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WORLD MARITIME UNIVERSITY

Dalian, China

**RESEARCH ON THE INTERNATIONAL LAW
ISSUES OF THE MARITIME SEARCH AND
RESCUE**

By

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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

MSEM

2020

DECLARATION

I certify that all the material in this dissertation 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 dissertation reflect my own personal views, and are not necessarily endorsed by the University.

Signature:

Date: June28,2020

**Supervised by: Professor Yang Linjia
Professor of Dalian
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ABSTRACT

Title of Dissertation: **RESEARCH ON THE INTERNATIONAL LAW
ISSUES OF THE MARITIME SEARCH AND
RESCUE**

Based on the study of the relevant international law theories of maritime search and rescue activities, this paper makes a systematic, comprehensive and in-depth analysis of the relevant international law issues of maritime search and rescue activities by using the relevant basic theories of jurisprudence, empirical analysis, deductive reasoning and other relevant research methods, in order to establish a set of science and cooperation Li's international legal system of maritime search and rescue provides certain theoretical basis and support for promoting maritime search and rescue cooperation between countries, promoting national maritime search and rescue forces and strengthening the introduction of search and rescue legal norms.

KEY WORDS: Maritime Search And Rescue, Area Of Responsibility, National Cooperation

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CHAPTER 1

INTRODUCTION

1.1 Background Information

National Maritime Search and rescue activities are one of the important guarantee activities to maintain national maritime traffic safety. In order to improve our maritime search and rescue capability, we should improve the existing laws and regulations, strengthen our maritime search and rescue cooperation capability with other countries, strengthen the international legal basis of maritime search and rescue, and provide a strong guarantee for the continuous development of our maritime search and rescue industry.

The background of this paper is mainly based on the following three aspects:

(1) the existing regulation of search and rescue activities in China is somewhat decentralized. The effectiveness of China's regulation of laws and regulations related to maritime search and rescue activities is often limited to all localities rather than the whole country, which is highly technical rather than normative.

(2) the research on the international legal basis of maritime search and rescue is relatively weak. At present, the research perspective of academic circles is widely concentrated in the research of domestic law (often administrative law category), which has more space for the research of international law.

the mh370 incident of Malaysia Airlines arouses the attention of research on this issue of international law. The mh370 accident of Malaysia Airlines in March 2014 made governments deeply aware of the necessity of search and rescue

cooperation among countries in response to large-scale maritime accidents, as well as the weakness of the existing legal system of national search and rescue cooperation.

1.2 Objectives of Research

The study of international law in maritime search and rescue activities has the following two meanings:

First, provide more theoretical support for the existing legislation. Through the study of international law issues in maritime search and rescue activities, we can clarify the relationship between maritime search and rescue related laws and the international law of the sea, and provide new theoretical ideas for solving the disputes of national maritime rights and interests and analyzing related international law issues.

Second, promote the development of national maritime search and rescue forces. The study of international law of maritime search and rescue focuses on providing stable international law guarantee for maritime search and rescue and improving the National Maritime Search and rescue strength.

Compared with the existing research, the application value of this paper is mainly reflected in:

The research of this paper can improve the working ability of relevant practical departments. In recent years, China's sea related management system has made significant adjustments, but the introduction of relevant laws and regulations is relatively lagging behind. This paper studies the international law problems of maritime search and rescue in China, and clarifies the solutions and suggestions of relevant international law problems and the functions of relevant maritime search and rescue management system, in order to guide the relevant maritime related practical departments to engage in maritime related management activities, so as to bring application value.

1.3 Methodology Of Research

This paper focuses on the analysis of the international legal issues related to search and rescue activities, such as the passage of search and rescue ships, the establishment of state responsibility, and the design of cooperation procedures, in the context of maritime search and rescue responsibility area. In addition, when we study the international law of maritime search and rescue activities, we need to study some special problems of maritime search and rescue activities, including the special problems of search and rescue subjects and search and rescue ships, and take into account the practice of the relevant common problems of the whole international emergency rescue. This paper focuses on the combination of theory and practice, the unity of system and system, and fully pays attention to the logical chain of writing. Based on the general basic problems and theoretical basis, on the basis of consulting relevant materials and summarizing the research results at home and abroad, it analyzes and discusses the specific contents of International Law Issues of maritime search and rescue. First, value analysis method. The method of value analysis is to reveal, criticize or confirm certain social value or ideal by recognizing and evaluating the value attribute of things. In this paper, on the cooperation procedure of maritime search and rescue activities, through the establishment of a certain value level, the purpose and goal of national cooperation should be established, so as to make a corresponding value evaluation without the study of this paper. Second, empirical analysis. The empirical analysis method focuses on the current social or disciplinary reality, and makes reasoning explanation through examples or experience. In this paper, through the empirical analysis of the responsibility area of maritime search and rescue activities, ship passage, national responsibility and other aspects, so as to make the relevant theoretical analysis in line with the objective reality. In addition, based on China's marine development strategy and marine development policy, on the basis of on-the-spot investigation of China's maritime search and rescue management department, this paper will make full use of statistical investigation, network investigation and other methods to conduct in-depth research, reflecting the objective problems in the process of China's maritime search and rescue legislation, Combine theory with practice. Third, induction and deduction. Inductive method is to obtain a general rule from individual cases, while deductive method is to deduce the characteristics of

things from existing universal conclusions. This paper combines inductive method and deductive method, summarizes different aspects of maritime search and rescue activities, and analyzes the corresponding problems in depth. On this basis, through successive deduction, this paper explains and proves the relevant problems in maritime search and rescue activities, such as the delimitation of responsibility area, the passage of search and rescue ships, the composition and balance of state responsibility, and the construction of state cooperation procedure system, and draws its own response conclusion, which makes the research of this paper accurate and rigorous. Fourth, theoretical analysis method. The research of this paper is based on a large number of existing literature, especially the theoretical views and the corresponding supporting arguments put forward by scholars at home and abroad in the face of marine legislation. On the basis of full elaboration and analysis of these contents, it provides a scientific theoretical basis for the relevant system design.

1.4 The Research Status And Development Trend At Home And Abroad,

1.4.1 The Research Status And Development Trend At Home

The summary of domestic research status can be divided into two different periods and stages: before the 2014 Malaysia Airlines MH370 accident, its research mainly focused on the basic legal issues of maritime search and rescue, such as the concept and scope of maritime search and rescue, the comparison of Chinese and foreign maritime search and rescue systems, etc. Since 2014, when the MH370 accident happened in Malaysia Airlines, the research direction of domestic scholars has been developing towards the legal issues of search and rescue cooperation in different sea areas, and the division of sea areas mentioned here is not only from the perspective of geographical location, but also with the existence of disputed sea areas as different research objects. After the 2014 Malaysia Airlines MH370 accident, the academic research perspective focuses more on the scope of maritime search and rescue responsibility, as well as the national cooperation in maritime search and rescue activities. Some scholars also pay more attention to the legislation of maritime search and rescue in China.

1.4.2 The Research Status And Development Trend At Abroad

Similar to the research institutes of domestic scholars, the research of overseas scholars on maritime search and rescue also focuses on different angles such as search and rescue responsibility area and state cooperation, but what is outstanding is that foreign scholars have a relatively systematic study on the theoretical issues of international law on maritime search and rescue, specifically in the following aspects.

- 1.the theoretical study of international law on maritime search and rescue.
 - 2.research on maritime search and rescue responsibility area.
- research on cooperation among countries in maritime search and rescue activities.

CHAPTER 2

BASIC LEGAL ISSUES OF MARITIME SEARCH AND RESCUE

2.1 Definition Of Maritime Search And Rescue

Maritime search and rescue is a kind of rescue activity carried out by the state for maritime distress, and it is also an important part of a country's maritime transport support activities. Maritime search and rescue activities are not only the maintenance of life safety of people in distress at sea, but also an important support for the smooth development of domestic and international transportation activities. In order to study the international law of maritime search and rescue from the perspective of legal theory and legal norms in China, we should first define maritime search and rescue. From the technical point of view, maritime search and rescue is an activity that the main body of search and rescue uses certain manpower and equipment to find and rescue the victims at sea. In the process of theoretical research, scholars try to define the concept of "maritime search and rescue" from different perspectives, thus forming different definitions of maritime search and rescue.

First, the event said. Some scholars believe that "maritime search and rescue" should be directly interpreted as "maritime search and rescue" in the process of definition, and the premise of maritime search and rescue should be clearly defined as "maritime disaster or other emergency". Therefore, maritime search and rescue refers to the search and rescue of maritime accidents or other emergencies under the unified command and coordination of the competent authorities of our country. Scholars who agree with this point of view believe that, due to the obvious technicality of maritime search and rescue, the definition of maritime search and rescue can be established as long as the implementation

premise is in line with "shipwreck event or other emergency event", without too much interpretation.

Second, career. This view regards maritime search and rescue as a national public utility. It is believed that maritime search and rescue is a public welfare undertaking that the government coordinates all forces to provide search and rescue for all kinds of people in distress at sea. In the process of defining "maritime search and rescue", this view mainly refers to the important management theory - governance theory. Dynamic governance theory emphasizes that the State exercises control, guidance and manipulation in the process of management in a certain field, and exercises authority in the sense of management in this range. Therefore, the view that maritime search and rescue is regarded as "national public utilities" is mainly defined from the perspective of public administration, which is an important reference for the study of maritime search and rescue management. The definition of "career theory" is also the general theory of the concept of "maritime search and rescue" in the field of management, which lays an important theoretical foundation for improving the management of maritime search and rescue.

