

NAVIGATION RULES

International – Inland

RULES FOR THE REST OF US

By John McLendon

NAVIGATION RULES - INTERNATIONAL INLAND

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Edition 6

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Preface

All too often, mariners are given an introduction to the statutory requirements regarding the movement and operation of vessels (the navigation rules or COLREGs) through an introductory course offered by the United States Power Squadrons or the United States Coast Guard Auxiliary. This is very often last time that many boaters will ever review even the most basic requirements of the rules. Yet, full compliance with the rules has the potential to significantly reduce the rates of death and injury to boaters.

It is with this in mind that I have written what I hope is an up-to-date, accessible and practical manual for the mariner who wishes to have an understanding of the essentials of the navigation rules beyond that presented in most instructional material available to the general public. By presenting relevant Admiralty Court decisions, I hope to dispel many of the misunderstandings and myths regarding the navigation rules that I have encountered in my work in the classroom and the courtroom. It is my sincere hope that this approach will lead to a greater understanding of the rules and their interaction, with a concomitant decrease in injuries and deaths in the boating community

"They are not mere prudential regulations, but binding enactments, obligatory from the time that the necessity for precaution begins, and continuing so long as the means and opportunity to avoid the danger remain. Obviously, they must be rigorously enforced, in order to attain the object for which they were framed, which could not be secured if the masters of vessels were permitted to indulge their discretion in respect of obeying or departing from them." Mr. Chief Justice Fuller of the United States Supreme Court in *Belden v. Chase* 150 U.S. 674 (1893).

Table of Contents

PREFACE	I		
INTRODUCTION	5		
PART A – GENERAL.....	7		
<i>Rule 1 – Application</i>	7		
<i>Rule 1 – Application (Inland)</i>	7		
<i>Rule 2 – Responsibility</i>	15		
<i>Rule 3 – General Definitions</i>	19		
<i>Rule 3 – General Definitions (Inland)</i>	20		
PART B – STEERING AND SAILING RULES.....	25		
SECTION I – CONDUCT OF VESSELS IN ANY CONDITION OF VISIBILITY.....	25		
<i>Rule 4 – Application</i>	25		
<i>Rule 5 – Look-out</i>	27		
<i>Rule 6 – Safe Speed</i>	31		
<i>Rule 7 – Risk of Collision</i>	35		
<i>Rule 8 – Action to Avoid Collision</i>	37		
<i>Rule 8 – Action to Avoid Collision (Inland)</i>	37		
<i>Rule 9 – Narrow Channels</i>	40		
<i>Rule 9 – Narrow Channels (Inland)</i>	40		
<i>Rule 10 – Traffic Separation Schemes</i>	45		
<i>Rule 10 – Traffic Separation Schemes (Inland)</i>	46		
<i>Vessel Traffic Service Areas</i>	47		
<i>Limited Access Areas</i>	48		
<i>Bridge-to-Bridge Radio Telephone Act</i>	48		
SECTION II – CONDUCT OF VESSELS IN SIGHT OF ONE ANOTHER	49		
<i>Rule 11 – Application</i>	49		
<i>Rule 12 – Sailing Vessels</i>	51		
<i>Rule 13 – Overtaking</i>	53		
<i>Rule 14 – Head-on Situation</i>	57		
<i>Rule 14 – Head-on Situation (Inland)</i>	57		
<i>Rule 15 – Crossing Situations</i>	59		
<i>Rule 15 – Crossing Situations (Inland)</i>	59		
<i>Rule 16 – Action by Give-way Vessel</i>	61		
<i>Rule 17 – Action by Stand-on Vessel</i>	63		
<i>Rule 18 – Responsibilities Between Vessels</i>	65		
<i>Rule 18 – Responsibilities Between Vessels (Inland)</i>	65		
SECTION III – CONDUCT OF VESSELS IN RESTRICTED VISIBILITY.....	69		
<i>Rule 19 – Conduct of Vessels in Restricted Visibility</i> ...	69		
PART C – LIGHTS AND SHAPES.....	71		
<i>Rule 20 – Application</i>	71		
<i>Rule 21 – Definitions</i>	75		
<i>Rule 21 – Definitions (Inland)</i>	75		
<i>Rule 22 – Visibility of Lights</i>	77		
<i>Rule 22 – Visibility of Lights (Inland)</i>	77		
<i>Rule 23 – Power-driven Vessels Underway</i>	79		
<i>Rule 23 – Power-driven Vessels Underway (Inland)</i> ...	79		
<i>Rule 24 – Towing and Pushing</i>	81		
<i>Rule 24 – Towing and Pushing (Inland)</i>	82		
			<i>Rule 25 – Sailing Vessels Underway and Vessels Under Oars</i>.....85
			<i>Rule 25 – Sailing Vessels Underway and Vessels Under Oars (Inland)</i>.....85
			<i>Rule 26 – Fishing Vessels</i>.....87
			<i>Rule 27 – Vessels Not Under Command or Restricted in Their Ability to Maneuver</i>.....89
			<i>Rule 28 – Vessels Constrained by Their Draft</i>.....91
			<i>Rule 28 – (Inland)</i>.....91
			<i>Rule 29 – Pilot Vessels</i>.....93
			<i>Rule 30 – Anchored Vessels and Vessels Aground</i>.....95
			<i>Rule 30 – Anchored Vessels and Vessels Aground (Inland)</i>.....95
			<i>Rule 31 – Seaplanes</i>.....97
			<i>Rule 31 – Seaplanes (Inland)</i>.....97
		PART D – SOUND AND LIGHT SIGNALS.....	99
		<i>Rule 32 – Definitions</i>	99
		<i>Rule 33 – Equipment for Sound Signals</i>	101
		<i>Rule 33 – Equipment for Sound Signals (Inland)</i>	101
		<i>Rule 34 – Maneuvering and Warning Signals</i>	103
		<i>Rule 34 – Maneuvering and Warning Signals (Inland)</i>	104
		<i>Rule 35 – Sound Signals in Restricted Visibility</i>	111
		<i>Rule 35 – Sound Signals in Restricted Visibility (Inland)</i>	112
		<i>Rule 36 – Signals to Attract Attention</i>	117
		<i>Rule 36 – Signals to Attract Attention (Inland)</i>	117
		<i>Rule 37 – Distress Signals</i>	119
		PART E – EXEMPTIONS.....	121
		<i>Rule 38 – Exemptions</i>	121
		<i>Rule 38 – Exemptions (Inland)</i>	121
		APPENDIX.....	123
		ANNEX I.....	123
		ANNEX II.....	126
		ANNEX III.....	126
		ANNEX IV.....	128
		<i>Bridge-to-Bridge Radiotelephone Regulations</i>	129
		<i>Interpretative Rules</i>	132
		ANNEX I (Inland Rules).....	133
		ANNEX II (Inland Rules).....	136
		ANNEX III (Inland Rules).....	136
		Subpart A—Whistles	137
		Subpart B—Bell or Gong.....	138
		Subpart C—Approval.....	138
		ANNEX IV (Inland Rules).....	138
		ANNEX V (Inland Rules).....	139
		<i>Interpretative Rules (Inland)</i>	141
		<i>Vessel Traffic Management</i>	142
		Subpart A--Vessel Traffic Services.....	142
		<i>Equipment Requirements</i>	159
		Subpart A--General.....	159
		Subpart B--Personal Flotation Devices.....	160
		Subpart C--Visual Distress Signals.....	161

Casualty and Accident Reporting 163
Subpart C--Casualty and Accident Reporting 163
Violations of International Navigations Rules and Regulations (33 USC 1608) 164

Violations of Inland Navigation Rules and Regulations 164
Operations of Vessels Generally 165

Introduction

This manual is organized into thirty-eight sections and an appendix. Each section contains the complete text of the International Rule and, if different from the International Rule, the Inland Rule. The appendix contains the four international annexes, five inland annexes and additional material updated through March of 2004. This material also includes several relevant regulations from the United States Code and Code of Federal Regulations regarding navigation and operation of vessels. This manual satisfies the requirements of 33 CFR 88.05 that an up-to-date copy of the Inland Rules be carried aboard vessels twelve or more meters in length. The material in this manual has been revised through the end of 2003 and COMDTINST M16672.2D issued Mar 25th, 1999 and includes the changes to the International Rules effective 29 November 2003.

In each section after the rule text, the applicability of the rule and a brief discussion of the rule's interpretation are given. Excerpts from relevant court decisions explaining the interpretation by the Admiralty Courts are provided. These court decisions have been carefully selected to answer reoccurring questions about the rules or the conduct of the careful and prudent mariner. The decision text provides original references so that the reader can do further research on his or her own if desired. It is the intent of this manual to let the Admiralty Court decisions speak directly to the application and nuances of each rule.

This manual is not intended to replace such worthy texts as Chapman Piloting, Farwell's Rules of the Nautical Road, The Law of Marine Collision, or The Maritime Law Deskbook. All of these texts have a particular place in the greater scheme of things, but they are written for the professional mariner, marine insurance adjuster, or practitioner of Admiralty Law. This manual is written in plain and simple language and is specifically aimed at the recreational boater. I hope you will enjoy studying this material as much as I did researching and preparing it.

Fair Winds,
John...

Citation Key

USC	United States Code
CFR	Code of Federal Regulations
US	United States Supreme Court
AMC	American Maritime Cases
F.	Federal Reporter
Fed.	Federal Reporter
F. Supp.	Supplement to Federal Reporter
F.2d	Second Edition of Federal Reporter
CCA	Federal Circuit Court of Appeals

Part A – General

Rule 1 – Application

- (a) These Rules shall apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.**
- (b) Nothing in these Rules shall interfere in the operation of special rules made by an appropriate authority for roadsteads, harbors, rivers, lakes or inland waterways connected with the high seas and navigable by seagoing vessels. Such special rules shall conform as closely as possible to these Rules.**
- (c) Nothing in these Rules shall interfere with the operation of any special rules made by the Government of any State with respect to additional station or signal lights, shapes or whistle signals for ships of war and vessels proceeding under convoy, or with respect to additional station or signal lights for fishing vessels engaged in fishing as a fleet. These additional station or signal lights or whistle signals shall, so far as possible, be such that they cannot be mistaken for any light, shape, or signal authorized elsewhere under these Rules¹.**
- (d) Traffic separation schemes may be adopted by the Organization for the purpose of these Rules.**
- (e) Whenever the Government concerned shall have determined that a vessel of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound signalling appliances, such vessel shall comply with such other provisions in regard to number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signalling appliances, as her Government shall have determined to be the closest possible compliance with these Rules in respect to that vessel.**

Rule 1 – Application (Inland)

- (a) These Rules apply to all vessels upon the inland waters of the United States, and to vessels of the United States on the Canadian waters of the Great Lakes to the extent that there is no conflict with Canadian law.**
- (b)(i) These Rules constitute special rules made by an appropriate authority within the meaning of Rule 1(b) of the International Regulations.**
 - (ii) All vessels complying with the construction and equipment requirements of the International Regulations are considered to be in compliance with these Rules.**

¹ Submarines may display, as a distinctive means of identification, an intermittent flashing amber (yellow) beacon with a sequence of one flash per second for three (3) seconds followed by a three (3) second off-period. Other special rules made by the Secretary of the Navy with respect to additional station and signal lights are found in Part 706 of Title 32, Code of Federal Regulations (32 CFR 706).

- (c) **Nothing in these Rules shall interfere with the operation of any special rules made by the Secretary of the Navy with respect to additional station or signal lights and shapes or whistle signals for ships of war and vessels proceeding under convoy, or by the Secretary with respect to additional station or signal lights and shapes for fishing vessels engaged in fishing as a fleet. These additional station or signal lights and shapes or whistle signals shall, so far as possible, be such that they cannot be mistaken for any light, shape, or signal authorized elsewhere under these Rules. Notice of such special rules shall be published in the Federal Register and, after the effective date specified in such notice they shall have effect as if they were a part of these Rules.**
- (d) **Traffic separation schemes may be established for the purposes of these Rules. Vessel traffic service regulations may be in effect in certain areas.**
- (e) **Whenever the Secretary determines that a vessel or class of vessels of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to the number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signaling appliances, the vessel shall comply with such other provisions in regard to the number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signaling appliances, as the Secretary shall have determined to be the closest possible compliance with these Rules. The Secretary may issue a certificate of alternative compliance for a vessel or class of vessels specifying the closest possible compliance with these Rules. The Secretary of the Navy shall make these determinations and issue certificates of alternative compliance for vessels of the Navy.**
- (f) **The Secretary may accept a certificate of alternative compliance issued by a contracting party to the International Regulations if he determines that the alternative compliance standards of the contracting party are substantially the same as those of the United States.**

Application

The first rule states that these laws apply to all vessels on navigable waters. International Rules apply seaward of the demarcation lines and Inland Rules apply inland of the demarcation lines. The demarcation lines between international and inland waters are found in 33 CFR 80.01 et. seq. and on NOS charts. On NOS charts, the demarcation lines are marked with a dashed magenta line usually located near or at the mouths of inlets and rivers.

States and local governments are generally free to enact legislation regarding vessels and their movements where not prohibited by federal law or regulation. Under a doctrine known as conflict preemption, states are prohibited from enacting legislation for waters under federal jurisdiction which conflict with federal rules. Under a doctrine known as field preemption, states are prohibited from enacting legislation where federal regulation so wholly occupies a subject matter that any legislation by the state is problematic. States may also be specifically prohibited from regulation of a subject matter based upon explicit federal law. In addition, states may be specifically enabled by federal law to enact regulation regarding a particular matter.

Some examples of areas where states are prohibited from legislation is in regards to the manning of commercial vessels (field preemption), standards for construction of vessels (field preemption) and navigation rules in navigable waters (conflict preemption). States may also be specifically enabled by federal legislation or rule with regards to specific areas of legislation, e.g. boating while intoxicated limits or requirements for wearing of P.F.D.s by minors.

In the United States, readers are referred to the local U.S.C.G. Captain Of The Port, the local U.S.C.G. District, and the local and state boating law enforcement agencies for help in determining rules and regulations for any area which a mariner may choose to transit.

Jurisdiction

As a general rule, Admiralty Court jurisdiction of the United States extends to all vessels in all salt and fresh waters whether natural or artificial which are navigable in interstate commerce within the Exclusive Economic Zone (EEZ) of the United States and to all United States flagged vessels anywhere in the world.

The basis for the Admiralty or maritime jurisdiction of the Federal Courts can be found in the United States Constitution. The basis for the application of the International Rules to vessels in international waters is a treaty ratified in 1978. *33 USC 1601 et. seq.* The basis for the application of the Inland Rules to vessels in navigable inland waters is found in Title 33 of the United States Code. *33 USC 2001, et. seq.* Admiralty Court jurisdiction was extended to pleasure vessels operating in navigable waters by the United States Supreme Court in 1982. *Foremost Ins. Co. v. Richardson 457 U.S. 668.*

Concomitant with Admiralty Court jurisdiction is the application of the International or Inland Rules and procedures. However, local and state jurisdictions may also adopt the Inland Rules or other rules and sometimes both. These cases may be heard in local courts under state or local law rules and with state or local law as precedent. However, all cases occurring in waters subject to Admiralty jurisdiction are to be heard under Admiralty rules with the application of substantive Admiralty law, regardless of the forum in which the case may be heard.

Navigable Waters

Navigable waters are defined as the high seas and all waters connected to the high seas. The Code of Federal Regulations defines navigable waters as “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the water-body, and is not extinguished by later actions or events which impede or destroy navigable capacity.” *33 CFR 329.4.*

Certain waters are exempted or have been removed from Admiralty jurisdiction by law. *33 USC 29, et. seq.* But clearly, small bodies of water contained entirely within the borders of a state and which are not capable of being used in interstate or foreign commerce are not under Admiralty jurisdiction. In addition, Admiralty Courts have found other waters non-navigable on a case-by-case basis.

Recent decisions have applied a “contemporary navigability” test. The U.S. Supreme Court has held that a landlocked body of water not currently used in interstate commerce is not subject to admiralty jurisdiction. *497 US 1020.* Further decisions by other courts have held that the presence of dams, rapids, waterfalls, etc, separating a body of water contained entirely within a state from the ocean have the effect of extinguishing it’s navigability, irrespective of it’s prior condition. See *LeBlanc v. Cleveland 198 F.3d 353* and *Alford v. Appalachian Power Co. 951 F.2d 30.*

Finally, it has been held Coast Guard jurisdiction is not determinative of navigability. *57 F.3d 771.*

Choice of Forum

Civil litigation regarding collisions among vessels and between vessels and shore-side structures occurring in navigable waters of the United States are litigated in Admiralty Courts or in state courts under Admiralty Court rules. Admiralty Court rules, including rules and laws regarding limitation of liability and burden of proof may be substantially different from those of state or local courts.

Criminal violations of the navigation rules subject the vessel to civil penalties and the operator to both civil and criminal penalties. Such cases are heard in federal courts or in state courts depending on the alleged violation. Specifically, violations of state or local laws are heard in state local courts according to the practice in the jurisdiction the violation is alleged to have occurred. Criminal violations of federal law are heard in the federal court where the violation is alleged to have occurred.

Administration

The United States Coast Guard is the primary agency responsible for enforcing the navigation rules as well as safety regulations regarding vessels. It has jurisdiction over all United States flagged vessels, vessels entering or leaving United States ports and waters and all vessels owned by United States citizens. Because U.S. flagged and owned vessels travel throughout the world, the U.S. Coast Guard may be found anywhere in the world. U.S.C.G. boarding officers have the authority to board any United States flagged vessel or any vessel owned by a U.S. citizen at any time and at any place in the world.

Criminal and safety violations by licensed personnel may result in fines and forfeiture or suspension of the violators U.S.C.G issued license. Such cases are investigated by U.S.C.G personnel concomitant to their charge to ensure the safety of life and property at sea and are heard by administrative law judges under the Administrative Procedures Act. The enabling authority for the U.S.C.G. is contained in 46 USC 4 and 5. Investigations are often initiated by the U.S.C.G. On Scene Coordinator (OSC) based upon evidence gathered during rescue operations. In case of an apparent serious marine incident, vessel masters and crew are well advised to limit their discussion with U.S.C.G. personnel to matters involving the immediate safety of the passengers, crew and the vessel and cleanup efforts and to seek the advice of an attorney prior to answering questions or volunteering information beyond the above scope. Mariners are advised not to volunteer information except that which will assist with rescue or cleanup efforts. Voluntary admissions are always admissible as evidence.

“Appellant's argument that suspension and revocation proceedings are penal in nature and that the Coast Guard should be required to prove its case by a preponderance of the evidence is not convincing.

The regulations governing suspensions and revocation proceedings clearly characterize them as remedial. They are intended to maintain standards of competence and conduct essential to the safety of life and property at sea. *46 CFR 5.01-20*. The only action authorized as a result of these proceedings is suspension or revocation of Coast Guard issued licenses and documents. *See 46 USC 239(g)*. None of the usual penal sanctions such as fines or imprisonment are impossible. (*sic*)

The applicable standard of proof is also set forth in the governing regulation. ‘Findings must be supported by substantial evidence of a reliable and probative character.’ *46 CFR 5.20-95*. The Administrative Law Judge did not err in applying this standard. See also Commandant Appeal Decision 2183 (FAIRALL), and 2097 (TODD).” *Commandant’s Decisions On Appeal 2316*.

Note: The statement “None of the usual penal sanctions such as fine or imprisonment are impossible” should be read as “None of the usual penal sanctions such as fines or imprisonment are possible.”

The U.S.C.G can and does issue fines under the Administrative Procedures Act for acts by licensed mariners while operating under authority of their license. Licensed mariners wishing to contest such fines are advised to closely follow the appeal procedures in the notice, paying particular attention to the requirements limiting the time period for appeal and required form. 33 USC 1232 sets forth the factors to be considered when a civil penalty is to be assessed against a licensed mariner. These factors do not apply to violations of the anchorage requirements found in 33 USC 471.

United States Sovereign Immunity

The United States has broadly waived the doctrine of sovereign immunity in regards to the vessels owned, operated, or chartered by the United States. Sovereign immunity is the doctrine that states that the government is not liable for damages caused by its official acts. However, vessels of the United States may be sued in Admiralty Courts subject to some special limitations specified in the Suits in Admiralty Act *45 USC app. §§741-752* and the Public Vessels Act *46 USC app. §§781-790*. There are many cases where Coast Guard or Navy vessels have been found to have violated the rules and the United States has paid damages to private parties for those damages.

In a somewhat surprising departure from the traditional allocation of responsibility for the safety of a vessel to the master, the First Circuit Court of Appeals has found that the Coast Guard is not liable for loss of a vessel after the forced removal of the master and crew under the discretionary exception to the application of government regulations.

“The decision of whether to save the **VOYAGER** from capsizing, at the expense of putting both the Coast Guardsmen and **VOYAGER** crew in physical danger, certainly represents ‘the exercise of policy-based discretion.’ *Ayer, 902 F.2d at 1044*. Indeed, deposition testimony in this case recounted conversations between Coast Guard officers on the scene, as they weighed the importance of saving human lives against the secondary goal of saving the boat. Policy judgments that concern the safety of individuals must be protected from the ‘armchair admiralty’ of judicial second-guessing. . . . It is therefore beyond dispute that the implementation of Coast Guard search and rescue procedures is ‘plainly discretionary activity of the nature and quality protected by § 2680(a),’ *Varig Airlines, 467 U.S. at 797*.” *Rya Zobel, 214 F. Supp. 2d 47, 2002*

Test for Navigable Waters

Navigable waters “form in the ordinary condition by themselves, or by united with other waters, a continued highway over which commerce is or may be carried on with other States or foreign countries, in the customary modes in which such commerce is conducted by water.” *The Daniel Ball 77 U.S. 557, 563 (1871)*.

“Navigability requires that the body of water be capable of supporting commercial maritime activity. It is irrelevant that the body of water is capable of supporting non-commercial maritime activity. ‘A waterway is navigable provided that it is used or susceptible of being used as an artery of commerce. Neither non-commercial fishing nor pleasure boating ... constitutes commerce. Commerce for the purpose of admiralty jurisdiction means activities related to shipping.’ *Adams, 528 F.2d at 437*; *see also Foremost, 457 U.S. at 675 (pleasure boating is ‘noncommercial maritime activity’)*. The possibility that the waterway is capable of supporting non-commercial maritime activity of the type suggested by appellants does not render the waterway capable of supporting ‘commercial trade or travel in the customary modes of travel on water,’ as our holding today requires.” *LeBlanc v. Cleveland, 198 F.3d 353*.

Rules are mandatory for all vessels

The rules “are not mere prudential regulations, but binding enactments, obligatory from the time that the necessity for precaution begins, and continuing so long as the means and opportunity to avoid the danger remain. Obviously, they must be rigorously enforced, in order to attain the object for which they were framed, which could not be secured if the masters of vessels were permitted to indulge their discretion in respect of obeying or departing from them.” *Belden v. Chase* 150 U.S. 674 (1893).

“In light of the need for uniform rules governing navigation, the potential impact on maritime commerce when two vessels collide on navigable waters, and the uncertainty and confusion that would necessarily accompany a jurisdictional test tied to the commercial use of a given boat, a complaint alleging a collision between two vessels - including pleasure boats - on navigable waters properly states a claim within the admiralty jurisdiction of the federal courts. The holding in *Executive Jet Aviation, Inc. v. City of Cleveland*, 409 U.S. 249, that claims arising from airplane accidents, although occurring in a maritime locality, are cognizable in admiralty only when the wrong bears a significant relationship to traditional maritime activity also applies to determinations of federal admiralty jurisdiction outside the context of aviation torts. However, there is no requirement that the maritime activity be an exclusively commercial one. The federal interest in protecting maritime commerce can be fully vindicated only if all operators of vessels on navigable waters - not just individuals actually engaged in commercial maritime activity - are subject to uniform rules of conduct. This interpretation is consistent with congressional activity as to legislation governing "vessels" without regard to whether they engage in commercial activity.” *Foremost Insurance Co. v. Richardson*, 457 U.S. 668 (1982).

Private sports participants may contract out of the Rules

An interesting exception to the mandatory application of the rules has been carved out in a case regarding participants in sporting events, e.g. sailboat racing, under the assumption of risk doctrine. The court found that the participants had contractually opted out of the mandatory application of the rules even though only one of the vessels involved in the incident was actually participating in a race at the time of collision. The details are presented below.

“The history of the COLREGS shows that they were enacted because of the need to establish a code of international rules of the road for maritime traffic throughout the world. See H.R. Rep. No. 447, 95th Cong., 1st Sess. 1977, reprinted in 1977 U.S.C.C.A.N. 509. However, nothing in their history, or in the public policy issues that led to their enactment, indicates that they were meant to regulate voluntary private sports activity in which the participants have waived their application and in which no interference with nonparticipating maritime traffic is implicated. Therefore, by entering a regatta with sailing instructions which unambiguously set forth special, binding ‘rules of the road,’ the participants waive conflicting COLREGS and must sail in accordance with the agreed-upon rules. We base this conclusion not only on the nature and history of both the COLREGS and the private activity in question, but also because of the strong public policy in favor of the private settlement of disputes.” *Juno SRL v. S/V Endeavour*, 58 F.3d 1; 1995 U.S. App. Note however, that other Federal courts have held differing opinions, i.e. that assumption of risk is not a defense in a sailboat race. *Manning v. Gordon*, 853 F.Supp. 1157

Exemption From Inland Rules Compliance for Construction and Equipment Standards

Inland Rule 1(b)(ii) contains a clause that exempts any vessel meeting the construction and equipment standards of the International Rules from the additional burden of complying with Inland Rules. Thus Inland Rules

regarding lights, shapes and other equipment may be disregarded by vessels in compliance with the appropriate International Rules.

Summary

Because there are two sets of rules, (the International Rules and the Inland Rules) it is important for the mariner to know which set of rules applies at immediate location of the vessel. In addition, states and municipalities may have special regulations that apply on particular bodies of water. In summary, one can see that different rules apply on different bodies of water, that the rules apply alike to all vessels within a jurisdiction and that the rules are modified by court interpretation. Every mariner is responsible for knowing and complying with all of the applicable rules on the particular body of water upon which he is navigating.

Rule 2 – Responsibility

- (a) Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.**
- (b) 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.**

This rule is often called the rule of good seamanship or the general prudential rule. It is the most important rule that a mariner can know. In some sense, this rule is redundant, however, its inclusion in the rules is a reminder to the mariner that he is responsible for complying with the rules at all times. This rule requires the exercise of “that degree of the skill and care which are ordinarily to be found in a competent seaman.” *The Llanover*, 78 Ll. L. Rep. 198 (H.L. 1945).

Rule 2 includes the phrase “special circumstances” twice. Special circumstances are situations in which a departure from the rules may be required. The mariner is cautioned that the rules are not to be disregarded for convenience or expediency. Such actions are severely frowned upon by the courts. Departures from the rules must be imperatively required by the circumstances to save the vessel from immediate danger or to avoid an imminent collision and must be only to the extent necessary to avoid that danger or collision.

Special circumstances can be divided into two general situations: those not covered by the rules and those where conformance with the rules is impracticable.

Examples in the first category include approaching, maneuvering around, or departing docks, slips, piers or anchorages. The presence of more than two vessels is a special circumstance also included in this category. In both of these situations, “due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved . . .” *Rule 2*. Also included in this category are when operating a vessel under oars and when approaching a vessel under oars so as to involve risk of collision.

In the second category are situations where the departure from the rules is mandatory, i.e. situations *in extremis* or through the proposal and assent of all vessels involved in a situation.

Situations *in extremis* are where collision is imminent. In these cases, all vessels involved are required to take whatever actions are necessary to avoid collision. For the give-way vessel, the requirement to maneuver to avoid collision (possibly in violation of the rules) begins from the moment that a risk of collision exists. For the stand-on vessel, the requirement to maneuver to avoid collision vessel becomes mandatory whenever it becomes apparent that collision cannot be avoided by the action of the give-way vessel alone. But any maneuver in violation of the rules must be only to the extent necessary to avoid the immediate danger.

The courts have long recognized that vessels, when placed in situations *in extremis* through no fault of their own, may exercise their own judgment in regards to maneuvers to avoid collision. The courts are loath to hold mariners responsible for the violations of any rules under these conditions provided that they did not contribute to the situation in any way up until the point that the *in extremis* maneuver was required.

The proposal and assent situation may also be a special circumstance in the second category. An example of a proposal and assent situation is a starboard-to-starboard passage of power-driven vessels when meeting within ½ mile under the Inland Rules when risk of collision exists. The rules require a port-to-port passage in this situation. However, if an agreement is reached between the vessels through sound signals or VHF radio, then a starboard-to-starboard passage can be made. Because both vessels have agreed on this mode of passage, the agreed deviation from the rules becomes mandatory for both vessels. That there is an agreement among vessels is of key significance here, for a mere proposal without an answer or with a cross signal from the other vessel does not relieve the proposing vessel of her original and primary obligation under the rules.

Legal effect of rule violation

“The liability for damages is upon the ship or ships whose fault caused the injury. But when, as in this case, a ship at the time of a collision is in actual violation of a statutory rule intended to prevent collisions, it is no more than a reasonable presumption that the fault, if not the sole cause, was at least a contributory cause of the disaster. In such a case the burden rests upon the ship of showing not merely that her fault might not have been one of the causes, or that it probably was not, but that it could not have been. Such a rule is necessary to enforce obedience to the mandate of the statute.” *The Pennsylvania* (19 Wall) 86 U.S. 125.

Departure from rules may be mandatory

“There is no right of way on which a vessel is entitled to insist when it is obvious that it will result in danger of collision.” *The Hercules* (S.C. 1892) 51 F.452.

“Even improper navigation of another vessel does not excuse adherence to a definite rule, when such adherence plainly invites collision, and stubborn adherence to the rule is sometimes culpable fault.” *The Kaga Maru* (Wash. 1927) 18 F.2d 295.

Departure from rules must be only to extent necessary

“Nevertheless, it is true that there may be extreme cases where departure from their requirements is rendered necessary to avoid impending peril, but only to the extent that such danger demands.” *Belden v. Chase* 150 U.S. 674 (1893)

Departure must be imperatively required by the circumstances

“Exceptions to these rules, though provided for ... should be admitted with great caution, and only when imperatively required by the circumstances of the case.” *The Oregon* (1895) 158 U.S. 186.

“... in construing and obeying the rules of navigation, ‘due regard must be had to all dangers of navigation, and to any special circumstances which may exist in any particular case, rendering a departure from them necessary in order to avoid immediate danger.’ Important as this qualification of the rules is, it has no application to the case at bar, where the vessels saw each other about two miles apart. It applies only where there is some special cause rendering a departure necessary to avoid immediate danger, such as the nearness of shallow water, or a concealed rock, the approach of a third vessel, or something of that kind.” *The Maggie J. Smith* 123 U.S. 349.

Last clear chance to avoid collision

“Where there was one and only one chance of escape from collision, a seaman was justified in taking the benefit of that chance, although it necessitated a departure from the regulations.” *The Queen Mary (1949) 82 Ll. L. Rep. 341.*

“Where the master of a vessel, who is a navigator of experience and good judgment, is confronted with a sudden peril, caused by the action of another vessel, so that he is justified in believing that collision is inevitable, and he exercises his judgment in the emergency, his action, even though unwise, cannot be imputed to his vessel as a fault.” *The Queen Elizabeth (CCA 1903) 122 F.406.*

Presence of more than two vessels

“But before No. 9 and the Hoyt had passed each other, a ‘special circumstance’ intervened which, by the provisions of article 23, rendered a departure from article 15 and rule 1 necessary in order to avoid immediate danger to the Hoyt. The day was clear. When the pilot of No. 9 blew his first signal, he was not more than 700 feet from the Hoyt. The Hoyt and the Fulton were therefore in his full view, and, if he had been reasonably attentive to his duty, he must have seen the danger which suddenly confronted the Hoyt and produced the ‘special circumstance’ which rendered a departure from the usual rules necessary. The pilot of No. 9 blew three signals without receiving any reply from the Hoyt. By continuing on his course at full speed he incurred serious risk of collision.” *The C.R. Hoyt, 136 F.671.*

Manually Propelled Vessels

Manually propelled vessels are not specifically mentioned in the steering and sailing rules although they are defined as vessels under Rule 3(a). This section briefly summarizes the rules regarding manually propelled vessels.

Manually propelled vessels must give way when overtaking another vessel under Rule 13 and are otherwise considered to be in special circumstances when approaching another vessel so as to involve risk of collision. A vessel approaching a manually propelled vessel and the manually propelled vessel itself are both required to give-way when approaching so as to involve risk of collision. A manually propelled vessel of less than 20 meters when operating in a narrow channel must not impede the passage of a vessel that can only navigate safely within the narrow channel under Rule 9. Other restrictions in Rule 9 also apply to manually propelled vessels operating in narrow channels. Larger vessels navigating near small vessels (including manually propelled vessels such as canoes or kayaks) must be mindful of their wake and avoid causing any undue damage under Rule 5. Rule 25 (d)(ii) prescribes the lights for vessels under oars and other manually propelled vessels.

Rule 3 – General Definitions

For the purpose of these Rules, except where the context otherwise requires:

- (a) The word "vessel" includes every description of water craft, including non-displacement craft , WIG craft and seaplanes, used or capable of being used as a means of transportation on water.**
- (b) The term "power-driven vessel" means any vessel propelled by machinery.**
- (c) The term "sailing vessel" means any vessel under sail provided that propelling machinery, if fitted, is not being used.**
- (d) The term "vessel engaged in fishing" means any vessel fishing with nets, lines, trawls or other fishing apparatus which restrict maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability.**
- (e) The word "seaplane" includes any aircraft designed to maneuver on the water.**
- (f) The term "vessel not under command" means a vessel which through some exceptional circumstance is unable to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel.**
- (g) The term "vessel restricted in her ability to maneuver" means a vessel which from the nature of her work is restricted in her ability to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel.**

The term 'vessels restricted in their ability to maneuver' shall include but not be limited to:

- (i) a vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline;**
- (ii) a vessel engaged in dredging, surveying or underwater operations;**
- (iii) a vessel engaged in replenishment or transferring persons, provisions or cargo while underway;**
- (iv) a vessel engaged in launching or recovery of aircraft;**
- (v) a vessel engaged in mine clearance operations;**
- (vi) a vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course;**
- (h) The term "vessel constrained by her draft" means a power-driven vessel which, because of her draft in relation to the available depth and width of navigable water is severely restricted in her ability to deviate from the course she is following.**
- (i) The word "underway" means a vessel that is not at anchor, or made fast to shore, or aground.**
- (j) The words "length" and "breadth" of a vessel means her length overall and greatest breadth.**

- (k) Vessels shall be deemed to be in sight of one another only when one can be observed visually from the other.**
- (l) The term "restricted visibility" means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms or any other similar causes.**
- (m) The term "Wing-In-Ground (WIG) craft" means a multimodal craft which, in its main operational mode, flies in close proximity to the surface by utilizing surface-effect action.**

Rule 3 – General Definitions (Inland)

For the purpose of these Rules and this Chapter, except where the context otherwise requires:

- (a) The word "vessel" includes every description of water craft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on water;**
- (b) The term "power-driven vessel" means any vessel propelled by machinery;**
- (c) The term "sailing vessel" means any vessel under sail provided that propelling machinery, if fitted, is not being used;**
- (d) The term "vessel engaged in fishing" means any vessel fishing with nets, lines, trawls or other fishing apparatus which restricts maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability;**
- (e) The word "seaplane" includes any aircraft designed to maneuver on the water;**
- (f) The term "vessel not under command" means a vessel which through some exceptional circumstance is unable to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel;**
- (g) The term "vessel restricted in her ability to maneuver" means a vessel which from the nature of her work is restricted in her ability to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel; vessels restricted in their ability to maneuver include, but are not limited to:**
 - (i) a vessel engaged in laying, servicing or picking up a navigation mark, submarine cable, or pipeline;**
 - (ii) a vessel engaged in dredging, surveying, or underwater operations;**
 - (iii) a vessel engaged in replenishment or transferring persons, provisions, or cargo while underway;**
 - (iv) a vessel engaged in launching or recovery of aircraft;**
 - (v) a vessel engaged in mine clearance operations; and**
 - (vi) a vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course;**

- (h) The word "underway" means a vessel that is not at anchor, or made fast to shore, or aground;**
- (i) The words "length" and "breadth" of a vessel means her length overall and greatest breadth;**
- (j) Vessels shall be deemed to be in sight of one another only when one can be observed visually from the other;**
- (k) The term "restricted visibility" means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms or any other similar causes;**
- (l) "Western Rivers" means the Mississippi River, its tributaries, South Pass, and Southwest Pass, to the navigational demarcation lines dividing the high seas from harbors, rivers, and other inland waters of the United States, and the port Allen-Morgan City Alternate Route, and that part of the Atachafalaya River above its junction with the Port Allen-Morgan City Alternate Route including the Old River and the Red River;**
- (m) "Great Lakes" means the Great Lakes and their connecting and tributary waters including the Calumet River as far as the Thomas J. O'Brien Lock and Controlling Works (between mile 326 and 327), the Chicago River as far as the east side of the Ashland Avenue Bridge (between mile 321 and 322), and the Saint Lawrence River as far east as the lower exit of Saint Lambert Lock;**
- (n) "Secretary" means the Secretary of the department in which the Coast Guard is operating;**
- (o) "Inland Waters" means the navigable waters of the United States shoreward of the navigational demarcation lines dividing the high seas from harbors, rivers, and other inland waters of the United States and the waters of the Great Lakes on the United States side of the International Boundary;**
- (p) "Inland Rules" or "Rules" mean the Inland Navigational Rules and the annexes thereto, which govern the conduct of vessels and specify the lights, shapes and sound signals that apply on inland waters; and**
- (q) "International Regulations" means the International Regulations for Preventing Collisions at Sea, 1972, including annexes currently in force in the United States.**

Rule 3 contains general definitions applicable to all vessels in navigation. These definitions are often misunderstood by the mariner, most often when seeking a special privilege that does not exist. Explanations of the classifications of vessels are listed below in the order of least precedence to greatest precedence according to Rule 18. Please note that other rules may apply and the reader is referred to the discussion in Rule 18 for a more complete discourse on vessel precedence. Also discussed are the definitions of vessels underway, in-sight, and restricted visibility in a later section. The observant mariner will also note that the precedence rules (Rule 18) only apply to vessels within sight and that Rule 13 requires the overtaking vessel to give way regardless of vessel precedence.

