MEMORANDUM OF UNDERSTANDING AMONG THE MINISTRY OF COMMUNICATIONS OF THE PEOPLE'S REPUBLIC OF CHINA, THE MINISTRY OF COMMUNICATION, TRANSPORT, POST AND CONSTRUCTION OF THE LAO PEOPLE'S DEMOCRATIC REPUBLIC, THE MINISTRY OF TRANSPORT OF THE UNION OF MYANMAR AND THE MINISTRY OF TRANSPORT AND COMMUNICATIONS OF THE KINGDOM OF THAILAND CONCERNING THE IMPLEMENTATION OF THE QUADRIPARTITE AGREEMENT ON COMMERCIAL NAVIGATION ON THE LANCANG-MEKONG RIVER

The Ministry of Communications of the People's Republic of China, the Ministry of Communication, Transport, Post and Construction of the Lao People's Democratic Republic, the Ministry of Transport of the

Union of Myanmar and the Ministry of Transport and Communications of the Kingdom of Thailand (hereinafter referred to as "the Parties"),

Referring to the Quadripartite Agreement on Commercial Navigation on the Lancang-Mekong River (hereinafter referred to as "the Agreement") signed in Tacheleik, Myanmar on April 20, 2000 by the respective government representatives of the four countries,

Being the coordinating agencies of the Contracting Parties to the Agreement as specified in Article 22 of the Agreement,

Having convened a Senior Officials Meeting on the Implementation of the Agreement in Beijing, China from March 14 to 15, 2001,

Have reached the following understanding:

Article 1
Common Rules

In accordance with Article 2 of the Agreement, the Parties adopt 6 Rules, Regulations and Guidelines. Attached as annexes to this Memorandum of Understanding (hereinafter referred to as "the MOU"), the 6 Rules, Regulations and Guidelines which form inte-

gral part of the MOU are as follows:

Annex I – Regutations on Safe Navigation of Vessels on the Lancang-Mekong River;

Annex II – Rules on Water Transport Administration on the Lancang-Mekong River;

Annex III – Guidelines on the Maintenance and Improvement of the Navigability of the Lancang-Mekong River;

Annex IV – Regulations on the Investigation and Handling of Waterborne Traffic Accidents on the Lancang – Mekong River;

Annex V – Regulations on Management of Search & Rescue, Salvage and Wreck Removal on the Lancang-Mekong River;

Annex VI – Technical Regulations on Surveys of Commercial Ships on the Lancang-Mekong River

Article 2

Coordinating Mechanism

1. With a view to effectively and efficiently implementing the Agreement in general and Articles 9, 21 and 22 of the Agreement in particular, the Parties agree to establish a coordinating mechanism-the Joint Committee on Coordination of Commercial Navigation

on the Lancang-Mekong River (hereinafter referred to as" the JCCCN").

2. The Parties agree that the JCCCN be composed of 8 members from each of the Parties (one chief member, one deputy chief member and 6 other members). The chief member shall be a Director-General, who also acts as the chair of the JCCCN on a two-year rotation basis among the Parties. Each Party shall establish its own permanent coordinating agency.

3. The JCCCN shall hold meetings at least once a year in the chairing country or whenever necessary upon request by any Contracting Party to coordinate and deal with the matters specified in Articles 9 and 21 as well as other relevant articles of the Agreement. In accordance with the alphabetical order, China will chair the JCCCN for a 2-year term from its establishment.

4. The Parties agree that the JCCCN should adopt its own Rules of Procedures.

Article 3

Improvement of Navigation Channels

1. The Parties agree that the improvement of navigation channels in the Upper Mekong River is an

important prerequisite for safe and smooth navigation of vessels of the four countries.

2. The Parties endorse in principle the conclusions and recommendations contained in the Joint Survey Report on the Feasibility of the Waterway Improvement Project on the Upper Mekong River from China-Myanmar Boundary Marker 243 to Ban Houayxai of Laos prepared by the Quadripartite Joint Survey Group in November 2000.

3. The Parties agree that, based on these conclusions and recommendations, the environmental impact assessment (EIA) and the detailed survey will be carried out as soon as possible jointly by the Parties with the Chinese side as the coordinator.

4. The Parties agree that the EIA include assessment on the effects of waterway improvement on ecology, vegetation of forestry, humanities and landscapes, geology and landforms, cultural relics and historic sites, tourism resources, water and air quality, agriculture, fisheries, etc.

5. The Parties agree that, as the Lancang-Mekong River is a border river, it is necessary to consult with the countries concerned whenever the improvement of the navigability is made in the boundary sections of the

River.

6. The Parties agree that the impact on environment by the navigation channel improvement be assessed against China's national criteria on EIA under the framework of ESCAP guidelines.

7. The Parties agree that the EIA Report be submitted to the respective governments for approval and to the Meeting of the JCCCN for final endorsement.

8. The Parties agree that uniform standards for aids to navigation on the Upper Mekong River are of paramount importance to ensure safe navigation of vessels on the River. The Parties agree in principle that China's standards be adopted for the aids to navigation to be installed along the Upper Mekong River.

Article 4
Official Inauguration Ceremony

The Parties agree that the Official Inauguration Ceremony for Commercial Navigation on the Lancang-Mekong River will be held in Jinghong, China in late June 2001.

Article 5
Entry into Force

The MOU shall enter into force from the date of

its signature.

Done in Beijing on March 15, 2001 in four originals in English.

局成志

For
the Ministry of
Communications of the
People's Republic of China

Lattanamany Khounnyvong

For
the Ministry of Communication,
Transport, Post and
Construction of the Lao
People's Democratic Republic

Chit Khin

For
the Ministry of Transport of
the Union of Myanmar

Tawalyarat Onsira

For
the Ministry of Transport
and Communications of the
Kingdom of Thailand

Annex I

REGULATIONS ON SAFE NAVIGATION OF VESSELS ON THE LANCANG-MEKONG RIVER

PART I GENERAL PROVISIONS

Article 1
PURPOSE

These regulations are formulated with a view to jointly strengthening the traffic control on the Lancang-Mekong River, maintaining the order of waterborne traffic and ensuring the safety of vessels in accordance with the Agreement on Commercial Navigation on the Lancang-Mekong River concluded among the Governments of the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar and the Kingdom of Thailand.

Article 2
APPLICATION

These Regulations are applicable to all vessels sailing, berthing or conducting operations on the section of the Lancang - Mekong River between Simao in P. R. China and Luangprabang in Lao P. D. R..

Article 3
VESSEL'S NAME AND NATIONALITY

A vessel shall fly the flag of her Flag State and shall be marked with the vessel's name and port of registry in both native and English languages and registration number.

Article 4
VESSEL AND CREW

A vessel's technical conditions and her manning standard shall be in compliance with the regulations of her Flag State.

Article 5
GENERAL DEFINITIONS

For the purpose of these Regulations, except

where the context otherwise requires:

a. The word "vessel" includes all kinds of vessels, mobile platforms, seaplanes and other waterborne transportation tools;

b. The term "head-on situation" means that an upward vessel is meeting with a downward vessel, including meeting on reciprocal or nearly reciprocal course, meeting from, starboard side or port side and meeting in a bending fairway, but not including meeting of two crossing vessels;

c. The word "crossing" means that a vessel moves from one side of the river to the other at a right angle or nearly right angle to the main stream of the river;

d. The term "fast vessel" means a vessel whose service speed equals to or exceeds 35 kilometers per hour in calm water;

e. The word "fairway" means the water area of the river navigable for vessels;

f. The term "restricted visibility" means any condition in which visibility is restricted by fog, mist, heavy rainstorms or any other similar causes;

g. The term "upward vessel" means a vessel moving to the upper reaches of the river;

h. The term "downward vessel" means a vessel whose course is opposite to that of an upward vessel;

i. The word "underway" means that a vessel is not at anchor, or made fast to the shore, or aground;

j. The term "engineering vessel" means a vessel which is engaged in exploration, survey, construction, dredging, explosion, rescue, scientific experiments and other surface and underwater works.

PART II SAILING AND AVOIDING

SECTION 1 GENERAL CONDUCTS OF VESSELS

Article 6
LOOK-OUT

Every vessel shall at all times maintain a proper look-out by sight and hearing aswell as by all available means and pay close attention to the prevailing circumstancesand movements of approaching vessels so as to make a full appraisal of the situation and/or the risk of collision.

Article 7
SAFE SPEED

Every vessel shall at all times proceed at a safe speed so that they can take proper and effective action to avoid collision.

