

船舶避碰与值班

Collision Avoidance and Watchkeeping

(英文版)

赵月林 等编著



大连海事大学出版社

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Abstract

This book covers areas of ship collision avoidance and watchkeeping. In addition to the Introduction, this book consists of nine chapters. In the Introduction, this book firstly discusses the relationship between collision avoidance and watchkeeping and the importance of watchkeeping, and then gives a brief introduction to the tasks in the course of *Collision Avoidance and Watchkeeping*. Chapter 1 introduces the history, content and nature of the Collision Regulations and discusses the interpretation of the Rules, application of the Rules and general definitions in the Rules. Chapter 2 introduces those lights, shapes, sound and light signals prescribed in the Rules. Chapters 3, 4 and 5 introduce the Rules of Part B of the Collision Regulations (Steering and Sailing Rules) one by one, and state how the Rules are to be interpreted and how collision avoidance actions are to be taken. Chapter 6 discusses the Good Seamanship and General Prudential Clause of Rule 2. Chapter 7 briefly introduces special rules for collision avoidance. Chapter 8 makes a full elaboration on the requirements of fitness for duty and watchkeeping at sea by both the *STCW Code* and *The Regulations for Watchkeeping of the People's Republic of China*. Chapter 9 briefly introduces the basic knowledge of automatic collision avoidance system.

This book is to be used as a textbook for the course of *Collision Avoidance and Watchkeeping* in Dalian Maritime University. This book may also be used by mariners as general reference, in order to obtain a better understanding of the Collision Regulations.

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Preface

In trying to teach *Collision Avoidance and Watchkeeping* in English at Dalian Maritime University, it has become necessary to have an English version textbook to present this course. This textbook has been compiled in accordance with the syllabus of the course made by Dalian Maritime University, and with reference to bibliographies on Collision Avoidance and Watchkeeping, both in China and abroad. This textbook meets the requirements of *STCW Convention*, as amended in 1995.

This textbook was jointly written by Capt. Zhao Yuelin, Professor of Dalian Maritime University, Mr. Zhang Duo, Associate Professor of Qingdao Ocean Shipping Mariners' College, Mr. Xie Hongbin, Associate Professor of Dalian Maritime University, Mr. Zhao Chunyang and Mr. Sun Daming, Lecturers of Dalian Maritime University. The introduction, Chapters 1, 2, 3 and 4 and Annex I were written by Capt. Zhao Yuelin; Chapters 5 and 6 were written by Mr. Zhang Duo; Chapter 7 was written by Mr. Zhao Chunyang; Chapter 8 was written by Mr. Sun Daming and Chapter 9 was written by Mr. Xie Hongbin. The whole textbook was modified and finalized by Capt. Zhao Yuelin, and has been examined and approved by Professor Wu Zhaolin. The whole text was edited by Capt. Peter Crowell for English expression.

In writing this textbook, reference was especially made to *Collision Avoidance and Watchkeeping* (Wu Zhaolin, Dalian Maritime University, 2008), *A Guide to the Collision Avoidance Rules* (A.N. Cockcroft and J. N. F. Lameijer, Elsevier Butterworth-Heinemann, 2003), *Marsden on Collisions at Sea* (Sweet & Maxwell, 1998), *Collision Case: Judgments and Diagrams* (F. J. Buzek & H. M. C. Holdert, Lloyd's of London Press Ltd., 1990), and *The Law of Collision at Sea* (Samir Mankabady, North-Holland, 1987). We would like to sincerely thank the authors of the above books.

Our sincere thanks also go to Capt. Peter Crowell who read the whole textbook and edited English expression for us as well as made many valuable suggestions.