Wing In Ground Craft

A wing in ground craft is a vessel, which operates on a cushion of air enabling it to “fly” over the surface of the water. The vessels are often capable of speeds over 100 miles per hour. Within the context of the international rules only, they considered to be equivalent to power driven vessels in some cases and equivalent to seaplanes in other situations.

Power-driven vessel

A power driven vessel is one that is propelled by machinery. This includes sailing vessels using their engines. Although the term machinery is not defined in the rules, it is generally taken to mean an engine (internal combustion, electric or steam) attached to a propeller or paddle wheel, which provides the motive power, by turning either in the water or in the air.

Sailing vessel

A sailing vessel is defined as a vessel any vessel under sail provided that propelling machinery, if fitted, is not being used. This author has heard some sailors claim that even though their engines were on, because they were not in gear, they are entitled to claim status as sailing vessels and all responsibility for a collision rests with the power-driven vessel. While a sailing vessel with engines on but not engaged is indeed a sailing vessel, certainly, such a vessel is unlikely to find favor in the courts when using the engines might have prevented a collision.

Vessel engaged in fishing

A vessel engaged in fishing is one that has fishing apparatus deployed that restricts maneuverability. The rule specifically states that trolling does not give a vessel special status. Fishing vessels only have special status when their fishing apparatus is deployed and their maneuverability is encumbered. At all other times they are considered a normal vessel of their class (power-driven or sailing).

Vessel restricted in ability maneuver

A vessel restricted in ability to maneuver is one, which, “by the nature of her work,” is restricted in her ability to maneuver. This statement appears to preclude nearly all pleasure vessels from claiming restricted status except perhaps those engaged in activities such as transferring persons or cargo at sea. *Rule 3 (g)(iii)*. Vessels undertaking routine towing operations are also precluded from claiming restricted status. *Rule 3(g)(vi)*.

Vessel constrained by her draft

The definition of a vessel constrained by her draft contained in International Rule 3 does not appear in the Inland Rules, thus mariners in United States waters are unlikely to ever encounter such a vessel. In the adoption of the International Regulations for Preventing Collisions at Sea, testimony indicated that due to the many shallow waters in the United States and the large number of pleasure vessels using these waters, there was substantial likelihood of confusion in the application of the rules regarding this class of vessel. Thus, the Inland Rules do not contain any rules recognizing vessels constrained by draft.

Vessel not under command

A vessel not under command is defined as a vessel “which through some exceptional circumstance is unable to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel.” The key phrases here are “exceptional circumstance” and “unable to maneuver.” “Unable to maneuver” does not mean inconvenient to maneuver.

The exceptional circumstance phrase in this rule is not to be confused with the special circumstance mentioned in Rule 2. The courts are particularly strict with interpretation of the “not under command” rule. The excep-

tional circumstance is an impediment, which must be to the vessel, not the crew, and the vessel must be truly **unable** to maneuver. In particular, for a power driven vessel, it means that the vessel is significantly disabled in some way, e.g. the steering gear or engine gear has failed such that the vessel cannot maneuver to keep out of the way of other vessels. Failure to adequately man a vessel is not considered an exceptional circumstance under this rule.

In finding a vessel subjected to four days of heavy weather and having full use of her engines and steering, yet showing not-under-command lights at fault for a collision, the court reasoned: “It is important that ships which are genuinely disabled from manouervring adequately should have both the right and the duty to advertise the fact by exhibiting appropriate signals and so to make it clear to other ships that they must take steps to keep clear of them. It is equally important that ships which are not genuinely disabled, although they may be under certain difficulties, should not claim this special right and privilege ... without proper justification. “ *The Djerba Q.B. (Adm. Ct.) [1976] 1 Lloyd’s Rep. 50.*

Miscellaneous Definitions

Vessel underway

A vessel underway is one that is neither aground, at anchor, nor made fast to the shore. A vessel underway but not making way is one that is not moving relative to the waters in which it is resting, although it may be moving over ground due to the effects of current. A vessel underway and making way is one which is moving relative to the waters in which it is navigating. Rules 23, 25, and 26 also mention vessels underway.

Vessel in sight

A vessel is in sight of another only when it can be observed visually from the other vessel. The rules in Part B Subpart II (Rules 11-18) apply exclusively to vessels in sight of one another. The ability to observe the other vessel does not necessarily occur at the same time on two vessels operating near each other. It is entirely possible to have one vessel operating under Rule 19 and another vessel operating under Rules 11-18 when the vessels are operating in or near conditions of restricted visibility. A vessel that can only be observed on radar is not considered in sight.

Restricted visibility

Restricted visibility refers to situations where the weather or weather related cause restricts normal visibility. The rules in Part B Subpart III (Rule 19) apply exclusively to vessels in conditions of restricted visibility. The restricted visibility rule does not apply to situations where there are intervening obstructions such as piers, docks, other vessels or spits of land that cause other vessels to be obscured, nor does mere darkness constitute restricted visibility.

Part B – Steering and Sailing Rules

Section I – Conduct of Vessels in any Condition of Visibility

Rule 4 – Application

Rules in this section apply to any condition of visibility.

Rule 4 states that Rules 5 through 10 applies to all vessels in navigation at all times, i.e. without regard to visibility. Rules 11 through 18 apply to vessels in sight of one another and Rule 19 applies only to vessels operating in or near areas of restricted visibility.

Rule 5 – Look-out

Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances so as to make a full appraisal of the situation and of the risk of collision.

The requirement to maintain a lookout applies to all vessels in all conditions of visibility. Vessels are required to maintain a proper lookout in order to assess the risk of collision. This mandate is a positive duty that masters may not ignore. The general standard for proper lookout is that unbroken vigilance is required.

The courts have enumerated specific requirements for a lookout, some of which are listed here. A lookout must be an experienced seaman with no other duties (except on certain small pleasure vessels – see below). The lookout must be posted where they can best apprise the master of any risks to the vessel. Regular and clear reporting of conditions is required of lookouts. The master should brief the lookout as to expected conditions before the lookout begins the watch and should be notified if the lookout is unavailable. The lookout has a duty to watch the compass bearings of approaching vessels and must warn the master should the compass bearing of an approaching vessel remain constant. Vessels are expected to maintain a lookout using all available means, including radar, binoculars, VHF radio, compass bearings, ARPA, chart plots, etc. (See “Proper use of radar” in the Rule 7 discussion).

Vessels far from shore have relaxed requirements for lookouts, however, all vessels in navigation must maintain a continuous lookout. Single-handed sailors sleeping aboard vessels underway have been found partially liable for collision, even when there is substantial fault on the part of the other vessel. A vessel at anchor is also considered to be in navigation and must maintain a continuous lookout.

Lookout mandatory

“The obligation to maintain a proper lookout applies equally to small vessels as it does to large vessels...

It is axiomatic that ‘an inefficient lookout is equivalent to none.’ A proper lookout is one that is vigilantly maintained by a competent person of suitable experience. ... The need for competent vigilance has prompted repeated holdings that a lookout’s sole duty should be that with which he is charged and that one who is assigned the duties of helmsman is not a proper person to act as lookout.” ...

Lookouts must have no other duties to perform. Excuses for failure to post a lookout in dense fog, such as age, state of tiredness, vision acuity or ‘need’ to prepare bait are unacceptable.” *In re Complaint of Interstate Towing Company.*, 717 F.2d, 755, 1983 AMC 2971, 2975 (2nd Cir. 1983) quoting *Elenson v. S.S. Fortaleza*, 1992 AMC 1447, 1455 (S.D. N.Y. 1991).

Lookout must be experienced seaman See above. *Elenson v. S.S. Fortaleza*, 1992 AMC 1447, 1455 (S.D. N.Y. 1991).

Lookout must have no other assigned duties See above. *Elenson v. S.S. Fortaleza*, 1992 AMC 1447, 1455 (S.D. N.Y. 1991).

Lookout must be continuous

“In the case at bar, Granholm's decision to go below during the nighttime was negligent. His own testimony reflects an awareness that this was so. I have previously quoted the relevant portion; Granholm said that ‘as a rule I made it a habit to take my resting periods during daytime and when the conditions were such that I could afford having some rest.’ The reasons are obvious. At night a sailboat, even displaying the proper lights, is not nearly as visible as she is in the daytime, when underway under sail. Granholm was sailing near a recognized transatlantic route for large vessels. He should have adhered to his own practice and rested only during the daytime. It may seem unfeeling to condemn single handed transatlantic sailors for sleeping at night. But they pursue this hazardous avocation voluntarily, and are not exempt from the requirements of prudent seamanship.” *Granholm v. The TFL Express*, 576 F. Supp. 435, 1984 AMC 943 (S.D. N.Y. 1983).

Lookout must be kept for overtaking vessels as well as vessels crossing or ahead

“When SEALAND CRUSADER began overtaking MR. PIERRE she sounded her first passing signal to MR. PERRY. At that time MR. PERRY was approximately four-tenths of a mile upstream and appeared to be unaware of the SEALAND CRUSADER. Within a couple of minutes a second passing signal was sounded. SEALAND CRUSADER then sounded more passing signals, each about a minute apart. MR. PERRY did not respond. During this time, SEALAND CRUSADER made attempts to raise MR. PERRY by radio but was unsuccessful. ... Joseph Verdin continued to conn his vessel apparently unaware of the approach of SEALAND CRUSADER from astern. He did not hear any signals sounded by SEALAND CRUSADER. MR. PERRY's radar was not operating. No look-out was posted and Joseph Verdin did not look astern since his view out the rear window was essentially blocked by hanging trawl nets. ... SEALAND CRUSADER should have taken appropriate action, namely reducing their speed, once it became obvious that there was a risk of collision with MR. PERRY. ... Defendant, the overtaking vessel, was obligated to keep out of MR. PERRY's way and proceeded at a speed safe under the circumstances. MR. PERRY failed to keep a steady course as near to the starboard side of the channel as possible and to maintain a proper outlook. In addition, MR. PERRY impeded the passage of SEALAND CRUSADER a much larger vessel with less ability to maneuver and stop. ... Consistent with this opinion, plaintiff is hereby directed to submit a judgment awarding plaintiff compensatory damages ..., reduced by 50% due to the finding of both to blame.” *Verdin v. Sea Land Service, Inc.*, 1992 AMC 2579 (E.D. La. 1992).

The nominal interpretation of this verdict is that a vessel must look aft for any overtaking vessels prior to changing course.

Placement of lookout

The lookout “is required by good navigation to be placed at the point best suited for the purpose alike of hearing and observing the approach of objects likely to be brought into collision with the vessel, having regard to the circumstances of the case and the condition of the weather.” *The Vedamore* (1905) 137 F.844.

Lookout posted forward and low

“The courts have been rigid in holding vessels to maintaining lookout as far forward and as near the water as possible. Especially when the water is dark, with otherwise a fairly clear night, it is important that the lookout should be as near it as possible, in order that his eye may follow the surface, and thus be in a position to detect

anything low down which may be approaching.” *Eastern Dredging Company v. Winnisimmet* (1908) 162 F.860.

Vessel at anchor must maintain lookout

“The facts as found are as follows: --

1st, The collision occurred inside of the Delaware Breakwater, and the ‘Newell’ was thereby sunk. The ‘Newell’ was a small vessel of seventy-eight tons burden. In the afternoon of the 23d of February, 1874, she anchored within the breakwater for shelter from an approaching storm. The “Clara,” being on a voyage from New York to Baltimore, foreseeing the coming storm, bore away and also put into the breakwater for safety. She arrived about five o'clock A.M. on the 25th of February, 1874, and while proceeding to a proper anchorage collided with the ‘Newell.’ There were then a large number of vessels in the breakwater, and others were constantly arriving.

2d, That at the time the ‘Clara’ entered the breakwater the night was cold and very dark, the moon having gone down several hours before. That the ‘Julia Newell’ was improperly lying without a watch on deck. That the storm was increasing, and set in about the time the ‘Clara’ came to anchor, and was a very severe snow-storm.

3d, If the ‘Newell’ had had a sufficient watch on deck, the accident might have been prevented.

4th, The ‘Clara’ was well manned, and had proper lights and a proper lookout.

The conclusion of the court as to the law of the case is thus expressed: -- The failure to keep a watch on the deck of the ‘Julia Newell’ was the cause of the collision.” *The Clara* 102 U.S. 200 (1880).

Helmsman may serve as lookout on certain vessels

“On vessels where there is an unobstructed all-round view provided at the steering station, as on certain pleasure craft, fishing boats, and towing vessels, or where there is no impairment of night vision or other impediment to keeping a proper lookout, the watch officer or helmsman may safely serve as a lookout. However, it is expected that this practice will only be followed after the situation has been carefully assessed on each occasion, and it has been clearly established that it is prudent to do so. Full account shall be taken of all relevant factors, including but not limited to the state of the weather, conditions of visibility, traffic density, and proximity of navigational hazards” *Senate Report No 96-979, 96th Congress, 2nd Session 7-8* (1980).

Rule 6 – Safe Speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:

- (i) The state of visibility;**
- (ii) The traffic density including concentrations of fishing vessels or any other vessels;**
- (iii) The manageability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;**
- (iv) At night the presence of background light such as from shore lights or from back scatter from her own lights;**
- (v) The state of wind, sea and current, and the proximity of navigational hazards;**
- (vi) The draft in relation to the available depth of water.**

(b) Additionally, by vessels with operational radar:

- (i) The characteristics, efficiency and limitations of the radar equipment;**
- (ii) Any constraints imposed by the radar range scale in use;**
- (iii) The effect on radar detection of the sea state, weather and other sources of interference;**
- (iv) The possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;**
- (v) The number location and movement of vessels detected by radar;**
- (vi) The more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.**

The safe speed rule is often misunderstood. Many mariners simply ignore the rule or mistake it as applying only to the immediate condition of their own vessel. In fact, the safe speed restriction is considered in terms of the relation of a vessel to other vessels, structures and persons, the weather and sea conditions and the maneuvering capabilities of the vessel. The rule itself gives factors, which are to be taken into account, by all vessels and lists additional factors to be taken into account by vessels equipped with radar.

The safe speed rule is a mandatory requirement that in all conditions of visibility, vessels proceed at a speed such that they can effectively avoid collision or damage to other vessels or property. In addition, the safe speed rule specifically limits vessels underway to speeds at which they can be stopped before colliding with another

vessel. The courts have expanded the meaning of the safe speed rule to include some specific prohibitions as well, e.g. proceeding at a speed insufficient to maintain steerageway, proceeding at a speed such that the vessel's wake causes damage to properly moored or docked vessels or swamps seaworthy vessels underway, proceeding at a speed inappropriate for sea or weather conditions, or proceeding at a speed that damages shore structures.

In determining a safe speed, the capabilities or limitations of the vessel may be an issue. Specifically, a large vessel that can only maintain steerage at a speed that causes a wake sufficient to damage vessels properly docked or moored along its intended route must obtain assistance from tugs to proceed at a slower speed and avoid causing wake damage. Thus, a safe speed is not the same as a moderate speed. Vessels have been found liable for merely putting the engine in gear to maintain steerageway and other times they have been found liable for not maintaining steerageway. Indeed, vessels have been found liable for getting underway when conditions were such that no speed could be considered safe or for failing to anchor in restricted visibility. Since there is a strong presumption of fault against the moving vessel under Admiralty law, mariners are well advised to slow to the minimum speed necessary to maintain steerage when in waters near harbors, wharves, piers, swimmers, rafters, narrow channels, no wake zones, and other vessels underway or at anchor.

Proceeding at a speed that causes damage to properly docked or moored vessels.

“The general rule, however is: 'Where a vessel properly moored at a dock, at anchor, or not in motion, is damaged by a vessel in motion, the presumption of law is that it was the fault of the one under way; and it is presumptively liable until the contrary is shown, the burden of doing which is upon the vessel under way.' *The Rotherfield, D.C., 123 F. 460, 461*. However, before this rule of law is applicable, it must be shown that the vessel was properly moored; and accordingly the question is posed in the instant case as to whether or not the barge Darien was properly moored. 'The mere evidence that damage results from the swells of a passing vessel is not enough to base a recovery upon'. *The New York, 2 Cir., 167 F. 315*. Just as a duty exists on a moving ship not to throw damaging swells under the circumstances, so does a duty exist on a ship to be seaworthy and moored in such a manner that a situation will not be created whereby the ordinary and reasonable swells created by a passing ship in such a local will result in damage to the moored ship. *The LaSavoie, D.C., 157 F. 312; The St. Paul, D.C., 171 F. 606; The Favorita, D.C., 43 F.2d 569, 1930 A.M.C. 1435; The Alexander Hamilton (The Jim & Bill), D.C., 4 F.Supp. 258, 1933 A.M.C. 968*. The moving ship is not an insurer, and is not liable for all damages that occur as a result of its swells. *Ferryboat Columbia, supra*. The evidence, as indicated heretofore in the findings, did not show the Darien was properly moored and hence the above rule of law is inapplicable.” *Martin Marine Transp. Co. v. United States, 66 F. Supp. 673, 1946 AMC 684 (E.D. Pa. 1946)*

Proceeding at too great a speed close along a waterfront

“The proof is that the piers between piers 21 and 33, and above, are steam-boat and ferry piers, to and from which steam-boats are constantly passing; that several of the sound steam-boats go out about the hour the City Point was coming up that afternoon. Considering the use of these piers, and the great number of steam-boats going in and out, it was imprudent and reckless navigation for the City Point to run at so great a speed so near the line of the piers. A statute of New York is referred to prohibiting vessels from running along the piers on the East river at a speed exceeding 10 miles an hour, as if this justified the City Point in the speed she kept up. But imposing a penalty for exceeding 10 miles by no means makes any less speed prudent. The speed must be regulated by the dangers attending the navigation under the particular circumstances of the case. There was no reason for the City Point keeping so close to the piers except her own convenience to make the shortest run to

her next landing. If she chose to go so close in, she was bound to proceed with the more caution, and in such a way that she could check her headway easily, for she was constantly liable to have her course crossed by other vessels proceeding slowly out of the docks and on her starboard hand." *Greenman v. Narragansett (N.Y. 1880) 4 F.244.*

Colliding with vessels properly emerging from their berths. See *Greenman v. Narragansett (N.Y. 1880) 4 F.244* above.

General rule in wake damage cases

"A vessel causing damage to others by her swell must be held responsible for any failure to appreciate the reasonable effect of her own speed and motion through the water at the particular place and under the particular circumstances where the injury occurred, and her officers are required to take all reasonable precautions to avoid their injury even though former experience has shown that in the ordinary and usual course of the events they are likely to escape injury or the larger vessel was proceeding on ordinary course and at her customary speed. Smaller craft have the right to assume larger craft aware of their presence will observe reasonable precautions and are under no duty to warn the larger vessel of the danger." *Moran v. The Georgie May, 164 F. Supp. 881 884-885, 1958 AMC 1152, 1156-57 (SD Fla. 1958).*

Wake damage

"Such waters are not to be appropriated to the exclusive use of any class of vessels. We do not mean to hold that ocean steamers are to accommodate their movements to craft unfit to navigate the bay, either from inherent weakness, or overloading, or improper handling, or which are carelessly navigated. But of none of these is there any proof here, and in the absence of such proof we do hold that such as the libellant's have the right to navigate there without anticipation of any abnormal dangerous condition, produced solely by the wish of the owners of exceptionally large craft to run them at such a rate of speed as will insure the quickest passage. To hold otherwise would be to virtually exclude smaller vessels, engaged in a legitimate commerce, from navigating the same waters." *The Majestic (CCA N.Y. 1891) 48 F.730.*

"A ship passing piers or docks where other vessels are tied up is obligated to proceed carefully and prudently so as to avoid creating unusual swells or suction which would damage craft properly moored or installations along the shoreline. ... The moving vessel must take into consideration the reasonable effect to be anticipated from its speed and motion through the water and must take precautions by way of reduction of speed or alteration of course as may be necessary to prevent such damage." *Ohio River Co. v. Continental Grain Co. 352 F Supp. 505.*

"In cases where a large vessel must travel a narrow channel, the fact that the vessel needs to travel at a speed sufficient to avoid running aground or losing steerage does not relieve the vessel from liability for any damage incurred as a result of the certain wake to be produced by the displacement of water." *Alamia v. Chevron Transportation Corp. 660 F.Supp. 1072.*

Failure to slow vessel in rough weather

"But in a situation such as this, where the risk is great because of high seas, an increased amount of care and precaution is reasonable. ...

The crew of the COUNTESS had significant information regarding the weather they would encounter when crossing. The conditions had steadily deteriorated throughout the morning hours and had not shown any signs

of improving. Captain Martin and Dennis were aware that the crossing would be rough and that they could be facing rather severe wind gusts. Knowing all this, Captain Martin ventured into this weather with over 300 passengers on board, many of them young campers.

During the voyage, the MONARCH radioed the COUNTESS and informed Dennis that the MONARCH'S crossing had been miserable. Dennis failed to inform Captain Martin of the conditions the MONARCH reported. The COUNTESS continued to encounter rough seas, until a large wave caused one of the vessel's windows to shatter. After the window shattered, and water literally washed many passengers from their seats, Captain Martin slowed the vessel and changed course so the ride would be more comfortable. Many on board noticed an extreme change in the smoothness of the ride.

A person exercising reasonable care under the circumstances would have slowed the vessel sooner, sought refuge at Long Point once he realized the severity of the conditions, or decided not to risk venturing out into the hazardous conditions at all. Accordingly, we hold that the district court did not commit clear error in determining that Catalina Cruises did not act with reasonable care under the circumstances of this case.” *Catalina Cruises v. Luna* 137 F.3d 1422, 1998 U.S. App.

Rule 7 – Risk of Collision

- (a) Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.**
- (b) Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.**
- (c) Assumptions shall not be made on the basis of scanty information, especially scanty radar information.**
- (d) In determining if risk of collision exists the following considerations shall be among those taken into account:**
 - (i) Such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change;**
 - (ii) Such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.**

Rule 7 applies to all vessels in navigation. It is a corollary to the Lookout Rule (Rule 5) in that it provides specific direction to the mariner for use in determining risk of collision. This rule has specific application in conjunction with several other rules (Rules 5, 8, 12, 14, 15, 18, and 19). Of particular importance in this rule is the prohibition against making assumptions using scanty information, especially radar information. Also mentioned as a factor in determining the risk of collision is the use of compass bearings and the solemn warning that if there is any doubt about a situation, then a risk of collision is deemed to exist.

The requirement to use all available means to determine if there is a risk of collision requires the use of radar on vessels so equipped, even in clear weather, and also may require the use of VHF radio, binoculars, the taking of compass bearings and the plotting of the other vessel's positions.

Four stages of collision avoidance

When two vessels in sight of each other are approaching:

- At long range with no risk of collision, both vessels are free to take any action.
- When risk of collision first begins to apply, the give-way vessel is required to take early and substantial action to keep well clear.
- When it is apparent that the give-way vessel is not taking action, the stand-on vessel is required to give the danger signal and is permitted to alter course.
- When a collision cannot be avoided by action of give-way vessel alone, the stand-on vessel must take action to avoid collision.

Paraphrased from *Cockcroft & Lameijer, A Guide To The Collision Avoidance Rules 56* (2d ed. 1976 pp. 129-130).

Risk of collision

“To involve risk of collision ... indicates a period before the risk has, so to speak, actually matured; it means a period at which there is a probability that there will be a risk of collision if precautions are not taken.” *Gulf Of Suez, [1921] Prob. Div. 318, 332.*

“Rules of navigation such as have been mentioned (as to the duties of two vessels approaching each other) are obligatory upon such vessels when approaching each other from the time the necessity of precaution begins; and they continue to be applicable as the vessels advance so long as the means and opportunity to avoid the danger remain. They do not apply to a vessel required to keep her course after the approach is so near that collision is inevitable, and are equally inapplicable to vessels of every description while they are so distant from each other that measures of precaution have not yet become necessary to avoid collision.” *The Winona (19 Wall) 41 (1873).*

Proper use of radar

“Even continuous observation by a competent person is unlikely to be accepted as proper use of radar to obtain early warning of risk of collision if the bearings and distances of approaching vessels are not taken at regular intervals and carefully evaluated by plotting or by some equivalent method.” *Cockcroft & Lameijer, A Guide To The Collision Avoidance Rules 56* (2d ed. 1976 pp. 58-59).

Duty to watch compass bearings

“If the bearing does not change appreciably than a close quarters situation is developing. When this is confirmed, avoiding action should be taken in ample time...” *The Pulkova and Oden, 1 Lloyd’s Rep. 28*

Rule 8 – Action to Avoid Collision

- (a) Any action taken to avoid collision shall be taken in accordance with the Rules of this Part and shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.**
- (b) Any alteration of course and/or speed to avoid collision shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course and/or speed should be avoided.**
- (c) If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation.**
- (d) Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.**
- (e) If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.**
- (f) (i) A vessel which, by any of these rules, is required not to impede the passage or safe passage of another vessel shall, when required by the circumstances of the case, take early action to allow sufficient sea room for the safe passage of the other vessel.**
 - (ii) A vessel required not to impede the passage or safe passage of another vessel is not relieved of this obligation if approaching the other vessel so as to involve risk of collision and shall, when taking action, have full regard to the action which may be required by the rules of this part.**
 - (iii) A vessel, the passage of which is not to be impeded remains fully obliged to comply with the rules of this part when the two vessels are approaching one another so as to involve risk of collision.**

Rule 8 – Action to Avoid Collision (Inland)

- (a) Any action taken to avoid collision shall, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.**
- (b) Any alteration of course and/or speed to avoid collision shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar; a succession of small alterations of course and/or speed should be avoided.**
- (c) If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation.**

- (d) Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.**
- (e) If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.**
- (f) (i) A vessel which, by any of these rules, is required not to impede the passage or safe passage of another vessel shall, when required by the circumstances of the case, take early action to allow sufficient sea room for the safe passage of the other vessel.**
 - (ii) A vessel required not to impede the passage or safe passage of another vessel is not relieved of this obligation if approaching the other vessel so as to involve risk of collision and shall, when taking action, have full regard to the action which may be required by the rules of this part.**
 - (iii) A vessel, the passage of which is not to be impeded remains fully obliged to comply with the rules of this part when the two vessels are approaching one another so as to involve risk of collision.**

Rule 8 applies to all vessels in navigation. The Rule discusses the various actions to be taken by the stand-on and give-way vessels to avoid collision. It is worthwhile to remember that Rule 8 does not override the other rules, but instead must be read in conjunction with them. Rule 8 lists several positive requirements in regards to collision avoidance. They are that actions to avoid collision shall be positive, made in ample time, be large enough to be readily observed and result in passing at a safe distance. A further requirement is that vessels slow or stop if necessary to avoid collision or to assess the situation.

There are also several prohibitions in Rule 8. They are that a succession of small course changes is to be avoided, that alteration of course alone must not result in another close quarters situation, and that any action taken must result in passing at a safe distance.

International Rule 8 contains a paragraph f with three subparagraphs which regulate the conduct of vessels required not to impede others vessels. These situations are listed in International Rule 9 (b), Rule 9 (d), Rule 10 (i), Rule 10 (j), and Rule 18 (d) (i). The specific requirement of paragraph (f)(i) is that vessels required not to impede shall take early action to allow sufficient sea room for other vessels to pass. Paragraph (f)(ii) requires that a vessel required not to impede is still required not to impede on close approach, e.g. because early action was not taken. Paragraph (f)(iii) cautions that vessels, the passage of which is not to be impeded, are still obliged to comply with the rules contained in part B of the COLREGs (Rule 4 through 19), which may include sounding appropriate signals, taking all way off, reversing her engines, or sounding the danger signal. Thus the requirement “not to impede” is clearly not as strong as the requirement to “keep out of the way” of as discussed in Rule 16.

Series of small course changes prohibited

“Kaupmann embarked upon a course change which would have required incremental shifts in the angle of navigation, contrary to Rule 8(b)... By hastily selecting a course change which actually made collision with the Baani more imminent,..., Potomac’s officers were not free from fault for the collision.” *In re Potomac Transport., Inc (The Potomac – The Banglar Baani)* 741 F.Supp 197, 205, 1957 AMC 2477, 2488 (ND Cal. 1957), *aff’d* 279 F.2d 662 (9th Cir. 1960).

Course changes must be large enough to be readily apparent

“An alteration of course by 3 deg. is certainly not large enough to be readily apparent to another vessel observing by radar. Furthermore, if before that alteration each vessel was on a steady bearing from the other then an alteration of 3 deg. starboard would not be such as to result in passing at a safe distance even if the speed on the Sanshin Victory had been maintained.” [1980] 2 *Lloyd’s Rep.* 359 (*Adm.*).

Rule 9 – Narrow Channels

- (a) A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable**
- (b) A vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.**
- (c) A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.**
- (d) A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fairway. The latter vessel may use the sound signal prescribed in Rule 34(d) if in doubt as to the intention of the crossing vessel.**
- (e)(i) In a narrow channel or fairway when overtaking can take place only if the vessel to be overtaken has to take action to permit safe passing, the vessel intending to overtake shall indicate her intention by sounding the appropriate signal prescribed in Rule 34(c)(i). The vessel to be overtaken shall, if in agreement, sound the appropriate signal prescribed in Rule 34(c)(ii) and take steps to permit safe passing. If in doubt she may sound the signals prescribed in Rule 34(d).**
 - (ii) This Rule does not relieve the overtaking vessel of her obligation under Rule 13.**
- (f) A vessel nearing a bend or an area of a narrow channel or fairway where other vessels may be obscured by an intervening obstruction shall navigate with particular alertness and caution and shall sound the appropriate signal prescribed in Rule 34(e).**
- (g) Any vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel.**

Rule 9 – Narrow Channels (Inland)

- (a)(i) A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.**
 - (ii) Notwithstanding paragraph (a)(i) and Rule 14(a), a power-driven vessel operating in narrow channels or fairways on the Great Lakes, Western Rivers, or waters specified by the Secretary, and proceeding downbound with a following current shall have the right-of-way over an upbound vessel, shall propose the manner and place of passage, and shall initiate the maneuvering signals prescribed by Rule 34(a)(i), as appropriate. The vessel proceeding upbound against the current shall hold as necessary to permit safe passing.**
- (b) A vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.**
- (c) A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.**

- (d) A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fair way. The latter vessel may use the sound signal prescribed in Rule 34(d) if in doubt as to the intention of the crossing vessel.**
- (e)(i) In a narrow channel or fairway when overtaking, the power-driven vessel intending to overtake another power-driven vessel shall indicate her intention by sounding the appropriate signal prescribed in Rule 34(c) and take steps to permit safe passing. The power-driven vessel being overtaken, if in agreement, shall sound the same signal and may, if specifically agreed to take steps to permit safe passing. If in doubt she shall sound the danger signal prescribed in Rule 34(d).**
 - (ii) This Rule does not relieve the overtaking vessel of her obligation under Rule 13.**
- (f) A vessel nearing a bend or an area of a narrow channel or fairway where other vessels may be obscured by an intervening obstruction shall navigate with particular alertness and caution and shall sound the appropriate signal prescribed in Rule 34(e).**
- (g) Every vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel.**

Rule 9 applies to all vessels operating in narrow channels in any condition of visibility. There is no definition of a narrow channel in Rule 3, nor does the Coast Guard make official designations of narrow channels. Therefore, the status of a waterway as a narrow channel is defined by the courts as a question of law and fact together.

It is not necessary that a waterway be confined within banks in order to be considered a narrow channel nor is a canal or a river necessarily considered a narrow channel on that fact alone. A waterway customarily navigated in opposite directions may be considered a narrow channel, even if it is surrounded by waters navigable by shallow draft vessels.

Rule 9 requires that vessels navigate near the outer starboard limit of a narrow channel to the extent that it is safe and practicable to do so. Vessels do not have the right to assume that they are entitled to have exclusive use of the entire right-hand side of a narrow channel. This requirement is problematic in situations where a narrow channel passes close by wharves or piers. Vessels in these situations often navigate nearer the center of the channel.

Sailboats, vessels under 20 meters in length, and fishing vessels are specifically required not to impede vessels that can only navigate within the confines of a narrow channel. See International Rule 8 (f) for specific maneuvering requirements. The requirement not to impede is discussed in Rule 8 (f)(i), (ii) and (iii). Specifically, a vessel required not to impede must allow sufficient sea room for the other vessel to pass.

Paragraph (d) of Rule 9 does not override the normal overtaking, crossing and meeting rules for power driven vessels. The obligation of a vessel under Rule 8 (e) to slow down or stop must first be met before a vessel on the starboard side of a narrow channel may cross the channel.

On the Great Lakes, the Western rivers and waters specified by the Secretary, Inland Rule 9 (a)(ii) gives down bound vessels with a following current the “right-of-way” over unbound vessels. This is to allow the down bound vessels to control the passing scenario. Down bound vessels do not have as much control as unbound vessels, which may maintain steerage against the current without making way up the river. The purpose of this Rule is to allow those down bound vessels which may need to temporarily enter the left hand side of the channel because of their length to hail unbound vessels and tell them where to wait for the down bound vessel to safely pass by. A vessel must require this “right-of-way” privilege in order to claim it.

A common point of confusion among mariners is the situation where a vessel is exiting from a side channel into a main channel with another vessel already operating in the main channel. Rule 34(e) requires the sounding of one prolonged blast by any vessel when nearing a bend or an area of a fairway where other vessels may be obscured by an intervening obstruction. Beyond the situational requirements of Rule 9, the normal rules apply, particularly Rules 15, 18 and 34 for power-driven vessels and Rules 12 and 18 for sailing vessels.

Starboard passage in narrow channel

“The Ruth, observing the Doncaster coming down-river on the eastern side of the channel and knowing that the Marmacpenn was astern and in the eastern side of the channel, cannot be said to have used poor judgment in deciding to remain in the center of the channel. To have proceeded to the right in the path of the oncoming Doncaster certainly would not have been safe and practicable. This is particularly true because the Ruth at that time could not have anticipated that the Doncaster would attempt to cross over to the western side of the channel where she belonged and effect to port-to-port passing with the Ruth. . . . The district court concluded, and we think correctly, that when the Ruth observed the Doncaster approaching on the eastern side, the relative positions of the vessels was such that a starboard-to-starboard passing was called for and could have been safely effected. Under those circumstances, the Ruth was justified in expecting that the Doncaster would pass on the starboard side. The only safe and practicable course for the Ruth was to stay away from the eastern side of the channel. The Doncaster's improper and unsuccessful attempt to cross over to her right resulted in a collision for which the Doncaster must be held responsible.” *Tug New York Company v. Steamship Robin Doncaster*, 233 F.2d 889.

Definition of narrow channel

“First, Tako Towing argues that the court erroneously applied Rule 9, the ‘Narrow Channel Rule,’ because the channel in which the collision occurred is 1200 feet wide and therefore not a ‘narrow channel.’ Neither Rule 9 nor the Inland Navigational Rules Act defines ‘narrow channel.’ Courts interpreting the predecessor ‘Narrow Channel Rule,’ Article 25 of the Inland Rules, 33 U.S.C. § 210 (1976) (repealed), agreed that the determination of what is a ‘narrow channel’ is a mixed question of law and fact. *Canal Barge Co. v. China Ocean Shipping Co.*, 770 F.2d 1357, 1362 (5th Cir.1985). Lower courts have generally held that bodies of water up to 1,000 feet wide are narrow channels, while bodies of water 1,200 feet and over are not. See *Maritrans Operating Partners L.P. v. M/T Faith I*, 800 F. Supp. 133, 140 (D.N.J.1992) (citing cases). However, we have explained that ‘the application of the Narrow Channel Rule is not based on the physical dimensions of the body of water alone.’ *Weathers Towing, Inc. v. M/V Herman Pott*, 570 F.2d 1294, 1295 (5th Cir.1978) (*interpreting Inland Article 25, 33 U.S.C. § 210 (1976) (repealed)*). In *Weathers Towing*, we upheld the district court's application of Rule 9 to Scudder Bend, a 1,200-foot wide section of the Mississippi River, based on the presence of sandbars, the length and width of the vessels, and the fact that the channel curved 180 degrees at Scudder Bend. *Id. at 1295-96*. Because the physical dimensions of the Luling Bridge channel place it outside the general range developed by other lower courts, and because the district court failed to make the necessary findings, like those in *Weathers Towing*, we remand for explicit findings on the question of whether the Luling Bridge section of the Mississippi is a “narrow channel” within the meaning of Rule 9.” *Marine Transport v. M/V Tako Invader* 37 F.3d 1138.

