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WORLD MARITIME UNIVERSITY

Dalian, China

**RESEARCH ON THE SAFETY MANAGEMENT
OF YACHT IN TIANJIN UNDER THE
DEVELOPMENT OF YACHT ECONOMY**

By

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The People's Republic of China

A research paper submitted to the World Maritime University in partial
fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE

(MARITIME SAFETY AND ENVIRONMENTAL MANAGEMENT)

2014

DECLARATION

I certify that all the material in this research paper that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this research paper reflect my own personal views, and are not necessarily endorsed by the University.

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A brief overview is taken at major national regulations and international practices concerning yacht, in terms of yacht registration, yacht operator, yacht sailing and berthing, yacht club, yacht safety inspection, etc. and a detailed analysis is carried out on existing problems of yacht safety management of yacht in Tianjin, and then illustrates each problem in detail one by one. Then, basing on the analysis, the author's knowledge and work experience, some corresponding countermeasures and suggestions for improving yacht safety management are proposed.

Keywords: yacht economy; safety management; yacht club; yacht industry; Tianjin

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LIST OF ABBREVIATIONS

AIS	Automatic Identification System
BPD	Bonded Port District
BEZ	Bohai Economic Zone
CAD	Computer Aided Design
CAM	Computer Aided Manufacturing
FRP	Fiberglass Reinforced Plastic
ICOMIA	International Council of Marine Industry Association
IMO	International Maritime Organization
MSA	Maritime Safety Administration
MPA	Maritime Port Association
PRC	People's Republic of China
PPCDL	Powered Pleasure Craft Driving License
SOLAS	International Convention for the Safety of Life at Sea
STCW	International Convention on standards of Training, Certification and Watchkeeping for Seafarers

Research on the Safety Management of Yacht in Tianjin under the Development of Yacht Economy

Chapter1 Introduction

1.1 Background

Yacht is a kind of high-end consumer products with navigation, sports, entertainment, business many functions all-in-one, which can satisfy the need of people materially and mentally. In developed country it has been widely popular accepted by the public while it is at the very beginning of the development in China. However, with the improvement of consumption concept of people and well-developed economy in China, people's need for purchase of a yacht shows an upward tendency.

In some ways, a yacht as a symbol of economic level of a country and image of attracting investment is honored as "card of city", which has a significant impact on local catering, transportation and public services and is able to bring huge economical and social benefits. At present, global spending on yacht is up to 40 billion dollars, combining with the cost of related maintenance, management and entertainment, the amount could be more than 50 billion dollars.

In China, there are also some unique conditions for developing yacht industry, for example, lengthy coastline, vast waters, abundant marine resources. And the Chinese government stated that the country would strive to develop tourism into a strategic

pillar industry of the nation's economy in 2009, which brought a precious opportunity for yacht industry beyond all doubt, and even three booms about yacht has drawn our attention, the boom of yacht industry planning, the boom of yacht club construction and the boom of business activities on yacht. Each coin has two sides, the phenomenon would bring great challenge to maritime authorities which are in charge of yacht safety.

1.2 Objective and significance of the research

Yacht as a kind of personal, non-operation ship is different from merchant ship. Except for International Marine Regulation for Prevention for Collision, most of international conventions are not applicable to it, thus there are not uniform standards for yacht. Moreover, national relevant regulations are also mainly formulated for operation ship, which is not suitable for supervision of yacht safety as well. If the yacht is managed completely in accordance with regulations and policies for other ships, it would restrict the development of yacht industry to some extent in Tianjin.

Yacht industry which is regarded as promising field has been taken into the national development strategy. Therefore, promoting Tianjin yacht industry to develop healthily is not only the responsibility of Tianjin MSA but also a specific measure to establish a perfect image of MSA. Thus, it is necessary to analyze the economic potential of yacht industry in Tianjin city, and then carry out further study on yacht safety management in terms of yacht registration, yacht operator and so on. Finally give some reasonable and useful suggestions for drawing up corresponding regulations for yacht in Tianjin.

1.3 Order of presentation

The thesis is arranged in a logical sequence to get the desired objective of the paper. In general, the paper is composed of seven parts.

Chapter 2 introduces the outline of yacht economy all over the world as well as the profile of yacht economy in different countries especially in America, France and Italia, reviews the development situation of yacht in terms of consumer market and building countries, introduces the development progress of Chinese yacht industry as well.

Chapter 3 makes a detailed introduction of statue quo of Tianjin yacht industry, including the profiles of yacht club, yacht exhibition, yacht building, analysis of the advantages for Tianjin to develop yacht industry in four aspects, and a brief introduction to the development plan of yacht industry in Tianjin.

Chapter 4 is purely a legal part, which presents major national regulations and international practices concerning yacht, in terms of yacht registration, yacht operator, yacht sailing and berthing, yacht club, yacht safety inspection, etc.

Chapter 5 is the focus of this paper, which analyses the existing problems of yacht safety management of yacht in Tianjin, and then illustrates each problems in detail one by one.

Chapter 6 is also the main part of this paper, which makes corresponding countermeasures and suggestions on improving yacht safety management according to the previous analysis.

Chapter 7 provides some possible recommendations proposed by the author in the light of his work experience, and conclude the research paper.

Chapter 2 Introduction to the Development Situation and Tendency of Yacht

Economy

2.1 Outline of yacht economy

Yacht economy is a general term that includes research and development, design and manufacture, marketing, consumption, maintenance and relevant economic activity aiming to yacht. If a country has owned well developed yacht industry, it could not only generate huge economic profits but also much more social benefits, such as, yacht economy could absorb massive labor force, optimize economic structure, expand exports, and even further boost tourism and service industry development.

Yacht industry is an integrated industry with complex chain, among which the design and manufacture, consumption, maintenance and safety management are coin concepts. Yacht industry as an important part of marine industry is a capital, technology and labor-intensive industry which have much more demand for capital than other industries, much longer operation period, more stringent requirements for technology and even special requirements for supporting facilities and location. But if yacht industry can develop healthily, it would stimulate the rapid development of a series of relevant industries, including yacht port, training, transportation, fuel adding, tourism real estate, etc.

2.2 Review of the development situation of global yacht economy

2.2.1 Global yacht consumer market

Yacht industry is connected with economic strength of country, endowment position of people, geographical environment and consumption concept. Generally speaking, global yacht market mainly assembles in North America, Europe and Oceania. America whose number of yachts is up to 1.74 million in total and sales amount are almost 20 billion dollars, taking up two thirds of global yacht market is undoubtedly the biggest yacht consumer country all over the world. Secondly, the total number of yacht in Sweden is about 1335000, less than one tenth of America's, what's more, the sum number of all the other countries' yachts is even less than half of American's possession. (Zhang, 2008)

Table 1- Yacht possession of the world's major developed countries.

Country	Population(million)	Ships/per1000	Total number of yacht
America	288	60	17353400
Sweden	9.4	143	1335000
Australia	19	33	620483
France	59	15	887911
Italia	58	15	851708
German	81	5	440624
Japan	126	3	343490
Norway	5	146	657000
England	59	8	446523

Source: Zhang, Y. N. (2008). Analysis about developing yacht industry in Yangtze River Delta Region and countermeasures of improving. Master's thesis of Shanghai Jiao Tong University.

2.2.2 Global yacht building countries

In fact, in more than 200 countries all over the world, the yacht market is always occupied by several countries, rather the top eight yacht building countries corner the global yacht market. With regard to sales volume, the American is the first, and

successively Italia, France, England and Germany, while with regard to the number of ships, American yacht industry is also the biggest, and then Australia, France, Italia, England respectively.

