIEW

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TABLE OF CONTENTS

Front Cover: Members of the sixth council-sponsored import delegation to the US, from the Light Industrial Corporation, display goods at the Boxer and Ashfield showroom in New York City. The mission specialized in jewelry, with some arts and crafts and straw goods. Details in Importer's Notes, pp. 52-53. Photograph, courtesy Yoshiaki Mitsui.

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The National Council for United States-China Trade is grateful to His Excellency Huang Chen, Chief of the Liaison Office of The People's Republic of China in Washington, for the calligraphy on the front cover of the U.S. China Business Review.

CHINA TRADE EVENTS

CHICAGO, November 22

The National Council's Construction and Mining Equipment Committees held meetings in Chicago's Hilton Hotel to discuss possible delegations to China and technical exchanges with the Chinese. Attending the meeting from the Council staff was Eric Kalkhurst, Director of Business Advisory Services.

MIDWEST, November 29-December 3

A group from the Chinese Liaison Office, at the invitation of the National Council's Mining Committee, was provided a tour of American mines and mining equipment facilities, accompanied by Melvin W. Searls and Eric Kalkhurst from the National Council's Washington office. The trip began with a visit to the Minntac mines near Hibbing, Minnesota. Next the group saw three additional Hibbing facilities: Eveleth Taconite (Thunderbird), Hibbing Taconite, and General Diesel (the local agent for the Detroit Diesel Division of General Motors). Tours were also made of Harnischfeger International's Milwaukee office and plants as well as Cominco American Mine and Meramec Mine sites near Sullivan, Missouri. From PRCLO, Mr. Chang Tsien-hua, the Commercial Counselor, as well as Mr. T'ung Chih-kuang and Mr. Yu Jen-chuan, participated in the tour. The National Council's mining committee, which sponsored the trip, hosted a dinner in St. Louis for the delegation.

WASHINGTON, D.C., November 23

The National Council held its semi-annual meeting of the board of directors in Washington.

Early 1977

The National Council has plans to participate in a conference on arbitration with the PRC in early 1977. As a result of a meeting between officials of the American Arbitration Association and the Foreign Trade Arbitration Commission of the PRC, US companies can now seek the assistance of the AAA when disputes arise between the firms and the FTCs. The arbitration organizations from the two countries were able to discuss problems of mutual interest at an international arbitration conference held in Vienna last September. (For details see Council Activities) For more information on this potential conference, contact Nicholas Ludlow (202) 331-0290.

NEW YORK, January 20, 1977

"China After Mao," a briefing for executives involved in international trade, will be held at the headquarters of American Management Associations, the sponsoring organization. Chairing the session will be Eugene A. Theroux of Baker and MacKenzie. Speakers will be Christopher H. Phillips, President, National Council; Mark E. Buchman, Senior Vice President, Manufacturers Hanover Trust Co.; William W. Clarke, Director, PRC Affairs, US Department of Commerce; Julian Sobin, Senior Vice President, International Minerals and Chemical Corp. and President, Sobin Chemicals, Inc.; Donald Zagoria, Professor of Government, City University of New York; and Larry Gell, Gell Associates. For more information, contact John T. Cunningham, AMA headquarters, 212-586-8100.

DENVER, March 8

The National Council has tentatively scheduled a conference on construction and mining equipment sales prospects in the PRC. Having arranged widely acclaimed conferences on China's petroleum industry, in Houston on June 23, 1976 and China's agriculture in St. Louis on November 18, 1976, the Council hopes to bring together leading experts on China's construction and mining industries in an in-depth, full-day meeting in Denver. For details, contact Eric Kalkhurst at (202) 331-0290.

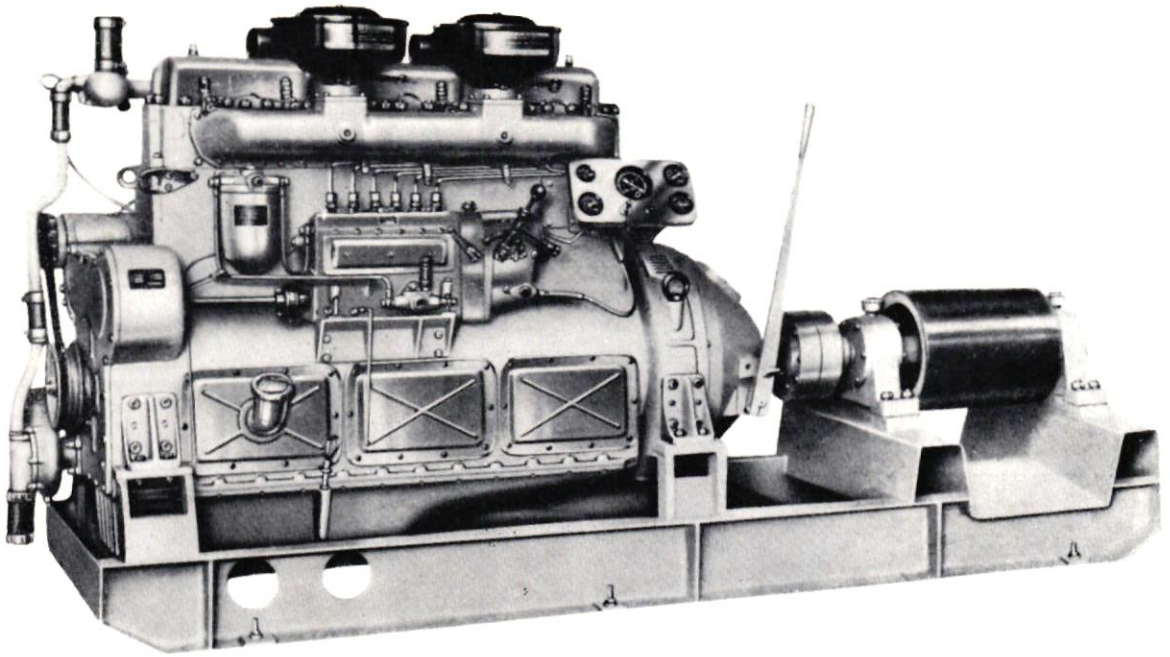
SOME MINI-FAIRS FOR 1977

Feathers and Down Fair	January 1-7, Shanghai
Fur Fair	January 20, Peking
Carpet Fair	Mid-February, Peking
Straw and Rattan Fair	Summer, Place unknown
Arts and Crafts Fair	1977, Place unknown

YOUR MEN IN PEKING

When in Peking, US Commercial Staff at the US Liaison Office will be happy to assist you. Please feel free to call them if you are in China's capital.

Commerical Staff:	William W. Thomas, Jr. (Chief) Richard Mueller Frank P. Wardlaw
Agricultural Representative:	Koy L. Neeley (FAS/USDA)
Telephone:	522033 Ext. 215 or 216
Address:	17 Guanghua Road Peking
Cables:	United States Liaison Office Peking
Telex:	None



A stationary version of the model 6135 diesel engine bought from the Chinese by Halter Marine.

HALTER MARINE PURCHASES A CHINESE MARINE DIESEL ENGINE

A First for US-China Trade

China is exporting technology to the United States. In the first half of 1976 such Chinese-made items as printing machinery, agricultural machinery parts, drilling, milling, metal-cutting and metal-forming machines, and a mechanical press have been delivered to customers in the US. Machine tools from the PRC are arriving with increasing regularity. Now another first has been set in Sino-US trade: an American firm has bought a Chinese marine diesel engine. The contract may also mark another, perhaps more interesting first—it contains a warranty clause, guaranteeing the equipment for one year. The firm that bought the engine has a bona fide interest in a two-way commercial relationship with the PRC.

With the issuance of the Shanghai Communique in February 1972 calling for expanded commercial relations between the US and the People's Republic of China, Halter Marine Services, Inc. of New Orleans, along with many internationally-oriented American firms, began to consider whether trade with the PRC held promise for the immediate future.

Halter Marine Services (HMS) produces offshore vessels, that among other uses are oriented toward servicing of offshore oil equipment. HMS thus thought it had a product of commercial interest to the Chinese, up to international standards and competitive in price. The company had extensive experience in serving offshore oil and gas industries. In addition it had the patience, desire and perseverance to explore the China market potential.

Halter's Approach—Two-way

To signal its interest in doing business to appropriate Chinese officials, Halter began running a series of advertisements in the *American Industrial Report* in September 1975. This effort was supplemented by a visit to the PRC Liaison Office in Washington and subsequently by a request for an invitation to the 1976 Spring Chinese Export Commodities Fair in Kwangchow.

The request for an invitation to the Fair represented an integral part of Halter's program to establish a two-way commercial relationship with the People's Republic: the firm was seriously interested in buying

Halter-Marine official and Chinese representative work on contract which extended a Chinese warranty to an American purchase.

Advertisements in the *American Industrial Report* have been used to penetrate the Chinese Market.

as well as selling. Obviously this arrangement could be mutually beneficial in the long run. An invitation was issued by the Chinese to Halter, based on its expressed interest in marine equipment, such as steel and nylon rope.

After receiving its invitation, Halter selected Joseph Judith, Manager of International Marketing, and Roger Greene, Deputy Manager of International Marketing, to review Halter's purchasing requirements and otherwise prepare for discussions with Chinese officials. Prior to the Fair, however, it had not occurred to these men, nor their Halter colleagues, that Halter Marine was about to purchase a marine diesel engine from China.

Personal Experience Counts

The Chinese have pointed out many times, and experience has confirmed, that personal visits to the United States and China will significantly increase mutual understanding. In Halter's case, the firm did indeed have a first-hand opportunity to examine the goods displayed at the Canton Fair in the Spring of this year. They were duly impressed with the quality of China's marine products on show, such as radio, radar, and air-conditioning equipment. The Halter executives were also impressed to see so many high quality, technology-intensive products, such as large diesel engines.

After talking with their Chinese counterparts at the China National Machinery Import and Export Corporations (MACHIMPEX) regarding specifications, maintenance, price, delivery and related matters, Halter discovered that they could buy a marine diesel engine in China for much less than the delivered cost in New Orleans for an equivalent engine bought elsewhere. They decided to buy.

Their sense of excitement increased when they learned that Halter is the first American firm to purchase a marine diesel engine from the People's Republic of China. To this was added another apparent first for US-China trade: when preparing the final contract, the Chinese, as an expression of good will and quality workmanship, offered to guarantee performance of the engine and parts for one year after delivery. MACHIMPEX officials told Halter, "If there are any problems, we will send someone over."

If expectations are realized in tests on the machine, Halter will probably purchase additional engines. Given its considerable experience and expertise in the industry, Halter could eventually become a major customer of China for many types of marine equipment.

With its invitation to the 1976 Autumn Fair in hand, Halter Marine was looking forward to another opportunity to explore commercial opportunities with MACHIMPEX and other corporations, conscious of its role in improving understanding between the American and Chinese people.—GD. 完

HALTER MARINE SERVICES
SALES CONTRACT FROM MACHIMPEX

Contract No.: _____

Date: _____

Sellers: China National Machinery
Import & Export Corp.,
Kwangtung Branch.
61, Yanjiang Yilu
Kwangchow, China.

Cable Address: *"MACHIMPEX" Kwangchow*

Buyers: HALTER MARINE SERVICES, INC.
New Orleans, Louisiana

Cable Address: *"HALMAR" New Orleans*

This contract is made by and between the Buyers and the Sellers, Whereby the Buyers agree to buy and the Sellers agree to sell the under-mentioned commodity according to the terms and conditions stipulated below:

(1) Name of Commodity and Specifications, Quantity, Unit price and Total Value:

MARINE DIESEL ENGINE

Name of Commodity and Specifications	Quantity	Unit price	Amount
MARINE DIESEL ENGINE		C&F New Orleans	
Model: 6135 CaB-3 120 HP 1500 RPM	one unit	—	
Spare parts (see attached list)	one lot	—	

(2) Total Value of Contract: C&F New Orleans US$

(3) Packing: Packed in wooden cases.

H M S I

(4) Shipping Mark: NEW ORLEANS

(5) Port of Shipment: China port.

(6) Port of Destination: New Orleans, USA

(7) Time of Shipment: Within 90 days after receipt of L/C allowing transshipment and partial shipments.

(8) Insurance: To be covered by the Sellers for 110% of the total invoice value against—as per Ocean Marine Cargo Clause of The People's Insurance Company of China (excluding S.R.C.C.) To be effected by the Buyers.

(9) Terms of Payment: By Confirmed, Irrevocable, Transferable, Divisible and Without Recourse Letter of Credit established before the end of June, 1976, and to be available by sight draft and to remain valid for negotiation in China until the 15th day after the aforesaid Time of Shipment, failing which the Sellers reserve the right to rescind without further notice, or to accept whole or any part of this Sales Contract non-fulfilled by Buyers or to lodge a claim for direct losses sustained, if any.

(10) Claims: In case of quality discrepancy, claim should be filed by the Buyers within two months after the arrival of the goods at the port of destination. It is understood that the Sellers shall not be liable for any discrepancy of the goods shipped due to causes for which the Insurance Company, Shipping Company, other transportation organization/or Post Office are liable.

(11) Force Majeure: The Sellers shall not be held responsible if they, owing to Force Majeure cause or causes, fail to make delivery within the time stipulated in the Contract or cannot deliver the goods. However, in such a case, the Sellers shall inform the Buyers immediately by cable and if it is requested by the Buyers, shall also deliver to the Buyers by registered post, a certificate attesting the existence of such a cause or causes.

(12) Arbitration: Any dispute arising from the execution of, or in connection with, this Contract should be settled through negotiation. In case no settlement can be reached, the case shall then be submitted to the Foreign Trade Arbitration Commission of the China Council for the Promotion of International Trade, Peking, for settlement by arbitration in accordance with the Commission's Provisional Rules of Procedure. The award rendered by the Commission shall be final and binding on both Parties.

(13) Remarks: The Buyers are requested always to quote THE NUMBER OF THIS SALES CONTRACT in the Letter of Credit to be opened in favour of the Sellers.

(14) Guarantee of Quality: The sellers guarantee that the commodity complies in all respects to the specifications as stated in the Manual and this contract. The guarantee shall be valid for a period of 12 months from the date commodity arrives at the port of destination.

U.S. EXPORTS, U.S. IMPORTS AND TOTAL TRADE

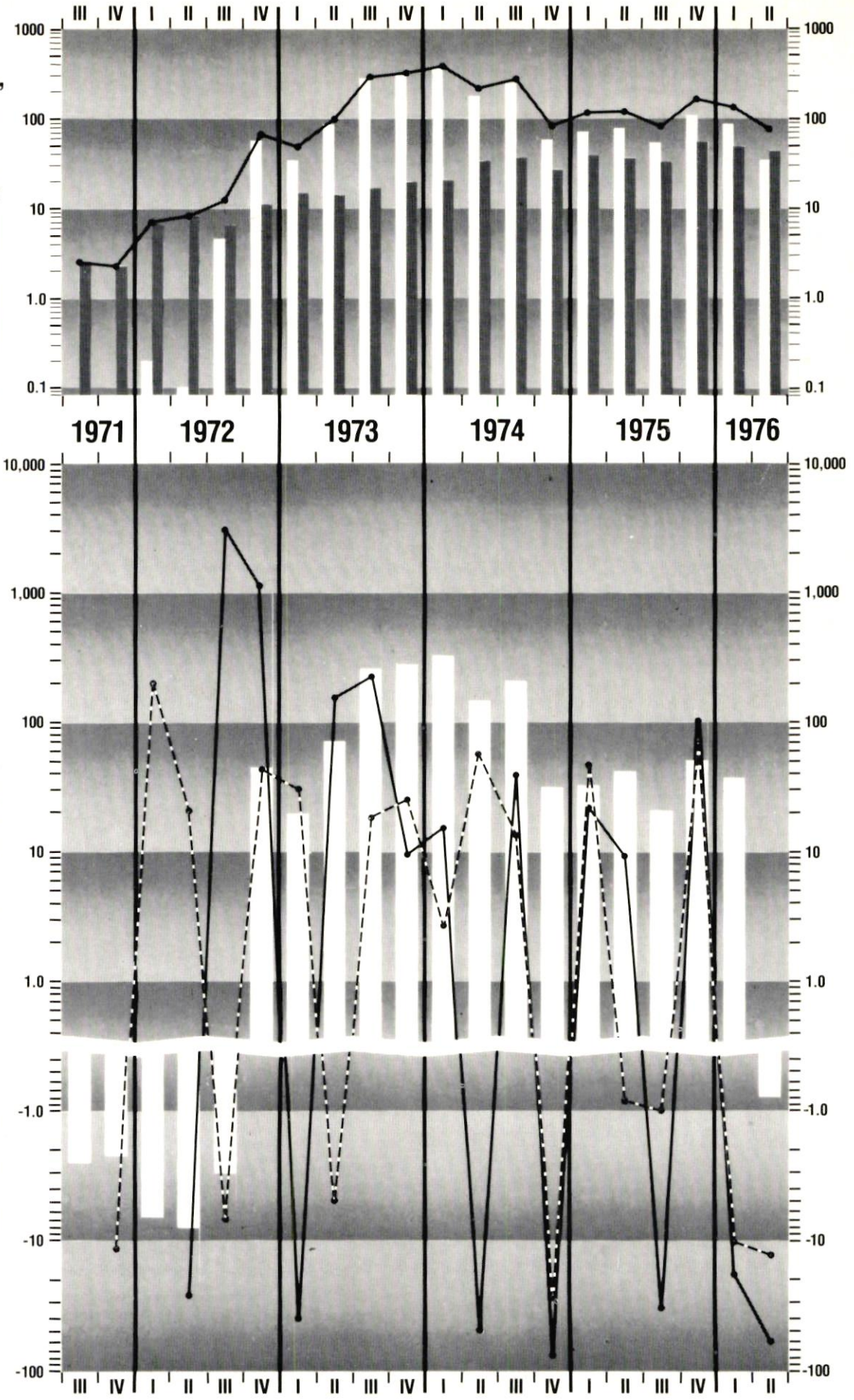
($US millions by quarters)

TOTAL TRADE

EXPORTS

IMPORTS

(Note: Logarithmic scaling of these charts tends to minimize differences in upper ranges.)



CHANGES IN U.S. EXPORTS AND IMPORTS WITH BALANCE OF TRADE

(Percentages and $US millions by quarters)

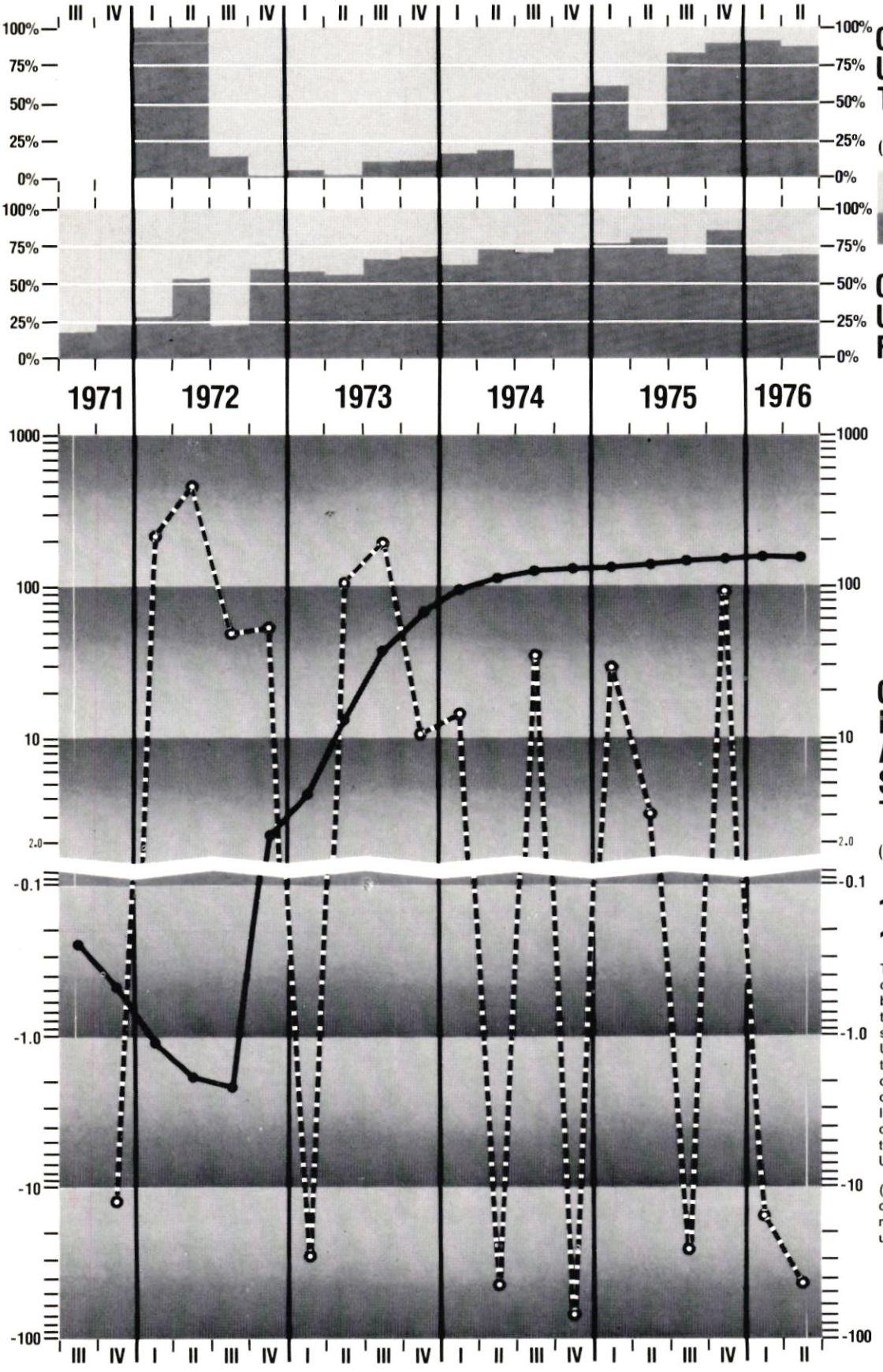
% EXPORTS

% IMPORTS

BALANCE OF TRADE, $US MILLIONS

The white bars on this graph show the balance of US-China trade by quarters. The fourteen positive readings reveal continuous US surpluses from 4th quarter of 1972. The lines signify percentage changes from one quarter to the next, erratic in both US imports (dashed) and US exports (solid).

FIVE YEARS OF SINO-AMERICAN TRADE



COMPOSITION OF U.S. EXPORTS TO CHINA

(Percentages by quarters)

RAW MATERIALS AND FOODSTUFFS

MANUFACTURED GOODS

COMPOSITION OF U.S. IMPORTS FROM CHINA

CUMULATIVE BALANCE OF TRADE AND CHANGES IN SINO-AMERICAN TRADE

(Percentages and SUS tens of millions by quarters)

PERCENTAGES

SU.S. TENS OF MILLIONS

The solid black line in this chart marks the cumulative balance of Sino-American trade. The balance has shifted from a cumulative US deficit of $19.4 million in the 3rd quarter of 1972 to a cumulative US surplus of over $1.5 billion. The dashed lines represent the sporadic changes in the volume of two-way trade between the US and China

(Note: Logarithmic scaling of this chart tends to minimize differences in upper ranges)

Raincoats made from Chinese raw silk were modeled at the American Silk Mills fashion show in New York, November 4, 1976.

CHINA STEPS OUT IN THE US

"ONLY SILK IS SILK"
Gerli Promotes Chinese Silk in the US

It appears as if some time last year China's FTCs decided that 1976 was going to be the year to gear up the promotion of Chinese goods in the US. America's bicentennial year has seen a splash of well-coordinated promotions of Chinese products, focusing on traditional items such as silk, carpets, and basketware. Perhaps in anticipation of this, China's FTCs have registered, via their Hong Kong agents, about a dozen trademarks in the US, a sign of a serious marketing campaign. There has been a Chinese-sponsored carpet fair in New Jersey, and American Express has featured Chinese handicraft items in its Christmas catalogue. Even Machimpex is making an effort, selling Halter Marine a marine diesel engine with a one-year warranty. One of the most interesting and probably the most successful promotion of Chinese products has been the joint effort of the China National Textiles Import and Export Corporation and American Silk Mills Corporation (a fabric weaving and sales division of Gerli and Company, Inc.) to rebuild the market for silk in this country. The following story describes their promotion, and the Chinese financial contribution to it.

Pongee, tussah, shantung—the exotic names of these silken fabrics conjure up a host of romantic images. China is the traditional home of silk, first developing it as a textile fiber in 2600 B.C. when the record has it that an empress dropped a cocoon into a cup of tea and discovered that the filament formed an unbroken thread. Through the centuries, silk remained a prize possession for Europeans, who traversed the Silk Road from the Mediterranean to Sian to purchase China's riches.

Prior to World War II, thousands of bales of Chinese raw silk were imported into the US, but this trade dried up during the hiatus in relations beginning in 1949. The American silk industry was hard-pressed to compete with the new "miracle," low cost synthetic fabrics. The 1960's emphasis on informality only intensified the competition between synthetics and silk. There was no market for silk blue jeans.

In 1971, China re-emerged as an accessible trading partner. Soon thereafter a trend toward the use of natural fabrics, as well as a new appreciation of elegance became apparent. The result has been a renewal of interest in Chinese silk and an effort to promote and sell it. The continuing desirability of silk goods in the modern era is still evident, and those from its original homeland—China—exert a particularly unique attraction. Since 1975, silk importers in the United States and Europe have been capitalizing on this hardy new straw in the fashion wind.

The thrust of the promotion is: Sell the idea of silk as a luxury that everyone can afford. Re-establish this oldest of textiles as a potent force in a broader market, expanding it out of the couture houses where it has

always been a mainstay. Silk may never be the stuff of the real mass markets, but it can be and is becoming a significant factor in smaller markets, such as the high-quality department stores. In addition to the trend toward the natural and the elegant, the fashion world is once again responding to the unique qualities of silk: its pleasant, smooth sensation, and its remarkable ability to feel warm in winter and cool in summer—characteristics not found in synthetics.

Gerli Spearheads Promotion, China Helps Pay

The American company which imports the largest quantity of Chinese raw silk—Gerli and Co. of New York—has been in the forefront of this new emphasis on a traditional product. Gerli is in the middle of a long-term promotional campaign for Chinese silk in the US, in collaboration with the China National Textiles Import and Export Corporation. Gerli and Co. has good credentials for spearheading the promotion of Chinese silk in the United States. Its president, Paolino Gerli, originally from Italy, developed a high-volume business with China early in this century, maintaining offices in Shanghai, Canton, and other cities and importing thousands of bales each year until World War II. Since Sino-US trade reopened, Mr. Gerli and Vice President Rhys Cooper, who has long experience in the silk trade in the Far East, have been to the Canton Fair several times, and both have been invited to Peking.

Currently, Gerli and Co. imports over $3 million worth of raw silk from China each year principally to supply the needs of their mills, the American Silk Mills of Orange, Va., which was visited by the CHINATEX delegation to the US in early 1975. It is under the aegis of these mills that an extensive promotional campaign was begun last year following Chinese indication of interest at the 1975 Canton Fair.

It is obvious that in many highly industrialized markets the Chinese have accepted the necessity of promotion in order to introduce commodities and realize sales. In Hong Kong in 1972, the Chinese spent an estimated $2 million to advertise their products, including about $200,000 for TV commercials. In Europe in 1975, they reportedly spent at least $900,000 to stimulate silk sales on that continent, including a British campaign entitled "Rediscover Silk," for which China made funds available through the European Commission for Silk. In the case of Gerli, the Chinese have contributed substantial financial support to the promotional campaigns in 1976 and 1977, and have been kept abreast of all details, including costs. The company recently sent an album of articles, ads, and photographs to CHINATEX headquarters in Peking.

Factors Behind the Campaign

Prior to 1974, the only silk available on the US market was extremely expensive imported fabric. But Gerli, familiar with fashion changes, sensed that a new trend should be on its way in and began planning for a new swing toward silk. The company developed about ten lines of tussahs, crepes, twills and habotai, keeping in mind market prices that were within reach of the ready-made better dress manufacturers and home sewers. Silk may have been an idea whose time had come, but the company knew that in today's market, it still needed promotion.

The basic idea of silk had to be re-established in this country followed by a return to some domestic production. "China is too far away to be a significant factor in the market unless silk is re-established here as high fashion," comments Cooper. "It must be present in the lines of leading fashion designers and in the better dress sections of department stores. Once it is re-established, then there is a market for staples."

Gerli would have to work at making silk attractive to as wide an audience as possible, recognizing that even with a drop in price, this rich fabric would never be within the reach of the volume dresswear market. Therefore, the size of the potential business did not justify a full-fledged consumer advertising campaign, involving millions of dollars. Within the company's means would be a promotion in the fabrics departments of retail department stores.

Cooper and Gerli apprised their Chinese contacts of their perceived need for a campaign to re-establish silk on the American Market in general. Since China is one of the leading exporters of silk to the US, any campaign here would obviously be of benefit to CHINATEX. They responded with interest to Gerli's overture.

The 1976 Campaign: "Salute to Silk"

The resultant 1976 campaign, which has just drawn to a close, featured 26 fashion shows in the better-dress departments of leading department stores across the country, supplemented by counter displays and printed materials. The thrust of the campaign was to tempt an economy-minded audience: the home sewers, via a pitch educating them not to be too overawed by the prestigious reputation of silk and to see it as a practical and viable alternative to other fibers. The home sewers market was viewed as a jumping off point for stimulating the far larger garment manufacturers market. Also stressed was the relatively reasonable price of silk fabric as opposed to ready-made silk clothing for sew-at-home patterns. The patterns are put out by Vogue-Butterick, with whom American Silk Mills has a cooperative agreement.