Downbound vessel has right-of-way

“We do not read Rule 9(a)(ii)'s right-of-way provision to allow down bound vessels absolute freedom to proceed down the Mississippi River however they choose. Instead, it gives down bound vessels the authority to deviate from the ‘keep to starboard’ requirement of Rule 9(a)(i) provided they comply with the procedures enumerated in Rule 9(a)(ii). In other words, the down bound vessel's right-of-way under Rule 9(a)(ii) is condi-

tional--it depends on the down bound vessel's having proposed a manner and place of passage and initiated the maneuvering signals prescribed by Rule 34(a)(i), as appropriate. When the down bound vessel exercises its authority under Rule 9(a)(ii), the unbound vessel must give way, even 'hold as necessary to permit safe passing.' 33 U.S.C. 2009(a)(ii). *Marine Transport v. M/V Tako Invader* 37 F.3d 1138.

Rule 10 – Traffic Separation Schemes

- (a) This rule applies to traffic separation schemes adopted by the Organization and does not relieve any vessel of her obligation under any other rule.**
- (b) A vessel using a traffic separation scheme shall:**
 - (i) proceed in the appropriate traffic lane in the general direction of traffic flow for that lane;**
 - (ii) so far as practicable keep clear of a traffic separation line or separation zone;**
 - (iii) normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from either side shall do so at as small an angle to the general direction of traffic flow as practicable.**
- (c) A vessel shall, so far as practicable, avoid crossing traffic lanes but if obliged to do so shall cross on a heading as nearly as practicable at right angles to the general direction of traffic flow.**
- (d) (i) A vessel shall not use an inshore traffic zone when she can safely use the appropriate traffic lane within the adjacent traffic separation scheme. However, vessels of less than 20 meters in length, sailing vessels and vessels engaged in fishing may use the inshore traffic zone.**
 - (ii) Notwithstanding subparagraph (d)(i), a vessel may use an inshore traffic zone when en route to or from a port, offshore installation or structure, pilot station or any other place situated within the inshore traffic zone, or to avoid immediate danger.**
- (e) A vessel other than a crossing vessel or a vessel joining or leaving a lane shall not normally enter a separation zone or cross a separation line except:**
 - (i) in cases of emergency to avoid immediate danger;**
 - (ii) to engage in fishing within a separation zone.**
- (f) A vessel navigating in areas near the terminations of traffic separation schemes shall do so with particular caution.**
- (g) A vessel shall so far as practicable avoid anchoring in a traffic separation scheme or in areas near its terminations.**
- (h) A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.**
- (i) A vessel engaged in fishing shall not impede the passage of any vessel following a traffic lane.**
- (j) A vessel of less than 20 meters in length or a sailing vessel shall not impede the safe passage of a power-driven vessel following a traffic lane.**

- (k) A vessel restricted in her ability to maneuver when engaged in an operation for the maintenance of safety of navigation in a traffic separation scheme is exempted from complying with this Rule to the extent necessary to carry out the operation.**
- (l) A vessel restricted in her ability to maneuver when engaged in an operation for the laying, servicing or picking up of a submarine cable, within a traffic separation scheme, is exempted from complying with this Rule to the extent necessary to carry out the operation.**

Rule 10 – Traffic Separation Schemes (Inland)

- (a) This Rule applies to traffic separation schemes and does not relieve any vessel of her obligation under any other Rule.**
- (b) A vessel using a traffic separation scheme shall:**
 - (i) proceed in the appropriate traffic lane in the general direction of traffic flow for that lane;**
 - (ii) so far as practicable keep clear of a traffic separation line or separation zone;**
 - (iii) normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from either side shall do so at as small an angle to the general direction of traffic flow as practicable.**
- (c) A vessel shall, so far as practicable, avoid crossing traffic lanes but if obliged to do so shall cross on a heading as nearly as practicable at right angles to the general direction of traffic flow.**
- (d) (i) A vessel shall not use an inshore traffic zone when she can safely use the appropriate traffic lane within the adjacent traffic separation scheme. However, vessels of less than 20 meters in length, sailing vessels and vessels engaged in fishing may use the inshore traffic zone.**
 - (ii) Notwithstanding subparagraph (d)(i), a vessel may use an inshore traffic zone when en route to or from a port, offshore installation or structure, pilot station or any other place situated within the inshore traffic zone, or to avoid immediate danger.**
- (e) A vessel other than a crossing vessel or a vessel joining or leaving a lane shall not normally enter a separation zone or cross a separation line except:**
 - (i) in cases of emergency to avoid immediate danger;**
 - (ii) to engage in fishing within a separation zone.**
- (f) A vessel navigating in areas near the terminations of traffic separation schemes shall do so with particular caution.**
- (g) A vessel shall so far as practicable avoid anchoring in a traffic separation scheme or in areas near its terminations.**
- (h) A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.**
- (i) A vessel engaged in fishing shall not impede the passage of any vessel following a traffic lane.**

- (j) A vessel of less than 20 meters in length or a sailing vessel shall not impede the safe passage of a power-driven vessel following a traffic lane.**
- (k) A vessel restricted in her ability to maneuver when engaged in an operation for the maintenance of safety of navigation in a traffic separation scheme is exempted from complying with this Rule to the extent necessary to carry out the operation.**
- (l) A vessel restricted in her ability to maneuver when engaged in an operation for the laying, servicing or picking up of a submarine cable, within a traffic separation scheme, is exempted from complying with this Rule to the extent necessary to carry out the operation.**

Traffic separation schemes are intended to help avoid collisions in archipelagic seaways, although they do not always do so, as in the case of the Exxon Valdez. Traffic separation schemes are distinct from both Vessel Traffic Service (VTS) areas and Regulated Navigation Areas (RNA).

Vessels transiting a traffic separation scheme area are not exempted from the normal collision regulations. Vessels not using the traffic lanes are directed to avoid the area by as wide a margin as possible and all vessels are directed to avoid anchoring in a traffic separation scheme area, particularly near its terminations. Vessels crossing a traffic zone must do so at right angles to the normal flow of traffic in the zone.

All vessels in or approaching a traffic separation scheme area are required to navigate with particular caution near the terminations of the area. Fishing vessels may fish in the separation area or in the inshore traffic zone, although they must proceed in the general direction of the traffic flow when in the traffic lanes and must not impede power-driven vessels navigating in the lanes. Vessels less than 20 meters and sailing vessels are obliged not to impede power driven vessels navigating in the traffic lanes. See the discussion of Rule 9 for additional discussion on the meaning of “not to impede.”

Vessel Traffic Service Areas

VTS area regulations are codified in 33 CFR 161. Authority to establish a VTS plan in United States territorial waters rests with the U.S. Coast Guard. A VTS system is intended to provide the masters and pilots of large vessels transiting certain congested areas with information regarding the safe navigation of their vessel. Certain classes of vessels (40 meters or more LOA, towing vessel 5 meters or more LOA, and passenger vessels certified to carry 50 or more persons while engaged in trade) are required by regulation to use the VTS and must register their entrance and exit from the VTS plan area. Although regulatory jurisdiction is limited to the navigable waters of the United States, certain vessels will be encouraged or may be required, as a condition of port entry, to report beyond this area to facilitate traffic management within the VTS area.

Vessel operators to which VTS regulations apply (Vessel Movement Reporting System (VMRS) users) are required to carry a copy of 33 CFR 161 aboard. VMRS users are also required to establish a sailing plan with the Vessel Traffic Center (VTC) operator at least 15 minutes before navigating the area, when ending navigation in the area, and at designated intervals. VMRS users are exempt from the requirements to maintain a listening watch on the VHF calling channel provided they maintain a watch on both the bridge-to-bridge navigation safety channel (13) and the designated VTS frequency. *47 CFR 80.148(b)*

Vessels using the VTS area are not exempt from the normal collision regulations. In certain rare cases, the VTS operator may assert control over a vessel in the VTS area. In this case, the vessel is required to follow the instructions of the VTS operator and may only deviate from the instructions of the VTS operator to avoid im-

mediate danger and only to the extent necessary. The act also clearly makes the mariner liable for any accidents due to navigation errors.

There may be areas within the VTS area to which additional special regulations apply. VMRS users should consult the appropriate regulations prior to transiting a VTS area in order to familiarize themselves with the operating requirements of the area they intend to navigate.

Limited Access Areas

Limited access areas are designated by the appropriate U.S.C.G. authority (Captain of the Port) and published in the Code of Federal Regulations and the Local Notices to Mariners. The enabling authority is 14 U.S.C 91 and 633; 49 CFR 1.45. Each Coast Guard Captain of the Port is authorized to create local security zones as needed. Boaters who are near a major harbor should contact the local Coast Guard marine safety officer (MSO) for that waterway for updates on local restrictions.

Limited access areas may contain restrictions on vessel sizes or types, vessel movements, designation of anchorage areas and other restrictions on a temporary or permanent basis. A permanent rule recently enacted requires all vessels to slow to minimum speed within 500 yards of a Naval ship, and stay at least 100 yards away unless granted special permission to approach. The Coast Guard and Navy are authorized to use lethal force against a vessel that approaches too closely.

Bridge-to-Bridge Radio Telephone Act

The Bridge-to-Bridge Radiotelephone Act is codified in 33 USC 24 Section 1201, et. seq. with additional regulations in 33 CFR 26. The regulations require vessels over 20 meters in length when carrying passengers for hire, vessels of 100 gross tons or more, towing vessels 26 ft. in length or more and certain other vessels to have two separate radios operational while navigating within the three mile territorial limit. A listening watch is required on both the designated bridge-to-bridge frequency and the hailing frequency unless participating in a VTS system. Channel 13 is the normal bridge-to-bridge channel unless operating on portions of the Mississippi river, in which case channel 67 is used. This act does not apply to vessels operating beyond the three-mile territorial limit.

Section II – Conduct of Vessels in Sight of One Another

Rule 11 – Application

Rules in this Section apply to vessels in sight of one another.

Rule 11 applies to vessels in both Inland and International waters. This rule limits the application of Rules 11 through 18 to vessels operating in sight of one another. The definition of in sight, given in Rule 3 – General Definitions, states that a vessel is in sight only when it can be observed visually. A vessel that can only be observed on radar is not considered “in sight.” Rules 11 through 18 do not apply in conditions of restricted visibility or when a vessel cannot observe the other due to intervening obstructions.

Rule 12 regulates sailing vessels approaching one another so as to involve risk of collision. Rule 13 regulates the conduct of any vessel overtaking any other vessel. Rules 14 through Rule 17 regulate the conduct of power-driven vessels. Rule 18 provides a hierarchy for priority of vessel movements based on vessel category.

Rule 12 – Sailing Vessels

- (a) When two sailing vessels are approaching one another, so as to involve risk of collision, one of them shall keep out of the way of the other as follows:**
- (i) when each has the wind on a different side, the vessel which has the wind on the port side shall keep out of the way of the other;**
 - (ii) when both have the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward;**
 - (iii) if a vessel with the wind on the port side sees a vessel to windward and cannot determine with certainty whether the other vessel has the wind on the port or on the starboard side, she shall keep out of the way of the other.**
- (b) For the purposes of this Rule the windward side shall be deemed to be the side opposite to that on which the mainsail is carried or, in the case of a square-rigged vessel, the side opposite to that on which the largest fore-and-aft sail is carried.**

This rule governs the conduct of sailing vessels when in sight of each other in International and Inland waters. When sailing vessels are approaching each other, the sailing vessel on the port tack (wind over the starboard side and main sail carried on the port side) is the give-way vessel. When a sailing vessel on a starboard tack is approaching another sailing vessel and cannot determine the other vessel's tack, then that vessel is directed to give way to the other vessel. The tack of a vessel is determined by which side of the vessel the mainsail is carried, however, the Rules do not mention tack in regards to sailing vessels. When both vessels have the wind on the same side, the vessel to leeward is the stand-on vessel and the vessel to windward is the give-way vessel. Note that a sailing vessel can have the wind on the port side and still be on a port tack (the boom is over the port side as well). Rule 12 (b) considers the case of a sailing vessel with the wind on the same side as the main boom.

An important point is that Rule 13 takes precedence over Rule 12 in overtaking situations. This means that a vessel under sail overtaking another vessel under sail or a power-driven vessel is the give-way vessel regardless of wind or tack. Additionally, Rule 12 does not apply if either or both sailing vessels are operating propulsion machinery or are otherwise encumbered, e.g. not under command or restricted in ability to maneuver.

Rule 13 – Overtaking

- (a) Notwithstanding anything contained in the Rules of Part B, Sections I and II any vessel overtaking any other shall keep out of the way of the vessel being overtaken.**
- (b) A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking, that at night she would be able to see only the stern light of that vessel but neither of her sidelights.**
- (c) When a vessel is in any doubt as to whether she is overtaking another, she shall assume that this is the case and act accordingly.**
- (d) Any subsequent alteration of the bearing between the two vessels shall not make the overtaking vessel a crossing vessel within the meaning of these Rules or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.**

This rule applies to vessels in sight of one another on both Inland and International waters. An overtaking vessel is any vessel that is approaching another vessel underway from more than 22.5° abaft the beam of the vessel being approached. Because of clause (a), the overtaking rule is perhaps one of the most important rules governing the conduct of vessels in sight of one another. Simply put, any vessel overtaking another is the give-way vessel. This includes sailing vessels overtaking power-driven vessels and vessels not-under-command or restricted in their ability to maneuver overtaking other vessels.

Another important aspect of this rule is that if any vessel is in doubt if she is overtaking another, she must assume this is the case and act accordingly. At night, an overtaking vessel will see only the stern light of the vessel being overtaken. Under clause (c) of this rule, a vessel that can sometimes see the sidelight and stern light of a vessel ahead and at other times see only the stern light must assume that they are an overtaking vessel and maneuver accordingly.

Mariners are cautioned that Rule 2(b) still applies to overtaking situations and any situation where it is apparent that the give-way vessel is not taking appropriate action demands that the stand-on vessel take appropriate and effective action to avoid collision. Overtaking vessels must also give the appropriate signals in good time and the overtaken vessel, upon hearing such a signal, must respond. Signals are always required under the Inland Rules for a power-driven vessel overtaking another. Under the International Rules, signals are required for any vessel overtaking another vessel in narrow channels when the overtaken vessel must maneuver to affect a safe passage or when either vessel performs a rudder change. The vessel being overtaken must maneuver appropriately (generally to maintain course and speed) after receiving a signal, although in narrow channels, the overtaken vessel may be required to move to affect a safe passage.

Overtaking vessel must select safe place to pass

“The court found persuasive the testimony of plaintiffs' expert, Frank Johansen, a retired pilot. Capt. Johansen had forty years' experience in navigating through Hell Gate. He testified that because of the strong tide and the sharp bend in the channel, it was unsafe to attempt to overtake a tug and a large barge in Hell Gate. Instead, the Four Lakes should have held back before it reached Hell Gate.” *In re Ocean Queen, Inc.* 398 F.Supp. 1062.

Overtaken vessel receiving no signal may maneuver at will

"It is well settled that, under certain circumstances, the overtaken vessel, in this case the tug and tow, has a duty to maintain her course and speed. This duty, however, does not arise until the overtaking vessel has made her presence known by signalling her intention to pass. See *The Industry*, 29 F.2d 29, 30 (2d Cir. 1928), cert. denied sub nom. *N.Y. & N.J. S.S. Co. v. Schomburg*, 279 U.S. 837, 49 S. Ct. 251, 73 L. Ed. 985 (1929); *Tug Ocean Queen, Inc. v. Tanker Four Lakes*, 398 F. Supp. 1062, 1069 (S.D. N.Y. 1974); *In re Landi Petition*, 194 F. Supp. 353, 361 (S.D. N.Y. 1960). The Santos never signalled her intention to pass in any manner, and thus the statutory duty never arose for the tug.

Furthermore, the cases which have found a violation of the overtaken vessel's duty involve a violent or sudden change of course by the overtaken vessel. See, e.g., *Larsen v. Portland California S.S. Co.*, 66 F.2d 326 (9th Cir. 1933). In this case, there is not and there could not be an allegation that the tug suddenly altered its course or veered in front of the bow of the overtaking vessel. The tug had been drifting slowly toward the southwest for approximately 20 minutes. In short, there was simply no change in course or speed as contemplated by the statute. We conclude that the tug did not violate any duties imposed upon it by the overtaking rules." 433 F. Supp. 854; 1977 U.S. Dist. April 13, 1977

Smaller vessel must give consideration to larger vessel

"As a maritime fact of life, larger vessels such as the Texaco Ohio are less maneuverable than smaller vessels and have greater difficulty stopping once they are underway. As such, if large vessels were required to stop and give way, under penalty of violating some rule of the road, to every fishing vessel they may encounter, those larger vessels would be virtually paralyzed in their movement. Accordingly, it is almost certain that tankers and freighters, such as the Texaco Ohio, will violate some statutory rules of the road in their almost daily encounters with smaller fishing vessels such as the Little Chip.

In such a situation, for the Court to apportion a great degree of fault to larger vessels for their technical violation of statutory navigational rules would constitute the 'potential unfairness' described by the Supreme Court in *Reliable Transfer*. This is not to say that smaller and more maneuverable vessels must utilize a higher degree of care when confronting larger craft. Nor does it mean that larger vessels are not required to exercise ordinary care and good seamanship on inland water. This Court is merely stating that, in light of *Reliable Transfer*, it must take into consideration factors other than statutory violations in apportioning degree of fault. The evidence in the case at bar is clear that other than such technical statutory violation of the Inland Rules, the Texaco Ohio used all due care and good seamanship in its confrontation with the Little Chip. The Texaco Ohio blew several warning blasts of its whistle and tried to avoid the collision by backing down and moving to starboard.

The Little Chip, on the other hand, completely oblivious to its fate, crossed in front of the Texaco Ohio. This was done despite the whistle blasts of the Texaco Ohio and the warnings issued by the Delta. The Little Chip, knowing the Texaco Ohio was near, nonetheless had all of its hatches and portholes closed, failed to have a lookout and failed to properly monitor its radio.

In view of such facts, the Court finds the Little Chip and the Texaco Ohio 90% and 10% at fault, respectively, and hereby proportionately allocates liability for damages among them accordingly." *Jones v. Texaco Panama, Inc.* 428 F.Supp. 1333.

Overtaken vessel must answer in Inland waters

“The passing signal from an overtaking vessel is not solely a request for permission to pass. It also asks for information from which the overtaking vessel is entitled to have. When the overtaken vessel knows of conditions which may make the passing unsafe it has no right to refuse to inform the overtaking vessel of such conditions, and if it does refuse it cannot throw the entire blame for an accident upon the other vessel.” *The M.P. Howlett (CCA Pa. 1932) 58 F.2d.*

Under International Rule 9(e)(i), vessels operating in narrow channels under international rules must also respond to an overtaking vessel's signal.

Rule 14 - Head-on Situation

- (a) When two power-driven vessels are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of the other.**
- (b) Such a situation shall be deemed to exist when a vessel sees the other ahead or nearly ahead and by night she could see the masthead lights of the other in a line or nearly in a line and/or both side lights and by day she observes the corresponding aspect of the other vessel.**
- (c) When a vessel is in any doubt as to whether such a situation exists she shall assume that it does exist and act accordingly.**

Rule 14 - Head-on Situation (Inland)

- (a) Unless otherwise agreed, when two power-driven vessels are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of the other.**
- (b) Such a situation shall be deemed to exist when a vessel sees the other ahead or nearly ahead and by night she could see the masthead lights of the other in a line or nearly in a line and/or both side lights and by day she observes the corresponding aspect of the other vessel.**
- (c) When a vessel is in any doubt as to whether such a situation exists she shall assume that it does exist and act accordingly.**
- (d) Notwithstanding paragraph (a) of this Rule, a power-driven vessel operating on the Great Lakes, Western Rivers, or waters specified by the Secretary, and proceeding downbound with a following current shall have the right-of-way over an upbound vessel, shall propose the manner of passage, and shall initiate the maneuvering signals prescribed by Rule 34(a)(i), as appropriate**

Rule 14 applies to power-driven vessels when in sight of one another. It is unique among the rules in that it mandates a particular steering maneuver to be undertaken by power-driven vessels when approaching head-on so as to involve risk of collision, i.e. turn to starboard and pass port-to-port. Neither vessel in a head-on situation is considered to be stand-on; both vessels are required to give-way.

It determining whether the situation is a meeting or crossing one, it is generally considered that if both sidelights of each vessel are visible to the other vessel, then the situation is a meeting one. Both sidelights show over an arc of about 6 degrees on either side of the bow. A similar attitude of the vessels in daytime also indicates a head-on situation. If a vessel is showing only a single green or red light to the red and green lights of another vessel, then the situation may be a crossing situation, but it is not a head-on situation.

The phrase “so as to involve risk of collision” in this rule has been held to apply to any situation that may develop now or in the future should proper maneuvers not be made and not just to the situation as it exists upon first sighting. Rule 8 requires that any course change made be large enough to effect a safe passage.

If there is any doubt about the situation, then power driven vessels are required to assume that the situation does exist and to make appropriate maneuvers. However, if there is no risk of collision, then neither vessel is

required to turn to starboard. Further, if there is no risk of collision then the vessels may pass starboard to starboard. But, a power-driven vessel approaching another in a head-on situation that proposes a starboard-to-starboard passage assumes the entire risk of the maneuver, including any misunderstanding of signals.

Under the United States Inland Rules, a power-driven down-bound vessel with a following current on the Great Lakes, Western Rivers or other specific waters designated by the Secretary of Transportation has the “right-of-way” over unbound vessels, shall propose the manner of passage, and shall initiate maneuvering signals. The phrase “right-of-way” does not mean that the down bound vessel is relieved of any liability for resulting collisions. The requirements of the rules follow long-standing customs on the Mississippi and other rivers. They are intended to give less maneuverable vessels which may be required to venture into the port side waters of tortuous channels the opportunity to safely transit those waters without the additional burden of maneuvering around vessels proceeding upstream. This privilege is only available to vessels that positively require it. See Inland Rule 9 (a) (ii) for further information.

Rule 15 – Crossing Situations

When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.

Rule 15 – Crossing Situations (Inland)

- (a) When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.**
- (b) Notwithstanding paragraph (a), on the Great Lakes, Western Rivers, or water specified by the Secretary, a power-driven vessel crossing a river shall keep out of the way of a power-driven vessel ascending or descending the river.**

Rule 15 applies to power-driven vessels in sight of one another. Rule 15 is also known as the “starboard-hand rule.” For a crossing situation to exist, the vessels must be in sight of one another, risk of collision must exist, both vessels must be underway with at least one of the vessels having way on, and the starboard hand vessel must be on a relatively steady course. Several other situations are often mistaken for crossing situations, e.g. head-on situations and starboard-to-starboard passages that do not involve risk of collision. It is important to note that both Rule 13 (Overtaking) and Rule 14 (Head-on Situations) contain statements to the effect that if there is doubt about the situation, then the mariner is required to assume that it exists and to take action accordingly. This “in-doubt” principle does not apply to crossing situations under Rule 15, although Rule 7 contains similar language that applies in all situations.

The give-way vessel in a crossing situation may take a number of actions to keep out of the way, including slowing, stopping or turning. These actions are listed in Rule 8. The give way vessel is cautioned to avoid crossing in front of the stand-on vessel and to avoid turning to port to avoid a vessel on her own port side. *Rule 17 (c)*. Rule 16 further requires that the action be made in good time and be substantial in nature.

Inland Rule 15 (b) requires a power-driven vessel crossing a river to keep out of the way of a power-driven vessel ascending or descending a river or other waters specified by the Secretary of Transportation. See the discussion in Rule 16 for further information regarding the difference among the phrases “keep out of the way” and “shall not impede.”

The obligations of the stand-on vessel are given in Rules 7, 8, and 17 (b). Some basic principles stand out (paraphrased from *Healy and Sweeney, Law of Marine Collision, pp. 197-198*):

- The danger signal must be sounded if there is any doubt as to the intentions or actions of the give-way vessel. *Rule 34 (d)*.
- The stand-on vessel is permitted to take action if it becomes apparent that the give-way vessel is not taking appropriate action. *Rule 17 (a)(ii)*.
- The stand-on vessel must take action if the give-way vessel cannot avoid collision by her actions alone. *Rule 17 (b)*.

The reader is referred to the discussion of Rule 7, which presents the 4 stages associated with a collision situation.

Crossing situation

“The conditions which render the regulations for crossing ships applicable begin as soon as the two ships are approaching each other on courses which, if continued, may cause a collision. These conditions continue to subsist until the vessels have definitely passed out of the phase of crossing ships.” *The Orduna v. The Shipping Controller (1921) 1 A.C. 250.*

Starboard hand vessel must be on steady course

“In order to be considered a privileged vessel in a crossing situation, it must be on a steady course. ‘A ship is on a steady course, not only when her heading does not change, but whenever her future positions are certainly ascertainable from her present position and movements.’ *Commonwealth & Dominion Line v. United States, 1927 AMC 1690, 1692, 20 F.2d 729, 731 (2 Cir. 1927), rev'd on other grounds, 278 U.S. 427, 429, 1929 AMC 238, 239 (1929); see also United States v. S.S. Soya Atlantic, 1964 AMC 898, 906, 330 F.2d 732, 737 (4 Cir. 1964).* The district court found that the Keiyoh Maru's navigation did not satisfy this test. The district court said: ‘Due to the constantly changing engine orders and constantly changing headings of the Keiyoh Maru, the Keiyoh Maru never established itself on a constant course and speed in a crossing situation with the Fort Worth.’ Moreover, the Keiyoh Maru's course could not possibly be characterized as ‘certainly ascertainable’ because of her movement through the restricted anchorage area. The Fort Worth was entitled to assume that another vessel would not transgress a restricted area and embarrass its passage. The district court was correct in finding that no crossing situation existed. The Fort Worth had, therefore, no duty to stay clear of the Keiyoh Maru.” *Trinidad Corporation, Plaintiff-Counterclaimant Defendant-Appellee V. S.S. Keiyoh Maru 845 F.2d 818.*

Rule 16 – Action by Give-way Vessel

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

Rule 16 applies to vessels in sight of one another. Rule 16 directs that any action taken by a give-way vessel be made early enough and be substantial enough so as to be readily apparent to the stand-on vessel. Give-way vessels are specified in Rules 12 (Sailing Vessels), 13 (Overtaking), 15 (Crossing) and 18 (Responsibilities Between Vessels).

The requirement to “keep out of the way of” is stronger than the requirement “not to impede” as specified in Rules 8 (Action To Avoid Collision), 9 (Narrow Channels), and 10 (Traffic Separation Schemes). Specifically, Rule 16 demands that give-way vessels take early and substantial action to keep well clear so that a close quarters situation cannot develop. The requirement not to impede specified in Rule 8(f)(ii) envisions close quarters situations and specifies the particular responsibilities of the vessels involved.

Rule 17 – Action by Stand-on Vessel

- (a) (i) Where one of two vessels is to keep out of the way, the other shall keep her course and speed.**
- (ii) The latter vessel may, however, take action to avoid collision by her maneuver alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these Rules.**
- (b) When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.**
- (c) A power-driven vessel which takes action in a crossing situation in accordance with subparagraph (a)(ii) of this Rule to avoid collision with another power-driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.**
- (d) This Rule does not relieve the give-way vessel of her obligation to keep out of the way.**

Rule 17 applies to vessels in sight of one another. It requires the stand-on vessel to maintain her course and speed so long as the give-way vessel is taking appropriate action to avoid collision. Prior versions of the rules required stand-on (then called “burdened”) vessel to maintain course and speed until so near the other vessel that collision was inevitable. Stand-on vessels may now take action whenever it is apparent that the give-way vessel is not taking appropriate action to avoid collision.

Rule 17 (b) gives a further mandate that the stand-on vessel must give way when the give-way vessel is so close that the actions of the give-way vessel alone cannot avoid collision. Rule 17(c) places an additional stricture on a power-driven vessel in a crossing situation to not alter course to port for vessels on her port side. And finally, Rule 17 (d) again states the obligation of the give-way vessel to keep out of the way.

Stand-on vessel must give way

“Even though Shaun did have the right of way, she had the duty to avoid collision when it became apparent that the Mary Catherine was not obeying the rules of the road. Shaun had ample warning of the fact in Mary Catherine’s steady course and speed throughout the time the vessels were in sight of each other. ... COLREG Rule 17 did not require her to hold course until collision became practically inevitable. ... I find that both ships were at fault in failure to give way. Mary Catherine was obliged to give way under the rules of the road. Shaun was obliged to avoid collision when Mary Catherine failed to give way” *Shaun Fisheries, Lim. Proc., 1984 AMC 2650.*

Rule 18 – Responsibilities Between Vessels

Except where Rules 9, 10, and 13 otherwise require:

- (a) A power-driven vessel underway shall keep out of the way of:**
 - (i) a vessel not under command;**
 - (ii) a vessel restricted in her ability to maneuver;**
 - (iii) a vessel engaged in fishing;**
 - (iv) a sailing vessel.**

- (b) A sailing vessel underway shall keep out of the way of:**
 - (i) a vessel not under command;**
 - (ii) a vessel restricted in her ability to maneuver;**
 - (iii) a vessel engaged in fishing.**

- (c) A vessel engaged in fishing when underway shall, so far as possible, keep out of the way of:**
 - (i) a vessel not under command;**
 - (ii) a vessel restricted in her ability to maneuver.**

- (d) (i) Any vessel other than a vessel not under command or a vessel restricted in her ability to maneuver shall, if the circumstances of the case admit, avoid impeding the safe passage of a vessel constrained by her draft, exhibiting the signals in Rule 28.**
 - (ii) A vessel constrained by her draft shall navigate with particular caution having full regard to her special condition.**

- (e) A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the Rules of this Part.**

- (f) (i) A WIG craft shall, when taking off, landing and in flight near the surface, keep well clear of all other vessels and avoid impeding their navigation;**
 - (ii) A WIG craft operating on the water surface shall comply with the Rules of this Part as a power-driven vessel.**

Rule 18 – Responsibilities Between Vessels (Inland)

Except where Rules 9, 10, and 13 otherwise require:

- (a) A power-driven vessel underway shall keep out of the way of:**
- (i) a vessel not under command;**
 - (ii) a vessel restricted in her ability to maneuver;**
 - (iii) a vessel engaged in fishing;**
 - (iv) a sailing vessel.**
- (b) A sailing vessel underway shall keep out of the way of:**
- (i) a vessel not under command;**
 - (ii) a vessel restricted in her ability to maneuver;**
 - (iii) a vessel engaged in fishing.**
- (c) A vessel engaged in fishing when underway shall, so far as possible, keep out of the way of:**
- (i) a vessel not under command;**
 - (ii) a vessel restricted in her ability to maneuver.**
- (d) A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the Rules of this Part.**

Rule 18 applies to vessels in sight of one another when not directed by any other rule to take specific action, e.g. Rule 9, 10, or 13. It specifies a hierarchy for precedence of movements among vessels as shown below. Note that this hierarchy explicitly does not override the responsibilities of vessels in narrow channels (Rule 9), vessels in VTS areas (Rule 10), or vessels overtaking others (Rule 13). For example, this means that a vessel not under command must still give way when overtaking a seaplane or a sailing vessel crossing a narrow channel on a Western River must not impede the passage of a power-driven vessel proceeding up or down the river.

Newly extant in these rules is the Wing In Ground aircraft/vessel. These are vessel that ride over the surface over the water on a cushion of air and are often capable of speeds of over 100 miles per hour. Note that the rules for WIG craft are only present in the international rules.

Precedence of movement

(Given in order of decreasing precedence - topmost has highest precedence):

- Vessel under oars (special circumstance – no vessel has precedence)
- Overtaken vessel (Rule 13)
- Not under command or restricted in ability to maneuver
- Constrained by draft (not recognized under Inland Rules)

- Fishing vessel
- Sailing vessel
- Power-driven vessel
- Seaplane/WIG

Readers are referred to the definitions in the discussion of Rule 3 for further information on the various classes of vessels.

The definition and precedence of a vessel constrained by her draft was omitted from the Inland Rules because it was felt that the privilege would be abused in the relatively shallow waters of the ICW. Under the International Rules, a vessel constrained by her draft and a vessel restricted in ability to maneuver have equal precedence although a vessel constrained by her draft is additionally directed to maneuver with particular caution.

What is often misunderstood about the precedence rules is that a vessel not under command, a vessel constrained by her draft, a vessel restricted in her ability to maneuver, or a vessel engaged in fishing are allowed the special privilege only so long as they are constrained in maneuverability by their condition. A fishing vessel not actually restricted in maneuverability by the deployment of her gear is considered to be simply a power-driven or sailing vessel. Likewise, a large container vessel on open oceans with plenty of water below the keel is not entitled to claim the privileges of a vessel constrained by her draft. Many United States Coast Guard licensing examination questions are specifically written to differentiate among those who understand this concept clearly and those who do not.

Section III – Conduct of Vessels in Restricted Visibility

Rule 19 – Conduct of Vessels in Restricted Visibility

- (a) This Rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.**
- (b) Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate maneuver.**
- (c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rules of Section I of this Part.**
- (d) A vessel which detects by radar alone the presence of another vessel shall determine if a close-quarters situation is developing and/or risk of collision exists. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration of course, so far as possible the following shall be avoided:**
 - (i) an alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken;**
 - (ii) an alteration of course toward a vessel abeam or abaft the beam.**
- (e) Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close-quarters situation with another vessel forward of her beam, shall reduce her speed to the minimum at which she can be kept on her course. She shall if necessary take all her way off and in any event navigate with extreme caution until danger of collision is over.**

The rule in section III applies to vessels operating in or near areas of restricted visibility in lieu of the rules in section II when the vessels are not visually observable from each other due to fog, mist, snow, rain, sandstorms and like causes. Mere darkness does not in itself, constitute restricted visibility. Section II rules apply whenever vessels may be visually seen from each other. Of course, the rules in section I apply in all situations. Thus vessels operating in restricted visibility areas must apply the rules of Section II when they come into sight of one another if there is sufficient sea room to maneuver as required by those rules. Otherwise, the vessels must maneuver as will best avoid collision under Rule 2.

Rule 19 applies to all vessels operating in or near areas of restricted visibility. Note that neither the hierarchy given in Rule 18, nor the overtaking, head-on, or crossing rules apply until the vessels are actually in sight of each other. All vessels in or near areas of restricted visibility are cautioned to operate at a safe speed. The rule of thumb for speed in restricted visibility is the “half-distance” rule, which requires that a vessel be able to stop within one half the distance of visibility.

Upon hearing another vessel forward of the beam, a vessel is required to slow to bare steerageway or take all way off. This includes the situation where a vessel hears another vessel’s fog signal forward of the beam. Under severe conditions, it may be advisable to anchor rather than to proceed and risk a collision. Power driven vessels must keep their engines ready for immediate maneuver when underway in restricted visibility.

Vessels equipped with radar must use the radar to determine if risk of collision exists and must maneuver to avoid a close quarters situation in ample time. A vessel maneuvering by radar is cautioned against turning to port for a vessel on her port side or altering course toward a vessel abeam or abaft the beam. Refer to Rule 6 (b) for factors to be taken into account by vessels operating with radar.

Half-Distance Rule

“Although the statutory test for determining the proper speed at which a vessel should proceed in a fog is phrased in general terms, our decisions have attached a well-recognized gloss to that phrase. This gloss on the statutory rule, variously referred to as the half-distance rule or the ‘rule of sight,’ is that, in a fog, ‘a moderate speed’ is that ‘rate of speed as would enable [the vessel] to come to a standstill, by reversing her engines at full speed, before she should collide with a vessel which she should see through the fog.’ *The Nacoochee*, 137 U.S. 330, 339 (1890). See also *The Colorado*, 91 U.S. 692, 702 (1876); *The Umbria*, 166 U.S. 404, 417 (1897). As stated in *The Chattahoochee*, 173 U.S. 540, 548 (1899), ‘[t]he principal reason for such reduction of speed is that it will give [both] vessels time to avoid a collision after coming in sight of each other.’ If two vessels, upon sighting each other, are proceeding at rates of speed such that each can stop before it reaches the point at which the courses of the two intersect, collision is impossible.” 49 US 140.

Note: this case was decided under the old rules which required a “moderate” speed in restricted visibility.

Vessel at fault for failing to anchor in restricted visibility

“In a dense fog it is the duty of a steam vessel to anchor, where anchorage is permissible, as soon as circumstances will permit, but she ought not to anchor in a thoroughfare in the very track of navigation. *The Otter*, L.R. 4 Adm. & Ecc. 203; *The Clarita*, 23 Wall. 1.” *La Bourgogne* 86 F. 475, 1898 U.S. App.

