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## Research on the maritime safety management of yacht in Sanya Port

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**WORLD MARITIME UNIVERSITY**

Dalian, China

**RESEARCH ON THE MARITIME  
SAFETY MANAGEMENT OF YACHT IN  
SANYA PORT**

By

**REN WENGUANG**

**The People's Republic of China**

A dissertation submitted to the World Maritime University in partial  
Fulfillment of the requirements for the award of the degree of

**MASTER OF SCIENCE**

**In**

**(MARITIME SAFETY AND**

**ENVIRONMENT MANAGEMENT)**

2016

## **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.

(Signature): Ren Wenguang

(Date): August 5, 2016

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Professor of Dalian Maritime University

Assessor:

Co-assessor:

## **ACKNOWLEDGEMENTS**

Dissertation submission indicates that I am about to leave the campus, and step into a new life. Many thanks for our professors and teachers, for all these things done for us all year long. You have opened a whole new field for me. Thank you so much.

Many contents are from the previous work experience and on-site investigations, thanks to the support of SYMSA and staff of each yacht club in the process of collecting data.

The author cites the achievement of the research team of Wuhan University of Technology on the analysis of navigation safety of Sanya Bay and adjacent waters, which has obtained the permission of the team. Thanks to the support of the Wuhan University of Technology research team.

Thank you very much for my dissertation advisor, Professor Wang Fengwu. To give me great help in the research direction and the logical order of the paper, especially, thank you for the guidance for the way and the content of on-site investigations, which provide the factual basis for the completion of the paper.

## **ABSTRACT**

Title of Dissertation: **Research on the Maritime Safety Management of Yacht in Sanya Port**

Degree: **MSc**

Although in Sanya has been developed for ten years, the yacht industry is still also a new industry, maritime administration agency for its safety management, faces many problems and difficulties.

Firstly, according to the responsibilities of the maritime administrative agency and the characteristics of the yacht, the author would analyze the object and content of the marine safety management of yacht. With the use of the on-site investigation and ergonomics theory, the problems of the marine safety management and risks of navigation safety of yacht in Sanya port are analyzed, to acquire the emphasis of the yacht marine safety management of Sanya port.

Finally, referring to the experience of yacht management in developed countries and regions, in line with the actual situation of Sanya port, put forward the suggestions and long-range planning for the yacht marine safety management of Sanya port.

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## **LIST OF ABBREVIATIONS**

PRC	People's Republic of China
CE	Conformite Europeenne
ABYC	American Boat and Yacht Council
CNSS	China Shipping Services
CCS	China Classification Society
ISM	International Safety Management
ISO	International Standardization Organization
MSA	Maritime Safety Administration
NMMA	National Marine Manufacturers Association
SYMSA	Maritime Safety Administration of Sanya
VHF	Very High Frequency

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Research Background**

The yacht industry is known as “Huge business opportunity floating in the golden waterway”. In 2010, global yacht related economic income has reached more than \$50 billion, the average per 171 people in the yacht developed countries have a yacht, even Norway, New Zealand and other places achieve one per 8 people (Cui & Zhang, 2010, p. 40). World yacht consumption market mainly concentrated in the United States, Western Europe, Canada, Australia, Japan and other developed countries, and the Middle East oil exporters and other rich economies, one of the largest markets in the United States. Yacht researchers think that once the regional GDP per capita reached \$3000-5000, the yacht economy began to sprout. Squarely China is at this stage, although yacht industry has just started, but it is developing rapidly, and has become an important driving force of the development of some coastal (river) regional economy (Zhou, 2012).

As China's only tropical seaside tourism city, for the development of yacht tourism economy, Sanya enjoys the advantageous natural conditions.

Sanya is located at 18 °14N, 109 °31E, belongs to China's Hainan province, at the southern tip of Hainan island, is China's southmost tropical seaside tourism city, and

China's air quality best city as well. Due to the mild climate, water temperature there is always above 20 °C round the year suitable for sailing. Sanya has more than 3500 square kilometers of sea area, 259 km of coastline, 19 bays, more than 40 islands, and the unique and rich Marine resources because its vicinity to the South China Sea. Compared with other major coastal city of China, Sanya marine pollution is little, more than 97% of the inshore waters meet the national class I standard (GB3097-1997) (Sanya municipal government, 2011), and is recognized as the city suitable for development of new type of "Marine economy" in China.



**Figure 1.1 Geographical location of Sanya city**

Sanya yacht industry first started in 2006, compared with other cities in China, such as Guangzhou, Shenzhen, Xiamen, is later, but due to its unique natural conditions and national policy support, has rapidly developed. Since 2009 “The suggestions of promoting tourism industry” and "Opinions of Promoting the

Construction and Development of Hainan International Tourism Island several issued and implemented by Chinese State Council, yacht industry rapidly developed in Sanya. As of March 2016, the number of Sanya yacht (including unpowered sail) reached 410 ships, the first in China. Yacht and yacht wharf mainly are Sanya port、Yalong Bay and Dadonghai. This paper only discusses yacht, yacht club and wharf of Sanya port.

The port of Sanya located at Sanya River estuary is a passenger, cargo and fishing mixed multifunctional port. The port district has 14 wharfs, 9 anchorage, and narrow fairways, is accumulation area of Sanya yacht club and wharfs. At the same time all 96 passenger ships, passenger capacity from 5-450 people. The navigation environment of the harbor area is more complex and the safety risk is larger.



**Figure 1.2 Sanya port**

Source: Fishing port of Sanya relocation countdown (2015)<sup>1</sup>

Despite a decade of development, the yacht industry in Sanya is still an emerging one, the development foundation is weak, industrial chain is incomplete, especially in the

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<sup>1</sup>The Jyacht web site gives further information on courses: <http://www.jyacht.com/news/pinglun/20154/j0644039.shtml>

upstream of industrial chain research and in the downstream consumption support and ancillary services are also very immature, especially compared with the developed countries and regions of Europe and the United States, there are large gaps. Currently in yacht design, manufacturing, consumption, service, safety management etc., each link relatively lacks laws and regulations. While in the field of yacht safety management, owing to the lack of laws and regulations and the transition and adaptation to the merchant ship management mode, the yacht management is subject to overstrictness and rigidity, which hindered the incubation and healthy development of the yacht industry.

On February 16, 2016, "Green Wave 66" ship carrying 22 people from Xincun port to monkey island fish raft restaurant went capsized en route. And on February 18, 2016, yacht "Tian Yan Yi Hao" carrying 18 people experienced jeopardy because its propeller was stuck at the water area thirty nautical miles offshore in Sanya. The above two accidents, although no casualties, exposed the weaknesses and deficiencies of the yacht safety management of Sanya maritime administration. Nip in the bud, how to use the system of the theoretical to explore yacht maritime safety management, to establish a set of maritime safety management mode adapt to China's national conditions and to ensure the safety of the yacht, at the same time also can promote the industry development, is different from the merchant ship, is particularly important and urgent.

## **1.2 Research Objective**

This paper involves only maritime safety management within the responsibility of Maritime Safety Administration(hereinafter referred to as MSA) , aims to put forward resolution of outstanding problems about yacht survey, registration, to the



boat sailing in and out of port management, navigation safety management and yachtsmen training, etc, which are not favorable to the needs of the development of Sanya port yacht industry, and proposed long-term plans of the yacht maritime safety management through the description of the Sanya port yacht status quo, combined with research on international yacht management regulations, safety technical standard, yacht navigation safety requirements and maritime safety management mode.

### **1.3 Research method**

This paper uses the following three research methods to conduct a targeted demonstration, analysis for content of research:

1. The integrated use of literature analysis, project research, on-the-spot investigation and other methods, a comprehensive grasp the present situation of the Sanya port yacht maritime safety management, fully research and draw lessons from foreign yachts policies, regulations and industry management mode of developed countries, put forward measures resolutions to present difficulties on maritime safety management in Sanya port.

2.Application of ergonomics theory, analysis and evaluation the main factors influencing the yacht water traffic safety, put forward the yacht safety management emphasis.

3.Using the methods of qualitative analysis, according to the relevant provisions of the relevant legal documents and the relevant industry standards of the country and industry, based on the overall objective of promoting the development of the industry

and the effective safety supervision, comprehensive analysis yacht maritime safety management points.

#### **1.4 Research content and scope**

This paper researches the main contents include the following aspects:

1. Analysis problems that yacht survey and registration management, yacht entering and leaving port management, yachtsmen management, yacht sailing activities management, yacht navigation management, yacht club management, legal responsibility and other safety management of safety management and yacht development do not adapt in Sanya port.

2. Research the status and practice methods on the yacht management of yacht developed countries and regions.

3. Analysis the security elements structure in the sea, research maritime safety management object and emphasis.

4. For the goal ensuring safety, research yacht maritime safety management core content in Sanya port.

This topic research involved yacht definition, yacht survey management, register management, yachtsmen management, yacht navigation and berth, yacht club management, on-site supervision and legal liability.

## **CHAPTER 2**

### **THEORETICAL FOUNDATION OF SANYA PORT YACHT MARITIME SAFETY MANAGEMENT**

#### **2.1 The basis of a yacht maritime safety management**

Now, apply to the basis of the yacht maritime safety management in Sanya port:

1. Laws. “Maritime Traffic Safety Law of the People's Republic of China” is the cardinal law for maritime traffic safety management in China. The law provides for the definition, survey, registration, berthing, operation and safety of the ship.

2. Administrative regulations. “Ship Registration Regulations of PRC (hereinafter referred to as the "Registration Regulation") is a legal document which defines the ship the nationality, the rights and obligations of the ship. At present, there is no special provision for yacht registration, so the yacht registration is still adopting the provisions of "Registration Regulation".

3. Rules. “Yacht Safety Management Regulation of PRC” (hereinafter referred to as the "Management Regulation") includes the registration of the yacht, survey, sailing rules and yacht driver training, examination and operation pattern of yacht club. “Yacht Management Rule of Hainan Province” to the content of the Management Regulation is refined, and according to the actual situation of Hainan province, breaks certain limits, such as recognition of foreign yachtsmen license.

4. Normative documents. "Yacht Statutory Survey Interim Provisions", "Yacht Construction and Class Rules", "Yachtsmen Training, Examination and Certification Rule of PRC" and so on promulgated by China MSA; "Sanya Yacht Safety Management Interim Measures" promulgated by Sanya city government, etc.

5. Other documents. "Maritime Law Enforcement Operation Workflow" provides specific requirement for registration of ships in need of conditions, the materials to be required and the examination points; "Maritime supervision Operation Workflow" provides specific requirements for on-site dynamic supervision, including ship safety inspection, crew inspection, and administrative punishment, "Hainan Maritime Safety Administration Yacht Club Record Management Program (Trial version)" provides guidance for the club the record management.

## **2.2 Competent authority of yacht maritime safety management**

According to "Maritime Traffic Safety Law of PRC" and "Marine Environmental Protection Law of PRC" regulation, maritime administration shall undertake the responsibility of ensuring the safety of water traffic and the prevention and control of maritime pollution from ships. Management Regulation implemented in 2009 explicitly stipulated maritime administration above duties.