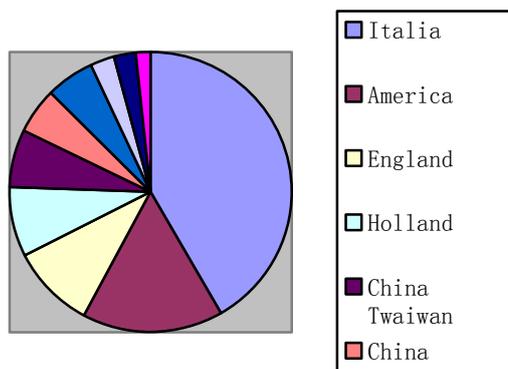


Figure 1- the world's top ten countries and regions of yacht manufacture in 2005

Source: Zhang, Y. N. (2008). Analysis about developing yacht industry in Yangtze River Delta Region and countermeasures of improving. Master's thesis of Shanghai Jiao Tong University.

In America, most of yacht's selling price is between 15 thousands and 50 thousands dollars, and the size of yacht is always between 8 and 68 feet. The most popular yacht in the market is outboard yacht, which accounts for more than fifty percent of the total number. In addition, personal water equipment is also quite promising due to its lowest price. In the meanwhile, the demand of European yacht market mainly concentrates on super yacht whose average price is about 120 thousand dollars. It is because Europeans favor luxury and super yacht leads to its extremely high price in Europe. (Zhang, 2008)

According to Show Bonta International's statistics, there are more than 3000 yacht building factories in the world, among which about 1000 factories are located in America, France 120, Canada 100 respectively. And it is remarkable that eight of top 20 yacht building factories are in Italia. (Zhang, 2008)

Table 2- Distribution of the world's top 20 yacht manufactures

Country	Number of yacht manufacture
Italia	8
America	4
England	1
German	2
China Taiwan	1
Holland	3
Denmark	1

Source: Zhang, Y. N. (2008). Analysis about developing yacht industry in Yangtze River Delta Region and countermeasures of improving. Master's thesis of Shanghai Jiao Tong University.

2.3 Profile of yacht industry of various countries in the world

Make a general survey of global yacht market, it is easily found that America, France , Italy as well as other European countries are completely dominant in the market. Next, I will introduce these countries on yacht industry one by one briefly.

2.3.1 America

Both the shipbuilding amount and consumption of American yachts are top one in the world. In light of statistical report of International Council of Marine Industry Association (ICOMIA), America has set up not less than 1500 yacht associations and more than twenty thousand yacht marinas. Its yacht building industries are mainly located along the west coast, as we know, Florida is the biggest yacht market and entertainment center in the world, which is always leading the pack in terms of material, design, shipbuilding technology and quality control. Lots of international

yacht exhibitions are held here every year. (Wang, 2012)

2.3.2 France

French yacht building industry is based on sailing boat manufacturing and sailing boat consumption. In 1997, top value of out-put of French yacht industry has been up to 0.5 billion dollars, including the out-put of sailing boat is 0.35 billion dollars and hovercraft is 59 million dollars respectively. 53 percents of yacht products are supplied to domestic market, the rest are exported. With the development of yacht leasing company, the requirement of upscale yacht grows rapidly, at present, France has become one of the biggest sailing boat and hovercraft building countries and exporters in the world; however, equally important is that France is lack of large scale engine manufacturer to some extent. (Wang,2012)

2.3.3 Italy

Italian yacht industry is highly developed, especially in terms of material, design, technology and equipment. Italy is the first country to use Kevlar fiber into shipbuilding innovatively, as a result, a motorboat about 15.5 meters long which is made from Kevlar would be 40% lighter than fiberglass reinforced plastic boats. Furthermore, the ship speed would reach up to 47 nautical miles. The Centieri Moschini Company which enjoys great reputation is famous for building world-class fiberglass reinforced plastic yacht. The company has owned large-scale integrated cavity block equipment for building yacht, adopted CAD/CAM technology in designing and building yacht, and even robot was introduced to yacht production line.

2.4 Review of development progress of Chinese yacht industry

2.4.1 Embryonic stage (1950s-1970s)

China began to get involved in modern yacht industry and imported production technology of fiberglass material from England in the 1950s. Finally, Shanghai glass factory succeeded in building the first fiberglass reinforced plastic boat in 1958. Because of low level of consumption, yacht industry grew slowly from the 1960s to the early 1970s, and lots of factories mainly built motorboat and fiberglass reinforced plastic boat supplied to park or artificial lake, and lifeboat used for police. Until the late 1970s, to adapt to development of tourism, more and more delicate motor yachts have been produced, most of which are public yachts used for tourism and transportation, rather than private and luxury yachts.

2.4.2 Developing stage (1980s-early 1990s)

After the 1980s, China carried out reform and open policy, the yacht industry made considerable progress. As a result, professional factories building yacht emerged in a large number, which attempted to build yachts of different size and type by introducing advanced foreign technology. For instance, the first luxury yacht named gypsy 7 meters long were built in 1982, and exported to Europe. From the 1990s, the design and shipbuilding level of yachts in china made obvious improvement. Guangdong glass fiber reinforced plastics factory built four sailing catamarans twelve meters long for France in 1994. At this stage, the quality of Chinese yacht products are not quite well, mainly sold to domestic administrative departments, tourism authorities, fisheries departments and so on.

2.4.3 Accelerated developing stage

After the 1990s, as constantly rapid growth of Chinese economy and sharply increase of the consumption level of resident, more and more rich people began to pay attention to tourism market, in the meanwhile, global world industry showed a trend of transfer to low labor cost country. A mass of factories producing yacht and associated equipment thought highly of Chinese yacht market and invested in China one after another, and lots of foreign advanced technologies of yacht were introduced to domestic enterprises which improved both the productivity and the design level of Chinese yacht industry. At this stage, Chinese yacht consumer market became increasingly popular, and also the quantity of private luxury yacht owners raised, that is to say, the number of yacht consumer rose from nothing and showed a potential promising prospect. In 1996, some Chinese businessmen took the lead in establishing yacht clubs which promoted development progress of yacht clubs in China.

2.5 Development tendency of yacht economy

The twentieth century was golden age of global shipbuilding industry without question. At present, market capacity of global yacht industry led by America, Europe and Japan is up to 40 million dollars, thereinto American is still the biggest country in terms of yacht manufacturing and Europe also keeps a favorable position in this respect. Overall, the market demands of expensive sailing yacht, big size high-powered engine, yachts with large load capacity are expanding day by day. In the other hand, developed countries have to face up changing obsolete yachts to new

ones and yacht economy markets of developing countries are emerging inexorably. Since shipbuilding craft of yacht is quite complex and yacht which aims to rich people is a kind of luxury consumption, the consumers of yacht are mainly well-educated and upper population, however, there is also a tremendous potential in yacht economy for countries of secondary world.

Obviously, yacht industry is advancing to more humanization and high technology direction. Yacht consumption which is being accepted by more and more people is not only consumer products of rich people. Meanwhile, yacht clubs constantly evolve, supporting facilities become complete and perfect as well, all these factors make after-sale service, management and maintenance more systematic.

Chapter 3 Introduction to Current Situation and Prospect of Yacht Industry in

Tianjin

3.1 Analysis of advantages of developing yacht industry in Tianjin

3.1.1 Location

Tianjin is located in the center of Bohai Economic Zone, close to Beijing and exerts influence on about 13 provinces including the north region, the northwest and northeast. In addition, Tianjin is a coastal city with up to 153 kilometers long coastline and the fifth-biggest port in the world. Furthermore, the city has vast land and quite convenient transportation. Taking Tianjin as the center, there are 11 cities of more than a million population including Beijing, Tianjin within a radius of 500 kilometers, and the total population in this area reaches up to almost 220 millions, accounting for 17% of national population. The per capita gross national product of Beijing and Tianjin are all more than ten thousand dollars, Inner Mongolia seven thousand dollars, Shanxi province five thousands dollars respectively. In other words, the abundant tourism resources, huge consumer market and healthy economic level around Tianjin city symbolize that it is completely suitable for the city to develop yacht industry.

