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WORLD MARITIME UNIVERSITY

Malmö, Sweden

**STUDY ON THE REWARD AND
COMPENSATION POLICY FOR THE
ENGAGEMENT OF SOCIAL FORCE IN
MARITIME SEARCH AND RESCUE IN CHINA**

By

QU SHANSHAN
China

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirement for the award of the degree of

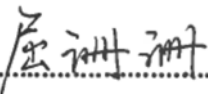
MASTER OF SCIENCE
In
MARITIME AFFAIRS
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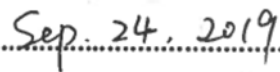
2019

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):

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Abstract

Title of Dissertation: Study on the Reward and Compensation Policy for the Engagement of Social Force in Maritime Search and Rescue in China

Degree: Master of Science

According to the International Convention on Maritime Search and Rescue 1979, it is the obligation of coastal States to provide adequate and effective search and rescue service. Though various forms of SAR service are established all over the world, it is the customary and common practice to depend on all kinds of resources to assist people in distress at sea.

The dissertation is a study of the reward and compensation policies for the engagement of social resources in maritime search and rescue in China by comparing with the practice of some developed countries.

A brief look is taken the national system and organization of SAR service in China, as well as the legislation at international and national level. It defines the social force in the context of Chinese regulations and explains its role in maritime SAR missions. Additionally, the special reward fund for maritime (inland waterway) search and rescue, as the major policy instrument to promote their engagement is reviewed in detail.

Besides, particular reference is made to policies and practice in US, Britain and Japan. By making comparisons, some problems of the present policy in China are identified and suggestions are made for policymaking to improve the participation of social force in the maritime SAR service.

KEYWORDS: Maritime Search and Rescue, SAR resources, Social force, Reward, Compensation, Volunteer organizations

Table of Contents

| | |
|---|-------------|
| Declaration | ii |
| Acknowledgements | iii |
| Abstract..... | iv |
| Table of Contents | v |
| List of Tables | vii |
| List of Abbreviations | viii |
| Chapter 1 Introduction | 1 |
| 1.1 General remarks | 1 |
| 1.2 Objectives | 2 |
| 1.3 Methodology | 2 |
| 1.4 Structure of the dissertation | 2 |
| Chapter 2 Background | 4 |
| 2.1 Legal framework of maritime search and rescue | 4 |
| 2.1.1 UNCLOS | 4 |
| 2.1.2 SOLAS Convention..... | 5 |
| 2.1.3 SAR Convention..... | 6 |
| 2.1.4 Salvage Convention..... | 8 |
| 2.2 The general situation of SAR service in China | 9 |
| 2.2.1 The system and institution of SAR in China | 9 |
| 2.2.2 Maritime search and rescue force in China | 11 |
| 2.3 The role of social force in the maritime SAR service in China..... | 13 |
| 2.3.1 The importance of social force in the maritime SAR service..... | 13 |
| 2.3.2 Statistics of social force in SAR service..... | 14 |
| 2.4 The reward for social force | 15 |
| 2.4.1 The necessity of the reward for social force..... | 15 |
| 2.4.2 Theoretical basis..... | 16 |
| 2.5 Concluding remarks | 17 |
| Chapter 3 The current situation of the reward for social force in maritime SAR in China..... | 18 |
| 3.1 The national legislation and policy on SAR and reward | 18 |
| 3.1.1 The laws and regulations on maritime SAR in China | 18 |
| 3.1.2 The laws and regulations in other relevant fields | 20 |
| 3.2 The current reward policy for social force in the maritime SAR service in China | 22 |
| 3.2.1 The Special Reward Fund for Maritime (Inland waterway) Search and Rescue.. | 22 |
| 3.2.2 The policy of SAR reward at the regional level | 25 |
| 3.3 The statistics and cases of the reward fund in recent years | 26 |
| 3.3.1 Statistics of the reward fund | 26 |
| 3.3.2 Case analysis | 29 |
| 3.4 Discussion | 31 |
| 3.5 Concluding remarks | 33 |
| Chapter 4 The reward policy for maritime search and rescue in other countries | 34 |
| 4.1 The policy and practice in the U.S. | 34 |
| 4.1.1 SAR system and organizations | 34 |

| | |
|--|-----------|
| 4.1.2 Legislation and policy framework..... | 36 |
| 4.1.3 Practices | 37 |
| 4.2 The policy and practice in Britain | 40 |
| 4.2.1 SAR system and organizations | 40 |
| 4.2.2 Legislation and policy framework..... | 41 |
| 4.2.3 Fund policies and practices | 43 |
| 4.2.4 Honorary award..... | 44 |
| 4.3 The policy and practice in Japan | 45 |
| 4.3.1 SAR system and organizations | 45 |
| 4.3.2 Legislation and policy framework..... | 45 |
| 4.3.3 Volunteer organization and the practices | 46 |
| 4.4 Discussion | 48 |
| 4.5 Concluding remarks | 50 |
| Chapter 5 Suggestions for policymaking | 51 |
| 5.1 Legislation | 51 |
| 5.2 Improving the current reward policy | 52 |
| 5.3 Other measures for the reward policy | 53 |
| Chapter 6 Conclusions..... | 55 |
| References..... | 57 |

List of Tables

| | | |
|---------|---|----|
| Table 1 | The number of different types of force in SAR missions in 2014-2018 | 14 |
| Table 2 | The statistics of the reward fund in 2011-2018 | 26 |
| Table 3 | The regional allocation of the reward fund in 2017 and 2018..... | 27 |
| Table 4 | The allocation of the reward fund between coastal regions and inland water regions in 2017and 2018..... | 29 |

List of Abbreviations

| | |
|-------------------|---|
| Amver | The Automated Mutual Assistance Vessel Rescue System |
| CAF | Charities Aid Foundation |
| CNMRCC | China Maritime Search and Rescue Centre (China Maritime Rescue Coordination Centre) |
| CRS | Rescue and Salvage Bureau of the Ministry of Transport of People's Republic of China |
| DfT | Department for Transport of UK |
| GMDSS | Global Maritime Distress and Safety System |
| HMCG | Her Majesty's Coastguard of UK |
| IAMSAR | The International Aeronautical and Maritime Search and Rescue Manual |
| IMO | International Maritime Organization |
| JCG | Japan Coast Guard |
| MCA | Maritime Coast Guard and Agency of UK |
| MOT | The Ministry of Transport of People's Republic of China |
| MRJ | Marine Rescue Japan |
| MSA | Maritime Safety Administration of People's Republic of China |
| MSAP | The Maritime SAR Assistance Policy |
| NSARC | U.S. National Search and Rescue Committee |
| RCC | Rescue Coordination Centre |
| RNLI | The Royal National Lifeboat Institution |
| SAR | Search and Rescue |
| SAR Convention | The International Convention on Maritime Search and Rescue 1979 |
| SCIO | The State Council Information Office of People's Republic of China |
| SOLAS | The International Convention for the Safety of Life at Sea 1974 |
| State Council | State Council of People's Republic of China |
| The Measures | Temporary Measures for Special Reward Fund for Maritime (Inland waterway) Search and Rescue |
| The National Plan | The National Maritime Search and Rescue Emergency Response Plan |
| The reward fund | The Special Reward Fund for Maritime (Inland waterway) Search and Rescue |
| UNCLOS | United Nations Convention on the Law of the Sea |
| USCG | U.S. Coast Guard |

Chapter 1 Introduction

1.1 General remarks

The maritime search and rescue (SAR) service is the coordination of both public and private resources to perform monitoring and positioning of people in distress at sea and to save their lives to a safe location (SAR Convention 1.3). UNCLOS Article 98 states that it is the obligation of coastal States to “promote the establishment, operation and maintenance of an adequate and effective search and rescue service”. Each country has different organizations to undertake SAR missions and have differences in its capability to provide SAR services at sea because of historical and economic development. But it is the common practice to utilize both public and private resources in SAR missions if necessary. In some developed countries, volunteers and volunteer organizations work closely with SAR agencies to provide SAR service (Qin, 2013). In China, the National Maritime Search and Rescue Plan categorizes the resources utilized in SAR service into four kinds, among which the kind not provided or funded by the government is called social force¹, that is “other vessels and aircrafts that can be utilized in SAR operations, human and material resources of enterprises, institutions and social organizations, as well as individuals” (Article 2.6).

The social force tends to suffer losses when they are engaged in the maritime SAR operations, such as delays in shipping due to diversion, costs of fuel and material consumption, and so on. Moreover, they face the severe risks or even endanger their own lives when saving others at sea. Therefore, it is necessary for SAR authorities to make policies to encourage and recognize the participation of social resources in the maritime SAR missions. In China, there is a special fund set up by the Central Government to reward social force in the SAR service. The paper will discuss the

¹ According to Longman Dictionary of Contemporary English (5th ed.), force means “organized group, a group of people who have been trained and organized to do a particular job” (“Force”).

relevant policy and the implementation by comparison with the policies and practice in other countries.

1.2 Objectives

The paper is aimed to examine critically the current situation of social force in the maritime SAR service of China and to comprehensively consider other countries' legislation and practice in this aspect. The general goal is to put forward suggestions for policymaking to improve the reward and compensation policies for the social force to promote the engagement in the maritime SAR service in China.

The first objective is to provide an overview and analysis of the international and national legislations of maritime search and rescue. The second objective is to review and evaluate the existing legislation and policies for social force, including volunteers in the maritime SAR service in China. The third objective is to discuss the policy and practice of some developed countries to draw up useful experience. The last objective is to offer feasible measures to improve the reward and compensation policy for the social force in the maritime search and rescue in China.

1.3 Methodology

The study follows a documentary approach and a comparative research method. The paper uses both primary and secondary documents. The primary documents were collected and predominantly took the form of international and national legislations relating to the maritime search and rescue. Secondary materials collected include academic books as well as theses or dissertations and articles. A comparative research will be adopted by discussing the relevant articles in different laws and analysing practices in some countries. Cases will also be collected and analysed.

1.4 Structure of the dissertation

The dissertation includes six chapters. By introducing the international legal framework, the paper will analyse the general situation of SAR service in China and

the important role of social force, further explains the necessity of the reward for their participation in the SAR service. It will also discuss the practice of the reward policy and its shortcomings, make comparison with the policy and practice in some developed countries, and put forward suggestions for improvement and future policymaking.

Chapter 2 Background

With the increasing activities of humans at sea, maritime hazards and accidents are inevitable. Though the development of technologies has improved the safety of shipping industry, maritime distress and accidents happen sometimes because of various factors like human error and extreme climate. Various natural disasters and accidents at sea pose serious threats to people's lives and safety. Maritime search and rescue act as the safety net of protecting people's lives on the sea and guarantees the economic and social development of a country (State Council Information Office [SCIO], 2007).

Search and rescue (SAR) services throughout the world largely depend on international shipping to assist anyone in distress at sea. Each country has differences in the capability to provide SAR services at sea because of historical and economic development. In the last century, the international community has established the legal framework of maritime search and rescue to regulate life-saving operations at sea. As a party member of international conventions, China has made efforts to fulfil its obligations.