About 30,000 women were attracted to the shows, which were held in stores including B. Altman's in New York, Wanamaker's in Philadelphia, Sakowitz in Houston and Marshall Fields in Chicago. In addition to the live models, a variety of other publicity efforts were made. Small pamphlets on "Tips for Sewing with Silk" were passed out, reminding women that

"only silk is silk." These detailed the practical reasons for using silk, and offered pointers for cutting, marking, basting and sewing. The New York designer and fashion lecturer Charles Kleibacker hosted many of the events and gave expert advice on the construction and fit of silk garments. Some stores supplemented the basic show with, for example, an exhibit on the history of silk, featuring a map of Marco Polo's silk route, skeins of silk, and cocoons.

Gerli ran a series of advertisements in *Vogue* and *Harper's Bazaar*. Press releases played up the home sewer's "love affair with the naturals," and the large number of types of clothing which could be sewn with silk, such as tailored suits, shirtdresses, jumpsuits, culottes, or nightgowns. The shows received a large amount of publicity in newspapers across the country. Other prestigious department stores in addition to those staging fashion shows are selling American Silk Mills fabrics including Bonwit Teller, I. Magnin and Neiman-Marcus.

American Silk Mills executives felt that retail sales of fabrics were satisfactory. "Introducing what is practically a new product in the American market takes time," notes the company. In addition to fabric sales, over-the-counter sales in the dress department were also stimulated in a richochet effect. "This is what you can expect from a first promotion. The drive must be repeated in order for silks to sell in significant volume."

The 1977 Campaign: Consolidating a Good Start

And so it will be carried out again in the coming year in a revised and expanded form. The emphasis has been re-directed from home sewers to the garment manufacturers, and the number of fashion shows, which will begin in February, has been increased to about 100. The selection of stores has been enlarged to expose a broader spectrum of the nation's department stores to the promotion, which is expected to reach 100,000 people. In addition to the major fashion shows, American Silk Mills is also arranging a much more numerous series of "capsule" shows in which fabrics will be displayed without the use of live models. The company's cooperative arrangement with Vogue-Butterick is continuing, as well as extensive press mailings. The campaign received its kick-off on November 4 in New York with a fashion show which was part of the annual Seventh Avenue presentation of Spring and Summer collections.

According to Rubye Graham, the agent handling the promotion, the company is also trying to emphasize the use of silk for types of clothing not made from this material since World War II. Silk resort clothes, lingerie, bras, and panties, will all be part of the various designer collections shown for next year. American Silk Mills is also producing garments of silk and cotton, and silk and Qiana, in order to

Silk gown shown by American Silk Mills in November will be available in stores for the spring season.

create fabrics with the aesthetic qualities of silk which will be within the price range of a broader fine-clothing market than is possible for 100% silk fabrics. Combinations are particularly good for heavy materials, such as those used in sports clothing, which, if pure silk, would be prohibitively expensive.

Silk Prices

China's silk prices have been only just within the range that the market can support. From $25/lb. in 1974, the price of raw silk fell to a more comfortable $13-14 in 1975, and to $12.00 in early 1976.

The fabric market is extremely sensitive to the fluctuating base price of raw silk. "If silk goes up even $1 or $2 a pound, it makes garments too expensive for a volume business," comments Cooper. "We could sell much, much more if the price were just a little lower." He notes that over the past six months China has upped its prices 15-20%, which means that Gerli will have to re-price some of its goods already selling on the retail market. He observes that the high Japanese demand for raw silk, coupled with that country's willingness to pay extremely high prices, distorts the price of silk for other buyers, and in some cases may endanger their businesses.

Gerli's purchases of raw silk originate from all CHINATEX branches, but are mostly from Shanghai. The majority of raw silk shipments are transported from Shanghai to Hong Kong by coastal vessel, where they are dispatched by air in contract containers to Europe, and by steamer to New York. A small amount is shipped from Dairen to Kobe, and from there to the US. The terms are C & F New York.

Information Gaps

Cooper believes that his company could more easily facilitate the promotion of Chinese silk in the US if the Chinese would cooperate on a number of problems which have surfaced, such as lack of information concerning statistics on production and trade. "We know from other sources how much of China's silk is sold to Japan and Europe." Cooper relates, "but we don't know the distribution of the rest. This gap is worrying."

Despite problems encountered, Gerli and Co. feels that its promotion of Chinese silk has been successful in re-establishing this traditional fabric in the US market. It has paved the way for the inclusion of silk in the lines of many designers including Oscar de la Renta, Halston, Kasper, Bill Blass, Holly Harp, Fernande Sanchez, Jerry Silverman, and Joanne Leslie (a division of Leslie Fay), and in the better dresses departments of department stores. The basic step has been taken: the idea of silk has been successfully promoted. Hopefully, a continuing and mutually beneficial relationship with the China textiles corporation will follow.—SRG. 完

"Great Wall" Vodka is plugged on a New York wharf.

"GREAT WALL" VODKA COMES TO NEW YORK

The windy dock of New York City's historic South Street Seaport provided a striking backdrop for the ceremonial landing of the first commercial shipment of vodka from the People's Republic of China to the United States on October 25.

With a three-story-tall air-filled vinyl replica of a bottle of vodka on one side, and the huge four-masted schooner "Peking" (now a permanent museum) on the other, New York City Port Commissioner Louis F. Mastriani welcomed this newest unique product of China before some 80 people who had come from all over the United States to take part.

Hosts Charles Abrams, Chairman, and Stephen Luber, Executive Vice-President of the New China Liquor and Spirits Corporation, emceed the dockside ceremonies and then moved the party to a Chinese restaurant where the vodka and viands quickly warmed up the guests

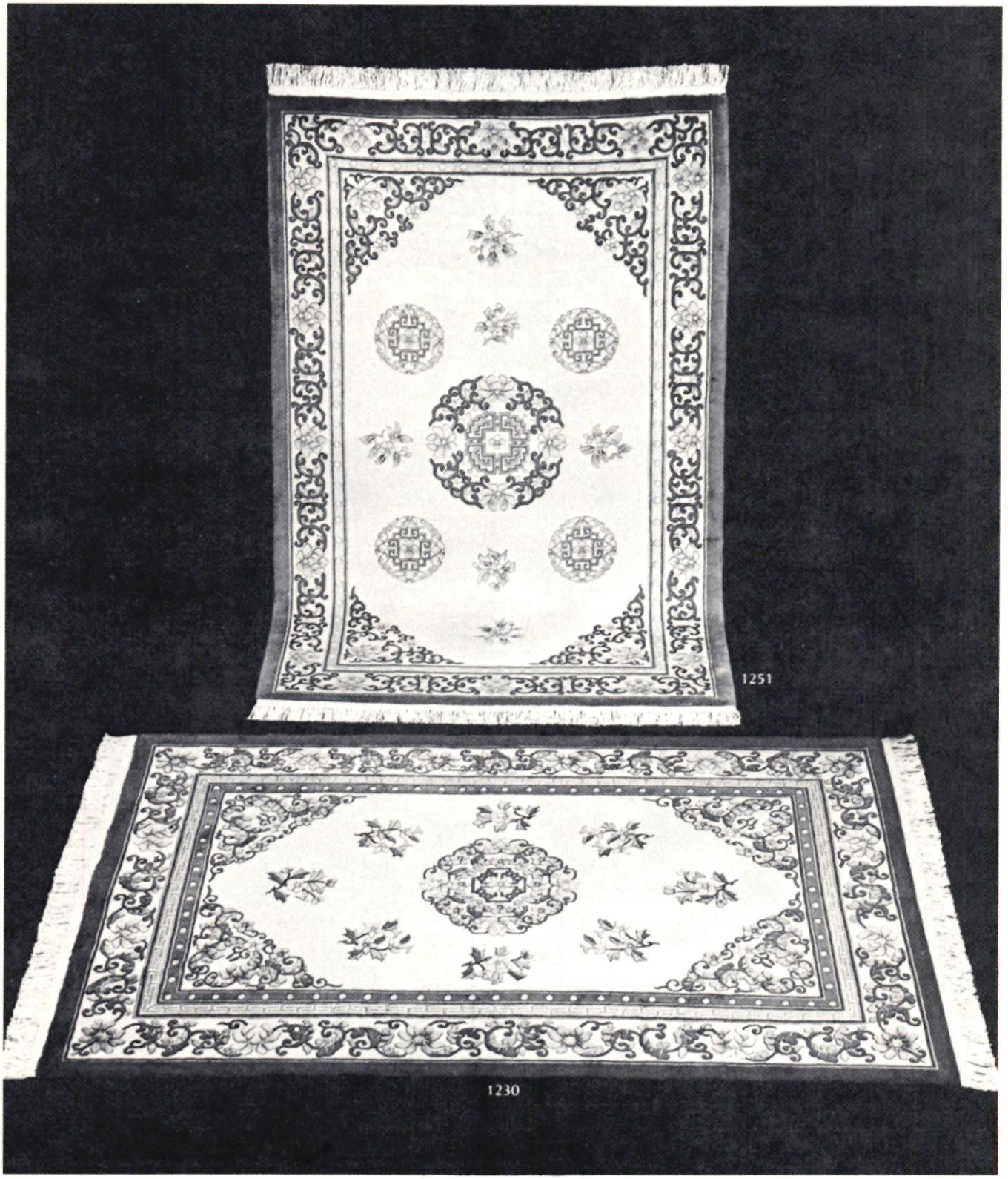
This was, to say the least, a novel way of introducing yet another new product from China which was quickly pronounced "outstanding" by the experts present.

TRANS-OCEAN PUBLISHES AREA RUG CATALOG

Trans-Ocean, Inc., has published a new catalog showing more than 100 area rugs in color. Trans-Ocean offers it at $7 to dealers.

Included are the special collections of hand-made rugs from the People's Republic of China, a complete selection of Oriental, reproductions, Berbers, wools and synthetics, the famous Royalty collection, braids, Ryas, the fur look, contemporary and modern designs and natural fiber rugs—among others.

The catalog also contains information about each group of rugs making it useful for both stores in their selling effort and consumers.



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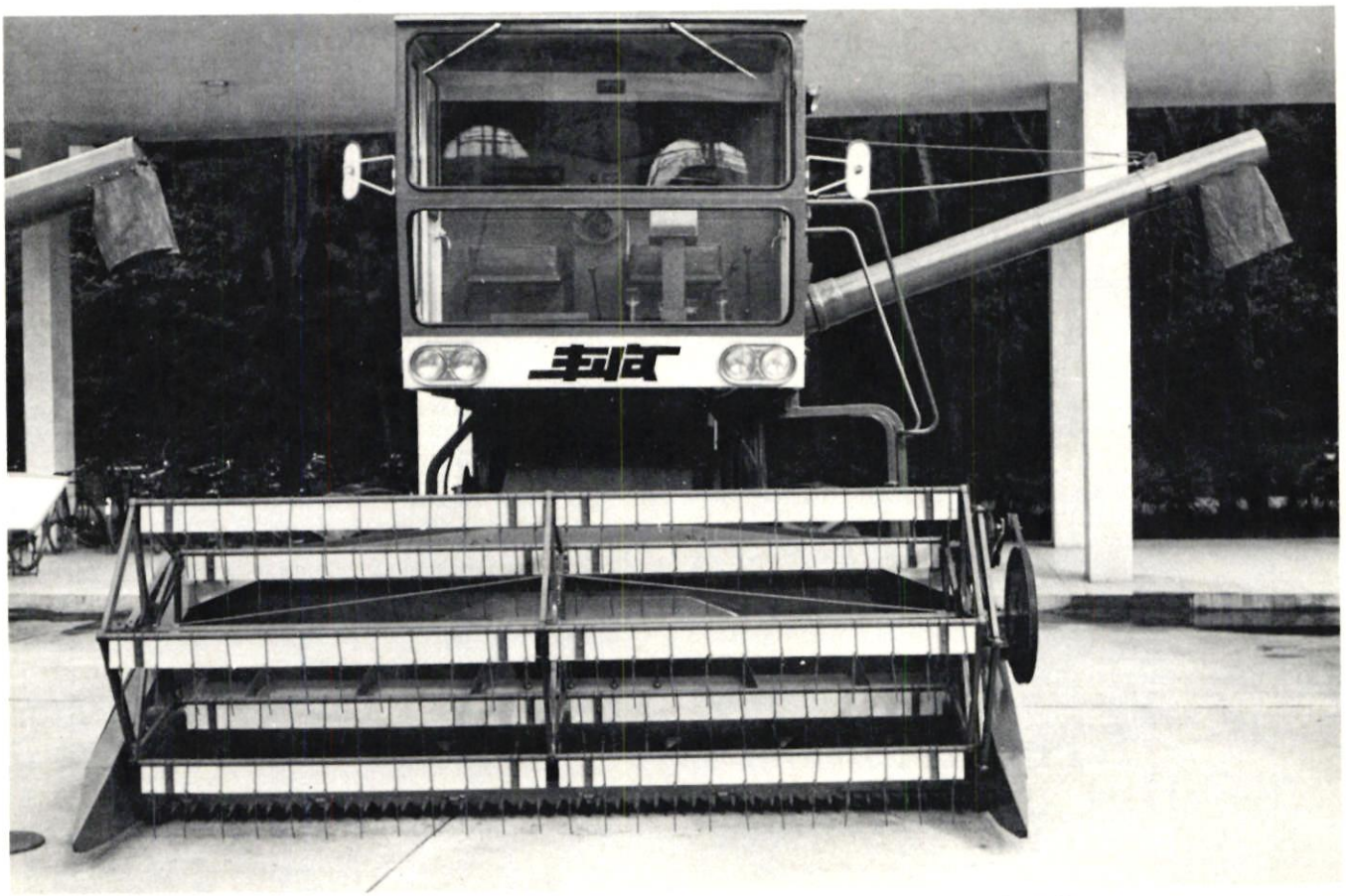
Will China be able to replace traditional threshing methods (above) with modern combines (below) by 1980?



AGRICULTURAL MECHANIZATION AND MACHINERY PRODUCTION IN THE PEOPLE'S REPUBLIC OF CHINA

Amir V. Khan

The mechanization of agriculture is a Chinese priority. One of the chief objectives of the PRC's present Fifth Five-Year Plan (1976–1980) is the complete mechanization of agriculture by 1980. For outside observers this raises many questions. What, for instance, is the state of agricultural mechanization in the PRC now? And to what extent is China likely to look to the technology of foreign countries to assist in that mechanization? The following account was written by Amir Khan, the head of the Agricultural Engineering Department at the International Rice Research Institute, following a visit to the PRC in 1975 of the US Rural Small Scale Industries Delegation sponsored by the Committee on Scholarly Communications for the PRC. This account is excerpted, with permission, from the chapter by Khan in the forthcoming book Rural Small Scale Industry in the People's Republic of China, *to be published by the University of California Press in early 1977, edited by Dwight H. Perkins, that describes the experiences of the delegation.*

Dr Amir V. Khan, an American with a Ph.D. in Agricultural Engineering from Michigan State University, presently heads the Agricultural Engineering Department at the International Rice Research Institute, at Los Banos in the Philippines. He is responsible for the administration and direction of the development of a wide range of agricultural machinery for the production and processing of rice in the tropics. Previously he worked for Ford Tractor Division, and was eleven years in India as an agricultural design engineer. Dr Khan holds 14 agricultural machinery patents in the US, the Philippines and India, and has authored over thirty articles and papers on the mechanization of tropical agriculture. The Rural Small Scale Industries Delegation to the PRC visited China from June 12 to July 10, 1975, traveling in Hopeh, Shansi, Honan, Kiangsu, and Kwangtung Provinces as well as Peking and Shanghai.

Since the Great Leap Forward, in the late 1950s, China's development policies have focused on bridging the gap between the agricultural and the industrial sectors. Mechanization is considered as an essential element of agricultural development which is well reflected in Chairman Mao's statement, "The fundamental way out of agriculture lies in mechanization." During the years that followed, a massive Chinese mechanization program has evolved, at which our delegation had a brief but close look.

The Chinese are actively engaged in adapting and transferring mechanization technologies from all over the world. What is perhaps unique in this program at this stage of development is the extensive small-scale agricultural machinery industry that has been established in the rural areas to support their mechanization strategy. Our delegation, unfortunately, did not have the opportunity to visit some of the research in-

stitutions that have played a significant part in this agricultural mechanization process and in the development of the rural-based farm equipment industry. Consequently, our comments on mechanization are primarily based on the agricultural machines that we observed being produced in the manufacturing plants and used in the progressive agricultural areas. These comments must therefore remain rather impressionistic in nature.

It was apparent to us that in terms of agricultural development priorities, mechanization of field operations in China is superceded only by the introduction of improved seed-fertilizer technology and by irrigation and land development activities. High-yielding dwarf varieties of wheat and rice have been widely introduced in most parts of the country. We were impressed with the progress made in irrigation, water control and land development, without which increased crop production would not have been possible. The Chinese farm mechanization program has been highly effective in raising both land and labor productivity. We were repeatedly told that the country is committed to complete mechanization by 1980. Optimistic as it may sound, it makes clear the high priority China has placed on the mechanization of its agriculture.

Displacement of labor through agricultural mechanization is a delicate issue which is of major concern to policy makers in most developing countries. Consequently national policies in many developing countries tend to provide lukewarm support to the mechanization of agriculture. China has a low level of per-capita arable land and shares the same basic problems of high population density and subsistence agriculture with other developing countries. Yet, surprisingly, we did not hear a single comment indicating any fears of unemployment through agricultural mechanization. On the contrary, we consistently found that the Chinese look at the mechanization as an effective tool to improve labor productivity and to release labor for more productive employment.

China has made effective use of her idle and underemployed rural manpower in the construction of irrigation and land development projects and in rural industries. The utilization of surplus farm and nonfarm labor has received special attention from the Chinese planners. In traveling to the Great Wall, we saw large numbers of students and city workers from Peking harvesting wheat in the countryside, which exemplified China's efforts in mobilizing the non-farm workers during periods of peak labor demand. We felt that the judicious utilization of surplus labor and the positive outlook toward mechanization have been the two important factors in introducing agricultural mechanization in China.

In agricultural mechanization Chinese priorities seem to be: (a) land development and irrigation, (b) food and fodder processing, (c) transportation, (d) threshing, (e) land preparation, (f) paddy transplanting, and (g) harvesting. Farm mechanization is being progressively introduced in most parts of the country with the more power-consuming and labor-intensive operations being mechanized first. Manual labor and draft animals, however, continue to be of considerable importance at this stage and are still widely used. In the more progressive areas, such as Kiangsu Province, however, increased attention is now being directed to greater land consolidation to permit full-scale farm mechanization.

While long-range aims in the PRC are to mechanize agriculture with larger equipment, present emphasis is on the production of a wide variety of machines ranging from simple manual and animal-drawn implements to fairly sophisticated large tractors and combines. The variety of locally produced tractors and agricultural machines is surprisingly broad in China. The designs appeared similar to those of other industrialized countries, but they been well adapted for heavier-duty service.

Local production of tractors and farm machines is among the five important industrial activities which have been selected for major attention in recent years. The five industries are iron and steel, power, cement, fertilizer, and farm machinery. We were told at a briefing in Peking that the production of tractors has increased by 520% in China from 1964 to 1974, with a recent average annual growth of 20%, and the number of power tillers has increased 30 times since the Cultural Revolution. These figures are somewhat substantiated by the information found in U.S. government publications, which indicate a production of 138,000 standard 15-hp units in 1973 against 19,300 units in 1964. It further gives credibility to the Chinese claim that since 1965 agricultural machinery manufacturing plants have increased by four times and the number of workers has increased by six times. (Also see Table 3.) The rate of annual increase in power tiller and diesel engine production has recently been 40% and 30%, respectively.

Apparently, China has been quite successful in transferring and adapting a wide variety of mechanization technologies from all over the world. Understandably it has placed relatively less emphasis in its early stage of development on finding indigenous solutions to some of its specific mechanization problems. We felt the diversity in the indigenous designs that originated from Japan during its early mechanization stage was greater than what we see in China today. This shortcoming, however, is now being rectified because almost all agricultural engineering research institutions are currently working on the development of new machines to solve their local mechanization problems.

China's farm machinery manufacturing industry is currently passing through a rather dynamic period in which the products and the production processes are being rapidly changed and upgraded. Production of

Slogans and tractors combine to improve China's harvests.

less complex machines, requiring lower capital investments, is decentralized to the county, commune, and brigade levels. There is a steady trend of increasing sophistication in the manufacturing operation at the lower organizational levels; thus the commune and brigade workshops are progressively tackling more challenging production problems. Self-reliance in manufacturing has helped to develop local technical capabilities among the rural people. The Chinese experiment on the development of rural farm machinery industries is thus a continuing process and should be viewed more on the basis of its achievements rather than on the current level of mechanization technology.

Mechanization

Basically the ownership of land and capital in China is divided among three organizational levels, namely, commune, brigade, and production team, although some variations exist in practice. A production team, which may consist of 20–30 households, retains only the simpler agricultural equipment and hand tools used in the farming operations. The brigade and the commune provide the larger, more costly equipment (Table 1). A brigade may control 10–15 production teams and farm an area of about 100–150 ha. The pressure for both land and labor productivity provides sufficient incentives to make use of every inch of available land. Since land is not individually owned, adjustments in field sizes easily can be made. China's efforts toward land consolidation were exemplified at the Tachai Brigade where fields have been enlarged recently up to 1.5-ha size by consolidating smaller terraced fields to facilitate movement of larger machines.

We saw ample evidence of increasing arable land through reclamation and improvement projects in every area that we visited. In Shansi province, we saw badly eroded mountainous areas, with yellowish wind-deposited soils, being reclaimed for good arable land. Impressive progress was made at Hsi-yang County and at the famous Tachai Brigade in reclaiming land through terracing of mountains and filling of gullies

Table 1
UNIT PRICES OF SELECTED AGRICULTURAL MACHINERY IN CHINA (1975) [a]

Item	Price in yuan *
Prime power	
Gasoline engine, 75-hp, 4000 rpm	2,500
Diesel engine, 55-hp	3,200
Truck, 2-ton, with 75-hp gasoline engine	—
Four-wheel tractor, with 55-hp diesel engine	10,000
Crawler tractor, with 20-hp diesel engine	4,000
Crawler tractor, with 10-hp diesel engine	3,600
Power tiller, with 12-hp diesel engine	2,000
Diesel engine, 3.5-hp, aircooled, 2,000-rpm, 40-kwgt.	550
Farm machinery	
Wheat seeder, bullock-drawn, 2-row, wooden	35
Transplanter, manually drawn	60
Transplanter, power-driven, 14-row, without engine	1,000
Irrigation equipment—motor and pump, price per hp	210 [b]

[a] Data collected from briefings. * Yuan equals ca. US$0.50
[b] From U.S. Government publications.

and riverbeds. In the nearby Hui County and Hsinhsiang areas, north of the Yellow River, we came across many land development, irrigation, and water control projects, which have helped to transform sandy and marshy riverbeds into productive agricultural land. In Lin County, North Honan province, we saw the 70-km long Red Flag Trunk Canal and its 1500-km long distribution network. Water from the Chang River is brought from neighboring Shansi province over rugged mountainous terrain to irrigate 40,000 ha of fertile agricultural land. The canal was built by 40,000 workers and took almost 10 years to complete.

Modern seed-fertilizer technology, improved irrigation, and land consolidation have helped the introduction of agricultural mechanization in the dryland farming areas of Peking municipality and Shansi and Honan Provinces. The climate and the agricultural production practices in these areas do not seem to present any major technical bottlenecks to mechanization; hence, mechanization is progressing rather well. For example, we learned at the Red Star Commune near Peking that the commune, with 10,800 ha of cropping area, is rapidly mechanizing its cultivation and currently has 125 four-wheel tractors and 140 threshers. The commune leaders expect each of their 129 brigades to have two to three tractors and two threshers within the next three to four years.

Rice is an important crop in the wetland areas of Shanghai municipality and Kiangsu Province, where two annual crops of wetland rice and one of winter wheat are raised. The relatively short rainy season of only one month, from mid-June to mid-July, does not present any problem in the use of modern farm machines for land preparation and threshing. These operations are almost fully mechanized through the use of four-wheel tractors, small power tillers, and stationary power threshers.

In the southern province of Kwangtung, two crops of rice and one other crop, such as sweet potato, are annually grown. This is an area of heavy rainfall spread over a long period. Rice production practices here are quite similar to those in southeast Asia and agricultural mechanization has not made as much progress as in the other parts of China that we visited. The first crop is harvested, and the second is planted during the long rainy season. The wet field and crop conditions during the rainy season make it difficult to mechanize rice production; mechanization of such wetland paddy areas is not only a problem in China, but in almost all tropical Asian rice-growing countries. We felt that greater emphasis should be placed on the development of lightweight tractors, power tillers, traction-assisting wheels, and portable power threshers to mechanize rice production in the southern part of the country.

Almost all areas that we visited had mechanically powered irrigation systems; we hardly came across any manual or animal-powered equipment for pumping water. Most communes had large pumping installations with appropriate water distribution systems. A large number of small portable pumping sets are also used for lifting water from canals, wells, and rivers in most places that we visited. In Kiangsu Province and in Shanghai municipality, we visited two brigades in which all land had been consolidated into large, well-laid rectangular fields with excellent water control systems in which networks of underground irrigation channels alternated with open drainage canals. We also saw an underground water distribution network with large sprinklers for grain production and drip irrigation systems for fruit orchards in the dryland areas of Shansi and Honan provinces.

We were surprised at the widespread use of electric motors to power irrigation pumps, threshers, and other similar stationary agricultural machines. Long temporary extension cables are used to provide even remote fields with electric power for operating such machines. Electric power is popular because it is available at a subsidized rate for agricultural use (Table 2). In comparison, diesel engines are generally not popular for powering stationary machines, although we saw some engines being used with irrigation pumps in Honan and Hopei Provinces.

Most land development and reclamation work is done manually with shovels, baskets, hand-pulled carts, and other simple tools. This permits maximum use of locally available manpower and saves large capital outlay for heavy construction equipment. The magnitude and quality of some of the capital construction projects that have been undertaken with manual labor is impressive in China.

In Shansi Province, we saw soil being transported manually over a 4-km distance in small carts by thousands of men. This soil was being used to build a large dam and to cover the riverbed downstream with 1 m topsoil. Interestingly, two large bulldozers

Table 2
PRICES OF FUEL AND ELECTRICITY IN CHINA, 1975[a]

Item	Purpose	Price in yuan
Fuel		
Diesel, kg	General	0.40
Diesel, kg	Agricultural	0.27
Gasoline, liter	General	1.42
Electricity, kwh		
	Household	0.07
	Industrial	0.06
	Agricultural	0.03

[a] Data collected from briefings during visit. Yuan equals ca. $0.50.

FARM EQUIPMENT PRODUCTION FACILITIES IN THE PRC

China's national and provincial level plants are quite well equipped with modern mass production machines. We were impressed with the production equipment at the Internal Combustion Engine Plant at Peking. Most of the engine components were machined on specialized automatic and semi-automatic production machines. They had designed their own multispindle boring machines for machining engine blocks and cylinder heads. Their foundry was highly mechanized with the sand conditioning, mould and core production, and metal pouring done mechanically with rather advanced machines. This plant had two assembly lines, one for gasoline engines and one for diesel engines.

Similarly, at the power tiller manufacturing plant in Wu-hsi County, Kiangsu Province, we were impressed by the use of modern specialized production equipment. The three faces of the transmission casings were being simultaneously machined on automatic machines. The plant was equipped with a wide variety of semi-automated and automated machine tools. The plant had high-speed gear shavers and hobbers, as well as electric spark erosion machines for the production of power tiller transmission gears. The heat treatment section had atmospheric and salt bath furnaces and induction hardening machines. In a nearby county-managed electric motor plant, we saw electric spark erosion machines being used to make punching dies for rotor stampings from hardened tool steel.

In our visits to county and commune level plants, we were impressed by the judicious mixing of rather modern methods of mass production and simple methods of manual production. For example, it was not uncommon to see large pneumatic power hammers being used along with manual forging operations. Most county and lower-level plants do not use special production equipment, but depend on standard machine tools. Production of farm machines at the county and commune level plants is quite labor-intensive and offers considerable potential for improvement in labor productivity.

For example, we were told that at a commune farm machinery plant in Peking, they had 171 workers and had produced 140 threshers and 50 transplanters last year. Figures available in the Philippines on production of similar types of threshers and other machines with highly labor-intensive methods indicate a requirement of less than half as much labor to produce as many machines. The small size of the local market and the wide variety in the product mix is responsible, to a certain extent, for this low labor productivity. It seems that the emphasis on self-sufficiency in production is more important to China at this moment, and that they are willing to sacrifice some production efficiency in their early stage of industrialization.

Almost all county and commune level plants have small foundries. The foundry is an important part in most manufacturing units, for castings are liberally used in the production of machines. Most foundry operations of sand conditioning, mould preparation, and metal pouring are done manually at the county and lower-level plants. In only a few larger county plants did we see the use of overhead traveling cranes for transporting molten metal and the use of portable vibrators for tamping sand in the mould boxes.

The use of sheet metal, both stamped and formed, is not popular in the production of agricultural machinery. Perhaps this may be because of the high cost of sheet metal or the shortage of the metal sheets. Fabrication of sheet metal parts requires large investments in stamping presses and dies and is often justified only for larger-volume production. Because of smaller production volumes at the local plants, sheet metal is sparingly used in the production of machine components. In our opinion, sheet metal fabrication was the least developed section in most farm machinery manufacturing plants that we saw. At the Shanghai (Bumper Harvest) Tractor Factory, the rear tractor sheet metal fenders were hand-fabricated and were full of hammer marks, although they were quite strong. Since sheet metal components are often used to enhance machine appearance, little attention is paid in China to improving the quality of sheet metal components in most agricultural machines.