In determining a safe speed, a vessel shall take into account such factors as visibility, traffic density, vessel's manoeuvrability, wind, wave, current, fairway conditions and other prevailing circumstances, and where a radar is used, the characteristics, efficiency and limitations of the radar equipment as well.

When passing by a vessel or through an area where the reduced speed is required, every vessel shall control her speed in ample time and pass as far away from the vessel or the area as possible to avoid wave damage.

The vessel in the area requiring speed reduction can not be relieved of its responsibility because of its insufficient anti-wave ability and/or measures.

Article 8
PRINCIPLES OF SAILING

An upward vessel shall proceed along the slow

stream or one side of the fairway, whereas a downward vessel shall proceed along the main stream or in the middle of the fairway.

Article 9
PRINCIPLES OF AVOIDING

Every vessel shall navigate with caution. Any action to avoid collision shall be clear, effective and be taken in ample time, and with good seamanship until the other vessel is finally past and clear.

The give-way vessel shall actively keep out of the way of the given-way vessel; the given-way vessel shall pay attention to the action taken by the give-way vessel, and take action to assist the avoiding under the prevailing circumstances.

When two vessels are meeting, their avoiding actions shall not be changed once their avoiding intentions have been confirmed by their sounding signals.

SECTION 2 CONDUCTS OF VESSELS IN SIGHT OF ONE ANOTHER

Article 10
HEAD-ON SITUATION

Except otherwise specified in this Part, when two vessels are meeting on reciprocal or nearly reciprocal course:

a. The upward vessel shall give way to the downward vessel;

b. When approaching the rapids and shoals, the bending fairways or narrow channels where vessels can not pass each other, a vessel shall give sound signals as required to draw attention of other vessels, and when meeting an approaching vessel, shall take avoiding actions under paragraph (a) of this Article. Additionally, the upward vessel shall wait for the passing of the downward vessel at the lower reaches to the rapids and shoals, bending fairways or narrow channels where vessels can not pass each other;

c. A vessel not provided with the equipment for sound signal, if not being the downward vessel described in paragraph (a) of this Article, shall give way to the vessels having given signals for passing as re-

quired. Two vessels, neither of which is provided with equipment for sound signals shall, when meeting, take avoiding actions according to the Articles of this Section.

Article 11
OVERTAKING

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 so as to involve risk of collision, and shall comply with the following provisions:

a. Overtaking or proceeding side by side with another vessel is prohibited in narrow or bending channels, shoals, bridge areas and leading channels of lock;

b. In a fairway where overtaking is permitted, the overtaking vessel shall give sound signals as required and obtain agreement from the vessel to be overtaken before starting to overtake;

c. During overtaking, the overtaking vessel shall give way to and keep clear of the vessel to be overtaken. The overtaking vessel shall not block the way of the overtaken vessel;

d. The vessel to be overtaken shall, on hearing

the sound signals for overtaking from the overtaking vessel, respond by sound signals as required to indicate whether she agrees to be overtaken. If the fairway conditions and circumstances of the case admit, the vessel should agree to be overtaken and as far as practicable take such actions as to give a part of fairway or reduce speed to assist in avoiding collision.

Article 12
CROSSING

Before crossing, a vessel shall take into account the fairway conditions and prevailing circumstances and make sure that the crossing does not impede navigation of the vessel, and sound signals have been given as required.

Except otherwise specified in this part, the crossing vessel shall, when meeting with upward or downward vessels, keep out of the way and pass astern of the upward or downward vessels.

Article 13
FOLLOWING

When vessels are in a following about situation, the following vessel shall keep a safe distance away

from the forward vessel so that she can take actions in ample time to avoid collision in case of emergency.

Article 14
TURNING ROUND

A vessel shall, before turning round, take into account the fairway conditions and prevailing circumstances and make sure that sound signals have been given as required.

Article 15
FAST VESSEL

A fast vessel underway shall keep well clear of all other vessels. Two fast vessels in meeting situation shall take avoiding actions in accordance with the requirements set out in the Article of this Section. Fast vessels are prohibited from navigating at night.

Article 16
VESSEL MEETING WITH ENGINEERING VESSELS WORKING UNDERWAY

Notwithstanding anything contained in this Section, a vessel shall while meeting with an engineering vessel working underway, give way to the engineering

vessel.

Article 17
BERTHING ALONGSIDE, CASTING OFF AND ANCHORING

Before berthing alongside or casting off, a vessel shall take into account the fairway conditions and prevailing circumstances, and make sure that such conducts do not impede navigation of other vessels and that sound signals have been given as required.

Vessels are prohibited from anchoring or mooring in narrow or bending channels or other water areas where such conducts may impede navigation of other vessels.

SECTION 3 CONDUCTS OF VESSELS IN RESTRICTED VISIBILITY AND OTHER MATTERS

Article 18
CONDUCTS OF VESSELS IN RESTRICTED VISIBILITY

A vessel in restricted visibility shall choose in ample time a safe place for anchoring and shall not con-

tinue her voyage at risk.

Article 19
NAVIGATION AT NIGHT

Navigation of vessels at night shall only be permitted in those sections of the fairway which are navigable at night.

A vessel not provided with lights and equipment for sound signals or unable to indicate her intention or movement, is prohibited from navigating at night.

PART III LIGHTS AND SHAPES

Article 20
GENERAL PROVISIONS

The articles concerning lights shall be complied with in all weathers from sunset to sunrise. The relevant lights may also be exhibited in restricted visibility in the day time. During the period when the lights are exhibited, no other lights which may be mistaken for the lights specified or impair their exhibiting character

shall be exhibited.

The articles concerning shapes shall be complied with in the day time.

Lights and shapes shall be exhibited where they can be seen easily and in compliance with the technical requirements set out in Appendix 1 of these Regulations. Except otherwise specified in these Regulations, several lights or shapes, when forming a group, shall be exhibited in a vertical line.

Article 21
SINGLE VESSEL UNDERWAY

Except otherwise specified in this Part, a single vessel, when underway shall exhibit a white masthead light, a red and a green sidelight and a white sternlight.

A fast vessel when underway shall, in addition to exhibiting the lights prescribed in the above paragraph, exhibit a yellow flashing light in the day time.

In the day time, a fast vessel without cabin arrangement, when underway, is exempted from exhibiting the lights prescribed in this paragraph, but shall hoist an orange flag at the masthead.

A vessel not provided with a mast, when under-

way shall hoist one white flag in the daytime, at a height of not less than 3 meters.

Article 22
ENGINEERING VESSEL

An engineering vessel on the work site shall exhibit the following lights and shapes:

a. An engineering vessel with a fixed working location shall exhibit three all-round lights at night. The connecting lines of the three lights form an equilateral triangle with one angle pointing upward. The all-round light on the top of the triangle shall be red, while at the two ends of the bottom line of the triangle the light on the navigable side shall be white and that on the non-navigable side red. While in the day time, a shape shall be exhibited at each end of the mast yard, i. e. a ball on the navigable side and a cross on the non-navigable side;

b. An engineering vessel driven by its own propulsion power, when working underway, shall, in addition to exhibiting masthead light, sidelight as prescribed in Article 21, exhibit:

i Two all-round red lights at night, two balls in a vertical line in the day time to indicate the side on

which the obstruction exists;

ii Two all-round green lights at night, two diamonds in a vertical line in day time to indicate the side on which another vessel may pass.

c. An engineering vessel with extended mud pipes shall exhibit at night all-round white lights at either end of the pipe and at every fifty meters.

Article 23
TURNING ROUND

Vessels of more than 30 meters in length shall, 5 minutes prior to turning round, exhibit two all-round lights in a vertical line at night, the upper being red and the lower white, and a shape consisting of a ball and an answer flag underneath in the day time. After having turned round, the vessel shall turn off the two lights or lower the shape.

Article 24
ANCHORING

Vessels at anchor shall exhibit an all-round white light at night and a ball in the day time.

Article 25
CARRIAGE OF DANGEROUS GOODS

During berthing, loading and unloading or navigating, a vessel carrying dangerous goods shall, in addition to exhibiting signals as generally prescribed, exhibit an all-round red light at the mast yard at night and the International Code Flag "B" in the day time.

Article 26
VESSEL NOT UNDER COMMAND

A vessel not under command shall choose in ample time a safe place for anchoring. Before anchoring, the vessel shall, in addition to exhibiting the sidelights and sternlight, exhibit two all-round red lights at night, and two balls in the day time.

Article 27
REQUIRING REDUCTION OF SPEED

A vessel or an area which requires the other vessels to reduce speed shall, at the mast yard of the vessel or the upward and downward ends of the area, exhibit an all-round green light and an all-round red light at night, and the International Code Flag "RY" in the

day time. Vessels not provided with lights and shapes may wave up and down in the air a white light lamp or a white light torch at night, and a white code flag in the day time.