2.1 Legal framework of maritime search and rescue

2.1.1 UNCLOS

“The international Conventions are the clearest expressions of the legal right and duties of states” (Tauman, 2002). The 1982 United Nations Convention on the Law of the Sea (UNCLOS) is often regarded as the “Constitution of the Sea”. UNCLOS prescribes separate obligations to rescue for flag states, coastal states and ship master in Article 98. Thus, it is regarded as the foundation of the legal framework on search and rescue at sea (Gombeer & Fink, 2018).

On one hand, it is the undoubted duty of individual vessel to rescue life at sea as it is one of the “traditional hallmarks of the law of the sea” and “arising under customary international law” (Tauman, 2002). Meanwhile, the duty to enforce vessels is clearly assigned to flag States as Article 98 obliges flag States to require the ship master to “render assistance to any person found at sea in danger of being lost” (Article 98, par. 1(a)). Due to the exclusive jurisdiction of flag States can be exercised when vessels sail on the high seas (Article 92), if ship master fails to meet the obligation, flag states can enforce with criminal or administrative penalties according to its national legislation to ensure the implementation of UNCLOS (Tauman, 2002). Besides, flag States undertake obligations to ensure vessels flying its flag to comply with the safety standards of international conventions (Article 94).

On the other hand, coastal states have separate duties to organize search and rescue services (Parent, 2006). UNCLSO states that “every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service” and enter into mutual regional arrangements when necessary (Article 98, para. 2). In this context, more specific legal instruments are established to meet the requirements of UNCLOS.

2.1.2 SOLAS Convention

In 1914, the first Convention on the Safety of Life at Sea (SOLAS) was adopted in response to the tragic “Titanic” disaster. Since then, the principle of priority for life-saving in distress at sea has been recognized by the milestone treaty. SOLAS has experienced revision several times. Currently, the revised 1974 International Convention for the Safety of Life at Sea is generally regarded as the most important of all international treaties concerning the safety of merchant ships.

As a key IMO instrument, SOLAS contains standards on safety equipment and inspection requirements, it also implements ship construction and navigation safety regulations (Parent, 2006). In terms of life-saving, SOLAS reaffirms the obligation

of masters to assist ships in distress by proceeding with all speed once receiving a signal of distress (Chapter V, Regulation 33).

More importantly, SOLAS was “the first attempt of the international community to establish a system where governments have responsibility for rescue” (Allen, 2003). In Chapter V, Regulation 7, it mandates party states to undertake the general obligation of SAR service:

“to ensure that necessary arrangements are made for distress communication and coordination in their area of responsibility and for the rescue of persons in distress at sea around its coasts. These arrangements shall include the establishment, operation and maintenance of such search and rescue facilities as are deemed practicable and necessary, having regard to the density of the seagoing traffic and the navigational dangers and shall, so far as possible, provide adequate means of locating and rescuing such persons” (SOLAS 1974, p.458).

Also, SOLAS imposes party states to ensure the arrangements and use of the Global Maritime Distress and Safety System (GMDSS) (Chapter IV, Regulation 5). The GMDSS, which alerts both SAR authorities and passing-by vessels, can improve efficiency of search and rescue operations. With these regulations, SOLAS is an important “instrument calling for the establishment of coastal maritime search and rescue services” (Allen, 2003).

2.1.3 SAR Convention

Although both UNCLOS and SOLAS incorporate the duty for coastal states to perform search and rescue operations, there was, prior to the SAR Convention, “no international system covering search and rescue operations (IMO, 2019a). This led to uneven implementation and varied standards in different countries (Tauman, 2002), which went against the aim of an adequate and efficient SAR service globally.

Consequently, the International Convention on Maritime Search and Rescue, 1979 was designed to improve existing arrangements and to provide a comprehensive system for international search and rescue operations (SAR Convention).

SAR Convention imposes the obligation to rescue on coastal states, rather than ships (Allen, 2003) by requesting party states to provide SAR services for persons in distress (SAR Convention 2.1). In addition to basic elements like establishing search and rescue resources and communication facilities to receive distress alert, the SAR service of coastal states must contain a legal framework and a responsible authority for coordination and development of SAR service (SAR Convention 2.1, 2.2 & 2.3).

Under SAR Convention, the oceans are divided into 13 search and rescue regions (SRR) (IMO, 2019a). Each coastal state is responsible for establishing and providing the SAR service in their SRR (SAR Convention 2.1). Additionally, states are encouraged to coordinate and cooperate with neighbouring states on SAR service in terms of facilities, procedures and training (SAR Convention 3.1). Furthermore, the Convention outlines operating procedures to be followed in the event of emergencies or alerts and during SAR operations (SAR Convention 4.1). Finally, it requests the establishment of ship reporting system, which is free to all vessels to report their position for search and rescue purpose (SAR Convention 5.1).

In order to promote consistency between the maritime search and rescue services, IMO has developed considerable guidelines for party states to follow. One of the most important guidelines is the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR), which are published jointly with International Civil Aviation Organization (ICAO). Though they are not legally binding, the manuals provide guidelines for party states to meet their own search and rescue needs and the obligations as well as to integrate their SAR services to be part of a global SAR system (IMO, 2019b).

2.1.4 Salvage Convention

Another relevant convention is the Salvage Convention. Salvage refers to “any act or activity undertaken to assist a vessel or any other property in danger in navigable waters or in any other waters whatsoever” (Salvage Convention 1989, Article 1(a)).

Though only marine property is subject to salvage (Burstein, 2002), the international community, in 1910, adopted the customary tradition of the duty for a ship’s master to rescue people at sea in the Convention for the Unification of Certain Rules of Law with respect to Assistance and Salvage at Sea (the Brussels Convention, Article 11). The 1989 International Convention on Salvage, which replaced the Brussels Convention, reaffirmed this obligation in Article 10 as:

- “1. Every master is bound, so far as he can do so without serious danger to his vessel and persons thereon, to render assistance to any person in danger of being lost at sea.
- 2.The States Parties shall adopt the measures necessary to enforce the duty set out in paragraph 1” (p.5).

Concerning the compensation, Article 16 of the Salvage Convention 1989 states:

- “1. No remuneration is due from persons whose lives are saved, but nothing in this article shall affect the provisions of national law on this subject.”
2. A salvor of human life, who has taken part in the services rendered on the occasion of the accident giving rise to salvage, is entitled to a fair share of the payment awarded to the salvor for salvaging the vessel or other property or preventing or minimizing damage to the environment” (p.7).

In other words, the pure life salvor, who only saves life but no property, has no right to compensation from the owner the ship or its cargo (Friedell, 1979). The salvage reward for life saving cannot be claimed independently (Hu & Han, 2016), it must be part of the reward to life-property salvor. Meanwhile, Article 16 leaves the issue for

national legislations on life salvage, as remuneration from other sources seems to be acceptable (Parent, 2006).

Additionally, Salvage Convention 1989 sets out one chapter on the criteria for fixing the reward, putting forward the factors to be considered, such as the saved value of the vessel and other property; the skill and efforts of the salvors in preventing or minimizing damage to the environment, and so on (Article 13).

The duty to save people in distress at sea is clearly stated in the international conventions. That is, “everyone and every state or vessel that can reasonably be expected to assist those in need of rescue must do so” (Parent, 2006). This duty is performed by ship master, it also relies on the implementation and enforcement of States.

2.2 The general situation of SAR service in China

With a long coastline of 18,000 kilometres, China has a vast search and rescue region, covering the area of 3,500,000 square kilometres (Li, 2014). In recent years, the rapid development of China’s economy has made marine transportation, fishing and other activities relating to the sea more intense. In the period 2011-2015, there were 10,097 accidents and incidents in the search and rescue region of China, with 84,234 lives and 7,653 ships rescued respectively (China Maritime Search and Rescue Centre [CNMRCC], 2016).

2.2.1 The system and institution of SAR in China

The State Council and the Central Military Commission of China jointly established the National Maritime Safety Command in 1973, with the office located in the Ministry of Transport (MOT). The National Maritime Safety Command is responsible for the national deployment and arrangement of resources to prevent

typhoons, prevent ship pollution, as well as to rescue people in peril at sea (SCIO, 2007).

The institution was replaced until 1989 when “China Maritime Search and Rescue Centre” (CNMRCC) was established to comply with SAR Convention (SCIO, 2007). CNMRCC, affiliated with MOT, is responsible for organizing and coordinating the national maritime search and rescue work. The relevant departments of the State Council and the military cooperate with CNMRCC in maritime search and rescue missions. In the following years, the coastal provinces, autonomous regions, and municipalities in China have established corresponding maritime search and rescue agencies. Nowadays, there are 14 Rescue Coordination Centres (RCC) at the provincial level established along the coastline of China as well as the arteries of the Yangtze River² (SCIO, 2007).

In 2005, in order to strengthen the capability of responding to emergencies at sea and to enhance coordination and cooperation between ministries, the State Council approved the establishment of National Inter-Ministerial Joint Meeting on Maritime Search and Rescue, which is chaired by the MOT (State Council, 2005). It has a total of 19 members, including the Ministry of Foreign Affairs, Ministry of Public Security, the Ministry of Agriculture, the Navy, the Armed Police, the Meteorological Administration, and other ministries and institutions. The system guides the national maritime search and rescue and emergency response to ship pollution. CNMRCC as the office of the National Inter-Ministerial Joint Meeting on Maritime Search and Rescue, is responsible for organizing, coordinating, commanding major actions of maritime search and rescue and emergency response to ship pollution accident. It also has the responsibility of guiding municipal and local work of maritime SAR (State Council, 2005).

² The arteries of the Yangtze River do not belong to coastal regions, but the waterway transport relating to this inland waterway is administered by MOT. Therefore, the RCC in the arteries of the Yangtze River is managed the same as other 13 coastal provincial RCCs.

2.2.2 Maritime search and rescue force in China

According to the National Maritime Search and Rescue Emergency Response Plan (referred to as “the National Plan”), China’s maritime search and rescue force mainly include:

- 1) professional rescue force funded by governments at all levels,
- 2) official force of government departments,
- 3) the military force and armed police,
- 4) other vessels and aircrafts that can be utilized in SAR operations, human and material resources of enterprises, institutions and social organizations, as well as individuals (Article 2.6).

At the national level, official force of government departments mainly includes the patrol force from the China Maritime Safety Administration (MSA), which usually undertakes the task of organizing and coordinating SAR operations on the spot (SCIO, 2007). The national professional SAR force refers to the Rescue and Salvage Bureau (CRS) under the Ministry of Transport. Since 2003, three rescue bureaus have been established in Yantai (Beihai Rescue Bureau), Shanghai (Donghai Rescue Bureau) and Guangzhou (Nanhai Rescue Bureau) respectively, and four Flying Services along the coastline (SCIO, 2007). Currently, CRS has 19 rescue bases and has been equipped with 81 professional rescue vessels and 20 rescue helicopters (CRS, 2019). These two types of force are the principal actors to ensure life-saving at sea (SCIO, 2007).

Official force of other government departments, as well as the military force are the integral part of the national SAR network under the national inter-ministerial joint meeting mechanism (SCIO, 2007). The ships and aircrafts of the military, other government departments and various enterprises and institutions involved in SAR operations play an important role in guaranteeing the success of missions (SCIO, 2007).