On the other hand, considerable emphasis has been placed on the development of machining capabilities and most small plants are well equipped with lathes, milling machines, shapers, and other standard machine tools. We were repeatedly told of the many self-made machines that were fabricated by the manufacturing units, and we saw some in operation. The self-made machine approach is still being followed at many plants although these machines are no longer the cobbled-up versions that we had envisioned. Most of the plants produce rather modern machine tools for their own use, which are often comparable to factory-built machine tools. Designs of the machine tools are obtained from the larger machine tool plants and national research institutes. It was our impression, however, that the self-made machine tools approach is beginning to decline as more factory-built machines become available and as production efficiency dictates more specialized machines.

were used on this project for spreading and compacting soil—an operation that was mechanized because it could not be satisfactorily done by manual methods. Locally built power cable winches were used to pull dirt-laden handcarts up the sides of the dam where the slope was too steep for human power. Apparently selective mechanization is practiced to supplement labor only when manual methods are difficult or not possible. The simultaneous use of hand shovels, picks, baskets, and large bulldozers on the same project, however, represented two rather extreme levels of construction technology. We felt that there was scope for intermediate level power equipment to improve labor productivity on capital construction projects.

Most communes have centralized food and fodder processing plants to handle a substantial part of the commune's production. The Red Star Commune annually processes 15 million kg of wheat, rice, and feed. We saw a flour mill with an output capacity of 4000 tons per year in this commune. It was being operated on a three-shift basis during the busy season.

SERVICING AGRICULTURAL MACHINES IN CHINA

The larger manufacturing units at the national and provincial level, which produce tractors and other large agricultural machines, guarantee their products against manufacturing defects. The diesel and gasoline engines produced by the Internal Combustion Engine Plant at Peking are guaranteed for 100,000 km of use in minibuses. We were told that fewer than 1% of the engines are returned to the factory for reworking under their warranty scheme. In addition to their regular production the plant annually produces approximately 10–15% additional fast-moving spare parts for diesel engines and 8–10% for gasoline engines. Availability of spare parts in the rural areas is not too serious a problem since many farm machines are produced at the local level and communication is fairly well developed in the rural areas. We were told that most brigade headquarters have telephones, and that obtaining parts from the provincial and national plants is not difficult.

At the Shanghai (Bumper Harvest) Tractor Factory, we learned that their tractors require major overhauls every two to three years after approximately 4,000 to 5,000 hours of service. From our observations and discussions in China, we believe that the annual tractor and power tiller usage is about 2,000 to 2,500 hours, which is almost four times that of Japan and about 2.5 times that of the U.S. This high degree of tractor and power tiller usage is possible because machines are often used around the clock with three operators during the busy harvest and planting seasons, and are also regularly used for transport throughout the year.

All processing equipment used in this mill was locally produced in China and was of fairly modern design. The mill was designed for bulk handling and continuous-flow operation. Most brigades in this commune have smaller flour mills; about 42% of the total grain produced in the commune was processed at the brigade plants. We saw a brigade flour mill at Ch'i-li-ying Commune in Honan Province, which was milling 10,000 kg of flour per day. This mill had fairly modern equipment and was equipped for continuous-flow operation.

We were told that mechanization of food and fodder processing has been emphasized in China to release the woman labor that had been traditionally used in these operations. Interestingly, the same reason was given at a textile mill in Lin County for the setting up of a special yarn spinning section for home weaving. Previously women used to spend two to four times as much time in spinning yarn as in weaving cloth in their homes. The spinning operation was mechanized by the mill, and weaving was still being done by women in their spare time. The efforts to release women from traditional chores seem to have been rather effective, for today women are an important part of the labor force in China and are actively engaged in agricultural, industrial, and capital construction projects.

We were surprised by the diversity of the modes of transportation in the rural areas: baskets, manual and animal-drawn carts, power tillers, and tractor-trailer combinations. In the northern areas near Peking and Shansi, we saw relatively more animal-drawn carts than in the Kiangsu, Shanghai, and Kwangtung areas. The latter regions are well served with good canal networks and boats are widely used. The surprisingly high use of power tillers and four-wheel tractors for transport accounts for the high degree of annual tractor and power tiller usage in China. We were told that it is easier for the communes and brigades to justify the acquisition of tractors and power tillers than trucks, for these can be effectively used throughout the year for both agricultural and haulage operations. Consequently, trucks are not as widely used for short-haul farm transport; however, trucks are widely used on main intercity roads. Although a wide range of trucks are locally manufactured, we also saw many Japanese and East European trucks. But we rarely saw imported tractors or power tillers, which probably reflects the greater emphasis placed on achieving self-sufficiency in the local production of tractors and farm equipment.

We also observed that large quantities of organic fertilizer are applied in most parts of China, anywhere from 3–12 metric tons per ha. This organic fertilizer is almost entirely collected, composted, and distributed by human labor. We did not see any signs of mechanization of the labor-consuming operations related to organic fertilizer.

Table 3
PRODUCTION OF AGRICULTURAL TRACTORS AND IRRIGATION EQUIPMENT IN CHINA, 1973 [a]

Year	Standard tractors		Garden tractors		Irrigation equipment	
	Inventory (Thousand 15-hp units) [b]	Production (Thousand 15-hp units) [b]	Inventory (Thousand 15-hp units) [b]	Production (Thousand 15-hp units) [b]	Inventory (1000 hp)	Production (1000 hp)
1959	59.0	9.4	NA	NA	2,535.0	1,255.0
1964	123.0	19.3	0.15	0.15	7,300.0	860.0
1969	NA	40.0	11.62	3.20	NA	NA
1973	354.0 [c]	138.0	79.25	28.00	30,000.0	5,984.0

[a] U.S. Government pubications

[b] Tractor sizes are converted into standard units of 15 drawbar horsepower as follows:

$$\text{No. of 15-hp units} = \frac{\text{Tractor brake horsepower}}{15} \times 0.65 = \frac{\text{Tractor drawbar horsepower}}{15}$$

[c] 1972

Types of Tractors, Tillers

The variety of tractors, power tillers, and other agricultural equipment seemed unusually broad, probably because, in the early stages, China imported almost all kinds of tractors and farm equipment from all over the world and successfully adapted many of these machines to local conditions.

China produces both large and small crawler tractors. We saw locally produced crawler tractors of more than 70 hp in land development operations, and saw two such machines being used for harrowing in Shansi and Honan Provinces. We were told that small 10-hp and 20-hp crawler tractors are better suited for hilly areas. A farm machinery plant in Hsi-yang County has produced a 10-hp crawler tractor on a trial production basis. This tractor was equipped with dual three-point linkages for mounting two one-way plows for operations in small terraced hilly fields. Its 10-hp vertical diesel engine was produced by a provincial plant at T'ai-yuan in Shansi Province.

China is producing larger four-wheel tractors of 12-, 20-, 27-, 28-, 35-, 40-, 45-, 50-, 54-, 55-, and 75-hp sizes. The tractors and their engines are produced at national and provincial level plants in many parts of the country. We were told that the tractor plant at Lo-yang, Honan Province, is one of the largest in China; we came across many tractors produced there during our travels. Data on the total number of plants manufacturing agricultural tractors was difficult to obtain but we concluded from the different machines that we saw and the estimates in Table 3 that China has a large number of tractor manufacturing units spread across the country. The table, however, indicates that the power input through irrigation equipment is far greater than that obtained from tractors and power tillers in China.

Most small four-wheel riding tractors of less than 20 h.p. are produced by plants at the county and commune levels. Designs vary considerably. We saw small riding tractors with both horizontal and vertical engines and with belt-drive or in-line transmissions. These tractors are widely used for transport, particularly in the north.

We found a somewhat limited variety in the designs of power tillers. In general, the Chinese power tillers are from 8–12 hp in size. We saw three different designs: two were in the northern areas, with single-cylinder horizontal diesel engines and V-belt drives to the transmission, and one was in Kwangtung Province, with a vertical diesel engine and an in-line shaft drive to the transmission. Almost all Chinese power tillers are equipped with a seat attachment for the operator, which is convenient for hauling trailers. We were told at some brigades that power tillers are used exclusively for transport and larger tractors for agricultural operations. However, power tillers are widely used for agricultural operations in the northern wetland paddy areas and for vegetable production near major cities. We did not see lightweight power tillers of less than 8 hp, but we were told that such machines were imported from Japan in the early days and were found unsuitable for local conditions. Interest in lightweight power tillers is, however, reviving, for some manufacturing units indicated that they expect to produce lighter tillers.

Most agricultural tractors, combines, and other agricultural machines are powered by diesel engines. The price of diesel fuel is subsidized for agricultural use at about 30% lower than for other uses, providing a strong incentive for using diesel engines wherever cheaper electric power is not conveniently available. This is probably another reason for the widespread use of diesel-powered tractors rather than gasoline-powered small trucks for farm transport.

We were told in the northern areas of China that 60–100% of the land was plowed by mechanized methods. We did not, however, observe such a high degree of mechanization in land preparation. While we did see a few large crawler and four-wheel tractors and some power tillers being used for land preparation, we saw widespread use of animals for this operation in Shansi and Honan Provinces. This discrepancy may possibly be due to differences in the definition of the term "mechanized plowing"—as the Chinese may be classifying the use of improved animal-drawn implements among mechanized operations.

In Lin County the second crop is planted under minimum tillage practices with no land preparation. Simple one- to three-row animal-drawn seeders are widely used for planting. Most communes and brigades in the northern areas of China that we visited had a fair number of work animals. In Kiangsu Province and Shanghai municipality, however, land preparation is almost completely mechanized with power tillers and four-wheel tractors; we saw no work animals at the communes and brigades. In the southern province of Kwangtung, animals are popularly used for wetland preparation. We were informed that only 20%of the land in this area is prepared with tractors.

Poor tractor mobility in wet paddy fields is also a problem in southern China. A four-wheel drive version of a 30-hp tractor manufactured by the Shanghai (Bumper Harvest) Tractor Factory, has recently been offered for use in wetland paddies. Four-wheel drive improves tractor mobility; however, such a solution is costly. In Kwangtung Province, we saw four-wheel tractors being operated in paddy fields with rear steel cage wheels and saw one such tractor, bogged down, being pulled out by another. Steel tractor wheels have been used for rice cultivation in Southeast Asia; however, these have now been replaced with traction-assisting cage wheel attachments on standard tractor tires. An extendible lug wheel attachment has been recently gaining popularity in Southeast Asia. It permits adjustable traction capability to suit different field conditions and provides means to extract a bogged tractor under its own power. Some of these developments can be effectively utilized in China. We feel that more research and experimental efforts are needed to solve the tractor mobility problems for wetland paddy cultivation in southern China.

Mechanization of direct seeding in dryland areas has progressed well and equipment is locally produced for tractor- and animal-drawn seeds. We were told that 90% of the wheat in Peking municipality was sown by mechanized equipment, and nearly 80% of the seeding equipment is built at the commune plants. The practice of transplanting wheat and corn after harvesting rice has recently been introduced into northern China and is gaining in popularity.

Direct seeding for wetland paddy is not practiced in China, because they feel that this reduces yields. Mechanization of paddy transplanting has received considerable attention over the last two decades. Manually operated six-row tweezer-type planters have been popular in China for years. One man can transplant 1/30 ha. per day with these machines, which are fairly low-priced, about 60 yuan ($30). These manual transplanters are gradually being replaced with a mechanically powered riding-type transplanter that was developed about five years ago in China. This machine does not require specially grown seedlings like the Japanese transplanters do, but can transplant seedlings conventionally grown in field nurseries. These machines are available in 10-, 12-, 14-, and 16-row sizes. Three men can transplant 2 ha per day with a 12-row machine.

These transplanters have two rows of seedling-prongs mounted with a rotary arrangement to pull seedlings out of hoppers and drop them on the puddled soil. We saw the production of 14- and 16-row transplanters of this type at a commune plant in Wu-hsi, Kiangsu Province. These 14- to 16-row machines are powered by 3-hp and 4-hp single-cylinder air-cooled gasoline or diesel engines. Three operators ride the machine; one to drive and two to keep the individual-row seedling hoppers replenished from larger central hoppers. Current Chinese efforts to mechanize paddy transplanting are primarily directed toward popularizing this particular machine.

Almost all types of plant protection equipment are locally produced in China; manually operated back-pack sprayers are still the most popular. We saw power-operated high-pressure sprayers being used from narrow levees in paddy fields in Kiangsu Province. Because of the narrow field levees, a crew of five men (two to carry the sprayer on a pole, two to carry the chemical containers, and one to handle the sprayer nozzle)—were needed to operate this machine. The development of lightweight power sprayer units in which the engine pump and tanks are integrally mounted may help to reduce manpower requirements for such applications.

We saw a few small cutterbar-type harvester-windrowers being used to harvest wheat near Peking. Much of the effort to mechanize the harvesting of dryland crops seems geared toward the introduction of large combines into the arid and semi-arid areas of northern China. All types of conventional combine harvesters—trailed, tractor-mounted, and self-propelled machines—are being locally manufactured in China. We were told at the Red Star Commune in Peking that it had nine large combines, some of which were specially designed for rice harvesting. Unfortunately, we saw only one combine, a tractor-mounted version at a commune farm machinery shop in Wu-hsi county. This locally manufactured machine was similar to a West European design in which the harvesting header is mounted at the front; a wide-mounted conveyor delivers the harvested crop to the threshing mechanism at the rear.

THE TRANSFER OF AGRICULTURAL TECHNOLOGY IN CHINA

Higher authorities often assign responsibilities to larger manufacturing units for developing new machines to suit specific needs. Since inventions and new machinery designs are not considered as proprietary items in China, engineering drawings and other technical information are readily exchanged with other manufacturing units. Because of this free flow of machinery designs and production knowhow, one finds that the same machine is often produced by different manufacturing units in many parts of the country.

For example, the engines produced at the Internal Combustion Engine Plant at Peking are also produced by five other plants in the country. Similarly, a new lightweight diesel engine design, which is planned for production at the Peking plant in 1976, has already been released to another manufacturing unit. In the same manner, the 10-hp crawler tractor for hilly areas, being produced in Hsi-yang County, was developed with the help of the Lo-yang No. 1 Research Center of the state-run tractor plant. This 10-hp tractor also is being trial-produced in small batches in a few other provinces.

Apparently, there is no single pattern for transferring machinery design. The manufacturing units seem to have considerable flexibility in either obtaining new designs from outside sources or conducting their own design and development work. For example, a commune-operated agricultural machinery plant in Wu-hsi indicated that it does not work at all with the national or provincial research institutes, but gets the new designs from the more advanced machinery manufacturing units whenever it is in need of a new design.

Quite often, the central, state, and municipal governments also act as channels for the transfer of machinery designs from one manufacturing plant to another. We were told at the Red Star Commune that they pass any new development in machinery to the authorities of the Peking municipality, which holds regular exchange meetings to disperse information on new machinery developments and helps in exchanging information among interested parties. The 12-hp power tiller that was being trial-produced in Lin County was based on a design that the state had provided from the larger state-run power tiller plant at Chengchou, the state capital. The state-run Chengchou plant also trained the engineers from the county plant and provided complete production knowhow.

Technical personnel are freely exchanged between manufacturing units and on-the-job training, and personal contacts are the most popular methods of technology transfer. The more successful communes, brigades, and industrial shops serve as demonstration models and have regular streams of visitors from all over China. This technique is effectively used to demonstrate and teach modern agricultural and industrial methods. For example, the famous Tachai Brigade receives thousands of visitors every day. We were told that their record for the maximum number of visitors on a single day stands at 30,000.

We felt that there is much less dependence on written communication for transferring industrial technology in China than in most other industrialized countries. Production workers are normally trained through an apprenticeship process; we saw many apprentices working beside experienced machine operators in almost every plant. The apprentices receive one to two years of on-the-job training. Some of the larger factories operate industrial colleges in which selected employees obtain two years of combined engineering studies along with practical shop experience. The Internal Combustion Engine Plant in Peking, the machine tool plant in Shanghai, and the textile plant in Cheng-chou all operate industrial colleges to train workers in their respective engineering fields.

Harvesting of paddy is still a manual operation and the development of small rice harvesters and combines is just beginning to receive increased attention from central and provincial agricultural machinery research institutes. We saw two side-delivery, cutterbar-type rice harvesters, each about 4 ft wide, at a commune in Kiangsu Province and were told that these are now in the trial production stage. We also learned that field tests are being conducted in Kwangtung province on a two-row combine attachment for small power tillers which is quite different in principle from the head-stripping-type Japanese combine harvesters.

The threshing of wheat and rice has been substantially mechanized, mostly with electrically powered threshers, in the Peking, Shansi, Honan, Kiangsu, and Shanghai areas. The grain is dried in the sun immediately after threshing. Harvested crops are transported from the fields to the threshing floors by a variety of methods ranging from manually carried bundles to animal- and tractor-drawn trailers. Interestingly, there is considerable variation in the designs of the simple throw-in type wheat threshers used in North China, ranging from simple units consisting of only a power-driven threshing cylinder to fairly complex machines with straw walkers and air-screen cleaners. The latter designs are now gaining in popularity; we saw the production of two such machines at a

commune plant in Peking and at a county plant in Hsiyang.

The wide diversity in simple throw-in designs for threshers is probably due to the many independent efforts to develop machines to suit local conditions. We saw threshers with cylindrical and conical drums; with spike tooth, raspbar, beater, and wire-loop type threshing drums; with axial-flow and through-flow material movement; and with a variety of grain-cleaning mechanisms. Except for a few larger conventional type threshers, the simpler Chinese threshers were somewhat of non-professional designs. Most of the threshers have been developed at brigade level by mechanics and farmers with considerable practical experience, but, understandably, not too much professional expertise in machinery design and development.

We felt that considerable improvements are needed in the locally designed throw-in type threshers, particularly in the grain separation and cleaning mechanisms. Most simpler threshers did not adequately separate and clean the grain; consequently, considerable labor is required for grain separation and cleaning. Efforts also are needed to evaluate the many types of simple threshers and to standardize the more efficient throw-in type machines in China.

In the Kiangsu and Shanghai area, on the other hand, we found little variety in thresher designs. Paddy and wheat are threshed on the threshing floors with simple hold-on type threshers that consist basically of a 6- to 8-ft. long power-operated wire-loop or spike tooth type threshing drum. Four to six men manually hold paddy or wheat bundles against the rotating drum to strip the grain from the panicles. Grain is then manually separated from straw and cleaned. We did not see any throw-in types of threshers being used for paddy in China, which may be due to the fact that paddy straw is preserved for paper-making, roofing, and other industrial purposes. Hold-on type threshers do not damage the straw because it does not enter the machine. These machines are quite simple but require relatively more labor than the throw-in type and may be preferable for labor-surplus areas.

In the southern province of Kwangtung, paddy is threshed in the field with small lightweight foot-pedal operated threshers. The larger power-driven paddy threshers, as used in Kiangsu and Shanghai areas, are not successful in Kwangtung Province because of the difficulties of transporting such machines in wet paddy fields. The development of lightweight power-operated paddy threshers is an urgent necessity for Kwangtung Province where the rainy season is fairly long and field conditions at harvest time are not suitable for conventionally powered harvesting-threshing machines.

Manually operated wooden winnowers are used to clean grain in many parts of China. Grain is also winnowed on the threshing floors by manually throwing it into the air with shovels. In Lin County, we saw an interesting machine, in which a rubber belt mechanically throws dirty grain into the air, simulating the traditional method of cleaning. The use of special grain-cleaning equipment after threshing is an interim solution because of the poor cleaning performance of the available threshers. It will probably disappear as better threshers are made available.

China has paid considerable attention to the development of its power-generating capacity. Of particular interest are the efforts to tap hydroelectric power in combination with the schemes for water conservation, drainage, irrigation, and river navigation. China has more than 50,000 small hydro power stations; we were told that the number of small stations (less than 6000 kw) has increased nine times since the Cultural Revolution. The state, province, or district design offices provide the equipment and plans for building power stations; the local brigades and communes construct the stations. We saw a series of small hydroelectric stations on a canal with a 1 m^3 per second flow in Lin County. This canal had one 250-kw plant with a 15-m headfall and twenty-six 40-kw brigade-run power stations spread at intervals of 5-m headfall. These power stations were all hooked to the state electric grid. Lin County has a total of 65 hydro power stations with a total capacity of 10,400 kw, which provided electricity to 80% of the farmhouses. Electrical power is used to process 80% of their farm produce. Similarly, in Kwangtung Province we saw a dam in a river estuary that was used to raise the water level to improve navigation.

Twenty-two turbo hydroelectric generators were installed in the dam to utilize the variations in water level due to tidal currents for generating electricity. This project produces 12 million kwh of electricity annually, which is sufficient to meet half of the county's electrical requirements for agricultural production.

A good measure of the mechanization level of a country is the horsepower utilized per hectare in field operations through the use of manual, animal, and mechanical power. Giles estimates that a minimum power input of 0.5 hp per ha is necessary to produce average crop yields of about 2.5 tons per ha. Based on a similar analysis, estimated power used in China for field operations was 0.4 hp per ha in 1973. While this power input is much higher than in other developing countries, experience with the other developed countries indicates that further increase in food production in China would require sustantially higher inputs of mechanical power in agriculture.

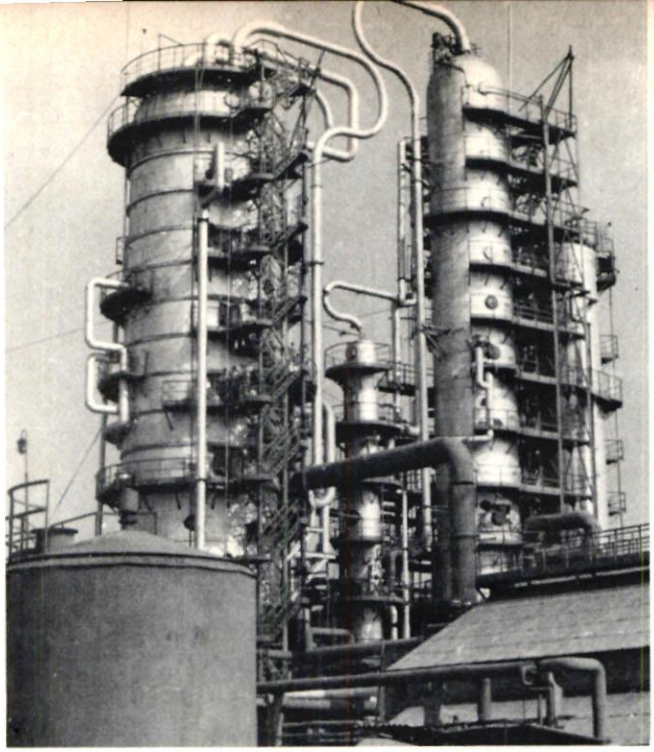
Giles did not include the power used in irrigation in his study. The power input for irrigation in China is 30×10^6 hp or 0.23 hp per ha (Table 3). The total farm power input in China, inclusive of irrigation, thus is estimated to be 0.63 hp per ha in 1973, which compares favorably with some of the more progressive countries in the developing world. 完

CHINA'S PARTICIPATION IN INTERNATIONAL TRADE FAIRS 1971-1975

Country	International Trade Fairs	1971	1972	1973	1974	1975
SOCIALIST NATIONS						
Bulgaria	Plovdiv	—	Sept	Aug	—	Sept
Czechoslovakia	Brno	—	Apr	—	Apr	—
East Germany	Leipzig Spring	—	—	Mar	—	Mar*
Hungary	Budapest	May*	May	May*	Sept	—
Poland	Poznan	—	Jun	Sept	—	Sept
Romania	Bucharest	—	Oct	—	Apr	—
Yugoslavia	Zagreb	Sept	—	—	—	—
EUROPE						
Austria	Vienna	—	—	Sept	—	—
Finland	Helsinki	—	—	—	Sept	—
France	Paris	—	Apr	—	—	—
	Paris Electronics	—	Apr*	—	—	—
	Marseilles	—	—	—	Sept	—
West Germany	Hanover	—	—	Apr*	—	—
	Frankfurt Books	—	—	—	—	Oct
Greece	Thessalonika	—	—	—	Sept	—
Italy	Florence [a]	—	—	—	—	Apr
	Milan	—	—	Apr*	Apr	—
Spain	Barcelona	—	—	—	May	—
Sweden	Gothenberg [b]	—	—	—	Sept	—
	Stockholm	—	—	—	—	—
Switzerland	Lausanne	—	Sept	—	—	Sept
Turkey	Izmir	—	—	Aug	Aug	—
United Kingdom	London [c]	—	—	—	Aug	—
AFRICA						
Algeria	Algiers	Aug*	Sept	Aug	—	Aug
Kenya	Nairobi	—	—	Aug	—	—
Morocco	Casablanca	—	—	Apr.	—	—
Senegal	Dakar	—	—	—	Nov	—
Somalia	Mogadishu	—	—	—	—	Oct
Tanzania	Dar es Salaam	Jul	—	—	Jul	—
Tunisia	Tunis	—	—	May	—	—
Zaire	Kinshasa	—	—	Jun	—	Jun
Zambia	Ndola	—	—	—	Jun	—
	Lusaka	—	—	—	Oct	—
NEAR EAST						
Cyprus	Cyprus	—	—	Aug	—	—
Egypt	Cairo	Mar	Mar	—	Mar	—
Iran	Teheran	—	—	Sept	—	Sept
Iraq	Baghdad	—	Sept	—	Oct	—
Malta	Malta	—	—	Jul	—	—
Syria	Damascus	—	Aug	Jul	Jul	Jul
EAST ASIA:						
Japan	Fukuoka	—	—	—	—	Mar
Laos	That Luong	—	—	—	Oct	Nov
AMERICAS						
Canada	Montreal	—	—	—	—	Jun
US	Boston Books	—	—	—	—	**
Chile	Santiago	Oct	—	—	—	—
TOTAL		**6**	**12**	**17**	**19**	**14**

a Arts and Crafts Fair.
b International Consumer Fair.
c International Do-It-Yourself and Handicrafts Exhibition.
* Participated without pavilion. ** NCNA did not report participation.

Source: US Government



At least seven Japanese companies have sent technicians to Shanghai's petrochemical facilities.

FOREIGN TECHNICIANS IN CHINA

The Japanese Experience

Alistair Wrightman

There have been, in recent years, some three thousand foreign technicians in the PRC and one thousand Chinese technicians abroad in connection with sales of foreign plant technology to China. Some of the visiting technicians in China are American, including those from Pullman Kellogg (see feature in last UCBR). Others have come from France, Germany, the UK, and Italy. One of the largest contingents of foreigners to go to China in recent years has been from Japan. This article, by UCBR's Tokyo correspondent, reviews the experiences of and contract provisions for Japanese technicians working on plant being erected in the PRC. A pattern emerges from these experiences that includes good points—excellent Chinese hospitality and accommodations—and bad—low pay for visting technicians that must be subsidized by the Japanese firms.

Hundreds of Japanese technicians currently are assigned in China helping the Chinese build and operate petrochemical and other highly sophisticated industrial plants. They sometimes experience hardships and inconveniences, of course, because of differences in customs and social conditions; but the daily terms under which these technicians live are set down in contracts concluded between their companies and Chinese trading authorities, usually the China National Technical Import Corporation (TECHIMPORT). The technicians' contracts are attached to, but always separate from, the main contracts providing for supply by Japanese firms of industrial plants and technical knowhow.

Known as "agreements for the dispatch of technical experts," these separate contracts include provisions mainly concerned with how many and what types of experts the Japanese company should dispatch to China and for how long, what their payments and other working conditions should be, and just how their housing, food, and other daily necessities should be provided. Also, provisions for home-leave, if the services of the technicians are likely to be prolonged, are included. These points usually are set out in some detail; obviously they are of considerable importance to both the Japanese and Chinese involved. There have been some cases where the contracts provided for recreational facilities and other amenities, but most Japanese companies wisely leave these aspects to the goodwill of the Chinese themselves.

Japanese company managers who have recently negotiated such agreements report the Chinese are usually very severe when determining the amounts to be paid Japanese technicians working in China. The *per diem* or "supervising fee" paid for their teaching of modern techniques to Chinese workers is usually only slightly above half of similar payments provided them when they are dispatched to the more advanced industrial countries. Japanese managers complain but claim they can understand why the Chinese are so sparing in their payments for technical instruction. Chinese technicians themselves are paid such low salaries, usually about 100 yuan a month. One yuan is worth around US$0.50.

On the other hand, it must be admitted that one of the reasons for the small Chinese salaries is the stable, low prices of all daily necessities in China. Japanese executives also emphasize that there exist some serious differences in Japanese and Chinese concepts of what technical cooperation includes. A few examples of leading Japanese companies with experience in China

will provide evidence of how Japan's technicians are managing their assignments under these contracts.

Kuraray's Experience—Per Diem at 50%, Specially Built Hotels

Kuraray Company, Ltd., a leading Japanese textile maker currently building two plants for production of polyvinyl alcohol (poval)—raw material for vinylon—at Chungking in Szechwan Province and near Shanghai, has contracts with China's TECHIMPORT for its own technicians working at these plants. They provide for monthly payments for the technicians, guarantee certain working, housing and other living conditions, and include provisions for some recreational and amenity items.

The most important part of the two contracts, naturally, are those clauses concerning payment of the technicians, Kuraray officials state. The *per diem* fees are only just above 50 per cent of the fee that Kuraray technicians receive when they go to Western industrial countries—which usually is between US$150 and US$200 a day. Under the Chinese contracts, the *per diem* fees are paid direct to Kuraray, which in turn pays its technicians in China "overseas dispatch allowances" according to its own employment rules. In addition, the technicians are paid between 20 and 30 yuan a day as allowances for living expenses. This money is used to pay for food, cigarettes, drinks, laundry, and other obvious daily necessities. All the money is spent in China.

The two contracts also provide for housing, according to Kuraray. The technicians are housed in specially-built dormitory-type hotels at the plant sites. Housing conditions are comfortable—one room with bath for each engineer. But no air-conditioning is provided under the contracts. Kuraray supplied its own air-conditioners from Japan at its own expense for technicians working in the Chungking area, a region where the daily maximum temperature averages over 100 (F) degrees in the middle of summer. Kuraray noted that some Western engineers working in Chungking who were not supplied with air-conditioners by their companies apparently find it difficult to stand up to the heat.