PART IV SOUND SIGNALS

Article 28
EQUIPMENT FOR SOUND SIGNALS

A vessel shall be provided with a whistle and a bell. If the conditions do not permit, a vessel must be provided with a bell or one other effective sounding device.

Whistles and bells shall comply with the technical requirements set out in Appendix 2 of these Regulations.

Article 29
MEANINGS OF SOUND SIGNALS

A vessel shall use the whistle to give the following sound signals under the provisions of these Regula-

tions in order to indicate her intentions and actions and to draw attentions of other vessels:

a. One short blast to mean "I am altering my course to starboard"; when meeting with another vessel on reciprocal or nearly reciprocal course, "Pass on my port side";

b. Two short blasts to mean "I am altering my course to port"; when meeting with another vessel on reciprocal or nearly reciprocal course, "Pass on my starboard side";

c. Three short blasts to mean "I am operating astern propulsion or intending to do so";

d. Four short blasts to mean" I do not agree to your request";

e. A prolonged blast to mean "I am casting off", "I am crossing" and requesting the attention of approaching vessels or vessels in the vicinity;

f. Two prolonged blasts to mean "I am berthing alongside";

g. Three prolonged blasts to mean "man overboard";

h. One prolonged blast followed by one short blast to mean "I am turning to starboard";

i. One prolonged blast followed by two short

blasts to mean "I am turning to port";

j. Two prolonged blasts followed by one short blast to mean "I intend to overtake you on your starboard side";

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

l. One prolonged, one short, one prolonged and one short blasts to mean "I agree to your request";

m. One short, one prolonged, one short and one prolonged blasts to mean "I request you to reduce your speed or stop your engine";

n. One short blast followed by one prolonged blast to mean "I have reduced my speed or stopped my engine".

The term "short blast" in the above paragraphs means a blast of about one second's duration. The term"prolonged blast" means a blast of from four to six second's duration. The intervals between blasts in one group are about one second, and that between groups is about six seconds.

Article 30
USE OF SOUND SIGNALS BY VESSELS IN HEAD-ON SITUATION

When in head-on situation, vessels shall use the sound signals in accordance with the following provisions:

a. When two vessels are meeting on reciprocal or nearly reciprocal course, the downward vessel shall, at a distance of more than 1,000 meters away from the upward vessel, have due regard to the fairway conditions and prevailing circumstances and give in ample time sound signals for passing. On hearing the sound signals, the upward vessel shall, if conditions permit, promptly respond with appropriate sound signals. No change shall be made to the sound signals once they have been agreed upon;

b. When meeting an engineering vessel working underway on reciprocal or nearly reciprocal course, a vessel shall, at a distance of more than 1,000 meters away from the engineering vessel, give one prolonged blast, and may, on hearing the sound signals given by the engineering vessel, respond with appropriate sound signals and pass the engineering vessel with

caution.

Article 31
SOUND SIGNALS IN RESTRICTED VISIBILITY

Vessels underway or at anchor in restricted visibility shall give sound signals in accordance with the following provisions:

a. A vessel underway shall give one prolonged blast at intervals of about one minute. A vessel not provided with sound signal equipment shall, when underway, ring in a rapid manner the bell or other effective sound devices for five seconds at intervals of about one minute;

b. A vessel at anchor shall, on hearing the sound signals from an approaching vessel, ring the bell or other effective sound devices uninterruptedly and in a rapid manner until it is determined that the approaching vessel will not pose any danger to herself.

Article 32
VHF RADIO TELEPHONE

Vessel of 50 gross tonnage or more shall be provided with VHF radio telephone and keep watch on the

specified channel. The language used for VHF communication shall be brief and clear.

When approaching the bending or narrow parts of fairway or navigating in restricted visibility, a vessel shall use VHF radio telephone to announce her position and movement at regular intervals.

Article 33
DISTRESS SIGNALS

A vessel in distress and in need of assistance shall use or exhibit either together or separately the sound signals as prescribed in Appendix 3.

PART V EXEMPTION

Article 34
EXEMPTION

Vessels of less than 50 gross tonnage may be exempted from installing on board the lights as specified in Part Ⅲ.

PART VI OTHER PROVISIONS

Article 35
APPENDIX

The attached appendices form the integral parts of these Regulations.

The term "more than" used in these Regulations include the number itself, whereas the term "less than" does not include the number itself.

Appendix 1

TECHNICAL REQUIREMENTS FOR LIGHTS AND SHAPES

a. Lights:

i "Masthead light" means a white light placed over the mast of a vessel on the fore and aft center line of the vessel showing an unbroken light over an arc of horizon of 225 degrees and so fixed as to show the light from light ahead in 22.5 degrees abaft the beam on either side of the vessel;

ii "Sidelights" means a red light on the port side and a green light on the starboard side placed on the left and right sides of the highest deck of a vessel, 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.

The inboard screens for sidelights shall be painted matt black, the height of which at least equals to that of the lights;

iii "Sternlight" means a white light placed at

stern center 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 abaft on each side of the vessel. The height of the sternlight shall be such that the sternlight is as far as possible at the same horizontal level as the sidelights, but shall not be higher than the sidelights;

iv "All-round light" means a light showing an unbroken light over an arc of the horizon of 360 degrees;

v "Yellow flashing light" means an all-round yellow flashing light placed over the mast of a fast vessel, whose flashing frequency is not less than 70 per minute;

vi "Range of visibility" means the luminous range of the prescribed lights to be seen by normal eyesight at night when the atmospheric transmissivity is 0.8;

vii For technical requirements of the lights, see Table 1.

b. Shapes and Code Flags:

i Except otherwise specified, the shapes shall be black;

ii The vertical distance between shapes shall be not less than 1.5 meters. However, such distance between shapes can be reduced as appropriate for vessels

of less than 30 meters in length;

ii The red white code flag shall be 0.6 meter wide and 0.4 meter high;

iv The code flags in these Regulations shall be in compliance with the International Code of Signal, 1969;

v For technical requirements of the shapes, see Table 2.

Table 1

Length of Vessel	Distance between masthead lights or lights in a group	Length of creen for side lights	Range of visibility(kilometer)				
			Mast head light	Side light	Stem light	All-round light	Flashing light
More than 50 meters	1.5 meters (the lowest light shall be not less than 4.5metres above the highest deck)	0.91 meter	6	4	4	4	4
30metres to less than 50 meters	1 meter (the lowest light shall be not less than 3 meters above the highest deck)	0.91 meter	5	3	3	3	3
Less than 30 meters	0.6 meter (the lowest light hall be not less than 0.6 meter above the highest deck)	0.6 meter	3	2	2	2	2

Table 2

Length of vessel	Ball	Cross		Cylinder		Cone		Diamond
	Diameter	Length	Width	Diameter	Height	Diameter of the bottom ring	Height	Comprising of two cones with a common base
More than 30 meters	0.6	0.6	0.6	0.6	1.2	0.6	0.6	
Less than 30 meters	0.3	0.3	0.3			0.6	0.6	

Appendix 2

TECHNICAL REQUIREMENTS FOR THE EQUIPMENT FOR SOUND SIGNALS

a. Whistle shall be able to give sound signals as required by these Regulations. The range of audibility of whistles fitted on board vessels of more than 30 meters in length shall be not less than 2,000 meters; and for vessels of less than 30 meters in length, the range shall be not less than 1,000 meters;

b. A whistle shall be placed as high as practicable on board the vessel, in order to reduce interception of the emitted sound by obstructions especially in the direction straight ahead or particularly prescribed;

c. The sound pressure level of bells or other devices with the similar sound characteristics shall be not less than 110 db at a distance of 1 meter;

d. A bell shall be made of corrosion-resistant material and designed to give a clear tone. The diameter of the mouth of the bell fitted on board vessels of more than 30 meters in length shall be not less than 300 mm, and for vessels of less than 30 meters in length shall be not less than 200 mm. The mass of the striker shall be not less than 3 percent of that of the bell.

Appendix 3

DISTRESS SIGNALS

a. A vessel in distress and in need of assistance shall use the following signals either together or separately:

i continuous and rapid short blasts given by whistles, bells or any other effective devices;

ii a signal made by radiotelegraphy or by any other signaling method consisting of the group..., ... (SOS) in the Morse Code;

iii a signal sent by radiotelephone consisting of the spoken word "Mayday";

iv flames made on board the vessels;

v for sailing vessels and man-powered vessels in distress, waving red code flags in the day time and red light torch at night.

b. Any vessel finding another vessel in distress may send the above described distress signals instead, but shall indicate the name and position of the vessel in distress.

c. Unless a vessel is in distress and in need of assistance, the use of any other signals which may be confused with the above signals is prohibited.