The phrase of “social force” is firstly stated in Article 5.11 of the National Plan. Neither Maritime Code nor Maritime Traffic Safety Law of China defines it. Article 5.11 prescribes that when SAR force is insufficient, local government can mobilize social force such as governmental agencies, enterprises and institutions, social organizations and volunteers in the region to participate in or assist SAR operations (Article 5.11.1); while RCC should guide the social force to the designated place with necessary facilities and equipment (Article 5.11.2). It seems that social force plays the supplementary role in SAR service as they are utilized in cases when official force is not enough.

In some developed countries, SAR volunteers are well organized and work closely with SAR agencies to provide service (Qin, 2013). Some studies analysed the maritime SAR volunteers and the organizations abroad and suggested with a series of measures, that SAR volunteer organizations in China learn from developed countries (Liang, 2013; Qin, 2013; Yuan, 2012). However, the National Plan uses “social force” to refer to all other resources not provided or funded by the government. On one hand, because China’s maritime SAR volunteer organizations are quite new and begin to develop in recent years. They lag behind in many aspects compared with those in developed countries (Qin, 2013). On the other hand, the term of “volunteers” is far from covering the various resources engaged in the maritime SAR service. According to the definition of the National Plan, the scope of SAR social force is broader than volunteer. Social force can cover resources voluntarily participate in or coordinated or utilized by RCC to the search and rescue operations on the sea (inland waterway). It includes not only enterprises, or institutions who have professional facilities and personnel, such as hoisting vessels, helicopter, sonar and VHF equipment, but also individuals like fishermen, or volunteers with nautical knowledge, driving skills and medical rescue capabilities.

2.3 The role of social force in the maritime SAR service in China

2.3.1 The importance of social force in the maritime SAR service

China's professional rescue force is mainly distributed in the ship-intensive areas where accidents often happen, such as Bohai Bay, the Yangtze River estuary and the Pearl River estuary (CRS, 2019). When accident happens, it takes time for official SAR vessels to arrive at the incident scene. Thus, it is more effective to utilize the surrounding patrol vessels, merchant ships, and nearby fishing vessels to save life. Through ship reporting system, RCC can coordinate the passing-by ships closest to the accident site which improves the response time of SAR operations.

Additionally, it is difficult for professional rescue force to cover the wide scope of all waters due to the high investment and maintenance costs. Social force, such as vessels and equipment of shipping companies, port authorities, waterway engineering companies, offshore oil companies, etc., are crucial when it comes to emergency and emergency rescue in the wider seas, as well as in the Yangtze River and other inland rivers.

Furthermore, different causes and types of accidents lead to different ways to address emergency and SAR solutions. For example, large-area SAR operation cannot be done without the participation of various social vessels. In the case of shallow water where big SAR vessels cannot access to, fishing boats are quicker and easier to reach people in peril because they are smaller and better to manoeuvre. The available assistance from social vessels is vital under this circumstance. The complexity of SAR cases at sea requires the support of social force.

It is noted that the maritime SAR volunteers in China have made great progress in the past decade. The first maritime SAR volunteer team was established in Zhejiang Province in September, 2008, and the SAR volunteer team established in Hubei Province in May 2011 was the first one in the inland water area. Now there are over 80 volunteer teams with more than 5000 participants nationwide (CNMRCC, 2016).

2.3.2 Statistics of social force in SAR service

Facts prove the significance of social force in SAR service in China. For example, Shitang Maritime volunteer team in Zhejiang Province, as the first social organization on maritime SAR in China, has participated in 397 SAR operations, and successfully rescued 402 ships and 1,240 persons in distress in the past decade (Zhejiang MSA, 2018). It is estimated that social force has been engaged in more than 60% of SAR operations in China (CNMRCC, 2016).

The data in Table 1 illustrates the various types of vessels participated in the maritime SAR missions in the last five years (CNMRCC, 2018). It is clear that the number of incidents and accidents at sea in China is quite large and the governmental force of MOT play a major role in conducting SAR missions, especially in urgent and dangerous SAR tasks. Meanwhile, other types of vessels are becoming more and more important as they are increasingly utilized and coordinated by RCCs to participate in or assist SAR operations. In terms of number, social force are engaged in more SAR operations than other force.

Table 1

The number of different types of force in SAR missions in 2014-2018

| Year | Governmental force of MOT | | Army | Social vessels | Fishing boats | Passing-by vessels | Sum |
|-------------|---------------------------|-----|------|----------------|---------------|--------------------|-------|
| | MSA | CRS | | | | | |
| 2014 | 2118 | 379 | 162 | 1963 | 1630 | 1225 | 7477 |
| 2015 | 1896 | 357 | 163 | 1873 | 1679 | 651 | 6619 |
| 2016 | 2134 | 604 | 277 | 2504 | 3343 | 1343 | 10205 |
| 2017 | 2037 | 524 | 207 | 3330 | 1971 | 1321 | 9390 |
| 2018 | 2088 | 572 | 275 | 2463 | 3380 | 2962 | 11740 |

Note: Due to the large number of fishing boats and passing-by vessels engaged in SAR operations, these two kinds of vessels are calculated separately. Social vessels in the statistics refers to other vessels except for fishing boats and passing-by vessels. Source: Monthly statistics of the national maritime SAR missions from CNMRCC.

2.4 The reward for social force

2.4.1 The necessity of the reward for social force

Maritime SAR service is highly risky because the situations are often dangerous and salvors are faced with severe dangers or even personal injuries. In addition to possible risks, SAR volunteers face many challenges, such as high requirements for professional skills, regular trainings, high costs of equipment, and so on (Qin, 2013).

In the traditional salvage law, pure life salvage is a mandatory duty for vessels and masters, so salvors may not demand any remuneration from those whose lives are saved as life-saving in distress at sea (Hu & Han, 2016). The practice of denying to award the pure life salvor has been criticized by some scholars as they regarded it is unreasonable and disobeys the common sense (Burstein, 2002; Juhas, 2012; Parent, 2006). The compensation for salvor is not only a problem of law and policy, but also an issue of morality and humanity (Tache, 1984).

As mentioned, the Salvage Convention 1989, though does not support remuneration from persons who are rescued, it gives domestic legislation of each country to have their solutions (Article 10). In fact, courts generally award salvors to encourage their life saving efforts at sea as long as it is generally associated with saving property from the perils of the sea (Tache, 1984). Most of the European States offer some form of compensation for the life salvor (Parent, 2006).

In terms of search and rescue service, reward for social force is of particular importance in China. One reason is, of course, the losses and risks that social force would suffer when they join in or assist SAR operations. It is rational for them to have reward. More importantly, social force has played such a significant role in SAR service that reward for their efforts would motivate them in the long term and be helpful for SAR service as a whole.

2.4.2 Theoretical basis

1. Good Samaritan

Jarett (1954) regarded life salvor as “a problem of law and morality”. Since seafarers all over the world share the sea’s peril, they “are required to be their brother’s keeper” (Juhas, 2012). The moral obligation for crewmen to assist another in distress at sea is an “ancient and practical response to the dangers on the sea” (Tauman, 2002). The general maritime law “left it to one’s conscience whether he shall be the Good Samaritan or not” (Jarett, 1954). Good Samaritan is a common law doctrine, with the core belief that a rescuer, who acts as a Good Samaritan, should be protected from civil liability for actions taken for rescuing another (White, 2002).

White (2002) believed that the doctrine of Good Samaritan provides “strong moral and economic foundations” for state legislation by analysing the potential costs and benefits of both the rescuer and person in danger. As he explained, the person in danger would face the worst situation of “no rescue at all” if there is no protection for the rescuer from taking costs of an imperfect rescue (White, 2002). Thus, as long as the rescuer “acts in good faith and makes reasonable efforts not to harm, he should be immunized from liability” because this legal doctrine increases the possibility of rescue actions (White, 2002). Such considerations not only protect and incentive individuals to participate in rescue for the broader social benefits, but also become more powerful in a maritime context due to the unique history, laws, and policies (Acciaioli, 2016).

2. Theories of motivation

Maslow’s hierarchy of needs is one of the most influential theories among theories of motivation (Dixon, 2004). He proposed that a five-tier model of human needs, the needs are: physiological, safety, love and belonging, esteem and self-actualization. Human needs can be arranged into a hierarchy of importance (Dixon, 2004). People are motivated by a combination of needs, but only unsatisfied needs motivate behaviour. Once the needs on the lower level of the pyramid are satisfied, those on

the next level will act as motivators (Dixon, 2004). It should be noted that Maslow did not put money in the hierarchy model as a need. He regarded money as a way of fulfilling other needs at different levels, rather than a certain need in itself (Dixon, 2004).

White (2002) analysed the motivations of ordinary people to rescue others in danger are a complex combination of psychology, emotion altruism, and material. Galligan (1994) argued that the compassionate behaviour of a rescuer cannot be calculated in a rational manner of maximizing individual own material self-interests. Since the “legal doctrines affecting rescuers should promote this belief that altruistic behaviour is socially beneficial” (White, 2002), the laws and policies must “recognize compassion as an integral aspect of our psychological persona” (Galligan, 1994) and “be modified to account for individual motivations for acting in a more effective manner and also to promote beneficial social behaviour” (White, 2002).

2.5 Concluding remarks

This chapter reviews the international legal framework of maritime SAR and the legal obligations to provide SAR service. It also introduces the general situation of SAR service in China and the role of social force. Moreover, it describes the relevant theories and the necessity of rewarding social force for its efforts in the maritime SAR service.

Chapter 3 The current situation of the reward for social force in maritime SAR in China

3.1 The national legislation and policy on SAR and reward

As a party member of the international conventions, including UNCLOS, SOLAS, SAR and Salvage, China has taken the Conventions as the important legislative basis when formulating laws and regulations to ensure the compliance with these conventions.

3.1.1 The laws and regulations on maritime SAR in China

The Maritime Code and Maritime Traffic Safety Law are at the top level of the legal hierarchy in the maritime sector of China. In terms of rescue at sea, they have adopted the Salvage convention 1989 and SAR convention respectively. Both of the laws clearly stipulate that every vessel or master is bound, so far as he can do so without serious danger to the ship and persons onboard, to render assistance to any person in danger of being lost at sea (Article 174 of Maritime Code, Article 36 of Maritime Traffic Safety Law).

The Maritime Code was issued in 1992. Its Chapter IX mainly applies to salvage operations whose subjects are ships and other property in distress at sea. Meanwhile, Article 174 puts the obligation on the master to rescue lives in danger at sea. The Maritime Traffic Safety Law was issued in 1983. Its Chapter VII, with seven articles in total, focuses on saving and rescuing lives from disasters at sea. Article 38 stipulates as follows:

“Upon receiving a request for rescue, the competent authorities shall immediately organize a rescue operation. All units concerned and vessels or installations in the vicinity of the scene must act under the orders of the competent authorities”.

The RCC, as the competent authority, has the authority to command vessels and facilities to SAR operations when necessary. But the gap exists in the law that whether the vessels and facilities, upon request of RCC to join SAR operation, can be compensated for the costs or losses.