At the same time, according to article 50 of Maritime Traffic Safety Law ", article 91 of Inland Waterway Transport Safety Management Regulations, article 29 of Ship and Offshore Facility Inspection Regulation and article 56 of Registration Regulation, yacht is a kind of ship, whose activity area includes rivers, lakes, sea and other waters, should follow the ship survey, registration, manning, in and out of ports,

navigation and berth, visa, safety inspection, on-site supervision and many other provisions. As a result, the maritime administrative agency is responsible to ensure the safety of the yacht water traffic management and the prevention of water environment pollution, and is the competent authority of yacht maritime safety management.

Sanya maritime administration agency is Sanya Maritime Safety Administration (hereinafter referred to as the SYMSA). SYMSA has seven law enforcement departments, 41 law enforcement officers, be responsible for safety supervision and management for waters of five cities and counties. Yacht maritime safety management is one of the duties. Internal management of SYMSA mainly takes the ship management department as the lead, seafarers' management department, law enforcement and other departments of collaboration mode. Specifically, ship management department is responsible for yacht register, yacht club record filing and inspection, the yacht on-site inspection and comprehensive management; Law enforcement is responsible for maritime patrol and other dynamic management; seafarers' management department is responsible for the organization of yachtsmen exam and certification.

## **2.3 Relevant definition**

### **2.3.1 Yacht**

“Yacht Safety Management Regulation” provisions, yacht definition means limited to the owner of the yacht itself for sightseeing, leisurement, entertainment and other activities with a mechanical propulsion device ships. Above definition emphasizes the yacht is intended for recreational vessels for personal use, excluding its operating properties; in addition the regulations have been clear about the "carrying capacity

more than 12 people's yacht, carried out in accordance with the passenger ship safety supervision and management", the yacht carrying capacity is limited to 12 people and below. "Interim Measures for Yacht Safety Management Yacht of Hainan Province" define yacht is used for sightseeing, leisure, entertainment and other non-business activities, and have mechanical propulsion device ships.

In summary, the yacht is defined mainly from the usage (one's own leisure and entertainment), personnel (carrying capacity of 12 and below), and whether to have mechanical propulsion device to distinguish. A boat manufactured according to the same standard, if used for the owner's personal entertainment called yacht; for other purposes is not a yacht.

### **2.3.2 Definition of yacht maritime safety management**

Now both at home and abroad, there is no clear definition about yacht maritime safety management, close to the concept of maritime safety supervision and maritime management.

Maritime safety supervision refers to maritime administrative law enforcement that the maritime administrative body authorized by the laws and regulations, on the basis of the maritime administrative law and regulations, rules, standards, etc., as well as the provisions of the relevant international conventions, supervise and urge administrative counterparts to strictly fulfill maritime legal obligations, and whether or not to fulfill maritime legal obligations or to make maritime law prohibited behavior (often referred to as the law case) ( Zheng & Li, 2007, p. 183) .

Maritime management is general term that maritime administrative agency for

ensuring the safety of water traffic and prevent water environment pollution from ship, in accordance with the law take water traffic safety supervision, preventing vessels from polluting the water environment supervision, navigation safety support, administrative law enforcement and other administrative activities (Hao, 2007).

According to the research objective and scope of this paper, yacht maritime safety management is general term of the maritime administration agency for ensuring the water traffic safety, in accordance with the law take water traffic safety supervision, navigation safety support, administrative law enforcement and other administrative activities for the yacht and yacht related professionals and institutions.

Practice, yacht maritime safety management of maritime administration embodies in the dynamic supervision and control, static law enforcement and comprehensive navigation safety support.

## **2.4 Objects and contents of yacht maritime safety management**

### **2.4.1 Objects of managements**

Yacht maritime safety management object, obviously contains the yacht. Specifically, the "Management Regulations" involves survey and registration, yachtsmen training, examination and certification, yachtsmen duties during the period of navigation and berthing, obligations and responsibilities of the yacht club, the prerequisite of yachtsmen training institutions and the legal responsibility of the above object. And article 31 of "Management Regulations" points out: "maritime administrative agency shall supervise and inspect in accordance with the yacht law, yacht club regulation, and yachtsmen training institutions. Yacht club and ownership shall cooperate, timely rectify and eliminate discovered safety defects and hidden troubles". And in yacht

maritime safety management activities, the legal responsibility subject is also yacht, yachtsmen, yacht club and yachtsmen training institutions. As mentioned above, the yacht maritime safety management object should include the yacht, yacht club, yachtsmen and training institutions.

#### **2.4.2 Contents of Management**

According to the laws and regulations and authorization, Sanya maritime management agency to management contents of yachts is:

1. According to “Registration Regulation”, responsible for the yacht ownership, nationality and the deletion of registration;
2. According to “Ship Survey Management Regulations”, responsible for supervision for yacht inspection agency.
3. According to "Yachtsmen Training, Examination and Certification Rule of PRC" and “Management Regulation", responsible for yachtsmen training, examination and certification work of supervision and management;
4. According to “Management Regulation”, responsible for supervision and management for yacht club;
5. According to “Navigation Safety Management Regulations of Surface and Underwater Activity of PRC”, responsible for navigation safety assessment and approval for marinas and large water activities of yacht.



6. According to "Maritime Traffic Safety Law of the People's Republic of China" and "Management Regulation", responsible for safety supervision and management for yacht navigation and berthing.

## **CHARTER 3**

### **STATUS QUO OF YACHT MARITIME SAFETY MANAGEMENT**

#### **3.1 Inadaptability of current maritime safety management mode**

In China, merchant ship is the "main force" of the transportation by sea, content in personnel traffic and cargo transport, refers to public security and public interests. Current ship safety management laws and regulations are for the merchantships to develop, cumbersome procedures, the technology standard is high; supervision of ships is a comprehensive administrative supervision mode, namely maritime agencies to the principle of strictly enforce the law, in order to ensure ship navigation safety and prevent pollution for the purpose, take from construction to scrap the whole process supervision for ships, concrete cover survey and registration of vessels, crew training, examination and certification, navigation and berthing and each link of safety management. Under the current system, yacht safety management is in use or in the light of merchant ship laws and regulations, and implement merchant ship safe management mode. Although yacht is one kind of the ship, but its characteristic comparing with merchant ships' has essential distinction.

1. In the perspective of usage, yacht is for personal entertainment, not for the purpose of making profits, not to participate in public transportation, less likely to be involved in the public interest, and enjoys some privacy.

2.From the usage characteristic, yacht navigation equipment is advanced, the hull is smaller, operation is relatively simple, rang of activity is more concentrated in the coastal waters, and the merchant vessels used in production and transportation activities, waters wide, need to drive, engineering and different professional personnel for the specialized management, and the control characteristic is a greater difference from yacht.

3.From driving function, yacht driving is a skill, yachtsmen usually don't have profound professional knowledge, and the merchant ship officers usually need to be professional.

Thus, to merchant ship safety supervision mode to yacht management is clearly not suitable to the yacht's characteristics, and is unable to effectively grasp yacht management focus and scale, which will lead to a "Difficult to control and difficult to manage properly", bring a series of problems and supervision difficulties.

### **3.2 Maritime safety management status quo and problem analysis of Sanya port**

The author had repeatedly visited Xiamen, Qingdao, Haikou and other places for yacht maritime safety management research, although most of the issues under the same legal system and management system are of some similarities, but Sanya yacht management has its particularity. This article from the yacht definition, survey management, registration management, yachtsmen, yacht club and other aspects will describe and analyze problems of Sanya yacht maritime safety management.

#### **3.2.1 Survey and registration**

China implements strict registration system, mainly based on “Registration

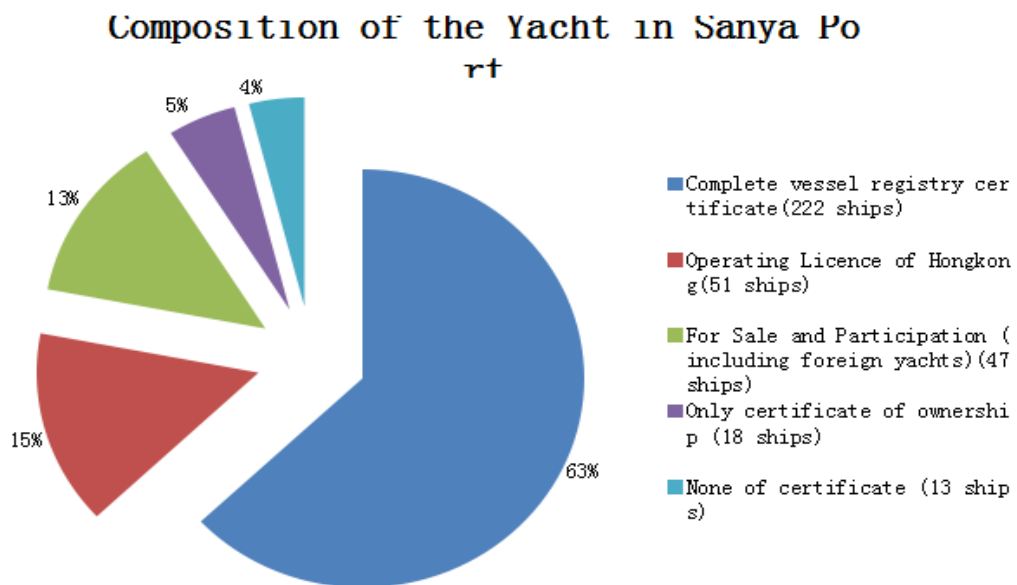
Regulation”. Registration system is that yacht owners first apply to the maritime management agency for vessel name, identification number and ownership registration, and then to apply for the yacht survey to ship survey agency, finally submit ownership certificate and survey certification to maritime management agency for nationality certificate. "Management Regulation" requires navigation and berthing of yacht shall acquire the ship nationality certificate in the waters under the jurisdiction of PRC. Compared with “Registration Regulation”, the provisions of the nationality registration of "Management Regulation" are no change and same as merchant ship registration.

After the acquisition of nationality certificate, the yacht will have the right to sail, and the survey is the prerequisite for the yacht to obtain the nationality certificate. At present, after investigation, the main reason that the yacht cannot be registered in Sanya harbor is not to carry out the survey of the ship.

#### **3.2.1.1 Yacht status of Sanya port**

There were only 8 yachts of Sanya port in 2006, since 2009, after policy initiative of the construction of Hainan International Tourism Island, yacht industry began rapid development. As of March 2016, quantity (including unpowered sail) reached 263, the first in China. Most of yacht is import yacht, accounting for 68.5% of the total number of yachts; the vast majority holds authentication certificate or survey report by issued certification bodies in the developed countries or well-known classification society certification issued. Medium yachts length between 10 m - 24 m are in the majority, 73% of the total number of yacht, maximum length is 120 feet, the smallest is less than 5 feet, yachtsmen generally is equipped with 1-3 based on apparent size. Mechanical drive power plant yacht (ordinary yacht), machinery and sails hybrid

propulsion yachts and unpowered sail ratio was 6.4:2.5:1. There are mainly design category IV class (navigate away from shore not more than 10 miles, significant wave height not more than 1 m water) and III class (navigate away from shore not more than 20 miles, significant wave height not more than 2 m water) (CCS, 2012), two classes of yacht account for 95% of the total, all the yacht survey certificate has not been approved anti wind grade. Yacht registration case is shown in Figure 3.1.