Annex II

RULES ON WATER TRANSPORT ADMINISTRATION ON THE LANCANG-MEKONG RIVER

The Rules are formulated with a view to enhancing the water transport administration, maintaining water transport order and improving water transport efficiency on the Lancang-Mekong River in accordance with the Agreement on Commercial Navigation on the Lancang-Mekong River among the Governments of the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar and the Kingdom of Thailand (hereinafter referred to as "the Quadripartite Agreement").

Article 1

The Rules shall apply to international water transport business among the ports as specified in the Quadripartite Agreement and the relevant water transport service business as well.

Article 2

The competent authorities of transport or their authorized agencies of each Contracting Party (hereinafter referred to as "the competent authorities") are responsible for the implementation of the Rules.

The common issues arising from the implementation of the Rules shall be coordinated through the coordinating mechanism of the Contracting Parties.

Article 3

The following requirements shall be satisfied for engaging in the water transport business as provided for in Article 1 of the Rules (hereinafter referred to as "engaging in the water transport business"):

a. There shall be established legal entities;

b. There shall be transport vessels that correspond to the scope of business;

c. The vessels shall comply with relevant technical requirements and hold valid vessel technical certificates;

d. Deck and engine officers of vessels shall hold

valid competence certificates;

e. There must be at least one staff at the top management level with shipping mangement experience of more than one year;

f. While engaging in passenger transport business, the carrier liability insurance shall be arranged, or appropriate guarantee shall be provided.

Article 4

The following requirements shall be satisfied for engaging in the water transport service business as provided for in Article 1 of the Rules (hereinafter referred to as "engaging in the water transport service business"):

a. There shall be established legal entities;

b. There must be at least one staff at the top management level with shipping management experience of more than one year.

Article 5

When applying for engaging in the water transport business, the application letter/form together

with the following certificates or proofs shall be submitted to the competent authorities:

a. proofs of the establishment of legal entities;

b. proofs of the ownership or leasing of the vessel;

c. technical certificates of the vessel

d. competence certificates of deck and engine officers;

e. proofs of competence of the top management staff;

f. proofs of related insurance or guarantee.

Article 6

When applying for engaging in the water transport service business, the application letter/form together with proofs of the establishment of legal entities and proof of qualification of the staff at the top management level shall be submitted to the competent authorities.

Article 7

When requirements specified in Articles 3 and 4

of the Rules are satisfied, Water Transport License, Vessel's License and Water Transport Service License shall be issued as appropriate by the competent authorities.

The Water Transport License and the Water Transport Service License shall indicate the name of the operator, address of the major operation premises, name of the legal representative of the legal entity, the scope of business, duration of operation and its commencing and expiring dates. The Vessel's License shall indicate the name of the ship owner, name of the operator, the scope of business, the vessel's name, nationality, registration number, major dimensions, loading capacity and/or number of passengers and power of the main engine.

The Vessel's License as specified in this Article shall be carried onboard at all times.

Article 8

The competent authorities of one Contracting Party shall notify those of the other Contracting Parties of the operators of its own country engaging in water transport and water transport service businesses

and their vessels.

Article 9

Operators engaging in liner services shall publicize in advance the sailing schedule, shipping routes and the sequence of ports of call, and shall run their services in accordance with such publicized information. If the sailing schedule, shipping routes and the sequence of ports of call need to be changed, such changes shall be publicized 15 days in advance.

Article 10

While engaging in passenger transport business, there shall be safe service facilities as needed for berthing of the vessel as well as embarking and disembarking of passengers so as to ensure the safety of passengers.

Article 11

In participating in the water transport and water transport service businesses, it shall be prohibited to

monopolize cargo sources, to collectively and unreasonably raise freight rates or apply predatory freight rates, to have compulsory agency activities, to practice discriminatory pricing, and to abuse the advantageous positions.

Article 12

Contracts shall be concluded in conducting water transport or water transport service businesses.

Contracts may be concluded in written, oral or other forms subject to laws and regulations of each Contracting Party.

Article 13

Transport documents such as waybills or bills of lading shall be used in the cargo transport business. Whenever cargoes are delivered during the transport process, the receiver of cargoes shall issue cargo receipts. In case of damage to or loss or delay of cargoes, both parties of the delivery shall formulate a Record of Cargo Transport.

Passenger tickets shall be used in passenger

transport business. Passengers shall hold valid tickets for embarkation.

Article 14

Without prejudice to the dispute settlement procedures under each Contracting Party's laws and regulations, when disputes over contracts arise from operation activities, the parties concerned may refer to the competent authorities or the coordinating mechanism of the Contracting Parties for mediation.

Article 15

Commercial ports as stipulated in the Quadripartite Agreement shall be open on an equal basis to vessels of each Contracting Party, and no discriminations shall be practised. Illegal inspections on vessels and related persons shall be prohibited.

No charges shall be levied upon vessels in transit except the payment for services specially rendered thereto.

Article 16

For the safety of life, health and the protection of environment, the carriage of dangerous goods such as explosives, poisonous and infectious substances, radioactive materials shall be prohibited.

Article 17

The protection requirements for each packaging group and each type of package as required in the carriage of dangerous goods shall be in compliance with the provisions for packaging type, packing method, specifications and performance tests in IMDG Code.

The proper shipping name of the goods shall be displayed on the package of dangerous goods and the name used shall be in compliance with the individual schedules of dangerous goods in IMDG Code. Labels and marks as required by the provisions of IMDG Code shall be adhered on the evident place of the package either by pasting, printing or fastening.

The UN number of the dangerous goods contained shall also be displayed on their packages.

The documents used for the transport of dangerous goods shall meet the requirements stipulated in IMDG Code.

Article 18

Vessels carrying dangerous goods shall comply with relevant technical requirements for the carriage of dangerous goods.

When carrying dangerous good, on board vessels, precautions shall be made to ensure the normal use of the safety facilities and unimpeded pass of the passways.

Article 19

Passenger vessels, cargo and passenger vessels and vessels other than steel construction shall not be allowed to carry dangerous goods.

Article 20

The loading and carriage of ruptured and leaked packages and contaminated dangerous goods shall be prohibited.

Annex III

GUIDELINES ON THE MAINTENANCE AND IMPROVEMENT OF THE NAVIGABILITY OF THE LANCANG-MEKONG RIVER

The Guidelines are formulated with a view to jointly maintaining and improving the navigability of waterways, ensuring safe and smooth navigation of vessels, increasing the tonnage of navigating vessels and reducing transport costs in accordance with the Agreement on Commercial Navigation on the Lancang-Mekong River among the Governments of the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar and the Kingdom of Thailand (hereinafter referred to as the Quadripartite Agreement).

Article 1
GENERAL PROVISIONS

1. The Guidelines are applicable to the navigable waterways between Simao of the People's Republic of China and Luangprabang of the Lao People's Demo-

cratic Republic.

2. Subject to Article 21 of the Quadripartite Agreement, the four Contracting Parties should take all necessary measures to remove obstacles and hazardous obstruction on the waterways affecting navigation, maintain and improve the navigability of the River so as to ensure safe and smooth navigation of vessels.

3. As regards the improvement of navigability of the Lancang - Mekong River, it is understood that such undertaking shall not affect the natural state of the River's thalweg, water level in downstream area and boundary between the countries concerned and that the environmental impact assessment to that effect has been approved.

4. It is not allowed to dump stones, sand, earth, mud and wastes into the River except for the maintenance and improvement purposes.

5. It is not allowed to have any actions, such as digging sand, gravel and earth, setting up fishing-nets, and drifting bamboo and/or timber in bulk on the waterways, which are directly or indirectly harmful to the navigability of waterways.

6. It is not allowed to set up on the waterways any facilities resulting in permanent inconveniences for

navigation.

Article 2
STANDARDS FOR NAVIGATION CHANNELS

1. It is envisaged that, at least as from January 2002, vessels of 100 tonnage (DWT) can navigate on the navigation channels. It is envisaged that, at least as from January 2007, vessels of 300 tonnage (DWT) can navigate on the navigation channels. It is also envisaged that the dimensions of permanent river-crossing buildings, dammed structures and underwater structures should be designed to allow the passing of vessels of up to 500 tonnage (DWT).

2. The specifications of navigation channels are envi-saged as follows:

(1)By the first phase, the minimum width of navigation channel is 30 meters, the minimum water depth 1.5 meters and the minimum curvature radius 260 meters;

(2)By the second phase, the minimum width of navigation channel is 40 meters, the minimum water depth 2 meters and the minimum curvature radius 300 meters.