3.1.2 Weather and geographical conditions

Tianjin with sub-humid continental monsoon climate is located on the east coast of mid-latitude Euro-Asia Continent mainly influenced by monsoon circulation. Spring

is dry and windy but lack of rainfall, the summer is hot and rainy, the autumn is neither hot nor cold, and the winter is cold, with less snow. In the meanwhile, Tianjin usually prevails monsoon, exactly speaking, wind speed is always maximum in spring and winter when minimum in summer and autumn. Affected by strong wind of winter and spring and sea-ice, from May to November every year are the best time for sailing out by yacht. Compared with other cities around the Bohai Sea, Tianjin city is in the deepest part of the Bohai bay, as a result, wind and waves are much gentler, its climate is warmer, and usable time for yacht can be much longer.

3.1.3 Policy environment

In 2006, Tianjin Binhai New District was brought into a part of national development strategy, which would stimulate local economic development undoubtedly. Till now, this district has been one of the developed regions in China with the highest trade openness, the most preferential policies. Furthermore, Construction Project of Coin Function District of Tianjin northern international shipping center was authorized by the State Council of China in 2010. According to the document, Tianjin Dongjiang Bonded Port District as the Coin Function District of Tianjin northern international shipping center was approved to be prior to carry and try many measures in terms of ships on international voyage, shipping finance, seaplane and large equipment leasing, which provide important references for developing yacht industry. Tianjin Dongjiang Bonded Port District is always devoted to improving policy system of yacht industry, and put forward lots of policies, for instance, providing fund support for purchasing yacht, gives discount for trade show of yacht manufacturing, in this way, promote yacht industry clusters in Dongjiang Bonded Port District.

3.1.4 Industrial and tourism base

Tianjin as the birthplace of Chinese shipbuilding industry has perfect industrial base and technical superiority. Moreover, there are so many factories in Tianjin which can produce steel, seamless steel pipe, outfitting pieces, industrial pump, valve, furniture, specialized dressing and electronic products needed in shipbuilding industry. All these factors can both provide ship design, building, maintenance, equipment related to yacht industry and bring new opportunities for Tianjin shipbuilding industry.

In addition, Tianjin as an important seaport for foreign trade and tourist destination can host a large number of tourists every year, even the number reaches up to two million in 2011. Moreover, Tianjin International Cruise Home Port lies at the south end of Dongjiang Bonded Port Area, which also contributes to development of corporate travel to Tianjin. Thereby, these conditions lay the foundation for promoting tourism economy.

3.2 Status quo of yacht industry in Tianjin

3.2.1 Yacht club

Operation of yacht and series of relevant leisure activities totally depends on professional yacht club. Modern yacht club has evolved into multifunctional places including catering, entertainment, accommodation, business, berthing, driver training, maintenance, fuel supply, etc. Thus, it is an international norm that judging whether yacht consumption is mature and normative or not by operating details of yacht club. Tianjin city is a coastal city with the Haihe River through the whole city, and also

adjacent to Beijing, capital of China, all these respects create wonderful conditions for Tianjin to develop yacht clubs. Therefore, Tianjin has set up high-ranking business clubs along coastal areas and the lower reaches of the Haihe River, and also medium-and-small sized recreational clubs along middle and upper reaches of the Haihe River.

3.2.1.1 Yacht club located in coastal areas

1) Yiyang Yacht Club

Yiyang yacht club invested by Rainbow Real Estate Group is a yacht club built by international standard. According to overall planing, the club aims to construct 550 marinas and invest about 300 million RMB in building yacht marina, dry chamber, clubhouse and hotel, etc. At present, the club has entered into the stage of inside decoration, new breakwater projected has been activated, and also 85 berths will be built by the end of the year. It is estimated that the club would start trial operation next month. (Tianjin MSA, 2013)

2) Zhongao Royal Yacht City

Zhongao Royal Yacht City as an important project of the Tianjin central fishing port covers an area of 221.7 hectares, building land 121.7 hectares, water area 100 hectares respectively. The whole project is supposed to be built up in six to eight years including about 800 marinas, yacht villa, high-end housing, hotel and commercial facilities, finally, it will be a multifunctional and comprehensive area with characteristic industries, dining entertainment, sightseeing tours all-in-one. So far the underground infrastructure has been completed. (Tianjin MSA, 2013)

3) Central Business District Yacht Club

The club positioning to high-end business people is located at the low reaches of Haihe River, which is also adjacent to Yujiabao Financial District known as the biggest Financial District in China. The club has owned handful of customized and imported luxury yacht, in order to meet the entertainment demands of members of yacht club and business reception of High-end person in Financial District. In the meanwhile, supplies adequate berths of different size for private yacht and specialized services about yacht management. (Tianjin MSA, 2013)

4) Hisibi Yacht Club

Hisibi Yacht Club is located in Tianjin Binhai Tourism Area, whose floor space is about 667 thousand square meters and amount of capital invested is about 3.1 billions RMB. The project is mainly divided into three parts, yacht manufacturing base, yacht trade center, yacht club and supporting real estate. It is planned to construct 500 berthing in this area. (Tianjin MSA, 2013)

5) Qihang Yacht Club

Tianjin Teda Group has invested fifty millions in Tianjin Binhai District to establish Qihang Yacht Club. This club depends on marine tourist resource in Tianjin carries out many related operation items in terms of marine sightseeing, yacht race, yacht commission sale, yacht leasing, ship board wedding. So far, the sightseeing items by small yacht have started its preliminary operation in Dongjiang port and Hangu port. (Tianjin MSA, 2013)

6) Tianjin Zhengling Yacht Club

Zhengling Yacht Club invested by Beijing Zhengling Technology Limited Company is on behalf of a group of small yacht club in Tianjin. The club mainly depends on Central Fishing Port and its resources in the coastal area, and provides supporting services for middle class in terms of sea tourism, sea fishing, diving, business party, etc. so far, the club has possessed six yachts berthing at the Central Fishing Port, two of which has went through ship registration. (Tianjin MSA, 2013)

3.2.1.2 Small and medium yacht clubs in inland water area

The yacht clubs in this area in Tianjin are of three types. The first kind is property-oriented club which mainly rely on an real estate and constructs some marinas as private property of proprietors or sold to the public. Take Star Shines Five Continents for example, until now, the club has built about thirty marinas, and owns three middle-sized yachts and ten small-sized yachts. The second kind is tourism-oriented club which makes full use of beautiful scenery along the Haihe River, feelings of Tianjin residents towards the river and complete supporting facilities of Tianjin, to develop many items about sightseeing along the river, wedding and so on. For example, Jiaohang Yacht Club which has built up twelve marinas, owning six yachts and even a yacht exhibition center almost a thousand square meters. The third kind is sport-oriented club which is established for yacht consumers who enjoy water sports, such as Tianhai water sports club.

3.2.2 Yacht exhibition

Yacht market partially relies on the construction of yacht clubs and marinas, thus, with the improvement of policy and regulation, yacht consumption would be involved in public daily life as usual as cars. It is estimated that fifty thousand yachts will be purchased by Chinese, and the total market value accounts for 50 billions to 100 billions in the next five to ten years. As for Tianjin known as northern shipping center, the development potential of yacht market is definitely huge.

Tianjin yacht exhibition, one of the biggest regular exhibitions in China has been held three times successfully. In virtue of it, many domestic and international big brand yachts assign business agents in Tianjin. For instance, Tianjin Xintai International Trade Limited Company mainly operates the import and sales of Champion yacht, Tianjin Foreign Trade Company agent for the sales of Merengue yacht.