Vessel at fault for leaving dock in restricted visibility

“The *Otco New York*, however, was guilty of contributing fault. Her testimony is that she delayed departure because of dense fog, but sailed when the visibility cleared to about 1,000 yards. But the weather record shows heavy fog at the time, with visibility under 1,650 feet. And her master testified that as the *Otco New York* backed away from the pier and straightened out in the channel, the fog closed in again, to the point where he couldn't see over 300 feet, slightly more than the length of the vessel. He testified further that he could have gone back to his berth. It may be that the fog, at sailing time, was not so dense as to have required the vessel to refrain from setting forth. But there was heavy fog, nevertheless, and the master at no time attempted to get a weather report. Surely, good seamanship called at least for an attempt to obtain weather information in what was at best an equivocal situation, and it must be concluded that the failure to do so was negligence that contributed to the cause of damage. And certainly, when the fog closed in immediately after the vessel backed away from the pier, she should have returned to her berth, as she could well have done, rather than risk the hazards of a well-traveled traffic lane in a condition of seriously curtailed visibility. See *La Bourgogne*, 2 Cir., 86 F. 475, 479, *certiorari denied*, 172 U.S. 646, 19 S.Ct. 883, 43 L.Ed. 1180; *The Persian*, 2 Cir., 181 F. 439, 447; *The Quogue*, *supra*. The running of this risk was a contributing cause of the collision.” 192 F. Supp. 245, 1960 U.S. Dist

Part C– Lights and Shapes

Rule 20 – Application

- (a) Rules in this Part shall be complied with in all weathers.**
- (b) The Rules concerning lights shall be complied with from sunset to sunrise, and during such times no other lights shall be exhibited, except such lights as cannot be mistaken for the lights specified in these Rules or do not impair their visibility or distinctive character, or interfere with the keeping of the proper look-out.**
- (c) The lights prescribed by these Rules shall, if carried, also be exhibited from sunrise to sunset in restricted visibility and may be exhibited in all other circumstances when it is deemed necessary.**
- (d) The Rules concerning shapes shall be complied with by day.**
- (e) The lights and shapes specified in these Rules shall comply with the provisions of Annex I to these Regulations.**

Rule 20 applies to vessels in all conditions of visibility. This rule requires that navigation lights be exhibited from sunset to sunrise and at any time when in restricted visibility. Navigation lights may be displayed at any other time. Other lights aboard vessels may be exhibited as long as they cannot be mistaken for navigation lights, do not interfere with the navigation lights and do not interfere with keeping of a proper lookout.

Navigation lights aboard vessels are intended to provide observers information about a vessel's function, position, and general direction of travel. The technical specifications for the positioning, intensity, color specification, and horizontal and vertical visibility of lights are contained in Annex I of the rules. When the improper display of lights is found to have contributed to a collision, the vessel will certainly pay the price. Lights that are no longer functioning properly are to be replaced or repaired promptly.

Furthermore, a vessel may be found at fault for not being equipped with the proper lights. All of the exemptions given in part E of the rules that have expiration periods have expired as of the writing of this manual, therefore, vessels with sidelights mounted below the gunwale and vessels with separate sidelights and an all-round light not positioned on the fore and aft centerline of a vessel are not in compliance with the rules. Unfortunately, the author still sees vessels being manufactured and offered for sale that are not in compliance with the rules.

Proper Display of Lights Required

“If maritime collisions are to be avoided, knowledge of the character and course of oncoming vessels is indispensable. The light rules embody an elaborate code designed to convey that information. The extreme blackness of water at night makes any departure from light rules ‘one of the most wrecklessly unlawful acts a vessel can commit.’” *The First National Bank v. Material Service Corporation*, 597 F.2d 1110; 1979 U.S. App.

Rule 21 – Definitions

- (a) **"Masthead light"** means a white light placed over the fore and aft centerline of the vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel.
- (b) **"Sidelights"** means a green light on the starboard side and a red light on the port side each showing an unbroken light over an arc of the horizon of 112.5 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side. In a vessel of less than 20 meters in length the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel.
- (c) **"Sternlight"** means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.
- (d) **"Towing light"** means a yellow light having the same characteristics as the "sternlight" defined in paragraph (c) of this Rule.
- (e) **"All-round light"** means a light showing an unbroken light over an arc of the horizon of 360 degrees.
- (f) **"Flashing light"** means a light flashing at regular intervals at a frequency of 120 flashes or more per minute.

Rule 21 – Definitions (Inland)

- (a) **"Masthead light"** means a white light placed over the fore and aft centerline of the vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel, except that on a vessel of less than 12 meters in length the masthead light shall be placed as nearly as practicable to the fore and aft centerline of the vessel.
- (b) **"Sidelights"** mean a green light on the starboard side and a red light on the port side each showing an unbroken light over an arc of the horizon of 112.5 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side. On a vessel of less than 20 meters in length the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel, except that on a vessel of less than 12 meters in length the sidelights when combined in one lantern shall be placed as nearly as practicable to the fore and aft centerline of the vessel.
- (c) **"Sternlight"** means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.
- (d) **"Towing light"** means a yellow light having the same characteristics as the "sternlight" defined in paragraph (c) of this Rule.
- (e) **"All-round light"** means a light showing an unbroken light over an arc of the horizon of 360 degrees.

- (f) **"Flashing light" means a light flashing at regular intervals at a frequency of 120 flashes or more per minute.**
- (g) **"Special flashing light" means a yellow light flashing at regular intervals at a frequency of 50 to 70 flashes per minute, placed as far forward and as nearly as practicable on the fore and aft centerline of the tow and showing an unbroken light over an arc of the horizon of not less than 180 degrees nor more than 225 degrees and so fixed as to show the light from right ahead to abeam and no more than 22.5 degrees abaft the beam on either side of the vessel.**

Rule 21 applies to all vessels. It contains the definitions of various lights and specifies the color and horizontal visibility of various lights. The special flashing light (used in towing operations on inland waters) is also defined in the Inland Rule 21 (g). Annex I of the rules specifies the color, intensity, horizontal and vertical sectors of the lights.

Of some interest is the fact that the green light is on the starboard side and the red light is carried on the port side of a vessel. This is in contravention to the oft-repeated mnemonic "red-right-returning." Not only beginning boaters confuse the two concepts. This author occasionally sees vessels having the sidelights combined into a single lantern forward with the lens inserted upside down, placing the red light on the starboard side. The reader is referred to the decision in Rule 20 for further discussion of the importance of displaying the proper lights.

Rule 22 – Visibility of Lights

The lights prescribed in these Rules shall have an intensity as specified in Section 8 of Annex I to these Regulations so as to be visible at the following minimum ranges:

- (a) In vessels of 50 meters or more in length:
 - a masthead light, 6 miles;
 - a sidelight, 3 miles;
 - a sternlight, 3 miles;
 - a towing light, 3 miles;
 - a white, red, green, or yellow all-round light, 3 miles;

- (b) In vessels of 12 meters or more in length but less than 50 meters in length:
 - a masthead light, 5 miles;
 - except that where the length of the vessel is less than 20 meters, 3 miles;
 - a sidelight, 2 miles;
 - a sternlight, 2 miles;
 - a towing light, 2 miles;
 - a white, red, green or yellow all-round light, 2 miles;

- (c) In vessels of less than 12 meters in length:
 - a masthead light, 2 miles;
 - a sidelight, 1 mile;
 - a sternlight, 2 miles;
 - a towing light, 2 miles;
 - a white, red, green or yellow all-round light, 2 miles;

- (d) In inconspicuous, partly submerged vessels or objects being towed:
 - a white all-round light, 3 miles.

Rule 22 – Visibility of Lights (Inland)

The lights prescribed in these Rules shall have an intensity as specified in Section 8 of Annex I to these Rules so as to be visible at the following minimum ranges:

- (a) In vessels of 50 meters or more in length:
 - a masthead light, 6 miles;
 - a sidelight, 3 miles;
 - a sternlight, 3 miles;
 - a towing light, 3 miles;
 - a white, red, green, or yellow all-round light, 3 miles;
 - a special flashing light, 3 miles.

- (b) In vessels of 12 meters or more in length but less than 50 meters in length:**
- a masthead light, 5 miles; except that where the length of the vessel is less than 20 meters, 3 miles;
 - a sidelight, 2 miles;
 - a sternlight, 2 miles;
 - a towing light, 2 miles;
 - a white, red, green or yellow all-round light, 2 miles;
 - a special flashing light, 3 miles.
- (c) In vessels of less than 12 meters in length:**
- a masthead light, 2 miles;
 - a sidelight, 1 mile;
 - a sternlight, 2 miles;
 - a towing light, 2 miles;
 - a white, red, green or yellow all-round light, 2 miles;
 - a special flashing light, 3 miles.
- (d) In inconspicuous, partly submerged vessels or objects being towed: a white all-round light, 3 miles.**

Rule 22 applies to all vessels in navigation. It specifies the minimum visibility of navigational lights in nautical miles. Annex I to the rules specifies the minimum visibility of navigational lights in terms of luminosity. In general, increasingly larger vessels are required to carry lights with greater visibility.

Rule 23 – Power-driven Vessels Underway

- (a) A power-driven vessel underway shall exhibit:**
- (i) a masthead light forward;**
 - (ii) a second masthead light abaft of and higher than the forward; except that a vessel of less than 50 meters in length shall not be obliged to exhibit such light but may do so;**
 - (iii) sidelights;**
 - (iv) a sternlight.**
- (b) an air-cushion vessel when operating in the non-displacement mode shall, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit an all-round flashing yellow light.**
- (c) A WIG craft only when taking off, landing and in flight near the surface shall, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit a high intensity all-round flashing red light.**
- (d)(i) A power-driven vessel of less than 12 meters in length may in lieu of the lights prescribed in paragraph (a) of this Rule exhibit an all-round white light and sidelights;**
- (ii) a power-driven vessel of less than 7 meters in length whose maximum speed does not exceed 7 knots may in lieu of the lights prescribed in paragraph (a) of his Rule exhibit an all-round white light and shall, if practicable, also exhibit sidelights;**
 - (iii) the masthead light or all-round white light on a power-driven vessel of less than 12 meters in length may be displaced from the fore and aft centerline of the vessel if centerline fitting is not practicable, provided that the sidelights are combined in one lantern which shall be carried on the fore and aft centerline of the vessel or located as nearly as practicable in the same fore and aft line as the masthead light or the all-round white light.**

Rule 23 – Power-driven Vessels Underway (Inland)

- (a) A power-driven vessel underway shall exhibit:**
- (i) a masthead light forward;**
 - (ii) a second masthead light abaft of and higher than the forward; except that a vessel of less than 50 meters in length shall not be obliged to exhibit such light but may do so**
 - (iii) sidelights;**
 - (iv) a sternlight.**
- (b) an air-cushion vessel when operating in the non-displacement mode shall, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit an all-round flashing yellow light.**
- (c) A power-driven vessel of less than 12 meters in length may, in lieu of the lights described in paragraph (a) of this Rule, exhibit an all-round white light and sidelights.**

(d) A power-driven vessel when operating on the Great Lakes may carry an all-round white light in lieu of the second masthead light and sternlight prescribed in paragraph (a) of this Rule. The light shall be carried in the position of the second masthead light and be visible at the same minimum range.

This rule applies to power-driven vessels at night or in restricted visibility. Subpart A specifies that power-driven vessels underway shall show navigation lights consisting of sidelights, sternlight, and masthead lights. Power-driven vessels less than 50 meters need only carry a single masthead light. Power-driven vessels less than 12 meters may carry an all-round white light in place of the masthead light. The after masthead light is always carried higher than the forward masthead light for a power-driven vessel underway. This is different than vessels at anchor which must show the forward masthead light higher than the after masthead light. The requirement for showing navigation lights (the sidelights, sternlight, and masthead light or lights) applies to power-driven vessels underway, whether making way or not. This is a different criteria than that applied to fishing vessels, which show navigation lights only when underway and making way.

The International Rules allow a vessel of less than 7 meters in length and capable of a maximum speed of 7 knots to carry an all-round white light in lieu of sidelights and a sternlight. This type of lighting arrangement is not specifically allowed under the Inland Rules, however, under the exemption granted in Inland Rule 1(b)(ii), any vessel meeting the construction and equipment requirements of the International Rules is specified to have meet the requirements of the Inland Rules.

Part 2(g) of Annex I specifies that the sidelights of a power-driven vessel shall be placed at a height above the hull (defined as the uppermost continuous deck) not greater than $\frac{3}{4}$ of the height of the forward masthead light. Clearly the intent is that the sidelights be positioned above the hull or gunwales. The Inland Rules do not contain such a requirement. Thus vessels with lights mounted below the gunwales cannot legally be operated in international waters after sunset or when in restricted visibility. United States Coast Guard Boating Safety Circular #70 addresses this issue in some detail.

Rule 24 – Towing and Pushing

(a) A power-driven vessel when towing shall exhibit:

(i) instead of the light prescribed in Rule 23 (a)(i) or (a)(ii), two masthead lights in a vertical line. When the length of the tow, measuring from the stern of the towing vessel to the after end of the tow exceeds 200 meters, three such lights in a vertical line;

(ii) sidelights;

(iii) a sternlight;

(iv) a towing light in a vertical line above the sternlight;

(v) when the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.

(b) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and exhibit the lights prescribed in Rule 23.

(c) A power-driven vessel when pushing ahead or towing alongside, except in the case of a composite unit, shall exhibit:

(i) instead of the light prescribed in Rule 23(a)(i) or (a)(ii), two masthead lights in a vertical line;

(ii) sidelights; and

(iii) a sternlight.

(d) A power-driven vessel to which paragraphs (a) or (c) of this Rule apply shall also comply with Rule 23(a)(ii).

(e) A vessel or object being towed, other than those mentioned in paragraph (g) of this Rule, shall exhibit:

(i) sidelights;

(ii) a sternlight;

(iii) when the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.

(f) Provided that any number of vessels being towed alongside or pushed in a group shall be lighted as one vessel.

(i) a vessel being pushed ahead, not being part of a composite unit, shall exhibit at the forward end, sidelights;

(ii) a vessel being towed alongside shall exhibit a sternlight and at the forward end, sidelights.

(g) An inconspicuous, partly submerged vessel or object, or combination of such vessels or objects being towed, shall exhibit:

- (i) if it is less than 25 meters in breadth, one all-round white light at or near the forward end and one at or near the after end except that dracones need not exhibit a light at or near the forward end;**
 - (ii) if it is 25 meters or more in breadth, two additional all-round white lights at or near the extremities of its breadth;**
 - (iii) if it exceeds 100 meters in length, additional all-round white lights between the lights prescribed in subparagraphs (i) and (ii) so that the distance between the lights shall not exceed 100 meters;**
 - (iv) a diamond shape at or near the aftermost extremity of the last vessel or object being towed and if the length of the tow exceeds 200 meters an additional diamond shape where it can best be seen and located as far forward as is practicable.**
- (h) Where from any sufficient cause it is impracticable for a vessel or object being towed to exhibit the lights or shapes prescribed in paragraph (e) or (g) of this Rule, all possible measures shall be taken to light the vessel or object towed or at least to indicate the presence of such vessel or object.**
 - (i) Where from any sufficient cause it is impracticable for a vessel not normally engaged in towing operations to display the lights prescribed in paragraph (a) or (c) of this Rule, such vessel shall not be required to exhibit those lights when engaged in towing another vessel in distress or otherwise in need of assistance. All possible measures shall be taken to indicate the nature of the relationship between the towing vessel and the vessel being towed as authorized by Rule 36, in particular by illuminating the towline.**

Rule 24 – Towing and Pushing (Inland)

- (a) A power-driven vessel when towing astern shall exhibit:**
 - (i) instead of the light prescribed either in Rule 23(a)(i) or 23(a)(ii), two masthead lights in a vertical line. When the length of the tow, measuring from the stern of the towing vessel to the after end of the tow exceeds 200 meters, three such lights in a vertical line;**
 - (ii) sidelights;**
 - (iii) a sternlight;**
 - (iv) a towing light in a vertical line above the sternlight; and**
 - (v) when the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.**
- (b) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and exhibit the lights prescribed in Rule 23.**
- (c) A power-driven vessel when pushing ahead or towing alongside, except as required by paragraphs (b) and (i) of this Rule, shall exhibit:**

- (i) instead of the light prescribed either in Rule 23(a)(i) or 23(a)(ii), two masthead lights in a vertical line;**
 - (ii) sidelights; and**
 - (iii) two towing lights in a vertical line.**
- (d) A power-driven vessel to which paragraphs (a) or (c) of this Rule apply shall also comply with Rule 23(a)(i) and 23(a)(ii).**
- (e) A vessel or object, other than those referred to in paragraph (g) of this Rule being towed shall exhibit:**
 - (i) sidelights;**
 - (ii) a sternlight; and**
 - (iii) when the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.**
- (f) Provided that any number of vessels being towed alongside or pushed in a group shall be lighted as one vessel; except as provided in paragraph (iii):**
 - (i) a vessel being pushed ahead, not being part of a composite unit, shall exhibit at the forward end sidelights, and a special flashing light;**
 - (ii) a vessel being towed alongside shall exhibit a sternlight and at the forward end, sidelights and a special flashing light; and**
 - (iii) when vessels are towed alongside on both sides of the towing vessels a sternlight shall be exhibited on the stern of the outboard vessel on each side of the towing vessel, and a single set of sidelights as far forward and as far outboard as is practicable, and a single special flashing light.**
- (g) An inconspicuous, partly submerged vessel or object being towed shall exhibit:**
 - (i) if it is less than 25 meters in breadth, one all-round white light at or near each end;**
 - (ii) if it is 25 meters or more in breadth, four all-round white lights to mark its length and breadth;**
 - (iii) if it exceeds 100 meters in length, additional all-round white lights between the lights prescribed in subparagraphs (i) and (ii) so that the distance between the lights shall not exceed 100 meters: Provided, That any vessels or objects being towed alongside each other shall be lighted as one vessel or object;**
 - (iv) a diamond shape at or near the aftermost extremity of the last vessel or object being towed; and**
 - (v) the towing vessel may direct a searchlight in the direction of the tow to indicate its presence to an approaching vessel.**
- (h) Where from any sufficient cause it is impracticable for a vessel or object being towed to exhibit the lights prescribed in paragraph (e) or (g) of this Rule, all possible measures shall be taken to light the vessel or object towed or at least to indicate the presence of the unlighted vessel or object.**

- (i) Notwithstanding paragraph (c), on the Western Rivers (except below the Huey P. Long Bridge on the Mississippi River) and on waters specified by the Secretary, a power-driven vessel when pushing ahead or towing alongside, except as paragraph (b) applies, shall exhibit:**
- (i) sidelights; and**
 - (ii) two towing lights in a vertical line.**
- (j) Where from any sufficient cause it is impracticable for a vessel not normally engaged in towing operations to display the lights prescribed by paragraph (a), (c), or (i) of this Rule, such vessel shall not be required to exhibit those lights when engaged in towing another vessel in distress or otherwise in need of assistance. All possible measures shall be taken to indicate the nature of the relationship between the towing vessel and the vessel being assisted. The searchlight authorized by Rule 36 may be used to illuminate the tow.**

This rule applies to towing and towed vessels at night or in restricted visibility. A towing vessel is required to show either one or two additional masthead lights depending of the length of the tow.

The length of the tow is measured from the stem of the towing vessel to the end of the last towed vessel. When the length of the tow exceeds 200 meters, then both the towing vessel and the towed vessel must exhibit a diamond shape.

Towing vessels and tows which are rigidly connected together by other than ropes, wires, or hawsers and move in the waves as a single vessel are considered as a single vessel.

Under the Inland Rules, vessels proceeding above the Huey P. Long Bridge on the Mississippi and other waters specified by the Secretary need not exhibit masthead lights. This is due to the preponderance of overhead hazards on the Mississippi River under which these vessels must pass. Additionally, under the Inland Rules, a power driven vessel pushing ahead will display two yellow towing lights astern in place of the sternlight and towing light.

Recreational vessels towing at night are advised light the towline with a searchlight in order to make clear the relationship of the towing and towed vessel.

Rule 25 – Sailing Vessels Underway and Vessels Under Oars

(a) A sailing vessel underway shall exhibit:

- (i) sidelights;**
- (ii) a sternlight.**

(b) In a sailing vessel of less than 20 meters in length the lights prescribed in paragraph (a) of this Rule may be combined in one lantern carried at or near the top of the mast where it can best be seen.

(c) A sailing vessel underway may, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red and the lower green, but these lights shall not be exhibited in conjunction with the combined lantern permitted by paragraph (b) of this Rule.

(d) (i) A sailing vessel of less than 7 meters in length shall, if practicable, exhibit the lights prescribed in paragraph (a) or (b) of this Rule, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(ii) A vessel under oars may exhibit the lights prescribed in this Rule for sailing vessels, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(e) A vessel proceeding under sail when also being propelled by machinery shall exhibit forward where it can best be seen a conical shape, apex downwards.

Rule 25 – Sailing Vessels Underway and Vessels Under Oars (Inland)

(a) A sailing vessel underway shall exhibit:

- (i) sidelights;**
- (ii) a sternlight.**

(b) In a sailing vessel of less than 20 meters in length the lights prescribed in paragraph (a) of this Rule may be combined in one lantern carried at or near the top of the mast where it can best be seen.

(c) A sailing vessel underway may, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red and the lower green, but these lights shall not be exhibited in conjunction with the combined lantern permitted by paragraph (b) of this Rule.

(d) (i) A sailing vessel of less than 7 meters in length shall, if practicable, exhibit the lights prescribed in paragraph (a) or (b) of this Rule, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(ii) A vessel under oars may exhibit the lights prescribed in this Rule for sailing vessels, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(e) A vessel proceeding under sail when also being propelled by machinery shall exhibit forward where it can best be seen a conical shape, apex downwards. A vessel of less than 12 meters in length is not required to exhibit this shape, but may do so.

This rule applies to vessels proceeding exclusively under sail and manually propelled vessels at night or in restricted visibility. A sailing vessel or vessel under oars can be distinguished from a power-driven vessel in that they never display masthead lights. Sailing vessels operating under power are, of course, required to exhibit the lights of a power-driven vessel.

Under the Inland Rules, at a minimum, a vessel under oars need not display any lights, but must exhibit a white light in time to prevent collision. This author strongly recommends that vessels not properly equipped with navigation lights stay at the dock after dark.

Under Inland Rule 25, sailing vessels 12 meters or more in length must exhibit a cone, shown apex downward when operating under power. The International Rules do not have a similar exemption, thus sailing vessels of all lengths must exhibit the cone in international waters when operating under power.

A relatively new federal requirement being enforced in some Coast Guard districts is contained in 33 CFR 175.110 and 33 CFR 175.115 which requires visual distress signals to be carried on all vessels, but particularly those less than 16 ft. (such as a yacht tender) at night on inland waters. This requirement can be satisfied by the carrying of a U.S.C.G. approved electric distress light, such as would normally be attached to one's P.F.D.

Rule 26 – Fishing Vessels

- (a) A vessel engaged in fishing, whether underway or at anchor, shall exhibit only the lights and shapes prescribed in this Rule.**
- (b) A vessel when engaged in trawling, by which is meant the dragging through the water of a dredge net or other apparatus used as a fishing appliance, shall exhibit:**
 - (i) two all-round lights in a vertical line, the upper being green and the lower white, or a shape consisting of two cones with their apexes together in a vertical line one above the other;**
 - (ii) a masthead light abaft of and higher than the all-round green light; a vessel of less than 50 meters in length shall not be obliged to exhibit such a light but may do so;**
 - (iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.**
- (c) A vessel engaged in fishing, other than trawling, shall exhibit:**
 - (i) two all-round lights in a vertical line, the upper being red and the lower white, or a shape consisting of two cones with apexes together in a vertical line one above the other;**
 - (ii) when their is outlying gear extending more than 150 meters horizontally from the vessel, an all-round white light or a cone apex upwards in the direction of the gear;**
 - (iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.**
- (d) The additional signals described in Annex II to these Rules apply to a vessel engaged in fishing in close proximity to other vessels engaged in fishing.**
- (e) A vessel when not engaged in fishing shall not exhibit the lights or shapes prescribed in this Rule, but only those prescribed for a vessel of her length.**

This rule applies to vessels while engaged in fishing or trawling at night or in restricted visibility. Because anchoring is a common practice among vessels engaged in fishing, the lights remain the same for a vessel engaged in fishing whether underway and not making way or at anchor. Vessels engaged in fishing or trawling only exhibit sidelights and a sternlight when underway and making way. Neither class of vessel may exhibit the lights specified in this rule when not actually engaged in trawling or fishing and constrained in maneuverability due to the deployment of gear.

A vessel engaged in trawling exhibits a green over white masthead light. Trawlers over 50 meters in length also exhibit a second after masthead light. Vessels engaged in trawling, whether operating under Inland or International Rules must exhibit two cones, apexes together during daylight hours. The old Inland Rule exemption allowing a basket to be displayed is no longer in effect with this version of the rules.

A vessel engaged in fishing exhibits a red over white masthead light. Fishing vessels over 50 meters in length are not required to exhibit a second after masthead light.

Annex II of the rules specifies that vessels over 20 meters in length engaged in trawling may exhibit two all round white lights in a vertical line when shooting nets, a white over red light when hauling nets, and two red lights when the gear is fast on an obstruction. Vessels engaged in pair trawling may exhibit the previously mentioned lights when hung on an obstruction and may also exhibit search lights directed toward the other trawling vessel.

Rule 27 – Vessels Not Under Command or Restricted in Their Ability to Maneuver

(a) A vessel not under command shall exhibit:

- (i) two all-round red lights in a vertical line where they can best be seen;**
- (ii) two balls or similar shapes in a vertical line where they can best be seen;**
- (iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.**

(b) A vessel restricted in her ability to maneuver, except a vessel engaged in mineclearance operations, shall exhibit:

- (i) three all-round lights in a vertical line where they can best be seen. The highest and lowest of these lights shall be red and the middle light shall be white;**
- (ii) three shapes in a vertical line where they can best be seen. The highest and lowest of these shapes shall be balls and the middle one a diamond;**
- (iii) when making way through the water, a masthead light or lights, sidelights, and a sternlight, in addition to the lights prescribed in subparagraph (i);**
- (iv) when at anchor, in addition to the lights or shapes prescribed in subparagraphs (i) and (ii), the light, lights or shape prescribed in Rule 30.**

(c) A power-driven vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course shall, in addition to the lights or shapes prescribed in Rule 24(a), exhibit the lights or shapes prescribed in subparagraphs (b)(i) and (ii) of this Rule.

(d) A vessel engaged in dredging or underwater operations, when restricted in her ability to maneuver, shall exhibit the lights and shapes prescribed in subparagraphs (b)(i), (ii), and (iii) of this Rule and shall in addition, when an obstruction exists, exhibit:

- (i) two all-round red lights or two balls in a vertical line to indicate the side on which the obstruction exists;**
- (ii) two all-round green lights or two diamonds in a vertical line to indicate the side on which another vessel may pass;**
- (iii) when at anchor, the lights or shapes prescribed in this paragraph instead of the lights or shape prescribed in Rule 30.**

(e) Whenever the size of a vessel engaged in diving operations makes it impracticable to exhibit all lights and shapes prescribed in paragraph (d) of this Rule, the following shall be exhibited:

(i) three all-round lights in a vertical line where they can best be seen. The highest and lowest of these lights shall be red and the middle light shall be white.

(ii) a rigid replica of the International Code flag "A" not less than 1 meter in height. Measures shall be taken to ensure its all-round visibility.

(f) A vessel engaged in mineclearance operations shall in addition to the lights prescribed for a power-driven vessel in Rule 23 or to the lights or shape prescribed for a vessel at anchor in Rule 30 as appropriate, exhibit three all-round green lights or three balls. One of these lights or shapes shall be exhibited near the foremast head and one at each end of the fore yard. These lights or shapes indicate that it is dangerous for another vessel to approach within 1000 meters of the mineclearance vessel.

(g) Vessels of less than 12 meters in length, except those engaged in diving operations, shall not be required to exhibit the lights and shapes prescribed in this Rule.

(h) The signals prescribed in this Rule are not signals of vessels in distress and requiring assistance. Such signals are contained in Annex IV to these Regulations.

This rule applies to vessels not under command or restricted in their ability to maneuver. See the discussion of Rule 3 for the definitions of these classes of vessels

Vessels engaged in diving operations which restrict maneuverability must display a rigid replica of the Morse A symbol if unable to display the normal restricted status signals. Some examples of these situations are hard-hat diving where the diver is connected to the vessel or the vessel is in the immediate act of discharging or retrieving free-swimming divers such that life may be endangered if the vessel is maneuvered. The blue-white Alpha rigid replica indicates a vessel restricted in ability to maneuver. Vessels less than 12 meters need not display the lights and shapes in this rule, except that vessels less than 12 meters in length engaged in diving operations which restrict maneuverability must display the Morse A rigid replica and vessels 12 meters or more in length must display the lights or shapes in addition to the Morse A rigid replica.

A table of simple mnemonics intended to assist in memorizing various light combinations follows:

Status (Abbr.)	Mnemonic (Light Pattern)
Not Under Command (NUC)	Red over Red, this boat is dead (Red, Red)
Restricted in Ability to Maneuver (RAM)	Red When Restricted (Red, White, Red)
Constrained By Draft (CBD)	Rudder Rubbing Rocks (Red, Red, Red)
Fishing Vessel	Red over White, Fishing Tonite (Red, White)
Trawling Vessel	Green over White, Trawling Tonite (Green, White)

Rule 28 – Vessels Constrained by Their Draft

A vessel constrained by her draft may, in addition to the lights prescribed for power-driven vessels in Rule 23, exhibit where they can best be seen three all-round red lights in a vertical line, or a cylinder.

Rule 28 – (Inland)

Reserved.

Rule 28 discusses lights and shapes for vessels constrained by their draft. Because the Inland Rules do not include a definition of a vessel constrained by her draft, one should never see a vessel showing three red mast-head lights or a cylinder in inland waters. Therefore, this rule applies only to vessels actually constrained by their draft in international waters.

A point of confusion sometimes encountered is that the three balls day shape (for a vessel aground) is not equivalent to the three red lights shown by a vessel constrained by her draft.

Rule 29 – Pilot Vessels

(a) A vessel engaged on pilotage duty shall exhibit:

(i) at or near the masthead, two all-round lights in a vertical line, the upper being white and the lower red;

(ii) when underway, in addition, sidelights and a sternlight;

(iii) when at anchor, in addition to the lights prescribed in subparagraph (i), the light, lights or shape prescribed in Rule 30 for vessels at anchor.

(b) A pilot vessel when not engaged on pilotage duty shall exhibit the lights or shapes prescribed for a similar vessel of her length.

Rule 29 specifies the lights and shapes for a pilot vessel in international or inland waters. Pilot vessels are similar to fishing vessels in that they may show their lights and shapes when underway as well as when at anchor while on duty.

Rule 30 – Anchored Vessels and Vessels Aground

- (a) A vessel at anchor shall exhibit where it can best be seen:**
 - (i) in the fore part, an all-round white light or one ball;**
 - (ii) at or near the stern and at a lower level than the light prescribed in subparagraph (i) an all-round white light.**
- (b) A vessel of less than 50 meters in length may exhibit an all-round white light where it can best be seen instead of the lights prescribed in paragraph (a) of this Rule.**
- (c) A vessel at anchor may, and a vessel of 100 meters and more in length shall, also use the available working or equivalent lights to illuminate her decks.**
- (d) A vessel aground shall exhibit the lights prescribed in paragraph (a) or (b) of this Rule and in addition, where they can best be seen:**
 - (i) two all-round red lights in a vertical line;**
 - (ii) three balls in a vertical line.**
- (e) A vessel of less than 7 meters in length, when at anchor, not in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shape prescribed in paragraphs (a) and (b) of this Rule.**
- (f) A vessel of less than 12 meters in length, when aground, shall not be required to exhibit the lights or shapes prescribed in subparagraphs (d)(i) and (ii) of this Rule.**

Rule 30 – Anchored Vessels and Vessels Aground (Inland)

- (a) A vessel at anchor shall exhibit where it can best be seen:**
 - (i) in the fore part, an all-round white light or one ball;**
 - (ii) at or near the stern and at a lower level than the light prescribed in subparagraph (i) an all-round white light.**
- (b) A vessel of less than 50 meters in length may exhibit an all-round white light where it can best be seen instead of the lights prescribed in paragraph (a) of this Rule.**
- (c) A vessel at anchor may, and a vessel of 100 meters and more in length shall, also use the available working or equivalent lights to illuminate her decks.**
- (d) A vessel aground shall exhibit the lights prescribed in paragraph (a) or (b) of this Rule and in addition, if practicable, where they can best be seen:**
 - (i) two all-round red lights in a vertical line;**

(ii) three balls in a vertical line.

- (e) A vessel of less than 7 meters in length, when at anchor, not in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shape prescribed in paragraphs (a) and (b) of this Rule.**
- (f) A vessel of less than 12 meters in length, when aground, shall not be required to exhibit the lights or shapes prescribed in subparagraphs (d)(i) and (ii) of this Rule.**
- (g) A vessel of less than 20 meters in length, when at anchor in a special anchorage area designated by the Secretary, shall not be required to exhibit the anchor lights and shapes required by this Rule.**

Rule 30 applies to vessels anchored or aground in international or inland waters. Because of the many collisions among vessels underway with vessels at anchor, it is extremely important for the mariner to show proper lights at anchor and to post an anchor watch. Inland Rule 30(e) exempts vessels less than 7 meters in length from showing anchor lights or the single ball day shape when anchored away from narrow channels, fairways or anchorages in an area not normally traversed by other vessels. Inland Rule 30 (g) also exempts vessels less than 20 meters in length from showing anchor lights when in a special anchorage designated by the Secretary. These special anchorages are marked on charts of the area, however, since collisions do occur in these special anchorages, vessels are well advised to show an anchor light whenever they are at anchor at night or in restricted visibility.

An interesting point to note is that vessel 50 meters or larger in length show a configuration of masthead lights when underway with the forward light lower than the after masthead light. However, when at anchor, these vessels must show the after all-round anchor light lower than the forward all-round anchor light. This situation applies on both inland and international waters.

Rule 31 – Seaplanes

Where it is impracticable for a seaplane or a WIG craft to exhibit lights and shapes of the characteristics or in the positions prescribed in the Rules of this Part she shall exhibit lights and shapes as closely similar in characteristics and position as is possible.

Rule 31 – Seaplanes (Inland)

Where it is impracticable for a seaplane to exhibit lights and shapes of the characteristics or in the positions prescribed in the Rules of this Part she shall exhibit lights and shapes as closely similar in characteristics and position as is possible.

Rule 31 applies to seaplanes in international and inland waters when in restricted visibility or at night. The new international version of Rule 31 includes WIG craft in the same category as seaplanes with regard to the display of lights. The reader should also note the exemption in Inland Rule 1(b)(ii) regarding compliance with the Inland Rules for equipment, lights and shapes.

Vessel Status	Inland Lights/Shapes	International Lights/Shapes
Power-driven less than 7 meters and 7 knots maximum speed.	Must show lights for a power-driven vessel.	May show an all-round white light.
Anchored vessel.	Vessel less than 20 meters when in special anchorage need not show anchor lights.	Must show anchor lights.
Vessel constrained by her draft.	Must show lights for her normal vessel class. (Constrained by draft excluded from Inland Rules).	Must show lights for vessel constrained by her draft.
Sailing vessel under 12 meters in length proceeding under power.	Need not show cone apex downward.	Must show cone apex downward.
Vessels towing pushing ahead when above the Huey P. Long bridge or on the Western Rivers.	Need not show masthead lights; must show 2 towing lights aft.	Not applicable.
Dracone being towed.	Must show lights forward and aft	Need only show lights aft
Partially submerged object being towed 25 or more meters in breadth.	4 white lights marking towed vessels length and breadth.	1 white light forward, 1 white light aft, and 1 white lights at each extremity of breadth.
Vessel being pushed ahead.	Special flashing light ahead.	Not applicable.
Vessel pushing ahead or alongside.	Towing lights shown aft.	Sternlight shown aft.

Differences Among International and Inland Lights
Table 1

Part D – Sound and Light Signals

Rule 32 – Definitions

- (a) **The word "whistle" means any sound signaling appliance capable of producing the prescribed blasts and which complies with the specifications in Annex III to these Regulations.**
- (b) **The term "short blast" means a blast of about one second's duration.**
- (c) **The term "prolonged blast" means a blast of from four to six seconds duration.**

Rule 32 gives the definitions for whistle, prolonged blast, and short blast. Annex III of the Rules gives the technical details for sound signaling appliances, including frequencies and range of audibility.

In general, sound appliances such as bells and gongs must at least be capable of manual operation. Lower tones are reserved for larger vessels as are the requirements for greater ranges of audibility.