3. The maximum water level of navigation chan-

nels should be designed on the basis of the probability that the flood happens once every 10 years. The minimum water level should be designed to ensure the navigation for at least 95% of the time in a year.

4. The clear height from the lowest point of any permanent river-crossing buildings (e. g. bridges, aquaducts, pipes, hydropower facilities and cables, etc.) on the section of waterways to the designed highest navigation water level should not be less than 8 meters. The clear width should be determined to meet the natural conditions of the sections of the River where the river-crossing structures locate and to allow the passing of vessels of up to 500 tonnage (DWT).

5. The burial depth of river-crossing underwater facilities such as cables, ducts, pipes and tunnels should be deeper than 2 meters from the designed riverbed level.

6. When hydropower stations are constructed on waterways, the construction of vessel-passing facilities should be completed synchronously with that of dam and power station buildings. Their dimensions should be designed to allow the passing of vessels of up to 500 tonnage (DWT).

Article 3

HARNESSMENT OF NAVIGATION CHANNELS

1. The harnessment of navigation channels and the improvement of their navigability are important prerequisites for safe and smooth navigation. The relevant Contracting Parties should harness the sections of waterways in their territories. The boundary sections of waterways should be harnessed after consultation between the two Contracting Parties concerned.

2. The harnessment of the internal waterways of one Contracting Party may be carried out jointly by the four Contracting Parties or by a Contracting Party that is recommended after consultations among the Contracting Parties concerned. The harnessment of boundary sections of waterways may be also carried out in the similar manner.

Article 4

NAVIGATION-AIDING FACILITIES

1. Facilities such as aids to navigation, marks for place names and milestones should be installed along the River by the Contracting Parties concerned.

2. Capstans should be set up in the area of rapids

where upstream navigation is impossible for the vessels.

3. Marks for place names and milestones should be labeled in English and a national language.

4. The aids to navigation should comply with the harmonized standards to be developed among the four Contracting Parties as soon as possible.

5. The installation of the above-mentioned facilities should be carried out in accordance with the principles set out in Article 3.

6. It is not allowed to unreasonably destroy or remove the navigation-aiding facilities.

Article 5
MAINTENANCE AND MANAGEMENT OF NAVIGATION CHANNELS

1. Each Contracting Party should be responsible for maintaining and managing the section of navigation channels within its own territory. Alternatively, such maintenance and management may be carried out jointly by the four Contracting Parties or by a Contracting Party that is recommended after consultations among the Contracting Parties concerned.

2. The maintenance and management of the

boundary sections of navigation channels should be jointly carried out by the two Contracting Parties concerned after consultation. Alternatively, such maintenance and management may be carried out jointly by the four Contracting Parties or by a Contracting Party that is recommended after consultations among the Contracting Parties concerned.

3. All Contracting Parties should enhance the work on management and maintenance of the sections of waterways within their respective territories, maintain the established channel dimensions and keep the waterways and their facilities in good technical conditions so as to ensure sound navigability of the navigation channels.

4. Public notices concerning physical changes of waterways, movement of aids to navigation, waterways dimensions, situation of water and ongoing waterway engineering works should be released by competent authorities of each Contracting Party on a regular basis.

Article 6
MAINTENANCE AND MANAGEMENT OF NAVIGATION-AIDING FACILITIES

1. Each Contracting Party should be responsible for the maintenance and management of navigation-aiding facilities in the section of waterways in its own territory. Alternatively, such maintenance and management may be carried out jointly by the four Contracting Parties or by a Contracting Party that is recommended after consultations among the Contracting Parties concerned.

2. The maintenance and management of the navigation-aiding facilities within the boundary sections of waterways should be carried out jointly by the two Contracting Parties concerned after consultation. Alternatively, such maintenance and management may be carried out jointly by the four Contracting Parties or by a Contracting Party that is recommended after consultations among the Contracting Parties concerned.

3. Marks should be set up in time in the area of sunken vessels, facilities or objects hindering navigation in the waterways.

Article 7
DRAWING UP AND REVISION OF NAVIGATION CHARTS

1. The navigation charts for navigation channels are envisaged to be drawn up in English by the end of 2001 so as to enable the vessels to navigate in the correct passage. The navigation charts may be revised every 2 years according to the changes of the navigation channels.

2. The drawing up and revision of navigation charts will be conducted jointly by the four Contracting Parties or by a Contracting Party that is recommended after consultations among the Contracting Parties concerned. All Contracting Parties are obliged to provide detailed materials, such as topographic charts of waterways and rapids, photos and information on obstructions in waterways and average accidents, in respect of the sections of waterways in their respective territories and also their boundary sections of waterways.

3. The scale of the navigation charts should be 1:10,000. Enlarged navigation charts and photos with the scale of 1:5000—1:1000 will be supplemented for some individual rapids.

Annex IV

REGULATIONS ON MANAGEMENT OF SEARCH & RESCUE, SALVAGE AND WRECK REMOVAL ON THE LANCANG-MEKONG RIVER

CHAPTER 1
GENERAL PROVISIONS

Article 1

These Regulations are formulated with a view to jointly strengthening management of navigation safety on the Lancang-Mekong River, safeguarding lives, vessels and properties, coordinating, organizing and commanding search & rescue and salvage operations in a unified way, extending timely rescue and salvage to persons and vessels in distress for avoiding or reducing loss, protecting environment and preventing pollution and enhancing management on wreck removal in accordance with the Agreement on Commercial Naviga-

tion on Lancang-Mekong River among the Governments of the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar and the Kingdom of Thailand.

Article 2

These Regulations apply to persons and vessels in distress and sunken vessels, including the hull, vessel articles and cargoes within the navigable waters of the River.

Article 3

The competent authorities of the Contracting Parties are responsible for implementing these Regulations in respect of coordinating, organizing and commanding search & rescue and salvage of persons and vessels in distress as well as management operations on wreck removal.

For China: China Maritime Safety Administration;

For Laos: Ministry of Communication, Transport, Post and Construction;

For Myanmar: Ministry of Transport;
For Thailand: Harbour Department.

Article 4

The accidents referred to in these Regulations mean the following occurrences to vessels:

a. collision, allision or damage by waves;

b. hitting hidden rocks or grounding;

c. fire or explosion;

d. windstorm;

e. pollution;

f. capsizing or listing;

g. sinking; and

h. other accidents happening due to causes other than the above.

CHAPTER 2
JURISDICTION

Article 5

The competent authorities with jurisdiction are responsible for the investigation and handling of acci-

dents happening in their territorial waters. If an accident happens in the boundary waters of two Contracting Parties or in the controversial waters over jurisdiction, it may be settled through consultations among the Parties concerned.

Article 6

The competent authorities with jurisdiction may entrust the competent authorities of other Parties with the task of investigating and handling the accidents.

The competent authorities of the Flag State of the vessel shall, at the request of the competent authorities of the country where the accident happens, give assistance in the investigation.

CHAPTER 3
REPORT

Article 7

If an accident happens to vessels, in addition to reporting in accordance with the relevant regulations, the master of the vessel shall submit the Report Con-

cerning Accidents and evidences to the competent authorities with jurisdiction within 48 hours (24 hours if in harbour area) after the occurrence of an accident. The report should cover the following information:

a. names, nationalities, call signs, ports of registry and ports of departure and destination of the vessels;

b. dimensions of vessels, loaded draught and types of vessels;

c. owners, operators and managers of the vessels;

d. when and where the accident happened and brief situation of the accident;

e. the extent of damage and status;

f. cargoes and passengers carried;

g. casualties; and

h. other necessary information.

The report must be truthful and there must not be any concealment or falsification.

Article 8

The nearest competent authorities of the Contracting Parties shall notify the competent authorities with jurisdiction of the relevant information and assist them in the investigation and evidence collection.

CHAPTER 4
INVESTIGATION

Article 9

Upon receiving an accident report, the competent authorities with jurisdiction shall promptly carry out investigation in an objective and all-round manner.

Article 10

Upon receiving an accident report, the nearest competent authorities shall:

a. take notes in detail;

b. collect necessary on-site evidences and take necessary measures; and

c. assist the parties involved in reporting to the competent authorities with jurisdiction and briefing them relevant information and transferring relevant materials.

Article 11

The competent authorities have the rights to:

a. survey the accident scene and collect relevant material evidence;

b. question the persons concerned;

c. ask the persons under investigation to provide written materials and testimonials;

d. ask the parties involved to provide logbooks, engine room logs, wheel-bell records, relevant proofs, certificates or documents;

e. examine the damage to the vessels and cargoes and ascertain casualties of personnel; and

f. verify the riverworthiness of the vessels, technical conditions of their equipment, manning and competence of crew members before the accident happened.