It is noted that these two laws were formulated decades ago, which are not in line with the development in the maritime sector and require amendment as soon as possible. Due to the Maritime Traffic Safety Law was issued earlier than China ratified the SAR Convention, China failed to change the provisions of the Convention into this national law. In 2017, the State Council began to seek public advice and comments on the amended draft of the Maritime Traffic Safety Law (State Council, 2017b). One major change in the draft is to affirm the principle that Life-saving at sea takes precedence over environmental and property salvage assistance and people in distress at sea have the right to receive life-saving assistance for free (State Council, 2017b). Another requirement is ships in distress, offshore installations, aircrafts or people in distress shall follow the instructions of the RCC and on-site SAR coordinator to receive timely assistance (State Council, 2017b).

In order to fulfil the obligation regulated by SAR Convention and to remedy defects of the Maritime Traffic Safety Law, State Council issued the National Maritime Search and Rescue Emergency Response Plan in 2007. The National Plan is one of the 24 national special-purpose emergency response plans. As an administrative regulatory document issued by the Central Government, it ranks below laws in the legal hierarchy (State Council, 2017a). Now it acts as the top guideline for the national SAR service in the absence of specific laws in this aspect (SCIO, 2007).

In terms of social force and reward, the National Plan prescribed in Article 8.4.4 that “appropriate reward, compensation or praise shall be granted, by China Maritime Search and Rescue Centre or the Provincial Maritime Search and Rescue Centre, to the vessels that are coordinated to participate in maritime SAR operations by

authorities” (State Council, 2006). It also stipulates in Article 8.4.3 that “personnel who make outstanding contributions to maritime emergency work shall be awarded, in accordance with regulations, by the Ministry of Transport through the report of China Maritime Search and Rescue Centre or by the provincial government through the report of the provincial maritime search and rescue agency” (State Council, 2006).

3.1.2 The laws and regulations in other relevant fields

In addition to the laws and regulations in the maritime sector, some other relevant laws and regulations are examined as well.

One is the Emergency Response Law issued in 2007. It defines the emergency incident as a natural disaster, accidental disaster, public health incident or social safety incident, which takes place by accident, has caused or may cause serious social damage and needs the adoption of emergency response measures (Article 3). The incidents at sea, that require SAR service to respond promptly is included. Thus, the Emergency Response Law can be referred to when discussing the reward for the engagement of social force.

In terms of reward, the law has the provisions on the reward for both individuals and property requisitioned. As Article 61 prescribes that

“the citizen has performed remarkably or made great achievements during the period of attending the emergency response rescue or assisting in maintaining the social order, the people’s government at or above the county level shall commend or reward him/her;
the people’s government at or above the county level shall grant relief to persons injured or dead when participating in the emergency response rescue according to law” (para. 3 & 4).

It also stipulates in Article 12 that the relevant people’s government and its departments may requisition the property of entities and individuals in response to an

emergency incident. The requisitioned property shall be timely returned after use or after the emergency response operations terminate. Compensations shall be made for the requisitioned property or property damaged or destroyed after requisition.

But this provision is too general to practice. Some scholars discussed its shortcomings (Feng & Jiang, 2014; Su, Liu, Li & Shang, 2011). First, it lacks the competent authority in charge, which leads to individuals have no idea of whom they should apply for reward or compensation. Secondly, the absence of principle and calculation on compensation make it difficult to implement. It is unclear which expenses should be covered by compensation. Thirdly, there are no further policies and specific measures, such as procedures of compensation issued by the administrations. Finally, there is no specialized fund on compensation for restitution property. The lack of financial support makes the legal provision less effective than expected.

Another regulation is related to maritime SAR volunteers. This is the Regulation on Voluntary Services of China, issued by State Council in 2017. It is the top legislation tailored for volunteers and voluntary organizations. According to the Regulation, “volunteers” means the persons provide public welfare services for the public voluntarily and free of charge with their own time, knowledge, skills, and physical strength (Article 2 & 6). Therefore, SAR volunteers are not entitled to claim for payment for life saving efforts in the perspective of the voluntary behaviours. Zhou (2014) and Shi (2016) attributed the fact to the complexity of legal status of maritime SAR volunteers as they are subject to both the legal norms of volunteer service and regulations relating to maritime SAR.

The regulation provides measures on personal safety of volunteers in Article 17 that volunteer organizations shall purchase insurance on accident injury before arranging for volunteers to participate in volunteer service that may cause injuries. However, maritime SAR volunteers have difficulty in being insured as they face unusual high

risks in voluntary SAR work than other volunteers (Jiang, Tao, Zheng, Zhang & Yan, 2015).

3.2 The current reward policy for social force in the maritime SAR service in China

In order to implement the provision of the National Plan on the reward for social force, the reward policy for social force in the maritime SAR service has been developed at both national and provincial level. The most influential instrument is the reward fund.

3.2.1 The Special Reward Fund for Maritime (Inland waterway) Search and Rescue

China has established the Special Reward Fund for Maritime (Inland waterway) Search and Rescue in 2008 (referred to as “reward fund”). The fund is the annual budgetary fund of the central government and is targeted for search and rescue reward both at sea and inland water regions. By 2018, the cumulative reward amounted to more than 90 million RMB, greatly encouraging the participation of social force in search and rescue operations (MOT, 2019b).

The Ministry of Finance and the Ministry of Transport jointly issued the “Temporary Measures for Special Reward Fund for Maritime (Inland waterway) Search and Rescue” (referred to as “Measures”) (CNMRCC, 2007). Additionally, MOT formulated the “Rules for the Implementation of the Special Reward Fund for Maritime (Inland waterway) Search and Rescue” in 2009 (referred to as “Rules”) (CNMRCC, 2009). In the past decade, these two documents provide guidance for the practice of reward by regulating the scope, criteria, procedure, and so on.

1. Scope of application

According the Measures, the reward shall be granted for the social force that make outstanding contributions in SAR operations (Article 5). The eligible social force for

reward includes those participate in SAR operations organized and commanded by CNMRCC for extremely serious or serious incidents (Article 4). In other words, SAR operations of relatively serious and minor incidents are excluded and the social force in these operations are not covered by the reward³. Besides, the Rule added a more specific standard of rescuing 10 persons or above (Article 4 of the Rules).

2. Criteria

According to the Measures, the reward criteria shall be determined by CNMRCC in consideration of the actual effects of SAR operations and the annual budget (Article 7). In principle, the maximum reward for participation in the SAR operations of extremely serious incidents shall not exceed 40,000 RMB/time. The maximum reward amount for participating in the SAR operations of serious incidents is no more than 30,000 RMB /time (Article 7).

Both documents list the main factors to be considered, including the following aspects: (1) avoided or reduced casualties at sea; (2) avoided or reduced marine and water pollution or serious property losses; (3) avoiding the incident to worsen or to cause serious social impacts; (4) persisting SAR operations under extremely severe weather conditions; (5) regularly participating in maritime SAR missions and has made extraordinary contributions (Article 6 of the Measures, Article 4 of the Rules).

In the application form, more information is required to provide (Appendix of the Measures), such as the information of social force and details of SAR operation participated in, including ship width, gross tonnage, number of crew, aircraft model, engine power, and so on (Appendix of the Measures). The details of SAR operation include the location of distress, nature of distress, wind direction, distance from shore, level of incident, on-site sea conditions, water temperature, visibility, the

³ The National Plan classifies the emergency incidents into four levels according to the features, the threats to life safety and marine environment, and the development trend. These four levels include: extremely serious, serious, relatively serious and minor (Article 4.1).

number of people in distress, the number of people rescued, the amount of property rescued, SAR equipment and facilities damaged, and so on (Appendix of the Measures). These factors are critical for reviewing and approving the application.

3. Procedure

Section 3 of the Measures prescribed the steps of the whole work and the Sections 3, 4, and 5 of the Rules regulated it in details.

1) CNMRCC is responsible for the organization and implementation of the reward fund and for the review of applications. The provincial RCCs or the competent department of transportation at the provincial level is responsible for the verification, reporting of applications and the allocation of reward fund within the region (The Rules, Article 4).

2) The applications for reward shall be submitted by the unit or individual participating in the SAR operations of the previous year. The application also may be submitted by the local SAR authorities that organize the SAR operations. All applicants shall fill in and submit the application form before the end of April (The Measures, Article 8, 9).

3) CNMRCC shall organize the annual expert meeting to review all applications. The expert meeting drafts the review report on the list and quota of the reward (The Rules, Article 11, 13).

4) The list and quota of the reward shall be publicized before the final approval of MOT (The Rules, Article 17, 18).

5) The reward shall be transferred to the financial account of social force after approval. For individuals who have no financial account, the provincial RCC is responsible for allocating the fund (The Rules, Article 20).

4. Instant reward

The policy on the reward fund shows the flexibility as the Rules formulated the “instant reward” (Article 16). The instant reward can be granted in certain situations when social force participated in very serious incident, the SAR operation has good

effect and social influence, or the action made extraordinary contributions by avoiding causalities and environmental pollutions (The Rules, Article 16). In such cases, the instant reward can be applied to CNMRCC immediately after SAR operations. The Rules authorize CNMRCC to approve the application without the annual procedure of expert review and publicity (Article 16). The maximum amount of the instant reward shall not exceed 100,000 RMB (The Rules, Article 11(2)).

3.2.2 The policy of SAR reward at the regional level

In the legislative system of China, the government of provinces, autonomous regions, municipalities directly under the Central Government and certain larger cities may formulate local administrative regulations in accordance with laws, national administrative regulations, and local regulations (State Council, 2017a). The legal hierarchy prescribes these local regulations at lower ranks to ensure laws and national regulations apply to the whole country while adapt to the needs of different situations in different places and can work in practice (State Council, 2017a).

At provincial level, most coastal regions have formulated maritime (waterway) SAR emergency plans by combining the national plan and local conditions. In recent years, some provinces have established reward funds from local budget, while some regions lag behind in this aspect, which shows the unbalanced development in different areas in China. For regions who have reward funds, policies has been formulated to recognize social force engaged in SAR service.

In general, the coverage of the regional reward excludes social force who has been rewarded by CNMRCC. The criteria of reward are more specific. For example, the policy in Zhejiang formulated the criteria of reward per rescuing person or per remains (Zhejiang MSA, 2015). Furthermore, some regions explored the policy in the existing framework. One example is Guangxi, which incorporates both reward and compensation in one regulation (Guangxi MSA, 2013). Another case is

Shandong where combines commendation with reward policy by establishing Provincial Bravery Award for social force (Shandong MSA, 2014b).

3.3 The statistics and cases of the reward fund in recent years

CNMRCC has rewarded the social force engaged in SAR operations since the establishment of the reward fund in 2007. By 2018, the cumulative reward fund amounted to more than 90 million RMB, greatly encouraging the participation of social force in SAR missions (MOT, 2019b).

3.3.1 Statistics of the reward fund

Table 2 analysed the publicized information of the reward fund and demonstrates the application and allocation of the fund from 2011 to 2018 (MOT, 2012-2019). First, the number of applications is relatively stable. About 80% of applications were approved annually after the review except in 2017. Next, the annual amount of fund fluctuates at 6-8 million RMB, but shows the tendency of decrease. The annual fund continued to be below 8 million since 2015. Taking into account the inflation and increasing costs, the actual amount of reward for social force seems be to less after ten years, which would affect its incentive.