Zhao Yuelin
November 2009

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Introduction

1 Collision Avoidance and Navigational Watch

Ship collision incidents are particularly severe marine accidents, which may cause loss of or damage to ships and cargoes, loss of human life and environmental pollution. For an instance, *Dona Paz*, a Philippine-registered passenger ferry, sank after colliding with the oil tanker *Vector* on December 20, 1987. With a death toll of 4,386 passengers and crew, this collision incident resulted in the deadliest ferry disaster in history and is widely cited as the worst ever peace-time maritime disaster. Several collisions occur every year in China's coastal waters. In 2007, for example, a collision incident between *Harvest* and *Jinhaikun* occurred in clear weather in the East China Sea on April 8, 2007, in which *Harvest* sank with all 20 crew members missing; a collision incident between *Golden Rose* and *Jinsheng* occurred in dense fog on May 12, 2007, in which *Golden Rose* sank off the coast near Yantai City, with all 16 crew members missing or dead. In 2008, in another instance, a collision incident between *Jinghong 69* and *Kangrui 68* occurred in clear weather in Yellow Sea on September 11, 2008, in which *Jinghong 69* sank. A collision incident between *Yuejiang* and *Jiangxiazhan* in the Yangtze River, which took place on May 28, 2008, caused six dead and 3 missing of the crew on *Yuejiang*. The collision incident between *MSC Ilona* and *Hyundai Advance* brought about the largest case of environment pollution caused by collision in China until the present date. On December 7, 2004, *MSC Ilona* was on her way from Chiwan to Shanghai, and *Hyundai Advance* was on a voyage from Yantian, China, to Singapore. At about 2135 hours the two vessels collided. The bulbous bow of *Hyundai Advance* struck the port side of *MSC Ilona* on a level with the forward edge of the superstructures. Both vessels remained afloat after the collision, but about 1,283 tons of heavy oil leaked into the open sea from the ruptured wing tanks of *MSC Ilona* and caused serious oil pollution.

Records show that, worldwide, there is a ship collision on the average of every 5 days and collisions are the most prominent of all marine accidents. For this reason, the importance of collision avoidance in navigational watchkeeping, is fully recognized by the shipping industry. Many requirements of the *Seafarer's Training, Certification and Watchkeeping Code (STCW Code)* involve collision avoidance. The *STCW Code* requires that the master of every ship ensure that watchkeeping arrangements are adequate for maintaining a safe navigational watch, that the officer in charge of a navigational watch should be the master's representative: he should be primarily responsible at all times for the safe navigation of the ship and for compliance with the International Regulations for Preventing Collisions at Sea, 1972 (the COLREGs). In China, the course of *Collision Avoidance and Watchkeeping* is the only required course of examination for all candidates qualifying deck officers of any classification and level. In view of this, collision avoidance is one of the most important purposes of a navigational watch, while keeping a sharp and effective navigational watch is the precondition for collision avoidance.

2 Collision Avoidance and Watchkeeping - the Aims of the Course

The *STCW Convention*, which deals with the basic principles to be observed in keeping a navigational watch, as well as operational guidance for officers in charge of a navigational watch, is one of the most important measures taken by IMO to raise the standards of safety at sea. The COLREGs, which mainly deal with the conduct of vessels for collision avoidance in various conditions, are the most valuable and practicable measure for the prevention of collisions at sea. A sound knowledge of the *STCW Convention*, especially the *STCW Code*, and the COLREGs has always been considered to be essential for navigating officers. Therefore, there is a great need for careful study of both the *STCW Code* and the COLREGs and consideration by mariners, candidates and those aspiring to become shipmasters or navigational officers. The main task of this course of *Collision Avoidance and Watchkeeping* is to impart professional knowledge of collision avoidance and navigational watchkeeping to the candidates and to present them with opportunities for analysis and problem solving while they are engaged in collision avoidance and navigational watch practice.

The *STCW Convention*, as amended in 1991, 1994, 1995, 1997, 1998, 2004 and 2006, requires that Parties undertake to promulgate all laws, decrees, orders and regulations and to take all other steps which may be necessary to give the Convention full and complete effect, so as to ensure that, from the point of view of safety of life and property at sea and the protection of the marine environment, seafarers on board ships are qualified and fit for their duties. Accordingly, the task of the course of *Collision Avoidance and Watchkeeping* should at least ensure that the candidates meet mandatory standards regarding provisions of the annex to the *STCW Convention*. These mandatory standards involving collision avoidance and watchkeeping are shown in Table A-II/1 and Table A-II/2.