Article 12

During the investigation, the competent authorities may use recording, photographing and video equipment or other means allowed by their national laws.

Article 13

During the investigation, the competent authorities shall, according to specific situations, prepare the

spot investigation report and the questioning records and take investigation minutes.

Article 14

In conducting investigations, the investigators shall produce their valid credentials to the persons being investigated.

Article 15

The persons being investigated must subject themselves to the investigation, honestly state the relevant circumstances of the accident and provide relevant evidences. Employers of the persons being investigated shall be cooperative in the investigation. The competent authorities of the Contracting Parties to which the persons being investigated belong shall give necessary assistance.

Article 16

For the purposes of surveying the scene of the accident and collecting evidences, the competent author-

ities are entitled to forbid the vessels involved in the accident to leave the port or to order them to stop sailing or operation or to go to a designated location. The relevant vessels are obliged to give assistance in the investigation.

Article 17

As for the vessel damaged due to an accident, the competent authorities may directly make appraisal on the damage or authorize relevant experts or organizations to do so. The expenses arising from the appraisal will be paid by the parties involved.

CHAPTER 5
HANDLING OF ACCIDENTS

Article 18

The competent authorities shall, according to the investigations of accidents, analyze the accident causes, define the responsibilities of the parties concerned, make recommendations for enhancing safety management and preventing accidents and work out the Re-

port on Findings Concerning Accidents. The Report on Findings Concerning Accidents shall include the following items:

a. basic conditions of the vessels and the main data;

b. names, addresses and post codes of the owners, operators or managers of the vessels;

c. general information on the accident (when and where the accident happened, the course of the accident, weather conditions at the time, seriousness of the damage, conditions of navigation channels at the time, and the course of rescue, etc.);

d. causes of the accident;

e. conclusion on the accident; and

f. recommendations on enhancing safety management and preventing accidents.

The accident investigation report shall be submitted to the competent authorities of the Flag States of the parties involved, the parties involved and their relevant organizations.

Article 19

The competent authorities may make the follow-

ing appropriate punishments on the persons or vessels directly responsible for an accident according to its relevant national laws, regulations and rules:

a. making warning or fining against the national crew members, pilots or other relevant personnel or detaining or revoking their competence certificates;

b. making warning or fining against the non-national crew members or other relevant personnel or informing the competent authorities of the Flag States and the competent authorities issuing the relevant certificates of the responsibilities and faults of these persons.

Article 20

The competent authorities may, according to the investigation findings, make recommendations on enhancing safety management and preventing accidents to the owners, operators or managers of the vessels and notify the competent authorities of the Flag States accordingly.

Article 21

If the persons or vessels involved refuse to admit the punishment by the competent authorities, they are entitled to apply for reconsideration by the higher authorities.

CHAPTER 6
SETTLEMENT OF CIVIL DISPUTES

Article 22

As for the civil disputes caused by traffic accident of vessels, the parties involved shall have the right to apply for mediation or arbitration or bring lawsuit to court.

Article 23

As for the civil disputes caused by traffic accidents for which a lawsuit has been lodged or an arbitration has been applied, the parties involved shall not apply for any mediation to be conducted by the author-

ities concerned.

Article 24

Mediation applications shall be submitted by the parties involved in written form to the authorities concerned acceptable to each party involved within 30 days after the accident occurs.

In case a financial guarantee is required by the authorities concerned, the persons involved shall provide such a financial guarantee.

Article 25

If an agreement is reached through mediation, the authorities concerned shall make out a mediation report, which shall be signed by each party involved and approved by the authorities concerned.

Article 26

The authorities concerned may announce the failure of the mediation if it has been 3 months since the mediation application was received and no consensus

reached among the parties concerned.

Article 27

As for civil disputes for which mediation has been applied, the parties involved should apply for the cancellation of mediation in written form if they are unwilling to be mediated. If one party involved breaks its commitments in the agreement reached through mediation or fails to fulfill its obligations thereof during the designated period, the other party involved shall report these to the authorities concerned for such failure.

When the mediation fails, the parties involved may apply for arbitration in the arbitration organizations acceptable to each party involved or directly bring a lawsuit to the court where the business of the defendant locates.

Article 28

As for cases applied for the mediation by authorities concerned, the parties involved shall pay the mediation expenses equal to actual expenses for media-

tion.

When an agreement is reached through mediation, unless the parties involved agree otherwise, the mediation expenses will be shared by the parties involved according to their responsibility sharing ratio or the appointed amount. When the mediation fails, the charge shall be shared equally among the parties involved. However, when the mediation fails due to the application for canceling mediation, the charge shall be borne by the applicant.

Annex V

REGULATIONS ON THE INVESTIGATION AND HANDLING OF WATERBORNE TRAFFIC ACCIDENTS ON THE LANCANG-MEKONG RIVER

CHAPTER 1
GENERAL PROVISIONS

Article 1

These Regulations are formulated with a view to enhancing the management of traffic safety on the Lancang-Mekong River and timely investigating and handling traffic accidents thereof in accordance with the Agreement on Commercial Navigation on the Lancang-Mekong River among the Governments of the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar and the Kingdom of Thailand.

Article 2

These Regulations shall apply to the waterborne traffic accidents (hereinafter referred to as "accidents") happening to the vessels defined in the Regulations on Safe Navigation of Vessels on the Lancang-Mekong River in the waterways between Simao of P. R. China and Luangprabang of the Lao P. D. R.

These Regulations shall not apply to the accidents happening between fishing vessels, military vessels and government vessels for non-commercial purposes of the same Contracting Party.

These Regulations do not affect the application of the national laws and regulations of each Contracting Party to the accidents happening between its own vessels in the waters under its jurisdiction.

Article 3

The competent authorities of the Contracting Parties for implementing these Regulations are as follows:

CHAPTER 2
SEARCH & RESCUE AND SALVAGE

Article 4

Persons and Vessels in distress shall take any possible effective measures and means to conduct self-rescue and report promptly to the nearest competent authorities and the vessel's owners and operators on the time, location, loss, preliminary causes of accidents as well as their requests for rescue and salvage.

Article 5

The vessels involved in the accident shall, without endangering itself, make every effort to rescue the persons in distress and not leave the site presumptuously, and notify in time the nearest competent authorities of the rescue progress and result thereof.

Article 6

The vessels in the vicinity of the accident site shall, without endangering itself, make every effort to

rescue the persons in distress, and notify in time the nearest competent authorities of the rescue progress and result thereof.

Article 7

Upon receiving distress alerts, the nearest competent authorities shall verify the information on the distress and take immediatel effective actions to organize rescue operation and, at the same time, notify the competent authorities of the distressed vessel's Flag State of the information on the accident.

Article 8

All vessels participating in the rescue and salvage shall be subject to the unified command of the competent authorities.

Article 9

The Contracting Parties shall enhance their cooperation in search & rescue and salvage, and notify each other of the relevant information.

CHAPTER 3
WRECK REMOVAL

Article 10

The competent authorities shall enhance the management on wreck removal for the purposes of maintaining safety of operation spots, protecting navigational conditions and preventing pollution from vessels.

Article 11

Sunken vessels shall be removed if they:

a. are hindering navigation of vessels or regulation of waterways;

b. have caused or will probably cause pollution;

c. are threatening the security of the riparian countries; or

d. are considered by the competent authorities necessary to be removed.

Article 12

The competent authorities with jurisdiction should notify the owners of sunken vessels to remove the wrecks within specified time if they hinder navigation of vessels and regulation of waterways or threaten the security of the riparian countries.

Article 13

As for the sunken vessels seriously hindering navigation safety and having caused the pollution in the water areas, the competent authorities with jurisdiction have the right to ask the owners of the sunken vessels or their authorized agents to execute a compulsory wreck removal in due course.

Article 14

The owners of sunken vessels or their authorized agents shall set up marks in the area of the sunken vessels hindering navigation safety in accordance with the requirements of the competent authorities, and is-

sue the navigation warning through the competent authorities. The owners of sunken vessels or their authorized agents should submit the wreck removal application to the competent authorities together with the wreck removal plan. Having been approved by the competent authorities, the owners or their authorized agents should complete the wreck removal and clean-up within the specified time.

Article 15

As for the sunken vessels which have not been removed and cleaned-up by their owners or their authorized agents within the specified time, the competent authorities have the right to execute a compulsory wreck removal, with all the expenses arising therefrom being borne by the owners or their authorized agents.