Table 2

The statistics of the reward fund in 2011-2018

| Year | Number of Application | Number of Reward | Percentage of Approval | Amount (unit: 10,000 RMB) |
|-------------|------------------------------|-------------------------|-------------------------------|----------------------------------|
| 2011 | 388 | 324 | 83.5% | 791 |
| 2012 | 443 | 377 | 85.1% | 825 |
| 2013 | 478 | 368 | 77.0% | 804 |
| 2014 | 378 | 334 | 88.4% | 804 |
| 2015 | 411 | 299 | 72.7% | 750 |
| 2016 | 435 | 389 | 89.4% | 638.9 |
| 2017 | 417 | 417 | 100.0% | 724 |

| | | | | |
|------|-----|-----|-------|-------|
| 2018 | 551 | 458 | 83.1% | 656.5 |
|------|-----|-----|-------|-------|

Source: The publicizing information of the special reward fund for maritime (inland waterway) search and rescue in 2011-2018 from MOT

Table 3 and 4 show the allocation of the fund in different regions in 2017 and 2018. It is clear that the social force in coastal areas are the major part of obtaining rewards. They have been granted for over 60% of the fund in terms of both number and amount, while other inland water regions shared less than 40% of the fund. Among the coastal regions, Zhejiang, Guangdong and Shandong are located respectively along the coastline with the busiest shipping and fishing activities in the North, East and South of China. They rank the top three provinces to get the most fund in terms of number and amount.

Another point should be noted is the levels of distress that the social force was participated in and rewarded for. As mentioned before, the scope of the reward include SAR operations of extremely serious or serious incidents organized and commanded by CNMRCC, according to the Measures. A large proportion of social force was rewarded for incidents which were not so severe, just at relatively serious or minor level. It makes sense to expand the coverage of fund for the purpose of extending influence and motivating more social force. But such practice that does not conform to the policy documents should be avoided.

Table 3

The regional allocation of the reward fund in 2017 and 2018

| No. | Region | 2017 | | 2018 | |
|-----|--------------|--------|---------------------------------|--------|---------------------------------|
| | | Number | Amount (unit: 10,000 RMB) | Number | Amount (unit: 10,000 RMB) |
| 1 | Heilongjiang | 18 | 8.5 | 4 | 5 |
| 2 | Liaoning | 17 | 26.5 | 20 | 27 |
| 3 | Tianjin | 11 | 14 | 11 | 13.5 |

| | | | | | |
|-------------|----------------------------------|----|------|----|------|
| 4 | Hebei | 22 | 23.5 | 22 | 29.5 |
| 5 | Shandong | 41 | 58.5 | 36 | 51.5 |
| (continued) | | | | | |
| 6 | Lianyungang | 5 | 10 | 6 | 10.5 |
| 7 | Jiangsu | 18 | 35.5 | 25 | 34 |
| 8 | Shanghai | 15 | 32 | 30 | 49 |
| 9 | Zhejiang | 35 | 86.5 | 36 | 73.5 |
| 10 | Fujian | 17 | 33.5 | 27 | 39.5 |
| 11 | Guangdong | 35 | 86.5 | 39 | 52 |
| 12 | Guangxi | 9 | 21.5 | 16 | 27.5 |
| 13 | Hainan | 13 | 19.5 | 11 | 16 |
| 14 | Changjiang (Yangtze River) | 25 | 53 | 17 | 37 |
| 15 | Jilin | 1 | 1 | 2 | 2.5 |
| 16 | Shanghai (Inland water) | 4 | 8 | 4 | 4 |
| 17 | Jiangsu (Inland water) | 9 | 15.5 | 8 | 9.5 |
| 18 | Zhejiang (Inland water) | 17 | 20 | 10 | 11 |
| 19 | Anhui | 6 | 12 | 9 | 15.5 |
| 20 | Fujian (Inland water) | 3 | 6.5 | 7 | 11.5 |
| 21 | Jiangxi | 6 | 12 | 7 | 9 |
| 22 | Shanxi | - | - | 6 | 4.5 |
| 23 | Shandong (Inland water) | 6 | 8 | 8 | 6 |
| 24 | Henan | 19 | 40.5 | 18 | 35.5 |
| 25 | Hunan | 15 | 22.5 | 13 | 14 |
| 26 | Chongqing | 6 | 8 | 2 | 2 |
| 27 | Sichuan | 14 | 16.5 | 21 | 22 |
| 28 | Guizhou | 1 | 2 | - | - |
| 29 | Yunnan | 4 | 4.5 | 6 | 7 |

| | | | | | |
|-------------|----------------|------------|------------|------------|--------------|
| 30 | Gansu | 18 | 27.5 | 22 | 22.5 |
| 31 | Qinghai | 5 | 5 | 5 | 3 |
| (continued) | | | | | |
| 32 | Ningxia | 1 | 3 | 5 | 5 |
| 33 | Xinjiang | 1 | 2.5 | - | - |
| 34 | Inner Mongolia | - | - | 5 | 6.5 |
| Sum | | 417 | 724 | 458 | 656.5 |

Note: No. 1 to 13 are coastal regions, and No. 14-34 are inland water regions.

Source: The publicizing information of the special reward fund for maritime (inland waterway) search and rescue in 2017 and 2018 from MOT

Table 4

The allocation of the reward fund between coastal regions and inland water regions in 2017 and 2018

| | 2017 | | 2018 | |
|----------------------|--------|---------------------------|--------|--------------------------|
| | Number | Amount (unit: 10,000 RMB) | Number | Amount (unit: 10,000RMB) |
| Sum | 417 | 724 | 458 | 656.5 |
| Coastal regions | 256 | 456 | 283 | 428.5 |
| Percentage | 61.4% | 63% | 61.8% | 65.3% |
| Inland water regions | 161 | 268 | 175 | 228 |
| Percentage | 38.6% | 37% | 38.2% | 34.7% |

Source: The publicizing information of the special reward fund for maritime (inland waterway) search and rescue in 2017 and 2018 from MOT

3.3.2 Case analysis

Case 1. On August 15, 2018, the Ro-Ro passenger ship “Hehangxinglong” was blown into the breeding sea area of Changdao County, Shandong Province, by the strong wind of 8-9 gale. Its propeller was trapped by twisted ropes and 284 people on board were in distress. RCCs in Shandong mobilized professional, official and social

force to participate in the SAR mission and successfully rescued the trapped vessel and all persons. Fishing boats played an irreplaceable role in this offshore rescue. Zibo Diving Club and 9 social vessels including “Lu Changyu 62017” “Qindao 8” were granted an instant reward of RMB100,000 in total for their efforts (Shandong MSA, 2018).

Case 2. On August 25, 2016, cargo ship “Xiangyueyanghuo 1860” was sunk in the stormy waves of Cangzhou, Hebei Province. 12 crewmen fell into the water and were in distress. Hebei RCC coordinated the helicopter “S-7005” of CITIC Offshore Helicopter Co. Ltd (COHC) to the site. Overcoming the difficulties caused by 8 level gale and 3-4m large waves at the scene, “B-7005” worked for over 6 hours and finally rescued 9 persons. CNMRCC granted an instant reward of RMB 100,000 to the crew of “B-7005” (Hebei MSA, 2016).

Case 3. In 2018, the Fourth People’s Hospital of Wenling, Zhejiang Province was awarded RMB30,000 by CNMRCC. It is the first hospital in China to receive national maritime SAR reward. Since 1989, the hospital has set up a volunteer team for maritime emergency. In the past 29 years, it has participated in SAR service for more than 330 times, sailing 43,700 nautical miles in total. Their longest time of SAR operation lasted for 76 hours. They treated and saved more than 480 fishermen since establishment (Zhejiang MSA, 2018).

Case 4. On February 2, 2012, a ferry carrying 350-person in Papua New Guinea was sunk by strong wind, cargo vessel “Zhonghe” of COSCO, in the vicinity, saved 29 people in distress and provided food and medical assistance. CNMRCC granted RMB 40,000 to the crew of “Zhonghe” on February 12, 2012 (CNMRCC, 2012).

Case 5. At 1 am of July 26, 2014, the Chinese merchant ship “Weilong5”, took in water and leaned sharply due to the typhoon “Medham”. 14 people on board were in distress. At that time, the gust was 9-10, and the wave height was 5 meters. The

South Korean tugboat “Nanguang T1” anchored in the vicinity and immediately sailed to the scene once receiving the instruction from the local RCC. It successfully rescued all 14 Chinese crewmen of the “Weilong 5” at night. “Nanguang T1” received a prize of RMB50,000 by CNMRCC for their SAR efforts (Shandong MSA, 2014a).

The above cases for reward are various. case 1 and 2 are instant reward with the maximum amount. Both of the cases are urgent and hard SAR tasks. Case 3 is a typical volunteer organization with long time participation in SAR service, and it is about medical treatment rather than search or rescue in the usual sense. It is noted that case 4 and 5 are about instant reward, but different from the first two cases: case 4 is about a ship of Chinese shipping company performed the SAR operation beyond the SAR region and jurisdiction waters of China, while case 5 is about a foreign ship saved Chinese in the SAR region of China. Neither of the cases matches exactly with the scope of reward in the Measures and Rules, though they conform to other factors for reward.

3.4 Discussion

In China, Maritime Code follows the principle of Salvage Convention 1989 that life salvor cannot claim for the payment from persons saved (Hu & Han, 2016) as the subject of salvage in the Code is property (Article 171). The SAR service is regulated by the legal system of Maritime Traffic Safety Law and the National Plan. In this situation, the reward fund was set up in accordance with the National Plan, has played an important role to encourage the lifesaving at sea. As a major instrument, the current national reward policy for social force engaged in SAR missions has been conducted over ten years. Taking it as an example, some provinces have developed the local policy of reward for social force, which has improved the national SAR service as a whole.

The most importance of the policy is the reward, regardless of the amount, recognizes social force for the efforts in SAR service. According to the theory of motivation, since rescue life at danger is an altruism behaviour, the policy of reward enables rescuers to believe that such action benefits the society as a whole (White, 2002). Thus, the policy incentivizes their enthusiasm and participation in SAR operations and exerts an influence in the whole society. It is also helpful for the SAR authorities to utilize all available resources with more effective response to incidents. The overall performance of SAR service has improved with limited government and professional force. Besides, the reward fund is in line with the provision in the Emergency Response Law on the compensation for restitution property. It acts as compensation for social force to some extent, especially in some cases their engagement in SAR missions is requested by the SAR authorities.

There are some existing problems in the practice of the reward policy. Above all, SAR authorities have to take the National Plan as the top guideline as the outdated Maritime Traffic Safety Law lacks provisions in this aspect. It is urgent to revise the upper law to better perform the obligation of SAR authorities. Next, the criteria for the reward are rather general and ambiguous, the expert panel is authorized to decide the exact amount. The relatively low criteria affect the effectiveness of the policy. More importantly, eligible applications are restricted to the engagement in extremely serious or serious incidents. This provision in the Measures leads to the dilemma of implementation. The strict compliance would lead to lots of ineligible applications and very limited allocation of reward. This is inconsistent with the original doctrine of motivating social force and utilizing all resources in SAR service. The expansion of scope in practice seems to be non-compliant with the regulatory document. Therefore, it is necessary to review the reward policy in an overall manner and improve it as soon as possible.

