# On the Development of Shanghai's Maritime Industry after the Launch of Yangshan Basin

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#### **Abstract**

Concerning the launch of Shanghai Yangshan Deepwater Basin, this paper puts forward the views on issues important to Shanghai's maritime industry ---- issues such as the significance of the basin, the relationship between Shanghai and neighboring ports, the new role of Shanghai Port, the implementation of the new bonded port area policy, and building Shanghai into an international maritime center. Also, the paper explores the relationships between throughput increase and function upgrading, between transshipment cargo and service for the interior, and between the hardware construction and institutional innovation.

Key words: Yangshan basin; Shanghai's maritime industry; Development

After three and a half years of construction, the first phase project of Yangshan Deepwater Basin was completed and put into operation On December 10, 2005, attracting wide attention from around the world. The basin is located on an island at the mouth of Hangzhou Bay, 27.5 kilometers from Shanghai's Luchaogang in Nanhui District. The launch of the basin leads to a fundamental change in the capacity and facility conditions of Shanghai Port, thus undoubtedly influencing the development of Shanghai's maritime industry. In the light of this profound change, it is imperative to re-examine the development from a new perspective. This paper probes issues important to Shanghai's maritime industry development arising from the opening of Yangshan Basin.

# 1. The Significance of the Yangshan Basin

Since the Yangshan Deepwater Basin was first proposed, some people have challenged its very necessity and prospective role. This essay presents the view and asserts that its role and significance should be viewed from the perspective of national strategy.

Firstly, the construction of Yangshan Basin can be regarded as a major breakthrough in Shanghai's building of an international shipping center. And this, according to many researches, will lay the foundation for implementation of the national strategy to build Shanghai into an international center of economy, finance, trade and shipping. After prolonged consideration and discussion, the Chinese government formulated a national strategy --- to build Shanghai into an international center of economy, finance, trade and shipping. This strategy will exert a powerful influence on China's long-term development. One of its goals is to bring into play the leading role of the metropolis of Shanghai and to push forward the economic development of the Yangtze delta and the Yangtze valley. Research shows that the realization of the Shanghai International Shipping Center will lay the foundation for the Shanghai envisioned for the future. Shanghai's unparalleled geographical position and vast inland cargo sources make the city an ideal gateway. Such advantages do not bless the ports of Hong Kong, Kaohsiung, Singapore, Busan and Kobe. But for years, Shanghai port could not play a hub-port role because it lacked the facilities to accommodate large ships. Though Shanghai's name literally means "on the sea", the main part of the city sits inland on the banks of the Huangpu River, which runs into the Yangtze. Heavy silting in the Yangtze Delta region has long prevented it from serving as a deepwater port. Due to limited water depth, ships could seldom enter Shanghai port "at their free will" in the past. The port could only watch idly the cargo transshipments at other ports. With the opening of Yangshan basin, ships now can be ushered in all day long, even when fully laden. In this sense, the construction of Yangshan Basin can be regarded as a major breakthrough in Shanghai's building of an international shipping center, which will quicken the pace of Shanghai to be an international centre of economy, trade and finance.

Secondly, the completion of Yangshan Basin will enhance operation efficiency and lower logistics costs for the whole society. Some worry that Yangshan's separation from land and big initial investment may increase operating costs for shipowners, shippers, freight forwarders and other involved parties. This view is unilateral. In the past when Shanghai port had no deep-water basin, large container ships could not enter directly, and goods could only be barged to and from terminals. This not only increased operation costs but also seriously reduced efficiency. Following the completion of Yangshan Basin, fully laden large and super large container ships can now directly enter the port all day long and under all weather conditions; this, plus advanced modern equipment and favourable policies will absolutely enhance operation efficiency and lower general operation costs and logistics costs for the whole society. What's most important is high efficiency, and that is exactly one of the great advantages of Yangshan Basin.

Thirdly, by offering hardware support, the completion of Yangshan Basin also contributes to Shanghai's economic transformation featured by service for the whole country and priority attached to the development of the service industry.



Finally, the opening of Yangshan Basin will be a major influence in the competition among East Asian and other global ports and sharpen China's international competitiveness in shipping and create a favourable environment for China to take the initiative.

# 2. The Relationship between Shanghai Port and the Neighboring Ports

After Yangshan Basin was constructed and policy of the bonded port area issued, cargo from Shanghai's economic interior that was transshipped at overseas ports can be conveniently exported via Yangshan. This will change the current pattern of container liner service in the Northeastern areas. But all this is not to say that overseas ports will lose their opportunities in China business. Take Busan for example. The port will still have ample opportunities if it is not limited to the current function of transshipment of cargo from China, and it adds the function of a logistical distribution center for cargo shipped from the US and Europe to China.