**Figure 3.1 Yacht registration case in Sanya port**

### 3.2.1.2 Survey

The development of Sanya yacht survey is as same as China's domestic development course. China's yacht survey standards with the development of yacht industry went through a process from scratch. Before 2008 China yacht survey referred to boat survey standards. On August 1, 2008, China classification society (CCS) has issued

"Yacht Construction Rules", the Chinese yacht survey standards in terms of building had been different from other ship type; on January 1, 2009 China's yacht legal survey performed in accordance with "Yacht Statutory Survey Interim Provisions". On June 1, 2012, "Yacht Construction and Class Rules" was implemented. According to survey management in China, there was only one vessel survey agency - Hainan Branch of China classification society in Hainan province, which established its Sanya office with only two surveyors.

At present, there are two main causes that Sanya port yacht cannot be surveyed:

1. Management system. Yacht survey procedures are cumbersome, and Sanya Office is short-handed, the survey cycle is too long. Once a yacht has been waiting for survey for six months, seriously discouraged the ship owners to ship survey enthusiasm, resulting in some ship owners do not want to register.

2. Technical standards. Domestic technical regulations are lagging behind, some yacht type has not been covered, and new materials, new structures and new technology are difficult to be recognized. "Yacht Statutory Survey Interim Provisions" and "Yacht Construction and Class Rules" will limit survey object, which is only motor yacht and does not include motor sailer and inflatable boats. the rapid growth motor sailer, sail, inflatable yacht are unable to be carried out the statutory survey; in addition, some new materials, new structure and new technology yacht developed countries widely use, are surveyed and recognized because they are not in our laws and regulations. This makes some imported yachts cannot be surveyed and registered in Sanya.

### **3.2.1.3 Registration**

See from Figure3, at least 69 yachts have not obtained ship nationality certificate (for Honkong, Macao and Taiwan yacht to join the yacht club, can apply for a temporary nationality, sailing in the port of Sanya). And actual investigation, and found that most of 69 failed to register because cannot be surveyed. At present about 40 yachts belong to this kind of situation. There are the following reasons except survey, hindering the yacht registration.

1. Complicated registration procedures. According to Maritime Law Enforcement Operation Workflow", need to provide more information, and some materials are more difficult to be offered to maritime management agency, to bring a lot of trouble to the registration of the applicant. For example, during the registration process, ask to check the owner ID card, most yachts owners are enterprise legal person, request to verify the original identity cards of legal representative, enterprises are not registered in Sanya, and ID card relates to the a series of property safety problems, the legal representative will not give ID to specific applicant, which waste time for the registration of a yacht, which resulted in the cancellation or delay of yacht registration.

- 2.Yacht registration subject limited. Under the current regulations, the yacht that the permanent residences of foreigners buy cannot handle registration and the reality demand exists. Overall, although current yacht registration in Sanya port has been a breakthrough, but basically in accordance with the provisions of the merchant shipping registration, the special nature of the yacht cannot be reflected.

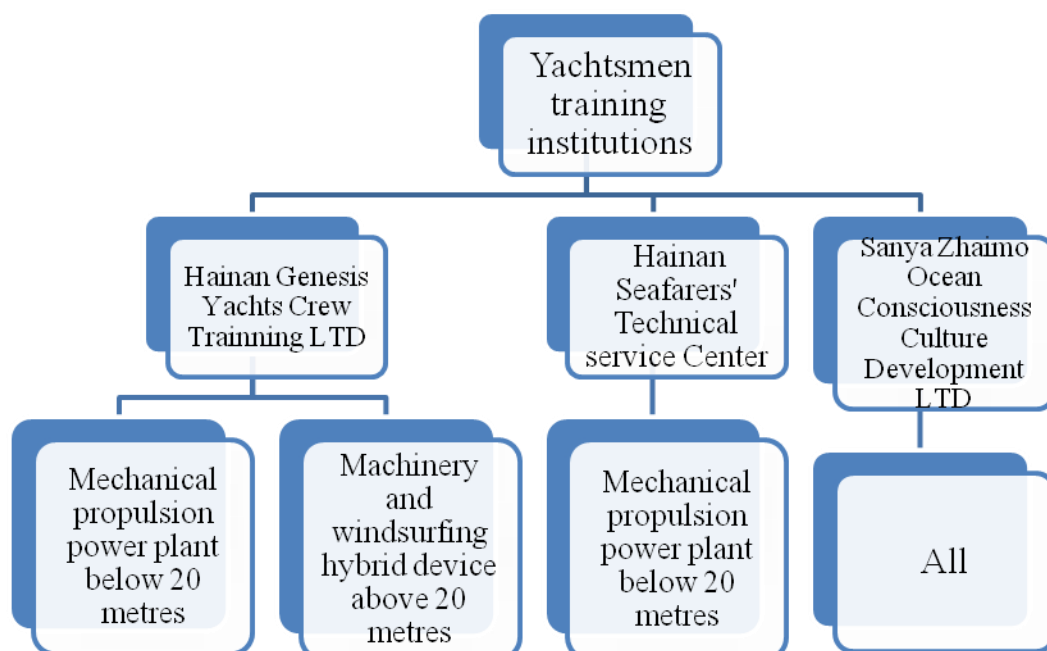
- 3.Registration willingness of some of the yacht owners is not strong. Yacht industry

downturn, yacht business reception demand reduced, most for reception dock over a long period, use frequency is lower (a couple of times a year), plus the maritime management agency is lack of means of fighting unlicensed yacht, so yacht owners are reluctant to permit, willing to adventurous voyage

### 3.2.2 Yachtsmen training, examination and certification management

#### 3.2.2.1 Basic status

In 2011, China enacted "Yachtsmen Training, Examination and Certification Rule of PRC", the yachtsmen according to the length of the yacht is divided into two levels, including yachtsmen can drive yachts of all length of the yacht; the second yachtsmen only yacht of length below 20 metres. Yacht propulsion device types are divided into mechanical propulsion power plant, machinery and windsurfing hybrid device.



**Figure 3.2 Yachtsmen training institutions in Sanya**



In Sanya area there are 3 yachtsmen training institutions, their training permissions as shown in Figure 3.2.

As of March 2016, MSA held 75 yachtsmen exam, issued the 1300 certificates, 167 people of them had navigation related experience. In last five years the average pass rate is 84.8%. Now two yacht club and marina have 285 yachtsmen.

Main source attending training exam students is the fishing boat crew, owner and local youth (cultural level of junior high school).

#### **3.2.2.2 Problems and cause analysis**

The problem is mainly manifested by yachtsmen manipulation skills. Trained yachtsmen generally do not dare to drive the boat, also not be hired by the yacht club, but also reflects the yacht training quality is not high. The main causes for this situation are:

1. Parts of the provisions of "Yachtsmen Training, Examination and Certification Rule of PRC" does not match reality. For example program taking class as a unit set hours of practical operation, but for a large number of classes, practical operation hours per capita are a serious shortage; the lack of awareness of safe driving, safety management ability, is not conducive to the safe and civilized driving habits training. Practical training is only for a week. At work yachtsmen did not update their knowledge and professional learning, the yachtsmen only have simple ship driving skills, are not familiar with the role and application of many important safety equipment( Wang, 2015, p. 25).

2. Individual differences between students, some of the cultural level of students or driving skills is low, it is difficult to significantly improve in the short-term training.

3. Lack of supervision and inspection for training institutions. Current powers of supervision and inspection of training institutions belong to the Hainan MSA, but because of the distance and staff restrictions, it is difficult for Sanya training institutions to supervise systematically and thoroughly.

4. Yachtsmen examination lacks standardization, not to establish a standardized exam, there is no unified exam and practical standards, there is no "immediate death" project, and the probability low level students pass assessment is higher.

### **3.2.3 Supervision for Yacht club**

#### **3.2.3.1 Yacht club and managers status**

As of March 2016, a couple of yacht club put on records in MSA, manage 201 yachts, accounting for 76% of the total. One marina management company manages 62 yachts, accounting for 24%. Specific situation as follows:

**Table 3.1 Yacht club and docked yacht in Sanya port**

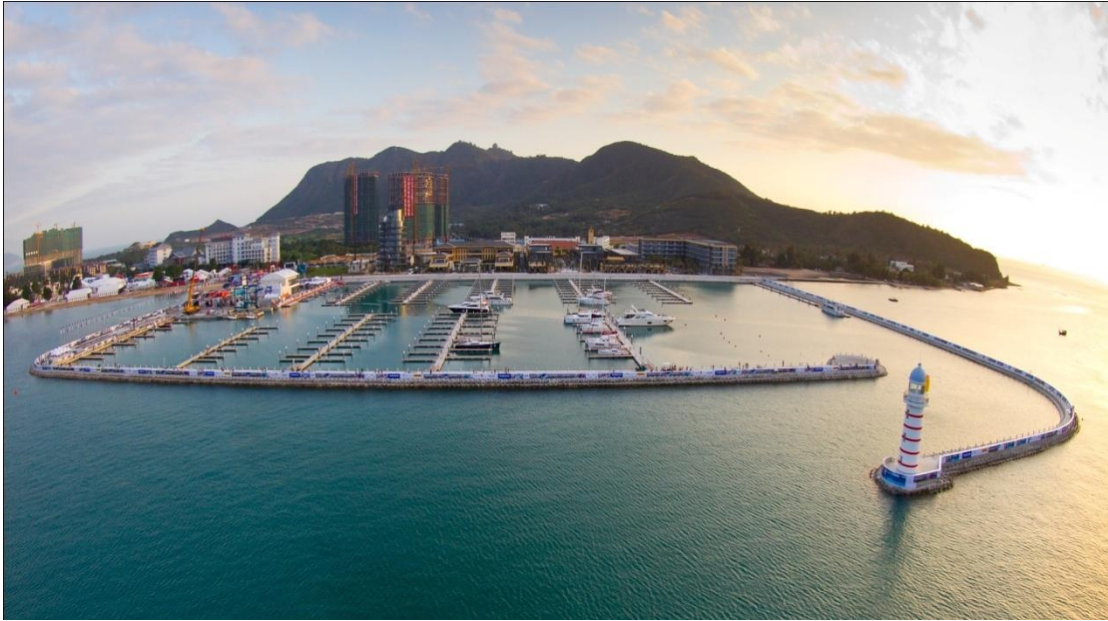
<b>Yacht Club</b>	<b>Berth Number</b>	<b>Filing</b>	<b>Location</b>	<b>Total</b>	<b>Yacht Registration Number</b>
Visun Royal Yacht Club	385	Yes	Sanya inner harbor	140	90
Sanya Marine	330	Yes	Serenity sailing port	61	48

Sanya Phoenix Square	72	No	Sanya inner harbor	62	17
Yacht Club					
Total	787			263	155



**Figure 3.3 Western zone of Visun Royal Yacht Club**

Visun Royal Yacht Club is the earliest established one in Sanya port, with 385 berths, divided into eastern zone, western zone and third term. Sanya Visun Royal Yacht Club wharf is located near the junction of estuary of East River and West River, belongs to natural harbor, can resist grade 12 typhoons. Visun Royal Yacht Club has completed the yacht joint inspection hall, temporary port to port customs clearance, bonded warehouse construction and operation of water and land, has become a Monaco yacht club “super yacht destination” first sign for Asia, held China's top yacht exhibition "Rendez-Vous" each year.