Third, action. It is considered that maritime search and rescue is a kind of national action. It is a national action that the government coordinates all public and private resources, performs distress monitoring, communication, searches, determines the location of the people in distress, and transfers them to a safe place. The maritime search and rescue and the land-based emergency rescue under the action theory should belong to the same definition. According to this view, maritime search and rescue is an important part of the national emergency rescue system, and its essence should be an important branch of emergency rescue activities in the marine area. Based on this, maritime search and rescue should ultimately be attributed to the rescue practice, and reflect the specific actions of the state in this field.

Fourth, stage theory. "Stage theory" is the supplement and development of "event theory", which is more detailed than the latter, and no longer simple to explain. Scholars in favor of stage theory believe that if we want to define maritime search and rescue, we must divide the concept into two parts and discuss them separately. First of all, it should be clear that search and rescue at sea is by "search".

Through the analysis of the existing maritime search and rescue definition, as well as the comparison and thinking of the existing legislative definition. The author thinks that we should draw lessons from the "stage theory" and "action theory" separately and dialectically, so as to make them "extract the essence of their dross". Specifically speaking, maritime search and rescue refers to the national public welfare action which takes the government departments or relevant authorities as the leading body and takes measures such as positioning, rescue, transfer and other measures for the personnel distress or other property loss crisis including the personnel distress caused by the maritime emergency. This definition consists of the following specific elements:

1. Leading organization of maritime search and rescue. In fact, both the search and rescue Convention and the National Maritime Search and rescue emergency plan emphasize that the maritime search and rescue leader should be a government or its relevant authorities. ① In addition, with the development trend of modern maritime search and rescue forces, it is difficult for the specific implementation subjects of maritime search and rescue to systematically classify and reflect in the definition. Therefore, putting the leading organization of maritime search and rescue in the definition can play a clear and leading role.
2. Objects of maritime search and rescue. The object of maritime search and rescue should be the rescue of people in distress or other property loss crisis including the rescue of people in distress. It is not only the requirement of definition, but also an important way to distinguish maritime search and rescue from maritime disaster rescue. The rescue of people in distress is the core task of national maritime search and rescue, and also the requirement of search and

rescue convention. As the complete expression of maritime search and rescue should be "maritime search and rescue", considering the preciseness of the definition, we should avoid isolating the property loss completely. Therefore, the implementation object of maritime search and rescue should be understood as "rescue of people in distress or other property loss crisis rescue including people in distress". Among them, the essence of rescue of "other property loss including people in distress" refers to the joint rescue in case of people in distress and property distress at the same time, and such joint rescue It should not only include the rescue of people, but also take the rescue of people in distress as the core.

3. Implementation procedures of maritime search and rescue. Through the description of the implementation procedure of maritime search and rescue in the existing domestic legislation and international conventions, it can be seen that the search and rescue procedure should be expressed in its definition, especially in the search and rescue convention, which emphasizes this point even more, so that maritime search and rescue can be divided into two concepts and defined independently. However, maritime search and rescue and maritime search and rescue procedures are totally different concepts and cannot be confused. Therefore, in the process of incorporating the concept of maritime search and rescue, we should choose its main procedures and strive to be concise in the same definition, so as to avoid too fragmented concept. Therefore, in the process of redefining, we will elaborate it as "positioning, rescue, transfer and other measures taken".

2.2 International Law Attribute Of Maritime Search And Rescue Activities

The international law nature of maritime search and rescue activities is the basic attribute of maritime search and rescue activities at the level of international law. The general international law nature of maritime search and rescue activities refers to the inherent nature of the maritime search and rescue activities undertaken by the main body of search and rescue in the sense of international law, and this nature does not transfer with the different scope of waters under national jurisdiction. Therefore, the general international law nature of maritime search and rescue activities mainly refers to the national nature of maritime search and rescue activities, specifically including the following two aspects:

First, the search and rescue behavior caused by maritime rescue activities should be attributed to the state behavior. National is the main character of maritime search and rescue, and its essence is that maritime search and rescue is a kind of state behavior. That is to say, the subject of maritime search and rescue must be the state or other subjects led by the state. This is mainly due to the fact that search and rescue countries directly or indirectly participate in maritime search and rescue activities. In the field of international law of maritime search and rescue, the state is the normal subject of international law, but according to this, the state can entrust the specific rights it enjoys to individuals or other organizations, and in this limit, make them exercise a specific right instead of the state. In search and rescue practice, the state may directly participate in the international maritime search and rescue activities, may deliver them to its domestic social organizations or other social forces to work together to rescue and lead them, may also deliver them to organizations with other countries to participate in the joint search and rescue. ① Therefore, the essence of maritime search and rescue activities is a kind of state behavior or a kind of behavior under the leadership of the state, and no matter which situation, we can not deny the

national nature of the main body of maritime search and rescue activities.

Denying the national nature of search and rescue activities may be confused with maritime rescue. If the maritime search and rescue activities are not national, but can produce a private person, or an autonomous search and rescue subject separated from the leadership of the state, the search and rescue activities that the subject is engaged in may be regulated by the "maritime rescue" in China's maritime law, for example, the captain of a merchant ship saves the life of the sea according to the provisions of article 174 of China's maritime law during the voyage. These subjects may be private ships, such as sister ship rescue, or natural persons, such as the captain, crew, pilot or passengers on board, or professional marine rescue companies. However, no matter what form these subjects are, they always belong to the social assistance forces. Although these rescue forces can be engaged in salvage activities at sea and get relevant compensation, or they can be engaged in salvage activities at sea and get relevant social honor or recognition, However, if these social forces want to participate in the maritime search and rescue activities among countries (such as the search and rescue activities of Malaysia Airlines mh370), they must be carried out under the leadership or command of the state, and their essence still returns to the national nature of search and rescue activities.

Second, the search and rescue activities at sea should be under the command or control of the state. The so-called conduct under the command or control of the state refers to the conduct of the subject according to the instructions of the state or under its actual command or control, and its conduct shall be regarded as that of a state under international law. This element is consistent with the definition of "search and rescue at sea" and the "theory of action" embodied in this definition. In a sense, the maritime search and rescue activities in international law can not produce a purely private or autonomous international search and rescue organization completely separated from the national nature. On the one hand, the

cost of large-scale international maritime search and rescue activities is huge, which is often not borne by a single individual or private organization in the international community. Even if an international organization undertakes such international maritime search and rescue activities, its internal members are often states; on the other hand, it is not subject to Maritime rescue under the command or control of the state may not be an act of maritime search and rescue. From the composition and specialization of search and rescue forces, search and rescue forces can be divided into designated search and rescue units, professional search and rescue units and other search and rescue facilities. The designated search and rescue units and professional search and rescue units are often from various government departments and private enterprises, while other rescue units even include merchant ships, fishing boats, yachts, small boats, volunteer organizations, etc. However, although the search and rescue force itself has a diversity of subjects, if from the perspective of the significance of international law, these search and rescue units can not only engage in maritime rescue activities according to their own search and rescue plans or will, and their behavior should be under the command and control of the state. Although the composition of maritime search and rescue forces presents a diversified trend, and non-state search and rescue forces among various search and rescue forces are also encouraged to join the international maritime search and rescue team, these main bodies can not be allowed to do what they do while neglecting the unified leadership of national competent authorities when they engage in maritime search and rescue activities.

2.3 Dimension Space Of Maritime Search And Rescue

2.3.1 International Legal Perspective Of Maritime Search And Rescue

The definition of maritime search and rescue dimensions mainly includes two different dimensions: the scope of waters under national jurisdiction and the responsibility area of maritime search and rescue.

First, from the perspective of the scope of waters under national jurisdiction. The first standard to define the scope of maritime search and rescue is from the perspective of the scope of waters under national jurisdiction. According to this perspective, the scope of maritime search and rescue determined by the state is consistent with the scope of the waters under its jurisdiction. That is to say, a state is obliged to carry out maritime search and rescue tasks within its territorial sea and exclusive economic zone and rescue the people in distress. Within the scope of the high seas, a state can not only undertake search and rescue obligations based on its personal jurisdiction or jurisdiction over wrecked ships, aircraft and other equipment and facilities, but also provide moral assistance for search and rescue within the exclusive economic zone of other states and in the field of the high seas based on the spirit of humanitarian assistance. Because this kind of perspective can clearly separate the sea areas under the jurisdiction of each country, and does not interfere with the exercise of other rights of each country over the sea areas under its jurisdiction. Therefore, to establish the scope of maritime search and rescue by the scope of waters under national jurisdiction is the foundation for each country to establish its own scope of search and rescue. Similarly, in the part of the high seas beyond the jurisdiction of a state, the participation of search and rescue countries in search and rescue activities is certainly outside the scope of responsibility and should be evaluated as humanitarian rescue activities.