Some officials and scholars hold the view that the opening of Yangshan Basin will have no influence on Ningbo Port. They foresee a relationship based only on collaboration. This conclusion, however, is not drawing truth from the facts. It is a fact that there is fierce competition between Shanghai and Ningbo, regardless of the launch of Yangshan Basin. Now the basin has changed the competitive relationship between the two.

Their competition is manifest in the rivalry for projects and container cargo sources. For the development of the Yangtze Delta port group, the Ministry of Communications (MOC) has formulated a plan known as "Three Systems". That is, a container transport system with Shanghai as its center, a bulk cargo transshipment center with Ningbo and Zhoushan as its center and a sea-to-river transshipment system composed of Nanjing and other downstream ports between it and the Yangtze River mouth. This plan is not closing Ningbo out of the rivalry for container sources; in fact, the port will not abandon its container business.

The competition between the two ports for container cargo sources will depend on the interior container cargo owners' demand for port service and the two ports' service capacity supplies. But unfortunately, no convincing forecast of interior container output has ever appeared. However, they can be regarded as two large ports if they are considered from the perspective of throughput. Despite the controversy in the theoretical circle, the fact is that China's heavy and chemical industry has been developing rapidly. Zhejiang Province once proposed to actively promote a coastal chemical industry. This would create an environment favorable to throughput development of bulk cargo (including ore and oil) after the integration of Ningbo Port and Zhoushan Port. Moreover, their container business is already on the rise. In light of all this, Ningbo-Zhoushan port may become an international super port.

Here the authors would like to offer view on the upsurge in terminal-construction in China. The decision to build or expand terminals is determined by the twin factors of economic and trade development that require port service and the services the existing ports can offer. It is a question of equilibrium between demand and supply. Of course, in an atmosphere of rivalry, we



should adopt some strategic measures. Sometimes construction of more terminals may be a strategic behavior or a commitment in the game theory to prevent competitors from entering the market. However, a demand-supply balance is still a vitally important factor we should take into account when we plan to build a new terminal. The current issue is to make a scientific forecast of future demand for port services.

Diverse opinions on future demands emerge, but few are based on a solid foundation. When we consider the demand for future port services, especially that for container terminals, we must first study what influence the advancement of a country's industrial structure can exert on the cargo volume. Currently there is a much-cited term "China factor". In fact, as an "independent variable", the China factor has a great influence on the "function value" of the world sea transport volume. China's demand for transport arising from each unit of GDP is higher than any other country's. On the one hand, the China factor indicates China's economy has a strong impact on the world shipping industry. On the other hand, it implies China's industrial structure is not yet operating at an advanced level, and that China is mainly engaged in producing and trading a large quantity of cheap products. We must be mindful of the fact that with the reconstructing and promoting of China's industrial structure, economic growth will be less and less dependent on cargo transport.

## 3. The Role of Shanghai Port

There are three basic types of major international shipping centers in the world:

The first type aims to focus market transactions and offer services for maritime industry. It is unique, because it takes shape on the basis of an historical tradition and human resources. London alone fits into this category.

The second type is characterized by cargo to and from the interior£" or interior-type international shipping center such as Rotterdam and New York.

The third type has a transshipment role. Such transshipment-type international shipping centers include Singapore International Shipping Centre.

Comparing these shipping centers, we see that ports retain their shipping type in spite of the passage of time. For example, Rotterdam and New York are still interior shipping centers, while Singapore remains a transshipment hub. This suggests that geographical conditions have always been a factor in deciding international shipping center types.

According to Shanghai's geographical identity, it should develop into an interior-type international shipping center. This will not change with the opening of Yangshan Basin. Currently, it is not the principal task of Shanghai to handle the problem of increasing transshipment volume. Instead, Shanghai should try to make its interior cargo enter and leave via Yangshan Basin rather than via any other overseas transshipment port. If this comes true, such cargo can no longer be labeled as transshipped cargo.