It is possible for two vessels approaching each other to be operating under different sets of rules when each vessel is on the opposite side of a COLREGs demarcation line. In this situation, both vessels should exchange sound signals appropriate to the set of rules that apply where the vessels will pass each other. *The Arkansan – The Knoxville City, 112 F.2d 223, 1940.*

Rule 33 – Equipment for Sound Signals

- (a) A vessel of 12 meters or more in length shall be provided with a whistle, a vessel of 20 meters or more in length shall be provided with a bell in addition to a whistle, and a vessel of 100 meters or more in length shall, in addition, be provided with a gong, the tone and sound of which cannot be confused with that of the bell. The whistle, bell and gong shall comply with the specifications in Annex III to these Regulations. The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the prescribed signals shall always be possible.**
- (b) A vessel of less than 12 meters in length shall not be obliged to carry the sound signaling appliances prescribed in paragraph (a) of this Rule but if she does not, she shall be provided with some other means of making an efficient sound signal.**

Rule 33 – Equipment for Sound Signals (Inland)

- (a) A vessel of 12 meters or more in length shall be provided with a whistle and a bell and a vessel of 100 meters or more in length shall, in addition, be provided with a gong, the tone and sound of which cannot be confused with that of the bell. The whistle, bell and gong shall comply with the specifications in Annex III to these Regulations. The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the prescribed signals shall always be possible.**
- (b) A vessel of less than 12 meters in length shall not be obliged to carry the sound signaling appliances prescribed in paragraph (a) of this Rule but if she does not, she shall be provided with some other means of making an efficient sound signal.**

Rule 33 applies to all classes of vessels in inland or international waters. The following table indicates the required sound signaling equipment for vessels:

Vessel Length	Required Signaling Equipment (Inland)	Required Signaling Equipment (International)
Less than 12 meters	Whistle (or efficient means of making a sound signal)	Whistle (or efficient means of making a sound signal)
12 meters to 20 meters	Whistle and Bell	Whistle
20 meters to 100 meters	Whistle and Bell	Whistle and Bell
Greater than 100 meters	Whistle, Bell and Gong	Whistler, Bell and Gong

Equipment for Sound Signals
Table 2

A vessel required to carry a bell need not have the bell mounted, but it must be readily available for mounting should adverse conditions arise.

A recent change in the International Rules is that vessels 12 to 20 meters in length are no longer required to carry a bell. Although this requirement remains in the Inland Rules, the exemption regarding equipment in Inland Rule 1(b)(ii) effectively eliminates this requirement for vessels operating under the Inland Rules..

Rule 34 – Maneuvering and Warning Signals

(a) When vessels are in sight of one another, a power-driven vessel underway, when maneuvering as authorized or required by these Rules, shall indicate that maneuver by the following signals on her whistle.

-- one short blast to mean "I am altering my course to starboard";

-- two short blasts to mean "I am altering my course to port";

-- three short blasts to mean "I am operating astern propulsion".

(b) Any vessel may supplement the whistle signals prescribed in paragraph (a) of this Rule by light signals, repeated as appropriate, while the maneuver is being carried out:

(i) these light signals shall have the following significance:

-- one flash to mean "I am altering my course to starboard";

-- two flashes to mean " I am altering my course to port";

-- three flashes to mean "I am operating astern propulsion";

(ii) the duration of each flash shall be about one second, the interval between flashes shall be about one second, and the interval between successive signals shall be not less than 10 seconds;

(iii) the light used for this signal shall, if fitted, be an all-round white light, visible at a minimum range of 5 miles, and shall comply with the provisions of Annex I to these Regulations.

(c) When in sight of one another in a narrow channel or fairway:

(i) a vessel intending to overtake another shall in compliance with Rule(9)(e)(i) indicate her intention by the following signals on her whistle:

-- two prolonged blasts followed by one short blast to mean "I intend to overtake you on your starboard side";

-- two prolonged blasts followed by two short blasts to mean "I intend to overtake you on your port side".

(ii) The vessel about to be overtaken when acting in accordance with Rule 9 (e)(i) shall indicate her agreement by the following signal on her whistle:

-- one prolonged, one short, one prolonged and one short blast, in that order.

- (d) When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. Such signal may be supplemented by a light signal of at least five short and rapid flashes.**
- (e) A vessel nearing a bend or an area of a channel or fairway where other vessels may be obscured by an intervening obstruction shall sound one prolonged blast. Such signal shall be answered with a prolonged blast by any approaching vessel that may be within hearing around the bend or behind the intervening obstruction.**
- (f) If whistles are fitted on a vessel at a distance apart of more than 100 meters, one whistle only shall be used for giving maneuvering and warning signals.**

Rule 34 – Maneuvering and Warning Signals (Inland)

- (a) When power-driven vessels are in sight of one another and meeting or crossing at a distance within half a mile of each other, each vessel underway, when maneuvering as authorized or required by these Rules:**
 - (i) shall indicate that maneuver by the following signals on her whistle: one short blast to mean "I intend to leave you on my port side"; two short blasts to mean "I intend to leave you on my starboard side"; and three short blasts to mean "I am operating astern propulsion".**
 - (ii) upon hearing the one or two blast signal of the other shall, if in agreement, sound the same whistle signal and take the steps necessary to effect a safe passing. If however, from any cause, the vessel doubts the safety of the proposed maneuver, she shall sound the danger signal specified in paragraph (d) of this Rule and each vessel shall take appropriate precautionary action until a safe passing agreement is made.**
- (b) A vessel may supplement the whistle signals prescribed in paragraph (a) of this Rule by light signals:**
 - (i) These signals shall have the following significance: one flash to mean "I intend to leave you on my port side"; two flashes to mean "I intend to leave you on my starboard side"; three flashes to mean "I am operating astern propulsion";**
 - (ii) The duration of each signal shall be about 1 second; and**
 - (iii) The light used for this signal shall, if fitted, be one all-round white or yellow light, visible at a minimum range of 2 miles, synchronized with the whistle, and shall comply with the provisions of Annex I to these Rules.**
- (c) When in sight of one another:**
 - (i) a power-driven vessel intending to overtake another power-driven vessel shall indicate her intention by the following signals on her whistle: one short blast to mean "I intend to overtake you on your starboard side"; two short blasts to mean "I intend to overtake you on your port side"; and**

- (ii) the power-driven vessel about to be overtaken shall, if in agreement, sound a similar sound signal. If in doubt she shall sound the danger signal prescribed in paragraph (d).
- (d) When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. Such signal may be supplemented by a light signal of at least five short and rapid flashes.
- (e) A vessel nearing a bend or an area of a channel or fairway where other vessels may be obscured by an intervening obstruction shall sound one prolonged blast. This signal shall be answered with a prolonged blast by any approaching vessel that may be within hearing around the bend or behind the intervening obstruction.
- (f) If whistles are fitted on a vessel at a distance apart of more than 100 meters, one whistle only shall be used for giving maneuvering and warning signals.
- (g) When a power-driven vessel is leaving a dock or berth, she shall sound one prolonged blast.
- (h) A vessel that reaches agreement with another vessel in a head-on, crossing, or overtaking situation, as for example, by using the radiotelephone as prescribed by the Bridge-to-Bridge Radiotelephone Act (85 Stat. 165; 33 U.S.C. 1201 et. seq.), is not obliged to sound the whistle signals prescribed by this Rule, but may do so. If agreement is not reached, then whistle signals shall be exchanged in a timely manner and shall prevail.

Rule 34 prescribes the maneuvering and danger signals for vessels in international or inland waters when in sight of one another. The Inland Rule also prescribes additional signals for vessels departing a dock or approaching a bend or obstruction where another vessel may be obscured. Because there is a significant difference between the Inland Rules and the International Rules in regard to maneuvering signals, they are discussed separately.

A short blast whistle signal is approximately one second in duration. A prolonged blast whistle signal is approximately four to six seconds in duration. Previous versions of the COLREGs referred to a long blast. The term used now is “prolonged” blast.

The danger signal consists of five or more short and rapid blasts. Within this text, it is referred to as five short blasts. Under both the International and Inland Rules, the requirement that the danger signal be sounded if there is doubt as to the maneuver (proposed or taken) has been held to mean that the danger signal must be sounded if the vessel sounding the original signal is standing into danger. Vessels assenting to dangerous maneuvers by other vessels have been found at fault for failing to sound the danger signal instead. Of course, the danger signal is additionally required to be sounded whenever any vessel is in doubt that sufficient action is being taken by any vessel to avoid collision.

Light signals used to indicate maneuvering must be an all-round white or yellow light, synchronized with the whistle, and in compliance with Annex I of the corresponding set of the Rules.

International Rules signals

Under the International Rules, with one exception discussed below, a whistle signal is a signal of action, to be made concurrently with any rudder or engine changes. In meeting or crossing situations, a whistle signal of one short blast means “I am changing course to starboard” and a whistle signal of two short blasts means “I am changing course to port.” A signal of three short blasts means “I am operating astern propulsion” and a signal of five short blasts means “danger.” Light signals may be used concurrently with each of these whistle signals.

If a vessel, upon hearing a whistle signal, is in doubt as to the maneuver or if a risk of collision exists, she must sound the danger signal, otherwise, no response is expected. Because the normal maneuvering signals are made concurrently with rudder or engine changes, it is entirely possible for two vessels in international waters to effect a port-to-port passage without exchanging whistle signals or to exchange multiple whistle signals, concurrent with each rudder change. However, due to the action nature of International Rules signals, repetition of whistle signals may be confusing.

A vessel operating astern propulsion is obliged to sound the normal rudder change signals indicating course changes with respect to her own vessel’s starboard and port sides in addition to the signal indicating astern propulsion.

In narrow channels, when overtaking another vessel and when the other vessel must maneuver to effect a safe passage, a signal of two prolonged and one short blast means “I intend to overtake you on your starboard side” and a signal of two prolonged and two short blasts means “I intend to overtake you on your port side.” If the other vessel concurs with the proposed maneuver, she sounds a signal of one prolonged, one short, one prolonged, and one short in that order. Otherwise, she must sound the danger signal. Light signals are not to be used with each of these whistle signals.

Inland Rules signals

Inland Rules maneuvering signals are signals of intent. In head-on or crossing situations, a whistle signal of one short blast means “I intend to leave you on my port side” and a whistle signal of two short blasts means “I intend to leave you on my starboard side” and are in essence a request to the other vessel for information regarding the proposed maneuver. A signal of three short blasts means “I am operating astern propulsion” and a signal of five short blasts means “danger.” Light signals may be used concurrently with each of these whistle signals. An interesting sidelight is that all of the Inland Rules maneuvering light signals are of 1second duration (corresponding to short blasts).

In all cases, Inland Rules whistle signals must be sounded in crossing and meeting situations upon approaching another vessel within ½ mile and the other vessel must respond to the whistle signal with either the same signal or the danger signal. An exchange of like signals is binding upon both vessels and both vessels must then maneuver to effect a safe passage within the meaning of the exchanged signals. In inland waters, the responsibility of a vessel hearing a whistle signal indicating a proposed maneuver is to fully assess the situation and determine whether the proposed maneuver can be carried out safely. If there is any doubt that the proposed maneuver is safe, then the vessel hearing the proposed maneuver must sound the danger signal and be prepared to stop engines or operate astern propulsion. Vessels proceeding on a proposed maneuver without hearing an assenting signal assume the entire risk of the proposed maneuver. Likewise, vessels assenting to an obviously dangerous maneuver or failing to fully assess the danger of a proposed maneuver must bear their proportional responsibility should a collision occur.

Cross signals (two short blasts in response to one short blast and vice-versa) are not to be exchanged under Inland Rules. On inland waters, it is not a fault to repeat a whistle signal if the other vessel does not respond appropriately and risk of collision does not yet exist. However, failure to respond to a whistle signal may be evidence that the other vessel is not maneuvering in conformance with the rules and may indicate that a risk of collision exists. Therefore, vessel repeating a whistle signal must be prepared to immediately take action to avoid collision, including sounding the danger signal. The mere fact that a whistle signal is repeated is a clear indication that doubt exists as to the situation. See the discussion in Rule 8 and Rule 17 for further information on risk of collision.

When overtaking another vessel, a signal of one short blast means “I intend to overtake you on your starboard side” and a signal of two short blasts means “I intend to overtake you on your port side.” Light signals may be used concurrently with each of these whistle signals. Unlike meeting or crossing situations, Inland Rule 34 (c) does not require that the overtaking signal be sounded within a specific distance when approaching another vessel.

An interesting situation that appears to be a point of some confusion is when a power-driven vessel is backing near another power-driven vessel. Certain historical texts have suggested that power-driven vessels may give signals when operating astern propulsion as if the bow had become the stern for the duration of the maneuver. However, nothing could be further from the truth.

When meeting or crossing, a power driven vessel operating astern propulsion must sound three short blasts indicating astern propulsion when approaching within ½ mile of another power driven vessel. If a vessel is operating astern propulsion and overtaking another, she must sound one or two short blasts indicating the proposed manner of passage. Again, there is no specific distance indicated in the rules as to when to sound this latter signal.

The Inland Rules require a vessel leaving a dock or berth to sound one prolonged blast. This whistle should be sounded as soon as the vessel begins to move away from the dock and repeated until the vessel has a clear view of the fairway at the end of the slip, dock or pier. Additional signals may be required, such as 3 short blasts when operating astern propulsion if the vessel is power driven and approaching within ½ mile of other power-driven vessels underway.

Vessel at fault for failing to answer signal from overtaking vessel

“The passing signal from an overtaking vessel is not solely a request for permission to pass. It also asks for information which the overtaking vessel is entitled to have. When the overtaken vessel knows of conditions which may make passing unsafe it has no right to refuse to inform the overtaking vessel of such conditions, and if it does refuse it cannot throw the entire blame for an accident upon the other vessel.” *The M P Howlett (CCA Pa. 1932) 58 F.2d 923.*

Danger signal required under Inland Rules

“When the whistle of the Gulftrade blew, the Taurus certainly was not in a position to let the Gulftrade pass in safety, but she nevertheless agreed that the Gulftrade come ahead. Later on the Gulftrade evidently became anxious, and blew another blast, to which the Taurus gave the same consent to go ahead, and while there is

some question as to whether the *Gulfrade* blew a third blast and got the same consent, we are inclined to think she did.

Now it seems to us that under the circumstances the *Taurus* was in fault in giving these three consents to the *Gulfrade* to come ahead, relying too much on her ability to get out of the channel. Evidently the *Taurus* miscalculated the situation. So, also, it seems the *Gulfrade* was at fault. She was the following vessel. All she had to do was to hold back and not run into the scows. She certainly saw danger ahead when she gave the second signal and she certainly saw it more imminent when she gave the third signal. It was quite clear that she did go ahead and took an equal chance with the *Taurus* on the ability of the latter to give her free channel-way to pass. The result was a needless collision. “ *Steamship Gulfrade v. Charles Warner Company*, (CCA, 3rd Cir. 1927) (*The Gulfrade*).

Slip Whistle Required

“But the tug was also at fault in respect to her slip whistle. Admittedly she ceased to sound it when the pilot house was about 50 feet from the pier end. The tug was then still hidden by the shed from any vessel approaching from the south close to the pier ends and such a vessel was likewise hidden from the tug. The giving of a slip whistle is required by the Inland Navigation Rules, ... The statute does not fix the precise time at which the signal shall be blown, nor the length of it. But the cases hold that when a vessel is proceeding from behind an obstruction she should herald her coming until clear of the obstruction. *The Edouard Alfred, D.C.*, 261 F. 680; *Edward J. Barton Lighterage Co. v. Davis*, 2 Cir., 4 F.2d 999, 1000; *The Cotopaxi*, 2 Cir., 20 F.2d 568, 570; *The Samson*, 2 cir., 93 F.2d 497, 498. We think the tug should have continued blowing her slip whistle at least until she had a clear view of the fairway beyond the pier shed. Such a precaution was particularly necessary because her master had reason to expect that a vessel might be near, since he had heard the *Dalzell's* one blast signal, though not the answering whistle. Even without such warning a master is charged with knowledge that vessels at times pass nearer to the pier ends than they ought. *The Poling Bros. No. 2*, 2 Cir., 62 F.2d 357, 358. A blast continued until the pier shed was passed might have been heard by the navigators of the *Supply No. 4* although they were too inattentive to notice the shorter blast whose sound may have been somewhat muffled by the shed.” *The Supply No. 4*, 109 F.2d 101.

The following table summarizes the whistle signals and permissible responses. In this table, the meaning of the word passage is in reference to the vessel making the signal, i.e. starboard passage means the other vessel passes on the starboard side.

Situation	Inland	International
Power driven meeting (port passage)	1 short	1 short (starboard rudder)
Response	1 short or 5 short	None or 5 short
Power driven meeting (starboard passage)	2 short	2 short (port rudder)
Response	2 short or 5 short	None or 5 short
Power driven crossing (port passage)	1 short	1 short (starboard rudder)

Situation	Inland	International
Response	1 short or 5 short	None or 5 short
Power driven crossing (starboard passage)	2 short	2 short (port rudder)
Response	2 short or 5 short	None or 5 short
Overtaking in narrow channel (port passage)	1 short	2 prolonged, 1 short
Response	1 short or 5 short	None, 5 short, or 1 prolonged, 1 short, 1 prolonged, 1 short (narrow channel)
Overtaking in narrow channel (starboard passage)	2 short	2 prolonged, 2 short
Response	2 short or 5 short	None, 5 short, or 1 prolonged, 1 short, 1 prolonged, 1 short (narrow channel)
Overtaking not in narrow channel (port passage)	1 short	1 short
Response	1 short or 5 short	None or 5 short
Overtaking not in narrow channel (starboard passage)	2 short	2 short
Response	2 short or 5 short	None or 5 short
Departing dock	1 prolonged	None
Approaching bend	1 prolonged	1 prolonged

Whistle Signals and Responses
Table 3

Rule 35 – Sound Signals in Restricted Visibility

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this Rule shall be used as follows:

- (a) A power-driven vessel making way through the water shall sound at intervals of not more than 2 minutes one prolonged blast.**
- (b) A power-driven vessel underway but stopped and making no way through the water shall sound at intervals of not more than 2 minutes two prolonged blasts in succession with an interval of about 2 seconds between them.**
- (c) A vessel not under command, a vessel restricted in her ability to maneuver, a vessel constrained by her draft, a sailing vessel, a vessel engaged in fishing and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraphs (a) or (b) of this Rule, sound at intervals of not more than 2 minutes three blasts in succession, namely one prolonged followed by two short blasts.**
- (d) A vessel engaged in fishing, when at anchor, and a vessel restricted in her ability to maneuver when carrying out her work at anchor, shall instead of the signals prescribed in paragraph (g) of this Rule sound the signal prescribed in paragraph (c) of this Rule.**
- (e) A vessel towed or if more than one vessel is towed the last vessel of the tow, if manned, shall at intervals of not more than 2 minutes sound four blasts in succession, namely one prolonged followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel.**
- (f) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and shall give the signals prescribed in paragraphs (a) or (b) of this Rule.**
- (g) A vessel at anchor shall at intervals of not more than one minute ring the bell rapidly for about 5 seconds. In a vessel of 100 meters or more in length the bell shall be sounded in the forepart of the vessel and immediately after the ringing of the bell the gong shall be sounded rapidly for about 5 seconds in the after part of the vessel. A vessel at anchor may in addition sound three blasts in succession, namely one short, one prolonged and one short blast, to give warning of her position and of the possibility of collision to an approaching vessel.**
- (h) A vessel aground shall give the bell signal and if required the gong signal prescribed in paragraph (g) of this Rule and shall, in addition, give three separate and distinct strokes on the bell immediately before and after the rapid ringing of the bell. A vessel aground may in addition sound an appropriate whistle signal.**
- (i) A vessel of 12 meters or more but less than 20 meters in length shall not be obliged to give the bell signals prescribed in paragraphs (g) and (h) of this Rule. However, if she does not, she shall make some other efficient sound signal at intervals of not more than 2 minutes.**

- (j) A vessel of less than 12 meters in length shall not be obliged to give the above-mentioned signals but, if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.
- (k) A pilot vessel when engaged on pilotage duty may in addition to the signals prescribed in paragraphs (a), (b), or (g) of this Rule sound an identity signal consisting of four short blasts.

Rule 35 – Sound Signals in Restricted Visibility (Inland)

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this Rule shall be used as follows:

- (a) A power-driven vessel making way through the water shall sound at intervals of not more than 2 minutes one prolonged blast.
- (b) A power-driven vessel underway but stopped and making no way through the water shall sound at intervals of not more than 2 minutes two prolonged blasts in succession with an interval of about 2 seconds between them.
- (c) A vessel not under command; a vessel restricted in her ability to maneuver whether underway or at anchor; a sailing vessel; a vessel engaged in fishing, whether underway or at anchor; and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraphs (a) or (b) of this Rule, sound at intervals of not more than 2 minutes three blasts in succession; namely one prolonged followed by two short blasts.
- (d) A vessel towed or if more than one vessel is towed the last vessel of the tow, if manned, shall at intervals of not more than 2 minutes sound four blasts in succession; namely one prolonged followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel.
- (e) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and shall give the signals prescribed in paragraphs (a) or (b) of this Rule.
- (f) A vessel at anchor shall at intervals of not more than one minute ring the bell rapidly for about 5 seconds. In a vessel of 100 meters or more in length the bell shall be sounded in the forepart of the vessel and immediately after the ringing of the bell the gong shall be sounded rapidly for about 5 seconds in the after part of the vessel. A vessel at anchor may in addition sound three blasts in succession, namely one short, one prolonged and one short blast, to give warning of her position and of the possibility of collision to an approaching vessel.
- (g) A vessel aground shall give the bell signal and if required the gong signal prescribed in paragraph (f) of this Rule and shall, in addition, give three separate and distinct strokes on the bell immediately before and after the rapid ringing of the bell. A vessel aground may in addition sound an appropriate whistle signal.
- (h) A vessel less than 12 meters in length shall not be obliged to give the above-mentioned signals but, if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.

- (i) A pilot vessel when engaged on pilotage duty may in addition to the signals prescribed in paragraphs (a), (b), or (f) of this Rule sound an identity signal consisting of four short blasts.**
- (j) The following vessels shall not be required to sound signals as prescribed in paragraph (f) of this Rule when anchored in a special anchorage area designated by the Secretary:**
 - (i) a vessel of less than 20 meters in length; and**
 - (ii) a barge, canal boat, scow or other nondescript craft.**

Rule 35 defines the signals to be given by vessels in or near areas of restricted visibility in international and inland waters. Power driven vessels under way are required to sound one prolonged blast at intervals of not more than two minutes. Power-driven vessels under way but not making way are required to sound a signal of two prolonged blasts at intervals of not more than two minutes. All other vessels except pilot vessels, vessels at anchor, and vessels aground sound a signal of one prolonged followed by two short blasts at intervals of not more than two minutes.

Vessels at anchor ring a bell for about five seconds at intervals of not more than one minute. Vessels aground strike the bell three times before and after the ringing of the bell. Vessels at anchor or aground may also sound a whistle signal of one short, one prolonged, and one short blast. A new subparagraph I in the International Rule corresponds to the removal of the requirement to carry a bell for vessels in international waters 12-20 meters in length.

Note that vessels engaged in fishing underway or at anchor sound only the whistle signal of one prolonged and two short blasts. This is analogous to the light rules for vessels engaged in fishing which show the same lights whether underway and not making way or at anchor.

Pilot vessels on station sound a signal of four short blasts, whether underway or at anchor, in addition to the normal signals for a vessel of her class.

If the last vessel of a tow is manned, it must sound a signal of one prolonged and three short blasts immediately after the tow vessel sounds one prolonged and two short blasts.

A vessel of less than 12 meters in length is not required to give the signals required in this rule, but must make some sound signal at intervals of not more than two minutes.

Under the Inland Rules, a vessel of less than 20 meters in length, a scow, barge, canal boat or other nondescript craft - when anchored in a special anchorage - is not required to sound the restricted visibility signals.

Vessel at fault for sounding improper signal

“When a vessel ‘under way’ gives a series of two blasts in conformity with Article 15(b) she must be ‘stopped’. The purpose is to advise all other vessels that in fact she is not moving, and that they may shape their navigation accordingly. The signal is an announcement to the other vessel quite the same as though she should say by her wireless: ‘I have stopped and you may pass.’ Article 16, 33 U.S.C.A. § 92, does indeed still apply to the moving vessel; upon hearing the double blast forward of her beam, she must stop her engines until she ‘ascertains’ the position of the ‘lying-to’ vessel, and must thereafter ‘proceed with caution’. But the only caution necessary towards the ‘lying to’ vessel, if she continues to remain ‘stopped’, is to ‘ascertain’ the place where she is and to avoid it; if the moving vessel does that she has fulfilled her complete duty towards the other. Whether the moving vessel, having correctly ‘ascertained’ the position of the ‘lying-to’ vessel, passes

her at too high speed is no affair of that vessel; indeed the faster she goes, the sooner the 'danger of collision is over'. Such speed will, of course, be a fault on the part of the moving vessel, and will create liability to any third vessel which may suffer from it; but not to the 'lying-to' vessel. This is true because speed can contribute to be a collision between the two only in case the 'lying-to' vessel changes her position contrary to her declaration. It is precisely as though a person were hurt by foot fast driving upon a street which he had assured the driver he would not enter. Whoever else could successfully complain, he could not.

To meet this the Bedford says that although a double blast does indeed mean that the vessel giving it is then lying to, it does not mean that she will remain so. Obviously she need not if the other vessel also blows that signal: in that case one of them must start up in order for the 'danger of collision' ever to be 'over'. Hence, she says, it is always permissible for the 'lying-to' vessel to start up, and she is bound not to repeat a double blast after she is under way. As we understand this argument, it would result that there might be an interval of substantially two minutes during which the 'lying-to' vessel might be moving though her last signal indicated that she was still 'stopped'. We are not sure that, having once chosen to lie to, a vessel may later get under way at all except when the other vessel has indicated that she too is lying to; but we will not so hold. Assuming that she may start up, before doing so she must indicate her change of purpose; the one thing she may not do is to get under way, while leaving the other vessel under the impression that she is still 'stopped'. She must blow a signal of one blast at the very moment she turns in her order to the engine-room. If it be argued that under Article 15(a), 33 U.S.C.A. § 91 (a), she may not give such a signal unless she have 'way upon her' and that she has not 'way upon her' until she begins to move through the water, we answer that while that may demonstrate the finality of her first choice, in any event it is utterly untenable that she may acquire any appreciable speed without warning. Hence it follows that the only duty of a moving vessel towards a 'lying-to' vessel, which like the Bedford has given no signal but double blasts is to 'ascertain' her position and keep away from it." *A/B Svenska Amerika Linien v. Standard Oil Co. Of New Jersey*, 105 F.2d 924; 1939 U.S. App.

The following table summarizes the sound signals required in restricted visibility:

Vessel Class	Whistle Signal	Minimum Interval
Power-driven vessel underway	1 prolonged	2 minutes
Power-driven vessel underway not making way	2 prolonged	2 minutes
Sailing vessel	1 prolonged, 2 short	2 minutes
Vessel restricted in ability to maneuver	1 prolonged, 2 short	2 minutes
Vessel constrained by draft	1 prolonged, 2 short	2 minutes
Vessel not under command	1 prolonged, 2 short	2 minutes
Vessel engaged in fishing (underway or at anchor)	1 prolonged, 2 short	2 minutes
Vessel at anchor (not fishing)	Ring bell for 5 secs. 1 short, 1 prolonged, 1 short opt.	1 minute
Vessel at anchor (not fishing) greater than 100 meters	Ring bell for 5 secs. forward Sound gong for 5 secs. aft 1 short, 1 prolonged, 1 short opt.	1 minute
Pilot vessel	Same as for vessel of her class, 4 short opt.	Same as for vessel of her class
Vessel aground	3 strokes before and after ringing of bell for 5 seconds 1 short, 1 prolonged, 1 short opt.	1 minute
Last manned vessel in tow	1 prolonged, 3 short	After towing vessel signal

Sound Signals in Restricted Visibility
Table 4

Rule 36 – Signals to Attract Attention

If necessary to attract attention of another vessel, any vessel may make light or sound signals that cannot be mistaken for any signal authorized elsewhere in these Rules, or may direct the beam of her searchlight in the direction of the danger, in such a way as not to embarrass any vessel. Any light to attract the attention of another vessel shall be such that it cannot be mistaken for any aid to navigation. For the purpose of this Rule the use of high intensity intermittent or revolving lights, such as strobe lights, shall be avoided.

Rule 36 – Signals to Attract Attention (Inland)

If necessary to attract the attention of another vessel, any vessel may make light or sound signals that cannot be mistaken for any signal authorized elsewhere in these Rules, or may direct the beam of her searchlight in the direction of the danger, in such a way as not to embarrass any vessel.

Rule 36 applies to all vessels in international or inland waters. International Rule 36 prohibits the use of revolving or flashing high-intensity lights. The Inland Rules contain no such prohibition. The International Rule also prohibits the display of any signal which may be mistaken for an aid to navigation, although the Inland Rule does not contain this prohibition.

Rule 37 – Distress Signals

When a vessel is in distress and requires assistance she shall use or exhibit the signals described in Annex IV to these regulations.

Signals to attract attention are listed in Annex IV of the Rules.

Part E – Exemptions

Rule 38 – Exemptions

Any vessel (or class of vessels) provided that she complies with the requirements of the International Regulations for Preventing Collisions at Sea, 1960, the keel of which is laid or which is at a corresponding stage of construction before the entry into force of these Regulations may be exempted from compliance therewith as follows:

- (a) The installation of lights with ranges prescribed in Rule 22, until four years after the date of entry into force of these Regulations.
- (b) The installation of lights with color specifications as prescribed in Section 7 of Annex I to these Regulations, until four years after the date of entry into force of these Regulations.
- (c) The repositioning of lights as a result of conversion from Imperial to metric units and rounding off measurement figures, permanent exemption.
- (d) (i) The repositioning of masthead lights on vessels of less than 150 meters in length, resulting from the prescriptions of Section 3(a) of Annex I to these Regulations, permanent exemption.

(ii) The repositioning of masthead lights on vessels of 150 meters or more in length, resulting from the prescriptions of Section 3(a) of Annex I to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (e) The repositioning of masthead lights resulting from the prescriptions of Section 2(b) of Annex I to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (f) The repositioning of sidelights resulting from the prescriptions of Sections 2(g) and 3(b) of Annex I to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (g) The requirements for sound signal appliances prescribed in Annex III to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (h) The repositioning of all-round lights resulting from the prescription of Section 9(b) of Annex I to these Regulations, permanent exemption.

Rule 38 – Exemptions (Inland)

Any vessel or class of vessels, the keel of which is laid or which is at a corresponding stage of construction before December 24 1980, provided that she complies with the requirements of:

- (a) The Act of June 7, 1897 (30 Stat. 96), as amended (33 U.S.C. 154-232) for vessels navigating the waters subject to that statute;
- (b) Section 4233 of the Revised Statutes (33 U.S.C. 301-356) for vessels navigating the waters subject to that statute;

- (c) **The Act of February 8, 1895 (28 Stat. 645), as amended (33 U.S.C. 241-295) for vessels navigating the waters subject to that statute; or**
- (d) **Sections 3, 4, and 5 of the Act of April 25, 1940 (54 Stat. 163), as amended (46 U.S.C. 526 b, c, and d) for motorboats navigating the waters subject to that statute; shall be exempted from compliance with the technical Annexes to these Rules as follows:**
- (i) the installation of lights with ranges prescribed in Rule 22, until 4 years after the effective date of these Rules, except that vessels of less than 20 meters in length are permanently exempt;**
 - (ii) the installation of lights with color specifications as prescribed in Annex I to these Rules, until 4 years after the effective date of these Rules, except that vessels of less than 20 meters in length are permanently exempt;**
 - (iii) the repositioning of lights as a result of conversion to metric units and rounding off measurement figures, are permanently exempt; and**
 - (iv) the horizontal repositioning of masthead lights prescribed by Annex I to these Rules:**
 - (1) on vessels of less than 150 meters in length, permanent exemption.**
 - (2) on vessels of 150 meters or more in length, until 9 years after the effective date of these Rules.**
 - (v) the restructuring or repositioning of all lights to meet the prescriptions of Annex I to these Rules, until 9 years after the effective date of these Rules;**
 - (vi) power-driven vessels of 12 meters or more but less than 20 meters in length are permanently exempt from the provisions of Rule 23(a)(i) and 23(a)(iv) provided that, in place of these lights, the vessel exhibits a white light aft visible all round the horizon; and**
 - (vii) the requirements for sound signal appliances prescribed in Annex III to these Rules, until 9 years after the effective date of these Rules.**

Rule 38 applies to all vessels in all conditions of visibility. It lists a number of exemptions in regard to the placement of lights. All of the exemptions that are not permanent exemptions have expired, thus all vessels must comply the rules regarding placement of lights unless a permanent exemption has been granted under this rule.

In particular vessels with sidelights below the gunwales and vessels with separate sidelights and an all-round white light not mounted on the fore-and-aft centerline are not in compliance with Annex I of the rules.

APPENDIX

ANNEX 1

1. Definition

The term "height above the hull" means height above the uppermost continuous deck. This height shall be measured from the position vertically beneath the location of the light.

2. Vertical positioning and spacing of lights

- (a) On a power-driven vessel of 20 meters or more in length the masthead lights shall be placed as follows:
 - (i) the forward masthead light, or if only one masthead light is carried, then that light, at a height above the hull of not less than 6 meters, and, if the breadth of the vessel exceeds 6 meters, then at a height above the hull not less than such breadth, so however that the light need not be placed at a greater height above the hull than 12 meters;
 - (ii) when two masthead lights are carried the after one shall be at least 4.5 meters vertically higher than the forward one.
- (b) The vertical separation of masthead lights of power-driven vessels shall be such that in all normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 meters from the stem when viewed from sea level.
- (c) The masthead light of a power-driven vessel of 12 meters but less than 20 meters in length shall be placed at a height above the gunwale of not less than 2.5 meters.
- (d) A power-driven vessel of less than 12 meters in length may carry the uppermost light at a height of less than 2.5 meters above the gunwale. When however a masthead light is carried in addition to sidelights and a sternlight or the all-round light prescribed on Rule 23(c)(i) is carried in addition to sidelights, then such masthead light or all-round light shall be carried at least 1 meter higher than the sidelights.
- (e) One of the two or three masthead lights prescribed for a power-driven vessel when engaged in towing or pushing another vessel shall be placed in the same position as either the forward masthead light or the after masthead light; provided that, if carried on the aftermast, the lowest after masthead light shall be at least 4.5 meters vertically higher than the forward masthead light.
- (f)(i) The masthead light or lights prescribed in Rule 23(a) shall be so placed as to be above and clear of all other lights and obstructions except as described in subparagraph (ii).
 - (ii) When it is impracticable to carry the all-round lights prescribed by Rule 27(b)(i) or Rule 28 below the masthead lights, they may be carried above the after masthead light(s) or vertically in between the forward masthead light(s) and after masthead light(s) provided that in the latter case the requirements of Section 3(c) of this Annex shall be complied with.
- (g) The sidelights of a power-driven vessel shall be placed at a height above the hull not greater than three quarters of that of the forward masthead light. They shall not be so low as to be interfered with by deck lights.
- (h) The sidelights, if in a combined lantern and carried on a power-driven vessel of less than 20 meters in length, shall be placed not less than 1 meter below the masthead light.
- (i) When the Rules prescribe two or three lights to be carried in a vertical line, they shall be spaced as follows:
 - (i) on a vessel of 20 meters in length or more such lights shall be spaced not less than 2 meters apart, and the lowest of these lights shall, except where a towing light is required, be placed at a height of not less than 4 meters above the hull;
 - (ii) on a vessel of less than 20 meters in length such lights shall be spaced not less than 1 meter apart and the lowest of these lights shall, except where a towing light is required, be placed at a height of not less than 2 meters above the gunwale;
 - (iii) when three lights are carried they shall be equally spaced.
- (j) The lower of the two all-round lights prescribed for a vessel when engaged in fishing shall be at a height above the sidelights not less than twice the distance between the two vertical lights.
- (k) The forward anchor light prescribed in Rule 30(a)(i), when two are carried, shall not be less than 4.5 meters above the after one. On a vessel of 50 meters or more in length this forward anchor light shall be placed at a height of not less than 6 meters above the hull.

3. Horizontal positioning and spacing of lights

- (a) When two masthead lights are prescribed for a power-driven vessel, the horizontal distance between them shall not be less than one half of the length of the vessel but need not be more than 100 meters. The forward light shall be placed not more than one quarter of the length of the vessel from the stem.

(b) On a power-driven vessel of 20 meters or more in length the sidelights shall not be placed in front of the forward masthead lights. They shall be placed at or near the side of the vessel.

(c) When the lights prescribed in Rule 27(b)(i) or Rule 28 are placed vertically between the forward masthead light(s) and the after masthead light(s) these all-round lights shall be placed at a horizontal distance of not less than 2 meters from the fore and aft centerline of the vessel in the athwartship direction.

4. Details of location of direction-indicating lights for fishing vessels, dredgers and vessels engaged in underwater operations

(a) The light indicating the direction of the outlying gear from a vessel engaged in fishing as prescribed in Rule 26(c)(ii) shall be placed at a horizontal distance of not less than 2 meters and not more than 6 meters away from the two all-round red and white lights. This light shall be placed not higher than the all-round white light prescribed in Rule 26(c)(i) and not lower than the sidelights.