Second, from the perspective of maritime search and rescue area. The second standard to define the scope of maritime search and rescue is from the perspective of "maritime search and rescue area" mentioned in the search and rescue convention. According to this perspective, the establishment of national maritime search and rescue area is determined by the agreement with other countries. If a relevant search and rescue agreement is reached between the two countries, even if the actual place of death is located in the exclusive economic zone of a country, other States parties to the search and rescue agreement are also obliged to participate in the search and rescue. Since the promulgation of the search and rescue convention is mainly to adjust the rights and obligations of the relevant countries in the field of maritime search and rescue, the law attempts to establish the search and rescue responsibility area of each country by means of national agreements, without affecting the maritime delimitation of each country, so as to more accurately and timely locate the people in distress and implement rescue measures.

2.3.2 The Relationship Between The Perspectives Of Maritime Search And Rescue

In fact, the scope of maritime search and rescue is not completely independent between the two perspectives. Some scholars have discussed the interaction between two different perspectives in search and rescue practice. The basic relationship between the two is that the first perspective is the premise of the second, and the second perspective is the development of the first. Therefore, the fuzziness of the establishment of the first perspective will directly restrict the implementation of the second perspective. The specific relationship between the two is as follows:

First, it is a precondition to define the scope of a country's maritime search and rescue from the perspective of the scope of the sea areas under national jurisdiction, and any other way of defining can not affect the basis of this

standard. This is because this definition standard is based on the United Nations Convention on the law of the sea, and involves the delimitation of the sea areas under the jurisdiction of all States, which in essence touches on the sovereignty of all States. The development and cooperation of maritime search and rescue forces of all countries can not leave a relatively stable regional environment. It is a safe and least controversial way to carry out search and rescue activities based on the sea areas under national jurisdiction. However, there is an important prerequisite for defining the dimension of maritime search and rescue from this perspective: only on the basis of clear resolution of the delimitation of maritime areas under the jurisdiction of all countries, can the scope of maritime search and rescue implementation and national cooperation be carried out smoothly. If there is a maritime jurisdiction dispute between countries in a certain maritime area, Therefore, to engage in search and rescue activities and dispatch search and rescue forces within the sea area will inevitably lead to disputes among many countries.

Secondly, defining the scope of a country's maritime search and rescue from the perspective of maritime search and rescue area is a developmental result of closer cooperation between countries. The continuous development of maritime search and rescue technology in modern countries is inseparable from close search and rescue cooperation among countries. Therefore, if the perspective of the scope of search and rescue is limited to the waters under the jurisdiction of each country, and the assistance of other countries is only regarded as a kind of humanitarian assistance activity, it will not be able to promote the cooperation between countries. Further cooperation in the field of search and rescue cannot cope with complex international rescue activities involving many countries. Therefore, it is necessary to break through the limits of the waters under national jurisdiction to a certain extent, redefining the search and rescue areas in other sea areas except the territorial sea, and integrating the national search and rescue forces into the search and rescue of relevant sea areas (especially the high seas) in the way of national agreements. In addition, if a state party clearly states that its territorial sea can

also, of course, become part of the search and rescue responsibility area, it should also be recognized in international law.

From the point of view of reality, this way of association identification meets the interests of most countries today. Most of these countries are neighboring countries in the South China Sea, and there are disputes between these countries and China on maritime delimitation. For example, in the search and rescue of Malaysia Airlines, India has banned China's rescue ships and other boats from entering its relevant waters for the reason that the search and rescue activities touch the safety of the waters under its jurisdiction; China has also conducted a lot of consultations before the implementation of the search and rescue activities due to sovereignty disputes with Vietnam in some waters of the South China Sea. Although some of the sea areas in the search and rescue activities have been under the scope of the maritime search and rescue responsibility area announced by China, the search and rescue cooperation between countries is still restricted by the sovereignty issues within the jurisdiction of the sea areas. Therefore, the identification of this association reflects the difficulties and limitations of the smooth development of search and rescue activities among countries, and has certain practical significance.

Chapter 3

International Law Issues Of Maritime Search And Rescue Responsibility Area

3.1 The Theoretical Premise Of The Delimitation Of Maritime Rescue Responsibility Area

The dimension of maritime search and rescue responsibility area is the basic problem that must be clarified before delimiting the maritime search and rescue responsibility area. In the process of delimiting the maritime search and rescue responsibility area, the corresponding premise must be clarified. From an objective point of view, the maritime search and rescue responsibility area can not be separated from the concrete and specific entity sea area, but it will inevitably overlap with the national jurisdiction sea area and the national dispute sea area. Therefore, before delimiting the maritime search and rescue responsibility area, it is necessary to clarify theoretically the relationship between the upcoming search and rescue responsibility area and the sea area under national jurisdiction and the disputed sea area, so as to avoid the excessive political interference from the jurisdiction sea area and the disputed sea area during the execution of search and rescue tasks And affect the process of rescue, weaken the important carrier significance of the establishment of search and rescue responsibility area. The essence of defining the theoretical premise of maritime search and rescue responsibility area is to clarify the interaction between the search and rescue responsibility area and the sea area under national

jurisdiction, and between the search and rescue responsibility area and the disputed sea area.

3.1.1 The Interaction Between The Rescue Responsibility Area And The Sea Area Under National Jurisdiction

Based on the perspective of maritime search and rescue, there is a certain relationship between the maritime search and rescue responsibility area and the sea area under national jurisdiction. It is based on this kind of connection that the search and rescue responsibility area and the sea area under national jurisdiction will have mutual influence, which will bring about a number of problems. Under the basic premise of focusing on the "maritime search and rescue responsibility area", the act of delimiting the search and rescue responsibility area itself will inevitably touch on the sovereignty of the sea areas under national jurisdiction. Therefore, from the perspective of defining the maritime search and rescue responsibility area, the interaction between the maritime search and rescue responsibility area and the sea area under national jurisdiction is shown in the following two aspects:

First, the existence of sea areas under state jurisdiction provides necessary guarantee for the delimitation of maritime search and rescue responsibility areas. This guarantee is mainly reflected in the following two aspects: on the one hand, the sea area under the jurisdiction of a state provides the necessary material basis for the delimitation of the maritime search and rescue responsibility area. A country needs to consider the distribution and pattern of its own maritime search and rescue forces when delimiting the maritime search and rescue responsibility area. Based on the need of coastal States to maintain the security of their jurisdiction, search and rescue forces often exist in the territorial sea of coastal States and the security zone of the exclusive economic zone, rather than far from their coastal base. Therefore, whether it is the unilateral delimitation of maritime

search and rescue responsibility area or the joint delimitation of maritime search and rescue responsibility area with other countries, it needs to be connected with the influence scope of its own search and rescue forces and cannot be absolutely separated; on the other hand, the sea areas under national jurisdiction provide the necessary security scope for the delimitation of maritime search and rescue responsibility area. The sea areas under the jurisdiction of a state include the territorial sea, the contiguous zone and the exclusive economic zone, and a state has the obligation to rescue the people in distress in the sea areas under its jurisdiction, so as to correspond to the rights enjoyed in the sea areas under its jurisdiction. Therefore, there is a clear legal basis for the state to carry out search and rescue activities in the sea areas under its jurisdiction. At the same time, because coastal states do not have the right to enjoy absolute sovereignty over their exclusive economic zone, they do not have the right to interfere with the humanitarian assistance provided by other states in the exclusive economic zone

Non such acts have endangered the security of the exclusive economic zone of the coastal state, and even constitute a military threat to the coastal state. However, in order to protect the security of the national territorial sea, other countries should not take the territorial sea of other countries as the object, without the consent and accession of other countries, directly divide the territorial sea of other countries, even the internal water into their own maritime search and rescue responsibility areas, so as to directly drive their own search and rescue forces into the territorial sea of other countries to carry out search and rescue activities. From this point of view, the existence of sea areas under national jurisdiction can provide the necessary security scope for the delimitation of maritime search and rescue responsibility areas to protect their territory.

Second, the maritime search and rescue responsibility area provides an extended cooperation platform for the sea areas under national jurisdiction. Supported by

the theory of marine functional approach, maritime search and rescue responsibility area is a new functional area established by the state unilaterally or between states. This kind of functional area is actually an opportunity for the country to cooperate in a special field, and this field has broken through the shackles of the sea areas under national jurisdiction. This kind of area is a special area set up in the jurisdiction sea area, which is limited in the specific sea area and depends on the special cooperation needs, and should be a kind of cooperation beyond and excluding political differences. ① In the scope of maritime search and rescue responsibility area, when the search and rescue task occurs and does not endanger the safety of the sea area under the jurisdiction of the Contracting States in the responsibility area, the search and rescue operation in the maritime search and rescue responsibility area with the mission of human life rescue should be supported, and the establishment of the maritime search and rescue responsibility area is the concrete embodiment of supporting this cooperation. At the same time, the establishment of this relatively special region is rooted in the theory of defining the scope of maritime search and rescue activities, that is, when countries establish their own maritime search and rescue scope, they should take the maritime search and rescue responsibility area as the basis, but not take the waters under the jurisdiction of each country as the vision, stick to their own sovereignty and turn a blind eye to such cooperation.