### 4. Bonded Port Area Status

The first bonded port area in China, Yangshan Bonded Area and Yangshan Deepwater Basin entered into operation the same day as Yangshan Customs, the first bonded basin customs administration in China. A bonded port area is meant to combine the functions of a bonded logistics park and an export processing zone, allowing exemptions or reductions in import and export duties, value-added taxes and sales taxes. In addition, cargo transfers, warehousing, exhibitions and processing can be handled at the aera. Exporters will be able to receive their export rebates immediately after their cargo is shipped into the bonded port rather than having to wait for payment post-shipment, it has literally become a "domestic area beyond customs". In other words, it will function similar to a free port,

There are free ports of different sorts, which may have various names. However, free ports can be classified according to their business scope and degree of "freeness". They are bonded warehouses, commercial free ports, industrial free ports, comprehensive free ports and free port cities.

The bonded ports area status will help Yangshan Basin enlist more cargo sources. However, by taking all factors into account, the competent authorities should formulate a policy similar to a comprehensive free port for Shanghai. If that is done, the authorities, in light of the small coverage of the Yangshan bonded port area, may adapt some bonded status to other special economic zones of Shanghai and include them into the network via the bonded transport.

## 5. Three Major Relationships

Here are three major relationships that Shanghai should handle properly.

First, the relationship between cargo increase and function upgrading. Nowadays, those who are concerned with Shanghai's construction as an international shipping center have showed deep concern about the annual throughput, especially annual container handling capacity of the Shanghai Port and its rank in the world. But we should all realize that while throughput is important for a shipping center, it is not a decisive factor. The throughput, including container handling capacity, reflects only one aspect of the port's development. The production activities of a port are composed of both manual labour and mental labour. If a port doesn't have adequate functions other than throughout, it means that although the manual labour capacity is huge, other value-added services are not necessarily advanced. With regard to the construction of Shanghai's international shipping center, quantity is merely one of the goals that we should pursue. It is crucial for us to rely on the integrated strength of economy, technology, education and specialists, and to use information technology to enhance service functions. In the long run, Shanghai should build an information-intensive international shipping center featuring abundant information and resources allocation function.

Second, the relationship between attracting transshipment cargo and providing interior services. The number of transshipment containers is another index that people pay attention to. Some



observers even hold that unless the proportion of international transshipment reaches a certain level, the port can not be considered an international shipping center. This view is incorrect.

An international shipping center should include both international transshipment hub ports and interior hub ports. International transshipment hub ports refer to those which can not get sufficient containers from their economic interior, and must depend on feederline support to form a hub port. The necessary condition to form this kind of port is that it should be a transportation center. The Port of Singapore is a typical transshipment hub port with the transshipment capacity of marine containers accounting for 80 percent of the total throughput. One of the important conditions for its being a hub port is that it is located in the transportation center of Malacca Strait, through which the transshipment distance would not be extended significantly.

Interior hub ports are those with a sufficient number of interior containers to justify their status as a container hub port, making feederline support unnecessary. It is a misunderstanding to consider Hong Kong an international transshipment hub port. In fact, only 15 percent of Hong Kong's container throughput is international transshipment cargo, and the rest is generated in the Pearl River Delta and transferred to Hong Kong through an inner waterway. More accurately, Hong Kong is largely an interior hub port.

Shanghai's advantage lies in its extensive interior regions. From that vast area can come support from Yangtze River Delta as a prospective container cargo generating base, as well as support from the Yangtze River Valley. Of course, Shanghai still has to make great efforts in the field of international cargo transshipment to build itself into an international container hub port in Northeast Asia.

Third, the relationship between hardware construction and system innovation. With the completion of Yangshan Deepwater Basin, Shanghai has conquered hardware obstacles impeding progress toward the goal of building an international shipping center in 2010. But weak software will be a bottleneck restricting the Center's development. Therefore, system innovation has become the key to enhancing competitiveness. Breakthroughs are needed in these areas: Give play to the basic role of the market in allocating resources, coordinate the development of the Yangtze Delta ports and the logistics system, ensure private enterprises' proper status in port construction and operation, create an environment for orderly competition, raise the level and efficiency of port services and reduce overall business cost, etc. Research into these areas is vital to the competitive success of the Shanghai International Shipping Center.

