

Shanghai Flash

ISSUE NO.3 ❖ June 2003

The Shanghai Deepwater Port under Construction

1. Importance of the Shanghai Deepwater Port

1.1. Container Handling at Shanghai Port Increased

The Shanghai port serves as the most important gateway of China to the world. Traffic through the Shanghai port is growing rapidly, particularly in the field of container transport.

Statistics show that Container throughput at the Shanghai port grew a massive 35.8% to 8.613 million twenty-foot equivalent units (TEU) in 2002, accounting for 23.3% of China's total (37 million TEU). This made Shanghai the world's fourth largest container port, overtaking Kaohsiung (Taiwan), which handled 8.49 million TEU of containers last year, while Hong Kong, Singapore and Pusan (South Korea) still keep their positions as the world's top-three container handling ports.

1.2. Capacity of Shanghai Port Still Relatively Low

Although Shanghai has made big progress in the field of port infrastructure, the city's container-handling capacity still failed to meet the fast growing demand. According to the Shanghai Port Administration, container numbers passing through Shanghai port have grown by an average of 27% annually over the past decade. This increase is based on the rapid development of foreign trade in the Yangtze delta area as well as the vast hinterland. Imports and exports through the Shanghai port in value terms grew 18.3% in 2002, to a record 142.5 billion USD, accounting for about a quarter of the country's total foreign trade volume.

On the other hand, Shanghai's container-handling facilities basically remain backward. The Shanghai port is not only short of large deep-water berths but also short of modern logistics, which provide quick, reliable, flexible and comprehensive services.

The Huangpu River - the Mother River of Shanghai - is narrow and quite shallow, with a depth of only about 7 meters, preventing container ships of 1,400 TEU or more from entering the port. Big boats have to wait for the up-tides to enter and leave Shanghai port, severely hindering the competitiveness of the port in a global market.

The Shanghai government has thus made great efforts to improve the capacity of the Shanghai port. The Waigaoqiao deepwater project, which was started in 1993, is one of the largest port constructions in Shanghai. The goal of the project is to create a harbour area of 1.63 square kilometres with a depth of 13 meters, capable for accommodating four container ships (each carrying 4,000 TEU) at the same time. The project, however, still needs time to be completed and questions remain over the feasibility of maintaining a 13-metre depth due to the silting of the river.

Under these circumstances, the construction of a mega-deepwater port became a "must" for Shanghai, providing a long-term and final solution to fulfil the ambitious goals of the city to become a key navigation hub in Asia.

The planned project of Shanghai deepwater port includes three main parts - the Yangshan Deepwater Port, the Donghai Bridge and the Luchao New Harbour City, as follows:

2. The Yangshan Deepwater Port

2.1. Location of the Port



Shanghai has no suitable place in its own area to meet the demands of such a harbour. After six years of feasibility studies, the islands of Xiao Yangshan and Da Yangshan in the Hangzhou Bay, 27.5 kilometres from Shanghai's southern coast, and under the jurisdiction of the neighbouring Province Zhejiang, was chosen as the site of the deepwater port of Shanghai. The project enjoys a strong backing by the central government of the People's Republic of China.

The average water depth in the area of the islands is over 15 meters. The geographic and geological structure is stable as well if compared to the sea chart of today and that of 100 years ago.

2.2. Construction Plan of the Port

The first phase of the Yangshan Deepwater Port construction started in the middle of 2002. It will be completed by 2005. A land area of 1.53 square kilometres, equipped with a storage yard of 720,000 square meters and 15 container cranes will be built in the first phase. This phase will also see the first five container berths from Xiao Yangshan Islands to Huogaitang with a 1600-meter quay waterfront. The designed water depth of the channels will be about 15.5 meters, capable of accommodating the fifth and sixth generation of container ships. Each berth was designed to handle 440,000 TEU per year. The total annual handling capacity will therefore reach 2.2 million TEU, which should meet the fast growing demand of Shanghai Port in the mid-term future.

According to the master plan, the whole project will be completed by 2020. At that time, the man-made area will increase to 18 square kilometres and the deepwater coastal line will reach 22 kilometres. More than 50 container berths, capable of handling the fifth and the sixth generation of container ships (5,000-6,000 TEU) will be built. The annual handling capacity of the deepwater port will increase to around 25 million TEU, probably making it the biggest - and busiest - container terminal in the world.

2.3. Financing of the Project

The budget for the first phase was approved to be 14.31 billion RMB (1.73 billion USD), but no final budgetary target has been announced for the whole project.

The developer of the port is the Shanghai Tongsheng Investment (Group) Co. Ltd, which is owned jointly by the Shanghai International Group Co. Ltd (52%), the Shanghai Port Administration and the Shanghai State-owned Assets Operation Co. In June 2002, the Shanghai Tongsheng Investment (Group) Co Ltd. was offered 7.5 billion RMB (907 million USD) in loans for the first-phase construction by a consortium of five domestic banks (China Construction Bank, the State Development Bank, the Bank of China, the Industrial and Commercial Bank of China, and the Shanghai Pudong Development Bank). A larger consortium made up of those five banks and five other lending institutions also signed a deal in June 2002, providing a 17 billion RMB (2.06 billion USD) credit line for the port construction up to the year 2020.

Foreign investors are allowed to own stakes of as much as 75% in port projects according to China's agreement with the World Trade Organisation (WTO). Hutchison International Ports Ltd., PSA Corp. of Singapore, P&O Nedlloyd Container Line Ltd., Modern Terminals Ltd. (controlled by Wharf Holdings Ltd.) and other international companies have shown their interests in joining the port project. The Shanghai government, however, has not taken any decisions so far.