Kuraray's two contracts also provide for a two-week home leave for each engineer working more than six months in China. But the Chinese are not obligated to pay their fares to and from Japan.

Visas for Specific Areas

Kuraray has admitted that progress of work at the plant sites sometimes prevents Japanese technicians from taking home leaves. Unfortunately too, the Japanese technicians are not allowed under the contracts to leave the vicinities of Chungking or Shanghai. Their visas themselves are good only for these specific areas, not for China generally.

There are some clauses included in the contracts providing for recreational facilities; yet these are limited. They concern opportunities for technicians to play table tennis, basket ball or volley ball at the hotels. In practice, however, the Chinese usually display their traditional hospitality, making life comfortable for Japanese engineers by bringing in local theatrical troupes or taking them on tours of nearby scenic or historical locations. Kuraray's engineers working at the Shanghai plant, for example, are also taken into Shanghai on Sundays by bus for a day's visit. Bus transportation between the hotels and plants also is provided under the contracts.

The contracts provide for six-day, 48-hour weeks, but in practice some Japanese technicians are given two consecutive days off every two weeks. This developed because Chinese workers employed in provincial cities, such as Chungking, often return home for two-day holidays. Lunch is usually an hour long. However, in Chungking during the summer Japanese technicians find they are allowed two-hour or even three-hour lunches—in view of the hot temperatures there.

In addition, the Chinese also supply Japanese engineers with interpreters, and cooks at the hotels try hard to prepare Japanese cuisine.

Nevertheless, Kuraray technicians, who currently number 20 in Shanghai and 10 in Chungking, have discovered they must sometimes endure hardships and inconveniences stemming from major differences in customs and social conditions as well as from insufficient recreational opportunities in China.

Toho Titanium—Provisions for "Overtime"

Toho Titanium Company, Ltd., which is now involved in building a plant for production of a catalyst for polypropylene at a petrochemical complex about 50 to 60 kilometers from Peking, signed a contract in 1974 for construction of the plant at a price equal to about US$3.3 million, including payment for the knowhow for producing the catalyst, titanium trichloride. The company has revealed it was one of the first producers of catalysts of this type throughout the world and usually manages to export the product rather than to supply the difficult knowhow. China, however, insisted upon importing the plant facilities plus the knowhow and the company finally agreed because its engineers thought there was really little danger of China exporting the product produced with Toho's technology.

Toho's engineers currently are supervising construction of the titanium trichloride plant, except for piping work which is being taken care of by the Chinese. Work started on the plant construction in 1974. It is to be completed next year, after which Japanese technicians are to teach the Chinese how to run it themselves. A trial operation of the plant is expected to last for six months or until the Chinese

engineers demonstrate they can operate it on their own.

Toho's contract governing dispatch of engineers, which is, as usual, auxiliary to the main contract, provides in detail just how many engineers should be sent to China, for what purpose and for how long. The type of work each Japanese technician is to perform in China is precisely defined. So is the period which each technician should remain in China. There were sometimes heated discussions between Toho's negotiators and the Chinese over how many days would be required for a Japanese electrical engineer to do a certain job. Toho's engineers are working eight hours a day, six days a week, with two-hour lunches, because their hotels are far from the plant site.

The contract also provides for payment of overtime which is to be made only after consultations between Japanese and Chinese representatives. Actually, however, it is seldom paid, because it is extremely difficult to calculate overtime in their type of fieldwork. If the work of a specific technician requires longer than six months, it is provided under the contract that he can go on a home leave of two weeks. His travelling expenses are borne by the Japanese side, however.

Heating, But No Air-conditioning

There also are detailed contract provisions for housing of Toho technicians. They must stay at a special dormitory-type hotel built near the petrochemical complex for which the new catalyst plant is being constructed. Each engineer has been given his own room with a bath which includes heating facilities for winter use. There is, unfortunately, no air-conditioning equipment for China's hot summers. The hotel rooms are considerably larger than those of so-called business hotels in Japan. In addition, they are generally more comfortable—except for the concrete floors. A Toho technician, if on occasion, is accompanied by his family, receives larger accommodations, of course.

Supervisory fees provided for the technicians are only slightly above 50 per cent of a similar fee which Toho's engineers would receive in a more advanced industrial country of North America or Western Europe. The fee is paid directly by the Chinese to Toho through a Japanese bank and the company pays the technicians themselves special allowances for accepting assignment overseas in accordance with the company's normal practices.

Under the contract, the Chinese pay a certain percentage of the living allowances. Toho's technicians' accommodations in the PRC are free; they have to pay small amounts for their relatively good and inexpensive meals because food costs are low in China. For such usual amenities as cigarettes, beer and liquor they must pay out of their own pockets. Similar payments must be made for other daily necessities, such as laundry and goods purchased at friendship shops for foreigners in large Chinese cities.

There are no provisions in the contract for Toho employees' recreational facilities. Yet the Chinese have been considerate in this respect and are doing their best to assist Japanese technicians in enjoying themselves. For instance, the hotel they use has a table tennis room and some other sports facilities as well. Although the engineers are not allowed by the Chinese to move freely outside of the immediate petrochemical complex area, on holidays they are often taken by official bus to Peking where they can walk around without restraint until they are returned to their hotel by the same bus, usually that same evening.

Toho officials report that Chinese negotiators insist on sticking to their principles most stubbornly during talks. However, when it comes to actual implementation of the contract they frequently allow considerable leeway.

A Toho executive recently recalled a case in which the company had a discussion with the Chinese authorities concerning whether an engineer could complete a particular job in eight months or ten months. The Chinese insisted that since Chinese engineers had developed considerable knowledge and experience, the Japanese engineer could finish his work in only eight months. All the same, the cautious Japanese company thought it would be much safer to provide a full ten months. The contract finally did provide for just eight months—but actually the Japanese engineer had to stay in China for more than ten months. Construction of foundations by the Chinese took longer than had been planned. The Chinese, perhaps embarrassed, did not complain.

Toho executives admit that it requires efforts of both the Chinese and Japanese to allow Japanese technicians to live in China, considering their physical and perhaps spiritual needs.

Shorter Time to Train

Another leading Japanese petrochemical company, which presently is building two chemical fertilizer plants in China, also revealed it concluded separate agreements for governing dispatch of its technicians to China. One of the plants was completed earlier this year and is now involved in trial operations. Another is expected to be completed soon. Approximately 40 engineers, including some from other Japanese engineering and construction companies, are usually at each plant site. Eighteen men at each plant are engaged in teaching Chinese technicians how to operate the equipment. The contracted period expires about six months after each plant has reached completion. Each plant will cost the equivalent of roughly US$36 million. The Japanese company believes that the quality of labor available in China is much higher than, say, either in Indonesia or India, requiring

shorter time to train engineers to operate the new plants.

The company also has disclosed that its two contracts governing dispatch of technicians provide in detail just how many engineers should be sent to China, for how long, for what purposes, their housing, food supplies, payment for their work, other working conditions, and even the details of home leaves. Its engineers, who are working in China under these two contracts (again auxiliary agreements attached to the main contracts) receive payment of *per diem* fees and special living allowances. The obligation of the Chinese is to provide all accommodations. However, the contracts do not provide for maintaining recreational facilities. This is left to the goodwill of the Chinese.

Under the two contracts the company's engineers are allowed to travel freely throughout China as long as they go entirely on foot and show up for work on time the next day. Actually, however, it is very difficult to walk very far outside their hotels unless some means of transportation is provided by the Chinese—evidently a rarity.

At the hotels where the Japanese engineers are staying there are basketball courts and a volleyball court as well as table tennis and billiard rooms. The courts are enclosed inside brick walls and, as a result, no one who is not a hotel guest can enter and play. The engineers, however, usually have interpreters assigned directly to them who are very friendly and who sometimes join the games. On occasions, apparently, a Chinese circus or theatrical troupe visits the hotels or the Japanese technicians are bused to scenic sites or historical places. Chinese motion pictures are also sometimes shown.

Still, Japanese technicians staying in China sometimes experience hardships and serious inconveniences. For this reason, obviously, the company rewards the technicians with an extra hardship bonus payment under an arrangement made with the firm's labor union. In addition, Japanese technicians in most cases work eight hours a day and six full days a week at the plant sites.

Other Japanese Plants

Mitsui Engineering and Shipbuilding Company, Ltd., currently is participating in joint construction in China of a polyester chips plant valued at close to US$50 million with Toray Industries Inc. and building a polypropylene plant worth approximately US$25 million in a joint effort with Mitsui Petrochemical

JAPANESE TECHNICIANS IN CHINA

Location	Plant	Company
Peking	Ethylene and butadiene	Toyo Engineering
Shanghai	Ethylene and poval	Mitsubishi
Shanghai	Acrylonitrile monomer	Asahi Chemical
Shanghai	Vinyl acetate and poval	Kuraray
Chengtu	Urea and ammonia	Toyo Engineering and Mitsui Toatsu
Shanghai	Polyester chips	Toray and Mitsui Engineering
Shanghai	Polyethylene, high pressure	Mitsubishi
Shanghai	Polyethylene, high pressure	Sumitomo
Tangshan	Two thermal electric power plants	Hitachi
Shantung & Szechuan	Urea and ammonia	Toyo Engineering and Mitsui Toatsu
Peking	Polypropylene	Mitsui Petrochemical and Mitsui Engineering
Peking	Oxygen, ethylene glycol	Nisso Petrochemical
Shanghai	Polyester spinning	Teijin
Peking, Taching and Shengli	Polypropylene catalyst	Toho Titanium
Wuhan	Hot strip rolling mill and silicon steel plate	Nippon Steel and Hitachi
Chungking	Polyvinyl alcohol	Kuraray
Wuhan	Ancillary equipment for Nippon Steel	Nippon Steel

Company, Ltd. The firm's contracts with Chinese trading authorities provide for payment of *per diem* fees and living allowances by China to Mitsui's engineers. Again, as usual, the obligation of the Chinese is to provide hotel accommodations and to take care of other matters, such as home leaves. They do not provide for supplying recreational facilities.

Under very similar contracts, Japanese technicians are assisting the Chinese in building many petrochemical and other types of industrial plants in China. These plants include petrochemical complexes near the Taching oilfields in Northeast China, the Shengli oilfields near the Gulf of Chihli (Pohai), outside Shanghai, and in the vicinity of Peking. Another is being planned in the Tientsin region. At the facilities on the outskirts of Peking, which is a petrochemical complex boasting an annual capacity of 300,000 tons of ethylene, Japan's Toyo Engineering Company, Ltd. is assisting in construction of an ethylene plant. A plant for producing propylene is being built by Mitsui Petrochemical Company, Ltd. Sumitomo Chemical has contracted to erect a polyethylene plant and an ethylene glycol plant is under construction by Nisso Engineering.

Other Chinese plants being built by Japanese engineers include an acrylonitrile monomer plant by Asahi Chemical Company, Ltd., two thermal electric power plants by Hitachi Ltd., plus a hot strip rolling mill and a silicone steel plate mill by Nippon Steel Corporation and Hitachi, and in addition, an ancillary equipment plant by Nippon Steel.

Smallest Possible Number

One executive, chief of the First Foreign Trade Department of a major Japanese supplier, believes Chinese technicians and workers are particularly anxious to build and operate the plants mainly on their own, although temporarily under the guidance of Japanese engineers. For this reason, he sees the Chinese seeking dispatch of engineers who can provide appropriate assistance and training over a wide range of technical areas. In other words, the Chinese want Japanese companies to send only teams composed of the very smallest possible number of highest quality experts.

Despite this, however, the groups of Japanese technicians are usually larger than similar teams from the Western countries. Strictly from the Japanese point of view, it would be better if Japanese firms reduced the number of technicians each company sends to China, especially if account is taken of the small size of the fees paid by the Chinese for Japan's technical guidance, according to this executive.

Some Japanese companies evidently suspect that China is paying considerably larger *per diem* fees to Western engineers than those paid to Japanese technicians. But they are unwilling to explain why they believe this is so—and even if they finally can prove it there are doubts that the Japanese firms would want to ask the Chinese why.

One source believes the Chinese not only seek to import the best industrial plants at the lowest prices, yet also present strong demands for developing China's own techniques as much as possible through means of these imports. This leads Peking to requests for the widest ranges of technical information, including those closely related to the operation, maintenance, and repair of the most sophisticated industrial plants. It has been necessary for the Japanese to make adjustments, of course, between the Chinese concepts and the general Japanese idea of exporting industrial plants on a commercial basis and in a very limited way. Japanese exporters of plant facilities and equipment to China must procure them from domestic markers in almost all cases. However, there are limits concerning the technical information that is available to be exported or that can be exported along with the plant.

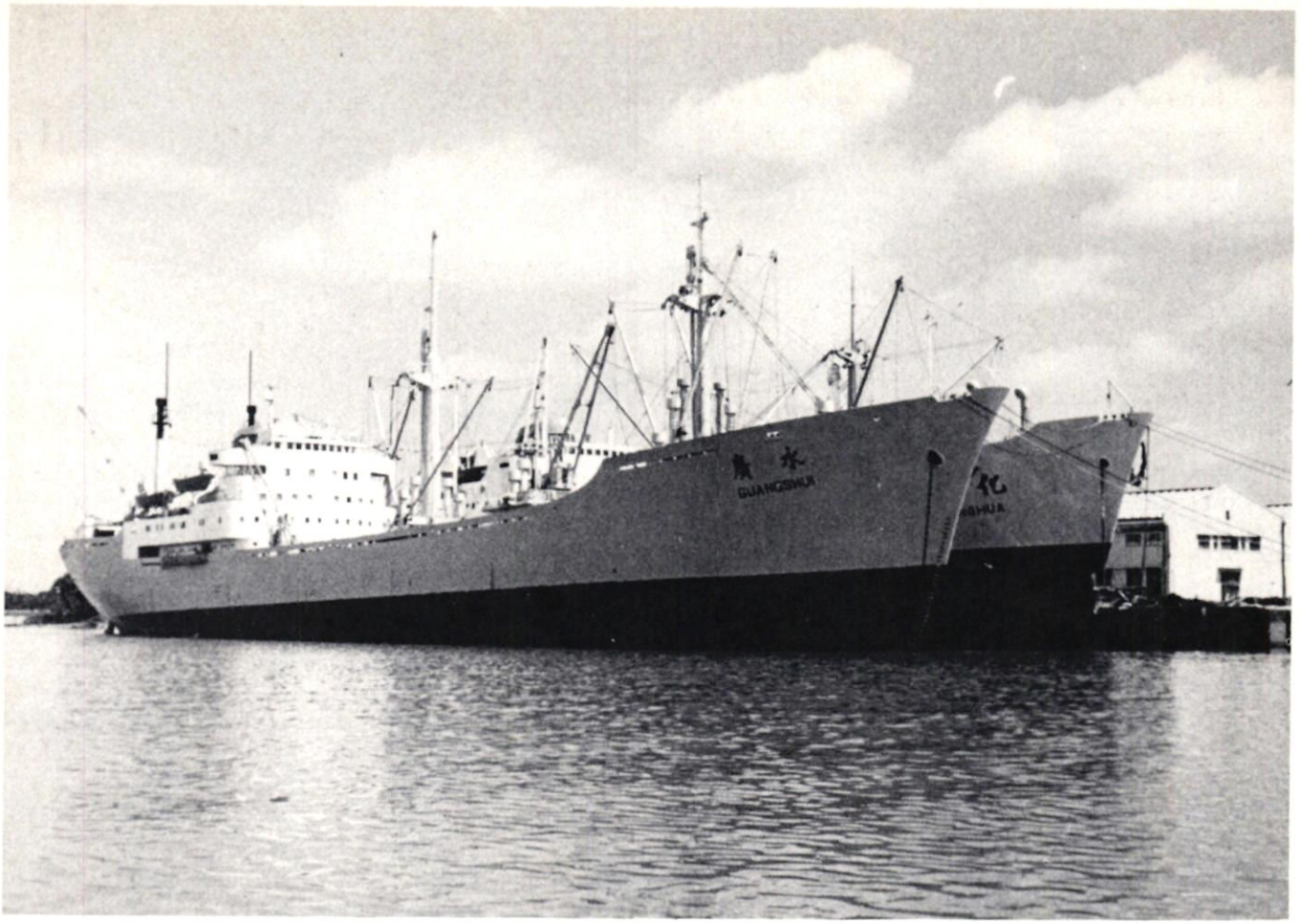
Written Records of Negotiations

If information exceeding these limits is sought by Peking it must be considered as an entirely new transaction. This point obviously has been insufficiently emphasized in the course of contract negotiations with the Chinese. As a result, misunderstandings have cropped up later in the arrangements. Since the Chinese parties to such negotiations and contract talks leading up to eventual imports of industrial plant and equipment are trade corporations and the actual users of these facilities emerge only in the final stage of implementation of the contracts, Japanese exporters find they must supply the FTCs beforehand with all necessary instructions for the eventual users.

Written records should be kept of all talks and negotiations with the Chinese to facilitate later settlement of unexpected contract problems, according to those Japanese firms that have gained the most experience in such matters over the past decade. Some Japanese business observers tend to believe that Japanese contract negotiators may be facing too much competition with other Japanese firms and with Western manufacturers also seeking plant and equipment contracts with China.

Minoru Uchiyama, a member of the Council for Sino-Japanese Machinery Trade, put this view simply recently when he noted that the Japanese negotiating position is adversely affected by the fact that several Japanese exporters frequently must negotiate separately with a single Chinese trade corporation. Therefore, if one Japanese company is sufficiently determined to win a plant contract with the Chinese, it usually feels compelled to agree to a lower price than any of its competitors.

From an international point of view, it would appear that the Chinese are taking a leaf from Japan Incorporated's own business guidebook and achieving just as efficient results. 完



Chinese freighters along side pier at Whampoa.

WHEN WILL YOUR SHIP COME IN?

PART III

Transshipment from the PRC

Stephanie R. Green

The following article, the last in a series, investigates the problems of communications experienced by US importers in the process of receiving products from the PRC. It focuses on the documentation involved—and the lack of it; exchange of information; and preferred forms of shipment from the PRC. The first part of this series examined direct shipping from China and the steamship agents involved (UCBR November-December 1975); the second described the physical process of transshipment from China, via which about 90 percent of US imports of Chinese products are brought to the US (UCBR July-August 1976). This second article summarized the shipper's role, lead time, organizations and lines involved, and container services. The following piece continues the story, concentrating on the importer's point of view, and suggesting how improvements may be instituted.

Much of this material is based on a questionnaire answered by importing companies dealing with China's FTCs. It is supplemented with information from a similar questionnaire, concerned with shipping, distributed by the American Chamber of Commerce (AmCham) in Hong Kong, as well as by Chinese, Japanese and American source material.

PINNING DOWN THE DELIVERY DATE

The most crucial documents in the shipment process, of course, are those that start the transaction going in the first place: the sales contract and the letter of credit. Two of the more major problems faced in this are—requests for extensions on the L/C, or expiration without a Chinese request for extension—lead the list of anxiety-inducing situations for importers.

One importer, a twenty-year veteran of the China trade, points out the importance of not pushing too hard. Only a general date of shipment is agreed to—January to February, not January 15, for instance. "Sometimes the Chinese say, since you have been good, their deliveries will be soon. At other times, they ask for many extensions."

Other importers are not pleased with the fact that only the approximate date of shipment is recorded in the contract. Despite the date being general, buyers still sometimes receive goods several months after the period specified. The goods cannot be dispatched unless the L/C goes through properly and on time. (The L/C is the predominant form of payment, although other methods are sometimes used).

Generally China asks importers to open their L/Cs at least 30 days before shipping time, and to arrange for them to remain valid for 15 days beyond the end of the period specified for shipment. Since this period is usually given as a two-month span, the importer must often tie up his credit for three months or more if the goods are not shipped during the contracted period, as is frequently the case.

Problems are rampant in dealing with letters of credit. "Our L/C was opened in January according to the date originally agreed to on the sales confirmation," describes one importer of light industrial products. "Then the Chinese cabled us asking to please extend it to March, but it had already expired. They should have estimated the time needed for shipment earlier. We end up spending extra money to get the L/C reinstated."

This importer's experience is highly typical. Another twist to the problem of extensions is the case of the L/C expiring with no word from the Chinese at all.

Sometimes the best policy in dealing with Chinese requests for extensions is to be firm. "We sometimes try to accommodate Chinese requests for extensions." says a trader. "Other times we say, sorry, our customer is unwilling. And lo and behold, the merchandise is sent."

EXPEDITING THE SHIPMENT

After the L/C has been opened by the importer, what can be done to expedite the shipment?

As soon as the third country bank and the US importer receive their two copies of the L/C, both should telex every single condition contained therein to the Bank of China. They should also telex the relevant corporation saying "My L/C number is #____" and to request that the shipment be readied. However, unless the American company is an old and trusted customer, it is doubtful that either the correspondent bank or the Chinese corporation will act upon this request with great alacrity.

One trader feels strongly that the L/C is the most important document of any in the importing process. "This is the major item that the Chinese read," he asserts. "They don't read the contract as closely as the L/C because the L/C is the means by which you get the money from the bank. The L/C must be filed in order for payment to go through."

Another China hand insists, however, that this is an erroneous assumption. "The contract and the L/C cannot exist one without the other." The L/C is legally void if it is not in compliance with the contract.

Ideally, suggests one importer, after the L/C has been opened two types of communication should be going on at the same time. The American and third country banks and the Bank of China should be in direct correspondence, exchanging information on L/C stipulations and requesting that shipments be dispatched in accordance with these stipulations. Simultaneously, the American company should be in direct communication with the Chinese corporation, asking that the FTC start readying the shipments for transport. It is unfortunate, comments the importer, that these parallel procedures (bank-to-bank, company-to-company) are not normally carried out at the same time.

After the L/C has been opened and China is ready to begin shipment, the shipping documents should precede arrival of or, at best, accompany the merchandise (i.e. the bill of lading, the invoice, the US Government Customs Form, and the packing list). Additional documents are sent depending on the commodity. In the case of air shipments, the American company should stipulate to the Chinese that a complete set of these documents be sent with the goods. A copy of the contract and the L/C should be dispatched by air to the customs broker, who obtains the necessary clearance and checks all documents for completeness. China should take responsibility for telexing the buyer that the goods have been dispatched on a certain date under certain documentation numbers.

It is not usual practice for the American company to remind the Chinese, after the L/C has been opened, to enclose the relevant documents with the product, but because many air shipments have been received without documents, such an additional reminder has become necessary. Importers whose shipments are delivered by sea do not have to notify the Chinese to dispatch documents with the shipment but, suggests one observer, they might remind them to send packing lists—an item which on occasion has been omitted.

The Chinese contract number, notes another company representative, is very important to the Chinese.

"We have sold you this against our commodity contract number," they say. "They have never acknowledged our (the importer's) own number."

The invoice, a bill for the goods from the Chinese seller to the American buyer, is often combined with a joint certificate from the People's Insurance Company of China. China should issue two copies of the invoice: one to the American company's broker and one to accompany the B/L or its air freight counterpart, the air way bill (AWB). The invoice also includes quantities, descriptions and amount of goods. Importers should check that the contract number appears on the invoice, since, as noted above, the Chinese have often neglected to include this item.

The Transshipment Advice may also be sent in advance of the goods. This is a one-sheet information form distributed by FARENCO, but only irregularly. It includes loading port, first carrier, Hong Kong arrival date, B/L number, commodity description, second carrier, ship line, Hong Kong departure date, estimated arrival, and port agents.

It should be noted that when an agent has bought Chinese goods for another American customer, the goods will be sent under the name of this customer, who has taken title to the goods. However, samples will always be sent under the agent's name.

Importers responding to the Amcham survey point out that one type of crucial information necessary for offloading at the destination is often left off China's documents. For container cargo, importers need to know the gross weight per container because truck shipment must meet certain specifications according to the maximum weights allowable on US highways. Without this information, it is very difficult to arrange ongoing truck transport.

FINDING OUT ABOUT THE SHIPMENT— THE IMPORTER'S POINT OF VIEW

Importers' opinions vary tremendously as to whether or not communications with the Chinese have been significantly improved over the past several years, either with the FTC's or with the shipping authorities.

It was pointed out that various of the corporations differ in the promptness of their response to importers' needs. Even as regards the same FTC, importers' experiences are often considerably different. For instance, with reference to the Light Industrial Products Corporation, one company stated emphatically that "China hasn't complied at all on communication," while another said it was difficult to really tell, and two others said that communications are definitely better. One of these added an observation important for dealing with all corporations: "We've come to realize that we must be more definitive in what we want to know. We must provide a good request in order to get faster answers."

Regarding the Native Produce Corporation, two importers had opposite reactions. Said one, "There has been improvement since 1972 on communications. We used to wait two months to get a letter indicating they had received one of our cables. Now we get cables right back." But another said, "There's been no improvement. China takes longer than any country in the world to provide information. They don't even tell us if they have a local problem which is going to hold things up. They just rely on our cooperation." Some importers complained that, if a sample has been sent, they never know whether the Chinese have begun working on it.

Containerization is still the exception in China.

A chemical company representative noted that "comunication on delivery schedules is worse now than before, although cabling has improved."

Importers feel China's shipping companies are erratic in notification and in response to their requests. However, one noted that telexes from FARENCO had been very prompt.

These various comments sound the general theme on the issue of comunications: they're up, down, down, up, but improvements are being attempted. The differing viewpoints depend partially on one's previous experiences in importing, and how these compare with one's China experience.

AND, WHEN INFORMATION COMES . . .

As the quality of communication oscillates, so does the quality of the information received by importers. Getting a shipment out of China is one thing; receiving the accompanying documents is another.

Information Contained in Documentation

Frequent frustration arises from the fact that documentation often arrives without crucial information included, causing importers great difficulty in tracing purchases. For instance, when companies do receive copies of FARENCO's Transshipment Advice, it does

not contain either a sales confirmation number against which the number of cartons shipped can be checked, or an L/C number. An agent who wrote FARENCO requesting that this information be inserted was politely told that the organization could not do so. The purchasers must contact the Chinese suppliers, said FARENCO. "We are only acting as a forwarding agent." It is very important for importers to realize that, for all problems, they must communicate directly with the Chinese FTC.

Other respondents to the questionnaires noted a lack of complete documentation of ocean freight rates, including those from China to the transshipment point. In one case, a special customs invoice for one shipment indicated a lesser amount of ocean freight than that which was included in the C&F price. Since the importer was unable to provide complete documentation for the freight, he was forced to pay greater total import duties.

A metals importer said that although the bill of lading might register a certain date for shipment, arrival time was always after the month delineated. "But we don't want to make an issue of this," he added.

Documentation Inadequacies

Buyers have complained both about lateness of arrival of documents and about inadequate numbers of documents being dispatched when and if they do arrive. Ideally, say these businessmen, they should receive pertinent documents substantially in advance of the transshipment vessel's arrival at the port of destination; however, both *UCBR* and Amcham respondents noted instances in which documentation arrived after the vessel.

A Native Produce importer complained to *UCBR*: "We have had problems about 50% of the time on accompanying documentation. The documents have not, despite the long transshipment time, arrived at our bank in the US for processing. We have on two or three occasions paid considerable demurrage to Mitsui OSK Lines and US Lines."

A purchaser of light industrial products based in San Francisco noted that it usually does not receive enough copies of the bill of lading, invoice, packing list and special customs invoice from the Chinese, nor do they receive, in most cases, a copy of the documents direct from the shipper.

Advance Notification of Vessel Names

One of the major frustrations for desk-bound importers in the US is lack of knowledge of the names of the first and second vessels carrying their purchases. For merchandise transshipped through Hong Kong, this irritation should have been alleviated through the receipt of FARENCO's Transshipment Advice form. But, comment importers, this form usually fails to arrive. Notes one, "It came more often early in our trade with the PRC, but appears to be dying out now."

Respondents interviewed by *UCBR* were about evenly split between those who almost always received vessel names, those who occasionally did, and those who never did. There appeared to be little correlation with the identity of the notifying party: FARENCO or the transshipment line. Two executives commented that from Hong Kong, they were apprised of the vessel name, but from Japan, never—an indication, in this case, that Chinese response was more dependable than at other points along the transshipment line, i.e. the shipping lines in Japan. However, one importer rued the fact that sometimes FARENCO "will indeed relay the vessel name a month in advance, but the information turns out to be wrong and the goods arrive on a different ship."

Advance Notification of Arrival

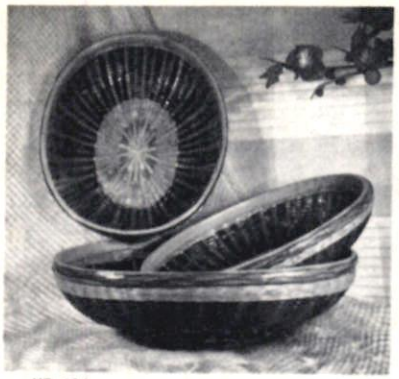
Length of notice regarding a ship's arrival is one of the sorest points for importers. It can range up to six weeks, according to one east coast native produce company; from two to three weeks, according to a New York metals and minerals importer; and up to thirty days for one New York buyer of light industrial products. Without a doubt, someone or another has experienced everything else in-between, and longer.

A west coast light industrial products company described what appears to be a common occurrence: "sometimes the goods arrive at the dock, and we haven't yet received a single document, let alone notice of arrival." A textile importer lamented: "We press the Chinese hard to send a cable telling us which line and to please notify the customs brokers. Sometimes we don't even know the goods have come, and we end up having to pay. I don't mind short notice," said this company's chief, "but I do mind no notice at all."

Respondents to the Amcham survey stressed that the usual lateness of notification of vessel names causes a problem for the importer when his customers demand information on the current location of late shipments while they are still in transit. "It is expected," emphasized the survey, "that the importer's customers will request such information and customary for the importer to advise them of the whereabouts, at any given time, of a shipment which has not arrived on time."