Table A-II/1 Specifications of minimum standards of competence for officers in charge of a navigational watch on ships of 500 gross tonnage or more (Function: Navigation at the operational level)

Competence	Knowledge, Understanding and Proficiency	Criteria for Evaluating Competence
Maintain a safe navigational watch	<p><i>Watchkeeping</i></p> <p>Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collision at Sea.</p> <p>Thorough knowledge of the principles to be observed in keeping a navigational watch.</p> <p>Thorough knowledge of effective bridge teamwork procedure.</p> <p>The use of routeing in accordance with <i>The General Provisions on Ships' routeing</i>.</p>	<p>The conduct, handover and relief of the watch conform with accepted principles and procedures.</p> <p>A proper look-out is maintained at all time and in such a way as to conform to accepted principles and procedures.</p> <p>Lights, shapes and sound signals conform with the requirements contained in the International Regulations for Preventing Collisions at Sea and are correctly recognized.</p> <p>The frequency and extent of monitoring of traffic, the ship, and the environment conform with accepted principles and procedures.</p> <p>A proper record is maintained of the movement and activities relating to the navigation of the ship.</p> <p>Responsibility for the safety of navigation is clearly defined at all times, including periods when the master is on the bridge, and while under pilotage.</p>

Table A-II/2 Specification of minimum standards of competence for Masters and Chief Mates on ships of 500 gross tonnage or more (Function: Navigation at the management level)

Competence	Knowledge, Understanding and Proficiency	Criteria for Evaluating Competence
Establish watchkeeping arrangement and procedures	<p>Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collision at Sea</p> <p>Thorough knowledge of the content, application and intent of the Principles to be Observed in keeping a navigational watch</p> <p>Effective bridge teamwork procedure</p>	<p>Watchkeeping arrangements and procedures are established and maintained in compliance with international regulations and guidelines so as to ensure safety of navigation, protection of the marine environment and safety of the ship and persons on board</p>

3 The Content of the Course of *Collision Avoidance and Watchkeeping*

The content of the course of *Collision Avoidance and Watchkeeping* may be divided into two parts, ship collision avoidance and navigational watch. In the part for ship collision avoidance, the COLREGs of 1972, as well as their amendments in 1981, 1987, 1989, 1993, 2001 and 2007, are fully discussed and interpreted. Chapter 1 introduces the history, content and nature of the Collision Regulations and discusses methods of interpretation of the Rules, application of the Rules and general definitions in the Rules. Chapter 2 introduces those lights, shapes, sound and light signals prescribed in the Rules. Chapters 3, 4 and 5 interpret the Steering and Sailing Rules, one by one. In order to promote a better understanding of the Rules, the implications of the various phrases are discussed and collision cases, both domestic and abroad, are cited and analyzed. Chapter 6 discusses the negligence clause and the departure clause of Rule 2. Chapter 7 is a brief introduction to special rules for collision avoidance, such as *The Interim Rules for Safe Navigation of Non-power-driven Vessels at Sea of the People's Republic of China* and *The Regulations for Preventing Collision in Inland Waters of the People's Republic of China*. Chapter 9 briefly introduces basic knowledge of automatic collision avoidance systems for ships. Addressing navigational watches, Chapter 8 gives a full explanation of the requirements of fitness for duty, watchkeeping arrangements and principles to be observed, navigational watch, watchkeeping under different conditions and in different areas and watchkeeping in port of both the *STCW Code* and *Regulations for Watchkeeping of the People's Republic of China*, and briefly introduces the principles of communication between Bridge and Engine Room, the contents of *The Bridge Procedures Guide* and Bridge Resource Management.