3.2.3 Yacht building industry

Fiberglass material is quite fit for building sample yacht. However, the building period could even last several months due to spraying and bonding craft. Moreover, it is necessary to build yacht in warm environment with very small temperature difference. Therefore, yacht building industry developed quite slowly. When large ship repair and building industry as pillar industry of Tianjin has a long history and important position, which lays a strong foundation for developing yacht building industry in Tianjin.

Nowadays, both the transfer of function of the Haihe River and renewal of old shipbuilding base will add to the life and vitality for yacht building industry of Tianjin. In addition, the yacht manufacturing companies of developed country which build high-class yacht made from aluminum has set up branches in Tianjin. Thus,

Tianjin has the potential to be northern yacht industry base.

3.3 Development plan of yacht industry in Tianjin

Tianjin municipal government has taken yacht industry as an important measure of Strategic restructuring of the economy. The government started to draw up The Planning Outline of Cruise and Yacht Industry in Tianjin, according to the planning, Tianjin will accelerate to construct marinas and yacht clubs, and plans to construct 2750 yacht berths, including 750 in Dongjiang Port, 800 in Central Fishing Port, 600 in Binhai Tourism Area and 600 in Binhai Business Area. Each newly-built yacht marina should reserve public yacht berths in proportion of no less than twenty percent, and also in order to reserve public shoreline for long-term development, the proportion of long-term public yacht berths should be no less than sixteen percent. In addition, the Dongjiang Port will build up yacht trade market and bonder warehouses, both the Central Fishing port and Binhai Tourism Area will establish yacht manufacturing industry area, the former will set up a yacht training school as well. Moreover, in order to supply insurance to yacht manufacturing and safety standard, it is encouraged to build quality inspection center of yacht products in any well-qualified yacht area. Finally, manage to establish primarily the biggest yacht industry bas with whole chain all ready in north of China. (Tianjin MSA, 2013)

Chapter 4 International Practices and National Regulations Concerning Yacht

The legal validity of all the legal instruments on yacht can be easily understood in Figure 2.

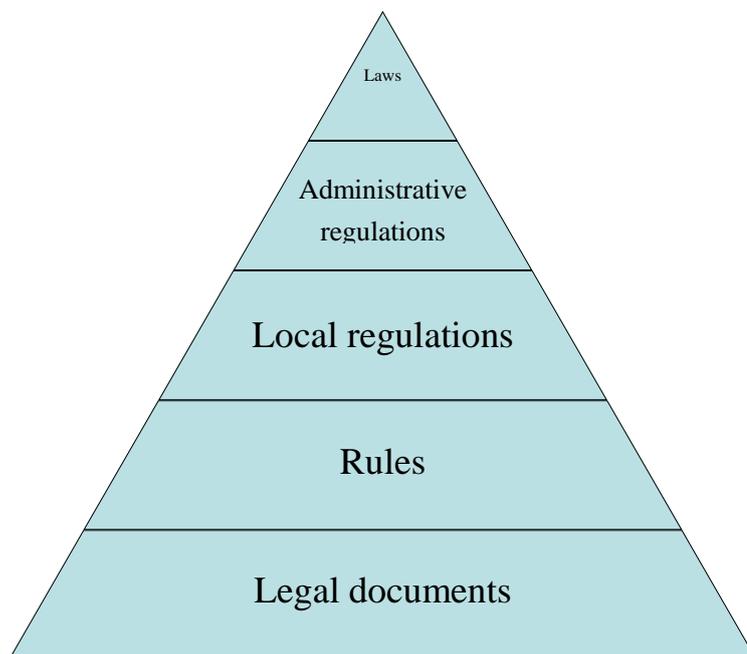


Figure 2- Legal validity of national regulations on yacht.

Source: compiled by the author

4.1 Yacht registration

4.1.1 The Yacht Safety Management Regulation

In this regulation, Article 6 indicates that any yacht sails or berths in waters under the jurisdiction of the People's Republic of China (hereafter abbreviated as PRC) must acquire Certificate of Nationality of Ship, otherwise, it is not allowed to sail or berth in these areas. Each shipowner who applies for nationality of ship should hold the inspection certificate and the ownership certificate, and then the Maritime Safety Administration will audit all these certificates and issue certificate of nationality of ship of PRC. As for the related requirements about nationality, there is not any exceptional exemption clause for yacht compared with other ships.

According to the definition of yacht in the regulation, a yacht does not belong to ships which are engaged in profitable transportation, thus a yacht can not apply to the article about the limit of proportion of Chinese investment in Regulation on Ship's Registration.

4.1.2 The Interim Procedures of Yacht Management in Tianjin

The procedure came into force on August first 2013. In light of this procedure, Article 6 indicates that, as for short-stay foreign yacht in Tianjin, as long as the yacht has held product certificate and sign recognized and put on record by Maritime Safety Administration (hereafter abbreviated as MSA), it would be absolved from ship inspection and registration. While as for long-stay foreign yacht in Tianjin, in spite of it could be free from supplying drawings of ship design, it ought to apply for ship inspection and registration.

In addition, Article 7 regulates that the yacht owners in any following circumstances should apply for registration of yacht ownership and nationality:

- 1) Yacht owned by a person who has permanent housing or place of business in Tianjin.
- 2) Yacht owned by a legal person or an organization who set up place of business in accordance with the law in Tianjin.
- 3) Yacht owned by a person or an organization or a legal person who does not have any permanent housing or place of business but joins yacht club or yacht association in Tianjin and becomes its member.

4.1.3 Regulation on Management of Ship Identification Number of PRC

In the light of the regulation, Article 2 states that any ship registered in China according to Regulation on Ship Registration of PRC must acquire ship identification number. Therefore, from January first 2011, any ship attends to handle ship registration in accordance with the law should obtain ship identification number.

4.1.4 The regulations on ship registration in foreign countries or areas

Different countries have totally different attitudes to ship registration. As for Taiwan, yacht is divided into self-use yacht and public yacht, which is handled by tonnage separately in terms of ship registration. Yachts of more than twenty gross tonnages should apply for registration on the basis of law of ship registration and maritime management administration will issue certificate of ship registration if qualified. While yachts of less than twenty gross tonnages should enroll, and the administration will issue certificate of yacht which is different from the former type of yacht. Before applying for registration or enrolling, the yacht should have complete inspection and

carried out tonnage measurement. Regardless of self-use yacht or public yacht, Minimum Safety Manning Certificate is not necessary.

While in New Zealand, the government does not ask for registration, a new-built yacht should hold a safety certificate issued by Coastguard and ship industry association which is equivalent to product quality certificate when delivery.

As for Hong Kong, ship registration and license application can be conducted separately. License is a kind of statutory requirement, which means no matter it is business ship or not, so long as the ship sails in Hong Kong water rather than temporary berthing, the license would be necessary. However, ship registration is voluntary and with no limitation to the applicant in Hong Kong. The ship which confirms the ownership by registration can sail in Hong Kong flag. It is noted that the yacht in Hong Kong does not have any requirements about minimum safety manning.

4.2 Yacht operator

4.2.1 Latest domestic regulation

The Rule on Competency Exam, Assessment and Certificate of Seaman of PRC establishes the same standard of a yacht operator in terms of exam, assessment and certificate in China, thus solves the problem of different requirements in various provinces and universal yacht operating certificate. There are many specific and practical demands for a yacht operator.

The Rule states that whenever a person operates a yacht in territorial waters of PRC, he should hold yacht operating certificate issued by maritime safety administration, and he can only operate yacht within the scope of application endorsed in his own certificate. In addition, the rule not only expands the age of operator but also reduces the demand for physical examination. Especially for persons over 70 years old but still need to operator, they can renew yacht operating certificate with one year period of validity after submitting proof of physical condition each year.