**Figure 3.4 Sanya Marine**



**Figure 3.5 Sanya Phoenix Square Yacht Dock**

Sanya Marine was built specifically for Volvo Ocean Race for international standard of the sailing port, 2011-12, 2014-15 two-time Volvo Ocean Race in China the only

stopover port. Due to its closed basin design, easy manage yacht sailing, dynamic berthing, superior to Visun Royal Yacht Club and Sanya Phoenix Square Yacht Dock. Port with 330 all-weather berth and a hundred tons ship lifting machine, and is equipped with state-of-the-art terminal control system, ship repair and maintenance workstation, and first-class sewage and garbage disposal system.

Sanya Phoenix Square Yacht Dock was built by the government as public dock, is mainly used for cruise ship and yachts, and has 72 yacht docks now. Sunup co., LTD own most of the yacht dock, used for rental business.

At this stage, the Sanya most marinas resources concentrated at the yacht club, most of the yacht owners in a different way pass on the yacht to yacht club management so yacht club is mainly responsible for the safety management of yacht. MSA takes record management for the yacht clubs, in 2011, Hainan MSA enacted “Yacht Club Record Guideline”, to refine and quantify the record management work and in accordance with the guidelines 2 yacht clubs were record examination. After record, MSA requires yacht club to submit an annual report every year. But it is only for the yacht club management system and related records in the form of review, specific practical implementation and daily management did not do a good job of supervision and management, did not form a yacht safety management mode yacht club is as management subject, yacht club's management effect is poor.

### **3.2.3.2 Problems and cause analysis**

1. Legal system is not perfect. The follow-up supervision for the record of the club, and no record club's supervision are lack of regulatory management basis, making the yacht club record management, unable to achieve proper management effect.

2. Yacht Club record procedures are complex. Yacht club record system reference company system audit mode design, yacht club will need to write more file management system, but also accept MSA to carry out the first review and annual reports in accordance with the audit system. These make the yacht club record willing no strong.

3. Yacht Club security management level polarization. Visun Royal Yacht Club is not enough safety service supply (for example, lack of yachtsmen and occupant safety training and education, unable to grasp the yacht import and port information, unable to provide timely and effective emergency and rescue services to the ship in distress) and site management chaos (e.g. overload navigation, illegal night). And safety management system of Sanya Marine is relatively sound, Yacht owners and yachtsmen are also basically able to comply with the relevant regulations, inner of the club initially formed a safety culture.

But every yacht club also has the illegal operation and does not provide safety training education services for yachtsmen and occupants.

### **3.2.4 Yacht navigation and berthing management**

#### **3.2.4.1 Marine, berth and major active waters**

Sanya port has 3 marinas, 787 berths, distributing in Sanya River, Sanya lover bay, Luhuitou square.





**Figure 3.6 Marina distribution and yacht active area in Sanya port<sup>2</sup>**



**Figure 3.7 Sanya yacht marina future planning<sup>3</sup>**

<sup>2</sup>Red characters are yacht clubs and marines, yellow are active area

<sup>3</sup> Red zone is Visun Royal Yacht Club; yellow is Sanya Phoenix Square Yacht Dock

### **3.2.4.2 Problems**

1. Lack of management system. Sanya port has not formulated the provisions on the administration of safe navigation, and there is no clear regulation and guidance on the port's navigation and berthing. Especially, Sanya port is a mixed port of fishing ships and merchant ships. Cargo ships, passenger ships, fishing ships and yachts are mixed in port, complicated navigation environment.

2. Not designated yacht dedicated berth and active waters. Sanya marina and navigable waters basically concentrated in the channel, anchorage and other traffic flow relatively concentrated waters. Yacht for leisure and entertainment for the purpose of private activity navigate and berth arbitrarily, the navigation order chaotic, navigation safety cannot be guaranteed.

### **3.2.5 Yacht safety daily supervision**

#### **3.2.5.1 Current maritime safety management mode**

Sanya port belongs to SYMSA jurisdiction. SYMSA in 2012 created "3 + 3" yacht safety management mode, its main idea is the yacht club, yacht and yachtsmen as the main object of supervision, implement the informatization, facilitation, classification management, including equipped with "Sanya yacht safety and pollution prevention management manual", Hong Kong, Macao and Taiwan yacht application number management, trial driving yacht fixing time and zone (without certificate of registry), force equipped with automatic positioning identification(AIS) equipment and so on 10 counts of regulatory measures, formed a set of specific yacht safety management mode. In 2015, Sanya MSA began to club winter regulatory action, strengthen the on-site supervision yacht.



On the whole, the law enforcement power of Sanya MSA is insufficient. At present regulatory means is relatively single, regulatory model does not adapt to development of regulatory requirements. With further increase of traffic flow, cruise ship, yacht, emerging recreational boats and other industries to flourish, the law enforcement officials have no way to timely and accurately grasp the three key elements of the ship, the crew, navigation environment of accurate information, basic rely on artificial to the on-site supervision, low efficiency, overall maritime management is lack of means of efficient, accurate and intelligent.

#### **3.2.5.2 Problems and cause analysis**

In daily supervision, overall status reflect the yacht maritime safety management reference merchant regulatory model is difficult to implement, the derailment of laws and practice led to yacht management not knowing where to start, failed to accurately grasp the focus on supervision of the yacht.

1.Lack of continuity of daily supervision. At present, daily management for the yacht is under lax discipline, mainly by means of embarkation inspection, from the yacht yachtsmen competency and registration certificate whether meet the requirements to control. Because there is no specific management requirements and procedures, management of yacht has no continuity, often change. "Sometimes is loose, sometimes is tight". "Loose":just ask sailing plan reported to the club; "Tight": law enforcement officers marine stagnation point, each ship will check for yachtsmen certificate, the vessel registration certificate and number of occupants (not to exceed 12); maritime patrol controls registered ship list, no nationality certificate shall return to marine and accept administrative punishment.

“Tight”, usually happen during the holidays of large traffic, Spring Festival and after occurrence of yacht safety accident or danger. For example, on July 29, 2014, "Sea Knight" yacht in the East island north waters, fire. After the accident, SYMSA took a month, coordinated majority of law enforcement officers to check fire-fighting and life-saving equipments of 400 yachts one by one under its jurisdiction (including Sanya port, Yalong Bay, Dadonghai and other regions).

2.Yacht laws and regulations impractical, resulting in management difficulties. Take yacht overload as a example, "Management Regulations" require " yachts of occupant fixed more than 12 are supervised and managed in accordance with passenger ships ", while in some ordinary large yachts yachtsmen, service personnel and in some large sails operators have been close to or more than 12, especially for large yachts, obviously, the safety facilities and equipment to allow the number of occupants more than 12 people, led to contradiction between actual and regulations, and brings trouble to the managers.

3.Water sports events and yacht for sale are not substantively supervised. The main reason is the legal basis gaps.“Registration Regulation” clearly points out sports craft does not belong to registered range of maritime management agency, but Whether sports boats participate in competition need to be supervised or not has no clear legal basis. Mainly during water sports activities the race boats and participants do not know whether need to hold valid certificates issued by MSA, whether race boats could exceed the design away from the shore sailing distance and wind resistant grade navigation. Whether yacht for sale could undergo sea trials or not ; how to regulate management of sea trials, avoid yacht owners in the name of sea trials not to apply for a permit.

4.The contradiction between the shortage of maritime law enforcement resources and the yacht safety management demand is becoming increasingly prominent. The main are as follows: on the one hand, regular supervision and inspection of the yacht cannot fully cover jurisdiction, emerging regulatory issues cannot be timely resolved, illegal activities of yacht cannot be a powerful blow when the situation occurs, and water safety situation is not stable enough. On the other hand, SYMSA in varying degrees, there is long law enforcement and repeated enforcement situation, the law enforcement efficiency is relatively low.

According to the analysis, the external cause is rapidly developing of Sanya port yacht industry, faces many new situations and new problems. The internal reason is the internal mechanism of maritime administrative agency system is running sluggish, mainly including four aspects: one is the distinct barriers among enforcement department, lack of communication and are difficult to form resultant force; second is the lack of new safety supervision coordination mechanism for handling hot and difficult and comprehensive problems; the third, informatization level is not high, the law enforcement means are single; the fourth is law enforcement officers less, cannot meet the demand for the entire area. SYMSA only has 28 law enforcement officers, be responsible for the entire area of the water safety supervision work, lack of officer.

### **3.2.6 Legal liability**

#### **3.2.6.1 Punishment basis and status**

Administrative punishment of yacht violations are done in accordance with the relevant provisions of "Management Regulations", illegal activities including the

yacht navigation without registration certificate, yacht operator driving without a license or navigation not carrying certificate etc. The punishments for violations include fines and confiscation of illegal income, withholding or revocation of a certificate (including yachtsmen certificates, training institutions permit) and so on. From 2013 to July of 2016, SYMSA has on violations of 141 yachts administrative punishment, of which 80% are navigation without obtaining a certificate, reflects the number of yachts without legitimate certificate is not a few in Sanya port.

### **3.2.6.2 Problems**

The illegal cost is too low so that cannot produce effective constraint on the illegal behavior, for the yacht, yacht club, yacht operator's illegal behavior punishment is lighter. For example, the most severe punishment for the yacht club is to remove the yacht club from the record list, which is not practical meaning for most yacht clubs. For a sailing yacht without a license, the maritime agency can only impose 2000 RMB at most as of administrative punishment. The illegal cost is too low, the administrative penalty is difficult to play its due role, is not conducive to the effective restraint of yacht, yacht club and yachtsmen illegal behavior.

### **3.2.7 Maritime safety management breakthrough in Sanya port**

SYMSA have been already aware that the current management mode has not adapted to the development of yacht industry. SYMSA under itself authority has explored for the yacht safety management methods, compared to other regions in China, has breakthrough for some management content, walking in the forefront in China.

1. Simplify imported yacht survey procedures. According to the relevant laws and regulations, the yacht survey must be carried out drawing audit. Because of foreign

yacht manufacturer for the protection of intellectual property rights, not provide yacht design drawings and data to the buyer, import yachts cannot audit drawings according to the requirements, and lead to considerable imported yachts not to survey in Hainan Province. In order to solve the above problems, “Yacht Management Rule of Hainan Province” provisions, for yachts holding China MSA recognized yacht product certification and mark imported (such as CE certification, ABYC certification), when surveyed may be exempted from provide drawings, only check conformity of the certification or survey certificate and real ship(Hu, 2011, p. 21).