According to the Chinese, the responsibility for advance notification lies initially with the exporting corporation, not with FARENCO; importers should take problems of this sort directly to the Foreign Trade Corporation concerned. As soon as a shipment has left Hong Kong, FARENCO should advise the US consignees.

UCBR respondents largely agreed that FARENCO



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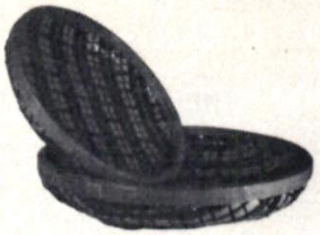

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Although Chinese packing is widely praised by US importers, some losses have been suffered through damaged porcelain and unfumigated bamboo.

has not notified them of the status of shipments on the high seas; instead, said the majority, the line on which transshipment is made has carried out that duty—sometimes also erratically and late. It is best, said one, not to wait to be notified, but to call first to receive the desired information.

Specification of Carriers

Importers interviewed by *UCBR* were divided in their comments on the wisdom of attempting to specify the ship which carries their goods. On the positive side: "The difficulty caused by shipments split between different ships means we do want to specify," said one. "We think we will be able to do so shortly." A second also voiced some confidence that it might be possible in the reasonably near future.

Both *UCBR* and Amcham respondents expressed concern about Chinese lack of response to the requests made so far for specific carriers. Said an Amcham interviewee: "We prefer to buy on FOB port of loading in PRC." It was pointed out that if a contract was CIF or C&F, the decision with regard to selection of carriers was made by the FTC without consideration of the US importer's wishes. However, under FOB terms, the buyer has the option of controlling who carries the freight or leaving control to the seller. The buyer would also know the name of the carrier delivering the cargo to the American port.

Two *UCBR* interviewees took umbrage with this wish to specify, saying that they would never and had never tried to request a particular ship. "If our shipment were to miss such a specified vessel," noted

one, "we'd be in serious trouble." Another indicated that he did not want to take on the responsibility that would go with specification.

THE GOODS IN TRANSIT

In addition to issues concerning the receipt of communications and of general information, companies described some difficulties regarding shipments in transit in the hope that improvement might be in the wings.

Transshipment Point: Hong Kong or Kobe?

Some importers answering the questionnaires expressed preference for Hong Kong as a transshipment point because transit time is usually shorter, especially if the point of origin is in South China. Air shipment from Hong Kong may also be more easily facilitated after goods arrive by train or truck.

Many companies still remember well the long delays experienced with transshipments coming through Japan last year. Unfortunately, the same situation has developed again this year as a rush of cargo—the result of the world economic upturn—goes from all points in Asia via Japan to the US.

The point for transshipment is chosen by the relevant Foreign Trade Corporation. Obviously, distance from a particular port is a controlling factor in that decision. The inauguration of the through container service from Hsinkang, Tsingtao and Shanghai through Kobe by Mitsui OSK and K Line may change importer preferences for Hong Kong. (See Part II in the July-August issue of UCBR).

Split Shipments

Shipments split between two or three vessels have caused importers much anxiety, and is one of the reasons many of them would like the option of specifying which ship carries their merchandise.

According to the Amcham survey, such split shipments do not generally occur through Hong Kong, but have through Japan. Not only have shipments been divided between vessels, but they have been packed partially as break-bulk and partially as container. Importers would prefer one or the other, although container shpiment is more highly desired.

Container vs. Non-Container

Although China's commitment to container shipment is constrained both by slow industrial development and by policy factors, importers would prefer to see as many container facilities constructed as possible. Among the advantages they emphasize are less damage, less pilferage, faster receipt of goods, cheaper rates, (e.g. no handling charges in US port) quicker movement off piers, lower trucking rate because hookups are only to one unit instead of, e.g. 4,000 bags, and greater flexibility in inland movement. The only real disadvantages that importers envision are the possibility of stripping at the pier if extentive customs sampling is required, or the danger that different sizes of a product may be mixed together in the same container.

Freight Rate Quotes

Some companies have expressed concern that Chinese shipping authorities will only quote prices CIF and C&F New York, overlooking the fact that freight rates to the east and west coasts of the United States are not the same. If an importer wants delivery made to a west coast port and is faced with a more expensive east coast quote, there may be no viable alternative but to cancel the order.

Although some businessmen have experienced this problem, others have had no difficulty in receiving a west coast quote. It may vary with the merchandise and with the particular Chinese officials involved.

Packaging and Handling

Importers have high praise for the Chinese in many areas of packaging and handling. A textile company representative declared that textiles are extremely well-packed; "customers are constantly amazed at the quality of the packaging." A Native Produce importer reported that he had experienced no packing problems; that is at least partly a function of the fact that his merchandise is shipped in very sturdy drums and bags. An importer of Chinese foods and oils also felt that Chinese packaging was quite adequate. "When there is breakage," he said, "it might have already occurred in China or after the goods arrive here in the US."

Others praised the general level of Chinese packaging, but pointed out some commodities for which there have been specific difficulties:

- inadequate packing of ceramics and tobacco, including dirt-covered porcelain
- mixing of commodities in containers
- some water damage from containers which have holes in tops
- poor marking of bales: letters not large or dark enough
- inadequate fumigation of bamboo ware
- requests for specific size of pallets and shipment in larger packages ignored
- loose packing and stacking of fragile cargo
- loose packing of bales
- tight packing of crushable cargo, e.g. silk flowers
- poor honey packaging
- zinc not bundled or strapped to pallets
- delivery of different goods than those actually ordered by the importer

From bad handling in ships' holds, a few other problems were noted:

- mold content on foodstuffs, probably arising from lack of ventilation in holds
- green lumber used as dunnage, causing decay and rotting
- stowing plant products with toxic materials
- leakage

Some companies questioned the efficiency of China's inspection procedures. They expressed interest in seeing inspection improved at the production level.

Air Shipments

Air transport is still not very widely used for delivery of goods from China. However, the percentage of Chinese air cargo relative to sea cargo is definitely on the rise, especially for delivery of many kinds of samples.

Air is best for three types of cargo: rush shipments which must be delivered as quickly as possible regardless of cost; "average" cargo, which is neither affected by emergency requirements nor made up of huge bulk quantities; and small orders, such as samples. With respect to China, all quickly needed small-quantity samples are sent by air to American importers. As far as average cargo is concerned, companies are rapidly discovering the advantages of air freighting lightweight products such as wicker and straw, as well as all types of textile garments. Many of these companies feel that, for rush or average cargo, air freight can actually work out quite cheaply.

Of the companies interviewed by *UCBR*, four indicated that they have received air shipments other than samples. Their products range from lightweight native produce merchandise to handicrafts to textiles. A few of these have been rush shipments.

An importer of chemicals and native produce noted that he had received some air cargo, but said that in the chemicals market prices are too depressed to warrant the flying costs. Another company advised that it is receiving some hairs by air, praising air transport as far more efficient and faster than any other type of shipment.

ROOM FOR IMPROVEMENT

It is clear that at every step of the transshipment process both the importers and the shippers dealing with China woud like to see improvements instituted. Some of the points mentioned by various parties throughout UCBR's two transshipment articles are summarized below:

- dispatch of goods within original period stipulated in L/C.
- receipt of prompt notification if goods are to be delayed, e.g. because of production problems, natural disaster, or any other reason.
- all documents written in English.
- inclusion of all necessary numbers such as contract number, carton numbers, weight of each individual carton, number of cartons shipped, gross weights of cartons, sales confirmation number, on all relevant shipping documents including the bills of lading, the invoices and the packing lists.
- notation on each carton of purchase order number, pattern and style number, and number of pieces.
- usage of clearly differentiated article numbers for differently shaped and colored goods.
- inclusion of certificates of origin in one document with the original invoice.
- dispatch of FARENCO's Transshipment Advice form with all shipments out of Hong Kong, as well as corresponding information coming from Kobe.
- sufficient notification of both the first and second vessel names, perhaps by telex or cable 5 days prior to loading at shipment point; that is, well in advance of the second vessel's arrival at the port of destination.
- sufficient advance notification of arrival of vessels, preferably at least 10–14 days. China shoud telex the buyer saying goods were dispatched on a particular date.
- the opportunity to specify which vessel is to carry one's goods.
- prompt delivery of samples ordered so that business is not already gone by the time a company receives them.
- delivery of the proper number of each type of documents, including a complete set to the customs broker.
- elimination of shipments split betwen carriers and/or split between breakbulk and container.
- greater usage of containers for transport of goods.
- construction of more container facilities in Chinese ports.
- greater usage of FOB quotes as well as separate freight rates for east and west coasts.
- flexibility for importers in quoting prices.
- greater opportunity to make use of air freight for lightweight cargoes, such as textiles or bristles.

One textile company was extremely enthusiastic about air delivery, noting that it receives 60-70% of all its goods via air. The company makes great use of the T.A.T. system (Train-Air-Truck or Train); however, a representative from the China National Foreign Trade Transportation Corporation told *UCBR* that in general, this option is not employed very extensively, especially by a single business concern. The company in question pointed out that it only ships garments and silk by air—greige goods are always transported by ship because of the bulk. In addition, the company feels that documents are better handled by China Travel Service, the T.A.T. overseer, than by the corresponding ocean shipping agents.

The hairs importer who has begun shipping by air feels this is the transportation system for China's future. "I think China is losing out right now," he said. "Merchandise is on the road too long eating up interest. I think people are willing to pay a somewhat higher air freight in return for prompt and timely arrival of their purchases."

Some importers who have regularly begun to use air freight have experienced a number of irritating difficulties. From Shanghai, complained one company which purchases basketry and other handicrafts, documents have failed to arrive at all. A representative wrote the Council, "It is essential that invoices showing contents and value of the shipment accompany all air freight shipments made from any country in the world. This is standard procedure from everywhere except apparently China." In May, one of its shipments was tied up in customs because the Light Industrial Corporation did not send any papers. "Presumably," conjectured the company, "these (papers) will be presented through the bank under the letter of credit, but that procedure takes three weeks." A textile company has also faced this problem of complete lack of documents. As a result, its fashion goods from China were delayed at customs and were late for a fashion show. Also, some documents have been received written only in Chinese.

SUMMARY: WHO HAS RESPONSIBILTY FOR WHAT?

Knowing how to tackle the question of improvements in US importing from China can come partly from knowing how the division of responsibility is currently organized. The following attempt to define areas of responsibility is based on interviews with Chinese trade officials, importers and shippers included in Parts II and III of "When Will Your Ship Come In?" It apears that sometimes these divisions of responsibility are unclear, and that FTCs and shipping organizations are unfamiliar with each other's practices. Internal lack of communication can intensify the problem for those waiting for goods at the American end.

Responsibilities of the Chinese FTC

As the Chinese see it, the FTC oversees the following:

- dispatch of sales-related documentation including contract, L/C, certificates of origin, etc.
- advance notification of vessel names to importers. Perhaps this should be written into contracts.
- specification of ocean carriers when transshipment is through Kobe
- adjustment of ocean freight rates to the appropriate level (FTC shipping department)

Each FTC, according to importers, reacts at a different pace in responding to importer requests.

Responsibilities of FARENCO

- dispatch of Transshipment Advice form
- sufficient notification of expected vessel arrival date when transshipment is through Hong Kong
- specification of carrier when shipment is out of Hong Kong (this may be carried out simultaneously by liner services)

Responsibilities of Liner Services

- notification of vessel arrival to consignee when shipment is from Kobe
- shepherding of shipping documentation, including bill of lading

Responsibilities of American Companies

- companies will find that China will do its best to comply with their needs if they submit specific, clearly-delineated requests by written letter or preferably arrange to include them in the contract.
- an understanding, as well as can be obtained, of the structure of the Chinese shipping organizations. For example, one importer mistakenly tagged FARENCO as "a liner service which occasionally ships all the way to the east coast," when in reality it is the Hong Kong agent of the China National Chartering Corporation.

Responsibilities Unclear

- appraisal of gross weight per container

Despite the fact that some importers have managed to avoid most of the problems described in *UCBR's* two transshipment articles—and an occasional company has missed them all—there can be no denying that, at present, the process of contracting for and receiving one's goods from the PRC is a tricky and often problematic effort. Hopefully, these articles can provide an overview to help alleviate some of the accompanying anxieties importers suffer. The institution of some of the improvements they suggest could only be beneficial to a smoother and more rapid development of Sino-US trade. 完

During the Council Director's trip to China, delegation leader John W. Hanley is flanked by Tang Wen-shang, "Nancy" Tang, (Deputy Director of the Department for US-Oceanic Affairs) and Wang Yao-ting (President, CCPIT). At right, Council President Phillips speaks with Kuo Szu-min (Secretary, CCPIT) and Hsiao Fang-chou (Vice President, CCPIT).

Council Activities

COUNCIL DELEGATION MEETS PRC TRADE MINISTER, MAKES HEADWAY ON ISSUES

The second Directors' delegation of the National Council to visit China since 1973, in the PRC at the invitation of the China Council for the Promotion of International Trade, met with Li Chiang, the Minister of Foreign Trade and with officials of the CCPIT and China's Foreign Trade Corporations; had a rare opportunity to inspect Taching, China's largest and most important oil producing area; and reached preliminary agreement on various issues including specific industry proposals for trade delegations, an importers delegation to the PRC, the holding of reciprocal trade exhibitions, and legal questions. Among the features of the mission were:

Meeting with the Foreign Trade Minister: During the course of a one-hour meeting with the group, Mr. Li Chiang predicted an expansion of Sino-US trade following the resolution of two problems. Those, he stated, were the end of discriminatory tariff treatment by the US against Chinese imports and the normalization of diplomatic relations between the two countries. Even prior to the settlement of these two issues, however, Mr. Li saw trade between the US and China continuing to develop, but at a modest pace. Specifically, Mr. Li mentioned potential interest in US machinery and equipment, whole plants and technical know-how, lumber products and possibly cotton. China would continue to develop its exports to the US of several non-ferrous metals, including tungsten, mercury, antimony, and tin; chemical and pharmaceutical products; textiles; and light industrial products.

Industry Exchanges: The Council delegation left three specific proposals for industry exchanges with the Chinese, covering mining, construction and petroleum equipment. Trade officials have agreed to review them carefully.

Trade Exhibitions: Although it was recognized that the holding of reciprocal trade exhibitions would have to await a resolution of the problem of frozen assets and private claims, the Chinese agreed to hold preliminary discussions on the subject during 1977. In the meantime, they will welcome correspondence on any progress on the situation in the US. They further agreed to bring the matter of frozen assets up for discussion with their government, and the American representatives agreed to pursue the same with the US government.

Importers Delegation: A proposal to send a delegation to China representing the Council's Importers

Steering Committee is under review, and appears likely to be approved for the Spring of 1977.

Legal Issues: Three separate meetings with six legal experts of the CCPIT were held by the General Counsel of the NCUSCT, Walter Sterling Surrey. Agreement was reached on an initial procedure to be utilized in joint conciliation procedures, wherein there will be two conciliations: on the Chinese side, either the legal department of the CCPIT or the Foreign Trade Arbitration Committee, and on the US side one conciliator later appointed by the NCUSCT or the American Arbitration Association. Each side identified a major case for possible realization of this and a new pending joint conciliation process.

A procedure for registering US trademarks in China was proposed by the NCUSCT and is being considered by the Chinese authorities. In addition, both sides agreed to exchange model language for patent protection, force majeure and turnkey contracts. The Chinese agreed to make available the substance of some of its trade and maritime agreements with third countries while the NCUSCT agreed to provide copies of standard friendship commerce and navigation agreements. The discussions also identified other areas where the differences in legal concepts pose problems, and it was agreed to exchange correspondence on these issues prior to the next legal meeting.

The group spent one day touring the Taching oil fields in north-east China some 250 miles from the Siberian border. It visited a variety of locations, including a petro-chemical plant, crude gathering station, operating oil well, residences and farms, and local militia firing exercises.

While in Peking, the National Council hosted a banquet for representatives of the Ministry of Foreign Trade, the CCPIT, and the Foreign Trade Corporations. David Dean, Deputy Chief of the United States Liaison Office, gave a reception in honor of the Council and all the Chinese trade organizations. In return, the CCPIT organized another reception for the Council which was attended by many FTC officials.

The eight-member delegation from NCUSCT visited China from October 8 to 21 at the invitation of the CCPIT. Headed by J. W. Hanley, Vice-Chairman of the National Council, and President and Chief Executive Officer of the Monsanto Company, its members included Christopher H. Phillips, President of the National Council for US-China Trade; Walter Sterling Surrey, Senior Partner, Surrey, Karasik, and Morse; Joseph T. Kenneally, Chairman, International Systems and Controls Corporation; John C. Brizendine, President, Douglas Aircraft Company; Kurt E. Reinsburg, Senior Vice President, Associated Metals and Minerals Corporation; Melvin W. Searls, Jr., Vice President, National Council for US-China Trade; Hans W. Becherer, Director, Export Marketing, Deere & Company; and Judy Poon, Translator and Interpreter, National Council for US-China Trade.

EXHIBITION COMMITTEE HOLDS FIRST MEETING, DRAFTS RESOLUTION

At the inaugural meeting of the Council's Exhibitions/Technical Seminars Committee in New York City on September 9, a proposal was drafted for the approval of committee members. Stressing the desire of the American people to strengthen friendship and trade contacts with China, the resolution highlighted the intent of the committee to: (1) Dedicate itself to the achievement of reciprocal major trade exhibitions in the two countries at the earliest possible date; (2) Call upon the US Government to accomplish the objectives of the Shanghai Communique and take steps to facilitate such trade exhibitions; (3) Invite the CCPIT to cooperate in preliminary planning; (4) Propose a date for the Council and the CCPIT to discuss exhibitions at a meeting. Committee Chairman Saul Poliak presented an analysis of exhibitions in China from 1971-1974, Attorney Eugene Theroux traced the history of exhibition discussions with the PRC, and Council Vice President Melvin W. Searls reviewed problems in the path of holding major reciprocal trade exhibitions with China.

COUNCIL HOLDS AGRICULTURE CONFERENCE

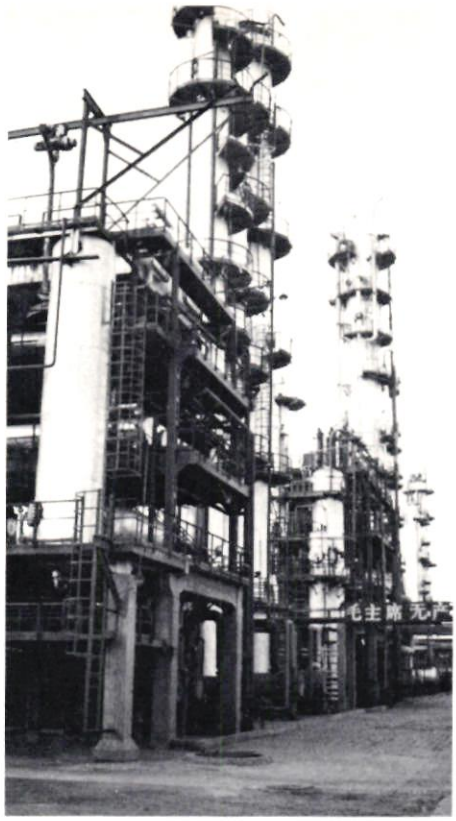
The Council's second conference focusing on a specific area of China's industry—and on the largest sector of the Chinese economy—attracted 61 companies from all over the US to St. Louis on November 18. This major conference on China's agriculture and prospects for US sales explored selling grain and cotton to China, animal husbandry products, fertilizer sales to the PRC, agricultural chemicals in China, agricultural mechanization and who has sold what to China in this area. More general discussions explained China's political scene, economic development, agricultural trade, US-China relations, and the role of the Council in Sino-US trade. The keynote speaker was Richard E. Bell, Assistant Secretary for International Affairs and Commodity Programs at the US Department of Agriculture. Co-sponsor of the all-day meeting was the St. Louis Regional Commerce and Growth Association, in cooperation with the US Department of Commerce and the St. Louis Council on World Affairs of the World Trade Club of St. Louis.

EXPORTERS GUIDE DISTRIBUTED IN CHINA

A mammoth Chinese- and English-language guide entitled *Exporting to and Marketing in the United States of America,* published this year by the National Council, was distributed in August to all of the PRC's foreign trade entities. The book, which is 242 pages in each language, was prepared by the Council in conjunction with various government departments to help exporters in China in their efforts to market products in the US. The text is in four parts: the first, adapted

COUNCIL VISITS TACHING

The Council's Directors' delegation became the first business group to tour the famous Taching oil field on October 14, 1976. At top right, is a pipe still, part of Taching's 100,000 b/d refining capacity for benzene, toluene, xylene, synthetic fibers, and a full range of petroleum products. At middle right is China's latest christmas tree for low pressure wells, weighing 100 kilos; this well has a 70-ton daily capacity. At bottom is a general view of the Taching petrochemical works. Middle left displays a variety of pressure control systems in use in China; in foreground, early Russian models, weighing 1400 kilos, have now been replaced by domestic version. At top left, a fractionating tower for light ends is shown. The delegation learned that on an average 70 to 100 tons are extracted daily from Taching wells, all water injected in the oil-bearing strata. Taching's facilities also produce gasoline No. 70 and No. 66, jet fuel No. 1 and No. 2, kerosene diesel and fuel oil, and studies are under way for additional facilities for such products as lubricating oil base stocks and synthetic rubber. More details available through the National Council.



from the US Customs Service publication, "Exporting to the United States," details prerequisites for entry of goods into this country. The second, "Marketing in the United States," is based on specially written material by Robert Failey, a specialist on marketing in the US for foreign exporters. The third is an introduction to exporting to US department stores by George E. Voyer. The last, "Consumer Expenditure Patterns in the United States," is an extensive set of tables exploring consumer spending for everything from housing to alcohol.

PRE-CANTON FAIR BRIEFING HAS GOOD TURNOUT

The National Council's pre-Canton Fair briefing, jointly sponsored by the Importers Steering Committee on September 28, attracted over 30 people. C. T. Hu, Professor of Philosophy and the Social Sciences at Teachers College and a member of the East Asian Institute of Columbia University, provided a basic introduction to the history of Sino-US trade, including Chinese perceptions of the trader or merchant, foreign trade with China in the 19th and early 20th centuries, developments in Chinese policy toward trade since 1949, and predictions for the future.

The National Council's Vice President Melvin W. Searls, Jr., was the moderator for a discussion panel consisting of members of the Importers Steering Committee, each representing different industry areas. Among the topics covered were pricing; delivery schedules as they differ from FTC to FTC; communications difficulties and the value of perseverence; quality control and recourse for items of poor quality; the importance of specifying inspection rules within a contract; and the ins and outs of trading with different branches of an FTC, including the difficulties involved in switching from one branch to another. Panelists were: Robert Boulogne, J. C. Penney, *Textiles;* Julius Klugmann, Julius Klugmann International Corporation, *Native Produce;* David Cookson, ICD Group, Inc., *Foodstuffs;* Lee Sobin, Friendship International, *Light Industrial Products;* Eric Ho, AMAX, *Minmetals, Chemicals;* Stanley Lubman, attorney, *Machinery,* Mr. Lubman also made the concluding remarks for the briefing.

NEW EXPORT-ORIENTED COMMITTEES ABOUT TO GET UNDERWAY

Coming up shortly will be the formation of several new National Council export-oriented committees. The additional groups will be in the fields of animal husbandry and agricultural machinery. For further information, please contact Eric T. Kalkhurst, Director of Business Advisory Services. The already-operating Minmetals/Chemicals Committee and the Petroleum Equipment Committee held fruitful meetings, on August 30 and September 23 respectively.

COMPANY DIRECTORY IS PUBLISHED

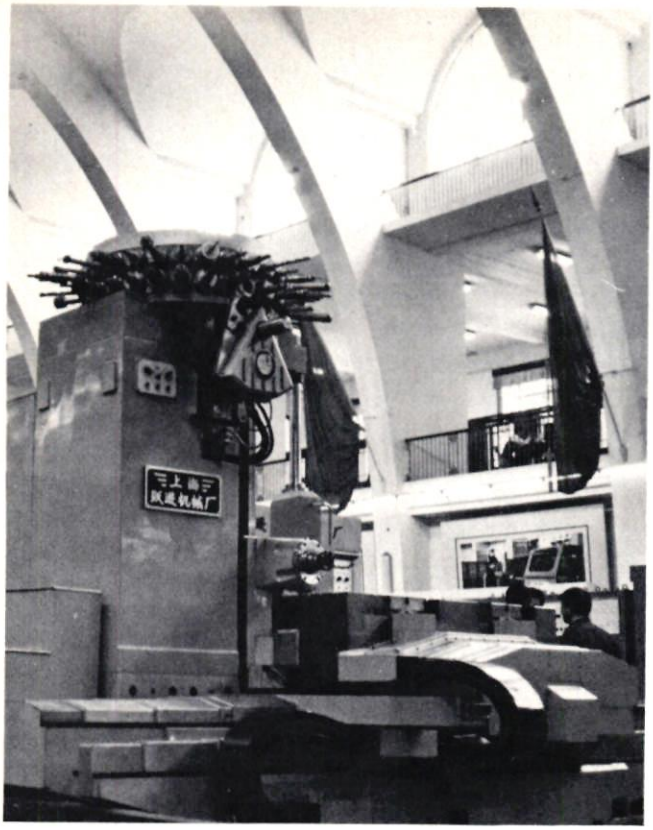
The National Council's new *Directory of American Companies, 1976 Supplement,* is scheduled for publication and distribution this month. The 95 participating companies can expect to receive two copies of the book, as well as their individual pamphlets, by December 31, 1976. Another 2,000 copies of the directory have already been delivered to the China Council for the Promotion of International Trade in Peking. The Council decided upon the publication of a supplement so soon after the first 101-company directory was compiled last year because of the strong interest and demand which the 1975 edition generated.

COUNCIL AGRICHEM DELEGATION IN CHINA

The National Council's first export-oriented delegation, concerned with agricultural chemicals, visited China from November 17 to December 2 at the invitation of the China Council for the Promotion of International Trade. The nine-person mission, comprised of member companies, met with agricultural and trade officials, held a variety of technical seminars on insecticides and pesticides, and visited communes and agricultural facilities. Major objectives of the program included: 1) the exchange of information on topics of mutual interest relating to the latest technical developments in herbicides, fungicides, and insecticides; 2) learning about agricultural product development in China; 3) the exchange of views with Chinese technicians and workers at research institutes and communes on the development and practical application of China's pesticides; 4) the establishment of an exchange program between the pesticide industries of the US and the PRC. Members of the mission were: Earl Morgan (leader), FMC Corporation; G. Donald Munger, Diamond Shamrock Corporation; Orlo K. Jantz, Dow Chemical; Kent M. Reason, Dupont Far East, Inc.-Japan; Norman E. Krog, FMC Corporation; E. J. Groskorth, Hercules Far Eastern, Ltd; Earl C. Spurrier, Monsanto; Victor H. Unger, Rohm and Haas Co.

COUNCIL COLLABORATES WITH AAA

The American Arbitration Association and the Foreign Trade Arbitration Commission (FTAC) of the People's Republic of China recently agreed to cooperate to provide conciliation assistance to US companies involved in disputes with Chinese FTC's. The National Council will collaborate with the AAA in informing companies of these conciliation facilities, while the FTAC will inform trading organizations in China of the availability of the joint service. Representatives of the AAA and the FTAC met during the last week of September in Vienna while attending an international arbitration conference. 完



Opening day at the 40th CECF.

CANTON FAIR-FALL 1976

Spring Trends Confirmed

The 40th Chinese Export Commodities Fair opened in Kwangchow on October 15 against a backdrop of political change unparalleled in the twenty-year history of the event. Not surprisingly, politics overshadowed commerce in the opening days, and fair-goers were afforded rare opportunities to witness the Chinese political process in action. Massive demonstrations, lion dances and parades were organized by party committees at all levels, and wall posters denouncing the "Wang-Chang-Chiang-Yao Anti-party Clique" and hailing Chairman Hua Kuo-feng sprang up throughout the city.

Surge In Trade By Fair's End

While celebrations—punctuated by exploding firecrackers and crashing cymbals and gongs—raged outside the fair complex, businessmen inside at first found little to cheer about. Commercial cadres adopted numerous tactics to discourage serious negotiations during the fair's first week, and trade fair authorities took the unusual step of cancelling business activities on October 23 in order to allow members of the trade delegations to participate in huge rallies staged throughout the municipality.

Initial Chinese reluctance to negotiate aggravated a tense situation brought about by the worst overcrowding witnessed at a trade fair to date. Opening day found both the Tung Fang and Liu Hua Hotels fully booked and arriving businessmen were shuttled to downtown hotels or, alternately, asked to double and triple up with "friends and acquaintances." The new Bai Yun Hotel—which was supposed to have alleviated overcrowding—remained closed to foreigners due to technical difficulties posed by nonfunctioning elevators.

Vast numbers of attendees left Kwangchow with tales of woe sufficient to discourage numerous foreign firms from going ahead with plans to attend the fair. Before the event's midway point, the 40th CECF had been judged a "commercial failure" by many in the business community and economic press. This verdict, while understandable in light of early performance, was definitely inaccurate by the conclusion of the fair. Fears of low business had been turned around, and US firms judged this 40th event a very successful one. There was much increased activity in the final two weeks, with particularly large sales concluded in chemicals and textile fibers.

Fewer But Bigger Contracts

In fact, the 40th CECF confirmed trends which became apparent at last Spring fair. In the words of one corporation official, "There are fewer American firms, and fewer contracts are being signed. But the contracts concluded are generally bigger than ever before." Actually, according to National Council estimates, American attendance was the same as last Spring, standing at approximately 300-320 firms by the fair's close on November 15—a decline of 5-10 percent from Spring levels. Numerous first-timers and "new friends" left empty-handed, and several reported corporation hesitancy in offering even miniscule quantities for sale. Yet, for many "old friends" the 40th CECF turned out to be the most successful version of the event they had ever attended, with volumes transacted topping levels achieved at both the 38th and 39th CECFs.

