A BRILLIANT DECADE OF HARBOR CONSTRUCTION
IN OUR COUNTRY

(This is a translation of an article written by Sun Tu
which appears in Ti-li Chih-shih (Geographic Knowledge),
No 10, 6 October 1959, pages 441-443 and 446.)

The Booming New Undertaking

In a short span of ten years what a great change has taken
plane on the map of China's maritime transportation—in the
Gulf of Po Hai, along the South China Sea coast and along
the Yangtze River! The newly constructed, expanded or re-
built sea and river harbors are becoming more and more pro-
perous. Everyday these key transportation facilities
which service the socialist construction and the people's
welfare are receiving a large amount of cargo for distribu-
tion to cities, villages, factories, mines and people's
communes, or they are loading ocean vessels with goods for
export. For the prosperity of the country and peaceful
trade, the harbors are kept busy around the clock.

Harbor construction is a novel undertaking to our people.
During the last century, the imperialists extended their
claws to China, seized navigation rights along China's sea-
coast and inland waters through unequal treaties, occupied
China's seaports, monopolized China's sea transportation
and plundered the whole country at will. Therefore, most
of the harbors of old China were built by imperialists
who controlled China's Maritime Customs.

Since the aggressors' purpose of building harbors in
China was to exploit Chinese labor and plunder China's re-
sources, the harbors were poorly laid out and poorly equipped.
In those years, Chinese technicians were barred from taking
part in harbor construction and, consequently, old China
did not systematically develop a technical force to do
harbor construction. It was precisely because of this reason that our people began to start their own harbor construction after the liberation.

Under the leadership of the Party and with the assistance of Soviet experts, the vast number of workers and technicians conquered all kinds of difficulties, improved their technical standard and successfully accomplished their gigantic missions of constructing, expanding or overhauling harbors. Up to the end of 1958, 130 wharves measuring more than 9,000 meters were built, increasing the total cargo volume handled by more than 18 million tons.

Great achievements have been made in the new task of harbor construction during the last glorious decade!

The Initial Success During the Period of Recovery

The expansion of the new T'ang-ku Harbor was our first triumph in harbor construction.

On 17 October 1952, the 10,000-ton S.S. Ch'ang-ch' un docked at Pier No 1 in T'ang-ku Harbor amidst thunderous cheers and applause. Immediately afterwards, two more 10,000-ton class vessels entered the harbor at high tide. This day marked the birth of a harbor built by the Chinese people themselves.

Located in the Gulf of Po-Hai, the new T'ang-ku Harbor is one of the most important harbors in North China and is called the "Gate to the Capital." The harbor lies against a background of vast hinterland rich in resources and traversed by the Peiping-Mukden Railway which links the north of China with northeast China. All the coal, salt, foodgrains, mountain produce and marine products produced in north China are exported from here. Since the completion of the new T'ang-ku Harbor, 10,000-ton class vessels no longer have to go to Canton or Ts-ku-lien [Dairen] for unloading, or to wait outside of Ta-ku-k'ou to be unloaded by barges. This has not only saved travel time and reduced the burden on railways, but has also saved the country several million yuan a year.

This new harbor of the people has already made outstanding contributions to the nation's socialist construction within the short period of seven years. If the volume of
cargo handled by the Harbor in 1953 (one year after its opening is taken as 100), the total volume of cargo handled in 1957 rose to 621 percent. Furthermore, the cargo volume target set forth for this harbor in the First Five-Year Plan was fulfilled 14 months ahead of schedule. During the great leap forward movement of 1958, the volume of cargo handled was 30 percent higher than that of 1957. The new harbor has accommodated ships from 29 countries including the Soviet Union, Poland, Czechoslovakia and the German Democratic Republic, and received goods from more than 50 countries which have trade relations with our country.

The new T'ang-ku Harbor is a tourist attraction to tens of thousands of people. When one mounts the Ta-ku Fortress where our people attacked the joint Anglo-French forces 100 years ago, one can see a long line of 10,000-ton class vessels docked by the side of the nearly 1,000-meter long pier. The scene resembles a city on the sea. On the wharf, trucks and loading machines race to and fro while an endless variety of machines incessantly tackles the cargo.

In the harbor itself the tugboats and barges enter and leave with regular rhythm. The north-south breakwaters extending 20 kilometers toward the sea look like the pair of arms of a giant, shielding the harbor from the roaring waves and silt, and welcoming the vessels from afar. All these tell us that the great new T'ang-ku Harbor after recovery and expansion is now rapidly changing its appearance and is serving the interest of national construction in a "more, faster, better and more economical" fashion.