2. Release of foreign investment proportion limit for yacht registration enterprises. In accordance with the relevant provisions of the existing laws and regulations, for a ship registered in China, foreign capital contribution of its registered capital shall not exceed 50%. SYMSA has exceeded this limit, the proportion of foreign capital is not required and handled a yacht registration for a Macao owned enterprise (Hongkong, Macao and Taiwan three regional enterprises as foreign enterprises).

3. Break the dead cycle of the yacht survey and registration of mutual conditions, mutual restraint. Yacht in the stage of identification number distribution and registration of the ownership, MSA require the applicant to provide gross tonnage and net tons and other technical parameters, However, foreign imports of yachts are usually not guaranteed to provide, to be determined after the initial survey. The vessel survey agency requires the applicant to submit a certificate of ownership and then conducts the initial survey. Such mutual conditions, so that the survey and registration of imported yachts fall into the dead cycle. However, SYMSA breaks the deadlock, only requiring the ship survey agency issued the estimated data of yacht technical parameters, to apply for registration of ownership.

4. Approve foreign yachtsmen certificate. Sanya allows foreign residents hold foreign maritime authority or its authorized agencies issued a yacht operator competence certificate to drive yachts without changing certificates in the short term (7 days) driving yacht in Sanya waters. For the proposed long-term in Sanya waters driving yacht prescribed in the preceding paragraph, the foreign residents, if the foreign maritime authorities and China MSA signed agreement of mutual recognition of certificates, can be directly to SYMSA to apply for renewal of the yachtsmen certificates.

5. Simplify the procedures for handling imported maritime formalities. Yacht imported formalities basically follows China existing international ships imported management regulations. Since different parts of the world on a yacht management requirements is different, and even some countries and regions are not required to survey or register. When yachts apply imported formalities, only require the yacht to provide single voyage survey report.

6. Solve seaworthiness issues after the entry of foreign yacht. Yachts not hold ship survey certificate or hold survey certificate is only applicable to sail the its own country waters, to Hainan vessel survey institution apply for the issuance of the yacht seaworthiness certificate or survey report, and in Sanya open waters navigate. For Hongkong yacht, only in the case of more than one month stay, the need to apply for the issuance of survey reports.

7. Cancel vessel visa. "Management Regulation" requires "yacht should be in accordance with the" Ship Visa Management Rules ", for a period of 12 months on a regular visa". On 26 October 2015 "Sanya Yacht Safety Management Interim Measures" began to implement, "Domestic (China) voyage yacht exempt from vessel

visa formalities".

### **3.2.8 Brief summary**

Sanya has been leading the development of yacht industry in China, but from the above, Sanya maritime safety management work still exist management bottlenecks and difficulties, through analysis I found that there are several main reason for these problems.

1. Lack, inadequate or unrealistic of laws and regulations. Such as below 12 people of the occupants, yacht race management.

2. Management systems and models are still without departing from merchant management ideas and model. This model does adapt to the essential characteristics of the yacht, which restricts the development of the yacht industry. Such as boarding inspection on the sea (CNSS, 2015).

3. Management system is not reasonable. Such as the daily supervision authority of the yachtsmen training institutions are not in the local maritime safety administration; maritime safety administration internal bull management, inefficient communication waste of administrative law enforcement resources.

4. Lack of marine culture and security awareness. Such as the yacht is more than the design of the distance from the shore to sail, bad weather navigation.

### **3.3 Yacht safety management status in developed countries and regions**

Yacht industry history in Sanya is relatively short, but originated in the mid of the

17th century, in western developed countries, yacht development has more than 350 years, the yacht management laws and regulations, yacht survey, registration, and yachtsmen formed a relatively perfect system and management mode. Hope that through the United States, Italy, Australia and other countries and regions of the safety management status of the analysis, to the Sanya port yacht maritime safety management has some inspiration.

### **3.3.1 Laws and regulations**

1. United States. In 1971, the United States for the yacht manufacturers and yacht equipment factory developed "Federal Yacht Safety Act" stipulates the minimum standards for yachts registered, including ship number, rules of navigation, navigation lights, personal flotation devices, pollution rules and distress visual signal lamp requirements. US Code forty-sixth provides support for the yacht navigation safety programs. ABYC on the basis of federal regulations formulated more detailed industry standards, including hull design, craft equipment, electrical, technical advice and other various aspects and published "Yacht Regulations and Norms". Beginning in 2007, all US yacht manufacturers must join NMMA, accepting industry's unified management. In addition, in United States the yacht registration, channel management, yachtsmen examination, loans and other services have formed a very sound system specification for the yacht owner to provide a convenient.

2. Britain. In terms of management, there is no relevant provisions for oneself use ship, but for recreational ships engaging in commercial activities developed a "Merchant Shipping Act ", gives "The Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Code", "The Large Commercial Vessel Code of Practice", "The Small Commercial Vessel Code of Practice". British yacht survey registration



shall be determined by the authorized units (Notified Body) implemented.

3.Japan. Japan carries on strictly yacht management regulations. Yacht manufacturing and survey shall be in accordance with the provisions of Central Bureau of Transportation, yacht management and driver qualifications shall abide by the law of “Ship Safety Law”, “Boat Safety Rules”, “Ship officers and Boat Operator Law” and so on. Yacht management is mainly responsible for the maritime bureau of Ministry of Land Infrastructure and Transport. According to the "Ship Law", “Ship Safety Law ” and "Boat Registration and other relations law", the boat safety management work is responsible for the registration of the yacht (Zhou, 2012, p. 6).

### **3.3.2 Yacht definition of some developed countries and regions**

1. Hongkong. "Merchant Shipping Ordinance" stipulates, “pleasure vessel” means any launch, yacht, inflatable vessel, junk, lorch or other vessel that: - (a) has an engine installed in it or carried on it, or is designed to have an engine installed in it or carried on it, whereby the vessel may be propelled by mechanical means; (b) is possessed or used exclusively for pleasure purposes; and (c) is not let for hire or reward other than under the terms of a charter agreement or hire-purchase agreement (hereafter referred in this Code as ‘engaged in chartering’), but does not include any launch, yacht, inflatable vessel, junk, lorch or other vessel that has never been launched in the waters of Hong Kong.

2.Italy. Italy in 2003 promulgated the implementation of “Rule of Yachts and Marine Tourist Restructuring and Revitalization”, expressing the yacht is the use of vessel for ports or leisure, not for profit purposes.

3. Canada. "Ship Law" stipulates that the yacht is used for entertainment and does not carry passengers on the ship, where passengers are paid by boat.

4. United States. "Recreational vessel" means a vessel-(a) being manufactured or operated primarily for pleasure; or (b) leased, rented, or chartered to another for the latter's pleasure.

### **3.3.3 Survey system**

1. European Union. Since the European Parliament and Council in 1994 issue 94/25/EC yacht new directive, European Union adopted the CE product certification model to small yacht survey has been nearly 20 years, as of now, as of now, 28 of EU member states have adopted the CE certification. Good CE certification model enable Europe became one of the world's most developed regions of the world yacht.

2. United States. ABYC formulated the detailed yacht industry standards, including hull design, craft equipment, technical advice and other various aspects, to support the yacht product certification mode. At present ABYC certification is one of the most famous yacht certifications. Generally speaking, the yacht survey in United States is relatively relaxed only on the basis of federal regulations in line with industry standards.

3. Britain. British Maritime and Coastguard Agency (MCA) in accordance with the length, use and occupant number yacht is divided into five categories: small private yacht (length of 2.5 ~ 24m, owners, or their lineal relatives, no more than 12 people), small commercial yacht (length of 2.5 ~ 24m, through leasing, no more than 12 people), large private yacht (length of 24m above, owners, or their lineal relatives, no

more than 12 people), large commercial yacht (length of 24m above, through leasing, no more than 12 people), passenger yacht (any yacht of 13 ~ 36 people). Small private yachts and small commercial yacht are surveyed according to the EC standard, and small commercial yacht also must meet the domestic laws and regulations requirements (MGN 280); large commercial yacht in accordance with “Large Commercial Yacht Rules” (LY2) surveying; passenger yacht survey according to REG 13-36 PASSENGER YACHT CODE (Liu et al, 2012, p. 56).

4. Australia. Yacht shall be registered without the survey, the main purpose of this registration is to confirm the ownership of the yacht, does not consider the safety factor of navigation.

5. New Zealand. A new yacht should have a Coastguard and the Ship Industry Association issued the safety certificate, and the so-called safety certificate is essentially equivalent to the yacht factory product quality certificate. Usually the yacht owners will participate in a yacht club, and consciously to the Coastguard or a surveyor conduct a regular survey to the yacht and its equipment.

### **3.3.4 Registration system**

1. Hongkong. Ship registration and license application can be carried out separately. Licence is the statutory requirements: regardless of the commercial nature or non commercial nature of the ship, as long as in Hong Kong waters rather than temporary rely on harbor need to obtain a license. But only the person with a Hongkong identity card or the Hongkong companies can apply for the license, and as long as the abode in Hongkong more than 182 days, individuals can apply for a temporary resident identity card, if the shipowner is a foreigner, through an agent to handle the

registration in Hongkong. Procedure is relatively simple to apply for a license, simply fill in the Application for Operating Licence for Local Vessel, and only provide the captain, color, manufacturers name and other general information, not technical proof. On a special yacht, namely more than 150GT, more than 60 people and strange shape of the yacht must apply for survey before the license can be issued (Ye, 2008). Ship registration is voluntary: after the registration of the ownership the ship can be linked to the Hongkong flag sail, while the nature of the real right to prove, not limit the registration applicants.

2. New Zealand. The government does not require the yacht to register.

3. Italy. Yacht registration practices are similar with Hongkong. Require more than 10 meters long yacht for registration, and obtain the relevant certificate, the ship can be a citizen, or foreigners have place of residence, and foreigners can also apply for registration through their own agents.

As can be seen from the above, the requirements and practices of various countries are different, but the common point is to implement a more liberal registration management relative to current practice of China.

### **3.3.5 Yachtsmen training, examination and certification**

1. Australia. Australian domestic different waters put forward different requirements on the yachtsmen license. Some states or regions are relatively simple, but the provisions of the some states are quite detailed, such as New South Wales, yachtsmen must be forced to participate in rowing education before obtain a yacht license (Liu et al, 2012, p. 56).

2.Italy. The yacht driver's license management is distinguished by driving distance from shore and the motor yacht power, length and the main propulsion power plant etc, even minor can be driving yacht, leasing of large yachts must be provided with the captain of the professional qualification and implementation with manning management, such as large leasing yacht shall be equipped with two crew members and a captain.

3. Singapore. The management of the yachtsmen is more rigorous, Singapore government requires yacht owners must have a driver's license. According to “Motor Yacht License application and renewal Measures of Maritime and Port Authority”, in port minimum eligibility requirements for driving motor yacht is to hold a drivers’ license of motor yacht. . The purpose of the yacht driver's license training course is mainly to train the driver to operate the yacht (including private yachts and commercial purposes) in Singapore waters; water safety concept is relatively high.