3.1.2 Intercommunication Between Search And Rescue Responsibility Area And National Disputed Sea Area

The so-called disputed sea area refers to the sea area that arises from the issue of National Maritime Delimitation and has sovereignty disputes. There is a connection between the maritime search and rescue responsibility area and the national disputed sea area. The analysis of this connection is the basis and premise to establish the legal principle of delimiting the search and rescue responsibility area and to demonstrate the related problems.

First, the maritime search and rescue responsibility area may overlap the disputed

waters. The maritime search and rescue responsibility area partially overlaps in the disputed sea area, specifically refers to the overlap in the geographical scope and jurisdiction claims. In the reality of geographical overlap, the scope of maritime search and rescue responsibility area announced by China is: Bohai Sea and Yellow Sea area to the west of 124 ° E; East China Sea area to the west of 126 ° E; South China Sea area to the west of 120 ° E and north of 12 ° n, with a total area of about 3 million square kilometers. However, this area overlaps with the scope of search and rescue responsibility area published by Japan, South Korea and South China Sea, and there is a disputed sea area between the two countries. On the basis of geographical overlapping, there are also overlapping claims of national jurisdiction, and because of the existence of disputed sea areas, the overlapping claims of jurisdiction means the conflict of claims of jurisdiction between countries. The scope of China's maritime search and rescue responsibility area announced means that China has the right to manage the human life rescue and wreckage salvage of the victims within the scope of the responsibility area announced, take relevant safety measures and have the obligation to rescue the people in distress at sea. However, if the neighboring countries claim this kind of management right at the same time in the search and rescue responsibility area of the overlapping part of the disputed sea area, there will be overlapping claims of jurisdiction, and this kind of overlapping is easy to be connected with the part of the state exercising the sovereignty right of the sea area, and then the source of jurisdiction over the search and rescue matters is regarded as the sovereignty of a state over the disputed sea area. ③ Because there is a boundary dispute in the disputed sea area, and a state's act of delimiting the search and rescue responsibility area within its jurisdiction belongs to a state's sovereign act, in the absence of a multilateral agreement on search and rescue between China and other countries, the unilateral claim of search and rescue management right in the disputed sea area may overlap with the same claim of other countries And lead to geopolitical conflict.

Secondly, the maritime search and rescue responsibility area is partly attached to

the disputed sea area. Part of the maritime search and rescue responsibility area is attached to the disputed sea area, which means that under the premise of overlapping of maritime search and rescue responsibility areas among countries in the disputed sea area, the scope delimitation and the rights and obligations of countries are closely related to or dependent on the maritime delimitation under the disputed sea area within the scope of the responsibility area, which in essence still returns to the issue of maritime rights and interests disputes between countries. ⑤ This kind of dependence is manifested in the following two aspects: first, the dependence of demarcation. The dependence of the chemical world mentioned here is a state of reality, not the requirement of the "search and rescue Convention". On the contrary, the search and rescue convention should show that it has nothing to do with delimitation. However, in reality, the dependence of delimitation is the inevitable result of delimitation. It shows that with the intensification of national claims in the disputed sea area, It is more and more difficult to determine the maritime search and rescue responsibility area and the rights and obligations of the States. Only on the premise of resolving the boundary dispute in the disputed sea area, the search and rescue countries in the disputed sea area can form the maritime search and rescue responsibility area according to the delimitation results alone or through mutual consultation. Second, the dependence of legislation. The dependence of legislation shows that the development of relevant legislation of maritime search and rescue responsibility area depends on the development of maritime legislation of the countries in dispute in the disputed sea area. Only on the premise that the maritime legislation of the countries in dispute is fully developed, can the relevant laws and regulations concerning maritime search and rescue responsibility area be perfected, and can the development of relevant laws regulating search and rescue activities in the disputed sea area be promoted and formed Close cooperation system of search and rescue between countries in the disputed sea area. The current situation that the maritime search and rescue responsibility area partially depends on the disputed sea area is contrary to the provisions of the search and

rescue Convention itself, which is also the problem that the search and rescue Convention itself can consider the disputed sea area itself.

3.2 The Form And Characteristics Of Maritime Search And Rescue Responsibility Area

3.2.1 Unilateral Search And Rescue Responsibility Area

The unilateral delimitation of search and rescue responsibility area is a unilateral act of the state to delimit the maritime search and rescue responsibility area through its own will, and it is an important prerequisite for a state to participate in the maritime search and rescue activities. The unilateral delimitation of search and rescue responsibility area is formed by a single country taking the scope of its own jurisdiction as the center. Its delimitation scope often covers all the jurisdiction areas and radiates to other adjacent areas. Taking China and South Korea as examples, under the specific scope of maritime search and rescue responsibility area announced by our government, there are three sub search and rescue responsibility areas in the North Sea, the East China Sea and the South China Sea, and there are related maritime search and rescue bases. The responsibility area for search and rescue in Beihai sea area covers the connection from xiuzhenhekou to the north end of Pingshan island and the water area to the north of 35 ° n; the responsibility area for search and rescue in the East China Sea starts from the connection from xiuzhenhekou to the north end of Pingshan island to the south of 35 ° n, and ends at the north of 135 ° E in Gongkou. The South China Sea Search and rescue responsibility area starts from the Pearl River estuary area of 22 ° n in the north and ends at the South China Sea area of 12 ° n in the south. The maritime search and rescue responsibility area claimed by South Korea is 444000 square kilometers, of which the western maritime search and rescue area is the Yellow Sea area to the east of 35 ° n, the southern maritime search and rescue responsibility area is the Korean Strait area to the north of 30 ° n, and the eastern maritime search and rescue responsibility area is the sea area of

Japan to the west of 133 ° E. because the maritime search and rescue responsibility area within the scope mentioned above comes from the unilateral claim and delimitation of one country, therefore, the maritime search and rescue responsibility area demarcated by the border has the following two particularities:

First, unilateral delimitation of search and rescue responsibility area is autonomous. When a country unilaterally delimits the maritime search and rescue responsibility area, its purpose is often to ensure its maritime traffic safety. Therefore, it may not be able to take into account the disputed sea areas between it and its neighboring countries. It is precisely because of this that such responsibility area has a strong autonomy rather than an agreement. Taking Japan as an example, the overlapping part of the maritime search and rescue responsibility area between China and Japan is up to 160000 square kilometers, and the overlapping part is located in the sea area near the Diaoyu Island. There are 240000 square kilometers of disputed sea areas between China and South Korea, and the maritime search and rescue responsibility area also overlaps with its scope. Obviously, these demarcations are not really based on agreements between countries, but on their own. Therefore, the autonomy of unilateral delimitation of search and rescue responsibility area is easy to compete with the same delimitation claims of other countries, which leads to disputes.

Second, unilateral delimitation of search and rescue responsibility area is limited. Unilateral delimitation of maritime search and rescue responsibility area is limited in scope, and the scope of search and rescue that a country can reach by its own independent search and rescue strength is often limited. In the process of unilateral delimitation of search and rescue responsibility area, it is impossible to ignore the corresponding geopolitical factors and other factors that may lead to the failure of integration. Because of other factors of further expansion, unilateral delimitation of search and rescue responsibility area by a country is often subject to many external restrictions, so that it is unable to effectively implement large-scale expansion. Taking China as an example, the scope of maritime search and

rescue responsibility area in China is very limited, especially in the East and south direction of the "first island chain", which makes the "first island chain" become an important geopolitical factor restricting the further expansion of China's search and rescue responsibility area, thus limiting the further expansion of China's search and rescue responsibility area.

It is based on the autonomy and limitation brought by unilateral delimitation of maritime search and rescue responsibility area that countries have the motivation to make agreements with each other and delimit common search and rescue responsibility area, so as to jointly save the lives of people in distress at sea and ensure the safety of maritime trade and transportation between countries. As a result, the bilateral search and rescue responsibility area can be born.

3.2.2 Bilateral Search And Rescue Responsibility Area

The bilateral search and rescue responsibility area is the behavior of the two countries to jointly define the maritime search and rescue responsibility area through the will of both sides. It is the main form of cooperation in national maritime search and rescue activities. Bilateral delimitation of search and rescue responsibility area exists in bilateral search and rescue cooperation agreements concluded between countries. Such agreements include relevant international conventions and agreements that China has acceded to or concluded, such as China US Maritime Search and rescue agreement, China DPRK maritime search and rescue agreement, and other agreements concluded between other countries, such as Japan US Maritime Search and rescue agreement. The search and rescue responsibility area designated by both sides has the following two particularities:

First, the bilateral search and rescue responsibility area has an extension. Different from the limitation of the unilateral SAR responsibility area, the bilateral SAR responsibility area has extensiveness, and the sea area it can reach is wider. There are some restrictions on the responsibility area of search and rescue unilaterally

designated by a country, and it often overlaps with neighboring countries and has disputes. However, if there is a bilateral responsibility area between the two countries, the scope of search and rescue will be based on the common responsibility area of search and rescue of the two countries, and its radiation area will be broader. In practice, taking the Japan US Maritime Search and rescue agreement, a bilateral defined search and rescue agreement, as an example, the Japan US Maritime Search and rescue agreement signed by the Japanese and American governments has enabled maritime search and rescue activities to be carried out in 1200 nautical miles southeast of the Japanese mainland, resulting in an area of 13.6 million square kilometers of Japan's maritime search and rescue responsibility area. In terms of scope, this is far beyond the limitation of 200 nautical miles exclusive economic zone of a country in UNCLOS, and the substantial majority of the area is the high seas. Therefore, the bilateral search and rescue responsibility area is often more extensive and covers a wider sea area.