(b) The lights and shapes on a vessel engaged in dredging or underwater operations to indicate the obstructed side and/or the side on which it is safe to pass, as prescribed in Rule 27(d)(i) and (ii), shall be placed at the maximum practical horizontal distance, but in no case less than 2 meters, from the lights or shapes prescribed in Rule 27(b)(i) and (ii). In no case shall the upper of these lights or shapes be at a greater height than the lower of the three lights or shapes prescribed in Rule 27(b)(i) and (ii)

5. Screens for sidelights

The sidelights of vessels of 20 meters or more in length shall be fitted with inboard screens painted matt black, and meeting the requirements of Section 9 of this Annex. On vessels of less than 20 meters in length the sidelights, if necessary to meet the requirements of Section 9 of this Annex, shall be fitted with inboard matt black screens. With a combined lantern, using a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.

6. Shapes

(a) Shapes shall be black and of the following sizes:

(i) a ball shall have a diameter of not less than 0.6 meter;

(ii) a cone shall have a base diameter of not less than 0.6 meter and a height equal to its diameter;

(iii) a cylinder shall have a diameter of at least 0.6 meter and a height of twice its diameter;

(iv) a diamond shape shall consist of two cones as defined in (ii) above having a common base.

(b) The vertical distance between shapes shall be at least 1.5 meters.

(c) In a vessel of less than 20 meters in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

7. Color specification of lights

The chromaticity of all navigation lights shall conform to the following standards, which lie within the boundaries of the area of the diagram specified for each color by the International Commission on Illumination (CIE). The boundaries of the area for each color are given by indicating the corner coordinates, which are as follows:

(i) White:

x 0.525 0.525 0.452 0.310 0.310 0.443
y 0.382 0.440 0.440 0.348 0.283 0.382

(ii) Green:

x 0.028 0.009 0.300 0.203
y 0.385 0.723 0.511 0.356

(iii) Red:

x 0.680 0.660 0.735 0.721
y 0.320 0.320 0.265 0.259

(iv) Yellow

x 0.612 0.618 0.575 0.575
y 0.382 0.382 0.425 0.406

8. Intensity of lights

(a) The minimum luminous intensity of lights shall be calculated by using the formula:

$$I = 3.43 \times 10^6 \times T \times D^2 \times K^{-D}$$

where:

I is luminous intensity in candelas under service conditions,

T is threshold factor 2×10^{-7} lux,

D is range of visibility (luminous range) of the light in nautical miles,

K is atmospheric transmissivity.

For prescribed lights the value of K shall be 0.8, corresponding to a meteorological visibility of approximately 13 nautical miles.

(b) A selection of figures derived from the formula is given in the following table:

D	I
1	0.9
2	4.3
3	12
4	27
5	52
6	94

Note: The maximum luminous intensity of navigation lights should be limited to avoid undue glare. This shall not be achieved by a variable control of the luminous intensity.

9. Horizontal sectors

- (a) (i) In the forward direction, sidelights as fitted on the vessel shall show the minimum required intensities. The intensities shall decrease to reach practical cut-off between 1 degree and 3 degrees outside the prescribed sectors.
- (ii) For sternlights and masthead lights and at 22.5 degrees abaft the beam for sidelights, the minimum required intensities shall be maintained over the arc of the horizon up to 5 degrees within the limits of the sectors prescribed in Rule 21. From 5 degrees within the prescribed sectors the intensity may decrease by 50 percent up to the prescribed limits; it shall decrease steadily to reach practical cut-off at not more than 5 degrees outside the prescribed sectors.
- (b) All-round lights shall be so located as not to be obscured by masts, topmasts or structures within angular sectors of more than 6 degrees, except anchor lights prescribed in Rule 30, which need not be placed at an impracticable height above the hull.

10. Vertical sectors

- (a) The vertical sectors of electric lights as fitted, with the exception of lights on sailing vessels underway shall ensure that:
- (i) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal.
- (ii) at least 60 percent of the required minimum intensity is maintained from 7.5 degrees above to 7.5 degrees below the horizontal.
- (b) In the case of sailing vessels underway the vertical sectors of electric lights as fitted shall ensure that:
- (i) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;
- (ii) at least 50 percent of the required minimum intensity is maintained from 25 degrees above to 25 degrees below the horizontal.
- (c) In the case of lights other than electric these specifications shall be met as closely as possible.

11. Intensity of non-electric lights

Non-electric lights shall so far as practicable comply with the minimum intensities, as specified in the Table given in Section 8 of this Annex.

12. Maneuvering light

Notwithstanding the provisions of paragraph 2(f) of this Annex the maneuvering light described in Rule 34(b) shall be placed in the same fore and aft vertical plane as the masthead light or lights and, where practicable, at a minimum height of 2 meters vertically above the forward masthead light, provided that it shall be carried not less than 2 meters vertically above or below the after masthead light. On a vessel where only one masthead light is carried the maneuvering light, if fitted, shall be carried where it can best be seen, not less than 2 meters vertically apart from the masthead light.

13. High-speed craft¹

¹ Refer to the International Code of Safety for High-Speed Craft, 1994 and the International Code of Safety for High-Speed Craft, 2000

- (a) The masthead light of high-speed craft may be placed at a height related to the breadth of the craft lower than that prescribed in paragraph 2(a)(i) of this annex, provided that the base angle of the isosceles triangles formed by the sidelights and masthead light, when seen in end elevation, is not less than 27°.
- (b) On high-speed craft of 50 meters or more in length, the vertical separation between foremast and mainmast light of 4.5 meters required by paragraph 2(a)(ii) of this annex may be modified provided that such distance shall not be less than the value determined by the following formula:

$$y = \frac{(a+17\Psi)C}{1000} + 2$$

where:

y is the height of the mainmast light above the foremast light in meters;

a is the height of the foremast light above the water surface in service condition in meters;

Ψ is the trim in service condition in degrees;

C is the horizontal separation of masthead lights in meters.

14. Approval

The construction of lights and shapes and the installation of lights on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.

ANNEX II

1. General

The lights mentioned herein shall, if exhibited in pursuance of Rule 26(d), be placed where they can best be seen. They shall be at least 0.9 meter apart but at a lower level than lights prescribed in Rule 26(b)(i) and (c)(i). The lights shall be visible all around the horizon at a distance of at least 1 mile but at a lesser distance than the lights prescribed by these Rules for fishing vessels.

2. Signals for trawlers

- (a) Vessels when engaged in trawling, whether using demersal or pelagic gear, shall exhibit:
 - (i) when shooting their nets: two white lights in a vertical line;
 - (ii) when hauling their nets: one white light over one red light in a vertical line,
 - (iii) when the net has come fast upon an obstruction: two red lights in a vertical line.
- (b) Each vessel engaged in pair trawling shall exhibit:
 - (i) by night, a searchlight directed forward and in the direction of the other vessel of the pair;
 - (ii) when shooting or hauling their nets or when their nets have come fast upon an obstruction, the lights prescribed in 2(a) above.

3. Signals for purse seiners

Vessels engaged in fishing with purse seine gear may exhibit two yellow lights in a vertical line. These lights shall flash alternately every second and with equal light and occultation duration. These lights may be exhibited only when the vessel is hampered by its fishing gear.

ANNEX III

1. Whistles

- (a) Frequencies and range of audibility. The fundamental frequency of the signal shall lie within the range 70-700Hz. The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the range 180-700Hz (+/-1%) for a vessel of 20 meters or more in length, or 180-2100Hz (+/-1%) for a vessel of less than 20 meters in length and which provide the sound pressure levels specified in paragraph 1(c) below.
- (b) Limits of fundamental frequencies. To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle shall be between the following limits:
 - (i) 70-200 Hz, for a vessel 200 meters or more in length;

- (ii) 130-350 Hz, for a vessel 75 meters but less than 200 meters in length;
 - (iii) 250-700 Hz, for a vessel less than 75 meters in length.
- (c) Sound signal intensity and range of audibility. A whistle fitted in a vessel shall provide, in the direction of maximum intensity of the whistle and at a distance of 1 meter from it, a sound pressure level in at least one 1/3-octave band within the range of frequencies 180-700 Hz (± 1 percent) of not less than the appropriate figure given in the table below.

Length of vessel in meters	1/3 octave band level at 1 meter in dB referred to $2 \times 10^{-5} \text{ N/m}^2$	Audibility Range in Nautical Miles
200 or more	143	2
75 but less than 200	138	1.5
20 but less than 75	130	1
Less than 20	120 ²	0.5
	115 ³	
	111 ⁴	

Note: The range of audibility in the table above is for information and is approximately the range at which a whistle may be heard on its forward axis with 90 percent probability in conditions of still air on board a vessel having average background noise level at the listening posts (taken to be 68 dB in the octave band centered on 250 Hz and 63 dB in the octave band centered on 500 Hz). In practice the range at which a whistle may be heard is extremely variable and depends critically on weather conditions; the values given can be regarded as typical but under conditions of strong wind or high ambient noise level at the listening post the range may be much reduced.

- (d) Directional properties. The sound pressure level of a directional whistle shall be not more than 4 dB below the prescribed sound pressure level on the axis at any direction in the horizontal plane within ± 45 degrees of the axis. The sound pressure level at any other direction in the horizontal plane shall be not more than 10 dB below the prescribed sound pressure level on the axis, so that the range in any direction will be at least half the range on the forward axis. The sound pressure level shall be measured in that one-third octave band which determines the audibility range.
- (e) Positioning of whistles. When a directional whistle is to be used as the only whistle on a vessel, it shall be installed with its maximum intensity directed straight ahead.
A whistle shall be placed as high as practicable on a vessel, in order to reduce interception of the emitted sound by obstructions and also to minimize hearing damage risk to personnel. The sound pressure level of the vessel's own signal at listening posts shall not exceed 110 dB (A) and so far as practicable should not exceed 100 dB (A).
- (f) Fitting of more than one whistle. If whistles are fitted at a distance apart of more than 100 meters, it shall be so arranged that they are not sounded simultaneously.
- (g) Combined whistle systems. If due to the presence of obstructions the sound field of a single whistle or of one of the whistles referred to in paragraph 1(f) above is likely to have a zone of greatly reduced signal level, it is recommended that a combined whistle system be fitted so as to overcome this reduction. For the purposes of the Rules a combined whistle system is to be regarded as a single whistle. The whistles of a combined system shall be located at a distance apart of not more than 100 meters and arranged to be sounded simultaneously. The frequency of any one whistle shall differ from those of the others by at least 10 Hz.

2. Bell or gong

- (a) Intensity of signal. A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at a distance of 1 meter from it.
- (b) Construction. Bells and gongs shall be made of corrosion-resistant material and designed to give a clear tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of 20 meters or more in length. Where practicable, a power-driven bell striker is recommended to ensure constant force but manual operation shall be possible. The mass of the striker shall be not less than 3 percent of the mass of the bell.

² When the measured frequencies lie within the range 180-450Hz

³ When the measured frequencies lie within the range 450-800Hz

⁴ When the measured frequencies lie within the range 800-1200Hz

3. Approval

The construction of sound signal appliances, their performance and their installation on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.

ANNEX IV

1. Need of assistance

The following signals, used or exhibited either together or separately, indicate distress and need of assistance:

- (a) a gun or other explosive signal fired at intervals of about a minute;
 - (b) a continuous sounding with any fog-signaling apparatus;
 - (c) rockets or shells, throwing red stars fired one at a time at short intervals;
 - (d) a signal made by radiotelegraphy or by any other signaling method consisting of the group
••• — — ••• (SOS) in the Morse Code;
 - (e) a signal sent by radiotelephony consisting of the spoken word "Mayday";
 - (f) the International Code Signal of distress indicated by NC;
 - (g) a signal consisting of a square flag having above or below it a ball or anything resembling a ball;
 - (h) flames on the vessel (as from a burning tar barrel, oil barrel, etc.);
 - (i) a rocket parachute or a hand flare showing a red light;
 - (j) a smoke signal giving off orange colored smoke;
 - (k) slowly and repeatedly raising and lowering arms outstretched to each side;
 - (l) the radiotelegraph alarm signal;
 - (m) the radiotelephone alarm signal;
 - (n) signals transmitted by emergency position-indicating radio beacons (EPIRB).
 - (o) approved signals transmitted by radiocommunication systems.
2. The use or exhibition of any of the foregoing signals except for the purpose of indicating distress and need of assistance and the use of other signals which may be confused with any of the above signals is prohibited.
3. Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual and the following signals:
- (a) a piece of orange-colored canvas with either a black square and circle or other appropriate symbol (for identification from the air);
 - (b) a dye marker.

Bridge-to-Bridge Radiotelephone Regulations

TITLE 33--NAVIGATION AND NAVIGABLE WATERS CHAPTER I--COAST GUARD, DEPARTMENT OF HOMELAND SECURITY PART 26--VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE REGULATIONS

§ 26.01 Purpose.

- (a) The purpose of this part is to implement the provisions of the Vessel Bridge-to-Bridge Radiotelephone Act. This part:
- (1) Requires the use of the vessel bridge-to-bridge radiotelephone;
 - (2) Provides the Coast Guard's interpretation of the meaning of important terms in the Act;
 - (3) Prescribes the procedures for applying for an exemption from the Act and the regulations issued under the Act and a listing of exemptions.
- (b) Nothing in this part relieves any person from the obligation of complying with the rules of the road and the applicable pilot rules.

§ 26.02 Definitions.

For the purpose of this part and interpreting the Act:

"Secretary" means the Secretary of the Department in which the Coast Guard is operating;

"Act" means the "Vessel Bridge-to-Bridge Radiotelephone Act", 33 U.S.C. sections 1201-1208;

"Length" is measured from end to end over the deck excluding sheer;

"Power-driven vessel" means any vessel propelled by machinery;

"Towing vessel means any commercial vessel engaged in towing another vessel astern, alongside, or by pushing ahead;

"Vessel Traffic Services (VTS)" means a service implemented under Part 161 of this chapter by the United States Coast Guard designed to improve the safety and efficiency of vessel traffic and to protect the environment. The VTS has the capability to interact with marine traffic and respond to traffic situations developing in the VTS area; and

"Vessel Traffic Service Area or VTS Area" means the geographical area encompassing a specific VTS area of service as described in Part 161 of this chapter. This area of service may be subdivided into sectors for the purpose of allocating responsibility to individual Vessel Traffic Centers or to identify different operating requirements.

§ 26.03 Radiotelephone required.

- (a) Unless an exemption is granted under §26.09 and except as provided in paragraph (a) (4) of this section, this part applies to:
- (1) Every power-driven vessel of 20 meters or over in length while navigating;
 - (2) Every vessel of 100 gross tons and upward carrying one or more passengers for hire while navigating;
 - (3) Every towing vessel of 26 feet or over in length while navigating; and
 - (4) Every dredge and floating plant engaged in or near a channel or fairway in operations likely to restrict or affect navigation of other vessels except for an unmanned or intermittently manned floating plant under the control of a dredge.
- (b) Every vessel, dredge, or floating plant described in paragraph (a) of this section must have a radiotelephone on board capable of operation from its navigational bridge, or in the case of a dredge, from its main control station, and capable of transmitting and receiving on the frequency or frequencies within the 156-162 Mega-Hertz band using the classes of emissions designated by the Federal Communications Commission for the exchange of navigational information.
- (c) The radiotelephone required by paragraph (b) of this section must be carried on board the described vessels, dredges, and floating plants upon the navigable waters of the United States.
- (d) The radiotelephone required by paragraph (b) of this section must be capable of transmitting and receiving on VHF FM channel 22A (157.1 MHz).
- (e) While transiting any of the following waters, each vessel described in paragraph (a) of this section also must have on board a radiotelephone capable of transmitting and receiving on VHF FM channel 67 (156.375 MHz):
- (1) The lower Mississippi River from the territorial sea boundary, and within either the Southwest Pass safety fairway or the South Pass safety fairway specified in 33 CFR 166.200, to mile 242.4 AHP (Above Head of Passes) near Baton Rouge;
 - (2) The Mississippi River-Gulf Outlet from the territorial sea boundary, and within the Mississippi River-Gulf Outlet Safety Fairway specified in 33 CFR 166.200, to that channel's junction with the Inner Harbor Navigation Canal; and
 - (3) The full length of the Inner Harbor Navigation Canal from its junction with the Mississippi River to that canal's entry to Lake Pontchartrain at the New Seabrook vehicular bridge.
- (f) In addition to the radiotelephone required by paragraph (b) of this section, each vessel described in paragraph (a) of this section while transiting any waters within a Vessel Traffic Service Area, must have on board a radiotelephone capable of trans-

transmitting and receiving on the VTS designated frequency in Table 26.03(f) (VTS Call Signs, Designated Frequencies, and Monitoring Areas) . (Located on pages 214 and 215.)

§ 26.04 Use of the designated frequency.

(a) No person may use the frequency designated by the Federal Communications Commission under section 8 of the Act, 33 U.S.C. 1207(a), to transmit any information other than information necessary for the safe navigation of vessels or necessary tests.

(b) Each person who is required to maintain a listening watch under section 5 of the Act shall, when necessary, transmit and confirm, on the designated frequency, the intentions of his vessel and any other information necessary for the safe navigation of vessels.

(c) Nothing in these regulations may be construed as prohibiting the use of the designated frequency to communicate with shore stations to obtain or furnish information necessary for the safe navigation of vessels.

(d) On the navigable waters of the United States, channel 13 (156.65 MHz) is the designated frequency required to be monitored in accordance with §26.05(a) except that in the area prescribed in §26.03(e), channel 67 (156.375 MHz) is an additional frequency. (e) On those navigable waters of the United States within a VTS area, the designated VTS frequency is the designated frequency required to be monitored in accordance with §26.05.

§ 26.05 Use of Radiotelephone.

Section 5 of the Act states that the radiotelephone required by this Act is for the exclusive use of the master or person in charge of the vessel, or the person designated by the master or person in charge to pilot or direct the movement of the vessel, who shall maintain a listening watch on the designated frequency. Nothing herein shall be interpreted as precluding the use of portable radiotelephone equipment to satisfy the requirements of this Act.

§ 26.06 Maintenance of radiotelephone; failure of radiotelephone.

Section 6 of the Act states that whenever radiotelephone capability is required by this Act, a vessel's radiotelephone equipment shall be maintained in effective operating condition. If the radiotelephone equipment carried aboard a vessel ceases to operate, the master shall exercise due diligence to restore it or cause it to be restored to effective operating condition at the earliest practicable time. The failure of a vessel's radiotelephone equipment shall not, in itself, constitute a violation of this Act, nor shall it obligate the master of any vessel to moor or anchor his vessel; however, the loss of radiotelephone capability shall be given consideration in the navigation of the vessel.

§ 26.07 Communications.

No person may use the services of, and no person may serve as, a person required to maintain a listening watch under section 5 of the Act, 33 U.S.C. 1204, unless the person can communicate in the English language.

§ 26.08 Exemption procedures.

(a) The Commandant has re delegated to the Assistant Commandant for Marine Safety and Environmental Protection, U.S. Coast Guard Headquarters, with the reservation that this authority shall not be further re delegated, the authority to grant exemptions from provisions of the Vessel Bridge-to-Bridge Radiotelephone Act and this part.

(b) Any person may petition for an exemption from any provision of the Act or this part;

(c) Each petition must be submitted in writing to U.S. Coast Guard, Marine Safety and Environmental Protection, 2100 Second Street, S.W., Washington, D.C. 20593-0001, and must state:

(1) The provisions of the Act or this part from which an exemption is requested; and (2) The reasons why marine navigation will not be adversely affected if the exemption is granted and if the exemption relates to a local communication system how that system would fully comply with the intent of the concept of the Act but would not conform in detail if the exemption is granted.

§ 26.09 List of Exemptions.

(a) All vessels navigating on those waters governed by the navigation rules for the Great Lakes and their connecting and tributary waters (33 U.S.C. 241 et seq.) are exempt from the requirements of the Vessel Bridge-to-Bridge Radiotelephone Act and this part until May 6, 1975.

(b) Each vessel navigating on the Great Lakes as defined in the Inland Navigation Rules Act of 1980 (33 U.S.C. 2001 et seq.) and to which the Vessel Bridge-to-Bridge Radiotelephone Act (33 U.S.C. 1201-1208) applies is exempt from the requirements in 33 U.S.C. 1203, 1204, and 1205 and the regulations under §§26.03, 26.04, 26.05, 26.06, and 26.07. Each of these vessels

and each person to whom 33 U.S.C. 1208(a) applies must comply with Articles VII, X, XI, XII, XIII, XV, and XVI and Technical Regulations 1-9 of "The Agreement Between the United States of America and Canada for Promotion of Safety on the Great Lakes by Means of Radio, 1973."

Interpretative Rules

TITLE 33--NAVIGATION AND NAVIGABLE WATERS CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION PART 82--72 COLREGS: INTERPRETATIVE RULES

Sec. 82.1 Purpose.

This part contains the interpretative rules concerning the 72 COLREGS that are adopted by the Coast Guard for the guidance of the public.

Sec. 82.3 Pushing vessel and vessel being pushed: Composite unit.

Rule 24(b) of the 72 COLREGS states that when a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit, they are regarded as a power-driven vessel and must exhibit the lights under Rule 23. A "composite unit" is interpreted to be a pushing vessel that is rigidly connected by mechanical means to a vessel being pushed so they react to sea and swell as one vessel. "Mechanical means" does not include the following:

- (a) Lines.
- (b) Hawsers.
- (c) Wires.
- (d) Chains.

Sec. 82.5 Lights for moored vessels.

For the purposes of Rule 30 of the 72 COLREGS, a vessel at anchor includes a barge made fast to one or more mooring buoys or other similar device attached to the sea or river floor. Such a barge may be lighted as a vessel at anchor in accordance with Rule 30, or may be lighted on the corners in accordance with 33 CFR 88.13.

Sec. 82.7 Sidelights for unmanned barges.

An unmanned barge being towed may use the exception of COLREGS Rule 24(h). However, this exception only applies to the vertical sector requirements.

ANNEX I (Inland Rules)

TITLE 33--NAVIGATION AND NAVIGABLE WATERS

CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION

PART 84--ANNEX I: POSITIONING AND TECHNICAL DETAILS OF LIGHTS AND SHAPES

Sec. 84.01 Definitions.

- (a) The term "height above the hull" means height above the uppermost continuous deck. This height shall be measured from the position vertically beneath the location of the light.
- (b) "High-speed craft" means a craft capable of maximum speed in meters per second (m/s) equal to or exceeding: $3.7\sqrt{\nabla}^{0.1667}$ where ∇ = displacement corresponding to the design waterline (meters³).
Note to paragraph (b): The same formula expressed in pounds and knots is maximum speed in knots (kts) equal to or exceeding $1.98(\text{lbs})\sqrt{\nabla}^{0.1667}$ where ∇ = displacement corresponding to design waterline in pounds.
- (c) The term practical cut-off means, for vessels 20 meters or more in length, 12.5 percent of the minimum luminous intensity (Table 84.15(b)) corresponding to the greatest range of visibility for which the requirements of Annex I are met.
- (d) The term Rule or Rules means the Inland Navigation Rules contained in Sec. 2 of the Inland Navigational Rules Act of 1980

Sec. 84.03 Vertical positioning and spacing of lights.

- (a) On a power-driven vessel of 20 meters or more in length the masthead lights shall be placed as follows:
 - (1) The forward masthead light, or if only one masthead light is carried, then that light, at a height above the hull of not less than 5 meters, and, if the breadth of the vessel exceeds 5 meters, then at a height above the hull not less than such breadth, so however that the light need not be placed at a greater height above the hull than 8 meters;
 - (2) When two masthead lights are carried the after one shall be at least 2 meters vertically higher than the forward one.
- (b) The vertical separation of the masthead lights of power-driven vessels shall be such that in all normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 meters from the stem when viewed from water level.
- (c) The masthead light of a power-driven vessel of 12 meters but less than 20 meters in length shall be placed at a height above the gunwale of not less than 2.5 meters.
- (d) The masthead light, or the all-round light described in Rule 23(c), of a power-driven vessel of less than 12 meters in length shall be carried at least one meter higher than the sidelights.
- (e) One of the two or three masthead lights prescribed for a power-driven vessel when engaged in towing or pushing another vessel shall be placed in the same position as either the forward masthead light or the after masthead light, provided that the lowest after masthead light shall be at least 2 meters vertically higher than the highest forward masthead light.
- (f)(1) The masthead light or lights prescribed in Rule 23(a) shall be so placed as to be above and clear of all other lights and obstructions except as described in paragraph (f)(2) of this section.
 - (2) When it is impracticable to carry the all-round lights prescribed in Rule 27(b)(i) below the masthead lights, they may be carried above the after masthead light(s) or vertically in between the forward masthead light(s) and after masthead light(s), provided that in the latter case the requirement of Sec. 84.05(d) shall be complied with.
- (g) The sidelights of a power-driven vessel shall be placed at least one meter lower than the forward masthead light. They shall not be so low as to be interfered with by deck lights.
- (h) [Reserved]
- (i) When the Rules prescribe two or three lights to be carried in a vertical line, they shall be spaced as follows:
 - (1) On a vessel of 20 meters in length or more such lights shall be spaced not less than 1 meter apart, and the lowest of these lights shall, except where a towing light is required, be placed at a height of not less than 4 meters above the hull;
 - (2) On a vessel of less than 20 meters in length such lights shall be spaced not less than 1 meter apart and the lowest of these lights shall, except where a towing light is required, be placed at a height of not less than 2 meters above the gunwale;
 - (3) When three lights are carried they shall be equally spaced.
- (j) The lower of the two all-round lights prescribed for a vessel when engaged in fishing shall be a height above the sidelights not less than twice the distance between the two vertical lights.
- (k) The forward anchor light prescribed in Rule 30(a)(i), when two are carried, shall not be less than 4.5 meters above the after one. On a vessel of 50 meters or more in length this forward anchor light shall be placed at a height or not less than 6 meters above the hull.

Sec. 84.05 Horizontal positioning and spacing of lights.

- (a) Except as specified in paragraph (e) of this section, when two masthead lights are prescribed for a power-driven vessel, the horizontal distance between them must not be less than one quarter of the length of the vessel but need not be more than 50 meters. The forward light must be placed not more than one half of the length of the vessel from the stem.
- (b) On a power-driven vessel of 20 meters or more in length the sidelights shall not be placed in front of the forward masthead lights. They shall be placed at or near the side of the vessel.
- (c) When the lights prescribed in Rule 27(b)(i) are placed vertically between the forward masthead light(s) and the after masthead light(s) these all-round lights shall be placed at a horizontal distance of not less than 2 meters from the fore and aft centerline of the vessel in the athwartship direction.
- (d) When only one masthead light is prescribed for a power-driven vessel, this light must be exhibited forward of amidships. For a vessel of less than 20 meters in length, the vessel shall exhibit one masthead light as far forward as is practicable.
- (e) On power-driven vessels 50 meters but less than 60 meters in length operated on the Western Rivers, and those waters specified in Sec. 89.25, the horizontal distance between masthead lights shall not be less than 10 meters.

Sec. 84.07 Details of location of direction-indicating lights for fishing vessels, dredgers and vessels engaged in underwater operations.

- (a) The light indicating the direction of the outlying gear from a vessel engaged in fishing as prescribed in Rule 26(c)(ii) shall be placed at a horizontal distance of not less than 2 meters and not more than 6 meters away from the two all-round red and white lights. This light shall be placed not higher than the all-round white light prescribed in Rule 26(c)(i) and not lower than the sidelights.
- (b) The lights and shapes on a vessel engaged in dredging or underwater operations to indicate the obstructed side and/or the side on which it is safe to pass, as prescribed in Rule 27(d)(i) and (ii), shall be placed at the maximum practical horizontal distance, but in no case less than 2 meters, from the lights or shapes prescribed in Rule 27(b)(i) and (ii). In no case shall the upper of these lights or shapes be at a greater height than the lower of the three lights or shapes prescribed in Rule 27(b)(i) and (ii).

Sec. 84.09 Screens.

- (a) The sidelights of vessels of 20 meters or more in length shall be fitted with mat black inboard screens and meet the requirements of Sec. 84.17. On vessels of less than 20 meters in length, the sidelights, if necessary to meet the requirements of Sec. 84.17, shall be fitted with mat black inboard screens. With a combined lantern, using a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.
- (b) On power-driven vessels less than 12 meters in length constructed after July 31, 1983, the masthead light, or the all-round light described in Rule 23(c) shall be screened to prevent direct illumination of the vessel forward of the operator's position.

Sec. 84.11 Shapes.

- (a) Shapes shall be black and of the following sizes:
 - (1) A ball shall have a diameter of not less than 0.6 meter;
 - (2) A cone shall have a base diameter of not less than 0.6 meter and a height equal to its diameter;
 - (3) A diamond shape shall consist of two cones (as defined in paragraph (a)(2) of this section) having a common base.
- (b) The vertical distance between shapes shall be at least 1.5 meter.
- (c) In a vessel of less than 20 meters in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

Sec. 84.13. Color specification of lights.

- (a) The chromaticity of all navigation lights shall conform to the following standards, which lie within the boundaries of the area of the diagram specified for each color by the International Commission on Illumination (CIE), in the "Colors of Light Signals", which is incorporated by reference. It is Publication CIE No. 2.2. (TC-1.6), 1975, and is available from the Illumination Engineering Society, 345 East 47th Street, New York, NY 10017. It is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. *This incorporation by reference was approved by the Director of the Federal Register.*
- (b) The boundaries of the area for each color are given by indicating the corner co-ordinates, which are as follows:
 - (1) White:
x 0.525 0.525 0.452 0.310 0.310 0.443
y 0.382 0.440 0.440 0.348 0.283 0.382
 - (2) Green:

x 0.028 0.009 0.300 0.203
 y 0.385 0.723 0.511 0.356

(3) Red:

x 0.680 0.660 0.735 0.721
 y 0.320 0.320 0.265 0.259

(4) Yellow:

x 0.612 0.618 0.575 0.575
 y 0.382 0.382 0.425 0.406

Sec. 84.15 Intensity of lights.

(a) The minimum luminous intensity of lights shall be calculated by using the formula:

$$I = 3.43 \times 10^6 \times T \times D^2 \times K^{-D}$$

where:

I is luminous intensity in candelas under service conditions,

T is threshold factor 2×10^{-7} lux,

D is range of visibility (luminous range) of the light in nautical miles,

K is atmospheric transmissivity. For prescribed lights the value of K shall be 0.8, corresponding to a meteorological visibility of approximately 13 nautical miles.

(b) A selection of figures derived from the formula is given in Table 84.15(b):

Range of visibility (luminous range) of light in nautical miles	Minimum luminous intensity of light in candelas for
D	I
1	0.9
2	4.3
3	12
4	27
5	52
6	94

Table 84. 15(b)

Sec. 84.17 Horizontal sectors.

- (a)(1) In the forward direction, sidelights as fitted on the vessel shall show the minimum required intensities. The intensities shall decrease to reach practical cut-off between 1 and 3 degrees outside the prescribed sectors.
- (2) For sternlights and masthead lights and at 22.5 degrees abaft the beam for sidelights, the minimum required intensities shall be maintained over the arc of the horizon up to 5 degrees within the limits of the sectors prescribed in Rule 21. From 5 degrees within the prescribed sectors the intensity may decrease by 50 percent up to the prescribed limits; it shall decrease steadily to reach practical cut-off at not more than 5 degrees outside the prescribed sectors.
- (b) All-round lights shall be so located as not to be obscured by masts, topmasts or structures within angular sectors of more than 6 degrees, except anchor lights prescribed in Rule 30, which need not be placed at an impracticable height above the hull, and the all-round white light described in Rule 23(d), which may not be obscured at all.
- (c) If it is impracticable to comply with paragraph (b) of this section by exhibiting only one all-round light, two all-round lights shall be used suitably positioned or screened to appear, as far as practicable, as one light at a minimum distance of one nautical mile.

Note to paragraph (c): Two unscreened all-round lights that are 1.28 meters apart or less will appear as one light to the naked eye at a distance of one nautical mile.

Sec. 84.19 Vertical sectors.

- (a) The vertical sectors of electric lights as fitted, with the exception of lights on sailing vessels underway and on unmanned barges, shall ensure that:
- (1) At least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;
 - (2) At least 60 percent of the required minimum intensity is maintained from 7.5 degrees above to 7.5 degrees below the horizontal.
- (b) In the case of sailing vessels underway the vertical sectors of electric lights as fitted shall ensure that:
- (1) At least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;

- (2) At least 50 percent of the required minimum intensity is maintained from 25 degrees above to 25 degrees below the horizontal.
- (c) In the case of unmanned barges the minimum required intensity of electric lights as fitted shall be maintained on the horizontal.
- (d) In the case of lights other than electric lights these specifications shall be met as closely as possible

Sec. 84.21 Intensity of non-electric lights.

Non-electric lights shall so far as practicable comply with the minimum intensities, as specified in the Table given in Sec. 84.15.

Sec. 84.23 Maneuvering light.

Notwithstanding the provisions of Sec. 84.03(f), the maneuvering light described in Rule 34(b) shall be placed approximately in the same fore and aft vertical plane as the masthead light or lights and, where practicable, at a minimum height of one-half meter vertically above the forward masthead light, provided that it shall be carried not less than one-half meter vertically above or below the after masthead light. On a vessel where only one masthead light is carried the maneuvering light, if fitted, shall be carried where it can best be seen, not less than one-half meter vertically apart from the masthead light.

Sec. 84.27 High-speed craft.

- (a) The masthead light of high-speed craft with a length to breadth ratio of less than 3.0 may be placed at a height related to the breadth lower than that prescribed in Sec. 84.03(a)(1), provided that the base angle of the isosceles triangle formed by the side lights and masthead light when seen in end elevation is not less than 27 degrees as determined by the formula in paragraph (b) of this section.
- (b) The minimum height of masthead light above sidelights is to be determined by the following formula: $\tan 27^\circ = X/Y$ where Y is the horizontal distance between the sidelights and X is the height of the forward masthead light.

ANNEX II (Inland Rules)

**TITLE 33--NAVIGATION AND NAVIGABLE WATERS
CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION
PART 85--ANNEX II: ADDITIONAL SIGNALS FOR FISHING VESSELS FISHING IN CLOSE PROXIMITY**

Sec. 85.1 General.

The lights mentioned herein shall, if exhibited in pursuance of Rule 26(d), be placed where they can best be seen. They shall be at least 0.9 meter apart but at a lower level than lights prescribed in Rule 26(b)(i) and (c)(i) contained in the Inland Navigational Rules Act of 1980, as amended (33 U.S.C. 2001 et seq.). The lights shall be visible all around the horizon at a distance of at least 1 mile but at a lesser distance from the lights prescribed by these Rules for fishing vessels.

Sec. 85.3 Signals for trawlers.

- (a) Vessels when engaged in trawling, whether using demersal or pelagic gear, may exhibit:
 - (1) When shooting their nets: two white lights in a vertical line;
 - (2) When hauling their nets: one white light over one red light in a vertical line;
 - (3) When the net has come fast upon an obstruction: two red lights in a vertical line.
- (b) Each vessel engaged in pair trawling may exhibit:
 - (1) By night, a searchlight directed forward and in the direction of the other vessel of the pair;
 - (2) When shooting or hauling their nets or when their nets have come fast upon an obstruction, the lights prescribed in paragraph (a) of this section.

Sec. 85.5 Signals for purse seiners.

Vessels engaged in fishing with purse seine gear may exhibit two yellow lights in a vertical line. These lights shall flash alternately every second and with equal light and occultation duration. These lights may be exhibited only when the vessel is hampered by its fishing gear.

ANNEX III (Inland Rules)

Subpart A—Whistles

Sec. 86.01 Frequencies and range of audibility.

The fundamental frequency of the signal shall lie within the range 70-525 Hz. The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the frequency ranges and provide the sound pressure levels specified in Sec. 86.05.

Sec. 86.03 Limits of fundamental frequencies.

To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle shall be between the following limits:

- (a) 70-200 Hz, for a vessel 200 meters or more in length;
- (b) 130-350 Hz, for a vessel 75 meters but less than 200 meters in length;
- © 250-525 Hz, for a vessel less than 75 meters in length.

Sec. 86.05 Sound signal intensity and range of audibility.

A whistle on a vessel shall provide, in the direction of the forward axis of the whistle and at a distance of 1 meter from it, a sound pressure level in at least one 1/3-octave band of not less than the appropriate figure given in Table 86.05 within the following frequency ranges (±1 percent):

- (a) 130-1200 Hz, for a vessel 75 meters or more in length;
- (b) 250-1600 Hz, for a vessel 20 meters but less than 75 meters in length;
- © 250-2100 Hz, for a vessel 12 meters but less than 20 meters in length.

Length of vessel in meters	Fundamental frequency range (Hz)	For Measured frequencies (Hz)	1/3 octave band level at 1 meter in dB referred to 2×10^{-5} N/m ²	Audibility range in nautical miles
30 or more	70-200	130-180	145	2
		180-250	143	
		250-1200	140	
75 but less than 200	130-150	130-180	140	1.5
		180-250	138	
		250-1200	134	
20 but less than 75	250-525	250-450	130	1.0
		450-800	125	
		800-1600	121	
12 but less than 20	250-525	250-450	120	0.5
		450-800	115	
		800-1200	111	

Table 86.05

Note. The range of audibility in the table above is for information and is approximately the range at which a whistle may usually be heard on its forward axis in conditions of still air on board a vessel having average background noise level at the listening posts (taken to be 68 dB in the octave band centered on 250 Hz and 63 dB in the octave band centered on 500 Hz). In practice the range at which a whistle may be heard is extremely variable and depends critically on weather conditions; the values given can be regarded as typical but under conditions of strong wind or high ambient noise level at the listening post the range may be much reduced.