The considerations of the port-policy makers seem to be that they want to rely on themselves at first for the basic work of the port construction. In the later phases, they will probably seek partners or co-operators in order to attract more capital and the most advanced techniques and management for handling the port. This consideration is not only due to optimistic marketing estimations, but also due to the strategic importance of the project for the national economy of China.

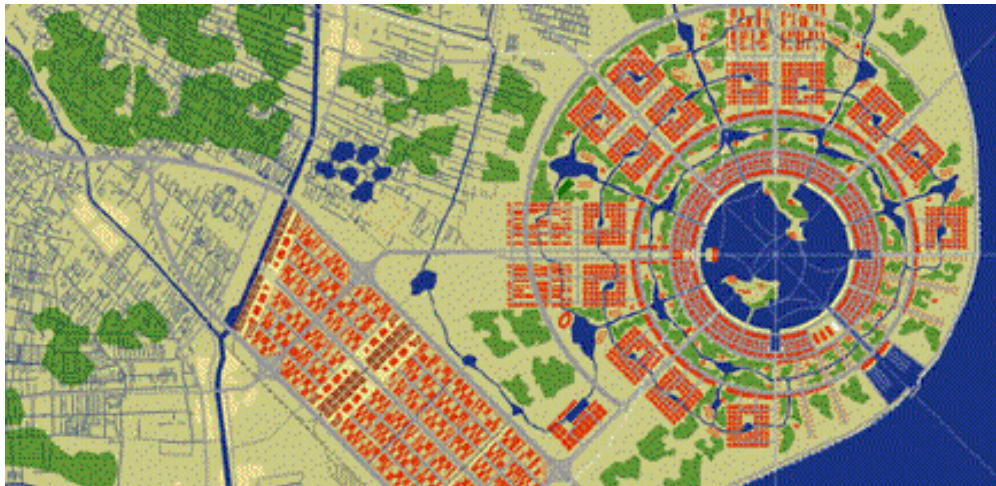
3. The Donghai Bridge



The long bridge, standing in the northern part of Hangzhou Bay and linking the deepwater port with the mainland, was named "Donghai Bridge". The bridge construction has already begun with the underwater foundations and should be finished by 2005, during the first phase of the port project. Different services like container distribution, water and power supply and communications to the island port will be provided through this bridge.

According to the plan, the sea-crossing bridge will be 31.3 kilometres long and 31.5 meters wide, with six highway lanes. The bridge has one main span (a box girder cable-stayed bridge with two towers) with a 40-meter clearance for 5,000-tonnage vessels, one side span for 1,000-tonnage vessels and 2 side spans for 500-tonnage vessels. The annual navigable capacity under the bridge will be over 5 million TEU.

4. The Luchao New Harbour City



Designed as one of 11 satellite towns in the new round of Shanghai urban planning, Luchao Harbour City is situated in the south-east corner of Nanhui District, about 30 kilometres away from the island Yangshan Port, 55 kilometres from downtown Shanghai, 30 kilometres from Pudong international airport and 10 kilometres from Shanghai's outer expressway.

Luchao Harbour City will be built in high standard as a world-ranking modern harbour city. Based on the Master Plan by Von Gerkan, Marg und Partner, Architects (Hamburg), adopted by Shanghai Municipal Government, it will be a combination of European style and "Shanghai-style" and also bear the characteristics of a southern Chinese town.

Focusing on water, the design defined the city as an ecological and coastal city with a maritime culture. In the centre of the new harbour city, there will be a large circular lake basin with a diameter of almost 2.5 kilometres. The city extends radially from this freshwater lake and concentrically into the coastal area penetrated by water canals.

The plan of Luchao Harbour City includes three urban rings. The first ring around the lake will be a belt of administrative, commercial and cultural facilities. The second ring is a green corridor decorated by flowers and trees. The outer ring is planned as a residential area complemented with shops, restaurants, clinics and schools. Outside the outer ring, a modern traffic system will link the new harbour city with the expressway network of Shanghai.

The new harbour city will be the administrative centre of Nanhui District and the rear basis of the deepwater port, bearing comprehensive functions including container distribution and storage, offshore processing, shipping market, logistic centre, residence, financial and commercial services, amenity and tourism. A yacht club and a series of large cultural facilities including theatre, maritime museum, aquarium, etc. will be established on the two islands in the lake.

The first phase of the city construction began last year and will be finished by 2005. The number of inhabitants in the city at that time is expected to be 80,000 -100,000. In about 20 years the city will host a population of 300,000 inhabitants.

The Shanghai New Harbour City Investment & Development Co., Ltd. was founded by the Shanghai Tongsheng Investment (Group) Co. Ltd. and the Nanhui Land Reservation Centre in April 2002, with a registered capital of 1.3 billion RMB (157 million USD) and the responsibility for the development of the harbour city.

The above-mentioned projects, together with the existing Pudong international airport and the forthcoming highway, railway and magnetic suspended train, present a picture of a huge logistic

centre in the near future on the east wing of Shanghai, reflecting Shanghai's dynamic growth and self-assertiveness in a world economy in which China is going to take an ever growing place.

Source:

<http://www.shharborcity.com/>

<http://www.portshanghai.com.cn/>

<http://www.shanghai-window.com/>

<http://www.sigchina.com/>

<http://gmp-architekten.de/>

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