3.5 Concluding remarks

This chapter discusses the policy and practice of the reward for social force in the context of the laws and regulations on SAR in China. The statistics and cases demonstrate the reward fund, as the main tool, has played its part to motivate the participation of social force in SAR service. Some problems exist in the implementation and need to be solved, such as the outdated upper law needs amendment, the absence of more specific criteria and so on.

Chapter 4 The reward policy for maritime search and rescue in other countries

In this chapter, some developed countries are selected to study how they utilize and integrate available SAR resources in performing SAR duties. The U.S., Britain and Japan are major maritime states with a long history of search and rescue services. They are recognized for specialized expertise, facilities and technologies as well as well-organized volunteer organizations (Evans, 2003). The countries have been party states to SOLAS, SAR conventions and both US and Britain have ratified Salvage Convention 1989 (IMO, 2019c). Experience of these countries in terms of policy and practice will be drawn for making suggestions for China.

4.1 The policy and practice in the U.S.

Though US does not ratify UNCLOS, it is a party member of other international conventions. It provides support to lifesaving provisions of SAR Convention and Salvage Convention 1989 with its effective SAR system and services (NSARC, 2016a).

4.1.1 SAR system and organizations

Generally speaking, the U.S. SAR system is organized and implemented in “a layered approach”, where federal agencies, States and local SAR authorities as well as volunteers play their own roles in a cooperative network (USCG, 2018).

In 1954, the US Air Coordinating Committee, directed by President Eisenhower, put forward the establishment of a national plan to utilize all facilities and to coordinate all kinds of SAR missions. But there was no responsible agency for the plan until the National SAR Conference in 1973 agreed to set up a permanent committee to oversee the plan (USCG, 2018). The Interagency Committee on Search and Rescue was established after the conference and its name was changed to the National

Search and Rescue Committee (NSARC) in 1999 (USCG, 2018). Currently, NSARC is responsible for coordinating civil SAR matters of interagency interests at the federal level (USCG, 2018). It has two important instruments to ensure an effective national SAR service: National SAR Plan and an interagency agreement. The former assigns SAR responsibilities to various federal agencies (NSARC, 2016a), while the latter acts as the “primary coordinating forum among agencies within the Federal Government” for matters relating to national SAR policies and positions (NSARC, 2016b).

The U.S. Coast Guard, operating under the Department of Homeland Security, is the Maritime SAR Coordinator in accordance with National SAR Plan. It is in charge of SAR resources “for the promotion of safety on, under, and over waters subject to U.S. jurisdiction as well as waters beyond the territorial sea of any country” (USCG, 2019). Search and rescue is one of the Coast Guard’s oldest missions. As a major participant in the SAR system, USCG works with other agencies and different SAR authorities as well as volunteer organizations and non-governmental organizations. Since 1974, the Office of Search and Rescue’s Coordination Division of USCG has served as the Secretariat of NSARC, coordinating SAR matters and issues at federal level (USCG, 2019).

Additionally, the U.S. SAR system is characterized with the cooperation between SAR professionals and volunteers from all walks of life (USCG, 2018). Volunteers and various other assistance like non-governmental organizations, religious organizations, and commercial, aviation, and shipping industry SAR stakeholders serve as the “backbone” of the U.S. SAR system (USCG, 2018). The Coast Guard Auxiliary is a volunteer, non-military organization of civilians under the direction and administration of the Coast Guard. It was established according to the Auxiliary and Reserve Act of 1941 (USCG Auxiliary, 2018). In addition to SAR, the Auxiliary operates in many missions, such as safety and security patrols, commercial fishing and vessel exams, and so on. In particular, it is under the direct authority of USCG.

Though it is a volunteer organization, Auxiliary, with its 24,500 strong uniformed volunteer, can be regarded as the non-military reserve force of USCG (USCG Auxiliary, 2018).

4.1.2 Legislation and policy framework

Under U.S. law, the duty of the ship master to render assistance is codified in the Salvage Act, which was taken from the Salvage Convention 1910 without substantial change (Juhas, 2012). Furthermore, U.S. has imposed penalties for the violation, as “a master or individual violating this section shall be fined for not more than \$1000, imprisoned for not more than years, or both” (US Code, Title 46, section 2304(b)). But this provision could only sanction breaches of the duty to rescue (Juhas, 2012), rather than providing an incentive to render aid. In general, US adheres to “the established general maritime rule” that no reward for pure-life salvage (Jarret, 1954). In certain situations, courts have attempted other ways to recover expenses of life salvor (Friedell, 1979). In *Grigsby v. Coastal Marine Service of Texas, Inc.*⁴, though the salvor failed to save life or property, “the court broadly construed the humane policies underlying salvage law” and supported his family to recover for his wrongful death based on the unseaworthiness of the barge (Friedell, 1979). Another case is *The Peninsular & Oriental Steam Navigation Co. v. Overseas Oil Carrier, Inc.*⁵. the court granted restitution to the life salvor with the theory of quasi-contract

⁴ Grigsby, a shore-based worker, suffocated and died when attempting to save two repairmen who had gone into a barge’s wing tank that was lack of oxygen, the court regarded Grigsby as a life salvor because he did what “a vicarious seaman responding to the call the sea would have done” (Friedell, 1979).

⁵ The tanker Overseas Progress was sailing in the mid-Atlantic when its crew William Turpin, suffered a heart attack on board. Overseas Progress had no adequate medical facilities to treat him and sent out a message for nearby vessel’s help. The closest passenger vessel, Canberra, with facilities and doctors, agreed to rendezvous. Both vessels altered course and the Canberra increased speed. After transferred to Canberra, Turpin was checked by doctor and Canberra continued to New York, with 232 extra miles to deviate and 2.5 hours late. Overseas Progress paid \$248 to Canberra for the medical service to Turpin but refused to pay \$12,108.95 that Canberra required for reimbursement of other expenses. The case was treated as pure life salvage in the district court who allowed Canberra’s claim for \$500 of nursing and accommodation, but denied the rest cost of additional fuel of diversion. On appeal, the plaintiff argued “that it was entitled to restitution because it acted in an emergency and

(Force, Yiannopoulos & Davies, 2007). Despite the court did not award a reward for pure life salvage, the restitution, as judicial remedy, did cover the expense of life salvor (Force, Yiannopoulos & Davies, 2007). Two cases are quite narrow with limited conditions (Burstein, 2002), however, they reflect that American courts has opened the door to grant recovery to pure life salvors and go even further than the English law by allowing recovery when the life salvors do not succeed in saving life (Friedell, 1979).

With respect to SAR service, the National SAR Plan and its attached manuals provide the national guidance for SAR-related systems to coordinate SAR operations and “the effective use of all available resources” (NSARC, 2016a). Taking lifesaving as the priority, the National SAR Plan places saving property “on a secondary basis to the conduct of SAR operations” (NSARC, 2016a) and excludes salvage operations in the application scope (USCG, 2018).

In term of the charge for SAR services and cost recovery, the National SAR Plan clearly states that “unless required by law, SAR services provided to persons in distress should be without subsequent cost-recovery from the persons assisted” (Article 49, p. 13). USCG Addendum to the United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual (referred to as “USCG SAR Manual”) reaffirms that no costs of SAR shall be charged from the recipients of those services (USCG, 2013, p. 4-31). It also stipulates that USCG “does not reimburse other agencies or individuals for costs associated with SAR” (USCG, 2013, p.4-31).

4.1.3 Practices

In addition to the top goal of preventing life loss at sea, the Coast Guard’s SAR program regards optimizing use of resources in conducting SAR as an important

performed a duty that Overseas owed to Turpin”. The U.S. Court of Appeals for the Second Circuit allowed this proposition. (Force, Yiannopoulos & Davies, 2007, pp.510-517)

objective (USCG, 2013). The attachments to the National SAR Plan has been developed with policy, guidelines, procedures and general information with that aim in mind.

1. Guidelines on use volunteers

One guidance document is United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual Version 2.0 (NSS). It has one section on volunteers (USCG, 2018, Section 1-11), where volunteer is defined as “any individual accepted to perform services by the lead agency (which has authority to accept volunteer services) when the individual performs services without promise, expectation, or receipt of compensation for services performed” (USCG, 2018). They are categorized into three types based on the expertise and capabilities: spontaneous volunteers; unaffiliated volunteers; and affiliated volunteers (USCG, 2018). Guidance for SAR authorities to utilize them are made accordingly. Spontaneous volunteers, who normally have no SAR skills, should be redirected and assigned through the local volunteer agency to match their capabilities with proper tasks(USCG, 2018). Unaffiliated volunteers are usually join in an organized team but not affiliated with agency having SAR jurisdiction within their community (USCG, 2018). The solution is to integrate them into other SAR teams and task forces based on their capabilities (USCG, 2018). Affiliated volunteers are under the authority of the local government agency having SAR jurisdiction in their community, so they can be used as an independent SAR team or SAR task force (USCG, 2018).

2. Maritime SAR Assistance Policy

The Maritime SAR Assistance Policy (MSAP) was developed in 1982 due to the Congress was concerned about private sector may be affected in non-emergency situations when they could assist disabled vessels but Coast Guard resources were used unnecessarily (USCG, 2013, p. 4-5). The MSAP directs the Commandant to “review Coast Guard policies and procedures for towing and salvage of disabled

vessels in order to further minimize the possibility of Coast Guard competition or interference with...commercial enterprise” (USCG, 2013, p. 4-5).

The USCG SAR Manual provides detailed procedures on how to follow MSAP in SAR operations (USCG, 2013, pp. 4-5 to 4-17). Due to non-emergency situations account for 25 percent of all SAR operations (Tache, 1984), SAR cases are classified into non-distress and distress, each kind has different phrases with principles and procedures (USCG, 2013, pp.4-5 to 4-17). SAR mission coordinator shall judge the severity of cases based on information and conduct SAR operation in a dynamic way. The Coast Guard resources do not provide immediate assistance in the non-distress cases, if there is alternative assistance. But in distress case, immediate response shall be initiated, by either Coast Guard or Coast Guard Auxiliary resources. If commercial resources are the first to arrive at the scene, Coast Guard should evaluate its capability is adequate or not. Coast Guard may withdraw if other respondent has ability to control the situation and fully carry out the case. Otherwise, the Coast Guard resource should immediately stabilize the emergency. Once the situation is stabilized, Coast Guard may withdraw. In addition, it develops a mechanism of regular meeting with all stakeholders to review the SAR procedures for further improvement (USCG, 2013, p. 4-15).

The classification of distress enables the Coast Guard to allocate its limited resources more efficiently to emergency and life threatening cases, while the procedural measures ensure adequate protection of life safety in non-emergency situations (Tache, 1984). Meanwhile, MSAP ensures equitable policy to all stakeholders and avoids the conflicts of interests among the Coast Guard, Congress, the commercial towing industry, and the Coast Guard Auxiliary.

3. Amver system and its award

Apart from the above policies, USCG utilizes the Automated Mutual Assistance Vessel Rescue (Amver) System to arrange for assistance to persons in distress at sea.

Amver is a computer-based voluntary global ship reporting system that freely open to all ships of all flags with voluntary participation (Amver, 2018). The system enables SAR mission coordinator to identify the best ship available near the position of distress or with the best capability. It also avoids the unnecessary diversions of other vessels, saving fuel, time and payroll costs.