The trade fair authority took the unusual step of releasing a mid-fair estimate of Sino-US business which indicated total US purchases of $20 million. The mid-fair estimate did not include Chinese purchases, as none had been concluded at that point. Chinese interest in US machinery, chemicals and metals picked up considerably in the latter half, and several US sales were registered. US imports continued at a slightly slower pace during the last two weeks, resulting in a final Council estimate of $50-55 million for Sino-US

contracts of which over $16 million represented export deals.

Although these figures indicate a satisfactory fair, there is little question that the role of the CECF in US-China trade declined both absolutely and relatively during 1976. And while "old friends" have apparently won the field—indicating, in the eyes of the Chinese, "a maturing process" comparable to that encountered years ago by European traders—the disappointment and frustrations of the newcomers do not bode well for future expansion of Chinese exports.

Biannual Fairs To Remain

Persistent rumors to the contrary, fair officials consistently denied any plans to change the scheduling of the biannual CECF. Mini-fairs will continue to be held "according to foreign demand and Chinese capacity to supply", but these events are not currently viewed as viable substitutes for the fair.

CEROILS—Slightly Disappointing

Business by CEROILS was on the disappointing side, with total US purchases registering by the end of the fair, only $1.5 million.

Supplies of frozen shrimp remained low, and CEROILS officials acknowledge little possibility of meeting demand for this popular item among US buyers over the coming year. Despite indications of softening consumer demand and downward pressures on price arising from a good Mexican catch, the corporation was bullish on future prospects—quotations for Spring delivery were $0.30 per pound above world levels. With tight supply and high prices, few buyers emerged; one purchase of approximately $500,000 was, however, recorded during the first week. American importers bought quantities of honey, spices, beverages and wines worth about $.5 million.

Shortages were noted in vermicelli, rice, frozen foods and soy sauce.

Sales of chilis rose sharply over Spring, and with prices up a mere 10 percent, several US purchases in excess of $150,000 were recorded. Dried fruits and vegetables, including edible seeds, were generally available, though US buyers noted a tendency on the part of CEROILS to cover traditional customers' needs in the Middle East and South Asia prior to making allocations for the American market.

No Chinese sales of canned foodstuffs were recorded; the corporation informed the National Council that it is currently studying USDA regulations regarding registration of branches handling low acid foodstuffs, a move than may eventually lead to resumed trade in this potentially lucrative commodity line.

LIGHT INDUSTRIAL PRODUCTS—Trade Active

Total US purchases were up 20-30% over the Spring Fair, according to Chinese estimates and totalled $6 million; of which $4.5 m. were in Arts & Crafts and $1.5 m. were in General Merchandise.

Sales of items handled by the Arts and Crafts Division of INDUSTRY were obviously brisk, in contrast to other commodities, prices for jewelry and handicrafts remained stable, supplies were generally adequate, and trade was active. Earthquakes and subsequent tremors had forced the corporation to cancel or modify a number of mini-fairs originally slated for late August. Disruption of this ambitious program—which had called for Arts and Crafts fairs to be held simultaneously in Peking, Tientsin, Shanghai and Kwangchow—led to a backlog of inventory and directly contributed to the high volume achieved by INDUSTRY at the 40th CECF. However, the corporation does plan to reorganize these mini-fairs sometime in the near future.

Straw and rattan manufacturers remained in high demand among US buyers with total US purchases of basketware at nearly $1 million. While the corporation was frequently unable to satisfy the requirements of numerous first-timers, "old friends" found allocations plentiful. With prices for basketware down 10 percent from the previous Autumn CECF, several large orders were placed, including one for approximately $350,000 (early 1977 delivery). Importers can expect another straw and rattanware fair this summer.

Enamelware and glassware were also active, with Sino-US volume in these lines reportedly approaching $750,000. The destruction of the Tangshan Ceramics and Glassware complex led to the cancellation of some contracts signed at the Spring fair, but corporation officials were quick to assure buyers that production in this region was recovering rapidly to pre-quake levels.

Other active lines included silk rugs, antiques, musical instruments, furniture and leather bags.

A 20-30% increase in business was attributable to a surge in Chinese sales of general merchandise. In the eyes of one cadre, the General Merchandise Division is making satisfactory progress in its attempts to garner a larger share of the US consumer market. Several US firms concluded purchase contracts for items as varied as sewing machines, sporting goods and musical instruments. A major purchase of $500,000 was made for athletic goods and toys. Value of other individual contracts rarely surpassed $100,000, but buyers were generally pleased with improved quality in these lines.

Leather products, including footwear, were in tight supply with prices up approximately 35 percent over Spring levels.

No US sales were registered at the Fair itself, but one firm sold $1.5 million of movie film for use by the New China News Agency. The deal was concluded in Peking in early October.

In other developments, INDUSTRY granted an exclusive for the distribution of Chinese violins to the Ideal Music Company, and INDUSTRY officials state that more exclusives will be offered to US firms in the near future.

CHINATUHSU—Fine Showing

The Native Produce and Animal Byproducts Corporation enjoyed a spectacular fair with American buyers snapping up nearly $10 million, according to National Council and US Liaison Office estimates ($11 m. estimated by the Chinese).

Commodities handled by CHINATUHSU's Feather and Down Department continue to enjoy high demand among US buyers. At least six firms arrived during the first week intending to place substantial orders for raw and processed feathers and down, and although the total dollar volume of their contracts exceeded $2 million (the level reached at the Spring fair), few buyers left Kwangchow satisfied. Prices for these commodities have soared 120 percent during the past year, and most of this increase was registered in the two months prior to the fair's opening. Quantities declined, and the two major buyers at the Spring fair found CHINATUHSU unable to satisfy 10 percent of current requirements. The corporation, in discussions with the National Council, acknowledged its inability to meet demand and stated that it is in the process of conducting a world market survey in order to determine future pricing and allocation strategies. Results of this survey will hopefully become known at the upcoming Feather and Down Minor Export Fair, tentatively scheduled for January in Shanghai.

The situation in essential oils was identical: Total sales to the US, although reaching $2.5 million, were restricted by extremely limited supplies and rapidly rising prices. One firm, which eventually placed a large order for Cassia Oil, was quoted $30 per pound on opening day, $50 per pound on November 1—an increase of 66 percent over a period of two weeks. Total volume in essential oils reportedly topped $2.5 million.

Carpets on display at the fair were sold out early—reportedly $1 million worth—and Americans who arrived after the first week contented themselves with placing orders against specifications and designs. The July 28 earthquake levelled the Tangku carpet works, but CHINATUHSU officials insisted that overall production would suffer minimally. In a disturbing development, the corporation eliminated discounts to US buyers designed to absorb Column II tariffs. This move had the effect of a price rise of 15 percent.

Activity in other lines followed the familiar pattern of low quantities and high prices, but business was good. Bristles were up 2-5 percent over Spring levels, cashmere increased 40 percent, and walnuts rose 60 percent. Yet $1.5 million worth of cashmere and fine hair was nevertheless sold. Firecracker sales reportedly topped $500,000, similiar volumes were registered for tea ($500,000), tobacco ($550,000) and spices. There was little action in rosin. Miscellaneous native wares, particularly bamboo produce, are receiving increased attention by corporation planners charged with boosting sales to the US and $500,000 worth of this bamboo ware was sold. According to one corporation spokesman the Shanghai Native Produce Branch is gearing up to do business in bamboo ware currently produced in Anhwei and Kiangsu provinces.

CHINATUHSU's major US contract concluded during the 40th CECF called for sale of approximately $750,000 worth of cotton waste to a prominent US chemical firm.

CHINATUHSU is gearing up for a full slate of mini-fairs in January and February, with a feathers and down fair reportedly scheduled the first week of January in Shanghai followed by a fur fair in Peking beginning January 20. In addition, Peking will also be the site of a carpet fair, reportedly in mid-February, which was switched from Tientsin due to earthquake damage.

CHINATEX—US Sales High

Total Sino-US trade volume for CHINATEX reached a whopping $15 million—$5 million in US purchases and $10 million in one mammoth sale of polyester fiber and staple. The $5 million in the purchases column was substantially off from the previous autumn level due to the lack of supply. Few, if any, contracts exceeding $400,000 were concluded for either piece goods or garments. Cotton piece goods, particularly denim, were in tight supply. Crepe de chine as well as other popular grades of silk were not available. Stocks of corduroy, and cashmere sweaters, also were very low. Purchases of cotton, cotton-rayon and silk garments amounted to only $4 million, and embroidery, towelling, and other minor items claimed another $1 million of the small $5 million total.

CHINATEX reportedly considered an offer of nylon tire cord, but could not agree on the price. However, there will most likely be some activity in this area in the coming months. There is apparently some interest on the part of CHINATEX in further polyester deals.

The major complaints centered around price. Garments buyers encountered price hikes averaging 30-40 percent above Spring levels; most of the major boosts apparently took place in the four weeks immediately preceding the fair's opening.

A buyer from a major department store chain arrived during the first week intending to do substantial menswear business based on CHINATEX quotations received in late September. At the first negotiating session, corporation officials quoted prices 42 percent higher than those cabled three weeks previously; the buyer placed a token order and left.

Compounding the problem of price hikes was a general unwillingness on the part of CHINATEX to adjust US quotes to counteract high Column II duty rates. Such adjustments had become commonplace, and CHINATEX's newfound inflexibility in this re-

gard caused a number of major buyers to leave Kwangchow empty-handed.

CHINATEX has further stiffened its position on private labels, stating that the principal buyer's name or logo may be sewn on garments as a second label, but that generally no foreign brand-names may be used. However, in special cases, CHINATEX will agree to sew in private brandnames below Chinese labels. Some movement in CHINATEX's position on denomination of currency in standard contracts occurred, however, and a corporation official reported that use of currency is now at the buyer's convenience.

In discussions with National Council representatives, CHINATEX officials revealed that "several" instances of contract cancellation by US firms have occurred during 1976. The number of such defaults has been significantly greater this year than in 1975, and the corporation considers this development to be a very serious problem. Noting that Chinese factories have "absolutely refused to consider future orders from companies that default," CHINATEX stated that the corporation "prefer to settle current disputes through conciliation, but is reserving the right to lodge claims and take further necessary action to curb contract cancellations."

MACHIMPEX—Heartening Arena

Companies interested in selling machinery and equipment to China were generally heartened as they made substantial progress in many negotiations at the fair. Numerous reports of movement in long-stalled talks were received by Council representatives. As many as 20 US firms promoting sales to China made the trek to the fair, and three of them held technical symposia covering packaging, shipbuilding, and petrochemical technology. Their audiences included representatives from factories and research institutes.

Talks with US firms revealed a strengthening of Chinese interest in importation of equipment and complete plant related to petroleum and mineral exploration, construction, shipbuilding, transportation, medical technology and food processing and packaging.

At least two contracts were signed between MACHIMPEX and US exporters.

Despite continued efforts on the part of MACHIMPEX to increase exports to the US, little progress was noted at the 40th CECF. The corporation sold about $600,000 worth of Chinese hand tools, machine tools and scientific and medical instruments, and an exploratory purchase of a marine diesel engine was also concluded.

MINMETALS—Prices High

Prices of Chinese mineral and metal exports offered at the 40th CECF consistently topped prevailing world levels by wide margins, and hence constituted a serious impediment to active trade. Although some large orders were placed—particularly in tungsten and antimony—most US firms refrained from buying sizable quantities, and business volume consequently dropped far below that achieved either at the Spring 1976 fair or the Autumn 1975 fair.

The Chinese sold a total of $8.5 million worth of MINMETALS commodities, with the 40th CECF's single largest contract a Chinese sale of tungsten valued at approximately $2.0 million. Several purchases of antimony regulus in excess of $250,000 were made by US firms. In further transactions, Americans bought $1.5 million of antimony; $750,000 of antimony trioxide and $450,000 of zinc. Also purchased was ferro-tungsten, graphite, wolfram ore, and mercury. The latter, $500,000 worth, was sold for $106 per flask. Chinese marble was procured by one firm at a 'reasonable price' but mercury, offered at $106 per flask, found few buyers.

The closest MINMETALS came to meeting world price levels were offers for zinc at $0.30 per pound, a mere 8 percent above LMB quotations. Some US purchases were registered here. No major deals involving tin were concluded. Despite marked improvements in quality and quantity noted at recent fairs, gallium was "no longer available" to US buyers at the 40th CECF.

The corporation requested quotations from US firms for aluminum and steel scrap. While no contracts were concluded during the fair itself, interest in these commodities indicates probably Chinese purchases in the coming months. However, Chinese reluctance to enter into long-term arrangements with US exporters was still in evidence.

SINOCHEM—Chinese Buying Spree

The final two weeks of the 40th CECF witnessed a burst of Chinese purchases in a wide range of chemical and pharmaceutical lines. During the hectic Chinese buying spree, US firms sold approximately $6 million worth of chemicals, pharmaceuticals and medical instruments, including $1.5 million for plastics, $1 million for intermediates, $1.2 million for intermediates and petrochemicals, and $900,000 for plastics and intermediates. Trade was especially active in amines, plastics, glycerin, analgesics, antibiotics and animal health products—including feed additives. Agricultural chemicals were also high on the Chinese buying list, with a reported sale of fungicides and one of pesticides.

Two medical instruments sales were also reported, one of which was a pacemaker deal.

Chinese sales were plagued by limited quantities, with raw pharmaceuticals generally unavailable due to increased post-quake demand. China did not have much crude oil available, as it was needed principally for the domestic market. Total US purchases from the corporation were a mere $1.5 million. 完

EXPORTER'S NOTES

Briefly:

- ***US exports to China drop to $5.6 million in third quarter.***
- ***Chinese interested in buying heavy oil refining plants from West.***
- ***International Harvester sells tractor; International Video sells recorders.***
- ***China will consider new financing methods.***
- ***Agricultural mechanization exhibition in China possible by fall of 1977.***
- ***CDC computer approved for export.***

GENERAL

The third quarter of 1976 was bleak indeed for US exports. By the end of September total American exports to the PRC amounted to $125 million, down 37% from the $199 million exported to China in the same period of 1975. In fact, during the three months of the third quarter, the United States only shipped $5.6 million worth of merchandise to China, compared to $51.7 million sent during 1975's third quarter. The decline is partly due to the lack of agricultural exports, which though now stopped, accounted for many of the early US sales to China. However, there have been recurrent reports that China plans to reinstitute cotton purchases from the United States. **The situation for US exports could be worse, though.** If it weren't for the large equipment purchases—over $7 million for steam turbines and nearly $2 million dollars in off-highway trucks—in the first half of 1976, America's exports for the year might not have passed the $100 million dollar mark. Unfortunately, these heavy equipment sales are thought to be residual deliveries from early US contracts, such as WABCO's and Kellogg's signed in the initial years of rapproachment. **Barter agreements possible:** In 1975, China carried out barter agreements for both Romanian oil and Thai rice, but a recent report states that "a pay-back arrangement for raw materials-oriented production" was contemplated by West German and Chinese planners in October, 1975. The deal, which would have given China equipment to be financed by subsequent production, was never consummated although similar schemes have become common between East Europe and the West. **Heavy oil refining plants** are one of the main items on China's current shopping list. Rumor has it that the Chinese wish to employ Mobil or Caltex technology to produce and sell refined oil products. **China's purchases for the fifth Five Year Plan** (1976-1980), whatever they may be, should begin in the next few months, according to trade experts.

US SALES

International Harvester has sold a 60-hp tractor to the Chinese through its UK subsidiary. The sale of a model 574 tractor with an attaching model 1001 front end loader was initiated through a general product presentation by International Harvester's home office and its agent, East Asiatic. But when the Chinese indicated that they would be interested in comparatively small tractor units, IH recommended the model 574, produced at its Doncaster, England plant. Having left Great Britain in late September by ship, bound for Hsinkang, China, the equipment is suitable for field and transport work, though the Chinese may simply use it for trial purposes to determine the desirability of largescale purchases from IH. In addition to this sale, International Harvester officials estimate numerous IH trucks are currently being used in China, adapted for specialized functions in China's oil fields. **International Video Corporation makes sale to China's MACHIMPEX.** In its first announced sale, Sunnyvale, California-based International Video sold $200,000 worth of videotape recorders and timebased correction equipment to China. The equipment, negotiated between IVC-Asia and the Chinese, will be put to use in television studios in Peking and Kwangtung, according to a company spokesman. Originally announced in the September 27 issue of *Electronic News*, this contract may signal increased Chinese purchases in an area where China's industrial plants are deficient. In 1975, China purchased over $222,000 of television studio equipment outside of videotape, and in the first eight months of 1976, it bought another $100,000 worth.

PETROCHEMICAL FACILITIES

In recent trips observers have had several opportunities to observe some of China's modern petrochemical facilities. It has been found, for example, that the **Shanghai Petrochemical Plant** has two 50,000-ton and two 30,000-ton tanks for crude storage. Also included in the facility is a pier that can handle two 25,000 ton ships simultaneously. With six processes, the complex comprises ten separate plants including one for plastics, a low density poly-ethylene unit, three fiber facilities, and the refinery itself. There are also four auxiliary plants for electricity, maintenance, soil treatment, and water. In sum, the Shanghai Petrochemical plant has a 2.5 million ton annual (50,000 b/d) capacity. In another development, the **Nanking Petrochemical Works** has recently doubled its annual capacity to five million tons (100,000 b/d). (See Council Activities for report on Taching's refinery.)

FOREIGN EXHIBITIONS IN CHINA DURING 1976

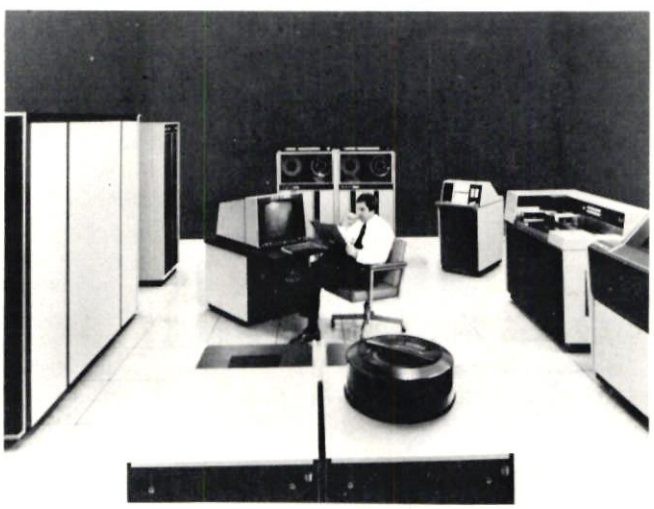
After the **Philippine** government's February 1976 opening of a trade house in Peking to display potential exports to China, the first major foreign exhibition in 1976 was organized by the **French Exhibition of Industrial and Scientific Instruments and Telecommunication.** Displayed in Peking's Exhibition Hall from March 19 to March 27 were a wide variety of electronic measurement instruments; medical electronic and radiology equipment; physiochemical analyzers; industrial control, automation and processing systems; nuclear instrumentation; data processing systems; telecommunications hardware; and miscellaneous industrial instrumentation. (For a complete list of participants and affiliated companies see *UCBR* Vol. 3 No. 3). The next industrial exhibition was sponsored by the Tools Association of **Yugoslavia** and the Feroelektro

Export-Import Enterprise of Sarajevo. Held during the first ten days of April, the show featured Yugoslavian **drills, cutters, spiral drills and electric tools** which have been sold to China at the rate of $1 million annually for the past fifteen years. The exhibition's participants hailed from 14 of Yugoslavia's 23 tool manufacturers. **The East German Technical Exhibition** was the next major show in China with its **electronic, automatic and scientific instruments.** During the course of a ten-day period (April 14-24), more than 30,000 Chinese toured the Shanghai-based display of optical, analytical, measuring, and surveying instruments; telecommunications equipment, electronic computers, and office equipment. The highlight of this year's exhibition season came in **Japan's exposition** of its latest **pollution-controlling** devices plus some hydraulic and **pneumatic** machinery, equipment, and related software data. With the permission of the China Council for the Promotion of International Trade, Japan's Association for the Promotion of International Trade sponsored the two-week Peking showing of the equipment. Although once delayed by the Tangshan earthquake in late July of this year, the exposition's several hundred exhibits, valued at approximately ¥600 million (US $2+ million), premiered on October 5 and represented some 97 Japanese concerns, 64 manufacturers and 32 traders. Almost 230 Japanese businessmen travelled to Peking to participate in the event. **A packing machinery and medical electronic hardware exhibit** was also held in Shanghai's exhibition hall this year. Opening on October 9, the **"Italian Autonomous Exhibition"** comprised 19 companies, some of which were from the Montedison group, and cover 1,840 square meters of the hall with machines and apparatus. This show, thought to have attracted some 50,000 Chinese, was the fourth exhibition held by Italian companies in China since 1972. **A Swedish Transport Equipment exhibition** was the next in this year's series of foreign exhibitions in China. With some 16 manufacturers from the Scandinavian country taking part, the exhibition was planned to stand from October 12 to 23. Organized by the China Council for the Promotion of International Trade, the companies shipped their goods—including lift lorriers, four-way lorries, timber loaders, mobile ancillary transport hadrware—to Peking via Shanghai on the ScanDutch Freighter *Hirado*. British sources reveal that an exhibition sponsored by **UK's Group 48** was to be held in Shanghai late in 1976. Items reported to be displayed included **industrial equipment and scientific instruments.** 1976 exhibition season's second to last show was a Hungarian display of **electronic instruments, automation devices, and telecommunications equipment.** The exhibition was held at Peking's Exhibition Center from October 27 to November 4. **A Norwegian furniture exhibition,** reported in China this November, ended the exhibition season. **1977's exhibitions** have not all been announced yet, but at least two are anticipated. First, Japan's Association for the Promotion of International Trade is presently organizing **a Japanese Shipbuilding Exhibition** to be held in Shanghai's Exhibition Hall from October 20 to November 3, 1977. The exhibition will feature equipment and material used on ships, including electronics; machinery used in the construction of ships, and displays by manufacturers, trading firms and other associations of Japanese origin. The companies however, will be allowed to exhibit American technololgy if it has been licensed or if the participating firm is a joint US-Japan concern. **An Agricultural Mechanization Equipment Exhibtion** with products from many nations was scheduled for early 1977, but it has now been delayed due to domestic politics. The exhibition, now considered likely to be rescheduled for the fall of 1977, would have been the first of its kind in China. According to the revised Five Year Plan, China is thought **prepared to make agricultural machinery a priority import** for the sake of total mechanization by 1980.

Report from Japan

China is willing to consider new proposals "outside of the traditional trade financing frameworks" for transactions between itself and Japan, according to Japan's Association for the Promotion of International Trade President Fujiyama, who conferred with Chinese leaders after the death of Chairman Mao. Although China has no "intention of obtaining loans from an international banking institute or from a foreign bank'" Fujiyama insisted that for the purposes of expanding trade the Chinese were interested in new channels for financing. **China's desire to redress deficits in trade** was also mentioned by the Japanese spokesman, but, he added, Chinese concern was from a long-term standpoint, thus possibly suggesting increased plant and equipment purchases by the Chinese to enhance their nation's ability to export manufactured goods to the Japanese. **Furthermore, Japan should attach more importance to technical exchange and plant export,** according to the Mr. Fujiyama who had left China the day before he made his statements at an October 12 press conference. The new foreign plants may be an integral part of China's fifth Five Year Plan, which, he learned in his trip, would stress the **construction of heavy and chemical industries** as well as the development of small scale rural industries. Also mentioned in the press account were adjustments in China's construction plans which now **emphasize the development of "natural resources, beginning with oil refining projects."** The Fujiyama news conference was covered extensively in Japan's *East-West Trade News*' October 20 edition. 完

Standard Cyber 172 computer like that sold to China by CDC.



CDC GETS THE GREEN LIGHT: EXPORT CONTROLS

In a flurry of headlines and press accounts, Control Data Corporation received permission from the US government, in October 1976, to sell two computers to the People's Republic of China. Some eighteen months after the original request for approval was submitted, the Minnesota-based computer manufacturer was authorized to send the computers to France where Compaignie Generale de Geophysique will adapt the units into an offshore seismic data collecting and prospecting center for shipment to China.

That the government has approved these two computers is significant in two ways. First, it reinforces the contention that China can become a major market for US petroleum industry equipment. In fact, this sale is at least the third instance in recent years of China's obtaining computer equipment for oil prospecting. As far back as October 1973, Houston's Geospace contracted to ship China $5.5 million of seismic surveying computer equipment including a Raytheon model 704 computer. In November 1975, another company made a $23 million deal with the Chinese for oil exploration equipment with computer components and intermediate software by New Jersey's Interdata Corp.

Unfortunately, the sophistication of the technology also stands in the way of future US sales to China. Besides foreshadowing sales possibilities, the CDC deal portends potential difficulties in future American firms' contracts with China. When a company wishes to make a communist country sale that has a possible strategic application, it must first obtain permission from the Commerce Department's Office of Export Controls. Since the Cyber 172 computers can be utilized to track ballistic missiles, CDC was required to seek such authorization in the spring of 1975.

After receiving a request for approval, the Office of Export Controls sets up an operating committee including technically trained personnel to determine if adequate safeguards can be provided for the equipment in question. Along with officials from the Department of Commerce, State and ERDA personnel contribute to the decision-making process as well as the Department of Defense, which is allowed the right to statutory veto under the Jackson amendment to the Department of Defense Appropriation Authorization Act of 1975, Public Law 93-365. If the operating committee is unable to reach a decision, as was true in the case of the CDC's petition, the matter is referred to the export administration review board where the Secretary of Commerce personally participates in the deliberations. Beyond this second review is the White House, to which a final appeal may be made. According to most press accounts, both the White House and the National Security Agency took part in the final decision to approve for the Cyber 172s. Once any embargoed good has received domestic approval, the company must still obtain approval from COCOM (a coordinating committee of representatives from all the NATO countries minus Iceland plus Japan) in Paris, but most participants agree that America's domestic clearance requirements are the major barrier to be crossed in high technology sales.

"It is disgusting," according to one American executive, "that it should take so long to receive an export license from the US government," and even Commerce officials admit that "the inter-agency approval method" is time consuming. The only area of agreement between the public and private authorities seems to be that the restrictions placed upon the CDC sale are entirely adequate. Although not all the details have been released to the press, the *New York Times* on October 29 reported that safeguards include "access by CDC personnel to computer centers and full information on computer use and programming." Furthermore, "one CDC official (will) be permitted at the first site (where seismic exploration is to be conducted) for three years and...one at the second site (an analysis center) for a limited period of time."

An executive from CDC announced that "routine safeguards would be in place," and an official from the Office of Export Controls added that the government has been "assured the precautions are adequate."

The crux of criticism of government behavior is that the controls are unnecessary. One businessman complained that the Chinese already have computer technology equivalent to American products such as the Cyber 172. Counters a government inspector, "whether they've got them or not, they still sure want ours." To prove its point, the Control Data Corporation went so far as to display an East German 1040 Ryad computer in Washington last year. According to company spokesmen, that computer, which is currently in use in China, rivals the Cyber 172 in every major respect. Other industrial experts deny the comparability and add that the Ryad series, was copied from IBM's 360 line of computers, a generation older than the current IBM 370 computer with which the Cyber 170 units now compete.

Another argument forwarded by businessmen is that even if the United States does deny technology exports to a domestic company, communist nations can still obtain the equipment from other industrialized nations. The example most often cited is the recent sale of Hitachi computers to Japan. In mid-summer of this year, that Japanese company announced that the Central Chinese Metereological Station had contracted to buy a Hitac M-160 II and a Hitac M-170 to be used in China's communications control apparatus for automated weather information systems. These Hitac models are considered to be Japan's answer to the IBM 370 series, making them at least as powerful as the Cyber 172s. Japanese government approval was received within a few months as opposed to the year and a half required for American authorization of the Cyber models. A CDC executive commented, "we could have had those sales, and it's our view that we would rather see those jobs here."

Still, there is apparently strong resistance within the United States—and especially within the Department of Defense—towards any technology sales to communist nations. Says one hard-liner, "it's just like Lenin said, 'When it comes time to hang the last capitalist, the old fool will sell you the rope'."

A just resolution for the problems of export controls is destined to become a major issue for both the legislative and executive branches in coming months, and next year, the *US-China Business Review* will devote a major article to studying the problem. Clearly, some changes will have to be made in a situation one frustrated official described as "without standard, impossible to anticipate, totally unpredictable, unnecessarily long, and tremendously burdensome." Another participant summarized the current condition: "I'm inclined to think you won't find unanimity on the questions involved." 完

IMPORTER'S NOTES

FAIRS—LARGE AND SMALL

Rumors of Annual Canton Fair Squashed. PRC authorities at the 40th Chinese Export Commodities Fair this fall emphatically denied to both National Council representatives and company buyers that the fair would become a once-a-year event. They assured American visitors that the upcoming Spring Fair will be held as always. Rumors had been rife during the summer months that the Chinese were seriously considering holding only one massive Canton Fair a year which would be supplemented by the increasingly popular "mini-fairs". Instead, the word is that the two fairs plus a variety of mini-fairs will be held each year. **More Mini-fairs Planned.** The Chinese indicated to Council representatives that the best times of year for the smaller specialized fairs are February-March and July-August, and that they plan to hold a number of such fairs during these periods in 1977.

BANKING ARRANGEMENTS

New Third Country Banks. The Bank of Bangkok and the Bank of Dresden, both in New York, have been added to the list of third country banks acceptable to the Chinese. **BOC Tie to US.** The Bank of Canton, one of the main banks in Hong Kong with which the Bank of China deals directly, is 69% owned by America's Security Pacific. The bank, one of the largest in Hong Kong, has assets of about HK $1.5 billion. It and the Bank of China exchange foreign currencies and work together with brokers.