4. Macao. Macao on the yacht driver implements more refined and strict management, competent authority in accordance with the length and sailing area of yacht issues different levels of license. For example, ocean master certificate (license holder is qualified for the length of 24 meters of yacht and without the restriction of sailing waters).

5.Britain. For the management of the yacht manning, the position of the yacht operator is classified according to the size of the ship. The yachts occupants fixed more than 12 are taken as a passenger ship, required manning in accordance with merchant ships. The yachts occupants fixed below 12, the length of 24 meters above and 80 ~3000GT needs to be separately equipped with deck crew and engine crew; to

less than 24 meters or below 80GT, Manning is not mandatory.

### **3.3.6 Yacht navigation and berthing management**

Some foreign countries and regions for the management of yacht navigation and berthing, the main measure is to develop relevant navigation and berthing system, with yacht owners own management and self responsibility and self-discipline to complete, safety management departments less involve in on-site supervision. Mainly reflected in the following aspects:

In the marina management, each country generally has a public-private yacht wharf for yachts use. For marina specification, the content of the majority are related to apply for a berth, rental and distribution , import and port speed limit, using the boathouse, waterway safety regulations, all kinds of damage control and report, the cost of charges and so on.

For yacht navigation area restrictions, every country according to own actual needs conducts. In the US, the yacht (recreational) activities, since involve different jurisdiction of river and sea navigation affairs, federal and state laws as well as local governments, including counties, cities and towns, have the power to enact regulations for yachting. In New Zealand, water activity is self responsibility, if it belongs to water skiing activities, except the captain, towed ship driving and water skiers should be responsible for their actions. In Taiwan, the yacht activities are more frequent in the coastal part, it is mainly subject to “National Safety Law” and “Coast Guard Law”, the yacht before the sea in the "necessary" was on the shore to accept the sea patrol unit inspection.

### **3.3.7 Safety support: club management, site management**

1. Club management. Yacht Club of modern society has developed from the original simple functions to set catering, entertainment, accommodation, business, shipping, maintenance, supply, driving training and other functions into one place to relax (Cheng, 2004, pp. 8-9). For yachts, the club usually takes industry self-regulation, by the market to choose. However, based on the better protection of the ship safety and pollution prevention purposes, the state will recommend the yacht to join the yacht club. Such as Canada: the maritime administrative department also strongly recommended the yacht driver and owner to join the yacht club, learning how to maintain the yacht, firmly opposed to sail alone and under severe weather conditions, to ensure the safety of people and yachts in the water.

2. Site management. For the safety of the yacht, the developed countries or regions generally with self-management-based, generally in the case of yacht departure, have significant change of structure and performance, more than a certain number of occupants, implement additional safety inspection. In Italy, site inspection is to take patrol manner to inspect certificates, verify the authenticity of the navigation record content. Compared with China, foreign-site inspection of the yacht is very loose, under the influence of long-term maritime culture and education, emphasizing the yacht self-management, advocating the concept of own risk, pay attention to the education and training of safety knowledge.

### **3.4 Brief summary**

In this charter, Sanya port yacht maritime safety management status and existing problems are described; the causes of problems are analyzed for to provide a basis for the solution of the problem. And described yacht safety management status of

some developed countries and regions, to look forward to draw lessons from these countries with mature management system and experience, provide a wider range of ideas to solve the problems existed in yacht maritime safety management of Sanya port.



## **CHAPTER 4**

### **KEY ELEMENTS AND EMPHASIS OF YACHT MARITIME SAFETY MANAGEMENT**

The above analyzed the problems of Sanya yacht maritime safety management, but not distinguish between primary and secondary. Next, through the analysis of the main risk sources of Sanya port traffic safety, determine the emphasis of safety management of Sanya port in the near stage.

#### **4.1 Key elements of maritime safety management**

Based on ergonomics theory, the navigation risk of the water activity has been affected by several factors together, mainly depends on the people, machine, environment and management (Liu, 2008, p.43).As a result, maritime administration for maintaining yacht water traffic safety should focus on four elements "man, machine and environment and management" to fulfill management responsibilities.

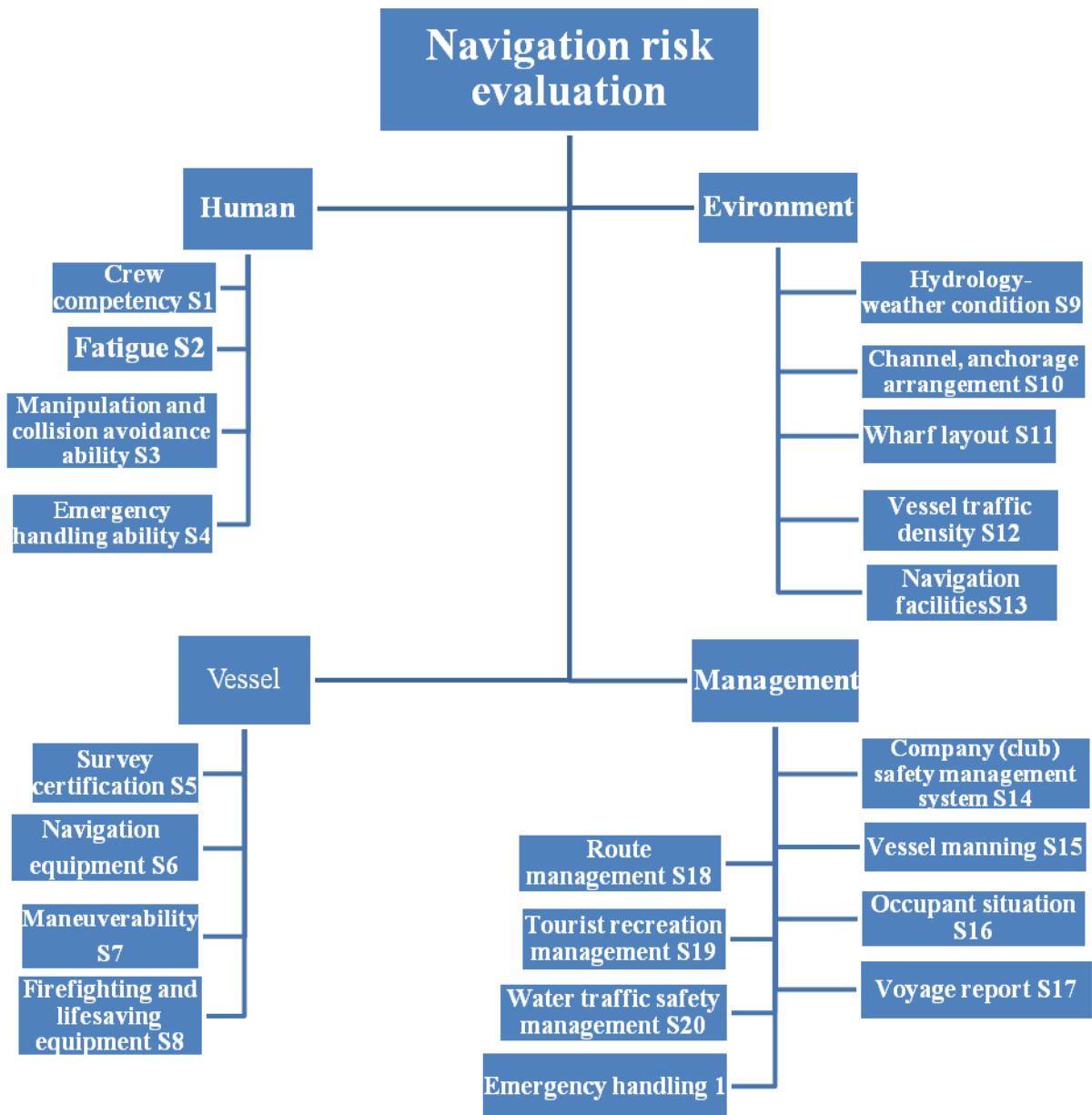
#### **4.2 Emphasis of maritime safety management of Sanya port**

Through analyzing and screening the various factors affecting the safety of the ship, to determine the key factors that reflect the level of risk, establish risk assessment system, by means of qualitative or quantitative evaluation model for each index, gain risk value reflecting the level of ship overall risk, and thus provide decision support for the ship's safety management (Bao et al, 2010, p.11).

In 2013, research team from Wuhan University of Technology took a study of navigation safety demonstration and assessment of the Sanya Bay and adjacent waters. I had the opportunity to participate in the study. In the process of study, I mainly carry out expert consultation and basic data collecting and analysis, such as the type of ship, main activity area characteristics, analysis of traffic flow, etc., reviewed the demonstration and assessment report, analyzed the research nonconformities, and put forward some improvement opinions.

Based on ergonomics theory, the research team through the site investigation and expert consultation identified risk source as four categories of "human factors, vessel factors, environmental factors and management factors", a total of 21 items (Table 4.1). And selected 21 risk source to establish a risk evaluation index system, through the expert evaluation method and analytic hierarchy process, after collecting and processing the relevant data, results of the index weight is "vessel > management > human > environment". Weighted vectors of 21 risk source in the overall goal were 0.3195(S5) ~ 0.0027 (S13).

**Table 4.1 Index system of risk source**



Source: Tourism activities of Navigation Safety Demonstration and Assessment of Sanya Bay

Select first 13 weighting vectors of risk source to analyze, in turn S5, S6, S7,

S13, S14, S15, S16, S18, S8, S17, S1, S20, S3, wherein S14, S15, S16, S18 equally weighted, last 8 lower weights (below 0.03) are not selected. 13 risk sources of higher weights are listed to analyze, according to Chapter 2, refer to objects and contents of yacht maritime safety management, and to determine management emphasis for objects in maritime responsibility content.

1. Yacht (Ship). In the four risk categories, "vessel factors" takes maximum weight. Among all the risk influence indexes, survey certificate (S5) of the largest weight, navigation equipment (S6) and maneuverability (S7) followed. Although the firefighting and lifesaving equipment (S8) in the vessel factors is of the lowest, but throughout the risk index is still higher. Indicates technical condition of the yacht is the biggest risk source of water traffic safety in Sanya port, and it should also be the center of the yacht marine safety management of Sanya port.

2. Management. Management factors include the most risk influence indexes, reflecting the importance of its navigation safety in Sanya port. A relatively high weight indexes followed: club safety management system (S14), manning (S15), occupant situation (S16), voyage report (S17), route management (S18), water traffic safety management (S20). Worthy of note is that S17 refers to reporting to a yacht club; S20 refers to the site safety supervision of water.

3. Yachtsmen (Human). Higher weight index of human factors is only manipulation and collision avoidance ability (S3), namely practical operation level of yachtsmen, from the side reflects the yacht driving is a skill.

4. Environment. Higher weight index of environmental factors is only vessel traffic density (S13), but the weighted vector is the fourth and higher. Sanya port is

multi-purpose ports with lots of wharfs, ships, has higher density of traffic.

It can be seen that the above 13 risk indexes are covered by the yacht maritime safety management object, because of their high risk, will be the emphasis of the Sanya maritime safety management.