Sec. 86.07 Directional properties.

The sound pressure level of a directional whistle shall be not more than 4 dB below the sound pressure level specified in Sec. 86.05 in any direction in the horizontal plane within ± 45 degrees of the forward axis. The sound pressure level of the whistle in any other direction in the horizontal plane shall not be more than 10 dB less than the sound pressure level specified for the forward axis, so that the range of audibility in any direction will be at least half the range

required on the forward axis. The sound pressure level shall be measured in that one-third octave band which determines the audibility range.

Sec. 86.09 Positioning of whistles.

- (a) When a directional whistle is to be used as the only whistle on the vessel and is permanently installed, it shall be installed with its forward axis directed forward.
- (b) A whistle shall be placed as high as practicable on a vessel, in order to reduce interception of the emitted sound by obstructions and also to minimize hearing damage risk to personnel. The sound pressure level of the vessel's own signal at listening posts shall not exceed 110 dB(A) and so far as practicable should not exceed 100 dB(A).

Sec. 86.11 Fitting of more than one whistle.

If whistles are fitted at a distance apart of more than 100 meters, they shall not be sounded simultaneously.

Sec. 86.13 Combined whistle systems.

- (a) A combined whistle system is a number of whistles (sound emitting sources) operated together. For the purposes of the Rules a combined whistle system is to be regarded as a single whistle.
- (b) The whistles of a combined system shall:
 - (1) Be located at a distance apart of not more than 100 meters,
 - (2) Be sounded simultaneously,
 - (3) Each have a fundamental frequency different from those of the others by at least 10 Hz, and
 - (4) Have a tonal characteristic appropriate for the length of vessel which shall be evidenced by at least two-thirds of the whistles in the combined system having fundamental frequencies falling within the limits prescribed in Sec. 86.03, or if there are only two whistles in the combined system, by the higher fundamental frequency falling within the limits prescribed in Sec. 86.03.

Note: If due to the presence of obstructions the sound field of a single whistle or of one of the whistles referred to in Sec. 86.11 is likely to have a zone of greatly reduced signal level, a combined whistle system should be fitted so as to overcome this reduction.

Sec. 86.15 Towing vessel whistles.

A power-driven vessel normally engaged in pushing ahead or towing alongside may, at all times, use a whistle whose characteristic falls within the limits prescribed by Sec. 86.03 for the longest customary composite length of the vessel and its tow.

Subpart B—Bell or Gong

Sec. 86.21 Intensity of signal.

A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at 1 meter.

Sec. 86.23 Construction.

Bells and gongs shall be made of corrosion-resistant material and designed to give a clear tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of more than 20 meters in length, and shall be not less than 200 mm for vessels of 12 to 20 meters in length. The mass of the striker shall be not less than 3 percent of the mass of the bell. The striker shall be capable of manual operation.

Note: When practicable, a power-driven bell striker is recommended to ensure constant force.

Subpart C—Approval

Sec. 86.31 –Approval [Reserved]

ANNEX IV (Inland Rules)

**TITLE 33--NAVIGATION AND NAVIGABLE WATERS
CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION
PART 87--ANNEX IV: DISTRESS SIGNALS**

Sec. 87.1 Need of assistance.

The following signals, used or exhibited either together or separately, indicate distress and need of assistance:

- (a) A gun or other explosive signal fired at intervals of about a minute.
- (b) A continuous sounding with any fog-signaling apparatus;
- (c) Rockets or shells, throwing red stars fired one at a time at short intervals;
- (d) A signal made by radiotelegraphy or by any other signaling method consisting of the group . . . -- -- . . . (SOS) in the Morse Code,
- (e) A signal sent by radiotelephony consisting of the spoken word "Mayday";
- (f) The International Code Signal of distress indicated by N.C.
- (g) A signal consisting of a square flag having above or below it a ball or anything resembling a ball;
- (h) Flames on the vessel (as from a burning tar barrel, oil barrel, etc.);
- (i) A rocket parachute flare or a hand flare showing a red light;
- (j) A smoke signal giving off orange-colored smoke;
- (k) Slowly and repeatedly raising and lowering arms outstretched to each side;
- (l) The radiotelegraph alarm signal;
- (m) The radiotelephone alarm signal;
- (n) Signals transmitted by emergency position-indicating radio beacons;
- (o) Signals transmitted by radiocommunication systems, including survival craft radar transponders meeting the requirements of 47 CFR 80.1095.
- (p) A high intensity white light flashing at regular intervals from 50 to 70 times per minute.

Sec. 87.3 Exclusive use.

The use or exhibition of any of the foregoing signals except for the purpose of indicating distress and need of assistance and the use of other signals which may be confused with any of the above signals is prohibited.

Sec. 87.5 Supplemental signals.

Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual, the International Telecommunication Union Radio Regulations and the following signals:

- (a) A piece of orange-colored canvas with either a black square and circle or other appropriate symbol (for identification from the air);
- (b) A dye marker.

ANNEX V (Inland Rules)

TITLE 33--NAVIGATION AND NAVIGABLE WATERS CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION PART 88--ANNEX V: PILOT RULES

Sec. 88.01 Purpose and applicability.

This part applies to all vessels operating on United States inland waters and to United States vessels operating on the Canadian waters of the Great Lakes to the extent there is no conflict with Canadian law.

Sec. 88.03 Definitions.

The terms used in this part have the same meaning as defined in the Inland Navigational Rules Act of 1980.

Sec. 88.05 Copy of rules.

After January 1, 1983, the operator of each self-propelled vessel 12 meters or more in length shall carry on board and maintain for ready reference a copy of the Inland Navigation Rules.

Sec. 88.09 Temporary exemption from light and shape requirements when operating under bridges.

A vessel's navigation lights and shapes may be lowered if necessary to pass under a bridge.

Sec. 88.11 Law enforcement vessels.

- (a) Law enforcement vessels may display a flashing blue light when engaged in direct law enforcement or public safety activities. This light must be located so that it does not interfere with the visibility of the vessel's navigation lights.
- (b) The blue light described in this section may be displayed by law enforcement vessels of the United States and the States and their political subdivisions.

Sec. 88.12 Public safety activities.

- (a) Vessels engaged in government sanctioned public safety activities, and commercial vessels performing similar functions, may display an alternately flashing red and yellow light signal. This identification light signal must be located so that it does not interfere with the visibility of the vessel's navigation lights. The identification light signal may be used only as an identification signal and conveys no special privilege. Vessels using the identification light signal during public safety activities must abide by the Inland Navigation Rules, and must not presume that the light or the exigency gives them precedence or right of way.
- (b) Public safety activities include but are not limited to patrolling marine parades, regattas, or special water celebrations; traffic control; salvage; firefighting; medical assistance; assisting disabled vessels; and search and rescue.

Sec. 88.13 Lights on moored barges.

- (a) The following barges shall display at night and if practicable in periods of restricted visibility the lights described in paragraph
- (b) of this section:
 - (1) Every barge projecting into a buoyed or restricted channel.
 - (2) Every barge so moored that it reduces the available navigable width of any channel to less than 80 meters.
 - (3) Barges moored in groups more than two barges wide or to a maximum width of over 25 meters.
 - (4) Every barge not moored parallel to the bank or dock.
- (b) Barges described in paragraph (a) of this section shall carry two unobstructed all-round white lights of an intensity to be visible for at least 1 nautical mile and meeting the technical requirements as prescribed in Sec. 84.15 of this chapter.
- (c) A barge or group of barges at anchor or made fast to one or more mooring buoys or other similar device, in lieu of the provisions of Inland Navigation Rule 30, may carry unobstructed all-round white lights of an intensity to be visible for at least 1 nautical mile that meet the requirements of Sec. 84.15 of this chapter and shall be arranged as follows:
 - (1) Any barge that projects from a group formation, shall be lighted on its outboard corners.
 - (2) On a single barge moored in water where other vessels normally navigate on both sides of the barge, lights shall be placed to mark the corner extremities of the barge.
 - (3) On barges moored in group formation, moored in water where other vessels normally navigate on both sides of the group, lights shall be placed to mark the corner extremities of the group.
- (d) The following are exempt from the requirements of this section:
 - (1) A barge or group of barges moored in a slip or slough used primarily for mooring purposes.
 - (2) A barge or group of barges moored behind a pierhead.
 - (3) A barge less than 20 meters in length when moored in a special anchorage area designated in accordance with Sec. 109.10 of this chapter.
- (e) Barges moored in well-illuminated areas are exempt from the lighting requirements of this section. These areas are as follows:

Chicago Sanitary Ship Canal

- | | |
|--------------------------|----------------------------|
| (1) Mile 293.2 to 293.9 | (29) Mile 314.6 |
| (3) Mile 295.2 to 296.1 | (31) Mile 314.8 to 315.3 |
| (5) Mile 297.5 to 297.8 | (33) Mile 315.7 to 316 |
| (7) Mile 298 to 298.2 | (35) Mile 316.8 |
| (9) Mile 298.6 to 298.8 | (37) Mile 316.85 to 317.05 |
| (11) Mile 299.3 to 299.4 | (39) Mile 317.5 |
| (13) Mile 299.8 to 300.5 | (41) Mile 318.4 to 318.9 |
| (15) Mile 303 to 303.2 | (43) Mile 318.7 to 318.8 |
| (17) Mile 303.7 to 303.9 | (45) Mile 320 to 320.3 |
| (19) Mile 305.7 to 305.8 | (47) Mile 320.6 |
| (21) Mile 310.7 to 310.9 | (49) Mile 322.3 to 322.4 |
| (23) Mile 311 to 311.2 | (51) Mile 322.8 |
| (25) Mile 312.5 to 312.6 | (53) Mile 322.9 to 327.2 |
| (27) Mile 313.8 to 314.2 | |

Calumet Sag Channel

(61) Mile 316.5

Little Calumet River

(71) Mile 321.2

(73) Mile 322.3

Calumet River

(81) Mile 328.5 to 328.7

(83) Mile 329.2 to 329.4

(85) Mile 330 west bank to 330.2

(87) Mile 331.4 to 331.6

(89) Mile 332.2 to 332.4

(91) Mile 332.6 to 332.8

Cumberland River

(101) Mile 126.8

(103) Mile 191

Sec. 88.15 Lights on dredge pipelines.

Dredge pipelines that are floating or supported on trestles shall display the following lights at night and in periods of restricted visibility.

(a) One row of yellow lights. The lights must be:

(1) Flashing 50 to 70 times per minute,

(2) Visible all around the horizon,

(3) Visible for at least 2 miles on a clear dark night,

(4) Not less than 1 and not more than 3.5 meters above the water,

(5) Approximately equally spaced, and

(6) Not more than 10 meters apart where the pipeline crosses a navigable channel. Where the pipeline does not cross a navigable channel the lights must be sufficient in number to clearly show the pipeline's length and course.

(b) Two red lights at each end of the pipeline, including the ends in a channel where the pipeline is separated to allow vessels to pass (whether open or closed). The lights must be:

(1) Visible all around the horizon, and

(2) Visible for at least 2 miles on a clear dark night, and

(3) One meter apart in a vertical line with the lower light at the same height above the water as the flashing yellow light.

Interpretative Rules (Inland)

TITLE 33--NAVIGATION AND NAVIGABLE WATERS

CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION

PART 90--INLAND RULES: INTERPRETATIVE RULES

Sec. 90.1 Purpose.

This part contains the interpretative rules for the Inland Rules. These interpretative rules are intended as a guide to assist the public and promote compliance with the Inland Rules.

Sec. 90.3 Pushing vessel and vessel being pushed: Composite unit.

Rule 24(b) of the Inland Rules states that when a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit, they are regarded as a power-driven vessel and must exhibit the lights prescribed in Rule 23. A "composite unit" is interpreted to be the combination of a pushing vessel and a vessel being pushed ahead that are rigidly connected by mechanical means so they react to sea and swell as one vessel. Mechanical means does not include lines, wires, hawsers, or chains.

Sec. 90.5 Lights for moored vessels.

A vessel at anchor includes a vessel made fast to one or more mooring buoys or other similar device attached to the ocean floor. Such vessels may be lighted as a vessel at anchor in accordance with Rule 30, or may be lighted on the corners in accordance with 33 CFR 88.13.

Sec. 90.7 Sidelights for unmanned barges.

An unmanned barge being towed may use the exception of COLREGS Rule 24(h). However, this exception only applies to the vertical sector requirements for sidelights.

Vessel Traffic Management

TITLE 33--NAVIGATION AND NAVIGABLE WATERS
CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION
PART 161--VESSEL TRAFFIC MANAGEMENT

Subpart A--Vessel Traffic Services

Sec. 161.1 Purpose and Intent.

General Rules

(a) The purpose of this part is to promulgate regulations implementing and enforcing certain sections of the Ports and Waterways Safety Act (PWSA) setting up a national system of Vessel Traffic Services that will enhance navigation, vessel safety, and marine environmental protection, and promote safe vessel movement by reducing the potential for collisions, ramblings, and groundings, and the loss of lives and property associated with these incidents within VTS areas established hereunder.

(b) Vessel Traffic Services provide the mariner with information related to the safe navigation of a waterway. This information, coupled with the mariner's compliance with the provisions set forth in this part, enhances the safe routing of vessels through congested waterways or waterways of particular hazard. Under certain circumstances, a VTS may issue directions to control the movement of vessels in order to minimize the risk of collision between vessels, or damage to property or the environment.

(c) The owner, operator, charterer, master, or person directing the movement of a vessel remains at all times responsible for the manner in which the vessel is operated and maneuvered, and is responsible for the safe navigation of the vessel under all circumstances. Compliance with these rules or with a direction of the VTS is at all times contingent upon the exigencies of safe navigation.

(d) Nothing in this part is intended to relieve any vessel, owner, operator, charterer, master, or person directing the movement of a vessel from the consequences of any neglect to comply with this part or any other applicable law or regulation (e.g., the International Regulations for Prevention of Collisions at Sea, 1972 (72 COLREGS) or the Inland Navigation Rules) or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

Sec. 161.2 Definitions.

For the purposes of this part:

Cooperative Vessel Traffic Services (CVTS) means the system of vessel traffic management established and jointly operated by the United States and Canada within adjoining waters. In addition, CVTS facilitates traffic movement and anchorages, avoids jurisdictional disputes, and renders assistance in emergencies in adjoining United States and Canadian waters.

Hazardous Vessel Operating Condition means any condition related to a vessel's ability to safely navigate or maneuver, and includes, but is not limited to:

(1) The absence or malfunction of vessel operating equipment, such as propulsion machinery, steering gear, radar system, gyrocompass, depth sounding device, automatic radar plotting aid (ARPA), radiotelephone, Automatic Identification System equipment, navigational lighting, sound signaling devices or similar equipment.

(2) Any condition on board the vessel likely to impair navigation, such as lack of current nautical charts and publications, personnel shortage, or similar condition.

(3) Vessel characteristics that affect or restrict maneuverability, such as cargo arrangement, trim, loaded condition, underkeel clearance, speed, or similar characteristics.

Precautionary Area means a routing measure comprising an area within defined limits where vessels must navigate with particular caution and within which the direction of traffic may be recommended

Towing Vessel means any commercial vessel engaged in towing another vessel astern, alongside, or by pushing ahead. Vessel Movement Reporting System (VMRS) is a system used to manage and track vessel movements within a VTS area. This is accomplished by a vessel providing information under established procedures as set forth in this part, or as directed by the VTS.

Vessel Movement Reporting System (VMRS) User means a vessel, or an owner, operator, charterer, master, or person directing the movement of a vessel, that is required to participate in a VMRS within a VTS area.

VMRS participation is required for:

- (1) Every power-driven vessel of 40 meters (approximately 131 feet) or more in length, while navigating;
- (2) Every towing vessel of 8 meters (approximately 26 feet) or more in length, while navigating; or
- (3) Every vessel certificated to carry 50 or more passengers for hire, when engaged in trade.

Vessel Traffic Center (VTC) means the shore-based facility that operates the vessel traffic service for the Vessel Traffic Service area or sector within such an area.

Vessel Traffic Services (VTS) means a service implemented by the United States Coast Guard designed to improve the safety and efficiency of vessel traffic and to protect the environment. The VTS has the capability to interact with marine traffic and respond to traffic situations developing in the VTS area.

Vessel Traffic Service Area or VTS Area means the geographical area encompassing a specific VTS area of service. This area of service may be subdivided into sectors for the purpose of allocating responsibility to individual Vessel Traffic Centers or to identify different operating requirements.

Note: Although regulatory jurisdiction is limited to the navigable waters of the United States, certain vessels will be encouraged or may be required, as a condition of port entry, to report beyond this area to facilitate traffic management within the VTS area.

VTS Special Area means a waterway within a VTS area in which special operating requirements apply.

VTS User means a vessel, or an owner, operator, charterer, master, or person directing the movement of a vessel, that is:

- (a) Subject to the Vessel Bridge-to-Bridge Radiotelephone Act; or
- (b) Required to participate in a VMRS within a VTS area (VMRS User).

VTS User's Manual means the manual established and distributed by the VTS to provide the mariner with a description of the services offered and rules in force for that VTS. Additionally, the manual may include chartlets showing the area and sector boundaries, general navigational information about the area, and procedures, radio frequencies, reporting provisions and other information which may assist the mariner while in the VTS area.

Sec. 161.3 Applicability.

The provisions of this subpart shall apply to each VTS User and may also apply to any vessel while underway or at anchor on the navigable waters of the United States within a VTS area, to the extent the VTS considers necessary.

Sec. 161.4 Requirement to carry the rules.

Each VTS User shall carry on board and maintain for ready reference a copy of these rules.

Note: These rules are contained in the applicable U.S. Coast Pilot, the VTS User's Manual which may be obtained by contacting the appropriate VTS, and periodically published in the Local Notice to Mariners. The VTS User's Manual and the World VTS Guide, an International Maritime Organization (IMO) recognized publication, contain additional information which may assist the prudent mariner while in the appropriate VTS area.

Sec. 161.5 Deviations from the rules.

(a) Requests to deviate from any provision in this part, either for an extended period of time or if anticipated before the start of a transit, must be submitted in writing to the appropriate District Commander. Upon receipt of the written request, the District Commander may authorize a deviation if it is determined that such a deviation provides a level of safety equivalent to that provided by the required measure or is a maneuver considered necessary for safe navigation under the circumstances. An application for an authorized deviation must state the need and fully describe the proposed alternative to the required measure.

(b) Requests to deviate from any provision in this part due to circumstances that develop during a transit or immediately preceding a transit, may be made verbally to the appropriate VTS Commanding Officer. Requests to deviate shall be made as far in advance as practicable. Upon receipt of the request, the VTS Commanding Officer may authorize a deviation if it is determined that, based on vessel handling characteristics, traffic density, radar contacts, environmental conditions and other relevant information, such a deviation provides a level of safety equivalent to that provided by the required measure or is a maneuver considered necessary for safe navigation under the circumstances.

Sec. 161.10 Services.

To enhance navigation and vessel safety, and to protect the marine environment, a VTS may issue advisories, or respond to vessel requests for information, on reported conditions within the VTS area, such as:

- (a) Hazardous conditions or circumstances;
- (b) Vessel congestion;
- (c) Traffic density;
- (d) Environmental conditions;
- (e) Aids to navigation status;
- (f) Anticipated vessel encounters;
- (g) Another vessel's name, type, position, hazardous vessel operating conditions, if applicable, and intended navigation movements, as reported;
- (h) Temporary measures in effect;
- (i) A description of local harbor operations and conditions, such as ferry routes, dredging, and so forth;
- (j) Anchorage availability; or
- (k) Other information or special circumstances.

Sec. 161.11 VTS measures.

(a) A VTS may issue measures or directions to enhance navigation and vessel safety and to protect the marine environment, such as, but not limited to:

- (1) Designating temporary reporting points and procedures;
- (2) Imposing vessel operating requirements; or
- (3) Establishing vessel traffic routing schemes.

(b) During conditions of vessel congestion, restricted visibility, adverse weather, or other hazardous circumstances, a VTS may control, supervise, or otherwise manage traffic, by specifying times of entry, movement, or departure to, from, or within a VTS area.

Sec. 161.12 Vessel operating requirements.

(a) Subject to the exigencies of safe navigation, a VTS User shall comply with all measures established or directions issued by a VTS.

- (1) If, in a specific circumstance, a VTS User is unable to safely comply with a measure or direction issued by the VTS, the VTS User may deviate only to the extent necessary to avoid endangering persons, property or the environment. The deviation shall be reported to the VTS as soon as is practicable.

(b) When not exchanging communications, a VTS User must maintain a listening watch as required by Sec. 26.04(e) of this chapter on the VTS frequency designated in Table 161.12(b) (VTS Call Signs, Designated Frequencies, and Monitoring Areas). In addition, the VTS User must respond promptly when hailed and communicate in the English language.

Note: As stated in 47 CFR 80.148(b), a VHF watch on Channel 16 (156.800 MHz) is not required on vessels subject to the Vessel Bridge-to-Bridge Radiotelephone Act and participating in a Vessel Traffic Service (VTS) system when the watch is maintained on both the vessel bridge-to-bridge frequency and a designated VTS frequency.

Sec. 161.13 VTS Special Area operating requirements.

The following operating requirements apply within a VTS Special Area:

- (a) A VTS User shall, if towing astern, do so with as short a hawser as safety and good seamanship permits.
- (b) A VMRS User shall:
 - (1) Not enter or get underway in the area without prior approval of the VTS;
 - (2) Not enter a VTS Special Area if a hazardous vessel operating condition or circumstance exists;
 - (3) Not meet, cross, or overtake any other VMRS User in the area without prior approval of the VTS; and
 - (4) Before meeting, crossing, or overtaking any other VMRS User in the area, communicate on the designated vessel bridge-to-bridge radiotelephone frequency, intended navigation movements, and any other information necessary in order to make safe passing arrangements. This requirement does not relieve a vessel of any duty prescribed by the International Regulations for Prevention of Collisions at Sea, 1972 (72 COLREGS) or the Inland Navigation Rules.

Sec. 161.15 Purpose and intent.

(a) A Vessel Movement Reporting System (VMRS) is a system used to manage and track vessel movements within a VTS area. This is accomplished by requiring that vessels provide information under established procedures as set forth in this part, or as directed by the VTS.

(b) To avoid imposing an undue reporting burden or unduly congesting radiotelephone frequencies, reports shall be limited to information which is essential to achieve the objectives of the VMRS. These reports are consolidated into four reports (sailing plan, position, sailing plan deviation and final).

Sec. 161.16 Applicability.

The provisions of this subpart shall apply to the following VMRS

Users:

(a) Every power-driven vessel of 40 meters (approximately 131 feet) or more in length, while navigating;

(b) Every towing vessel of 8 meters (approximately 26 feet) or more in length, while navigating; or

(c) Every vessel certificated to carry 50 or more passengers for hire, when engaged in trade.

Sec. 161.17 Definitions.

As used in this subpart: Published means available in a widely-distributed and publicly available medium (e.g., VTS User's Manual, ferry schedule, Notice to Mariners).

Sec. 161.18 Reporting requirements.

(a) A VTS may: (1) Direct a vessel to provide any of the information set forth in Table 161.18(a) (IMO Standard Ship Reporting System);

Table 161.18(a).--The IMO Standard Ship Reporting System

A	ALPHA.....	Ship.....	Name, call sign or ship station identity, and flag.
[[Page 558]]			
B	BRAVO.....	Dates and time of event.	A 6 digit group giving day of month (first two digits), hours and minutes (last four digits). If other than UTC state time zone used.
C	CHARLIE.....	Position.....	A 4 digit group giving latitude in degrees and minutes suffixed with N (north) or S (south) and a 5 digit group giving longitude in degrees and minutes suffixed with E (east) or W (west); or.
D	DELTA.....	Position.....	True bearing (first 3 digits) and distance (state distance) in nautical miles from a clearly identified landmark (state landmark).
E	ECHO.....	True course.....	A 3 digit group.
F	FOXTROT.....	Speed in knots and tenths of knots.	A 3 digit group.
G	GOLF.....	Port of Departure	Name of last port of call.
H	HOTEL.....	Date, time and point of entry system.	Entry time expressed as in (B) and into the entry position expressed as in (C) or (D).
I	INDIA.....	Destination and expected time of arrival.	Name of port and date time group expressed as in (B).
J	JULIET.....	Pilot.....	State whether a deep sea or local pilot is on board.
K	KILO.....	Date, time and point of exit from system.	Exit time expressed as in (B) and exit position expressed as in (C) or (D).
L	LIMA.....	Route information	Intended track.
M	MIKE.....	Radio.....	State in full names of communications stations/frequencies guarded.
N	NOVEMBER.....	Time of next report.	Date time group expressed as in (B).

O	OSCAR.....	Maximum present static draught in meters.	4 digit group giving meters and centimeters.
P	PAPA.....	Cargo on board...	Cargo and brief details of any dangerous cargoes as well as harmful substances and gases that could endanger persons or the environment.
Q	QUEBEC.....	Defects, damage, deficiencies or limitations.	Brief detail of defects, damage, deficiencies or other limitations.
R	ROMEO.....	Description of pollution or dangerous goods lost.	Brief details of type of pollution (oil, chemicals, etc) or dangerous goods lost overboard; position expressed as in (C) or (D).
S	SIERRA.....	Weather conditions.	Brief details of weather and sea conditions prevailing.
T	TANGO.....	Ship's representative and/or owner.	Details of name and particulars of ship's representative and/or owner for provision of information.
U	UNIFORM.....	Ship size and type.	Details of length, breadth, tonnage, and type, etc., as required.
V	VICTOR.....	Medical personnel	Doctor, physician's assistant, nurse, no medic.
W	WHISKEY.....	Total number of persons on board.	State number.
X	XRAY.....	Miscellaneous....	Any other information as appropriate. [i.e., a detailed description of a planned operation, which may include: its duration; effective area; any restrictions to navigation; notification procedures for approaching vessels; in addition, for a towing operation: configuration, length of the tow, available horsepower, etc.; for a dredge or floating plant: configuration of pipeline, mooring configuration, number of assist vessels, etc.]

- (2) Establish other means of reporting for those vessels unable to report on the designated frequency; or
- (3) Require reports from a vessel in sufficient time to allow advance vessel traffic planning.
- (b) All reports required by this part shall be made as soon as is practicable on the frequency designated in Table 161.12(b) (VTS Call Signs, Designated Frequencies, and Monitoring Areas).
- (c) When not exchanging communications, a VMRS User must maintain a listening watch as described in Sec. 26.04(e) of this chapter on the frequency designated in Table 161.12(b) (VTS Call Signs, Designated Frequencies, and Monitoring Areas). In addition, the VMRS User must respond promptly when hailed and communicate in the English language. Note: As stated in 47 CFR 80.148(b), a VHF watch on Channel 16 (156.800 MHz) is not required on vessels subject to the Vessel Bridge-to-Bridge Radiotelephone Act and participating in a Vessel Traffic Service (VTS) system when the watch is maintained on both the vessel bridge-to-bridge frequency and a designated VTS frequency.
- (d) When reports required by this part include time information, such information shall be given using the local time zone in effect and the 24-hour military clock system.

Sec. 161.19 Sailing Plan (SP).

Unless otherwise stated, at least 15 minutes before navigating a VTS area, a vessel must report the:

- (a) Vessel name and type;
- (b) Position;
- (c) Destination and ETA;
- (d) Intended route;
- (e) Time and point of entry; and
- (f) Dangerous cargo on board or in its tow, as defined in Sec. 160.203 of this chapter, and other required information as set out in Sec. 160.211 and Sec. 160.213 of this chapter, if applicable.

Sec. 161.20 Position Report (PR).

A vessel must report its name and position:

- (a) Upon point of entry into a VTS area;
- (b) At designated reporting points as set forth in subpart C; or
- (c) When directed by the VTC.

Note: Notice of temporary reporting points, if established, may be published via Local Notices to Mariners, general broadcast or the VTS User's Manual.

Sec. 161.21 Sailing Plan Deviation Report (DR).

A vessel must report:

- (a) When its ETA to a destination varies significantly from a previously reported ETA;
- (b) Any intention to deviate from a VTS issued measure or vessel traffic routing system; or
- (c) Any significant deviation from previously reported information.

Sec. 161.22 Final Report (FR).

A vessel must report its name and position:

- (a) On arrival at its destination; or
- (b) When leaving a VTS area.

Sec. 161.23 Reporting exemptions.

(a) Unless otherwise directed, the following vessels are exempted from providing Position and Final Reports due to the nature of their operation:

- (1) Vessels on a published schedule and route;
- (2) Vessels operating within an area of a radius of three nautical miles or less; or
- (3) Vessels escorting another vessel or assisting another vessel in maneuvering procedures.

(b) A vessel described in paragraph (a) of this section must:

- (1) Provide a Sailing Plan at least 5 minutes but not more than 15 minutes before navigating within the VTS area; and
- (2) If it departs from its promulgated schedule by more than 15 minutes or changes its limited operating area, make the established VMRS reports, or report as directed.

(c) In those VTS areas capable of receiving automated position reports from Automatic Identification System Shipborne Equipment (AISSE) as required by Sec. 164.43 of this chapter and where AISSE is required, vessels equipped with an operating AISSE are not required to make voice radio position reports at designated reporting points as required by Sec. 161.20(b) of this part, unless otherwise directed by the VTC.

(1) Whenever an AISSE becomes non-operational as defined in Sec. 164.43(c) of this chapter, before entering or while underway in a VTS area, a vessel must:

- (i) Notify the VTC;
- (ii) Make voice radio position reports at designated reporting points as required by Sec. 161.20(b) of this part;
- (iii) Make other voice radio reports as directed; and
- (iv) Restore the AISSE to operating condition as soon as possible.

(2) Whenever an AISSE becomes non-operational due to a loss of position correction information (i.e., the U.S. Coast Guard differential global positioning system (dGPS) cannot provide the required error correction messages) a vessel must:

- (i) Make required voice radio position reports at designated reporting points required by Sec. 161.20(b) of this part; and
- (ii) Make other voice radio reports as directed.

Note: Regulations pertaining to AISSE required capabilities are set forth in Sec. 164.43 of this chapter.

Sec. 161.25 Vessel Traffic Service New York Area.

Note: All geographic coordinates contained in part 161 (latitude and longitude) are expressed in North American Datum of 1983 (NAD 83).

The area consists of the navigable waters of the Lower New York Harbor bounded on the east by a line drawn from Norton Point to Breezy Point; on the south by a line connecting the entrance buoys at the Ambrose Channel, Swash Channel, and Sandy Hook Channel to Sandy Hook Point; and on the southeast including the waters of Sandy Hook Bay south to a line drawn at latitude 40 deg.25'N.; then west into waters of the Raritan Bay to the Raritan River Rail Road Bridge; and then north including the waters of the Arthur Kill and Newark Bay to the Lehigh Valley Draw Bridge at latitude 40 deg.41.9'N.; and then east including the waters of the Kill Van Kull and Upper New York Bay north to a line drawn east-west from the Holland Tunnel Ventilator Shaft at latitude 40 deg.43.7'N., longitude 74 deg.01.6'W. in the Hudson River; and then continuing east including the waters of the East River to the Throgs Neck Bridge, excluding the Harlem River.

Note: Although mandatory participation in VTSNY is limited to the area within the navigable waters of the United States, VTSNY will provide services beyond those waters. Prospective users are encouraged to report beyond the area of required participation in order to facilitate advance vessel traffic management in the VTS area and to receive VTSNY advisories and/or assistance.

Sec. 161.30 Vessel Traffic Service Louisville.

The VTS area consists of the navigable waters of the Ohio River between McAlpine Locks (Mile 606.8) and Twelve Mile Island (Mile 593), only when the McAlpine upper pool gauge is at 13.0 feet or above.

Sec. 161.35 Vessel Traffic Service Houston/Galveston.

(a) The VTS area consists of the following major waterways and portions of connecting waterways: Galveston Bay Entrance Channel; Outer Bar Channel; Inner Bar Channel; Bolivar Roads Channel; Galveston Channel; Gulf ICW and Galveston-Freeport Cut-Off from Mile 346 to Mile

352; Texas City Channel; Texas City Turning Basin; Texas City Canal Channel; Texas City Canal Turning Basin; Houston Ship Channel; Bayport Channel; Bayport Turning Basin; Houston Turning Basin; and the following precautionary areas associated with these waterways.

(b) Precautionary Areas.

Table 161.35(b)--VTS Houston/Galveston Precautionary Areas

Precautionary area name	Radius (yds.)	Center point	
		Latitude	Longitude
Bolivar Roads.....	4000	29 deg.20.9'N	94 deg.47.0'W
Red Fish Bar.....	4000	29 deg.29.8'N	94 deg.51.9'W
Bayport Channel.....	4000	29 deg.36.7'N	94 deg.57.2'W
[[Page 561]]			
Morgans Point.....	2000	29 deg.41.0'N	94 deg.59.0'W
Upper San Jacinto Bay.....	1000	29 deg.42.3'N	95 deg.01.1'W
Baytown.....	1000	29 deg.43.6'N	95 deg.01.4'W
Lynchburg.....	1000	29 deg.45.8'N	95 deg.04.8'W
Carpenters Bayou.....	1000	29 deg.45.3'N	95 deg.05.6'W
Jacintoport.....	1000	29 deg.44.8'N	95 deg.06.0'W
Greens Bayou.....	1000	29 deg.44.8'N	95 deg.10.2'W
Hunting Bayou.....	1000	29 deg.44.3'N	95 deg.12.1'W
Sims Bayou.....	1000	29 deg.43.1'N	95 deg.14.4'W
Brady Island.....	1000	29 deg.43.5'N	95 deg.16.4' W
Buffalo Bayou.....	1000	29 deg.45.0'N	95 deg.17.3'W

Note: Each Precautionary Area encompasses a circular area of the radius denoted.

(c) Reporting Points.

Table 161.35(c)--VTS Houston/Galveston Reporting Points

Designator	Geographic name	Geographic description	Latitude/Longitude	Notes
1.....	Galveston Bay Entrance Channel.	Galveston Bay Entrance CH Lighted Buoy (LB) 'GB''.	29 deg.18.4'N; 94 deg.37.6'W.	.....
2.....	Galveston Bay Entrance Channel.	Galveston Bay Entrance Channel LB 11 and 12.	29 deg.20.6'N; 94 deg.44.6'W.	.....
F.....	Bolivar Land Cut.....	Mile 349 Intracoastal Waterway (ICW).	29 deg.22.5'N; 94 deg.46.9' W.	Tows entering HSC also report at HSC LB 25 & 26.
W.....	Pelican Cut.....	Mile 351 ICW.....	29 deg.21.4'N; 94 deg.48.5' W.	Tow entering HSC also reporting at HSC LB 25 & 26.
GCG.....	Galveston Harbor.....	USCG Base. At the entrance to Galveston Harbor.	29 deg.20.0'N; 94 deg.46.5'W.	.....
T.....	Texas City Channel.....	Texas City Channel LB 12.	29 deg.22.4'N; 94 deg.50.9'W.	.....
X.....	Houston Ship Channel ICW Intersection.	Houston Ship Channel (HSC) LB 25 and 26.	29 deg.22.1'N; 94 deg.48.1'W.	Tow entering HSC from ICW or Texas Cut Only.
3.....	Lower Galveston Bay....	HSC LB 31 and 32.....	29 deg.23.5'N; 94 deg.48.8'W.	.....
4.....	Red Fish Bar.....	HSC Lt. 53A & 54A.....	29 deg.30.3'N; 94 deg.52.4'W.	.....
P.....	Bayport Ship Channel...	Bayport Ship Channel Lt. 8 and 9.	29 deg.36.8'N; 94 deg.59.5' W;.	Report at the North Land Cut.
4A.....	Upper Galveston Bay....	HSC Buoys 69 and 70...	29 deg.34.7'N; 94 deg.55.8' W.	Tows only.
5.....	Morgan's Point.....	Barbour's Cut.....	29 deg.41.0'N; 94 deg.58.9'W..	Abeam Barbours Cut.
6.....	Exxon.....	Baytown Bend.....	29 deg.43.5'N; 95 deg.01.4'W.	.....
7.....	Lynchburg.....	Ferry crossing.....	29 deg.45.8'N; 95 deg.04.8'W.	.....
8.....	Shell Oil.....	Boggy Bayou.....	29 deg.44.1'N; 95 deg.08.0'W.	.....
9.....	Greens Bayou.....	Greens Bayou.....	29 deg.44.8'N; 95 deg.10.1'W.	.....
10.....	Hess Turning Basin.....	Hunting Bayou Turning Basin.	29 deg.44.3'N;95 deg.12.1'W.	.....
11.....	Lyondell Turning Basin.	Sims Bayou Turning	29 deg.43.2'N; 95	.....

Sec. 161.40 Vessel Traffic Service Berwick Bay.