Chapter I Introduction to the Collision Regulations

Section I History, Content and Nature of the Collision

Regulations

1 History of the Collision Regulations

Rules for purpose of preventing collisions at sea have been in existence for several hundred years, the germination of which can be traced to *Lex Rhodia*, of the pre-Christian era, but there were no rules of statutory force until the 19th century. The first official regulations, citing three recognized rules, based on existing practice for sailing vessels and promulgating two new rules for steamships, were published on October 30, 1840, by Trinity House in London. The main provisions of the regulations included: a sailing vessel running free before the wind must give way to a sailing vessel tacking against the wind; a sailing vessel on the port tack must give way to a sailing vessel on the starboard tack; When steam vessels on different courses must unavoidably or necessarily cross so near to each other that by continuing upon their respective courses there would be a risk of collision, each vessel shall put helm to port (old-style helm orders, resulting in the vessel's head going to starboard), so as always to pass on the larboard (port) side of each other; A steam vessel passing another in a narrow channel must always leave the vessel she is passing on the larboard hand. Although these regulations had no statutory authority, they were nevertheless enforced by the Admiralty Court and were frequently regarded as authoritative evidence of what the seaman ought to do in circumstances in which the regulations were applicable. These regulations were enacted by Parliament in 1846, i.e., the Steam Navigation Act 1846. In 1848, Admiralty regulations concerning lights, requiring steamships to carry green and red sidelights as well as a white masthead light, were included in this statute. In 1858, colored sidelights were prescribed for sailing vessels and fog signals were required to be given: by steam vessels on their whistle and by sailing vessels on their fog horn or bell.

In 1863, a completely new set of rules, drawn up by the British Board of Trade in consultation with the French Government, came into operation. By the end of 1864, these regulations, known as Articles, had been adopted by over thirty maritime countries, including the United States and Germany. Several important regulations still in force were introduced at that time. When steam vessels were crossing so as to involve risk of collision, the vessel with the other on her own starboard side was required to keep out of the way. Steam vessels meeting end-on or nearly end-on were required to alter course to starboard. Every vessel overtaking another had to keep out of the way of the vessel being

overtaken. Where, by any of the Rules, one vessel was to keep out of the way, the other was required to keep her course.

In order to incorporate the views of shipping countries throughout the world, under the initiative of the government of the United States of America the first international maritime conference to consider regulations for preventing collision at sea was held in Washington in 1889. The content of the regulations agreed at the Washington Conference was lengthier and more precise than before. However, for various reasons, the regulations did not come into force internationally. A few years later, the regulations were finally brought into force by several countries, including Britain and the United States. At a subsequent maritime conference held in Brussels in 1910, recognizing the need to bring the 1889 collision regulations into force internationally, international agreement was reached on a set of regulations (the 1910 Collision Regulations), which differed in only minor respects from those drafted at the Washington Conference in 1889; these new regulations came into force at once. The 1910 Collision Regulations were the first international collision regulations, and remained in force until they were superseded in 1954 by the Collision Regulations of 1948. The Regulations were revised at an International Conference on Safety of Life at Sea (SOLAS) in 1948. No drastic changes were made. The second masthead light was made compulsory for power-driven vessels of 150 feet or upwards in length, a fixed stern light was made compulsory for most vessels under way, and the wake-up signal of at least five short and rapid blasts was introduced as an optional signal for use by a stand-on vessel. The revised Rules came into force in 1954.

With the considerable increase in the numbers of ships fitted with radar during the following ten years, coupled with a series of collisions involving such vessels, it became apparent that further revision of the Rules was necessary. In 1960, a SOLAS Conference was convened in London by the Inter-Governmental Maritime Consultative Organization (IMCO), now the International Maritime Organization (IMO). At the 1960 Conference, it was agreed that a new paragraph should be added to the Rules governing the conduct of vessels in restricted visibility, so as to permit early and substantial action to be taken to avoid a close-quarters situation when a vessel is detected forward of the beam. Recommendations concerning the use of radar were made in an Annex to the Rules. The changes were not confined to the Rules relating to restricted visibility but most of the other amendments were relatively minor in character. These Rules came into force in 1965.

In 1961, IMCO received a proposal from the British, French and German Institutes of Navigation, for the establishment of a traffic separation scheme in the Dover Strait. In 1967 this scheme was accepted and recommended by the IMCO to its Member States. As the traffic separation scheme proved effective in reducing the number of collision incidents, IMCO decided to insert a new rule on traffic separation schemes into the Collision Regulations. IMCO, through its Sub-Committee on Safety of Navigation, considered proposals for other amendments to the 1960 Rules. After almost four years of deliberation, a new set of Rules was proposed. At an international conference convened in London by IMCO from October 4-20, 1972, parties agreed to bring into force the International Regulations for Preventing Collisions at Sea 1972 (COLREGs or simply, the Rules). In the 1972 Rules, the format, content and phrases were revised considerably. Those Rules governing conduct preceded the Rules

concerning lights, shapes and sound signals. Technical details relating to lights, shapes and sound signals were transferred to the Annexes. The Stand-on Rule was amended to permit action to be taken at an earlier stage, and more emphasis was placed on starboard helm action in both clear and restricted visibility. New Rules were introduced to deal specifically with look-out requirements, safe speed, risk of collision and traffic separation schemes. The 1972 Rules came into force on July 15, 1977. After its entry into force, the 1972 Rules were amended by six IMO resolutions, those of 1981, 1987, 1989, 1993, 2001 and 2007.