The second phase of T'ang-ku Harbor construction will begin this year [1959]. In both scale and degree of modernization, the second phase will far surpass the first. A jetty capable of accommodating 8 vessels over 10,000 tons is now under construction, and the harbor construction workers, under the encouragement of the Eighth Session of the Chinese Communist Party Central Committee, are further pursuing the "increase-production and practice-thrift" movement in an effort to accomplish more as a token to salute the Tenth Anniversary of the founding of the People's Republic. More warehouses, sheds, railways and highways will be built to expand the harbor area. After the completion of these projects, the cargo handling capacity and vessel accommodation capacity of this harbor will be doubled, and more machinery will be used for loading and unloading.
Other new harbors of the people were also undergoing rapid development during the great leap forward of our national economy.

Aside from the construction of the T'ang-ku Harbor, the Huang-p'u [Whampoa] Harbor was expanded and the Nanking Harbor was overhauled during the Period of Recovery.

Construction of Huang-p'u Harbor was started in 1925, according to Dr Sun Yat-sen's "Outline of National Construction." During the 13 years from 1925 until the Japanese occupation of the harbor in 1938, the Kuomintang reactionaries only built a small wharf there. On the eve of liberation, the so-called "Great Southern Harbor" could only accommodate vessels of around 3,000 tons. Now vessels above 10,000 tons can sail directly into the harbor. The construction efforts in recent years have made the harbor a modern haven frequented by both ocean-going and coastal vessels.

The Nanking Harbor project was essentially a big-scale dredging project designed to regularize the direction of the river current and protect the north bank of the Yangtze River.

P'u-k'ou is located at the cross-roads of land and water arteries along the lower section of the Yangtze Valley. Due to the negligence of the reactionary rulers, the silt in the Yangtze River formed a one-kilometer long and three-kilometer wide sand bar called Pei-sha-chou, which diverted the main current of the river toward the north bank.

The north bank was thus constantly lashed by the strong current. Up to the time of liberation of Nanking in 1949, six of the ten wharves at P'u-k'ou together with a main street on the waterfront sank into the river. The railway station and the power plant were only 300 meters away from the river bank. The whole of P'u-k'ou was in danger of being washed away by the Yangtze River waters.

Not long after the liberation of Nanking, the project of removing the sand bar, dredging the river and building dykes to protect the bank was started under the assistance of Soviet specialists. In two years' time, 11.3 million cubic meters of silt and all of Pei-sha-chou, which used to stand eight meters above the water level were removed. The river bed at the point where Pei-sha-chou was located was dredged two meters deeper and the main current was restored to its
original course. Thus, the P' u-k' ou wharf and other build-
ings at one of the focal points of China's north-south
communication lines were safeguarded.

Brilliant Achievements During the
Five-Year Plan Period

Our country's harbor construction entered upon a new stage
during the period of the First Five-Year Plan. The modern
Chan-chiang Harbor in South China and the Yu-ch'i-k'ou Harbor,
a highly mechanized coal shipping center, were built by our
own workers and technicians.

Facing the South China Sea, Chan-chiang Harbor is located
at the north-eastern tip of the Lei-chou Peninsula, where
Dr Sun Yat-sen envisaged the building of China's "Great
Southern Harbor." Geographically, this place is known as
Huang-chouwan. To the South of the harbor is Hainan Island.
To the southwest across the Gulf of Tonkin is the Vietnam
People's Republic, and in the vast hinterland to the rear
there are the provinces of Kwangtung, Kwangsi, Hunan, Kweichow,
Szechwan and Yunnan. And, Chan-chiang Harbor is linked with
the Philippines and the islands in the South China Sea by
oceanliners. This is a port of call for vessels destined
for Europe and Africa across the Indian Ocean, as well as
for those going to Australia and the southeast Asian countries.
Chan-chiang Harbor is not only situated in a strategic po-
sition, but also possesses superb natural conditions. As
well as being shielded by Hsiung-chou Island and Tun-hai
Island, the water within the harbor is deep and free from
freezing the year round.

The speed of harbor construction at Chan-chiang is sur-
prising in view of the fact that the decision to build the
Harbor was made by the State Council in 1955. With their
creative labor, the harbor construction workers put the
harbor in serviceable condition six months ahead of schedule,
thus writing a brilliant chapter in China's history of harbor
construction. This harbor can now accommodate five ocean
vessels and coasters above 10,000 tons, and the jetty on
the right of the harbor can accommodate a 25,000-ton oil
tanker.

Close to the deep-water wharves are four big warehouses
each of which is spacious, well illuminated and well equipped
for loading and unloading. They cover an area of 8,000 square meters. The platform at the railway station in front of the warehouses is sheltered so that loading and unloading can go on uninterrupted even on rainy days. Of all loading and unloading machinery, the most attractive is the "lung-men" crane under which runs on two parallel tracks of the Li-t'ang--Chiang Railway. The turning basin, navigation channel, sheds, highways, communication equipment and workers' welfare facilities were all built according to the most advanced standards.