There were 7,260 vessels, on average, actively participated in the system in 2018 (Amver, 2018). In order to recognize the regular participation of vessels, there are Amver Awards for vessels with at least 128 days on the Amver plot in a calendar year. USCG awards the shipping company of the eligible ship for a Letter of Appreciation signed by the Commandant as well as a Certificate of Merit. There are also special honorary awards for ships that complete 15, 20, 25 years on Amver. In 2018, a total of 8,453 vessels in the world were eligible for the award (Amver, 2018).

4.2 The policy and practice in Britain

Britain is called “the cradle of lifeboat” as it has many records on lifeboats and coastal lifesaving (Evans, 2003). The world’s first charitable organization in helping shipwrecked victims was established in Britain in 1751 (Evans, 2003). Now the responsibility for SAR is undertaken through various authorities and organizations.

4.2.1 SAR system and organizations

At the national level, the SAR Strategic Committee is responsible for assessing the adequacy of the SAR response, co-ordination and resources in Britain. Now the committee has members of police services, ambulance services, military and so on; and is currently chaired by the Department for Transport (DfT) (MCA, 2017).

DfT, through Maritime Coast Guard and Agency (MCA), is responsible for providing national maritime SAR service and policy. The task of initiation and coordination of SAR missions is fulfilled through Her Majesty’s Coastguard

(HMCG). This includes the mobilization, organization of adequate resources to respond to persons in distress at sea or inland waterways (MCA, 2017). The rescue service is one of the duties of HMCG, but the service is performed by its Coastguard Rescue Team (CRT) members who are volunteers (MCA, 2017). Now, there are on average 3,500 volunteers in 340 teams dispersed around the British coast (MCA, 2018a).

The majority of the voluntary SAR organizations in Britain are registered charities, depending on donations and fundraising (MCA, 2017). In SAR missions, the voluntary SAR organizations are led and managed by 105 operational staff of HMCG (MCA, 2018a), who requests or assigns SAR tasks to the voluntary SAR organizations for their assistance.

The Royal National Lifeboat Institution (RNLI), founded in 1824, is one of the oldest and most influential volunteer SAR organizations both in UK and world (MCA, 2017). Now RNLI owns over 350 lifeboats in the fleet based at its 238 lifeboat stations around the UK and Ireland (RNLI, 2018), with their locations declared to the national SAR authorities in UK (MCA, 2017). In 2017 and 2018, 329 and 248 lives saved respectively by RNLI crews and lifeguards (RNLI, 2018).

4.2.2 Legislation and policy framework

The *Zephyrus*⁶ in 1842 was the first case in Britain to hold that no reward could be given for pure life salvage (Friedell, 1979). However, Britain has taken a different and “less travelled” path when it comes to reward to life salvage (Parent, 2006). The law of salvage in the British history gave “considerable recognition to the claims of life salvors” by “removing the barriers of general maritime law” (Jarret,1954). The Merchant Shipping Act 1894 benefited the life salvor with an independent right to

⁶In this case, salvors saved the master and crew of a ship, but failed to save the vessel or cargo. The judge denied the recovery for pure life salvage as no property was saved and no other principle to support the salvors’ claim (Friedell, 1979).

claim a life salvage award (Jarret, 1954). The award was based on the costs of the actual expenses incurred in the rescue operations plus reasonable compensation. If the vessel and all property were lost, or unable to meet the amount to the life salvor, the Board of Trade would pay the award out of money provided by Parliament in a Mercantile Marine Fund (Jarret, 1954).

The Merchant Shipping Act 1995, now in force, incorporated Merchant Shipping Act 1894 and the Salvage Convention 1989 (Burstein, 2002). It places the legal obligation to assist people in danger at sea on the ship master who works on ships of UK or foreign ships in United Kingdom waters (Section 93 (1) & (3), pp. 54-55). It also imposes criminal sanctions for failure to do so as Schedule 11, Part II, paragraph 3 (1) states that:

“The master of a vessel who fails to comply with the duty imposed on him by article 10, paragraph 1 commits an offence and shall be liable—
on summary conviction, to imprisonment for a term not exceeding six months or a fine not exceeding the statutory maximum or both;
on conviction on indictment, to imprisonment for a term not exceeding two years or a fine, or both” (p. 314).

Though the Mercantile Marine Fund was abolished (Bedwell, 1909) and the Merchant Shipping Act 1995 does not recognize pure life salvage itself (Burstein, 2002), it authorizes the Secretary of State to make “discretionary payment” to the life salvor if the award is insufficient (Burstein, 2002). As Schedule 11, Part II, paragraph 5 states that recourse for life salvage payment applies where

- “(a) services are rendered wholly or in part in United Kingdom waters in saving life from a vessel of any nationality or elsewhere in saving life from any United Kingdom ship; and
- (b) either the vessel and other property are destroyed, or the sum to which the salvor is entitled under article 16, paragraph 2 is less than a reasonable amount for the services rendered in saving life.

Where this paragraph applies, the Secretary of State may, if he thinks fit, pay to the salvor such sum or, as the case may be, such additional sum as he thinks fit in respect of the services rendered in saving life ”(pp. 314-315).

Besides, the Merchant Shipping Act 1995 Section 85 and 86 authorize the Secretary of State to formulate regulations on safety of ships (Merchant Shipping Act 1995, pp.48-50). Therefore, DfT and MCA transit the international conventions into domestic regulations by issuing Merchant Shipping Regulations and Notices. For example, the Merchant Shipping (Safety of Navigation) Regulations (Statutory Instrument 2002 No. 1473), provides effect to the provisions of Chapter V of SOLAS. It transits Regulation 33 of SOLAS as “a master of a ship in distress, or the search and rescue services concerned, may requisition a ship in the circumstances set out in paragraph 2 of regulation 33” (MCA, 2002). Another example is the Merchant Shipping Notice (MSN 1878) that requests that all UK passenger vessels and other passenger vessels in UK waters shall have the SAR cooperation plans agreed with the relevant SAR services, and that the plans are kept up to date (MCA, 2018b).

4.2.3 Fund policies and practices

Due to the widespread presence and contribution of SAR volunteer organizations, the British Government supports them with two budgetary funds to improve the quality of SAR services.

One is the UK Search and Rescue Volunteer Training Fund, operated through Charities Aid Foundation (CAF) (Cabinet Office, 2014). The fund is open to all SAR organizations in Britain to encourage them to provide strategic and sustainable training opportunities as well as high quality operational SAR training for the volunteers (CAF, 2019). With the support of fund for the costs of volunteers’ training, the voluntary organizations would demonstrate the value of SAR with high

community and organizational impact. The first grant funding was established in 2014 with 14 organizations receiving funding in that year (Cabinet Office, 2014).

Another is the Rescue Boat Grant Fund launched by DfT in 2014. It is a five-year fund with £5 million in total to support the independent charities that operate lifeboats and other rescue boats in UK inshore and inland waters. Until 2018, the fund has already awarded totally £4.7 million of grants to 103 charities. In 2018/19 the awards ranged from £1,659 to £113,848 with the average award being £17,650 (DfT, 2019). The Fund is open to UK-registered charities that already operate a rescue boat in the UK. The eligible applicants, reviewed by the Expert Panel, are awarded with a certain amount of grant for their costs of purchasing rescue equipment. The equipment supported by the Fund include rescue boats and other craft (e.g. flood rescue rafts, kayaks, etc.), launch equipment and launch vehicles, personal protective and other crew equipment (DfT, 2019). Since voluntary organizations shoulder much of the work of SAR service, DfT aims to enhance the overall rescue capability of these organizations by funding them with rescue equipment.

4.2.4 Honorary award

In Britain, maritime SAR volunteers are recognized by both the government and the organizations for their valuable efforts. SAR voluntary organization staff and volunteers have been recognized with the annual Queen's Birthday Honours for years, such as the British Empire Medal (RNLI, 2019). RNLI has its own awards for the volunteers as well: The Excellence in Volunteering Awards and Long Service Awards. The former are categorized into three kinds at local, regional or national levels, including leadership and initiative, courage and determination, skills and innovation (RNLI, 2017).

4.3 The policy and practice in Japan

Japan began to learn from European countries to develop its own coastal lifesaving service since the end of 19th century (Evan, 2003). The non-governmental volunteer rescue organization, Imperial Japanese Lifesaving Society was sponsored by the government to provide coastal SAR service until the World War II. After that, the Japan Coast Guard was established and it has been working together with volunteer organizations to save lives along the Japanese coastline (Evans, 2003).

4.3.1 SAR system and organizations

The Japan Coast Guard (JCG), affiliated with the Ministry of Land, Infrastructure, Transport and Tourism of Japan, is the competent authority for maritime safety and security. There are 11 regions in Japan for coast guard operations. Each region has a Regional Coast Guard Headquarter under which there are various Coast Guard Offices, Coast Guard Air Stations, Coast Guard Stations, Traffic Advisory Service Centres, Air Stations, and Hydrographic Observatories (JCG, 2018). Since 2016, the “Meeting of Relevant Ministers on a Strengthened Coast Guard System” was held, and the mechanism of Ministerial Council is formed to strengthen its Coast Guard System (JCG, 2018).

In terms of SAR service, JCG has a specialized department on Guard and Rescue. In addition to its strengths in vessels and crafts, JCG has enhanced its emergency rescue system composed of divers, mobile rescue technicians (MRT) and special rescue team (SRT). It worth mentioning that SRT, with a total of 36 members, are professional rescue experts who are capable with special maritime accidents that require advanced rescue techniques and knowledge (JCG, 2018).

4.3.2 Legislation and policy framework

Japan Coast Guard Law (Law No. 28 of 1948, with the latest amendment in 2012) is the basis of JCG’s administration and enforcement. It stipulates that JCG shall undertake the duties of rendering assistance to save human lives, cargo, and vessels

in marine accidents and in natural disasters and other cases where rescue needed (Article 5(ii)). In order to perform the function, it also authorizes JCG officers to seek assistance from people and vessels in the vicinity in the above-mentioned cases or any other emergency (Article 16).

Additionally, Japan has formulated a specialized law targeting for persons assisting JCG, that is Act on Accident Benefits for Persons Who Assisted Coast Guard Officers (Act No. 33 of 1953, with the latest amendment in 1996). According to the Act, it is the national responsibility to provide medical treatment and other benefits for persons who suffer the disaster (injury, illness, disability or death) because of the cooperation with the Coast Guard in carrying out the duties of the Coast Guard, like rescue of life or property in natural disaster or arrest criminal at sea. (Article 1&2) As long as the cooperation leads to the disaster on himself/herself, the person is entitled to obtain necessary medical treatment or benefits, regardless of his/her duties is deemed to be appropriate or not (Article 2). The benefits include many kinds: injury and sickness, disability, nursing care, funeral, work leave. The specific amount refers to the standards relating to public servants (Article 5 & 6).

With the legislations, Japan has protected the interests of participants in SAR service and ultimately promoted the cooperation between JCG and private organizations.

4.3.3 Volunteer organization and the practices

It is important for JCG to establish a close cooperation and system with public and private SAR organizations (JCG, 2019a). In 2018, the number of marine incidents requiring SAR service is about 1,704 vessels and 5,501 persons, in which JCG rescued (with the cooperation with other agencies) 441 vessels and 1257 persons, while other agencies and organizations rescued 807 vessels and 1979 persons (JCG, 2019b).