The 1981 Amendment brought slight changes to the Rules, mainly in the wording of terms and clauses concerning lights and shapes, further clarifying them. The 1981 Amendments came into force on June 1, 1983.

The 1987 Amendment brought 9 further corrections, including the adding of a “not to impede” clause (Rule 8 (f)), a revision of the Rule of the “Traffic Separation Schemes” and a revision of Annex I. The 1987 Amendments finally came into force on November 19, 1989.

The only revisions of the 1989 Amendment were provisions on the use of inshore traffic zones. The 1989 Amendment came into force on April 19, 1991.

The 1993 Amendments included 8 revisions, mainly on lights and shapes for fishing vessels, as well as light-positioning requirements for high-speed craft. The 1993 Amendments came into force on November 4, 1995.

The 2001 Amendment brought 9 revisions. The most important was adding the provisions on the Wing-In-Ground craft, including responsibility and light requirements for Wing-In-Ground craft. The 2001 Amendment came into force on November 29, 2003.

The 2007 Amendment only revised provisions for distress signals given in ANNEX IV. The 2007 Amendment came into force on December 1, 2009.

2 Main Content of the Rules

The 1972 rules are presented in a logical order. They consist of 38 rules and are divided into five Parts, A to E, followed by four annexes. They are shown in Table 1-1-1.

3 Nature of the Rules

From the history of the Rules, it can be seen that, in their early stages, they had only been the technical specifications regulating the collision preventing actions. However, because of their importance, the Rules became internationalized and widely accepted by maritime nations as their domestic law, and finalized as an independent international convention. In foreign countries, the Rules are always studied legally and technically by scholars with expertise both on legal profession and navigational profession. In domestic navigational profession, the common view agreed through the ages is that the Rules are the guidance for collision preventing before the occurrence of a collision and are the criterion for liability apportionment after the collision. Therefore, it can be concluded that the

Rules are of a nature both in technical specifications and in legal norm.

Table 1-1-1 Main Content of the 1972 Rules

<p>PART A General</p>	<p>Rule 1 Application Rule 2 Responsibility Rule 3 General definitions</p>	
<p>PART B Steering and Sailing Rules</p>	<p>Section I Conduct of vessels in any condition of visibility</p>	<p>Rule 4 Application Rule 5 Look-out Rule 6 Safe speed Rule 7 Risk of collision Rule 8 Action to avoid collision Rule 9 Narrow channels Rule 10 Traffic separation schemes</p>
	<p>Section II Conduct of vessels in sight of one another</p>	<p>Rule 11 Application Rule 12 Sailing vessels Rule 13 Overtaking Rule 14 Head-on situation Rule 15 Crossing situation Rule 16 Action by give-way vessel Rule 17 Action by stand-on vessel Rule 18 Responsibilities between vessels</p>
	<p>Section III Conduct of vessels in restricted visibility</p>	<p>Rule 19 Conduct of vessels in restricted visibility</p>
<p>PART C Lights and Shapes</p>	<p>Rule 20 Application Rule 21 Definitions Rule 22 Visibility of lights Rule 23 Power-driven vessels underway Rule 24 Towing and pushing Rule 25 Sailing vessels underway and vessels under oars Rule 26 Fishing vessels Rule 27 Vessels not under command or restricted in their ability to maneuver Rule 28 Vessels constrained by their draught Rule 29 Pilot vessels Rule 30 Anchored vessels and vessels aground Rule 31 Seaplanes</p>	