Article 16

If the competent authorities can not find the owner of a sunken vessel, they may sell off or auction off the removed derelict wrecks to pay the expenses for

the removal and clean-up.

Article 17

Without the approval of the competent authorities, no one shall presumptuously remove or clean up the wrecks.

Annex VI

TECHNICAL REGULATIONS ON SURVEYS OF COMMERCIAL SHIPS ON THE LANCANG-MEKONG RIVER

CHAPTER 1
GENERAL PROVISIONS

Article 1

These Technical Regulations are formulated with a view to safeguarding the safety of commercial ships, people's life and properties on the Lancang-Mekong River and preventing the water from being polluted in accordance with the Agreement on Commercial Navigation on the Lancang-Mekong River among the Governments of the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar and the Kingdom of Thailand and relevant international common practices.

Article 2

These Regulations shall apply to all commercial ships, which navigate, moor, anchor and operate in the water of the Lancang-Mekong River between Simao of P. R. China and Luangprabang of Lao P. D. R..

Article 3

The ship survey organizations authorized or recognized by the competent authorities of the Contracting Parties are responsible for the surveys of their national ships according to the rules and regulations promulgated or recognized by the competent authorities of the Contracting Parties, which must satisfy the technical requirements of these Regulations.

Article 4

One Contracting Party should accept relevant vessel certificates or documents duly issued or recognized by the competent authorities of any other Contracting

Parties in compliance with the technical requirements of these Regulations. These certificates include the Tonnage Certificate, Load Line Certificate, Passenger Certificate, Oil-Pollution Prevention Certificate and the relevant technical documents.

CHAPTER 2
CLASSIFICATION OF NAVIGATING ZONES

Article 5

On the basis of the hydrological and meteorological conditions, the Lancang-Mekong River can be classified into Grade A, B and C. According to the current velocity, some water areas are classified as torrent section, i.e. Grade J section.

Article 6

The division of service area is determined according to the following specifications:

a. The wave dimension for calculation and the scope of natural wave height of each service area are specified in Table 6－1.

Table 6 – 1

Service area Grade	Wave height(m) × Wave length(m)	Scope of wave height(m)
Grade A	2.5×30.0	1.5 to2.5
Grade B	1.5×15.0	0.5 tol.5
Grade C	0.5×5.0	0.5 or less

b. In gorges of the River, where the current velocity on the shoal of a section is greater than 3.5m/s, the section is determined as torrent section. The torrent section is classified into two sub-grades, i. e. Grade J1 and J2, according to the current velocity on the shoal.

1. For Grade J1 section, the current velocity on the shoal is more than 5m/s but no more than 6.5m/s.

2. For Grade J2 section, the current velocity on the shoal is between 3.5m/s and 5m/s.

Article 7

The service area of the Lancang-Mekong River between Simao of P. R. China and Luangprabang of Lao P. D. R. is classified as follows:

a. From the Simao Port to the mouth of the Nanla River, Grade C area J2 section;

b. From the mouth of the Nanla River to Pha Thi Rapids (197 km downward from the fiver mouth), Grade C area J1 section;

c. From Pha Thi Rapids to Luangprabang, Grade C area.

CHAPTER 3
SHIP CONSTRUCTION

Article 8

The ship construction should be in conformity with the technical regulations or standard issued or recognized by the competent authorities of the Contracting Parties. The ships should be constructed according to the design plan and technical documents approved by the competent authorities or its authorized agencies. In the process of construction, the competent authorities or the ship survey organizations should carry out new building survey so as to ensure the ship quality.

Article 9

Ships shall be built with sufficient structural strength. No matter what type of framing is adopted, the longitudinal members shall keep fine structural continuity. The framing of deck, side and bottom shall be connected effectively to form rigid integral. The arrangement and scantling of hull structure members should be checked and calculated according to the relevant regulations of the Contracting Parties.

Article 10

The main and the auxiliary engine, shafting and machinery equipment relating to the safety of ships shall be designed, type selected and arranged to ensure the normal operation when list is up to 10° and trim up to 5°.

The main propulsion machinery shall be capable of producing sufficient astern power to ensure proper control of the ship in all normal conditions. Passenger ships intended to navigate in the torrent section shall be provided with two main engines.

Article 11

The engine room shall have doorway for entry, exit, inner aisle, ventilation, lighting and other protective facilities to prevent persons from being hurt. Appropriate means of communication shall be provided to any positions from which engine may be controlled. Emergency communication devices should also be fitted for the ships in accordance with the relevant regulations of the Contracting Parties.

Article 12

Pumping and piping system shall be of a design and construction adequate for the service. Pipes, valves and fittings shall be made of steel, cast iron, copper, copper alloy, or other approved materials suitable for the intended service. Materials sensitive to heat, such as aluminum, aluminum alloy, and plastics, etc., shall not be used in systems essential to the safe operation of the ship.

Article 13

The boilers, boiler components, mountings and fittings, and pressure vessels shall withstand hydraulic tests and conform to the safety requirements. Boilers shall be adequately insulated. The insulation shall have a metallic sheathing.

Article 14

Main engines shall be capable of running for an hour the power of 110% of its rated output and producing sufficient astern power to ensure proper control of the ship in all normal conditions.

The time required for reversing main engines and main propulsion machinery shall not exceed 15 seconds.

A safety interlocking device shall be fitted between the turning gear and the starting arrangements of the main engine. Devices for quickly cutting off fuel oil supply or other effective arrangements for emergency stopping shall be provided near the main engine control station.

Article 15

For reversible gearing, the speed at free clutching and declutching shall not be less than 60% of the rated speed of main engines and the time required for reversal shall not be more than 15 seconds.

The structural strength and model of the gearing selected should meet the relevant regulations of the Contracting Parties.

Article 16

The materials, structural dimensions, surface quality of the shaft and its parts and propeller shall meet the relevant regulations of the Contracting Parties. Where the couplings are separate, provision shall be made for couplings to resist the astern pull so that no axial displacements of the couplings relative to the shafts may occur.

The temperature of sliding bearing in main propulsion shafting and their transmission gearing shall not exceed 65℃, and not exceed 80℃ if roller bearing is fitted.

Article 17

The basic performance and arrangement of the steering gear should conform to the relevant regulations of the Contracting Parties and to the following requirements:

a. Where the power steering gear is installed, the gear shall be capable of driving the rudder over from 35° port to 30° starboard or vice versa with the ship at its full loaded draft and running ahead at maximum designed speed. The time required for doing this shall not be more than 12 seconds for ships intended for navigating in torrent, but it may be not more than 15 seconds for ships of less than 30m in length and not more than 20 seconds for ships intended for navigating in the area other than in torrent.

Where an electric or electro-hydraulic steering gear is installed, two sets of electric motors or two sets of electro-hydraulic pump groups shall be provided respectively so that they can be operated alternately. The alternation shall be rapid and reliable and the time required for the alternation shall not exceed 10 seconds.

b. Where the main steering gear is driven by manual mechanism or manual hydraulic pressure, another stand-by steering gear is not required unless the gear is capable of driving the rudder over from 35° port to 30° starboard or vice versa with the ship at its full loaded draft and running ahead at maximum designed speed according to the requirements in Table 17 - 1.

Table 17 - 1

	Ships navigating in torrent	**Ships navigating in area other than torrent**
Force by one person on steering gear operating wheel(N)	≯147	≯147
Time required for driving rudder over(S)	≯15	≯20

Article 18

Windlasses shall be driven by independent prime movers or motors. For hydraulic windlasses, the hydraulic pipes may be connected with the pipes for other deck machinery, provided that there is no interference to the normal operation of windlasses.

Manual-operated windlasses may be accepted for ships having anchors, with each not exceeding the weight of 400kg. Provision shall be made to manual-operated windlasses to avoid personal injuries by handles.

All power-operated windlasses shall be reversible.

Article 19

The electrical equipment shall be capable of being safely operated and the passengers, crew and ship shall be ensured from electrical hazards.

The design, manufacture and installation of electrical equipment shall conform to the relevant regulations of the Contracting Parties.

Article 20

Ships fitted with electrical or electro-hydraulic steering gears, when navigating in torrent sections, shall be equipped with emergency power source in addition to main power source. The main power source of ships shall be sufficient to ensure the supply of all electrical services necessary for normal operation and

habitability from main switchboard. The emergency power source shall be sufficient to ensure the supply of the emergency electrical devices necessary for the emergency conditions from emergency switchboard.