COMMUNICATIONS AND TRANSPORTATION

Branch Offices in Canton Oversee Transportation. During the past year, a number of Chinese FTC's opened provincial branch offices in Canton; for instance, the Kwangsi Chuang Autonomous Region CEROILS branch has an office on Loh Nee San Road in Canton (see New Chinese FTC Addresses, 1976, UCBR 3:5). According to Chinese representatives at the Fall Canton Fair, the major responsibility of all provincial branch offices in Canton is to oversee transportation from China, although these offices do conclude some business on behalf of their principals in the provincial centers. The Chinese officials noted that not all of these Canton branch offices are new; several have been in existence for a number of years. **Send Cables when Shipments are Late!** Importers are continuing to request that Chinese FTC's inform them via cable of any delays in shipment of their goods. They ask that the Chinese respond to cables that they send asking for schedule information, even if these do not always bear good tidings.

CHEMICALS

New US Medical Instruments Regulations Will Affect Chinese Imports. Manufacturers of "medical devices" must register with the US government as of March 1976. The purpose of this FDA regulation is to ensure the safety of various medical devices. The ruling includes medical devices that do not touch the human body, such as those for testing blood samples and blood pressure. It will make importation of medical devices from China difficult unless the PRC takes steps to register its commodities subject to the regulation.

TEXTILES

The latest figures on cotton imports from China indicate that the decline in these imports has become a stable trend. While purchases from the PRC continue at a rate much above that for the comparable period last year, they are not nearly as large, nor as alarming, as the sudden influx last winter which threw the domestic industry into shock and led to strident calls for quotas. Newly released figures from the American Textile Manufacturers Institute (ATMI) for September reveal that for the January-September period this year, overall textile imports from China amounted to 123 million square yards equivalent (SYE), up 124% from the same time span in 1975. Of this total, 119.5 m. SYE consisted of cotton goods, up 118% over 1975. **Monthly Rate Continues to Drop.** Imports for the month of September were 11.2 million SYE overall, and 10.6 million SYE of cotton—slightly higher than the monthly totals for August, but lower than the totals for almost every month in 1976. While Chinese textile imports were entering the country at about 30 m. SYE per month at the end of 1975, and at about 12-14 SYE per month during the first half of this year, the rate has dropped even further—to approximately 11-12 SYE per month.

NEW PUBLICATION

The Old China Trade Businessmen who are involved in the China trade and who might like to get their children involved too, would do well to put a copy of *The Old China Trade: Americans in Canton, 1784-1843,* by Francis Ross Carpenter, under the Christmas tree this month. Meticulously researched by the associate director of the Museum of the American China Trade in Milton, Mass., this slim volume is also a charmingly written introduction to the fascinations of old Cathay. It is directed towards young people of junior high and high school age; however, the story is so well told that parents may find it difficult to put the book down. Tea, porcelain, and silk, traded for silver, furs, and the evil opium: the tale is richly woven, concluding with contributions of the old China trade to American life and to American perceptions of China. Illustrated by Demi Hitz. Published by Coward, McCann and Geoghegan, 200 Madison Ave., New York, NY 10016.

JEWELRY DELEGATION TOURS EAST AND WEST COASTS

The sixth Chinese import delegation, hosted by the National Council, visited four US cities for five weeks, from September 23 to October 30, 1976. While jewelry was the main item featured, the mission also introduced some straw goods and other arts and crafts. The four-member group from the China National Light Industrial Products Import and Export Corporation was led by Mrs. Wan Kuei-fang,

Deputy Manager of the Peking Jewelry Branch. Other members were Mrs. Wang Hsing-huan, also from the Peking Jewelry Branch; Mr. Sung Ming-cheng, straw goods representative from the head office of the light industrial corporation; Mr. Liu Wen-po, in charge of handicrafts for the Peking Arts and Crafts Branch.

The delegation brought a rich selection of samples, which were displayed in the showroom of Boxer and Ashfield during the New York portion of the trip. Boxer and Ashfield, a Council member, specializes in fine lacquered bamboo from Shanghai.

The jewelry exhibit included set semi-precious stones, Szechuan jade, serpentine, lapis lazuli, coral, tiger eye, amethyst, turquois, aventurine, and Hunan jade. These stones were used in rings, broaches, necklaces, bracelets and pendants. Also included in the jewelry selection were cloisonne beads, enamelled beads, gold findings, cinnabar, and gold and silver filagree work. No precious stones or other such expensive items were brought.

In addition to these pieces, the Chinese brought an unusual assortment of antique silver jewelry, some inlaid with jade or coral, circa 1840.

The smaller number of handicraft samples included some unusual reproductions of Chinese archeological finds, silk flowers, enamelled pill boxes, a few toys, antiques and antique embroidered cloths made from remnants of court robes and backed with new silk.

Because of the extremely limited number of straw items available from China, there was no display of straw, and only old customers were allowed to place orders.

The mission adhered to a strict schedule of negotiations and appointments, but did spend some time getting a better impression of various facets of the US jewelry market. While in New York, they visited Tiffany's, Saks Fifth Avenue, Bendels, Macy's, Korvette's and Woolworth's. They also toured the retail and wholesale area on West 47th St. In San Francisco, the group went to Gump's and to retail shops in Chinatown.

Some of the major points discussed by the delegation and the importers whom they met are detailed below:

Importers Only. One of the concerns on the part of old customers was that the delegation might open the Chinese jewelry market to buyers other than importers, thereby destroying the market. The delegation decided, as a result of preliminary talks with customers, to sell only to companies which are primarily importers.

Duty Rates. Jewelry importers constantly complain of high duty rates, often 80-100% ad. val., which makes it difficult to compete with Japan and other areas.

Catalogs. Customers often commented that the inclusion of prices in catalogs, as well as pictures of all items currently manufactured, would be highly desirable.

Minimum Orders. The request by delegation members that importers place minimum orders for everything they purchased caused a degree of consternation among some American buyers. They hope that there will be some flexibility in the future because a minimum order prevents variety in the purchase. If a wholesaler desires to purchase matching sets of jewelry he must buy large quantities of every item. He is investing large amounts of cash in merchandise which will move slowly in order to move a few immediately.

Cloisonne Vs. Enamel. For those buyers who are confused as to what constitutes the difference between cloisonne and enamel, cloisonne is always done on copper, and enamel on silver or gold plate.

Old Jade Carvings. For interested customers, these are sold by branches in Shanghai, Kwangtung, Tientsin and Peking. The Peking Jewelry Branch has the responsibility for marketing antique jade pieces.

Antiques and the Little Red Stamp. When seeking to buy antiques, an American importer must first let the Chinese know his price range, after which the seller in China chooses a variety of pieces and informs the buyer of the prices. A special antique export bureau carries out inspection, stamping those pieces which have been approved for export with a red stamp. Apparently, US Customs does not understand that the red stamp indicates the authenticity of the antique.

Breakage. Orders from Fukien Branch have the highest percentage of breakage, sometimes because of poor packing but also because the high humidity in the province, followed by lower humidity in the US, can cause cracking and splitting in wood objects and baskets. 完

Delegation members, with Liaison Office representative Li Wen-chun and Council escort officer Sally Winder, at Muir Woods outside San Francisco.

Lee Sobin, of Sobin Chemical's Friendship International Division, has been elected Chairman of the Steering Committee's Light Industry Sub-committee.

SHIPPING NOTES

Briefly:

- **Through-Container Service to Expand**
- **Freight Rate Hike Instituted**
- **China, Japan Exchange Shipping Reps**
- **Chinese Tanker Fleet Enlarges**
- **Shantung Builds Oil Terminal**
- **China, Japan Join in Air Cargo Venture**

Shipping notes is a new department, which will bring together information on shipping previously in international, economic and importers notes.

Through-Container Service to Expand. The "through-container" service instituted by Mitsui OSK Line and Kawasaki Kisen Kaisha, Ltd. (K Line) during the past year has been a success, according to New York spokesmen from both of these Japanese companies. Mitsui has recently expanded its operation, and although K Line has not yet taken this step, "things have been working out very, very well," comments its New York representative. A K Line official in Tokyo said the company hopes to expand its operation from semi-container to full-container "in the near future."

Under the "through-container" system (see UCBR 3:4), the two lines operate their own container feeder services from Hsinkang and Tsingtao (Mitsui) and Shanghai (K Line) to Kobe, where goods are transferred intact to another liner vessel for the voyage to the US—all under the same bill of lading. Mitsui, which had been making a twice-monthly turnaround from the ports of Hsinkang and Tsingtao to Kobe, has recently upped the number of voyages to three. Its 8,130 dwt, full container vessel, the *Osho Maru*, has just begun a monthly schedule as follows: Kobe-Hsinkang-Kobe-Tsingtao-Kobe-Hsinkang-Kobe. The *Osho Maru* carries no breakbulk cargo. An additional vessel, the 6,130 dwt *Kenkai Maru*, is currently carrying only breakbulk cargo to Hawaii and other countries' ports with the following schedule: Hong Kong-Tsingtao-Hsinkang-Hong Kong. Mitsui OSK's representative commented that "port congestion appears to have been reduced," noting this as one reason that the company has been able to increase the number of monthly turnarounds. **Freight Rates Up Steeply.** A new set of higher tariff rates became effective November 25 for all PRC merchandise transported to the US on Mitsui OSK Lines, and another will go into effect for K Line this month. Both lines conferred with PRC shipping officials in Peking, Mitsui in September and K Line in October. There is some speculation that the increase in freight rates was the direct result of extreme pressure from various industry groups in Japan, in order to protect home manufacturers from Chinese competition abroad.

The newly-metricated tariff which Mitsui OSK filed with the Federal Maritime Commission on October 26 will pass on some steep increases to American importers. Some examples are noted here:

Item	*Former Rate*	*Present Rate*
Rattan Ware	$42.75/40 cu. ft.	$59/cu. m. ($66.83/40 cu. ft.)
Cotton Apparel and Gray Goods	$56/40 cu. ft.	$72/cu. m. ($81.55/cu. ft.)
Tin	$52.25/long ton	$87/1000 kilos ($87.60/long ton)
Bristle	$98.25/40 cu. ft.	$111/cu. m. ($125.73/cu. ft.)

The new rates are not quite as high as they might appear at first glance: they include currency and bunker fees which were additional to the former rates (5% and $10/revenue ton). The destination delivery charge remains the same at $2.50, but the transshipment surcharge has been altered from $7/revenue ton to $22/1000 kilos—a substantial hike.

K Line has not yet released details of its rate agreement, but a Tokyo spokesman commented that even with the increase, the company would remain in the red. He noted that ZHONGZU has been very cooperative during the negotiations. **Documentation Hassles.** Importers are not the only ones to encounter difficulties owing to China's reluctance to conform to internationally acceptable documentation procedures. The Mitsui OSK representative has commented, "The China Ocean Shipping Agency (PENAVICO) is our agent. It works for us, and therefore should agree to mark documentation the way we need it." He singled out two particularly acute situations: the shipper's load and count and the numbering of the B/L's. For the **load and count,** he pointed out that China gives no indication of it, leaving the importer uninformed as to whether cargo will arrive containerized or breakbulk. Mitsui is often left with the responsibility of stripping containers at the pier—a costly process. The company has also encountered confusion when the PRC has repeated **B/L numbers** on different voyages, or for the same voyage but at different ports. Company officials have suggested that China adopt a standardized four letter, four-digit B/L number. The first two letters would represent the port of loading (e.g., HS for Hsinkang) and the last two the port of discharge (e.g. NY for New York). The four digits would represent the actual B/L number. The PRC response, sent by PENAVICO to Mitsui's Hong Kong office, has been that they do not want to alter already-used procedures. A K Line representative pointed out that the cargo shipping mark on the bill of lading is often too similar from B/L to B/L, and it is printed on only one side in very small letters. The shipper thus encounters problems sorting the merchandise. **China and Japan Exchange Shipping Reps.** Agreement at the government to government level was reached in early October for the China Ocean Shipping Company (COSCO) to open an office in Tokyo and for the Japanese to form an association of shipping companies which will designate a representative for Peking. Both representatives will be permitted to visit and survey a number of ports in their host countries. **Shanghai Shipping Exhibition** Japan's Osaka-based Asso-

ciation for the Promotion of International Trade will sponsor a shipbuilding and ship machinery exhibition in Shanghai in the fall of 1977, which will include electronic equipment used aboard ship. Fifty-to-sixty Japanese companies are expected to participate. **Chinese Tanker Fleet Enlarging Quickly.** Over the past two years the PRC has has built up its tanker fleet from virtually nothing to $1,346,232 dwt, according to the October issue of *Petroleum News*. The PRC currently owns 30 oil carriers, with at least five other Somali-registered vessels also under its control. China purchased 540,438 dwt from abroad in 1975, ranging in size from the 96,140 dwt *Pao Hu* (ex *Berge Bergesen*) to the 8,749 dwt *Yan Hu* (ex *Ocean Trader*). The price tag for the half million tons has been estimated by another source at a bargain $90 million total. Factors permitting China to so suddenly enlarge its tanker capacity were its exportation of crude and refined oil products to raise foreign currency (over 9 million tons each year to Hong Kong, Japan, the Philippines and Thailand) and its good fortune at hitting a buyers market, allowing it to search for the best combination of price and utility. Most of the purchases under 50,000 dwt each have been from Scandinavian countries. The PRC's major oil port, Chinhuangtao, has a very shallow drought which has sharply limited the size of ships servicing the oil trade. The *Petroleum News* contains a list of the Chinese tankers, including name, type, fuel, bunker capacity, builder, dwt, speed and other factors. **Tankers to Philippines.** Transportation for the Phillipines is in 20 m. DWT tankers chartered especially for the trade by Hong Kong based interests. One limiting factor is the capacity of shore storage at the loading port which also has led to a high level of demurrage. Movements of Shengli crude to the Philippines, where it is still blended at a 15% ratio with Persian Gulf crude, will probably be at the level of 700,000 to 1 million tons per year, depending upon the outcome of recent negotiations in Peking between PNOC and Sinochem.

Shantung Oil Terminal. A new deep-water oil terminal has been put into operation on Huangtao Island in the western part of the Chiaochow Gulf near the port of Tsingtao, according to an October report from Hsinhua News Agency. The project includes facilities to operate the four major systems of crude and fuel oil loading, water supply and effluent treatment, and a 1,260-meter-long high-rise pier jutting into the sea. The approach pier can accommodate a ferry launch and fire-fighting boat. The crude oil section has berths for a 50,000-ton and a 20,000-ton oil tanker on either flank. The fuel oil section has room for four oil barges and two large tugboats. The terminal, says Hsinhua, is expected to play a significant part in expanding China's crude oil transport capacity. The dispatch notes that the terminal was surveyed, designed and built entirely by Chinese workers using domestically produced materials.

A joint air cargo venture was established between the PRC and Japan in September. Involving 19 air cargo agents, the newly-formed Nitchu Aircargo Consolidators Co., Ltd. (NAC) will consolidate air cargo transported from Japan to China. The China National Foreign Trade Transportation Corporation has been appointed to serve as NAC's general agent in China. Reportedly, the firm is offering "relatively low" freight rates to shippers.

New Book on US Shipping. The newly-published "The United States Merchant Marine: A National Asset" by Irwin M. Heine is a useful addition to the libraries of traders seeking further understanding of the complexities of world maritime practice. Meticulously compiled by Mr. Heine, an internationally-known shipping authority, the book reviews policy and history of the US merchant marine, US shipping services, maritime labor, industries and administration. Of particular interest to businessmen in the China trade is the section on foreign trade, including concise explanations of liner services, irregular tramp services (of the type in which the PRC has been extensively involved), shipping conferences, freight rates and US foreign trade. Published by the National Maritime Council, P.O. Box 7345, Washington, D.C. 20044, July 1976. 完

PRC oil tanker, the *Taching 212*, docked at Whampoa.

CHINA ECONOMIC NOTES

From Chinese Media Reports

Briefly:

- ***China's economic growth faster than USA's or USSR's; physical volumes still lag behind.***
- ***1976 harvest "not looking good."***
- ***PRC timber production improving, but slowly.***
- ***Tangshan earthquake sets economy back.***

GENERAL

China's GNP has grown faster than Russia's or America's in the last decade, according to a report recently released by the United States government. As could be anticipated, China's physical output was substantially less than that of the other two major powers, but its total growth in production, as well as in each individual production line, was far greater than either the United States' or Russia's. Table 1 reveals China's emphasis on heavy industrial production such as trucks and buses, growing at 15.6% per annum since 1965, and cement, increasing at a healthy 10.1% per annum during the last ten years. **Less consistent growth, however, can be seen in consumer goods.** Although radio production grew at a dramatic 28.2% per annum, pushing absolute production well ahead of Russia's, other consumer lines such as woven cotton with a 1.7% yearly growth rate during 1965-75, were neglected by an economy hungry for industrialization. **But so far in 1976, growth of the Chinese economy has slackened.** NCNA accounts have placed industrial output up 7% over 1975 at mid-year, a substantial drop from the average annual industrial growth of 9.7% during the previous decade. Coal production, which enjoyed per annum increases averaging 12.6% from 1965 to 1975, was only up 8.2% in the first half of 1976 (over the same period in 1975). Contrary to this general trend is electric power output; growing at 11.2% from 1965 to 1975, it registered an 11% increase in January-June 1976. Crude oil production, a darling of Chinese industry with an average growth of over 21% during the last decade, could only boast a 10.3% p.a. increase for the first two quarters of 1976. **Building materials,** normally an accurate indicator of general economic trends, were reported to be up "to state quotas" by a late summer NCNA story; noticeably absent was any percentage increase over last year, further suggesting that industrial growth would decline this year. Nevertheless, the general forward momentum of the Chinese industrial sector is still strong, and the current pause could be overcome quickly. Caveat: all of these rates of increase reflect the condition of the Chinese economy **prior to the Tangshan earthquake, a significant enough disaster to affect this year's aggregate output,** especially in coal production, petroleum refining, steel output, and transportation efficiency. One measure of the severity of the earthquake is China's press coverage of the aftermath. On August 18, three weeks after the quake, the Tangshan Motor Vehicle Plant began production of "Anti-Quake" brand trucks; on August 25, the Tangshan Iron and Steel Company turned out its first heat of "anti-quake iron-will steel;" and on August 21, the workers of the Shenyang Railway Bureau Railway Repair Team reopened the Peking-Tangshan rail line. That the Chinese press chose to report this large recovery underscores the massive scope of the July 28 earthquake. The overall economic effect of the earthquake could be more than the equivalent of $5 billion in damages and lost output.

Table 1
ESTIMATED OUTPUT TRENDS IN CHINA, RUSSIA AND AMERICA

	USA		USSR		China	
Category	1975 Output	Average Growth 1965–75 (%)	1975 Output	Average Annual Growth 1965–75 (%)	1975 Output	Average Growth 1965–75 (%)
GNP– constant dollar equivalents (US $ billion)	1,498.8	2.5	865.3	4.3	229.4	6.3
Woven Cotton Fabrics (million square meters)	3,956	−7.3	6,635*	1.9	7,600	1.7
Trucks and Buses (Thousands of units)	2,272	2.6	763	6.3	145	15.6
Radio Receivers (thousand units)	34,516	−1.9	8,376	5.0	18,000	28.2
Cement Production (million metric tons)	63.2	−0.3	122	5.4	40	10.1

* million linear meters

Source: US Government.

Table 2

PRC: NET DELIVERIES OF TIMBER AND THEIR END USES (THOUSANDS m^3)

	Net Deliveries	Timber for Construction	Timber for Mining	Timber for Railroads	Timber for Paper	Miscellaneous End Uses
1949	5,670	2,325	1,096	1,790	191	268
1955	17,501	7,396	2,830	2,453	702	4,120
1960	28,668	11,754	6,439	2,411	1,222	6,842
1965	28,693	11,764	5,524	1,148	2,009	8,248
1970	29,875	12,249	6,680	1,321	2,790	6,835
1971	30,741	12,604	7,047	1,366	2,827	6,897
1972	33,320	13,661	7,270	1,660	3,128	7,601
1973	34,653	14,208	7,517	1,417	3,366	8,145
1974	35,743	14,655	7,672	1,048	3,627	8,741
1975	36,173	14,831	8,388	897	3,873	8,184

AGRICULTURE

"Overfilled state granaries" and "another bumper crop" have been reported in this fall's Chinese press. The telltale aggregate figures, however, are not expected to be announced until the last days of 1976. Meanwhile, observers at USDA take a slighter dimmer view of this year's Chinese agricultural output. **The crop this year "is not looking good,"** according to informed USDA officials. Handicapped by a rainy spring in the south of China, the early rice harvest was delayed, and the second planting was pushed back some two to three weeks. Severe frosts have also taken a toll. **In predicting the eventual outcome** of this year's harvest, some US government experts speculate that China's 1976 total grain yield will either be equal to or slightly short of 1975's estimated 270 million metric tons. This stagnation is attributed partly to the dampened rice harvest this spring. The purported weakness of the early rice is further supported by the curtailment of China's rice exports this year, exports traditionally taken from first crop surpluses. Other US government observers, however, have a much brighter view of China's grain prospects for 1976, and these views were fully discussed at the Council's agriculture conference in St. Louis.

TIMBER PRODUCTION

Timber delivered in China has been increasing at an average annual rate of 1.9% since 1970 to 1975's record of 36,173,000 m^3, according to a government October 1976 research aid which thoroughly examines "Timber Production and End Uses" in China. Besides presenting a consumption breakdown for timber in China (see Table 2), the study guide makes the following points:

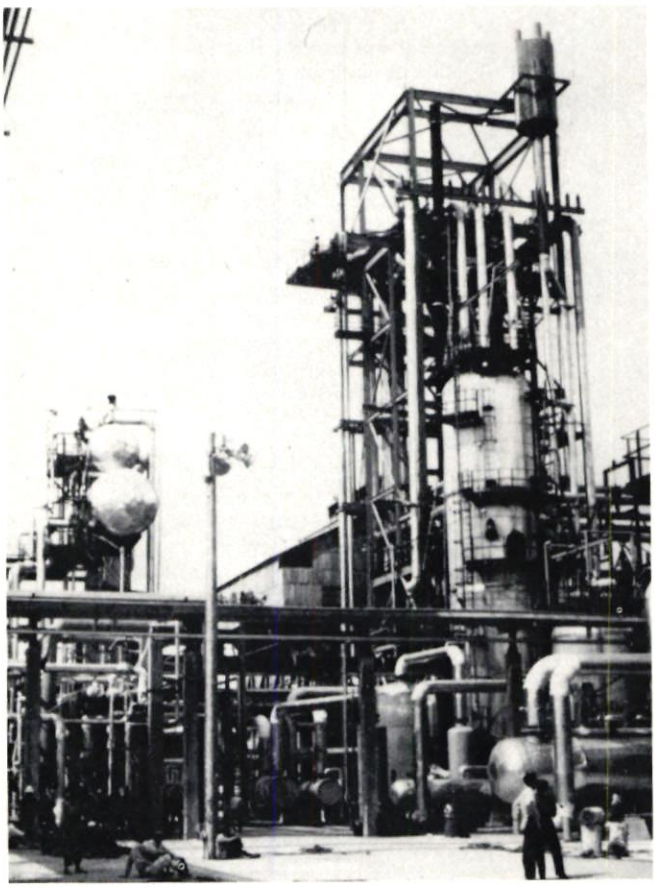
- From years of overcutting, China's forested acreage has been reduced to 0.13 hectares per capita compared with America's 1.3 hectare level. Due to this shortage, timber consumption per capita was only 0.39 m^3 per capita in China as opposed to 1.691 m^3 per capita in the US in 1973.
- The growth of China's timber production reflects a rapid rise of demand during the 1950s which was reduced in the 1960s when Chinese planners first recognized the dangers of overcutting. More recently, the fruits of early reforestation programs have pushed timber harvests since 1973 above the 1959 record output of 32,000,000 m^3.
- After postulating that construction in China accounts for roughly 41% of the net timber delivered, the researchers estimate that 23% went for mining purposes in 1975 (practically equal to the 22% used in 1970), 2.4% for railroads (down from 4.4% in 1970), 11% for paper, (up from 9.3% in 1970), and the remaining 23% for miscellaneous end uses.
- Several substitutes for timber have become popular in China during recent years. For instance, in mining concrete-filled bamboo is often used in place of wood. In railroad construction, cement ties have come into use as well as improved methods for preserving ties.

Assistant Secretary of Agriculture Richard Bell at the Council's agriculture conference.

Table 3
ESTIMATED ENERGY OUTPUT IN CHINA, RUSSIA, AND AMERICA

Category	USA 1975 Output	USA Average Annual Growth 1965–75 (%)	USSR 1975 Output	USSR Average Annual Growth 1965–75 (%)	China 1975 Output	China Average Annual Growth 1965–75 (%)
Primary Energy (Million metric ton coal equivalent)	2,267.2	2.1	1,593.2	5.4	473.7	9.0
Crude Oil (thousand barrels/day)	8,370	0.7	9,628	7.1	1,578	21.8
Natural Gas (Billion cubic meters)	569.17	2.3	289.3	8.5	34.6	14.2
Hard Coal (Million metric tons)	567.86	1.8	485.0	2.0	427.0	6.9
Brown Coal and Lignite (Million metric tons)	16.78	13.9	161.44	0.9	8.6	5.6
Electric Power (Billion kilowatt hours)	2,121.65	5.6	1,038	7.4	121	11.2
Installed Electric Power Generating Capacity (Million kilowatts)	524.27	7.5	218.0	6.6	34.0	11.2

The first two of Pullman Kellogg's fertilizer ammonia plants have gone onstream in the PRC.



ENERGY

The last decade has seen **China begin to close its energy gap** with Russia and the United States (see Table 3). In every category, except brown coal and lignite, Chinese production grew two and three times faster than the other two countries'. The most spectacular, as well as the most publicized, increase has come in the production of Chinese oil, growing at a rate of 21.8% annually, according to government experts. China's growth in this area however, has diminished somewhat this year, as NCNA reports announced only **10% growth in crude output** for the first six months of 1976. **In proved reserves,** the US agency found China to be the fourth largest possessor of coal deposits, but only the fourteenth most important crude oil region (See Table 4). **In oil refining capacity,** China ranks eleventh in the world. **Rate of coal production increase falls:** Although coal production was reported expanding during the first six months of this year at 7.6% (see *UCBR* Vol. 3, No. 5), a more recent *Ta Kung Pao* report of September 30 dropped that rate to 4.27% in the first nine months, perhaps due to **reversals at Tangshan mines,** the backbone of China's coal production. Such speculation is further suggested by another NCNA claim that coal production capacity has expanded 34.27% during the January-August period, i.e., **coal output is now well below full output capacity.** Despite apparent setbacks in the mines, technical advances have been reported in the past two months. For instance, a Harbin media account on October 7 announced that the Nanshan Coal Dressing Plant made **China's first coal flotator with jetting swirling stream,** a device capable of raising the rate of clean coal recovery by 10%. The machine

Table 4
CHINA'S ENERGY RANKING

Proved Reserves of Crude Oil (Million Barrels)	Proved Coal Reserves (Million Metric Tons)	Crude Oil Refining Capacity (Th. bbd, 1/1/76)
Saudi Arabia (170,000)	USA (363,560)	USA (15,075)
Kuwait (71,000)	USSR (273,200)	USSR (8,000)
Iran (64,000)	UK (98,880)	Japan (5,813)
USA (40,000)	China (80,000)	Italy (4,465)
USSR (36,000)		France (3,491)
Iraq (35,000)		W. Germany (3,171)
Abu Dhabi (30,000)		UK (3,048)
Libya (26,000)		Canada (2,076)
Mexico (20,000)		Netherlands (2,012)
Nigeria (20,000)		Venezuela (1,509)
UK (19,000)		China (1,460)
Indonesia (15,000)		
Venezuela (14,000)		
China (14,000)		

is now in serial production. Another first in coal equipment from the PRC is a **coalfield drill with a reach of 1500 meters,** turned out by Hopeh's Shihchiachuang Coal Mining Machinery Works.

STEEL AND IRON

Once again, China's steel and iron production has been growing faster than that of the United States or Russia; however, the absolute level of production is still considerably behind these two other nations' outputs, according to US government figures (see table 5). **China's leading steel center,** the Anshan Iron and Steel Company, surpassed its output quotas for the first half of 1976 in iron ore, sintered ore, metallurgical coke, steel, bloom and rolled steel, and other areas, claimed a mid-summer NCNA account. Moreover, the company has introduced 143 "major innovations" including continuous measurement of the molten steel temperatures in the converters during their life-spans without relining and the use of new furnace roof

Table 5
IRON AND STEEL IN CHINA, RUSSIA, AND AMERICA

	USA		USSR		China	
Category	1975 Output	Average Annual Growth 1965-75 (%)	1975 Output	Average Annual Growth 1965-75 (%)	1975 Output	Average Annual Growth 1965-75 (%)
Metallurgical Coke (Million metric tons)	51.9	−1.6	83.5	2.1	24.3	9.2
Pig Iron and Blast-Furnace Ferroalloys (Million metric tons)	72.5	−1.1	103.0	4.5	33.8	9.4
Crude Steel (Million metric tons)	105.9	−1.2	141.2	4.5	26.0	7.6
Iron Ore (Million metric tons)	81.6	−0.9	233.0	4.3	109.0	11.0

Source: US Government

Table 6
TRANSPORTATION IN CHINA, RUSSIA, AND AMERICA

Category	USA 1975	USA Average Annual Growth 1965-75 (%)	USSR 1975	USSR Average Annual Growth 1965-75 (%)	China 1975	China Average Annual Growth 1965-75 (%)
Railroad Freight (Billion metric tons-kilometers)	1,255.6	1.8	3,236.5	5.2	458.0	8.0
Motor Freight (Billion metric ton-kilometers)	723.0	2.1	338.0	8.9	15.6	8.3
Inventory of Mainline Locomotives (units)	30,220	0.1	34,770	2.6	7,900	3.9
Inventory of Freight Cars (thousand units)	1,752.4	−0.3	1,338.4	2.7	294	4.5
Inventory of Civilian Trucks (thousand units)	25,250	6.1	5,800	4.1	927	15.0
Inventory of Tanker Fleet (thousand DWT)	9,711	2.5	4,981	4.7	1,916	31.3
Inventory of Merchant Fleet (thousand DWT)	17,694	−4.6	15,353	6.8	6,082	18.9

Source: US Government.

bricks for open-hearth furnaces. In other related media reports, the Paotou Iron and Steel Company of Inner Mongolia was credited with having produced oil casing steel since the first of the year. Last April, the workers turned out **China's first heat of fine quality oil casing steel** while the seamless tubing plant workers manufactured the **first batch of standard oil casing.** Nevertheless, China steel output in 1976 will probably stagnate due to the damages of the Tangshan earthquake. On August 25, more than four weeks after the quake struck northeastern China, the official press revealed that the large **Tangshan Iron and Steel Works** was only operating at partial capacity. This report testifies to the serious damage done to the Tangshan facility which contributed some 3% (or 750,000 metric tons) of the nation's total crude steel output in 1975.