The construction of Chiang-Chiang Harbor is of great significance to the expansion of international trade, the prosperity of the economy of south China and the development of tropical industrial crops. Since the opening of the harbor ahead of schedule in 1956, imports and exports have been steadily increasing and the harbor has shown its viability. Several hundreds of fully loaded ocean-going and coastal vessels have made their call here. Among major exports and imports are sugar, salt, marine products, fruits, lumber, machinery, steel, metals, chemical fertilizer, etc. Like other places in the country, Chiang-Chiang Harbor has played a meritorious role during the all-people's steel-making movement.

Because the high-quality iron ore produced at the Shih-lu mines on Hainan Island is greatly needed by steel plants in North China, shipping activity at the harbor suddenly increased as soon as the bugle call for the steel-making movement was sounded. Although 64 percent of the loading and unloading equipment of the harbor is mechanized, the stevedores were unable to cope with the suddenly increased volume of cargo although they had exerted their utmost effort. However, with the support of the peasants, cadres, teachers and students in the vicinity of Chiang-Chiang, the mission was successfully fulfilled. An exciting historical record was thus chalked up: the total volume of cargo handled by the harbor in 1958 was 4.5 times over that of 1954 and an increase of some 16 times over 1951.

The missions assigned to the harbor construction workers under the First Five-Year Plan were both gigantic and glorious. While Chiang-Chiang Harbor was under construction in the south, another group of harbor construction workers and technicians were engaged in work on the Yu-ch'1-i-k'ou Harbor project on the Yangtze River--the first modern, mechanized coal shipping harbor in China.
Yu-ch'i-k'ou is located at the terminal of the Huai-nan Railway. The completion of this harbor has made it possible to ship coal produced at the Huai-nan Colliery on the Yangtze River instead of via the Huai-nan Railway. This has not only stabilized the industrial and consumers' need of coal in the Shanghai area, but has also saved the country a large amount of transportation expenses.

The Yu-ch'i-k'ou Harbor is equipped with four parallel underground concrete tunnels extending out to the river, each measuring 250 meters long, 2 meters high and 2.5 meters wide. Each tunnel is equipped with conveyor belts. When the coal train reaches the tunnel entrance, coal is automatically released to a funnel leading to the two conveyor belts inside the tunnel. At the other end, the coal is received by a loading machine with a revolving arm which takes the coal to the ship's hatches. The two loading machines can handle an average of 800 to 1,000 tons of coal an hour.

All operations, including weighing are performed by machinery. As a result, the workers will never again have to carry a heavy load on their shoulders and walk on narrow, steep and slippery planks. And, the working efficiency is eight times higher; the cost of transportation for each ton of coal is 66 percent lower; and the loading capacity of the harbor has been increased from the old port's 600,000-800,000 tons to the present 5 million tons a year.

The First Five-Year Plan for harbor construction was fulfilled ahead of schedule, and brilliant achievements were made in our country's harbor construction. Aside from the construction of Chan-chiang Harbor and Yu-ch'i-k'ou Harbor there were the wharf construction project for Lien-yun Harbor, the breakwater project connecting Amoy Island with Amoy, and expansion projects for the harbors of Shanghai, Pa-so, Ta-lien, Tsing-tao, Ching-huang-tao and Chungking.

Bright Prospect and Promising Future

The last decade of harbor construction was a decade of leap forward and a decade of many returns. As the nation's economic construction is incessantly leaping forward and the nation's economy is rapidly developing, demands on the nation's harbors have become more and more exacting. Under the encouragement of the Party's general line of "gathering
full strength, striving for the upper stream and building socialism in a more, faster, better and more economical fashion" the water transportation workers are seeking further development of harbor construction with greater speed.

China's coastline starts from the Ya-lu River in the north down to the Pei-lun River in the south, passing through the Po Hai, Yellow Sea, East China Sea and South China Sea. Measuring more than 10,000 kilometers, the coastline is dotted by some 3,400 islands. The mainland is criss-crossed by rivers and studded with lakes, most of which never freeze. With a large population and endowed with rich natural recourses, our country is well equipped for the development of water transportation.

At present, harbor construction, river dredging and other projects are based on the National Water Transportation Network Plan—a beautiful water transportation blueprint with the Yangtze River, Yellow River, Pearl River, Amur River, Sungari River, the Peiping-Hangchow Canal and the Sung-liao Canal as the framework. This gigantic national water transportation network plan brings more difficult and glorious missions to harbor construction workers. It is not difficult to imagine that the total distance of navigable waterways will be increased from the present 100,000-odd kilometers to several hundred thousand kilometers after the completion of this network. The criss-crossing rivers and man-made canals are like numerous colorful ribbons of different lengths linking the sparkling harbors scattered over the country.