Second, the bilateral search and rescue responsibility area is fundamental. The bilateral SAR responsibility area is often formed between coastal countries or countries across the sea. It is not only the premise of national maritime SAR cooperation, but also the implementation basis for more than three countries to delimit the multilateral SAR responsibility area, and this basis mainly refers to the formation of the multilateral SAR responsibility area. The cooperation on search and rescue between countries often starts from two sides, and the main target countries are often in the overlapping responsibility area of maritime search and rescue, or are not parties to the rescue Convention (such as the Philippines, Malaysia). Good practice of search and rescue cooperation should be formed from the responsibility area designated by the two sides, and then other countries in the surrounding waters should be encouraged to carry out multilateral search and rescue cooperation, so as to form closer cooperation groups. This has played an important basic role in promoting cooperation within the search and rescue responsibility area of coastal countries and establishing a multilateral cooperation organization with strong search and rescue strength.

Different from the unilateral search and rescue responsibility area, the bilateral search and rescue responsibility area is often able to effectively alleviate the geopolitical conflict. If countries reach an agreement on search and rescue within the disputed sea area, then countries with sovereignty disputes over the disputed sea area cannot stay outside the agreement and be allowed to define and build the search and rescue responsibility area by their own claims. Therefore, if the bilateral search and rescue responsibility area can be formed in the disputed waters, at least in the field of search and rescue, the countries in dispute have found some concessions.

3.3 Analysis Of the Causes Of The Delimitation Of Maritime Search And Rescue Responsibility Area

3.3.1 Lack Of Independence Of Maritime Rescue Responsibility Area

The non independence of maritime search and rescue responsibility area is the direct cause of the legal problems in the unilateral and bilateral delimitation of maritime search and rescue activities. The research on maritime search and rescue responsibility area is relatively weak in the international law circle, which fails to clarify the relationship between maritime search and rescue responsibility area and the sea area under national jurisdiction. This situation not only makes the search and rescue responsibility area closely dependent on the geopolitical factors in the disputed sea area and the sea area under national jurisdiction, but also strengthens the disputes of national maritime rights and interests in the relevant sea area. Specifically, the lack of independence of maritime search and rescue responsibility area is mainly due to the following two factors:

First, there is a contradiction between the delimitation of maritime search and rescue responsibility area and the delimitation of sea area. The contradiction between the two is one of the important reasons for the non independence of the maritime search and rescue responsibility area. In fact, both scholars' discussions in their works and the search and rescue Convention itself are aware of the contradiction between the two, and on this basis, it is affirmed that the two should be separated rather than dependent. In theory, some scholars take the relationship between the jurisdiction of the relevant countries in the Caspian Sea area over the maritime search and rescue responsibility area and the jurisdiction of each country over the Caspian Sea area boundary as an example, emphasizing that the delimitation of the search and rescue responsibility area cannot affect the relationship between the Caspian Sea Area boundary, and the two should be independent of each other. In terms of legislation, the Convention also emphasizes that the division of search and rescue areas does not involve or damage the division of borders between countries. According to this, the solution

given by the search and rescue convention is to reasonably divide the search and rescue responsibility areas of each country by means of national agreements, so as to take into account the claims of rights and interests of the sea areas of each country on the premise of rescuing the victims as soon as possible, and avoid unnecessary maritime rights disputes caused by the division of search and rescue responsibility areas. However, the problem lies in the fact that the Convention on search and rescue will fully refer this issue to the negotiation of the will of all countries to solve it, which will inevitably cause concerns among countries about the traffic safety and information security in the disputed sea area, and then incorporate the delimitation of the disputed sea area into the delimitation of the search and rescue responsibility area. Even if the theory and legislation can clarify the independence between them at the same time, it is still useless to talk about the balance of this group of contradictions on the premise that the system construction of maritime search and rescue responsibility area is not mature and generally recognized. Therefore, the maritime search and rescue responsibility area is not relatively independent according to the definition of the Convention, so as to be able to rescue people in distress at sea in time.

3.3.2 The Responsibility Area Of Maritime Rescue Lacks Due Standardization

The lack of proper standardization of maritime search and rescue responsibility area is the root cause of legal problems in multilateral delimitation of maritime search and rescue activities. The so-called non foothold refers to that the maritime search and rescue responsibility area is only a product of compromise between countries. Neither the United Nations Convention on the law of the sea nor the search and rescue convention attaches enough importance to the maritime search and rescue responsibility area itself and its role in the process of maritime life rescue, because of the sea It is difficult for countries to form a multilateral maritime search and rescue responsibility area, and the maritime search and rescue forces of various countries cannot be better centralized and coordinated to truly

rescue the people in distress at sea. The author believes that the non foothold of maritime search and rescue responsibility area is due to the fuzzy set of substantive rights and obligations of states in the search and rescue convention. It is precisely because of the ambiguity of the substantive rights and obligations of states in the search and rescue convention that the cooperation among states within the scope of the search and rescue responsibility area lacks the corresponding institutional basis, thus hindering the formation of the multilateral maritime search and rescue responsibility area between states. From the perspective of the Convention itself, the main reasons for the lack of a proper foothold in the maritime search and rescue responsibility area are as follows:

First, the concept of maritime search and rescue responsibility area itself is controversial. The formation of a relatively stable concept is the premise and foundation of maritime search and rescue responsibility area based on relevant conventions. However, there is no unified understanding of the relevant conceptual issues, whether in domestic legislation or in international conventions. For example, the concept used in China's plan is "maritime search and rescue responsibility area", which refers to the responsibility area of a search and rescue organization for handling maritime emergencies, and also specifies the responsibilities of the leading organization responsible for search and rescue activities within the maritime search and rescue responsibility area; while the concept used in the search and rescue convention is only "search and rescue area", which refers to the specified area. The area for search and rescue services does not highlight the word "responsibility". Therefore, from the differences in the use of concepts in the search and rescue convention, it can be seen that the Convention itself does not emphasize how the Contracting States should bear the relevant responsibilities within the scope of the search and rescue area, as long as the search and rescue act is in the interests of the state and does not infringe on the delimitation of the national territorial sea and information security. All, then this kind of behavior should be affirmed, without more emphasis on the substantive

content that the state should fulfill, and bear the corresponding responsibility in case of non fulfillment. Therefore, for the maritime search and rescue responsibility area, if it can not form a recognized unified concept (for example, the concept use difference between China's domestic law and the Convention), then there is a lack of the basic premise and driving force to continue to deepen cooperation and refine the norms of conduct among countries.

Secondly, the legislative design of maritime search and rescue responsibility area is often from the perspective of procedural norms. The foothold of maritime search and rescue responsibility area also needs to be based on the substantive system, including the meaning of maritime search and rescue responsibility area, the rights and obligations of states under the responsibility area, etc. However, from the analysis of the design style of the search and rescue Convention itself, the main body content is chapter two and chapter six, which mainly regulates the organization of maritime search and rescue and the ship reporting system. The procedural issues in chapter three, chapter four and chapter five are the main body of the Convention, occupying a large legislative space. In fact, the design idea of the Convention is to divide it into several procedural stages from the perspective of search and rescue technology, and clarify the behaviors that the Contracting States should or can do in each stage, so as to establish the rights and obligations relationship between States, while the substantive norms that the States must follow in the search and rescue process are relatively lacking. Therefore, in fact, the search and rescue Convention does not regulate the rights and obligations of the state from the perspective of substantive area (i.e. search and rescue responsibility area), which eventually leads to the ambiguity of the content of the substantive rights and obligations of the state under the maritime search and rescue responsibility area, and reduces the possibility of the maritime search and rescue responsibility area itself.

3.4 The Route Of Maritime Search And Rescue Responsibility Area

3.4.1 On The Responsibility Area Of Maritime Search And Rescue With A Complete System

To examine the maritime search and rescue responsibility area with a complete system is not only the premise of rescuing the people in distress at sea as soon as possible, but also the basis of ensuring its own independence and foothold. Whether it is the domestic legislation of the relevant countries or the bilateral or multilateral search and rescue cooperation agreements between countries, their attitudes towards maritime search and rescue responsibility areas are fragmented. In terms of domestic legislation, taking the "plan" of China as an example, in the existing provisions of the "plan", the contents of regulating the maritime search and rescue responsibility area are scattered in four parts of the first, second, fifth and eighth chapters, and the normative contents are relatively scattered, including but not limited to the responsibility organization and its authority, handling of distress information, national cooperation, conflict adjustment in the overlapping area of maritime search and rescue, etc In the relevant national cooperation agreements, the maritime search and rescue cooperation agreements between Russia and the United States, Japan and the United States, and Japan and South Korea only emphasize the boundary and scope of the maritime search and rescue responsibility area, without mentioning the rights and obligations of national search and rescue activities within this boundary. The maritime search and rescue responsibility area under the complete system shall at least include the following four aspects:

First, the general situation of the maritime search and rescue responsibility area. The basic situation of maritime search and rescue responsibility area includes the concept of maritime search and rescue responsibility area of a country and the boundary of search and rescue sea area. On the one hand, the concept of maritime search and rescue responsibility area makes it clear that the state that unilaterally delimits the search and rescue responsibility area or the Contracting States under the search and

rescue agreement shall have corresponding rescue obligations for the distress events within the maritime search and rescue responsibility area. Those who fail to fulfill the obligation of rescue or take the attitude of inaction towards the obligation of rescue shall be regarded as violating the agreement of search and rescue, thus constituting the illegal act; on the other hand, the relative boundary of maritime search and rescue responsibility area can effectively clarify the relative boundary of search and rescue responsibility between states. A clear outline enables corresponding countries to clearly identify the scope of their maritime search and rescue responsibilities and prevent unnecessary disputes. Second, the competent authorities and authorities in the maritime search and rescue responsibility area. In addition to the basic outline within the scope of maritime search and rescue responsibility area, there are also national competent authorities within the scope of this search and rescue area and their corresponding functions and powers. If it is a unilateral maritime search and rescue responsibility area, it is necessary to clarify the functions and obligations of the national competent authority within this scope in the relevant legal norms or emergency plans of a country. If it is a bilateral or multilateral maritime search and rescue responsibility area, then it is necessary to clarify the responsibilities of the relevant countries to undertake the search and rescue obligations under the agreement. Specifically, the functions and powers of relevant national competent authorities or responsible organizations include but are not limited to the exchange of search and rescue information, mutual provision of communication lines, technical exchange and training of search and rescue equipment, standard operating procedures, visit and exchange, etc.

Third, the scope of rescue services in the maritime search and rescue responsibility area. The maritime search and rescue responsibility area is not only the responsibility area within the search scope, but also the responsibility area for rescuing the people in distress within the responsibility area. Therefore, in addition to the delimitation of boundaries and competent authorities, the state or countries should also clarify relevant rescue services within the scope of maritime search and rescue responsibility area, including rescue services, fuel supply of search and rescue ships,

medical security, supplies and equipment recovery issues. For bilateral or multilateral maritime search and rescue responsibility areas, the specific content or degree of cooperation of rescue services still depends on the specific agreement of their contracting states on this issue.

Fourth, the international law effect of maritime search and rescue responsibility area. The maritime search and rescue responsibility area should not only have an independent system and framework, but also have the corresponding international law effect to ensure its due foothold. The author believes that, based on the purpose of the search and rescue Convention and the conclusion of the maritime search and rescue cooperation agreement between countries, the international legal effect of the maritime search and rescue responsibility area should be clear as follows: (1) in special circumstances, a country can take the delimitation of the responsibility area as a confrontation against the possible sovereign rights. Under the premise of emergency, a state has the right to take relevant safety measures in the responsibility area to ensure the safety of the people in distress. This kind of right originates from the United Nations Convention on the law of the sea or the agreement between states within the scope of the high seas, thus forming a special jurisdiction for persons in distress. However, compared with the concept of sovereignty, its essence is a special one, which is less than the accumulation of normative rights in quantity, but sovereignty is a typical case of all the rights of a state, that is, legal capacity. Therefore, the claim of the state to the responsible sea area is essentially a kind of special jurisdiction when a certain crisis occurs, and such jurisdiction should take precedence over the general claim of the state to the possible sovereign rights within its scope when such an emergency occurs.

3.4.2 Promoting The Effectiveness Of The Responsible Area With The Establishment Of The Inter State Search And Rescue Ship Organization

The establishment of the search and rescue ship organization within the scope of the responsibility area is the practical way to solve the problems related to the delimitation of the responsibility area in the maritime search and rescue activities, and also the basis to regulate the innocent passage of ships in the maritime search and rescue activities. Search and rescue convention has established a set of dynamic ship reporting system, but it is lack of encouraging countries to build a set of static ship cooperation organizations. The so-called cooperative organization of search and rescue ships refers to the establishment of a ship organization by relevant countries within the overlapping scope of maritime search and rescue responsibility area, and the technical classification of search and rescue ships, so as to form and develop a professional, scientific and modern intergovernmental professional search and rescue ship organization. On the basis of negotiation and approval by all countries, through the unified licensing of these government search and rescue ships, to avoid the traffic difficulties within the overlapping area and the national information security concerns, but also save the complex negotiation and coordination process.

In theory, the establishment of the cooperation between countries in search and rescue ship organizations needs to be composed of the following elements:

First, there is a consensus on cooperation between search and rescue ship organizations. The consensus of search and rescue ship organization cooperation is the relevant expression of will that a country must carry out before establishing a ship search and rescue cooperation organization. The establishment of the cooperation of the national search and rescue ship organization needs the consultation of the will of each country, the establishment of the target country of the cooperation organization, the exchange of views on the establishment of the cooperation of the search and rescue ship organization, and the consensus reached.

Second, to establish a unified licensing standard for ship organizations. The establishment of relatively uniform licensing standards for ship organizations is an important basis for countries to determine their participation in the search and rescue of ships, and these standards should be recognized by most countries as much as possible. If the relevant government official ships of a country meet the relevant

standards, the search and rescue ship can join the relevant ship organization, so it can provide certain convenient access to the territorial sea of the agreement country. Even if these ships pass to the territorial sea of other countries, they should not be regarded as harmful. It should be noted that the search and rescue ships entering the relevant organizations and carrying out relevant tasks should only be limited to specific emergency situations, that is, the occurrence of maritime accidents, and not be the reason for daily arbitrary passage or even stay in other territorial waters.

Third, the allocation of Ship Search and rescue equipment should be established. The complexity of the equipment configuration of search and rescue ships is an important reason for countries to worry about the safety of their own territorial waters. Therefore, the important content of the cooperation between search and rescue ship organizations among countries is to determine the configuration of Ship Search and rescue equipment, so as to exclude the use of equipment that poses a serious threat to the leading countries and ensure the safety of the sea area. For example, the Sino US Maritime Search and rescue cooperation agreement specifies the cooperation of search and rescue equipment and personnel between the two countries in Article 2, paragraph 3, and clearly emphasizes that in order to improve the capability of maritime search and rescue, if appropriate, the two sides should cooperate in technical fields such as maritime search and rescue equipment. If such cooperation can reach a consensus, the highlight of relevant legal issues within the maritime search and rescue responsibility area between countries will be greatly weakened, which will be more conducive to the rescue of people in distress at sea.

CHAPTER 4: LEGAL ISSUES OF STATES AND COOPERATION AMONG STATES IN MARITIME SEARCH AND RESCUE

The state in maritime search and rescue is the premise of studying the subject of international law in maritime search and rescue. The reason why the focus on the "state" in maritime search and rescue comes from the theoretical requirement of the single joint subject theory. As the main body of international law in maritime search and rescue activities is only the state, even if there are international organizations related to search and rescue activities, they should also reflect the corresponding national will. Therefore, we should take the state as the axis, clarify and identify the category of countries involved in maritime search and rescue activities, and on this basis, explore the legal issues that may arise from the cooperation between countries, and finally come to the suggestions to solve the relevant problems.

4.1 National Identification In Maritime Rescue Activities

The identification of states in maritime search and rescue activities is essentially a division of the roles of the states participating in search and rescue activities. Its purpose is to facilitate the study of international law issues. In this part, when we identify countries in maritime search and rescue activities, we mainly classify them according to the different status of countries participating in and implementing rescue activities. Identifying the roles of different countries in maritime search and rescue activities is the premise and preparation for the study of relevant legal issues, and also has fundamental significance for the study of cooperation between countries.

4.1.1 States Parties Under The Search And Rescue Agreement

The contracting state under the search and rescue agreement refers to the state that participates in and implements the maritime search and rescue activities, which is a Contracting State of a specific international treaty or agreement, and that state is engaged in maritime search and rescue activities in the way of fulfilling the international treaty or agreement, so it has relevant international law obligations for this search and rescue behavior. The search and rescue agreement mentioned here is a broad search and rescue agreement, which includes both the search and rescue agreements concluded between many countries (e.g. the search and rescue Convention) and the bilateral search and rescue agreements concluded between the two countries (e.g. the air and maritime search and rescue cooperation agreement signed by Sweden and Norway in 2003)

4.1.2 Humanitarian aid country

Humanitarian rescue country refers to a country that, although it does not undertake any obligation under international law for its search and rescue activities, voluntarily and initiatively carries out relevant rescue operations for people in distress at sea based on humanitarian considerations. Different from the States parties under the SAR agreement, humanitarian aid countries can be any country in the world, including not only many coastal countries, but also relevant landlocked countries. No matter which sea area the maritime distress occurs in, unless the coastal state which has jurisdiction over the sea area explicitly prevents or prohibits a humanitarian aid country from entering and carrying out rescue, any country can provide corresponding humanitarian rescue under the premise of complying with other relevant international laws and regulations (such as following corresponding rules of navigation and collision avoidance during navigation). At this time, the coastal state's prevention or prohibition must have a legitimate legal basis or reason, for example, the state has violated the relevant norms for the maintenance of safety in the sea areas under the jurisdiction of the

coastal state.