continued

<p>PART D Sound and Light Signals</p>	<p>Rule 32 Definitions Rule 33 Equipment for sound signals Rule 34 Maneuvering and warning signals Rule 35 Sound signals in restricted visibility Rule 36 Signals to attract attention Rule 37 Distress signals</p>
<p>PART E Exemptions</p>	<p>Rule 38 Exemptions</p>
<p>ANNEX I Positioning and Technical Details of Lights and Shapes</p>	<ol style="list-style-type: none"> 1. Definitions 2. Vertical positioning and spacing of lights 3. Horizontal positioning and spacing of lights 4. Details of location of direction-indicating lights for fishing vessels, dredgers and vessels engaged in underwater operations 5. Screens for sidelights 6. Shapes 7. Colour specification of lights 8. Intensity of lights 9. Horizontal sectors 10. Vertical sectors 11. Intensity of non-electric lights 12. Maneuvering light 13. High speed craft 14. Approval
<p>ANNEX II Additional Signals for Fishing Vessels Fishing in Close Proximity</p>	<ol style="list-style-type: none"> 1. General 2. Signals for trawlers 3. Signals for purse seiners
<p>ANNEX III Technical Details of Sound Signal Appliances</p>	<ol style="list-style-type: none"> 1. Whistles 2. Bell or gong 3. Approval
<p>ANNEX IV Distress Signals</p>	

4 Enactment of the Rules in China

When China accepted the 1948 Collision Regulations in 1957, reservations were made in the provisions for non-power-driven vessels. *The Interim Rules of the People's Republic of China on Safe Navigation for Non-Power-Driven Vessels* were promulgated on August 16, 1958 to regulate collision prevention for Chinese non-power-driven vessels. The same reservations were maintained when China

ratified the 1960 and 1972 Rules. China ratified the 1972 Rules on April 10, 1980. China also accepted all the above six amendments to the Rules (IMO resolutions of 1981, 1987, 1989, 1993, 2001 and 2007) in time.

Section II Interpretation of the Rules

1 Interpretation of the Rules

There are two important considerations which affect the interpretation of the Rules. The first is their international character. The Rules were determined by international agreement in the form of *the Convention on the International Regulations for Preventing Collision at Sea 1972*. They are applied by people of many different countries and languages. The second is the objectives of the Rules. The Rules are safety instruments designed for the practical use of mariners and serve as an important guide with specific instructions. Their primary objective is to avoid collision or even the development risk of it. In other words, their primary objective is the prevention of collisions at sea rather than the apportionment of liability after a collision accident.

The international character of the Rules and the safety of navigation require that the Rules should be understood in the very same sense by all mariners of all nations. It is, therefore, of the utmost importance that the interpretation of the Rules should be uniform and precise. Uniformity will ensure compliance with the Rules, and will lead to consistency in the actions taken in the course of various encounters. Thus, the core principle of the Rules is the need for uniform interpretation.

The above two considerations illustrate the principles for the interpretation of the Rules.

2 Principles for the Interpretation of the Rules

Interpretation of the Rules is obviously of great importance, with regard being made to its international character as well as the need to promote uniformity. Four fundamental principles of interpretation are hereby laid down, as follows:

2.1 Combination of semantic interpretation and teleological interpretation

The clauses and terms of the Rules are expressed in words. Therefore, the Rules firstly shall be read and understood literally. In *The Libra* (1881), Jeessel M. R. stated: "It must be remembered what these Rules are. They are issued for the guidance of masters of vessels; and, therefore, the proper mode of construing them is to read them literally.... Certainly rules issued as these are should be construed literally if they can be construed at all."

However, constitution of the Rules has its own objectives and intentions, therefore, the Rules shall not be construed literally only, but also should be construed from their objectives and intentions. In *The Dunelm* (1884), Brett M. R. said: "It should be construed, if possible, not according to the strictest and nicest interpretation of language, but according to a reasonable and business interpretation of it with regard to the trade or business with which it is dealing." And in *The Beryl* (1884), the same learned

judge said: "I take it that the basis of the regulations for preventing collisions at sea is, that they are instructions to those in charge of ships as to their conduct; and the legislature has not thought it enough to say, 'We will give you rules which shall prevent a collision'; they have gone further and said that for the safety of navigation we will give you rules which shall prevent risk of collision."

Therefore, the Rules must be construed with combination of semantic interpretation and teleological interpretation.

2.2 Combination of authentic interpretation and judicial interpretation

As some of the Rules are loose-textured, giving rise to a degree of doubt as to their meaning, the competent authority or the courts are left with the choice of a broad or narrow interpretation.