With regard to overseas yacht operators apply for yacht operating certificate, the rule provides that the person who holds yacht operating certificate issued by overseas maritime authorities should apply for new certificate with the same range of application as the old one to China MSA after passing corresponding practical assessment and training.

4.2.2 The demands for Singaporean yacht operator

Generally speaking, developed countries usually implement much more flexible system to yacht operator. For example, New Zealand only has limitation in speed and age rather than compulsory exam. By contrast, Singapore has a similar system with China on yacht operator management whose primary characters are illustrated as follows:

- 1) There are several necessary conditions for people who want to apply for Powered Pleasure Craft Driving License (hereafter referred as PPCDL). First, the person must be at least 16 years old. Second, the person must pass the trainings held by training institutions recognized by Singapore Maritime Port Association (MPA). Third, the physical test report can prove that the applicant has passed vision test and without any physical defect. Finally, passing the PPCDL exam held by

Singapore MPA is definitely requisite.

- 2) Singapore does not allow foreign license to transfer into local license. However, to provide convenient way for visiting yacht operator without PPCDL, he should pass a test about familiarity on local waters whose validity of period is six months before sailing.
- 3) PPCDL has to be renewed before invalidation. Fortunately, the MPA will inform the holder of license the procedures of license renewal by post before the license expires. If renewing license within a year after invalidation, the applicant can attend recognized training, while renewing one year later after invalidation, the applicant has to take part in exam again.

4.3 Yacht sailing and berthing

4.3.1 A brief introduction to traffic control of foreign yachts

Singapore with developed yacht industry and convenient transportation is a world-class port, which is very good at handling yacht sailing and berthing. Its experience is worth learning as follows.

4.3.1.1 Navigation conditions of yachts

The yacht should be equipped with valid inspection certificate and registration certificate, operated by person who owns PPCDL. The ship name should be marked

at bow and stern clearly under the word “SINGAPORE”. In addition, yacht should be equipped with radar transponder as well.

4.3.1.2 Yacht berthing

The shipowner should berth yacht at a yacht club, marina or designated berth, otherwise the shipowner would be penalized for berthing illegally. And if a yacht is scrapped, the shipowner can dispose the yacht freely in the approval of Singapore MPA.

4.3.1.3 Traffic control of yachts

- 1) The yacht should comply with International Regulations for Preventing Collisions at Sea.
- 2) All the visiting yacht should sail according to recommended route whenever arriving in or leaving Singapore.
- 3) When any yacht plans to leave Singapore is applying for port clearance, it is necessary to declare destination, estimate time of arrival and passage plan this voyage to MPA in prescribed form.
- 4) All the visiting yachts must be installed with Automatic Identification System (AIS), and can only voyage between each port in harbor district for entertainment.

- 5) In order to enhance ship security, the MPA draws up the yacht security code and issues it for each yacht. The code which is just a piece of color graph is very simple and easy to use, mainly including four aspects, emergency preparedness, sailing alert, staying observant, reporting to authority positively.
- 6) There are some additional requirements for yacht with more than 12 passengers. To be specific, when a yacht leaves port with more than 12 passengers, it must provide the MPA with ship registration certificate to prove the yacht is allowed to load the number of passengers and the yacht has been equipped with enough life-saving devices on the basis of the demand of flag state, and if the voyage is beyond the boundary of thirty nautical miles, the yacht should be equipped with Emergency Position Indicating Radio Beacon as well.

4.3.2 A brief introduction to traffic control of national yachts

The regulations on yacht sailing and berthing in China mainly manifest in The Yacht Safety Management Regulation and the Implementation Suggestion of Work on Yacht Safety Management., summarized as follows.

- 1) The yacht should hold valid ship inspection certificate, ship nationality certificate and yacht operator should also hold effective yacht operating license, furthermore, the yacht can only sail within the scope regulated in inspection certificate.
- 2) The yacht operator must have received safety inspection before sailing, the yacht owner of the yacht club should prior to the first voyage of a yacht, have to report the water areas, in which the yacht is to sail, to the local MSA for record-filling, and even sailing waters is beyond scope of record-filling, the information about ship name, sailing plan, yacht operator, passenger list and emergency contact

phone number is also needed.

- 3) Any yacht should apply for a kind of one-year periodical endorsement for yacht in the light of the Administrative Rules of Ship Endorsement.
- 4) There are also some special regulations which a yacht must obey. The yacht ought to avoid sailing in extremely bad weather and other unsafe conditions. In addition, the yacht should avoid sailing in ship's routing waters, main channel, anchorage, aquiculture area and traffic-intensive area, if the yacht does require enter above-mentioned area, it would follow the command of MSA. Finally, whenever the yacht can not sail in prohibited areas and safety operation zone.
- 5) The yacht can only berth in exclusive berthing water areas which conform to the requirements for safe berthing, wind avoiding and facilitating people's boarding and leaving a yacht safely.
- 6) As for emergency response, to deal with accidents of dangerous situation of yacht, the MSA has drafted the policies and regulations on marine salvage, formulated emergency response plans and related regulations and system for marine salvage and vessel pollution accidents, meanwhile, the MSA also demand yachts to install corresponding communication devices, so that the yachts can be fixed exactly and quickly when accidents happen.

4.3.3 The management on yacht entering or exiting port

The yachts of international route enter or exit port of PRC should go through formalities by rule of related law of China. When foreign yachts enter or exit

territorial waters of any branch of China MSA, there is not compulsory pilotage on the premise the yacht can be safe. It is noted that the yacht entering Tianjin port must go through formalities during 24 hours, otherwise, the yacht is not allowed to take and drop passengers or load and unload cargos.

4.4 Yacht club

4.4.1 Definition

The Yacht Safety Management Regulation states that yacht club is a lawfully established organization which can supply the members of club with services of yacht operating and safekeeping. Each branch of the China MSA basically adopts this definition rather than extending it.

4.4.2 Qualification

To be specific, the yacht club should have corporate qualification, have the ability of safety and pollution prevention, corresponding safe berthing waters for yachts, enough equipment to prevent yachts from being damaged, install communication facilities at sea, have the ability of daily maintenance, safeguard, repair, and have corresponding ability of emergency rescue, etc.

4.4.3 Responsibility of safety and pollution prevention

The Yacht Safety Management Regulation shows that before the shipowner delegate

yacht club to safeguard his yachts, the shipowner should sign an agreement with the yacht club in which both sides states all the relevant responsibilities in terms of safety of navigation and berthing, routing maintenance and pollution prevention. In this way, yacht club should comply with related regulations of the MSA and agreements with shipowner, undertake responsibilities for yacht safety and liabilities of pollution prevention. Furthermore, in the Interim Procedures of Yacht Management in Tianjin, there are much more necessary conditions for establishing yacht club and its rights and obligations.

4.4.4 Record filling system

The legally registered yacht club should be recorded to branch of the China MSA of the club's location, and then the MSM will verify the abilities of safety and pollution prevention of the recorded club, if qualified, the yacht club shall grant record filling and publish. Generally speaking, the yacht club should offer the following data to the MSA to put on record: qualified document of legal person, basic situation of yacht club and yacht management, model agreement of club and member, documentary evidences of dedicated management staff, conditions of berthing and navigation waters for yacht, documentary evidence of yacht marina and equipment for safety and pollution prevention, etc.

When any item related to filling record undergoes major change, the yacht club should apply for renewing record to the MSA in time, and the MSA will check out the materials offered by applicant and verify related items. If the requirements are fulfilled, the MSA would grant record and publish. Moreover, the MSA will carry out inspection to the cases of operation of yacht club and publish the result in time.

4.4.5 Obligation

The obligation of yacht club should bear to its members and yachts mainly include lots of items: carry out publicity, training and education about yacht safety, pollution prevention, emergency response to yacht operator and passenger, urge yacht operator to comply with related regulations and implement corresponding measures, make sure security of yachts in berthing waters, verify whether yachts and yacht operators hold valid certificates, supply yachts with weather and hydrological conditions needed in navigation and navigational warnings announced by the MSA, keep in touch with yachts and the MSA constantly, and according to emergency plans reported to the MSA, organize emergency drill with all members taking part in periodically, etc.