4.1.3 Dual Status Country

Different from the first two types of search and rescue countries, in maritime search and rescue activities, the identity of a state party or a humanitarian aid country is not necessarily in a constant state in the whole search and rescue activities. Because of the role of ocean current, the people in distress do not always stay in a specific maritime search and rescue responsibility area. That is to say, in the international large-scale maritime search and rescue activities, it is likely that countries with different maritime search and rescue responsibility areas will participate in the rescue together. If the States parties in the responsible area participate in the search and rescue activities of other States parties in the responsible area, then the identity of the States parties will be changed into a humanitarian rescue state, and will not necessarily bear the corresponding responsibilities of other States parties in the responsible area. It is only at this time that the original state party should actively provide the new state party with relevant information and try to help it in the spirit of humanitarian concern.

The purpose of identifying countries in maritime search and rescue activities is to analyze specific legal issues. However, not all legal issues can involve three different actors: the contracting state, the humanitarian aid state and the dual status state. When it comes to the issue of state cooperation in maritime search and rescue activities, the humanitarian countries themselves cannot have a formal cooperative relationship with each other. In the case of good communication, the degree of such cooperation can only reach the degree of "cooperation" at most, rather than "cooperation" in the real sense. Therefore, the issue of state cooperation in maritime search and rescue activities is essentially the issue of cooperation between States parties under the search and rescue agreement. However, it is of great significance to classify the role of the state when we distinguish and study the state responsibility in maritime search and rescue activities. The participating countries in search and rescue with different roles

may have to bear the corresponding national responsibility when they cause certain damage results, and how to carry out an equitable analysis of this responsibility, we need to conduct in-depth consideration of the roles of different countries.

4.2 Legal Issues Of Cooperation Among Countries In Maritime Search And Rescue Activities

When large-scale maritime search and rescue activities such as Malaysia Airlines MH370 accident occur, their actions often need the joint participation and cooperation of many countries, which will inevitably involve the analysis of the legal issues of national cooperation. In addition, the maritime search and rescue cooperation system will also be affected by the technology within the search and rescue industry, so it is not easy to form a close and logical legal system. Therefore, the provisions of the whole search and rescue Convention (including China's national maritime search and rescue emergency plan) on the national cooperation procedures are often more similar to the technical guidance of an industry. This situation leads to the fact that in the process of actual search and rescue, the binding force of the search and rescue Convention on all parties to the State Party is weakened, and it can not effectively guide the smooth development of search and rescue activities. Therefore, it is necessary to first consider the necessary premise and basis of national cooperation from a general point of view, then clarify the classification of national cooperation to analyze the legal issues, and finally clarify the status and development direction of China in such issues.

4.2.1 The Premise Of Cooperation Among Countries In Maritime Search And Rescue Activities

Based on the wide range of international maritime search and rescue missions and the difficulty of search and rescue operations, cooperation between countries is objective and necessary. In addition, there are great differences in the scope of

division of maritime search and rescue responsibility areas among countries. One country may not be able to meet the actual needs of maritime search and rescue, and the provision of its search and rescue equipment and capacity has certain limits. Therefore, another country should participate in maritime search and rescue to strengthen the rescue force in this maritime area, which all lead to the necessity of cooperation between countries. The author believes that before considering the specific issues of cooperation among countries in maritime search and rescue activities, it is necessary to clarify the consideration premise of cooperation among countries so as to lay a foundation for the study of the division of cooperation categories among countries. Specifically, it includes two important aspects: the basis and elements of maritime search and rescue cooperation:

basis of cooperation among countries in maritime search and rescue activities

The basis of national cooperation in maritime search and rescue activities is the premise of mutual existence of search and rescue cooperation among countries. Not every two countries can naturally carry out maritime search and rescue cooperation. In theory, only countries that meet the following three necessary conditions can conclude maritime search and rescue agreements and carry out maritime search and rescue activities.

First, the waters of both sides are connected. The connection of waters between the two sides is the geographical premise of maritime search and rescue activities between countries. According to the division of global maritime search and rescue responsibility area, if there is no water area connection between two or more countries' waters, then the two countries are unlikely to cooperate in search and rescue. This is because the delimitation of maritime search and rescue responsibility area and the passage of ships require that the water area of partners cannot be completely isolated, otherwise the determination of such search and rescue area is fragmented. What needs to be clear is that the connection mentioned here does not mean that the waters are connected geographically, nor

that the distance between the two responsible waters should be within the range of kilometers, but that there should be at least a certain connection, including various ways of connection such as commerce and trade between countries, geographical proximity, etc.

Second, search and rescue forces complement each other. The precondition for the formation of maritime search and rescue cooperation lies in that the two countries take what they need and complement each other. The complementary forms of search and rescue forces can be diverse, which may be the communication and exchange between information systems and information technology between countries, or the utilization and dispatch of equipment. For example, in the Arctic aviation and maritime search and rescue agreement, the search and rescue cooperation of the contracting parties includes the cooperation on corresponding facilities and equipment, such as airport, port, service station, etc. Therefore, if a country is not mature in terms of search and rescue technology or system, and can not give other countries the necessary supplement, the possibility of such search and rescue cooperation will become low. Even if the corresponding maritime search and rescue cooperation can be carried out, its success and role will not be significant.

Finally, it is necessary to fulfill the relevant conventions or the objective situation of maritime security. Maritime search and rescue cooperation requires States to conduct rescue activities in accordance with the requirements of the Convention or agreement at the time of maritime distress. The conventions or agreements mentioned here may be bilateral cooperation agreements concluded between the Contracting States, multilateral conventions such as the search and rescue convention or the Arctic air and maritime search and rescue agreement, or temporary arrangements for organizing and mobilizing humanitarian countries to actively enter and participate in rescue activities. No matter what form is adopted between countries, they must have a certain system or arrangement as the basis of

cooperation, and at the same time, they must take safeguarding maritime safety or rescuing the lives of people in distress at sea as the purpose and purpose of cooperation.

4.2.2 Difficulties Encountered By Chinese Cooperation Institutes In Maritime Search And Rescue Activities

From the perspective of maritime search and rescue activities among countries around the world, search and rescue cooperation among countries is mainly based on the Convention on search and rescue. Some non Contracting States may form specific bilateral search and rescue cooperation, and these cooperation is often scattered, and mainly in a specific sea area as the responsible area to conclude relevant agreements for cooperation. Therefore, from a general point of view, the difficulties faced by the global maritime search and rescue cooperation agencies are as follows:

(1) Poor connection between national maritime search and rescue cooperation projects

The procedure of national cooperation in maritime search and rescue activities includes not only the static main procedures such as the pre cooperation, the specific stages and the remedial measures after the end of search and rescue, but also the legal issues of the dynamic connection between the national cooperation procedures. There are two aspects in the process of maritime search and rescue: first, the process of maritime cooperation. The so-called convergence of cooperation procedures between sea areas refers to the need to coordinate the States parties in different search and rescue responsibility areas to participate in search and rescue cooperation in the specific process of search and rescue in sea areas due to geographical factors such as ocean flow and the existence of maritime search and rescue responsibility areas. This includes the cooperation between this search and rescue responsibility area and that of other search and rescue responsibility areas. Secondly, the connection of cooperation procedures between sea areas and land areas. The so-called convergence of cooperation procedures

between land and sea refers to the convergence and connection between national maritime search and rescue cooperation procedures and land search and rescue cooperation. As the maritime search and rescue is one of the international rescue operations, when formulating and improving the national cooperation procedures in maritime search and rescue activities, we need to take into account the general issues related to the international rescue laws and regulations, especially the connection and coordination of the rehabilitation procedures between the sea and the land after the successful search and rescue, which needs to be fully considered.

(2) National Maritime Search and rescue cooperation is greatly influenced by geopolitical factors

The geopolitical problems in some sea areas (such as the existence of disputed sea areas) are another important factor affecting the National Maritime Search and rescue cooperation. Taking the South China Sea area as an example, the South China Sea countries have divided the sea areas they are responsible for search and rescue according to the provisions of the maritime search and rescue regional system in the international conventions and the consideration of their geographical location and relevant interests. However, due to the task of dividing the search and rescue sea areas to be performed by each country alone, there is a large area of overlapping in the areas divided by the countries in the South China Sea, which involves the issue of maritime delimitation. As the salvage of people in distress and ships and wrecks in the disputed sea area will involve some interest sensitivity issues of maritime sovereignty, the relationship between the South China Sea Search and rescue responsibility area and the disputed sea area will affect the further strengthening of search and rescue cooperation of the South China Sea countries.

Whether it is the search and rescue convention or the search and rescue agreement concluded between various countries, it basically contains the clause that "the division of search and rescue areas does not affect and do not damage the division of the sovereignty, sovereign rights or any boundary of jurisdiction of the state or the state" and similar sovereignty is not interfered by the responsible area. There is an

important premise for the establishment of the article, that is, there is no dispute on sovereignty, sovereign rights and maritime boundaries between countries, which also means that if there is a disputed maritime area between their own countries, the difficulty of search and rescue cooperation between countries in this maritime area will increase. However, how to deal with the search and rescue cooperation in the disputed waters,

The search and rescue Convention itself has no hint. In addition to the example of Malaysia Airlines MH370, which shows the geopolitical influence of the National Maritime Search and rescue cooperation, not all the important countries in the South China Sea have joined the Convention on search and rescue, which also reduces the possibility of extensive search and rescue cooperation between the countries in the South China Sea. In this Convention, the basic elements of procedural search and rescue services provided by the parties are included: for example, how to analyze and share emergency information in the emergency stage such as "unknown, warning and distress stage", for example, how to coordinate the deployment of search and rescue parties in field activities, the designation and responsibilities of the field command state and the designation and responsibilities of the sea search coordination state Responsibilities, etc. However, although China approved the application of the Convention in June 1985, Malaysia, the Philippines and other important countries have not joined the Convention, which makes it more difficult to carry out national search and rescue cooperation in the sea areas with geopolitical factors.