(a) The VTS area consists of the navigable waters of the following segments of waterways: the Intracoastal Waterway (ICW) Morgan City to Port Allen Alternate Route from Mile Marker 0 to Mile Marker 5; the ICW from Mile Marker 93 west of Harvey Lock (WHL) to Mile Marker 102 WHL; the Atchafalaya River Route from Mile Marker 113 to Mile Marker 122; from Bayou Shaffer Junction (ICW Mile Marker 94.5 WHL) south one statute mile along Bayou Shaffer; and from Berwick Lock northwest one statute mile along the Lower Atchafalaya River.

(b) VTS Special Area. The Berwick Bay VTS Special Area consists of those waters within a 1000 yard radius of the Southern Pacific Railroad Bridge located at Mile .03 MC/PA.

(c) Reporting Points.

Table 161.40(c)--VTS Berwick Bay Reporting Points

Designator	Geographic name	Geographic		Latitude/longitude	Notes
		description			
1.....	Stouts Pass.....	Stouts Point Light `1' Mile 113-		29 deg.43'47" N 91 deg.13'25" W	.....
2.....	Berwick Lock.....	Atchafalaya River. Mile 1.9 MC/PA....		29 deg.43'10" N 91 deg.13'28" W	If transiting the Lock.
3.....	Conrad's Point Junction.	Buoy `1' Mile 1.5 MC/PA.		29 deg.42'32" N 91 deg.13'14" W	.....
4.....	Swift Ships Flat Lake Junction.	Mile 3 MC/PA.....		29 deg.43'26" N 91 deg.12'22" W	.....
5.....	South Pacific Railroad Bridge.	Mile 0.3 MC/PA....		29 deg.41'34" N 91 deg.12'44" W	.....
6.....	20 Grant Point Junction.	Bayou Boeuf- Atchafalaya R. Mile 95.5 ICW.		29 deg.41'18" N 91 deg.12'36" W	.....
7.....	ICW.....	Overhead Power Cable Mile 96.5 ICW.		29 deg.40'43" N 91 deg.13'18" W	.....
8.....	Wax Bayou Junction	Light `A' Mile 98.2W ICW.		29 deg.39'29" N 91 deg.14'46" W	.....
9.....	Shaffer Junction..	ICW-Bayou Shaffer Mile 94.5 ICW.		29 deg.41'10" N 91 deg.11'38" W	.....

Sec. 161.45 Vessel Traffic Service St. Marys River.

(a) The VTS area consists of the navigable waters of the St. Marys River and lower Whitefish Bay from **45** deg.57' N. (De Tour Reef Light) to the south, to 46 deg.38.7' N. (Ile Parisienne Light) to the north, except the waters of the St. Marys Falls Canal, and to the east along a line from La Pointe to Sims Point, within Potagannissing Bay and Worsley Bay.

(b) Reporting Points.

Table 161.45(b)--VTS St. Marys River Reporting Points

Designator	Geographic name	Geographic description	Latitude/Longitude	Notes
1.....	Ile Parisienne.....	Ile Parisienne Light....	46 deg.37.3'N; 84 deg.45.9' W.	Downbound Only.
2.....	Gros Cap Reef.....	Gros Cap Reefs Light....	46 deg.30.6'N; 84 deg.37.1' W.	Upbound Only.
3.....	Round Island.....	Round Island Light 32..	46 deg.26.9'N; 84 deg.31.7'W.	
4.....	Pointe Louise.....	Pointe Louise Light....	46 deg.27.8'N; 84 deg.28.2'W.	
5*.....	West End of Locks.....	West Center Pierhead Light	46 deg.30.2'N; 84 deg.22.2' W.	Upbound Only.
6.....	East End of Locks.....	East Center Pierhead Light.	46 deg.30.1'N; 84 deg.20.3' W.	Downbound Only.
7.....	Mission Point.....	Light 99.....	46 deg.29.2'N; 84 deg.18.1'W.	
8.....	Six Mile Point.....	Six Mile Point.....	46 deg.26.1'N; 84 deg.15.4'W.	
9.....	Ninemile Point.....	Light 80.....	46 deg.23.5'N; 84 deg.14.1'W.	
10.....	West Neebish Channel....	Light 29.....	46 deg.16.9'N; 84 deg.12.5' W.	Downbound Only.
11.....	Munuscong Lake Junction.	Lighted Junction Buoy.....	46 deg.10.8'N; 84 deg.05.6'W.	
12.....	De Tour Reef.....	De Tour Reef Light.....	46 deg.56.9'N; 83 deg.53.7'W.	

Sec. 161.50 Vessel Traffic Service San Francisco.

The VTS area consists of all the navigable waters of San Francisco Bay Region south of the Mare Island Causeway Bridge and the Petaluma River Entrance Channel Daybeacon 19 and Petaluma River Entrance Channel Light 20 and north of the Dumbarton Bridge; its seaward approaches within a 38 nautical mile radius of Mount Tamalpais (37-55.8' N., 122-34.6' W.); and its navigable tributaries as far east as the port of Stockton on the San Joaquin River, as far north as the port of Sacramento on the Sacramento River.

Sec. 161.55 Vessel Traffic Service Puget Sound and the Cooperative Vessel Traffic Service for the Juan de Fuca Region.

The Vessel Traffic Service Puget Sound area consists of the navigable waters of the United States bounded by a line drawn from the Washington State coastline at 48 deg.23' 08" N., 124 deg.43' 37" W. on Cape Flattery to the Cape Flattery Light at 48 deg.23' 30" N., 124 deg.44' 12" W. on Tatoosh Island, due west to the U.S. Territorial Sea Boundary; thence northward along the U.S. Territorial Sea Boundary to its intersection with the U.S./Canada International Boundary; thence east along the U.S./Canada International Boundary through the waters known as the Strait of Juan de Fuca, Haro Strait, Boundary Pass, and the Strait of Georgia to the Washington State coastline at 49 deg.00' 06" N., 122 deg.45' 18" W. (International Boundary Range C Rear Light). This area includes: Puget Sound, Hood Canal, Possession Sound, the San Juan Island Archipelago, Rosario Strait, Guemes Channel, Bellingham Bay, the U.S. waters of the Strait of Juan de Fuca and the Strait of Georgia, and all waters adjacent to the above.

(a) Vessel Traffic Service Puget Sound participates in a U.S./Canadian Cooperative Vessel Traffic Service (CVTS) to jointly manage vessel traffic in the Juan de Fuca Region. The CVTS for the Juan de Fuca Region consists of all waters of the Strait of Juan de Fuca and its offshore approaches, southern Georgia Strait, the Gulf and San Juan Archipelagos, Rosario Strait, Boundary Pass and Haro Strait, bounded on the northwest by 48 deg.35' 45" N.; and on the southwest by 48 deg.23' 30" N.; and on the west by the rhumb line joining 48 deg.35' 45" N., 124 deg.47' 30" W. with 48 deg.23' 30" N., 124 deg.48' 37" W.; and on the northeast in the Strait of Georgia, by a line drawn along 49 deg.N. from Vancouver Island to Semiahmoo Bay; and on the southeast, by a line drawn from McCurdy Point on the Quimper Peninsula to Point Partridge on Whidbey Island. Canadian and United States Vessel Traffic Centers (Tofino, B.C., Canada, Vancouver, BC, Canada and Seattle, WA) manage traffic within the CVTS area irrespective of the International Boundary.

(b) VTS Special Areas. (1) The Rosario Strait VTS Special Area consists of those waters bounded to the south by the center of Precautionary Area ``RB" (a circular area of 2,500 yards radius centered at 48 deg.26' 24" N., 122 deg.45' 12" W.), and to the north by the center of Precautionary Area ``C" (a circular area of 2,500 yards radius centered at 48 deg.40' 34" N., 122 deg.42' 44" W.; Lighted Buoy ``C"); and

Note: The center of precautionary area ``RB" is not marked by a buoy. All precautionary areas are depicted on National Oceanic and Atmospheric Administration (NOAA) nautical charts.

(2) The Guemes Channel VTS Special Area consists of those waters bounded to the west by Shannon Point on Fidalgo Island and to the east by Southeast Point on Guemes Island.

(c) Additional VTS Special Area Operating Requirements. The following additional requirements are applicable in the Rosario Strait and Guemes Channel VTS Special Areas:

- (1) A vessel engaged in towing shall not impede the passage of a vessel of 40,000 dead weight tons or more.
- (2) A vessel of less than 40,000 dead weight tons is exempt from the provision set forth in Sec. 161.13(b)(1) of this part.
- (3) A vessel of less than 100 meters in length is exempt from the provisions set forth in Sec. 161.13(b)(3) of this part. Approval will not be granted for:
 - (i) A vessel of 100 meters or more in length to meet or overtake; or cross or operate within 2,000 yards (except when crossing astern) of a vessel of 40,000 dead weight tons or more; or
 - (ii) A vessel of 40,000 dead weight tons or more to meet or overtake; or cross or operate within 2,000 yards (except when crossing astern) of a vessel of 100 meters or more in length.
- (d) Reporting Point. Inbound vessels in the Strait of Juan de Fuca upon crossing 124-W.

Sec. 161.60 Vessel Traffic Service Prince William Sound.

(a) The VTS area consists of the navigable waters of the United States north of a line drawn from Cape Hinchinbrook Light to Schooner Rock Light, comprising that portion of Prince William Sound between 146 deg.30' W. and 147 deg.20' W. and includes Valdez Arm, Valdez Narrows and Port Valdez.

(b) The Valdez Narrows VTS Special Area consists of those waters of Valdez Arm, Valdez Narrows, and Port Valdez northeast of a line bearing 307 deg. True from Tongue Point at 61 deg.02'06" 146 deg.40'W.; and southwest of a line bearing 307 deg. True from Entrance Island Light at 61 deg.05'06"N., 146 deg.36'42"W.

(c) Additional VTS Special Area Operating Requirements. The following additional requirements are applicable in the Valdez Narrows VTS Special Area:

(1) No VMRS User shall proceed north of 61 deg.N. without prior approval of the VTS.

(2) For a vessel listed in paragraph (c)(3) of this section--

(i) Approval to enter this area will not be granted to a vessel when a tank vessel of more than 20,000 deadweight tons is navigating therein;

(ii) A northbound vessel shall remain south of 61 deg.N. until the VTS has granted permission to proceed; and

(iii) A southbound vessel shall remain in Port Valdez east of 146 deg.35'W. and north of 61 deg.06'N. until the VTS has granted permission to proceed.

(3) Paragraph (c)(2) of this section applies to--

(i) A vessel of 1600 gross tons or more; and

(ii) A towing vessel of 8 meters or more in length, except for a vessel performing duties as an escort vessel as defined in 33 CFR Part 168.

(d) Reporting Points.

Table 161.60(d)--VTS Prince William Sound Reporting Points

Designator	Geographic name	Geographic description	Latitude/Longitude	Notes
1A.....	Cape Hinchinbrook.....	Cape Hinchinbrook.....	60 deg.16' 18"N; 146 deg.45' 30" W.	Northbound Only.
1B.....	Schooner Rock.....	Schooner Rock.....	60 deg.18' 42"N; 146 deg.51' 36" W.	Southbound Only.
2A.....	Naked Island.....	Naked Island.....	60 deg.40' 00"N; 147 deg.01' 24" W.	Northbound Only.
2B.....	Naked Island.....	Naked Island.....	60 deg.40' 00"N; 147 deg.05' 00" W.	Southbound Only.
3A.....	Bligh Reef.....	Bligh Reef Light (Pilot Embark).	60 deg.50' 36"N; 146 deg.57' 30" W.	Northbound Only.
3B.....	Bligh Reef.....	Bligh Reef Light (Pilot Disembark).	60 deg.51' 00"N; 147 deg.01' 24" W.	Southbound Only.
4A.....	Rocky Point.....	Rocky Point.....	60 deg.57' 48"N; 146 deg.47' 30" W.	Northbound Only.
4B.....	Rocky Point.....	Rocky Point.....	60 deg.57' 48"N; 146 deg.50' 00" W.	Southbound Only.
5.....	Entrance Island.....	Entrance Island Light.	61 deg.05' 24"N; 146 deg.37' 30"W.	

Equipment Requirements

NAVIGABLE WATERS

CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION

PART 175--EQUIPMENT REQUIREMENTS

Subpart A--General

Sec. 175.1 Applicability.

This part prescribes rules governing the use of boats on waters subject to the jurisdiction of the United States and on the high seas beyond the territorial seas for boats owned in the United States except:

- (a) Foreign boats temporarily using waters subject to U.S. jurisdiction;
- (b) Military or public boats of the United States, except recreational-type public vessels;
- (c) A boat whose owner is a State or subdivision thereof, which is used principally for governmental purposes, and which is clearly identifiable as such;
- (d) Ship's lifeboats.
- (e) Seaplanes on the water.

Sec. 175.3 Definitions.

As used in this part:

Boat means any vessel manufactured or used primarily for noncommercial use; leased, rented, or chartered to another for the latter's noncommercial use; or engaged in the carrying of six or fewer passengers.

Passenger means every person carried on board a vessel other than:

- (1) The owner or his representative;
- (2) The operator;
- (3) Bona fide members of the crew engaged in the business of the vessel who have contributed no consideration for their carriage and who are paid for their services; or
- (4) Any guest on board a vessel which is being used exclusively for pleasure purposes who has not contributed any consideration, directly or indirectly, for his carriage.

Racing shell, rowing scull, racing canoe, and racing kayak means a manually propelled vessel that is recognized by national or international racing associations for use in competitive racing and one in which all occupants row, scull, or paddle, with the exception of a coxswain, if one is provided, and is not designed to carry and does not carry any equipment not solely for competitive racing.

Recreational vessel means any vessel being manufactured or operated primarily for pleasure; or leased, rented, or chartered to another for the latter's pleasure. It does not include a vessel engaged in the carrying of six or fewer passengers.

Sailboard means a sail propelled vessel with no freeboard and equipped with a swivel mounted mast not secured to a hull by guys or stays.

Use means operate, navigate, or employ.

Vessel includes every description of watercraft used or capable of being used as a means of transportation on the water.

Sec. 175.5 Exemption from preemption.

The States are exempted from preemption by Federal regulations when establishing, continuing in effect, or enforcing State laws and regulations on the wearing or the carriage of personal flotation devices directly related to the following subject areas within the jurisdictional boundaries of the State:

- (a) Children on board any vessel;
- (b) Operating a canoe or kayak;
- (c) Operating a sailboard; and
- (d) Operating a personal watercraft.

Sec. 175.11 Applicability.

This subpart applies to all recreational vessels that are propelled or controlled by machinery, sails, oars, paddles, poles, or another vessel.

Sec. 175.13 Definitions.

As used in this subpart:

- (a) ``Personal flotation device" means a device that is approved by the Commandant under 46 CFR Part 160.
- (b) ``PFD" means ``personal flotation device".

Subpart B--Personal Flotation Devices

Sec. 175.15 Personal flotation devices required.

Except as provided in Sec. 175.17:

- (a) No person may use a recreational vessel unless at least one PFD of the following types is on board for each person:
 - (1) Type I PFD;
 - (2) Type II PFD; or
 - (3) Type III PFD.
- (b) No person may use a recreational vessel 16 feet or more in length unless one Type IV PFD is on board in addition to the total number of PFD's required in paragraph (a) of this section.

Sec. 175.17 Exemptions.

- (a) A Type V PFD may be carried in lieu of any PFD required under Sec. 175.15, provided:
 - (1) The approval label on the Type V PFD indicates that the device is approved:
 - (i) For the activity in which the vessel is being used; or
 - (ii) As a substitute for a PFD of the Type required on the vessel in use;
 - (2) The PFD is used in accordance with any requirements on the approval label; and
 - (3) The PFD is used in accordance with requirements in its owner's manual, if the approval label makes reference to such a manual.
- (b) Canoes and kayaks 16 feet in length and over are exempted from the requirements for carriage of the additional Type IV PFD required under Sec. 175.15(b).
- (c) Racing shells, rowing sculls, racing canoes and racing kayaks are exempted from the requirements for carriage of any Type PFD required under Sec. 175.15.
- (d) Sailboards are exempted from the requirements for carriage of any Type PFD required under Sec. 175.15.
- (e) Vessels of the United States used by foreign competitors while practicing for or racing in competition are exempted from the carriage of any PFD required under Sec. 175.15, provided the vessel carries one of the sponsoring foreign country's acceptable flotation devices for each foreign competitor on board.

Sec. 175.19 Stowage.

- (a) No person may use a recreational boat unless each Type I, II, or III PFD required by Sec. 175.15 of this part, or equivalent type allowed by Sec. 175.17 of this part, is readily accessible.
- (b) No person may use a recreational boat unless each Type IV PFD required by Sec. 175.15 of this part, or equivalent type allowed by Sec. 175.17 of this part, is immediately available.

Sec. 175.21 Condition; size and fit; approval marking.

No person may use a recreational boat unless each PFD required by Sec. 175.15 of this part or allowed by Sec. 175.17 of this part is:

- (a) In serviceable condition as provided in Sec. 175.23;
- (b) Of an appropriate size and fit for the intended wearer, as marked on the approval label; and
- (c) Legibly marked with its approval number, as specified in 46 CFR part 160.

Sec. 175.23 Serviceable condition.

A PFD is considered to be in serviceable condition for purposes of Sec. 175.21(a) only if the following conditions are met:

- (a) No PFD may exhibit deterioration that could diminish the performance of the PFD, including--
 - (1) Metal or plastic hardware used to secure the PFD on the wearer that is broken, deformed, or weakened by corrosion;
 - (2) Webbing or straps used to secure the PFD on the wearer that are ripped, torn, or which have become separated from an attachment point on the PFD; or
 - (3) Any other rotted or deteriorated structural component that fails when tugged.
- (b) In addition to meeting the requirements of paragraph (a) of this section, no inherently buoyant PFD, including the inherently buoyant components of a hybrid inflatable PFD, may exhibit--

- (1) Rips, tears, or open seams in fabric or coatings, that are large enough to allow the loss of buoyant material;
 - (2) Buoyant material that has become hardened, non-resilient, permanently compressed, waterlogged, oil-soaked, or which shows evidence of fungus or mildew; or
 - (3) Loss of buoyant material or buoyant material that is not securely held in position.
- (c) In addition to meeting the requirements of paragraph (a) of this section, an inflatable PFD, including the inflatable components of a hybrid inflatable PFD, must be equipped with
- (1) Except as provided in paragraph (d) of this section, a properly armed inflation mechanism, complete with a full inflation medium cartridge and all status indicators showing that the inflation mechanism is properly armed;
 - (2) Inflatable chambers that are all capable of holding air;
 - (3) Oral inflation tubes that are not blocked, detached, or broken;
 - (4) A manual inflation lanyard or lever that is not inaccessible, broken, or missing; and
 - (5) Inflator status indicators that are not broken or otherwise non-functional.
- (d) The inflation system of an inflatable PFD need not be armed when the PFD is worn inflated and otherwise meets the requirements of paragraphs (a) and (c) of this section.

Subpart C--Visual Distress Signals

Sec. 175.101 Applicability.

This subpart applies to boats on the coastal waters of the United States and on the high seas beyond the territorial seas for boats owned in the United States.

Sec. 175.105 Definitions.

- (a) Visual distress signal means a device that is approved by the Commandant under 46 CFR Part 160 or certified by the manufacturer under 46 CFR Parts 160 and 161.
- (b) Coastal waters means:
- (1) The U.S. waters of the Great Lakes (Lake Erie, Huron, Michigan, Ontario, and Superior);
 - (2) The territorial seas of the United States; and
 - (3) Those waters directly connected to the Great Lakes and territorial seas (i.e., bays, sounds, harbors, rivers, inlets, etc.) where any entrance exceeds 2 nautical miles between opposite shorelines to the first point where the largest distance between shorelines narrows to 2 miles, as shown on the current edition of the appropriate National Ocean Service chart used for navigation. Shorelines of islands or points of land present within a waterway are considered when determining the distance between opposite shorelines.

Sec. 175.110 Visual distress signals required.

- (a) No person may use a boat 16 feet or more in length or any boat carrying six or less passengers unless visual distress signals selected from the list in Sec. 175.130 or the alternatives in Sec. 175.135, in the number required, are on board. Devices suitable for day use and devices suitable for night use, or devices suitable for both day and night use, must be carried.
- (b) Between sunset and sunrise, no person may use a boat less than 16 feet in length unless visual distress signals suitable for night use, selected from the list in Sec. 175.130 or Sec. 175.135, in the number required, are on board.

Sec. 175.113 Launchers.

- (a) When a visual distress signal carried to meet the requirements of Sec. 175.110 requires a launcher to activate, then a launcher approved under 46 CFR 160.028 must also be carried.

Sec. 175.115 Exceptions.

The following persons need not comply with Sec. 175.110; however, each must carry on board visual distress signals suitable for night use, selected from the list in Sec. 175.130 or Sec. 175.135, in the number required, between sunset and sunrise:

- (a) A person competing in any organized marine parade, regatta, race, or similar event;
- (b) A person using a manually propelled boat; or
- (c) A person using a sailboat of completely open construction, not equipped with propulsion machinery, under 26' in length.

Sec. 175.120 Stowage.

No person may use a boat unless the visual distress signals required by Sec. 175.110 are readily accessible.

Sec. 175.125 Serviceability.

No person may use a boat unless each signal required by Sec. 175.110 is in serviceable condition and the service life of the signal, if indicated by a date marked on the signal, has not expired.

Sec. 175.128 Marking.

No person may use a boat unless each signal required by Sec. 175.110 is legibly marked with the approval number or certification statement as specified in 46 CFR Parts 160 and 161.

Sec. 175.130 Visual distress signals accepted.

- (a) Any of the following signals, when carried in the number required, can be used to meet the requirements of Sec. 175.110:
- (1) An electric distress light meeting the standards of 46 CFR 161.013. One is required to meet the night only requirement.
 - (2) An orange flag meeting the standards of 46 CFR 160.072. One is required to meet the day only requirement.
 - (3) Pyrotechnics meeting the standards noted in Table 175.130.
- (b) Any combination of signal devices selected from the types noted in paragraphs (a) (1), (2) and (3) of this section, when carried in the number required, may be used to meet both day and night requirements. Examples--the combination of two hand held red flares (160.021), and one parachute red flare (160.024 or 160.036) meets both day and night requirements. Three hand held orange smoke (160.037) with one electric distress light (161.013) meet both day and night requirements.

Table 175.130--Pyrotechnic Signal Devices

Approval number under 46 CFR	Device Description	Meets Requirements for	Number Required
160.021.	Hand Held Red Flare-Distress Signals ³ .	Day and Night	3
160.022.	Floating Orange Smoke Distress Signals	Day Only	3
160.024.	Parachute Red Flare Distress Signals.	Day and Night ¹	3
160.036.	Hand-Held Rocket-Propelled Parachute Red Flare Distress Signals.	Day and Night	3
160.037.	Hand-Held Orange Smoke Distress Signals.	Day Only	3
160.057.	Floating Orange Smoke Day Only Distress Signals	Day Only	3
160.066.	Distress Signal for Boats, Red Aerial Pyrotechnic Flare.	Day and Night ²	3

1 - These signals require use in combination with a suitable launching device approved under 46 CFR 160.028.

2 - These devices may be either meteor or parachute assisted type. Some of these signals may require use in combination with a suitable launching device approved under 46 CFR 160.028.

3 - Must have manufacture date of 1 Oct. 1980 or later.

Sec. 175.135 Existing equipment.

Launchers manufactured before 1 January, 1981, which do not have approval numbers are acceptable for use with meteor or parachute signals listed in Table 175.130 under Sec. 175.130 as long as they remain in serviceable condition.

Sec. 175.140 Prohibited use.

No person in a boat shall display a visual distress signal on waters to which this subpart applies under any circumstance except a situation where assistance is needed because of immediate or potential danger to the persons on board.

Casualty and Accident Reporting

NAVIGABLE WATERS

CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION (CONTINUED)

PART 173--VESSEL NUMBERING AND CASUALTY AND ACCIDENT REPORTING

Subpart C--Casualty and Accident Reporting

Sec. 173.53 Immediate notification of death or disappearance.

- (a) When, as a result of an occurrence that involves a vessel or its equipment, a person dies or disappears from a vessel, the operator shall, without delay, by the quickest means available, notify the nearest reporting authority listed in Appendix A of this part of:
- (1) The date, time, and exact location of the occurrence;
 - (2) The name of each person who died or disappeared;
 - (3) The number and name of the vessel; and
 - (4) The names and addresses of the owner and operator.
- (b) When the operator of a vessel cannot give the notice required by paragraph (a) of this section, each person on board the vessel shall notify the casualty reporting authority or determine that the notice has been given.

Violations of International Navigations Rules and Regulations (33 USC 1608)

Sec. 1608. Civil penalties

(a) Liability of vessel operator for violations

Whoever operates a vessel, subject to the provisions of this chapter, in violation of this chapter or of any regulation promulgated pursuant to section 1607 of this title, shall be liable to a civil penalty of not more than \$5,000 for each such violation.

(b) Liability of vessel for violations; seizure of vessel.

Every vessel subject to the provisions of this chapter, other than a public vessel being used for noncommercial purposes, which is operated in violation of this chapter or of any regulation promulgated pursuant to section 1607 of this title, shall be liable to a civil penalty of not more than \$5,000 for each such violation, for which penalty the vessel may be seized and proceeded against in the district court of the United States of any district within which such vessel may be found.

(c) Assessment of penalties; notice; opportunity for hearing; remission, mitigation, and compromise of penalty; action for collection.

The Secretary of the department in which the Coast Guard is operating may assess any civil penalty authorized by this section. No such penalty may be assessed until the person charged, or the owner of the vessel charged, as appropriate, shall have been given notice of the violation involved and an opportunity for a hearing. For good cause shown, the Secretary may remit, mitigate, or compromise any penalty assessed. Upon the failure of the person charged, or the owner of the vessel charged, to pay an assessed penalty, as it may have been mitigated or compromised, the Secretary may request the Attorney General to commence an action in the appropriate district court of the United States for collection of the penalty as assessed, without regard to the amount involved, together with such other relief as may be appropriate.

Violations of Inland Navigation Rules and Regulations

Sec. 2072. Violations of Inland Navigational Rules

(a) Liability of operator for civil penalty

Whoever operates a vessel in violation of this chapter, or of any regulation issued thereunder, or in violation of a certificate of alternative compliance issued under Rule 1 is liable to a civil penalty of not more than \$5,000 for each violation.

(b) Liability of vessel for civil penalty; seizure of vessel

Every vessel subject to this chapter, other than a public vessel being used for noncommercial purposes, that is operated in violation of this chapter, or of any regulation issued thereunder, or in violation of a certificate of alternative compliance issued under Rule 1 is liable to a civil penalty of not more than \$5,000 for each violation, for which penalty the vessel may be seized and proceeded against in the district court of the United States of any district within which the vessel may be found.

(c) Assessment of civil penalty by Secretary; collection

The Secretary may assess any civil penalty authorized by this section. No such penalty may be assessed until the person charged, or the owner of the vessel charged, as appropriate, shall have been given notice of the violation involved and an opportunity for a hearing. For good cause shown, the Secretary may remit, mitigate, or compromise any penalty assessed. Upon the failure of the person charged, or the owner of the vessel charged, to pay an assessed penalty, as it may have been mitigated or compromised, the Secretary may request the Attorney General to commence an action in the appropriate district court of the United States for collection of the penalty as assessed, without regard to the amount involved, together with such other relief as may be appropriate.

(d) Withholding of clearance

(1) If any owner, operator, or individual in charge of a vessel is liable for a penalty under this section, or if reasonable cause exists to believe that the owner, operator, or individual in charge may be subject to a penalty under this section, the Secretary of the Treasury, upon the request of the Secretary, shall with respect to such vessel refuse or revoke any clearance required by section 91 of title 46, Appendix.

(2) Clearance or a permit refused or revoked under this subsection may be granted upon filing of a bond or other surety satisfactory to the Secretary.

Operations of Vessels Generally

TITLE 46 – SHIPPING

Subtitle II - Vessels and Seamen

Part A - General Provisions

CHAPTER 23 - OPERATION OF VESSELS GENERALLY

Sec. 2301. Application

Except as provided in section 2306 of this title, this chapter applies to a vessel operated on waters subject to the jurisdiction of the United States and, for a vessel owned in the United States, on the high seas.

Sec. 2302. Penalties for negligent operations

- (a) A person operating a vessel in a negligent manner that endangers the life, limb, or property of a person is liable to the United States Government for a civil penalty of not more than \$1,000.
- (b) A person operating a vessel in a grossly negligent manner that endangers the life, limb, or property of a person commits a class A misdemeanor.
- (c) An individual who is under the influence of alcohol, or a dangerous drug in violation of a law of the United States when operating a vessel, as determined under standards prescribed by the Secretary by regulation -
 - (1) is liable to the United States Government for a civil penalty of not more than \$1,000 for a first violation and not more than \$5,000 for a subsequent violation; or
 - (2) commits a class A misdemeanor.
- (d) For a penalty imposed under this section, the vessel also is liable in rem unless the vessel is -
 - (1) owned by a State or a political subdivision of a State;
 - (2) operated principally for governmental purposes; and
 - (3) identified clearly as a vessel of that State or subdivision.

Sec. 2303. Duties related to marine casualty assistance and information

- (a) The master or individual in charge of a vessel involved in a marine casualty shall - (1) render necessary assistance to each individual affected to save that affected individual from danger caused by the marine casualty, so far as the master or individual in charge can do so without serious danger to the master's or individual's vessel or to individuals on board; and (2) give the master's or individual's name and address and identification of the vessel to the master or individual in charge of any other vessel involved in the casualty, to any individual injured, and to the owner of any property damaged.
- (b) An individual violating this section or a regulation prescribed under this section shall be fined not more than \$1,000 or imprisoned for not more than 2 years. The vessel also is liable in rem to the United States Government for the fine.
- (c) An individual complying with subsection (a) of this section or gratuitously and in good faith rendering assistance at the scene of a marine casualty without objection by an individual assisted, is not liable for damages as a result of rendering assistance or for an act or omission in providing or arranging salvage, towage, medical treatment, or other assistance when the individual acts as an ordinary, reasonable, and prudent individual would have acted under the circumstances.

Sec. 2304. Duty to provide assistance at sea

- (a) A master or individual in charge of a vessel shall render assistance to any individual found at sea in danger of being lost, so far as the master or individual in charge can do so without serious danger to the master's or individual's vessel or individuals on board.
- (b) A master or individual violating this section shall be fined not more than \$1,000, imprisoned for not more than 2 years, or both.

INDEX

33 CFR 161 - Vessel Traffic Management	142	Lookout posted forward and low	28
33 CFR 173 -Casualty and Accident Reporting	163	Manually propelled vessels	17
33 CFR 175 - Equipment Requirements	159	Navigable waters	9, 11
33 CFR 26 - Bridge-to-Bridge Radiotelephone Regulations	129	Not under command	19
33 CFR 84 - ANNEX I (Inland Rules).....	133	Overtaken vessel must answer signal	55
33 CFR 85 - ANNEX II (Inland Rules)	136	Overtaken vessel receiving no signal	54
33 CFR 86 - ANNEX III (Inland Rules).....	136	Part A – General	7
33 CFR 87 - ANNEX IV (Inland Rules)	138	Part B – Section I – Conduct of vessels in any condition of visibility.....	25
33 CFR 88 - ANNEX V (Inland Rules).....	139	Part B – Section II – Conduct of Vessels in Sight of One Another	49
33 CFR 90 - Interpretative Rules (Inland).....	141	Part B – Section III – Conduct of Vessels in Restricted Visibility.....	69
33 USC 1608 Civil Penalties	164	Part B – Steering and Sailing Rules.....	25
33 USC 2072 Violations of Inland Navigation Rules	164	Part C– Lights and Shapes	71
33 USC 82 - Interpretative Rules.....	132	Part D – Sound and Light Signals.....	99
46 USC 32 - Operations of vessels generally.....	165	Part E - Exemptions.....	121
Administration	10	Placement of lookout.....	28
ANNEX I	123	Power driven vessel	22
ANNEX II.....	126	Power-driven vessel.....	19
ANNEX III	126	Presence of more than two vessels	17
ANNEX IV	128	Proceeding at a speed that causes damage to properly docked or moored vessels.	32
APPENDIX	123	Proceeding at too great a speed close along a waterfront.....	32
Application.....	8	Proper display of lights required.....	71
Constrained by draft	19	Proposal and assent.....	16
Contract out of the rules	12	Radar, proper use of.....	36
Course changes must be readily apparent	39	Restricted in ability to maneuver	19
Crossing - starboard hand vessel on steady course.....	60	Restricted visibility	20, 23
Definition of narrow channel	42	Risk of collision	36
Departure from rules mandatory.....	15, 16	Rule 1 – Application.....	7
Departure from rules only to extent necessary.....	16	Rule 1 – Application (Inland)	7
Departure imperatively required by the circumstances	16	Rule 2 – Responsibility	15
Downbound vessel has right of way.....	43	Rule 3 – General Definitions.....	19
Duty to watch compass bearings	36	Rule 3 – General Definitions (Inland)	20
Exemption from Inland Rules Construction and Equipment Standards.....	12	Rule 4 – Application.....	25
Failing to anchor in restricted visibility	70	Rule 5 – Look-out.....	27
Failure to answer signal.....	107	Rule 6 – Safe Speed.....	31
Failure to slow vessel in rough weather	33	Rule 7 – Risk of Collision	35
Fishing vessel.....	19	Rule 8 – Action to Avoid Collision	37
Four stages of collision avoidance.....	35	Rule 9 – Narrow Channels	40
General prudential rule	15	Rule 9 – Narrow Channels (Inland).....	40
Helmsman as lookout on small vessels	29	Rule 10 – Traffic Separation Schemes	45
<i>In extremis</i>	15	Rule 10 – Traffic Separation Schemes (Inland).....	46
In sight.....	20, 23, 49	Rule 11 – Application.....	49
Jurisdiction	9	Rule 12 – Sailing Vessels.....	51
Last clear chance to avoid collision	17	Rule 13 – Overtaking	53
Leaving dock in restricted visibility.....	70	Rule 14 - Head-on Situation.....	57
Legal effect of rule violation.....	16	Rule 14 - Head-on Situation (Inland)	57
Lookout for overtaking vessels.....	28	Rule 15 – Crossing Situations.....	59
Lookout mandatory	27	Rule 15 – Crossing Situations (Inland).....	59
Lookout must be continuous.....	28	Rule 16 – Action by Give-way Vessel	61
Lookout must be experienced	27		
Lookout must have no other duties.....	27		

Rule 17 – Action by Stand-on Vessel.....	63	Rule 35 – Sound Signals in Restricted Visibility	111
Rule 18 – Responsibilities Between Vessels.....	65	Rule 35 – Sound Signals in Restricted Visibility (Inland) ..	112
Rule 18 – Responsibilities Between Vessels (Inland)	65	Rule 36 – Signals to Attract Attention.....	117
Rule 19 – Conduct of Vessels in Restricted Visibility	69	Rule 36 – Signals to Attract Attention (Inland)	117
Rule 20 – Application.....	71	Rule 37 – Distress Signals.....	119
Rule 21 – Definitions.....	75	Rule 38 – Exemptions	121
Rule 21 – Definitions (Inland)	75	Rule 38 – Exemptions (Inland).....	121
Rule 22 – Visibility of Lights.....	77	Rule of good seamanship	15
Rule 22 – Visibility of Lights (Inland)	77	Rule of tonnage.....	54
Rule 23 – Power-driven Vessels Underway	79	Rules are mandatory for all vessels	12
Rule 23 – Power-driven Vessels Underway (Inland).....	79	Sailing vessel.....	19, 22
Rule 24 – Towing and Pushing.....	81	Seaplane	19
Rule 24 – Towing and Pushing (Inland)	82	Small course changes prohibited	38
Rule 25 – Sailing Vessels Underway and Vessels Under Oars	85	Sounding improper fog signal.....	113
Rule 25 – Sailing Vessels Underway and Vessels Under Oars (Inland).....	85	Sovereign Immunity	11
Rule 26 – Fishing Vessels	87	Special circumstances.....	15
Rule 27 – Vessels Not Under Command or Restricted in Their Ability to Maneuver	89	Starboard passage in narrow channel	42
Rule 28 – Reserved (Inland)	91	Traffic separation schemes.....	47
Rule 28 – Vessels Constrained by Their Draft	91	Two sets of rules	13
Rule 29 – Pilot Vessels.....	93	Underway	19, 23
Rule 30 – Anchored Vessels and Vessels Aground	95	United States Coast Guard	10
Rule 30 – Anchored Vessels and Vessels Aground (Inland).....	95	Unsafe speed	32
Rule 31 – Seaplanes.....	97	Vessel at anchor must maintain lookout.....	29
Rule 32 – Definitions.....	99	Vessel constrained by draft	22
Rule 33 – Equipment for Sound Signals	101	Vessel engaged in fishing.....	22
Rule 34 – Maneuvering and Warning Signals.....	103	Vessel not under command.....	22
Rule 34 – Maneuvering and Warning Signals (Inland).....	104	Vessel restricted in ability to maneuver.....	22
		Vessel Traffic Services.....	47
		Wake damage.....	33
		Wing in ground craft	21