## **CHAPTER 5**

### **INSPIRATION FROM YACHT SAFETY MANAGEMENT EXPERIENCE OF DEVELOPED COUNTRIES AND REGIONS**

Through research and analysis on yacht management laws and regulations, and relevant literature of developed countries and regions in Chapter 3, summarize yacht safety management experience, to acquire yacht management enlightenment for China's national conditions.

#### **5.1 More sound legal system of yacht management**

After years of development, developed regions have built complete system of laws and management covered the yacht building, survey and navigation, berthing etc. Such as in the United States, a sound standard system including yacht registration, channel management, yachtsmen examination and loan service has been formed.

In line with the actual, establish regulatory system of classification management. Such as the UK for commercial purposes the yacht, according to the types of yacht, enact “The Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Code”, “The Large Commercial Vessel Code of Practice”, “The Small Commercial Vessel Code of Practice”.

## **5.2 Yacht definition in line with the actual situation**

The definition of yacht in yacht economic developed countries is broad, not only including recreation ship, but also sports boats, such as in Hongkong, Italy; and allow the yacht rental, namely yacht including leasing yacht, such as United States, Italy, Canada, New Zealand, etc.

## **5.3 Strictly survey, Small yacht survey using product certification model**

No matter what kind of yacht, yacht manufacturing is according to the various technical standards to strict requirements, and not takes different manufacturing standards because of its size or different purposes. Survey Loose is reflected after the completion of the factory and relatively loose in terms of merchant ships.

There are specialized agencies to verify small yachts. "CE" and "ABYC" give safety "CE" and "ABYC" certification make product quality safety certification to small yacht with the same standard among Member States, so as to achieve the free movement of goods within Member States to promote the rapid development of the yacht.

## **5.4 Looser registration system**

Requirements and practices vary from country to country, but the common point is to take a looser registration management relative to the current practice in China. Even in some countries don't register, such as New Zealand.

## **5.5 Strict yachtsmen management, focus on the cultivation of self-discipline**

Yachtsmen management of developed countries or regions is relatively strict, for the licence grade and classification is more detailed, mostly used in accordance with the

technical level of yachtsmen, yachtsmen age or the number of occupant. And for the yachtsmen license issuance is also very strict, must go through the audit assessment. At the same time, pay more attention to the cultivation of self-discipline.

## **5.6 Navigation, berthing and on-site management**

The main measures are to develop the relevant navigation system, rely on owners' self-management, self-responsibility and self-discipline. Advocate the concept of own risk, the relevant safety management departments is less to conduct supervision.

Although the management mode of developed countries brings some enlightenment, yacht industry development in Sanya still stay in early stage, yacht maritime safety management mode cannot mechanically copy foreign yacht management system, shall take into account China's national conditions. On the basis of the performance of statutory duties, to make a breakthrough, but maritime administrative agency cannot relax the management involving yacht safety.



## **CHAPTER 6**

### **SUGGESTIONS OF THE YACHT MARITIME SAFETY MANAGEMENT OF SANYA PORT**

Sanya maritime administration has made innovations towards specific management through the "3 + 3" yacht safety management mode, which entitles navigate right to part of the foreign yachts and the yachts for sale, but the inner requirements of the yacht management do not change. Sanya maritime administration, in practice, stipulates that yachts should satisfy the safety management requirements which are the same as merchant vessel, management guiding principle is always swinging. In practice we often encounter the situation that if one yacht has safety management problem, it means we need to conduct a thorough safety check out which brings many difficulties to our staff, at the same time, puzzle yacht corporates.

Let's back to the fire accident of "Sea Knights" again. After the fire, the maritime administration carried out an on-month special inspection for fire, rescue equipments of yacht. The one-by-one inspection covers more than 400 yachts in Sanya, which took up a lot of law enforcement personnel and time, bring certain influence to other maritime safety management works. At the same time, after the accident, SYMSA strengthen the supervision for yachts sailing, berthing activities, further limiting the yacht sales of trial test drive, disturbed some of the ship's travel plans, and also

brings some adverse effects to the development of yacht industry.

The author insists the yacht's maritime safety management, first, should make clear the management aims, guiding principles, and then, within the safety principles, implementing the specific management measures. According to the special nature of the yacht and its activities, and the management experience of foreign countries, maritime safety management should adhere to the following principles:

1. Loose management principle. Yacht has multiple particularities regarding inspection, registration, use, navigation, berthing, and security services and legal liability for and ownership. Therefore, managing concepts of commercial vessel cannot simply apply to the management of the yacht. From the practice of domestic and international yacht development, we should provide more loose management mode to yacht accordingly.

2. "Maritime supervision - Industry self-regulation - Owner's autonomy" multidimensional management principles" (Liu & Guo, 2011). As the competent authorities of maritime safety transportation, the maritime administrative agency shall, on behalf of the government, perform the management functions of the safety of water traffic, and ensuring yacht safety should be the primary objective of the safety management of the yacht. Management responsibilities are mostly embodied in the management of public traffic safety. Maritime management agencies should not interfere too much which means taking too much responsibility for the safety management of private yachts, should take advantage of experience of developed countries and regions, deliver the functions which are not part of government to industry associate, through which will fulfill the functions that the government "doing but cannot do well", promoting industry self-regulation by building sound

management mechanism. And with the further development of the yacht industry, the maritime administrative agency, in future, cannot and must not, investment more resources that designed to public security to private yacht safety supervision, and making the yacht owners hold the responsibility of yacht independent management is an inevitable choice and the future trend of yacht management. Practice has proved that the yacht safety management merely rely on maritime agencies, or loose to yacht owner self-management or a combination of single industry self-discipline management are not feasible, and a new management system that combine the maritime administrative agency supervision, yacht owners' self-management and industry self-discipline management is much needed.

To achieve the goal of sustainable development and long term security, according to the particularity of the maritime safety management of yacht, adhere to the loose management, maritime supervision, industry self-discipline and the owner autonomous multi-dimensional management principle, draw lessons from foreign management features, here give out the measures to alleviate risk and yacht maritime safety management advice regarding Sanya port yacht maritime safety management of the existing problems and the 13 key management contents.

### **6.1 Tightening source management – Survey**

1. Streamline survey procedures. Shorten the survey time. Coordination of Hainan Branch of China Classification Society put forward proposals to amend the survey procedures. Shorten the time of issuance of survey certificates according to the small size characteristics of yacht. To increase the number of surveyors in Sanya, improve the efficiency of the survey work.

2. To accelerate the research of new materials, new structures and new craft yacht, to solve the problem of statutory survey of some yachts. Such as sail.

3. Increases the quality of survey. Require that vessel survey agency to implement strict survey standards and product certification system, to ensure the yacht seaworthiness. Strengthen the supervision for survey of the ship quality, notify the surveyor who made 2 times of the ship survey defect to the inspection agency, and either, does not allow to conduct yacht survey in Sanya.

## **6.2 Relatively loose registration system**

### **6.2.1 Simplify the yacht registration conditions and registration procedures**

1. Simplify the yacht registration conditions. Such as in for the registration of ownership, may only require providing invoice, photos, ID photocopy of owner, technical certificate, proof of insurance and customs single;

2. Simplify registration procedures. Such as conduct yacht certificates of ownership and certificates of nationality at the same stage.

3. Shorten the processing time from 7 days to on the spot without special circumstances.

### **6.2.2 Recognition related safety certification**

As mentioned above, the yacht belongs to the non conventional ships, manufacturers are using their own standards and norms, and there are no universal inspection standards and certification requirements. Nearly 70% of the yachts in Sanya port are imported yachts, most of which did not hold survey certificates. Widely recognized

and mature certification system (CE and ABYC) should be taken into yacht registration, allow the yachts that can provide basic ship technical parameters apply for the registration of ownership, so as to conduct survey and registration.

### **6.3 Strict and meticulous management of yacht operator qualification**

#### **6.3.1 Updating the relevant management system and enhancing the quality of examination**

Develop "Management Method of Yacht Examination Database", increasing the content of safety management knowledge and so on. Build up the yacht operator theory examination system, increasing the training time of actual operation. Tailor the different program for large, small yachts and ordinary yachts. Improve the yacht operator assessment methods; optimize the assessment elements, refine assessment criteria, add no quality items and increase the difficulty of the examination, improve access threshold.

Push forward the revision of "Yachtsmen Training, Examination and Certification Rule of PRC"; training content for students with nautical qualifications to be appropriately cut.

#### **6.3.2 Strictly monitor the quality of training, pay attention to skills training**

1.Consultation with the Hainan MSA, put down the right of supervision and permissions of the training institutions to SYMSA, change the previous "examination first" management mode, conduct a critical review of educational qualifications of training institutions, make sure institutions have good training quality.

2. Develop quality supervision mechanism of training. during training selective from time to time to participate in class, combining the test scores and daily teaching, on three consecutive tests pass rates of less than 50%, training institutions stop recruit students to review the educational qualifications.

3. Strengthen yachtsmen collision avoidance training, making the operator a sound practical skill. Entitle veto right to practice evaluation, the term is not passed, the assessment is not passed.

4. Appropriate to extend the training time, especially for students with a low level of culture. Take the water traffic safety accident of students into the annual review of training institutions. For more than a crippling accident caused by the operator's level, shall be held responsible for training institutions.

### **6.3.3 Strictly control the yachtsmen operating ability**

1. To establish new certified yacht operator attendant practice system and large yacht safely manned system.

2. Pay attention to the yacht privacy; reduce frequency of the driver on-site supervision, but change "inspecting certificate" for the "operation", to strengthen the practical skills examination, especially yacht operation skills, to revoke certificate for improper operation of a serious threat to the safety of the yacht.

3. Strengthen the risk education. Call on yachtsmen pay great attentions to safety of activities at sea.

## **6.4 Improve the condition of the yacht activities**

### **6.4.1 Building a comprehensive information management system**

The main function of comprehensive management information system is to clearly display various types of field dynamic monitoring information, through text, symbols, tables, graphics, images and other forms, image, intuitive and clear display for the commanders and supervisors to monitor water area dynamic regulation. Real-time on scene supervision and law enforcement information can uploaded to the dynamic supervision system database. Share the information among apartments inside maritime administrative agency. For the maritime administrative agency, solve that law enforcement means is single, the efficiency is low, and the department management information is not shared.

### **6.4.2 Navigation and berthing Management**

#### **6.4.2.1 Reasonably planning active waters**

Under the history and development status of Sanya port, push forward formulation of the port developing blueprint that conforms to the new era of social development. Recommend Sanya government gives clear distinction for harbor waters, so as to define the function, nature and usage of the port of Sanya, and to regulate the traffic density on the water.

Future construction projects fully consider use of coastline, orderly construct marines, reserve reasonable navigable channel, active areas in order to ensure the safety of the navigation.

Strengthen navigation safety management research, combined with requirements of

“Sanya Water Tourism Management Interim Measures” and “Sanya Water Recreation Safety Management Regulation”, formulate the navigation and recreation waters, set up management requirements for the port speed limit, facilities of navigation safety, weather and sea conditions etc..