4.5 Safety inspection

As for yachts, developed countries or areas used to emphasize self-discipline management. Only if a yacht is going to leave port, circumstances that have a great influence on structure or performance of yacht, or passengers are more than capacity of the yacht, the maritime authority of the country would carry out extra safety inspection. For example, the New Zealand authorizes the inspector of yacht association to implement safety inspection to New Zealand yachts which are off port on the basis of Articles of Shipping Law 1994.

The newly amended Ship Safety Inspection Rules, 2010 of China have come into force, in which a yacht is not excluded. However, Yacht Safety Management

Regulation only provides that yacht operator must carry out safety inspection before sailing, it does not explain whether MSA should implement this inspection in the light of Ship Safety Inspection Rules, and each branch of MSA formulates some supplemental regulations.

Chapter 5 Analysis of Problem Existing in Safety Management of Yacht in

Tianjin

Generally speaking, the problem existing in safety management of yacht in Tianjin can be easily understood in Figure 3.

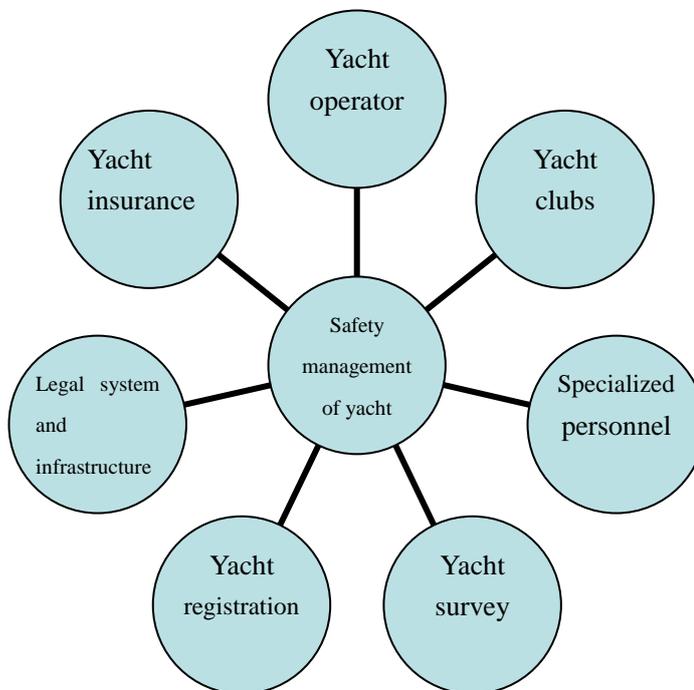


Figure 3- Problem existing in safety management of yacht in Tianjin

Source: compiled by the author.

5.1 Yacht registration

The existing national law on regulation of yacht registration basically adopts the

management system equivalent to merchant ship. The regulations on merchant ship registration is already very complete, in general, yacht registration can comply with these regulations; however, there are such many difficulties during the process due to the particularity of a yacht itself.

- 1) According to the Implementation Suggestion of Work on Yacht Safety Management. The China MSA authorizes Hainan MSA, Shenzhen MSA, Xiamen MSA and Zhuhai MSA but not Tianjin MSA can handle registration formalities of yacht owned by person does not have local accommodation.
- 2) By rule of current related law, any ship intends to handle ship registration formalities in China, it is necessary to acquire the ship identification number, including the ships built for overseas but applied for temporary nationality certificate of China. In Tianjin, there are many yacht industry companies which are foreign-funded enterprises whose yachts are mainly exported to overseas, it is necessary for these yachts to handle temporary nationality certificate of China. The ship design materials of the kind of yachts are not authorized by national ship inspection agencies, and the yachts can not provide the materials needed by applying for Ship Identification Number, thus it is quite difficult for them to get the number, so that they can not carry out ship inspection and handle the temporary nationality certificate unfortunately.
- 3) The Yacht Safety Management regulation shows that the yachts whose carrying capacity is more than 12 should be supervised as a passenger ship. If we actually regard the kind of yachts as a passenger ship, the MSA should issue minimum safety manning certificate for them. However, the Ship's Minimum Safety Manning Code clearly states that the code does not apply to non-operating yacht.

Therefore, how to ensure the minimum safety manning of this kind of yacht is a problem deserved further research.

In summary, based on all the regulations on yacht registration, the author thinks that there are six problems we have to deal with, whether the yacht should be treated as the same as merchant ship when handling ship registration; whether a foreigner can handle yacht registration in his own name; whether a yacht, especially delivered in foreign countries, need to apply for ship identification number; a yacht with more than twelve passengers how to ensure minimum safety manning; how to handle temporary nationality certificate for yachts of Hong Kong and Macau; how to handle ship registration for yachts imported overseas.

5.2 Yacht survey

The inspection specification and regulations of yachts in China are always lagged behind and conservative. Recent years, China has enacted many laws and regulations on yacht, including Yacht Safety Management Regulation which came into force on January 1st 2009, Yacht Construction Specification which came into force on August first 2008, the Interim Technical Regulation of Yacht Legal Survey which also came into force on January 1st 2009, it indicates that Chinese government has paid attention to yacht industry and regulation construction of yacht has made a significant progress. However, the laws still have lots of shortages in a real practical application, mainly reflecting in the following aspects.

Compared with foreign countries, the survey institutions in China do not distinguish

the survey procedures of yachts with other ships, and the procedures are still quite tedious. There are not construction specifications and regulations aiming to yachts more than twenty meters long, which are still treated as passenger ship. Some typical skeletons, structures and technology have not been involved in the specification. All these deficiencies have a serious impact on the yacht survey. Tianjin city as a developed area of yacht manufacturing in China has to face up following problems.

- 1) The Tianjin MSA' officers often check out whether the ship has got ship sea trial certificate before the sea trial when they are carrying out site supervision. However, the MSA has not made any explicit regulations on certification of yacht sea trial inspection.
- 2) Although yacht manufacturing industry in Tianjin is well developed, the yacht type survey did not implement yet which mismatches with rapid development of yacht industry. Thus, it is critical to encourage enterprises which have carried out scale production of yachts to apply for yacht type survey.
- 3) The raw materials, electromechanical devices and outfitting mostly stem from foreign factories which can not be recognized by national inspection institutions at present, it is a substantially complicate problem during yacht building survey and yacht initial survey.

5.3 Yacht operator

A yacht belongs to non-convention ship, International Convention on Standards of

Training, Certification and Watchkeeping for Seafarers, 1978 is not applicable to non-operating yacht operators, and the Code of Competency Exam, Assessment and Certification for Seafarers of PRC can not apply to this kind of yacht as well. Thus, each branch of China MSA enacts distinctive documents to face up the situation which makes looser regulations for the qualification of yacht operators.

Firstly, the yacht operator is able to become a registered seaman without obeying Regulation of the PRC on Seamen. Secondly, a person who is willing to apply for yacht operator certificate does not need experience at sea and education background of navigation. Thirdly, the standards of physical examination are reduced. Fourthly, both the contents of training exam and the training time are reduced sharply, in the light of Chinese Traffic Safety Law at Sea, people can apply for yacht operator certificate after the corresponding trainings of yacht operating and collision avoidance, knowledge of simple firefighting, lifesaving and survival, and then pass the exam and assessment.

In addition, the Rule of Minimum Safety Manning of Ship of PRC clearly states that it is not applicable to non-operating yachts, therefore, the yacht just needs to provide valid certificates of yacht operators. Because the standard and kind of yacht operator issued by each province are inconsistent with its applicable waters, the shipping world is appealing to enact a nationwide relevant regulation. Finally, China MSA enacted the first nationwide regulation about certification of yacht operator, the Procedures on Training, Examination and Certification of Yacht Operator of PRC, which unifies the national standard in this respect.