Under some circumstances, the competent authority may give an authentic interpretation. For an instance, the Maritime Safety Committee of IMO adopted at its forty-sixth session "*Guidance for the Uniform Application of Certain Rules*" of the Collision Regulations (MSC/Circ. 322, of April 5, 1982) and made some description on terms of "vessel constrained by her draught", "underway" and "not to impede" etc.

Under most circumstances, the meaning of word or clauses would be construed through judicial interpretation. Judges, when applying the Rules and in particular the concept of good seamanship to individual cases, enjoy discretion to evolve and restrict various duties. Although the judges do not have the right to legislate, their judgments are "creative law" with the inevitable result that the Rules become an instrument in their hands to define a situation, an encounter, and the action to be taken. During the trial, the courts may put a clear judicial interpretation on words or clauses of the Rules. Though the cases may no longer constitute binding authorities as to the meaning of such words or clauses, because China is not a case law country, there is nevertheless a deep effect on the interpretation of those words or clauses with the same meaning.

2.3 Combination of interpretation for general circumstances and special circumstances

Due to a wide range of different factors, such as ships' type, size, speed, working condition, sea area, traffic density and encounter situation etc, the collision preventing method or action for collision avoidance may vary largely. The provisions of the rules generally only apply to the general circumstances but not to the special circumstances. In the context of the Rules, there are some if-clauses for collision-preventing obligations or actions, such as "if the circumstance of the case admit", "if there is sufficient sea-room", "as is safe and practicable" and "if there is any doubt" etc. Therefore, some specific provisions of the Rules may not apply to the special circumstances. Accordingly, Rule 2 (b) states: "*In construing and complying with these Rules due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these rules necessary to avoid immediate danger.*"

It is clear from Rule 2(b) that in construing the Rules, attention must be paid to dangers of navigation, collision, and any special circumstances. This Rule also warns against a rigid interpretation since it asks mariners to take all seamanlike precautions.

Therefore, the Rules must be interpreted for specific circumstances, i.e., the general circumstances and special circumstances.

2.4 Combination of qualitative interpretation and quantificational interpretation

Most of clauses and terms in the Rules are nonfigurative, general and qualitative. However, the situation determination and action to be taken by mariners in compliance with the Rules would be concrete, definite and quantificational. Therefore, no matter when the mariners apply the Rules to practical collision avoidance at sea, or when the judges apply the Rules to determine the fault, the only qualitative interpretation of the Rules is not practicable and acceptable. For examples, the Rules require the vessel to proceed at a safe speed, to take substantial action to avoid collision in ample time, to pass another vessel at a safe distance. However, how many knots is a safe speed? What alteration of course and/or speed constitutes substantial action? What is a safe distance? These issues need to be construed with quantificational interpretation, both in collision preventing practice and maritime trial practice. Therefore, the rule of combination of qualitative interpretation and quantificational interpretation is also a basic principle for the interpretation of the Rules.

Section III Application of the Rules

1 Applicable Waters and Vessels

Rule 1 (a) states: *“These Rules shall apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.”*

1.1 Applicable waters

The Rules apply to vessels upon “the high seas”, as defined as “all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State” in Article 86 of *The United Nations (UN) Convention on the Law of the Sea, 1982*.

The Rules also apply, however, “in waters connected” with the high seas, as long as these are navigable by seagoing vessels. “Connection” includes direct connection and indirect connection, and the mere presence of revetments to hold water back at low tide does not appear to break the necessary “connection” with the high seas. “Navigable by seagoing vessels” refers to waters used or capable of being used by seagoing vessels. The different use of “upon” and “in” in the two phrases, it is submitted, has no practical significance; the Rules apply to vessels floating on (or suspended by an air cushion, or, one assumes, other non-hydrostatic forces above) the surface of the water, as well as to those anchored or aground, and take into account the possible presence of fixed and floating objects, including wrecks, but they do not apply to submerged vessels, such as submarines.

In short, the Rules apply to all vessels, on the high seas as well as to vessels on all waters – whether they are territorial or internal, e.g. river, strait, canal, lake, bay etc. connected with the high seas – provided that these waters are navigable by seagoing vessels.