#### **6.4.2.2 Dynamic management**

Increase law enforcement means to ease the tension of law enforcement resources. Combined with the characteristics of yacht's activities and actual supervision, based on self-discipline management SYMSA should strengthen information service, monitor in key areas and develop yacht safety system, the main management measures are as follows.

1. Monitoring key areas. To equip with effective supervision and monitoring facilities for key areas (such as port navigation intensive areas, marines), in order to conduct effectively monitoring and recording for yachts which navigating and berthing in above areas, to guide the self-discipline management of the yacht, supervise and urge the yacht navigation and berth to comply with safety regulations, meanwhile, support evidences for illegal behavior.

2. Developing the rules and regulations of yacht navigation. Under the premise of self-discipline management of the yacht, SYMSA only needs to deal with and warn the public safety hazards and dangers, the yacht should conduct self-management in accordance with the requirements of the navigation rules and regulations.

Implement more stringently restriction management within the merchant traditional navigable waters (here refers to port, channel and other navigation intensive areas.



Develop restricted rules for speed limit, prohibited districts to yachts in the navigable waterway and port basins, in order to improve maritime services and maintain traffic safety at sea.

Regarding the non merchant traditional navigable waters, conduct a more relaxed management, to meet the needs and usage of the yacht sailing and self-entertainment. Not make mandatory requirements of the navigation restrictions, through the yacht self-management and concept of self-risky, to maintain the safety of the yacht.

3. Yacht sailing recording. Sanya port has cancelled yacht visa, but for maritime institutions to grasp the yacht dynamic, and get necessary information and guidance for maritime search and rescue, the yacht need to be recording before sailing

Recording means: the yacht that has joined a yacht club only put on record to the club by means of writing or electricity; the yacht without a club membership should by means of electricity or writing, put on record to SYMSA. Before sailing yacht, shall report sailing information to the maritime agency by telephone, VHF, fax etc.

4. Public information services. Perfect the support of service information and navigation safety information. Under the yacht owners' autonomous safety management, maritime authorities and government departments provide for yachts the safety of navigation information and guidance through the construction of a yacht information service platform. For instant, supply the detailed information regarding hydrology and meteorology, obstacles and so on; give out the suggestions and requirements considering navigation hazards, to provide guidance and help for yacht sailing.

As for the yacht safety support, many countries through implemented self-discipline and one's own risk to maintain safety of activities, by a series of complete technical education and training and the school education system, to cultivate people's awareness of the safety of water activities.

## **6.5 Strengthen the administration of yacht clubs through stressing on self-regulatory and self-management**

### **6.5.1 Simplify the record procedure of yacht clubs**

Revise "Hainan Maritime Safety Administration Yacht Club Record Management Program (Trial version)",cancels annual inspection mechanism of yacht club and implement annual reporting mechanism instead, which means the yacht clubs just need to submit their annual safety management report to the maritime department first and then the latter would disclose the report to the public. Take the opportunity of commercial system reform of Hainan province; utilize credit info publicity system of the enterprises of Hainan province to input all sorts of illegal activities, administrative penalties, safety management assessment of yacht clubs. This is designed to amplify the illegal cost of relative yacht clubs via credit instruments.

### **6.5.2 Establish the minimum requirement for the safety administration towards yacht clubs**

In accordance with the national laws and regulations as well as the need of yacht safety administration, SYMSA puts forward the minimum requirement for the safety management of yacht clubs in their administrative areas by means of releasing

inventory list. Audit and record the anti-pollution and safety agreement signed between the yacht clubs and the owners of yachts, make sure the all liabilities of safety management of yacht clubs to be in-scripted in the agreement. Adjust the inventory list dynamically based on the actual conditions.

### **6.5.3 Improve the safety administration of yacht clubs**

Referring to ISM Code, follow the examples of safety management system of enterprises, ask the yacht clubs to follow the laws and set up realistic safety management system.

### **6.5.4 Endow more administrative rights to yacht clubs, strengthen their entity responsibility of safety management**

Motivate all the yachts in the administrative area to be included in the recorded yachts clubs; add rights of implementing safety teaching and training to the yacht clubs; add administrative rights for yacht trial test to yacht clubs; add rights for offering services to foreign yachts; expanding the permission limitation for holding big-scale yacht sports events. As regard to the recorded unberthing yachts, the maritime administration agency must conduct on-site verification of the competence and number of yacht operator, the situation of passengers, the navigation waters. Once discover the illegal activities, which undermines the safety of yachts, the maritime department should positively intervene and deter.

### **6.5.5 Strengthen the personnel management of the yacht safety administration**

Set up standard of quality and quantity of safety management personnel of yacht clubs. Set up real-time control of the dynamic info of personnel in charge of yacht safety management. Inspect the on duty and eligibility of safety management

personnel. Set up database of yacht safety management knowledge. Encourage the yacht clubs to organize training or lectures of safety knowledge. Organize training course of updating knowledge for yacht club safety management personnel. Arrange skill competition for yacht club safety management personnel. Through the above means, gradually promote the business ability and consciousness of yacht club safety management personnel.

#### **6.5.6 Launch star standard selection of yacht club safety management**

Set up criteria of star selection of yacht club safety management. Launch star standard selection of yacht club safety management referring to the record of yacht clubs and implement Maritime Affairs diversified management according to the result. Promote the publicity of stars selection, induct the yacht insurance sector to implement differentiated premium rate according to the star selection assessment. By the above means, substantially strengthen the endogenous impetus of the yacht safety management.

### **6.6 Diversify compliance and administrative mode**

#### **6.6.1 According to the usage**

Although Chinese laws and regulations define yachts as for personal usage, as a matter of fact, yacht renting business in Sanya port is growing vigorously. When developing on-site supervision system, the Maritime administrative authority need to take into consideration the future developing trend of yacht industry, which means it's necessary to classify yachts into for commercial use or for private use and design diversified inspection system according to actual consumption status and types of yachts.

With regard to commercial yachts, the Maritime administrative authority should deem and treat them as normal tourism operating ships, and implement strict safety check according to safety procedures. The operation ability of yacht operator should reach professional standard.

As to the yachts for private use only, the Maritime administrative authority should adopt mass check of yacht clubs combined with direct sampling check and highlight the check on the yacht safety devices. Motivate the owners and operators to enhance maritime safety consciousness and operating skill through urging them to meet internationally accepted certification mechanism or China's yacht inspection requirement.

#### **6.6.2 according to whether joined the clubs**

Encourage the yachts to take part in clubs, intensify the on-site inspection frequency to the yachts haven't joined the clubs yet. As to the yachts that already joined the clubs, we should ask the clubs to take more management responsibility and make our supervision complementary.

#### **6.6.3 Make the focal points stand out**

Emphasize on-site supervision administration key points, including the devices affecting its navigation, operating performance, rescuing and firefighting equipment. Verify the conformance of the club safety management system and the subjectivity of on-site administration.

#### **6.6.4 Take technical standard as priority**

As to the J-boat with the technical standard to accommodate more than 12 people, we should relax the restriction on the number of occupants (12) according to its life saving equipment.

#### **6.7 aggravate punitive burden and increase illegal cost**

Severely punish the illegal activities of yachts, which means make the punishment according to highest legal responsibility. Because if the fine is too little, it won't take deterrent effect.

As to the yacht operator, suspension the competence certificate for one year. If there are violations again, the certificate should be revoked.

“Yacht safety administration regulation” orders that the inland navigating yacht should hold qualified inspection certificate and registration certificate; otherwise the maritime administration authority should order them to stop. If the operator refuse to stop, the maritime administration authority should suspend the yacht. In cases of gross violation, they could confiscate the yacht.

## **CHARTER 7**

### **LONG-RANGE PLANNING**

Laws of higher level take precedence of laws of lower level. According to this principle, before the legislative top-level design, although there having been existing some problems about safety management, there's no resolution or make more breakthroughs. Otherwise, there will be risks of violate relative laws or regulations. Therefore the long-range planning of yacht safety management should be based on amendment of laws and regulations.

#### **7.1 Promote the revision and formulation of laws and regulations**

Yacht definition, yacht inspection and registration requirements, the ship imported management and other related to the yacht maritime safety management content, are clearly defined in the relevant laws and regulations, cannot break through, but also not dare to break.

And the sale of yachts, sailing race and Marina technical standards is the blank of laws and regulations.

In order to adapt to the development of the yacht, establish a unique yacht management mode, must promote the revision of relevant laws and regulations, and

formulate national level of yacht management regulations. Such as existing registration regulations is mainly for commercial shipping, the adjustment object of "Registration Regulation" is largely commercial shipping, and yacht as entertainment and leisure based tools, hold complete different characteristics with the commercial transport ship. At present, China MSA has been prepared to "Management Regulation" for revision.

## **7.2 Refined yacht management procedures**

Reference to the "Maritime Law Enforcement Operation Workflow "and "Maritime supervision Operation Workflow", provide the law enforcement content, procedures, priorities, standards, to ensure consistency and continuity of law enforcement.

## **7.3 Taking product certification model into the yacht survey system**

ISO has developed detailed and comprehensive technical standards for small yachts. Europe, the United States and other developed countries also have developed corresponding management specification. A good institutional reserve provides a technical basis for the safety of the yacht. In China, in 2009 "type approval" concept of "Yacht Statutory Survey Interim Provisions" has initially taken product certification model into yacht survey, and known as the 3C (China Compulsory Certification) is a model of China's household electrical appliances to fully implement the product certification model.

Establishment of yacht of 3C standards certification organization, focus on communication with foreign standardization organizations, standard docking and mutual recognition. Through recognized standards survey (CE certification, ABYC certification) of yacht and marine products, can be directly by certificate technology



to apply for certificate of nationality, and reduce the link.

## **CHAPTER 8**

### **CONCLUSION**

Sanya port has the largest number of yachts in China, under current legal system and management system, the status and problems of Sanya yacht maritime safety management in China is representative. Yacht supporting legal missing or out of the reality is the biggest problem in the yacht maritime safety management of Sanya port. Whether the use of yacht or the characteristics of navigation has significant difference with general merchant ships, the maritime safety management system based on the merchant ships undoubtedly hinder the development of the yacht.

The management mode of developed countries brings some enlightenment, yacht industry development in Sanya still stay in early stage, yacht maritime safety management shall be combined with China's national condition, to the laws and regulations as the basis, to ensure safety as the goal, grasp well the source management, construction survey standards cannot be too loose, survey and registration of procedure design should be scientific and rational, and application of which should be simple; power and responsibility of maritime safety administration should be unified, should change similar to the way of supervision and inspection of the merchant. Constrained by the system and efficient means of punishment, not to manage yacht by the traditional merchant site supervision, and regulatory process to

their own self-management; the yachtsmen management should get rid of management ideas of the professionalization of crew, design to meet the yacht driving characteristics of the qualification management mode. Qualification management mode which is accord with the characteristics of the yacht driving skills should be designed. Site supervision should be diverse with a focus and breakthrough. Site supervision and management should be differentiation management, prominent focus, and breakthrough.

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