5.4 Yacht clubs

In a word, a yacht club is the transfer central nerves of advanced building, interim marketing and leisure, maintenance of later period, without increasingly growing of yacht clubs, there would not be the development of yacht industry. Generally speaking, the principle functions of yacht consumption are undertaken by a yacht club. The purpose of establishing a yacht club is to popularize marine leisure activities, to supply club members with living space for business, entertainment and leisure, to be exact, the functions of a yacht club should include star hotel, relaxing vacation, business negotiation, social entertainment, seaside villa, water sports, yacht servicing and maintenance.

However, because the real yacht club should have the characteristics of a great deal of investment, very complicated administrative permission, quite long construction cycle and slow capital return and so on, which throws out a big challenge to the barely started Chinese yacht industry. Until now, Tianjin city has built about ten yacht clubs including built in coastal areas and inland waters, most of which are small and medium-sized yacht clubs to cater to market demands. Although the government of Tianjin has thought highly of yacht industry, most of building yacht clubs in Tianjin rely on real estate enterprises, which are highly influenced by the macroeconomic policy, the stronger financial stain of these enterprises are, the construction period of club would be longer.

5.5 Specialized personnel

With the rapid development of yacht industry, the incompatibility of shortage of specialized personnel is increasingly prominent, especially lack of designer, industrial worker, maintenance technician and professional services and management personnel in Tianjin, which is already an important bottleneck constraining industrial development in Tianjin. As a result, many personnel of club management, specialized maintain in Tianjin are imported from Singapore, Hong Kong and American.

Tianjin has owned lots of universities, scientific research institutions and abundant training resources for seamen, including one undergraduate college, two vocational colleges, two secondary schools and a training agency. However, only Tianjin maritime professional college has set training courses for yacht operators, and training kinds can not involve all the ranks of yacht operator trainings. Moreover, only Nankai University has set several courses on cruises and yachts, all the other colleges have not ever set any courses on management, marketing and design related to yachts, which is bad for the development of training base of yacht personnel in Tianjin.

5.6 Legal system and infrastructure

As for the reason why yacht industry in America is so well developed, a very significant reason is that American established Yacht Safety Law of Federal early in 1971, which provided a regular legal environment for yacht owners. While there is not a specific competent authority in China not only in Tianjin now, moreover, the regulations concerning yacht management still continue to use laws about merchant ship, national regulations or documents aiming to specialized marinas of yachts,

channel, yacht activities, maintenance and safety assurance are extremely insufficient. Different administrations supervise yachts in various ways even diverse management system, which influences enthusiasm of wealthy people who are willing to purchase yachts.

On the other hand, although the development program of yacht industry of Tianjin regulates each yacht project must reserve twenty percent to sixty percent public berths, the fact is that many function district does not reserve construction land, and even does not give priority to building public berths. As a result, many yachts are in a tight situation that there are no berths to anchor for yachts, which has a bad impact on yacht industry in Tianjin.

5.7 Yacht insurance

Just like road transportation, when the yacht is sailing, it would encounter risks, even have an accident, and the responsible party may not perform liability of compensation. In this case, as the compensation of accidents, yacht insurance must develop at the same pace with yacht industry. Many developed countries in yacht industry require shipowners to purchase yacht insurance compulsively, and regard it as a standard of yacht registration. However, yacht industry is developing rapidly recently, there are not corresponding supporting measures about yacht insurance yet.

Chapter 6 the Countermeasures and Suggestions on Improving Yacht Safety

Management

6.1 Yacht registration

As for yacht registration in Tianjin, it is reasonable to learn managerial experiences from developed countries in yacht industry and simplify procedures of yacht registration. In this way, a much looser legal environment can be established for the healthy development of yacht industry.

6.1.1 Household registration system of yacht registration

Ship Registration Rules of PRC regulates that ship registration port should be determined by shipowners according to the nearer place between accommodation and business place. Thus, if a legal person without Tianjin domicile purchases a yacht in Tianjin, he could only go back to his hometown or business place for registration, which is so inconvenient for shipowner. To solve the problem, The Interim Procedures of Yacht Management in Tianjin (hereafter referred as The Procedures) states that if the yacht owner does not have any accommodations or business place in Tianjin but joins a yacht club or yacht association legally registered and become its member, he would handle yacht registration procedures for his own yacht in Tianjin. By building up true connection between yachts owners without Tianjin domicile and relevant yacht institutions in Tianjin, to overcome the puzzle

that yacht can not register in Tianjin in this case.

6.1.2 Seaworthiness of foreign yachts

According to the current rules, yachts sailing in Tianjin waters must hold ship survey certificate which satisfies the requirements of navigation area. However, a yacht belongs to non-convention ship to which most of international conventions are not applicable except obeying International Marine Regulation for Prevention for Collision. There are not the same norms or regulations in term of registration and survey system. Thus, foreign yachts always lack related documents and certificates needed in navigation which can not satisfy Chinese law. The Article 6 of The Procedure states that, as for foreign yachts which stay in Tianjin waters for no more than six months, ship registration and survey could be canceled, if the yachts hold product quality certificate recognized by maritime management institution. In this way, it solves the problem of seaworthiness of foreign yacht taking part yacht exhibition, competition and so on.

6.1.3 Safety manning

The Interim Regulation of Yacht Statutory Survey only applies to motor yacht whose number of passengers is less than twelve, in other words, only the kind of yachts can hold ship survey certificate issued by domestic survey associations, thus only this kind of yachts are entitled to apply for nationality certificate. But if the yachts issued certificate by other countries' survey institutions can apply for nationality certificate, passengers of the yacht maybe more than 12, and in this situation safety manning is definitely necessary. Therefore, it is feasible to make different demands for yacht manning by the number of passengers. Exactly, the yachts whose number of

passenger is more than 12 can be regarded as passenger ships and manning according to requirements of passenger ships, while as for yachts with less than 12 passengers, manning demand can be canceled.

6.2 Yacht berthing and sailing

6.2.1 Yacht endorsement management

At present, yacht endorsement whose duration is about twelve months is mainly carried out in the light of the requirements of Management Rules of Ship Endorsement. Yacht endorsement is quite different from other ships, the collection of port charges is not involved. Handling endorsement procedures is very complicated and inconvenient for yacht, which could be simplified to some extent. The author suggests implement principle of self-management and self-regulation of yacht owners, take much more flexible and convenient ways of endorsement for yacht entering of leaving port. For instance, change periodical endorsement for yacht into regular reporting system, replace traditional endorsement in dynamic reporting system in modernization means.

6.2.2 Import and export inspection on yacht

As concerned above, both the endorsement of domestic yachts entering or leaving port and the inspection of foreign yacht import and export basically consult common merchant ship. The former is in the charge of maritime administration when the latter is related to MSA, Custom, Frontier and Quarantine Bureau. Thus, Tianjin could

learn experience of Hainan Province, give full play to the advantages of Binhai New District, formulate and try out policies which are good for the development of yacht industry, implement one-stop policies on port management, explore boldly on yacht waters management.

6.2.3 Management on yacht trial

In Tianjin, yacht trial implements registration system. Only the yacht gets Type Examination Certificate issued by ship classification society or other documentary evidence of survey or certificate of product qualification of yacht building company, and manning enough qualified yacht operator, take necessary security measures, report emergency plan to Tianjin MSA, the yacht could trial in Tianjin waters.

After getting permission of Tianjin MSA, the yacht on trial trip could choose trial waters on the basis of its seaworthiness freely, except for ship's routing waters, main channel, anchorage, aquiculture area and traffic-intensive area. Meanwhile the yacht ought not to block the sailing, berthing, operation of other ships.