### 6. Establishment of an International Maritime Centre

The first phase of Yangshan Deepwater Basin, equips Shanghai with first-rank port facilities. At the same time construction of the Shanghai International Shipping Center has embarked on a new phase. After the drastic improvement of port facilities, maritime services have attracted more and more attention, and the new concept of "International Maritime Centre" has been put into the agenda. This concept was early on proposed by Professor Xia Shanchen, a member of the Shanghai People's Political Consultative Committee and director of the International Business



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and Law Research Center in the College of Law in Shanghai University. Prof. Xia holds that an "International Maritime Centre" is greater than an "International Shipping Centre". The former includes not only the latter, but also provides good transportation, logistics service and globalized service on the basis of a strong industrial economy and modern service industry. Prof. Xia further points out that Shanghai should be far-sighted; i.e., the vision of the future should include not only the "International Shipping Centre", but also the concept of an "International Maritime Centre". He adds that if most international maritime cases were arbitrated in Shanghai, if international rules were set in Shanghai, if relevant shipping certification and supportive service were fulfilled in Shanghai, and if Shanghai's shipping center becomes the hinge of the maritime world, the future role of Shanghai will shift from "International Shipping Centre" to "International Maritime Centre".

Although the academic and business circles have not provided a systematic and accurate definition for the connotative and denotative meanings of an international maritime centre and its relationship to and difference from an international shipping center, it is acknowledged that "international maritime centre" has wider meaning than "international shipping centre", especially when the maritime center offers those advanced maritime service clusters that provide a global service. According to this understanding, London is the only city in the world that can be labeled as an "international maritime centre". As for Shanghai, these questions should first be answered:

"Should we build Shanghai into an international maritime center?

"Do we have the conditions to do this?

"If we want to do it and we have the conditions, how should we do it?

The answer to the first question is obvious. Shanghai would benefit if it is built into an international maritime center. The soft environment for Shanghai's maritime industry would receive great improvements, and thus facilitate business activities. Secondly, the advanced maritime service cluster in the international maritime center will earn money, especially foreign exchange, for Shanghai, as well as increase job opportunities. Thirdly, it will contribute to the development of related industries, especially the finance and insurance industries. Therefore, building an international maritime center can have broad benefits for the development of Shanghai's modern service industry, the formation of new growth points and Shanghai's spreading worldwide influence.

Then, does Shanghai have the conditions necessary to build an international maritime center? We should realize that Shanghai is now endowed with unprecedented opportunities. First, now that the focus of the world maritime industry is moving eastward to Asia£ London's status as the international maritime center is questionable, and some shipping centers (for example, Singapore) have already set up the strategic goal of becoming the new international maritime center. Now that the old pattern has been broken and new pattern has not yet been established, as the biggest port in the world, Shanghai is well qualified to participate in this round of competition. Secondly, as the world economy is undergoing universal development, no international port city can possess the title "international maritime center" alone. There will be a regional and functional cooperation involved in an international maritime center, which gives Shanghai the opportunities to achieve further development. Thirdly, the emerging "Chinese factor" in international shipping



industry and the important role of Shanghai in China's shipping industry also provide useful conditions. Fourthly, important shipping-related businesses have concentrated in Shanghai, which is also a favorable condition. On the basis of the above primary research, we can draw the conclusion that Shanghai has the qualities needed to build an international maritime center.

Now that we have identified Shanghai's power and potential, what remains is to plan the construction. Shanghai should first fix the connotation and detonation of "international maritime center", learn from the experience of London and Singapore, discuss the status quo and the goal of development of a maritime service cluster, analyze the interaction between maritime service cluster, finance cluster and maritime cluster, and propose the relative policies.

Those six aspects express the authors' view on the development of Shanghai's shipping industry after the creation of the Yangshan Deepwater Basin. Many issues that are touched upon in this paper are still open to discussion, both in academic and business circles. The authors welcome more opinions and hope that ultimately we reach an understanding.

#### References

- [1] Xu Jianhua, Qu Linchi, A New Theory on International Shipping Economy, People's Communications Press, 1997.8
- [2] PRC Ministry of Communications 2004 Report on China's Shipping Development, People's Communications Press, 2005.6
- [3] Wang Yamei, Tan Jiahua, "The impact of Yangshan Port on the layout of container terminals along the Yangtze River", Water Transportation Management, 2005.10
- [4] Liu Jun, Bonded Port of Yangshan Port Area is going into operation, Shipping Exchange Bulletin, 2005.10.18
- [5] Jing Ling, Review the status qua of terminal construction of China, Shipping Exchange Bulletin, 2005.11.1
- [6] Liu Jun, Yangshan Port open to the world, Shipping Exchange Bulletin, 2005.12.20
- [7] Tong Jie, Ningbo-Zhoushan Port goes forward, Shanghai Exchange Bulletin, 2006.1.17
- [8] Chen Huan, The opening of Yangshan Port changes the pattern of logistics in Northeastern Asia, 21st Century Economic Bulletin, 2005.12.12