TRANSPORTATION AND COMMUNICATIONS

That China's transportation infrastructure has bottlenecked is clearly evidenced by the CIA's recent "Handbook on Economic Statistics." In every category from railroad freight to civilian trucks, China falls substantially behind the US and the USSR (see Table 6). At the same time, although China's transportation network is quantitatively deficient, its growth has outstripped Russian and American progress at every turn. For instance, **oil tanker inventory**—an important link in China's developing oil industry—has increased at an average annual rate of 31.3% since 1965. Even civilian trucks, small in number compared with the US stock, have grown at a highly respectable 15% per annum in the last decade. Regardless of trucks, tankers, and the merchant fleet (18.9% p.a.), other areas in China's system, although growing faster than the superpowers', do not equal the average rate of annual industrial expansion (estimated at 9.7% p.a. during 1965-1975). Consequently, increased efforts will be needed to unclog China's railroads and highways in coming years. Meanwhile, in China, an October 18 NCNA account boasted of **China's expanded shipping and merchant marine.** "Chinese maritime vessels," the article read, "visit 139 ports in 90 countries. These vessels include ships for general cargoes, bulk cargoes and minerals, oil tankers and passenger ships. They handled 71 percent of total foreign trade commodities in 1975, as against 12.3 percent in 1965." **The Civil Aviation Administration of China** (CAAC) has also expanded its services to 70 regular domestic flights to all major Chinese cities and international flights to 30 foreign countries. Further afield was China's August 30 launching of an earth satellite which was reported, by Chinese press accounts, to be "functioning normally." *Electronics,* in its September 30 international edition, reported "the satellite is believed to be a low-orbit spy type similar to the three launched last year to watch the . . . Sino-Soviet border. Photographs and other sensory data are expected to be retrieved upon landing, as with previous spy satellites." It was China's sixth satellite launch. Closer to home, a Chinese language broadcast to Southeast Asia on October 13 revealed that China has completed a **microwave communications trunk line** linking Peking to more than 20 provinces, municipalities and autonomous regions. With complete sets of 967-channel transistorized and 600-channel electronic-tube microwave communications equipment, the trunk line was designed to handle 600 to 960 units of traffic or to relay television channels. Along the same lines, workers at the Wuhan Experimental Factory succeeded in producing **China's first color videotape,** according to a September 16 *Ta Kung Pao* article. In addition, **forty-seven new films** have been released in China during the campaign to criticize Teng Hsiao-ping, says an NCNA report of September 30. Of the films, ten are in color including *Song of the New Workstyle* and *Song of the Mangoes.* Also noted in current press accounts is an increase in the number of novels published, 117 in the last three years alone by the People's Literature Publishing House. 完

CHINA INTERNATIONAL NOTES

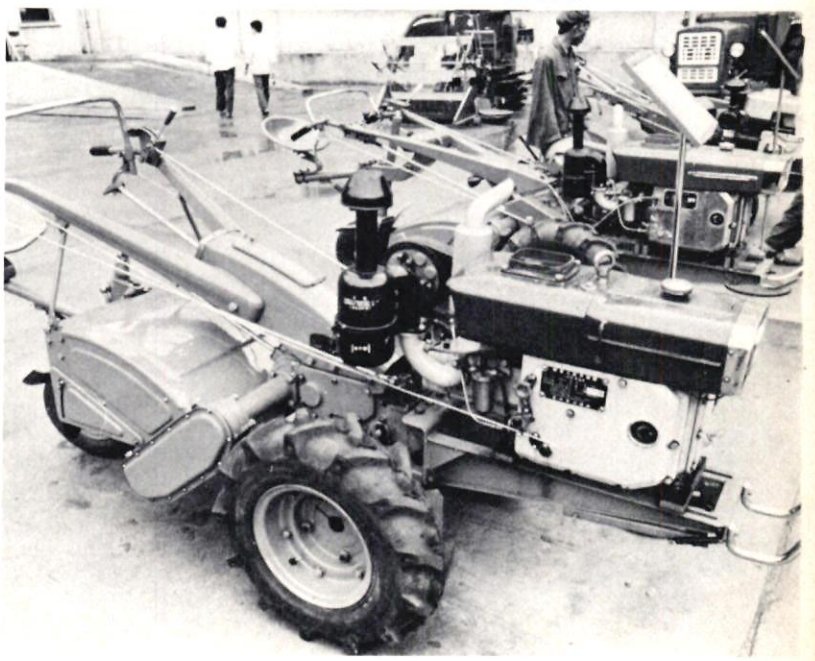
CHINA BUYING REPORTS

Steel imports from Japan for November 1976–March 1977 will swell to 1.3-1.5 million tons from 650,000 tons for the first half of this fiscal year, according to a steel industry mission which returned from Japan in late October. Contracts were signed on a cash payment basis, with prices up to about $20 per ton depending on the type of steel product. 708,000 tons will be imported from November-January, including 140,000 tons of heavy-medium plates, 130,000 tons of cold rolled sheets, 100,000 tons of hot coils, 18,000 tons of galvanized steel sheets, 8,000 tons of electrolytic tin plates, 32,000 tons of electrical sheets, 150,000 tons of wire rods, 100,000 tons of seamless pipes, and 30,000 tons of other products. Negotiations were completed in a record period of only two weeks. **China will continue to buy Canadian grain** after the expiration this year of the three-year wheat agreement, Chinese officials have informed the Canadians. However, no indication was given as to whether the three-year agreement will be renewed or whether future purchases will be made on a spot basis. China has bought over five million tons of wheat from Canada, her main supplier. **China bought German helicopters**—four BO-105 models from Messerschmitt-Bolkow-Blohm—to be used in offshore oil refueling operations. The Germans hope to sell 15 more. The units contracted for thus far cost $581,000. **Japanese PVC resin exporters** announced at the end of October that they have concluded an agreement for the export of 3,000 tons of PVC resin to China. So far this year, China has signed contracts to import 8,700 tons. PVC makers sent another negotiating team to Peking at the end of November to settle on quantities for the second half of the fiscal year. **The PRC ordered two sets of power generation equipment** from Yanmar Diesel Co., Ltd. for a value of US$520,000. The machines purchased are one 1,050-hp diesel engine and one 1,100-hp version, both of the 6GL series. They were developed for marine use, but can be suitable for land. **Iraqi Dates.** China concluded a contract in September with the Iraqi Dates Organization for the import of over 100,000 tons of the fruit. **Machine Tools Made in Japan.** China is becoming a significant part of the Japanese export trade in machine tools, according to Terutaki Sakurai, director of the Japan Machine Tool Trade Association. However, he points out that the PRC buys units that are difficult to make such as n/c (numerically controlled) machining centers, n/c lathes and special grinders. **The Chinese have inquired about auto parts** worth 100 million yen from the Japanese company Toyoda Tsusho. The company hopes to formalize a contract by the end of this year.

CHINA SELLING REPORTS

Chinese oil for Hong Kong is expected to be upped this year 20% over last year, based on projections from January-June figures. During the first half of 1976, $25.2 million was bought as compared to $21 million for the same period in 1975. Of Hong Kong's total 1975 oil impots, over 10%, estimated at $40 million, was from China. The city has become the largest market for Chinese refined petroleum products. The China Resources Company is planning to build three large oil storage tanks at Fo Tan industrial area near Shatin. A beach area at the southern tip of Tsing Yi will be set aside for the construction of a pier for PRC oil tankers. **PRC gasoline** is being sold direct to Hong Kong motorists for the first time. The Hong Kong-registered Far East Overseas Oil Company (FEOSO), which has opened the stations, expects at the outset to sell more than 100,000 gallons of gasoline and diesel oil from China each month. **UK quotas** on two Chinese imports were imposed in the early fall—on synthetic shirts and on alarm clocks. Following a six-month surge in shirt imports which turned China into the third largest supplier to Britain, the UK Department of Trade announced a quota of 450,000 for 1976. By June, 430,548 had already been purchased. To protect British clockmakers, an extra charge of 90 pence was added to PRC-produced clocks in September. **Pakistan is buying 2,000 tractors** of the two-wheel power tiller type from China under barter, according to a late September report from Karachi. China will also send experts to provide service and hold demonstrations of the power tillers in different regions of the country. **Japan's crude imports** from Taching in August rose by 51% from July to reach the year's high of 841,900 kiloliters, according to the Ministry of Trade and Industry (MITI) in Japan. The increase in shipments was made possible through use of a 100,000 dwt berth at the port of Talien which went into operation in mid-July. It is now expected 1976 shipments will reach 7 million tons. **Chinese wattmeters** are gaining interested markets in Southeast Asian and Mid-Eastern markets, according to a source in the electric manufacturing industry. The PRC has won some orders from Pakistan and Kuwait, offering a per-unit price of $4-5, half of the $10 price quoted

Chinese two-wheel tractor shown at Canton Fair.



RMB: DOLLAR RATES AS OF NOVEMBER 1976

Date		RMB/US$	US¢/RMB	RMB/US$ % Change
May 18	Bid	1.9789	50.3331	
	Offer	1.9691	50.7846	
	Median	1.9740	50.6596	+0.50
June 8	Bid	1.9710	50.7357	
	Offer	1.9612	50.9892	
	Median	1.9661	50.8621	−0.40
June 29	Bid	1.9651	50.8880	
	Offer	1.9553	51.1430	
	Median	1.9602	51.0152	−0.30
July 15	Bid	1.9553	51.1430	
	Offer	1.9455	51.4007	
	Median	1.9504	51.2715	−0.50
July 17	Bid	1.9612	50.9892	
	Offer	1.9514	51.2453	
	Median	1.9563	51.1169	+0.30
July 29	Bid	1.9534	51.1928	
	Offer	1.9436	51.4509	
	Median	1.9485	51.3215	−0.40
August 17	Bid	1.9436	51.4509	
	Offer	1.9340	51.1706	
	Median	1.9388	51.3136	−0.05
August 18	Bid	1.9320	51.7598	
	Offer	1.9224	52.0183	
	Median	1.9272	51.8888	−0.6
September 10	Bid	1.9224	52.0183	
	Offer	1.9128	52.2794	
	Median	1.9176	52.1485	−0.50
October 4	Bid	1.9070	52.4384	
	Offer	1.8974	52.7037	
	Median	1.9022	52.5707	−0.80
October 7	Bid	1.9079	52.4136	
	Offer	1.8983	52.6787	
	Median	1.9031	52.5458	+0.05
October 9	Bid	1.9136	52.2575	
	Offer	1.9040	52.5210	
	Median	1.9088	52.3889	+0.30
October 19	Bid	1.9251	51.9454	
	Offer	1.9155	52.2057	
	Median	1.9203	52.0752	+0.60
October 20	Bid	1.9193	52.3752	
	Offer	1.9097	52.3642	
	Median	1.9095	52.3697	−0.56
October 21	Bid	1.9136	52.2575	
	Offer	1.9040	52.5210	
	Median	1.9088	52.3889	−0.04
October 26	Bid	1.9060	52.4659	
	Offer	1.8964	52.7315	
	Median	1.9012	52.5984	−0.40
November 4	Bid	1.9002	52.6260	
	Offer	1.8908	52.8877	
	Median	1.8955	52.7565	−0.30
November 5	Bid	1.9098	52.3615	
	Offer	1.9002	52.6260	
	Median	1.9050	52.4934	+0.50

Source: NCUSCT based on data from Standard Chartered Bank, Inc.

by Japanese and Western makers. **Bear paws,** a rare delicacy used in Chinese cooking, are being imported to Japan for the first time in six years, after a relaxation of hunting restrictions in the PRC. A 300-kilogram shipment of refrigerated front and rear paws from 80 to 90 bears will be sold to Osaka and Tokyo Chinese restaurants. **Paraffin wax** is no longer being supplied to Hong Kong. Possible reasons might be problems with crude or diversion of supplies to Vietnam.

AIR AND COMMUNICATIONS

China-Thai Air Link? The PRC and Thailand have both expressed interest in negotiations to establish an airline link between Peking and Bangkok, according to an October report. Thai overtures have apparently elicited a "positive" response from the Chinese concerning the possibility of preliminary talks to open the way for eventual bilateral negotiations. Several economic and political problems have to be solved first, of course, including the question of the current air link between Thailand and Taiwan. **Nepalese Parcel Post.** Nepal and China opened a parcel post service by surface route on September 15. **A China-Japan undersea cable opened** on October 25 with a ceremony held simultaneously in Peking and Tokyo. The 480-line, 850 kilometer cable was constructed at a cost of 6,000 million yen and connects Shanghai with Amakusa, Kyushu. It was built in accordance with an agreement between the Telegraph Control Bureau of the Shanghai Municipal Government and the Kokusai Denshin Denwa of Japan.

FOREIGN AID

AFGHANISTAN, 10/12/76, Expansion project of the Bagrami **textile mill** was completed and put into operation, including installation of 240 new automatic looms.

ALBANIA, 10/26/76, PRC-aided **steel works** reported completed at Elbasan metallurgical combine. Includes Vessemer converter.

ETHIOPIA, 9/5/76, First of eight planned **diesel power plants,** this one located at the town of Fitche, Shao Administrative Region, was inaugurated.

ETHIOPIA, 10/14/76, A **water supply project** at the town of Maichew was completed as part of a two-year effort by Chinese and Ethiopian technicians to drill wells and set up water supply systems.

GAMBIA, 9/9/76, Donation of 500 tons of **rice** was made by the Chinese Red Cross Society.

MADAGASCAR, 9/76, A **sugar factory** with a planned daily production of 100 tons was agreed to.

MOZAMBIQUE, 9/20/76, China announced it will send 38 tones of **medicines,** including 1,300 cases of hospital equipment and instruments.

PAKISTAN, 9/8/76, Confirmation of discovery of 5,700,000 tons of **iron ore deposits** in Baluchistan Province by Chinese and Pakistani experts.

SIERRA LEONE, 10/13/76, Construction continues on the Kambia highway bridge with the assistance of Chinese workers.

TANZANIA, 9/18/76, A modern **pharmaceutical plant** donated by China has opened in Dar es Salaam, will produce 32 medicines. China provided all equipment.

TANZANIA, 9/3/76, **Military academy** built with Chinese assistance was handed over at ceremony in Monduli.

ZAIRE, 9/25/76, With help of Chinese agrotechnicians, **cattle** have been tamed to till for the first time on the Ruzizi plain.

SELECTED CHINESE EXHIBITIONS ABROAD

(See Exporter's Notes for foreign exhibitions in China)

AUSTRIA, 9/8-12/76, 104th Vienna International Fair, in which the PRC participated for the fifth time, displaying mainly **textiles and light industrial goods.**

GREECE, 10/5/76, 41st Salonika International Trade Fair. The 500 square-meter Chinese pavilian featured **light industrial products, textiles and handicrafts.**

JAPAN, 5/3-23/77, A Chinese fair is scheduled to run for three weeks in Nagoya, highlighting **industrial, agricultural and cultural** areas.

MALTA, 8/10/76, 20th Malta International Fair, featuring **light industry, textiles and art objects.**

MEXICO, 9/26/76, Chinese **handicraft art** exhibition in Guadalajara, sponsored by Mexico's Museum of Anthropology and History.

PAPUA NEW GUINEA, 10/1/76, Chinese **economic and trade exhibition,** displaying agricultural, light industrial and heavy industrial products.

PHILIPPINES, 10/7-11/3/76, Chinese **trade exhibition** in Manila, including items in the fields of science, agriculture, trade and light and heavy industry. This exhibition was the first the PRC has held in Philippines, and occupied over 7,000 square meters.

SYRIA, 8/8/76, 23rd Damascus **International Fair,** at which China had a pavilion.

TRINIDAD-TOBAGO, 10/16/76, Chinese **economic and trade exhibition.**

SELECTED DELEGATIONS TO CHINA

ALBANIA, 9/24/76, **Metallurgical working group** visited Shanghai, Anhwei, Chekiang, Shantung, Shensi.

AUSTRALIA, 10/19/76, **Coal** industry mission.

AUSTRIA, 10/14/76, Government **economic delegation** hosted by CCPIT held talks with FTCs.

BENIN, 10/12/76, **Agricultural** delegation.

HUNGARY, 10/17/76, **Scientific** and **technical** cooperation mission attended 15th meeting of the Sino-Hungarian Commission for Scientific and Technical Cooperation.

INTERNATIONAL RICE RESEARCH INSTITUTE, 10/12/76, **Rice research** team invited by the Chinese Society of Agronomy for "special study and friendship visit." (NCNA, Peking, 10/12/76)

JAPAN, 11/5-11/76, **Shipbuilding delegation** sponsored by Association for the Promotion of International Trade (Kokubosoku) surveyed shipbuilding conditions in the PRC. It included technical directors of seven firms.

JAPAN, 10/2/76, **Friendship** delegation from the All-Japan Agricultural Congress Society.

JAPAN, 10/4/76, **Steelmakers** mission held talks on rolled carbon steel exports. Companies were Nippon Steel, Nippon Kokan K.K., Sumitomo Metal Industries, Ltd., Kawasaki Steel Corporation, and Kobe Steel, Ltd.

JAPAN, 10/11-19/76, **Bank of Tokyo** mission headed by bank President Soichiro Yokoyama.

JAPAN, 10/7-19/76, **Soybean paste** makers held talks on importing Chinese soybeans.

JAPAN, 10/76, Kokubosoku mission made up of **trading company and bank executives** discussed ways to balance trade between the two countries.

JAPAN, 9/20/76, **Welding Society** delegation visited shipyards and boiler factories.

JAPAN, 11/1-15/76, Delegation from the **National Federation of Bankers' Associations** at the invitation of the Bank of China discussed economic, financial and exchange questions.

JAPAN, 10/4/76, **Kokubosoku** delegation of company executives discussed future Sino-Japanese economic relations.

MEXICO, 10/6/76, **Petroleum delegation** visited Taching oilfields, held talks.

NEPAL, 9/76, **Banking delegation** hosted by the Bank of China.

NIGERIA, 10/10/76, **Petroleum** technical delegation hosted by the Chinese Ministry of Petroleum and Chemical Industries.

RWANDA, 10/11/76, **Government trade** delegation.

SWEDEN, 8/76, **Offset technology** group from Solna Offset held two-week lecture tour on Swedish innovations in offset press design.

SWEDEN, 10/10/76, **Trade delegation** opened Swedish **transportation equipment** exhibition.

SWITZERLAND, 9/26/76, **Trade group** hosted by CCPIT met President Wang Yao-ting of CCPIT.

UNITED KINGDOM, 9/76, **Engineering** companies mission from the Federation of Manufacturers of Construction Equipment.

ZAIRE, 10/14/76, **Science** delegation.

ZAMBIA, 10/12/76, **Government trade** group led by the Minister of Commerce.

SELECTED CHINESE DELEGATIONS ABROAD

BOTSWANA, 9/29/76, Government delegation led by Minister of Commerce Fan Tze-yu.

GREECE, 6/18-26/76, Government **trade** delegation attended first session of Sino-Greek joint trade committee. Sino-Greek trade and payments agreement amended.

JAPAN, 8/20/76, Government **shipping** delegation led by Chang Kung-chen, Director of Ocean Shipping Bureau of Ministry of Communications.

MEXICO, 8/23/76, Three **petroleum** study groups spent a month surveying that country's oil industry.

PAPUA NEW GUINEA, 9/15/76, **Exhibition** delegation led by Wang Wen-lin, Vice Chairman of CCPIT.

PHILIPPINES, 9/15/76, **Exhibition** delegation led by Li Chuan, Vice Chairman of CCPIT.

SCANDINAVIA, 9/1/76, **Forestry** study group began tour of Denmark, Finland, Norway and Sweden.

SWEDEN, 8/11/76, **Environmental sciences** group of the Chinese Academy of Sciences, led by Chu Pao-lin, of Talien Institute of Chemical Physics.

UNITED KINGDOM, 9/76, Group from Chinese **Coal** Society made up of seven **hydraulics** specialists.

UNITED KINGDOM, 10/11/76, **Communications satellite** mission went through briefings, talks with manufacturers of civil aircraft components.

UNITED NATIONS ESCAP AND UNCTAD, 10/7-10/76, Delegates from China attended meeting in Bangladesh with Burma, India, Indonesia, Nepal and Thailand.

UN CONFERENCE ON THE LAW OF THE SEA, 8/76,

Delegation from China attended the fifth session of this conference.

AGREEMENTS

AFGHANISTAN, 9/8/76, Protocol for the building of a 25,000-spindle **cotton textile printing and dyeing mill** with a daily capacity of eight tons.

BOTSWANA, 8/8/76, Agreement on **economic and technical** cooperation. Signed by Premier Hua Kuo-feng and Botswana President Seretse Khama in Peking.

CAMBODIA, 8/28/76, **Trade** agreement for which no details were revealed. Signed by Chinese embassy officials and Cambodian Deputy Prime Minister for the economy Vorn Vet, in Pnompenh.

CAMEROON AND CHAD, 8/29/76, Protocol on the construction of a **highway bridge** over the Chari River linking Ndjamena, Chad and Kousseri, Cameroon.

GAMBIA, 8/11/76, Protocol on the dispatch of a Chinese **medical** team.

GREECE, 6/26/76, Amendment of **trade and payments** agreement.

JAMAICA, 10/76, Agreements for increased bilateral **trade, technical aid and machinery** from China for a $14.3 million textile factory, and an interest free loan for Jamaica's purchase of 5,000 tons of rice.

WESTERN SAMOA, 9/8/76, Agreement on **economic and technical** cooperation. In attendance: Premier Hua Kuo-feng and His Highness Malietoa Tanumafili II of Western Samoa.

MISCELLANEOUS

China's January-June trade turnover with 21 principal trade partners in the world totalled $4,895,900,000, up 5.3% over the same period last year, according to a report by the Japan External Trade Organization (JETRO) released in October. In the export category, trade was $2,100,820,000, an increase of 10.7%, and in the import category, it amounted to $2,795,080,000, a rise of 1.6%. JETRO noted that for this time span, China's exports to Hong Kong surpassed those to Japan, making Hong Kong the PRC's biggest customer. **China's external trade deficit narrowed** substantially in the first half of the year, from $852.8 million to $694.2 million, JETRO further reported. **Hong Kong's re-exports of Chinese commodities** soared 67% to $763 million in the first four months of 1976, according to an August report. **China at Silk Congress:** China attended the annual International Silk Association Congress in Como, Italy from September 21-24, which included representatives from 15 countries. **INTELSAT welcomes PRC.** At its second assembly, held in Nairobi on October 1, the International Telecommunications Satellite Organization (INTELSAT) invited China to join its ranks. The PRC, presently using 50 INTELSAT circuits on a non-member basis, has not yet accepted the offer although it is expected to do so in the near future. The resolution was sponsored by Pakistan, Algeria, Sri Lanka, Tanzania, Yugoslavia, Zambia, Ethiopia, Kuwait, Bangladesh and Uganda. **Bilateral trade with Japan:** For the first half of the year, Japanese exports to China amounted to $1,079 million, down 4.4% from the same period last year, and imports declined to $602 million, down 9.7%. 完

CHINA TRADE REPRESENTATIVES IN THE US

Additional Listings

Sobin Chemicals, Inc.
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Boston, Massachusetts 02210
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TWX 710-321-1156
Cables: IRSOBIN BOSTON
In Hong Kong:
Sobin Chemicals (Asia/Pacific) Ltd.
Gammon House
Harcourt Road
Hong Kong
Telephone: 5255161/3
Telex: 83767 SOBIN HX

Date Established: 1922.

Principals:

JULIAN M. SOBIN, President—Mr. Sobin was the first American businessman invited to Peking in April 1972, and has visited China on ten occasions. Mr. Sobin was a member of President Kennedy's Roster of Technical Specialists for International Trade, President Johnson's Advisory Committee on National Trade Policy, and presently is a member of the Department of Commerce Advisory Committee on East-West Trade. Mr. Sobin is a Corporate Senior Vice President of International Minerals & Chemical Corporation, and Executive Vice President of IMC Chemical Group, Inc., which has an annual turnover of about $275 million, 3500 employees, and 23 plants in five countries.

KEITH S. WOOD, Senior Vice President—Mr. Wood joined Sobin Chemicals in 1952, and has visited the People's Republic of China four times. Mr. Wood is also a Vice President, International Development and Petrochemical Trading, of IMC Chemical Group, Inc.

LACHLAN MAC LEAN, Vice President, International Operations—Scottish-born, Mr. MacLean has visited the People's Republic of China on twelve occasions. He is also Director of Overseas Marketing of IMC Chemical Group, Inc.

MICHAEL J. SAUNDERS, Managing Director, Sobin Chemicals (Asia/Pacific) Ltd.—British-born, Mr. Saunders is also Managing Director of IMC Chemical Group, Inc. (Asia/Pacific) Ltd., based in Hong Kong, and has made eighteen trips to China.

ANDREW CHAO, Regional Manager, Asia/Pacific—Mr. Chao was born in China and educated in Hong Kong and the United States. An experienced China trader, he has attended the Kwangchow Trade Fair four times.

JAMES HO, Marketing Manager—Mr. Ho has a Ph.D. in Chemistry and, prior to joining Sobin Chemicals (Asia/Pacific) Ltd. in Hong Kong, was employed by Dow Chemical Company.

Types of Services:

As principal, buys and sells chemicals, minerals and metals, from the appropriate Foreign Trade Corporations, along with allied products from Native Produce, Machinery, and Cereals and Oils Corporations. Representative of major U.S. chemical, engineering, food processing, mineral and ore beneficiating firms for product purchase and sales, plants, and technology. Exclusive authorized importer and distributor of Chinese acupuncture models in the United States, owning Chinese brand names on human and horse model kits.

Clients:

Major chemical, fertilizer, and industrial manufacturers world-wide.

Comments:

Since April of 1972, Sobin Chemicals, Inc. has negotiated with the PRC for its own account more than 200 contracts, about equally divided between buying and selling, totaling more than $40 million.

Friendship International Corporation
(Subsidiary of Sobin Chemicals, Inc.)
Sobin Park
Boston, Massachusetts 02210
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TWX 710-321-1156
Cable: IRSOBIN BOSTON

Date Established: April 1972 in Kwangchow.

Principals:

MRS. LEE F. SOBIN, General Manager—Mrs. Sobin is possibly the only American business person to attend every one of the ten Kwangchow Trade Fairs since the Spring of 1972. She has also visited Peking, Shanghai, Wuhsi, and Soochow for business reasons. Along with her husband, Julian M. Sobin, she has written and lectured extensively on the intellectualization of Sino-American trade, and wrote a chapter in William W. Whitson's book, *Doing Business With China: American Trade Opportunities in the 1970s.* Mrs. Sobin is a member of the Importers Steering Committee and Chairperson of the Light Industrial Subcommittee of the National Council for U.S.-China Trade.

ROBYN S. KRAVIT, Assistant Manager—Ms. Kravit was awarded her Master's Degree in East Asian Studies from Harvard University in 1975. She speaks fluent Mandarin and attended the Spring 1976 Kwangchow Trade Fair.

TOMMIE SUTANU, Supervisor—A graduate of the Shanghai Foreign Trade Institute, Mr. Sutanu served later with the China National Light Industrial Products Import and Export Corporation before moving to Hong Kong and eventually joining Sobin Chemicals (Asia/Pacific) Ltd. to coordinate Friendship's services in Hong Kong.

Types of Services:

As principal, trades with China in non-chemical raw materials and consumer items. Represents numerous corporations in their non-chemical trading with the PRC. 完

* For other listings see *UCBR* Vol 3 No. 5 pp. 23-30.

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FULL MEMBERSHIP

Membership in the National Council for United States-China Trade is open to American firms interested in doing business with the People's Republic of China. The principal categories of membership are (1) corporations or business entities with sales or gross income equal to or greater than $50 million for the fiscal year immediately preceding the date of application for membership, for whom the annual dues are $2,500; (2) those with sales or gross income of between $20 million and $50 million for the fiscal year immediately preceding the date of application for membership, for whom the annual dues are $1,000; and (3) those with sales or gross income of less than $20 million for the fiscal year immediately preceding the date of application for membership, for whom the annual dues are $500.

IMPORTERS AFFILIATE MEMBERSHIP

In a special effort to assist smaller American firms interested in importing goods from China, the National Council has a special category of affiliated membership. Companies engaged primarily in importing, and having sales or gross income of less than $10 million in the year immediately preceding the date of application for membership, may join the National Council upon payment of annual dues of $250.

Importers in the National Council constitute a special committee whose activities are designed not only to acquaint importers and potential importers with Chinese manufacturing, sales and trading practices, but also to aid the Chinese Foreign Trade Corporations in understanding the import regulations, consumer tastes and other market conditions in the United States.