So far, the yacht trial is not very common in Tianjin, however, in the long run, with more and more yachts trial in Tianjin port, the navigation safety of yachts will become a prominent problem. The Tianjin government should organize relevant departments to make integrated planning on yacht trial waters, specific berthing waters, berthing spot and route. After scientific study, publish useful collusions to society by MSA, to regulate yacht sailing, berthing and make sure the safety of yachts and to stimulate yacht industry develop safely.

6.3 Yacht operator

With the Regulation of Training, Examination and Certification for Yacht Operator of PRC coming into force, it established uniform standards on examination, assessment and certification of yacht operator in China, which solved the puzzles that different requirements in different provinces and non-universal yacht license. However, the Code of Competency Examination, Assessment and Certification for Seafarers of PRC can not apply to yacht operator management, from my perspective, the following measures are feasible.

- 1) The basic demand is that yacht operators who sail the yacht in Tianjin waters should hold the yacht license issued by Tianjin MSA, and it is noteworthy that the yacht operator can only sail yacht within the applicable scope endorsed on his own yacht license.

- 2) Any person who holds the yacht license issued by foreign maritime administration or authority institutions applies to renew yacht license, he needs to pass an examination to test whether he is totally familiar with Tianjin Port. Only after finishing hand-on learning and assessment corresponding with applicable scope, would he be able to apply to renew the yacht license with the same applicable scope with the original one.

- 3) According to local regulation of Tianjin, the foreigners who hold yacht licenses issued by overseas maritime administration or authority institutions are allowed to sail yachts in Tianjin waters in seven days with no need for renewing certificate. However, with regard to the location of Tianjin, most of yachts which arrive here for water sports, exhibition or tourism may take more than seven days,

in other words, seven days recognized time is easily to contribute to yacht license out of use during the voyage. On the other hand, extending recognized time could promote the development of yacht tourism economy to a certain degree. Thus, it is more reasonable to extend recognized time of yacht license in this case.

- 4) Self-regulation of yacht operator is another problem we should pay attention to. Yacht operators are prohibited to sail after drinking, even the operators can not drink alcohol several hours before sailing. In addition, the operators are not allowed to take any medicine which may lead to unsafe watching, drug addition, drug selling and other illegal acts are also forbidden. The officers of Tianjin MSA could take measures to make sure operators are completely competent before sailing.

6.4 Yacht clubs

As far as the author concerned, the Regulation on Yacht Safety Management makes specific requirements about qualification, pollution prevention liability and on which has a positive impact on regulate management on yacht clubs step by step. However, all the requirements in the regulation are not specific quantitative criteria, we can improve it by the following means.

6.4.1 Establish access system

Learning from the practices of Qingdao city, besides making quantization on numbers of full-time management personnel of yacht clubs, environmental

conditions and service ability, we can also propose corresponding quantitative criteria in terms of facilities of ensuring yacht safety and pollution prevention, equipment of security and rescue communication, ability of recycling garbage, residual oil and ability of emergency rescue according to the scale of yacht.

In this way, establish access system of yacht club by making all these quantitative standards. Only the clubs which satisfy the standards, could enter the market, otherwise the clubs could not be accepted for filling of records by Tianjin MSA. Moreover, as for the so-called yacht clubs existing in the market, the MSA should examine and verify again, demand the clubs which can not meet the standards for rectifications. While exceeding the time limit still unconverted, cancel its qualification of putting into record.

6.4.2 Establish quality system

The MSA should require each yacht club to establish sound safety management system by reference to ISM and NSM implemented in shipping company. In particular, audit the safety management system of yacht club periodically, guidance and supervise its safety and emergency planning, to make sure it operates normatively and specialized.

On the other hand, perfect the yacht clubs' system of credit administration. By formulating detailed rules, carry out hierarchy management model. As for the clubs enjoying a great reputation, the MSA would give preferential treatments, simplify audit procedures for instance. When much more strict management to clubs with bad credit, enhance endorsement inspection, ship safety inspection and so on. And the MSA would adjust the credit level of each yacht club according to its performance.

6.4.3 Dedicated management personnel

So far, the dedicated management personnel of yacht clubs in China is pretty scared, which makes it especially necessary for maritime administration to carry out relevant training for this kind of talented persons. In addition, the Tianjin MSA should organize fire, rescue drill regularly on yacht for improving emergency response ability. And carry out assessment to the personnel who takes part in training courses, to promote them to learn more professional knowledge. Every yacht club in Tianjin must man corresponding people according to the number of yachts in the club. The measure would defiantly increase the professional accomplishment and responsibility of dedicated management personnel of yacht clubs in Tianjin.

6.5 Ship inspection

Yacht safety management should implement the management principle with a combination of self-management, self-regulation and supervision of MSA. And the related parties should take yacht clubs as the key point, put emphasis on public safety, compared with merchant ship, it is a kind of much looser supervision mode.

Before the yacht is sailing each voyage, the shipowner, yacht club and port state control officer of MSA must carry out safety inspection and fill record book of yacht safety inspection, and taking different inspection mode according to different number of passengers. For instance, yacht operators manage to self-inspection when passengers are less than three, the yacht club implement self-inspection when

passengers are between three and nine, when passengers are more than nine, the MSA carry out detailed inspection.

Furthermore, the Code of Ship Safety Inspection, the MSA should carry out safety inspection each half year, especially for operational yacht, the MSA should enhance the force in on-the-spot surveillance. And before water activities, yacht club and all the joint departments must enhance yacht safety inspection to make sure yachts which participate are totally seaworthy.

6.6 Pollution prevention

Actually, the marine pollution produced by yachts is much less than other ships, it is because the yacht belongs to fancy consumer goods, which is usually equipped with advanced wastewater treatment devices, thus its emission level of pollutant is quite low. However, pollution prevention of yacht used to be neglected, it is necessary to enhance training of yacht operators and managers, to strengthen the awareness of pollution prevention of related people.

Fuel supply operation of yachts is another problem we should focus on. Because most of yachts in Tianjin berth in Dongjiang port, it is feasible to build a specialized parking lot of yacht for oil supply in this area, and build an oil depot at appropriate location. The construction party should report specific supply means and pollution prevention measures to the MSA which is in charge of oil-feed operation of ship. In this way, it will bring convenience for both oil supply operation of yachts and supervision on pollution prevention of yachts.

Chapter 7 Recommendations and Conclusions

- 1) Establish a kind of safety supervision mode which is fit for manufacturing and consumption characteristics of yachts, rather than the same as management of a merchant ship. This is absolutely good for promoting yacht industry to develop healthily in Tianjin.
- 2) The development of yacht industry needs not only the innovation of safety management system but also the supporting of related policies of Tianjin government. The government should make full use of policy advantages of Binhai New District, formulate and tried out some regulations which are beneficial for yacht industry.
- 3) The Tianjin government should coordinate maritime, port, fishery and other related departments to set up specialized berthing waters and berths, continue to build public marinas for yachts as soon as possible, and break the mind-set that yacht belongs to luxury consumption, encourage yacht club to grow up quickly, finally making up the base of yacht consumption, to provide residents of Tianjin with all kinds of yachts.
- 4) The financial insurance department should carry out researches about financing and insurance of yacht, enact reasonable yacht insurance to control safety risk caused by yacht industry.
- 5) It is also necessary to summarize the management experiences of yachts,

implement the research about business qualification of yachts owned by the yacht club, and then make sure the subject qualification, legal status, establishment conditions and procedures of yacht clubs, to supply convenient policies for yacht clubs.

- 6) As we know, professionals play an important role in yacht industry, the government ought to give priority to importing professional staffs of yachts, provide corresponding favorable policies, meanwhile, set up standards of training and assessment on employees of yacht industry.

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