4.3 China's Response To The Problem Of Cooperation Among Maritime Search And Rescue Countries

China has signed maritime search and rescue cooperation agreements with North Korea, South Korea, Vietnam and other neighboring countries, including but not limited to memoranda, contracts, plans and arrangements. These search and rescue agreements are one of the main ways for China and other countries to participate in

the maritime search and rescue work. They are the basic documents to ensure the smooth development of the search and rescue work of both sides. They provide more convenience for countries to coordinate and command rapidly when an emergency occurs. Under such circumstances, China's countermeasures should be taken into full consideration in the face of the relevant difficulties that the cooperation of countries in maritime search and rescue activities is coming.

4.3.1 Input And Increase The Rescue Force At Sea

The purpose of investing and increasing maritime search and rescue force is to show that China should be in a positive position when participating in maritime search and rescue activities, and its positive role is to effectively make up for the lack of procedural connection between countries. The setting and connection of procedures are closely related to the strength of search and rescue in China. Only with sufficient search and rescue equipment and strong search and rescue strength, can the connection of procedures be as perfect as possible. The main way to invest and increase the maritime search and rescue force is to start from the domestic level and take the corresponding methods that can improve the search and rescue cooperation ability, and then have a positive impact on the search and rescue cooperation between maritime search and rescue countries. It mainly includes two aspects:

On the one hand, it has invested in the establishment and development of maritime search and rescue bases. Maritime search and rescue base is the focus of the output of search and rescue forces, and also the center and hub of search and rescue cooperation between countries. The perfection of the establishment of search and rescue base can directly determine the convenience and success of search and rescue cooperation between countries. More importantly, the construction and improvement of maritime search and rescue base is an important factor for a country's search and rescue forces to rush to the sea area of facilities for search and rescue in the first time. As far as China is concerned, the problem of search and rescue bases in the South China Sea is more prominent. China has not set up special search and rescue

terminals and airports in the South China Sea, which means that when major maritime accidents happen, our search and rescue forces cannot reach the involved sea areas as soon as possible, and at the same time, there is no material basis for comprehensive search and rescue cooperation with the South China Sea countries. Therefore, it is of great significance to construct the necessary infrastructure including the wharf and airport. Specifically, it should include the following two suggestions: first, it should avoid sensitive areas for site selection. Whether or not to locate search and rescue bases in the South China Sea, we should avoid sensitive geopolitical factors and focus on the original search and rescue bases

To upgrade or establish new bases in appropriate areas. On the one hand, it can effectively avoid intensifying the political factors in the sensitive sea area, which is not conducive to the stability and improvement of the relationship with surrounding countries; on the other hand, it can smooth the access of relevant search and rescue equipment and prevent other countries from targeting. Second, the location of terminals and airport bases should consider the relevant factors. These related factors include natural conditions and location conditions. The natural conditions of the selected address should not be too bad to affect the involvement of search and rescue forces. At the same time, the base should be close to the main traffic road to ensure the fast and effective search and rescue.

On the other hand, we should enhance our maritime search and rescue forces. To enhance our maritime search and rescue force is an important guarantee to promote our maritime search and rescue cooperation with neighboring countries. The maritime search and rescue forces mentioned here mainly refer to the forces under the scope of science and technology. In terms of search and rescue technology, China should not only enhance the government's ability to participate in the maritime search and rescue between countries, establish a national special fund to solve the huge problem of maritime search and rescue expenditure, ensure the national search and rescue funds are sufficient, but also actively promote the growth and

development of social search and rescue forces. Therefore, our country should attach importance to mobilizing and utilizing various non-governmental search and rescue resources, actively support the establishment of volunteer organizations, and provide them with necessary and appropriate guidance, support and help.

4.3.2 Promote The Construction Of Search And Rescue Cooperation System With Neighboring Countries

The purpose of promoting the construction of search and rescue cooperation system with neighboring countries is to show that China should promote maritime search and rescue when participating in maritime search and rescue activities, especially the achievement of search and rescue cooperation between search and rescue countries in the South China Sea. This positioning of the driving countries is mainly from the international level, through the establishment of a regional cooperation mechanism, in order to jointly guarantee the safety of personnel and materials in maritime navigation, promote the development of navigation trade between and cooperation, and maintain regional stability. In my opinion, this promotion mainly includes two aspects:

On the one hand, promote the construction of search and rescue cooperation mechanism with neighboring countries. Due to the complicated international interests and the inconsistency of international conventions, no systematic and stable cooperation mechanism has been established between China and the countries around the South China Sea or the Yellow Sea. Taking the South China Sea as an example, due to the influence of geopolitical factors, there are disputes with neighboring countries in the South China Sea. Before this problem is solved, it is difficult to carry out extensive search and rescue cooperation in the South China Sea. In addition, most of the countries in the South China Sea are developing countries, and their search and rescue capabilities and related technical equipment are not developed. Therefore, the vast majority of countries in the South China Sea, including China, should strengthen information exchange and carry out search and

rescue cooperation in order to rescue people in distress in the South China Sea. In the face of this demand, China, as a country with relatively strong comprehensive strength among many countries in the South China Sea, should actively promote the smooth development of maritime search and rescue cooperation, highlight the image of a great power and praise the spirit of humanitarian assistance. In terms of details, China can put forward a number of suggestions on search and rescue cooperation mechanisms, such as information sharing mechanism, access and access mechanism, and try to build a connection and cooperation with maritime forces of neighboring countries through them, so as to promote the formation of search and rescue cooperation of South China Sea countries with practical actions and efforts.

On the other hand, efforts should be made to promote the signing of search and rescue cooperation agreements with neighboring countries. According to the current situation of search and rescue agreements signed between China and its neighboring countries, China has only signed maritime search and rescue cooperation agreements with Vietnam and North Korea, whose weak cooperation agreements directly weaken the cooperation between China and its neighboring countries. In my opinion, it is not necessary for China to sign a search and rescue cooperation agreement with its neighboring countries to rush to a large-scale expansion, and it can reach relevant search and rescue agreements on some important routes. The "search and rescue cooperation agreement on the high-speed passenger liner route from Vietnam xialongwan to China Fangchenggang" signed by China and Vietnam provides us with good enlightenment. In the process of maritime search and rescue, national cooperation can be formed in a certain region or in a single dimension of a certain route. As far as the cooperation between China and its neighboring countries is concerned, the single dimension search and rescue responsibility area is more suitable, and it can become an initial stage of the spread of search and rescue activities. On this basis, through further consultation and compensation, the region can be expanded in a breakthrough way, which will be much more convenient than no cooperation agreement. Therefore, our country can take a point to area approach

to drive the whole will of search and rescue cooperation with surrounding countries. To sum up, the cooperative status of China's participating countries in maritime search and rescue should be based on both the investing and promoting countries, and on this basis, efforts should be made to promote the establishment of cooperative relations between China and other countries, especially between China and the South China Sea countries.

CHAPTER 5: SUMMARY AND CONCLUSIONS

Maritime search and rescue refers to the national public welfare action which takes the government departments or relevant authorities as the leading body and takes measures such as positioning, rescue, transfer and other measures for the personal distress or other property losses including personal distress caused by maritime emergencies. The subject of maritime search and rescue refers specifically to the relevant competent authorities of the state. Other organizations and social organizations participating in maritime search and rescue activities shall accept the appointment, guidance or control of the competent authorities of the state. Therefore, this concept is not only related to but also different from the concepts of salvage at sea and life at sea. To study the international law of maritime search and rescue, we need to make clear the international law attribute of maritime search and rescue activities: within the scope of territorial sea, maritime search and rescue activities have obvious sovereignty and autonomy, while coastal state's maritime search and rescue within the exclusive economic zone is an obligatory act of coastal state. At the same time, the scope of maritime search and rescue activities is not limited to the sea areas under the jurisdiction of a state, and states can also establish maritime search and rescue responsibility areas and conduct search and rescue activities in accordance with relevant agreements.

The delimitation of maritime search and rescue responsibility area includes three different forms: unilateral, bilateral and multilateral. In different situations, the delimited search and rescue responsibility area may cause different legal problems: in the case of unilateral delimitation of search and rescue responsibility area, because the state, by virtue of its own will, may exist in the disputed sea area without consultation with other countries. In the case of multilateral delimitation, due to the large number of search and rescue countries, it may be vague in the process of system design and can not effectively rescue

the people in distress. In order to solve these problems, we should look at the maritime search and rescue responsibility area with a complete system, and mitigate the conflict of responsibility area delimitation by agreement and appropriate principles. At the same time, we need to establish some kind of search and rescue ship organization between countries to promote the operation effectiveness of the responsibility area.

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