1. Marine Rescue Japan

Marine Rescue Japan (MRJ) is the major private SAR organization in Japan that supports the SAR service with its volunteer rescuers. MRJ is also known as Nippon Suinan Kyusai Kai, whose predecessor was Imperial Japanese Lifesaving Society established in 1889 (Evan, 2003). It cooperates with JCG to enhance sea rescue preparedness and response in Japan (JCG, 2018). Now it has 40 coastal rescue associations, which are private volunteer groups, and more than 1,300 rescue centres and branch offices under these associations throughout the country (MRJ, 2019a). There are about 51,000 volunteers nationwide (MRJ, 2019a).

In addition to the support by ship owners' association, seafarers' association and other maritime related organizations, MRJ depends largely on its popular donation fund, which is called "Blue Feather Fund" (Evans, 2003). MRJ has been working on various fundraising activities, such as "Blue Feather Donation Campaign" from July to August every year, the installation of "Blue Feather Fundraising Vending Machine" (MRJ, 2019b). These activities not only attract public awareness of SAR, but also raise considerable funds.

2. Engagement in SAR service and compensation

In practice, JCG, when receiving distress alarm, sends the information and the request for dispatch vessels to the nearest rescue centre. The branch rescue centre will coordinate volunteers to the distress site to conduct SAR operation. After the SAR operation, the branch centre reports to the coastal rescue association, who further reports the MRJ headquarter for compensation (MRJ, 2019d). In 2016, the amount of prize for volunteers' engagement in SAR operations was about 89,639,126 JPY (about USD 850,000), which accounted for 3% of the annual donation fund (MRJ, 2019b).

MRJ has worked with JCG to provide the offshore emergency service since 1985. In the event that a crew member is injured in a ship far offshore, a doctor is dispatched

to the site by a ship / aircraft of JCG to accommodate the sick crew member for emergency treatment (MRJ, 2019a).

All volunteers receive a basic compensation for the call of duties as well as insurance coverage for their vessels and themselves (Evans, 2003). According to the Charter of MRJ, if a SAR volunteer suffers an injury during the SAR operation or training, he/she will be provided compensations of medical treatment, disability, nursing care, work leave from the organization (MRJ, 2010). There are also compensations for bereaved family and funeral if the volunteer loses life (MRJ, 2010).

3. Honourable commendation

In order to recognize and appreciate for the contributions by volunteers, MRJ has established honourable commendations for volunteers and medical organizations with the procedure of the award review committee (MRJ, 2019c). The Commendation include Honorary Presidential award and Presidential award. The former is granted for individuals and organizations who have outstanding achievements in SAR operations. The latter are classified into three types, which are respectively granted for SAR volunteers, medical institutions and doctors engaged in offshore emergency services as well as people making business contributions, mainly in the form of donations. The winners are presented with a certificate of appreciation or a letter of appreciation together with a corresponding honorary badge or shield (MRJ, 2019c).

4.4 Discussion

From the above, there are similarities among these countries in terms of the SAR system and organizations. First, there is an agency, usually the Coast Guard, responsible for SAR service in the countries. A national mechanism has been developed, such an institution or ministerial meeting, to provide national SAR policy and coordinate different departments for SAR service. The Coast Guard, or its upper authority, usually chairs the national institution and acts as the major policymaker.

Next, as members of major IMO conventions, all the countries focus on the consistency with international conventions by transiting the provisions into domestic regulations and policies with more specific procedures and measures.

Besides, SAR volunteers and voluntary organizations are an integral part of the national SAR system. SAR service rely heavily on voluntary organizations to save lives at sea. The Coast Guard works closely with them. Moreover, the SAR voluntary organizations in these countries are highly developed and organized. They have strong capabilities of fundraising and strategic planning for its sustainability. The USCG Auxiliary, is directed by USCG, has policies and guidance on its development designed by USCG.

With respect to pure life salvage, judgements in both U.S. and British courts denied the rewards to pure life salvors, but two countries adopted different devices to remedy the unreasonable practice (Burstein, 2002). Furthermore, various policies have been developed in each country to utilize and support those participated in SAR service. USCG adopts the classification of distress cases with procedures to clarify the duties between the professional resource of government and the private sector. The practice enables USCG to effectively utilize all resources while protecting the interests of private sector (Tache, 1984). Britain has funded grants for SAR volunteer organizations to directly support their costs in volunteer training and purchasing rescue equipment. In Japan, the specialized Act protects people who assist the Coast Guard in SAR by providing necessary benefits and compensation.

Last but not least, all the countries recognize the contributions of SAR volunteers and voluntary organizations with honorary awards and spiritually motivate various resources to engage in the SAR missions.

4.5 Concluding remarks

In this chapter, by reviewing the SAR system and organization as well as the laws and regulations in U.S., Britain and Japan, some common practices and measures are identified, which will be considered as suggestions for China in the following chapter.

Chapter 5 Suggestions for policymaking

The previous chapters discussed the policy of reward for maritime SAR social force in China and its shortcomings as well as the situation in some developed countries. It is common practice for other countries to provide policies and measures to reward for lifesaving efforts. So, the single tool of reward fund in China is insufficient. Further, the well-organized volunteers are crucial in many countries' SAR system. The improvement of reward policy cannot do without considering the development of voluntary organizations. Scholars have given many suggestions for development of SAR volunteers in China (Liang, 2013; Qin, 2013; Yuan, 2012). The proposals concerning SAR volunteers are integrated for the policy of reward to SAR social force in an overall manner.

5.1 Legislation

Inadequate laws and regulations is one of the major problems for volunteers to participate in maritime SAR missions (Dang, 2013; Qin, 2013; Shi, 2016). It is recognized that the legislation on maritime safety lags behind with relevant provisions too general (Dang, 2013). Particularly the regulations on the SAR, mainly the National Plan is relatively low in the legal hierarchy. Therefore, the improvement of legislation on SAR is the priority and the basis for policymaking.

First, the Maritime Code of China reaffirms the duty of ship master to rescue, but unlike the U.S. or Britain, there is no criminal or administrative penalties on the violation, which may affect the law enforcement. Further, pure life rescuer cannot claim for compensation under the Maritime Code, so some instruments should be developed to protect their interests and remedy the deficiency.

The legal system of SAR service is also far from perfect. The Marine Traffic Safety Law shall codify the basic contents of the National Plan, such as the maritime SAR

organizations and system, principles of maritime SAR missions, the rights and obligations of different forces in SAR operations, and so on. Thus, the amendment of these two laws is an urgent task, more importantly is to develop a complete legal system on SAR in the long term.

Under the National Plan, CNMRCC is responsible for formulating regulations and policies of SAR. Concerning social force, CNMRCC should learn from other countries to develop regulations and strategy of voluntary organizations, with the reward policy as an important tool to provide financial support (Qin, 2013). Some principles should be considered in the establishment of the regulations in this aspect. For example, it is essential and reasonable to provide volunteers with basic medical benefits for personal injuries or death caused by SAR operations; social force should be compensated for the economic or property loss during SAR operations no matter they take voluntarily or at the request of RCC; it is necessary to regulate clearly the situations when RCC utilizes social resources in SAR service and the duties of different kinds of force in each situation.

5.2 Improving the current reward policy

The current policy of reward fund in China has played an important role in SAR service to utilize resources. Since it has been conducted for ten years, it should be evaluated overall for improvement.

As discussed before, the total amount of the fund has decreased due to inflation and higher costs of operation. It is important to keep and increase the annual budgetary fund in the context of increasing shipping and fishing activities along the coastline. Additionally, the documents regarding the fund shall be revised to be in line with the situation and practice. One aspect is to design more specific and feasible standards for the fund. The compensation for personal injuries and property loss for social force in SAR missions should be separated and established with criteria respectively.

5.3 Other measures for the reward policy

A combination of policy instruments should be considered by absorbing the experience from both other countries and the practice of local RCCs.

One approach put forward by many scholars would be to create a fund for rewarding pure life salvage (Jarret, 1954; Friedell, 1979; Burstein, 2002). The fund can provide reimbursement of the life salvor for any expenses or losses incurred in the course of operations directed primarily toward saving persons (Burstein, 2002). Scholars suggested that the fund would be collected from those whose property has been saved by the SAR authority (Friedell, 1979; Burstein, 2002) or jointly establishment of local governments, shipping companies, or fishermen (Qin, 2013).

Another solution preferred is to create an insurance system (White, 2002). Insurance has the same role as the public fund for compensation, but it is run in a market and economic manner with less administrative costs. Thus, insurance could be more efficient than public fund (White, 2002).

The next measure is to support volunteer organizations with grants on equipment and training. Like Britain, some grants from the government are set up to enhance the capabilities of volunteer organizations. The grants are open to all volunteer organizations which enable them to focus on capability building.

Additionally, Qin (2013) also proposed preferential policies for social force by taxation deduction or oil subsidies. These policies usually involve several government agencies and should be designed cautiously. The trial at municipal or regional levels are of particular importance.

Finally, the heroism of the behavior to rescue should be not only compensated in the form of money, but also recognized in honors. Honorary commendation or spiritual

rewards for volunteers are common practice in many countries. Thus, China can learn from these countries and IMO exceptional bravery award to establish its own national award for social force in SAR service.

Chapter 6 Conclusions

Maritime search and rescue is the matter related to life safety at sea. With the rapid development of China's economy in recent decades, the marine transportation, fishing and other activities at sea are more intense. The capability of SAR service is becoming increasingly important in meeting the needs of economic and social development. The high quality of SAR service can hardly do without the engagement of both public and private resources. In order to encourage the participation of social resources, the policies, including the reward and compensation for life rescuers and volunteer organizations in SAR service has been carried out by many countries.

By introducing the contemporary search and rescue system, the study explained the different types of force in SAR missions in China and the role of social force in the SAR service. By analysing the statistics and the challenges they face, the study points out the importance of social force in SAR service and the necessity of the reward for them.

With the aim to examine the current policy of reward for social force in maritime SAR service in China, Chapter 3 firstly reviewed the national legislation of SAR and the policy of reward fund for social force. By statistics and case analysis, the study discussed the existing problems, including the lack of specialized law on SAR and the relatively low level of the National Plan in the legal hierarchy; the general criteria for the reward fund, the inconsistency of its practical implementation with the conditions in documents. The study proves the importance of the fund but points out it is urgent to revise the current measures.

The study also made a research on the policies and practices of some developed countries as well as summarized their experience. By comparison, the study made suggestions on the policymaking for rewarding the social force in the SAR service.

In the current situation, speeding up the amendment of laws and the present Measures are the priorities. CNMRCC should also explore more policies of the reward with the aim to support development of voluntary organizations and to improve the overall SAR service.

Due to the various reasons, there remains some limitations in the study. For example, how to design the specific criteria of the reward and compensation for social force, and how to verify the feasibility of the compensation fund. Further study is needed for future policymaking. Social force is the integral part of the SAR service which involves many agencies and resources. The policy on them is a matter of the overall capability of search and rescue. The experience of other countries is helpful for China to improve its policy for social force as well as the quality of SAR service.

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