CHAPTER 4
TONNAGE MEASUREMENT, LOAD LINE AND STABILITY

Article 21

The tonnage measurement is to determine the ship's gross tonnage and net tonnage through measurement and calculation. The ship survey organizations authorized by the competent authorities of the Contracting Parties are responsible for the tonnage measurement. All the Contracting Parties shall accept the Ship's Tonnage Certificate duly issued or recognized by the ship survey organizations without the necessity of re-measuring the ships concerned.

Article 22

Minimum freeboard shall be determined and load

line shall be marked for all commercial ships other than hydrogliders, hydrofoil crafts, aircushion crafts and floating docks. The determination of the ship minimum freeboard, the load line mark and mark methods shall be carded out according to the relevant regulations of the Contracting Parties.

Article 23

The ship's stability calculation documents shall be checked and approved by the ship survey organizations authorized or recognized by the competent authorities of the Contracting Parties.

Article 24

Where a ship need to pass through an area or section of higher grade, it shall comply with the requirements of stability for such an area or section. If it is impracticable to do so and the ship does intend to pass through such an area or section, the restrictions to weather or loading conditions shall be laid down properly on the ship, on condition that necessary measures have been taken and safety of navigation is assured,

with consent of the competent authorities of the Port States.

Article 25

The ship shall have a table of summarizing stability to enable operators to well know the stability of the ship under all loading conditions. The table of summarizing stability of ships should be prepared according to stability calculation after building. The methods of stability calculation and the tables shall be approved by the competent authorities of the Contracting Parties.

CHAPTER 5
FIRE FIGHTING AND LIFE-SAVING

Article 26

Fire protection measures shall be taken into consideration for the design, construction and installation of ships. The principal materials, equipment and installations used for fire protection shall conform to the relevant regulations of the Contracting Parties.

Article 27

Fire extinguishing system and appliances shall ensure that any part of the ship can be under control effectively in case of fire. The fire extinguishing system and appliances shall be kept in good order and available for immediate use at any time.

Article 28

Life-saving appliances shall be provided sufficiently onboard for passengers and crew. Materials specifications and performances of life-saying appliances shall conform to the relevant regulations of the Contracting Parties.

Article 29

The number of lifejackets and life buoys should meet the following requirements:

Life jackets:

The lifejackets used for crew and passengers shall be provided not less than 110% of them. In addition,

5% of the lifejackets based upon the number of the passengers onboard shall also be provided for the children.

Life buoys:

Life buoys / Type of ship / Ship length	Cargo ship (for each deck at least)	Passenger ship (for each deck at least)
L<10m	1	2
10≤L<30m	2	4
30≤L<60m	3	6

Article 30

Lifejackets shall be so placed as to be readily accessible for passengers and crew members and the lifebuoys shall be rationally placed onboard where persons can reach readily.

CHAPTER 6
EQUIPMENT FOR NAVIGATION, SIGNAL AND RADIO COMMUNICATION

Article 31

Navigational equipment onboard shall be provided

respectively depending on the areas (sections) of navigation, number of passengers, gross tonnage and total rated power of the ship in accordance with the requirements of Table 31－1.

No.	Name of navigation equipment	Area (Section) of navigation	Minimum amount required							
			Passenger ship (number of passengers)			Cargo ship (GT)			Pusher (Tugs) (KW)	
			≥150	≥50-<150	<50	≥150	≥50-<150	<50	≥368	<368
1	Searchlight	C	2	1	1	2	1	1	2	1
		J Section	3	2	1	3	2	1	3	2
2	Sounding pole	C	4	3	2	2	2	1	2	2
3	Sounding lead	C	2	1		2	1		2	1
4	Binoculars	C	2	1	1	2	1	1	2	1
5	Inclinometer	C	2	1		2	1		2	1
6	Ship's clock	C	3	2	1	3	2	1	2	1
7	Thermometer	C	2	1	1	2	1	1	2	1
8	Aneroid Barometer	C	1	1		1	1		1	1
9	Stopwatch	C	2	1		2	1		2	1

Article 32

Lights, shapes, flags and sound signal appliances shall be provided in accordance with the requirements of the Regulations on Safe Navigation of Vessels on the Lancang-Mekong River in respect of the type, amount, specifications, performance and installation.

Article 33

The minimum amount required for lights, shapes, flags and sound signal appliances shall be provided in compliance with Tables 33－1, 33－2, 33－3 and 33－4.

Type of light / Amount required / Type of ship	White mast-head light	Green mast-head Light	Red side-light	Green side-light	Bow light	White stem-light	All-round-white light ①	All-round red light ②	All-round green light	Flashing yellow light
Power-driven vessel	1 ③					1	1	2	1	
Ferry	1					1	1	2	3 ④	
Tug	3 ⑤	1 ⑥				2	1	2	1	
Barge						1	1	2	1	
Engineering ship	1					1	1	2	2	
Fast ship	1					1	1	2		1
Buoy tender	1					1	1		2	
Pontoon							1	2	1	
Sailing vessel							1			

Note: ① Except pontoon ship and sailing vessel, two all-round white lights provided for a ship of 50m and above in length are regarded as fore and aft anchor lights and the fore anchor light shall be higher than the aft anchor light.

② The ship intended for carrying dangerous goods shall be provided with an additional all-round red light.

③ Power-driven vessel of 50m and above in length shall be provided with an additional white masthead light at aft mast.

④Two of the all-round green lights shall be located on yard of mast.

⑤Pushers and tugs shall be provided with three white masthead lights. Tugs for towing raft or towing raft and pushing shall be provided with two white masthead lights.

⑥To apply to tug for towing raft.

Table 33 – 2 Amount Required for Shapes

Type of ship / Name of shape	Engineering Ship	Ferry across river	Others
Ball	3	3	3
Cross	1	1	
Diamond	2		1
Double Arrowheads		1	

Table 33 – 3 Amount Required for Flags

Length of ship / Quantity / Name of flag	50 > L ≥ 30	L < 30	Fastship	~ VbOden vessel L < 20
National Flag	To be provided according to relevant regulations of the flag States.			
International Code Flag4 #	1 set	1 set	1 set	1 set
500mm × 350mm Orange Flag			1 flag	
500mm × 350mm White Flag		1 flag		1 flag
350mm × 350mm Hand Flag	1 pair			

Table 33－4 Amount Required for Sound Signal

Length of ship(m) / Quantity / Name of Sound Signal	50＞L≥30	L＜30	Fast ship	Wooden vessel L＜20
Whistle	1	1	1	one audible
Bell	1	1	1	Appliance capable of making effective audible signals
Gong	1		1	

Article 34

Radio communication facilities shall be provided for the ship of 50 gross tonnage and above, and fast ship (service speed ≥ 35km/h) carrying 12 passengers or more. The design, manufacture and installation of ship radio communication facilities shall conform to the relevant requirements of the Contracting Parties.

Article 35

Amount required for radio communication facilities is as follows:

VHF radiotelephone (156.0—174MHz)	1
Portable VHF radiotelephone apparatus	1
Outward broadcast apparatus	1
MF/HF radio installation (1605—27500kHz), if necessary	1
Radio	1

CHAPTER 7
SHIP POLLUTION PREVENTION

Article 36

The construction and equipment for the prevention of pollution from ships shall conform to the relevant requirements of the Contracting Parties. The construction and equipment shall be designed, constructed and tested in accordance with the requirements approved by the competent authorities of the Contracting Parties.

Article 37

In order to prevent the oily water from polluting the Lancang-Mekong River, ships shall be equipped with oily

water separators or slop tanks or any other means.

Article 38

In order to prevent the sewage pollution, the competent authorities shall encourage the installation of sewage treatment units on board passenger ships.

Article 39

The container shall be installed on ship for the storage of garbage. It is forbidden to discharge garbage into the water area.

CHAPTER 8
NUMBER OF PASSENGERS AND ACCOMMODATION EQUIPMENT

Article 40

Passenger ship or passenger-cargo ship means ships carrying 12 passengers or more. Passenger ship and passenger-cargo ship shall have the relevant certificates issued by ship survey organizations authorized

or recognized by the competent authorities of the Contracting Parties.

Article 41

Passenger ships and passenger-cargo ships shall meet the following requirements:

a. Passenger cabins of various classes shall be equipped with sleeping berths or seats. Specifications and conditions of sleeping berths and seats shall conform to the relevant regulations of the Contracting Parties;

b. Passenger cabins shall have passageways and means of access which are convenient for passengers to enter and, exit;

c. Food and service facilities shall be provided for passengers on long-distance passenger ships;

d. Lavatories and communal bathrooms (if necessary) shall be provided sufficiently for passengers on the passenger ship;

e. Passenger cabins shall be provided with a medical kit for passengers;

f. Fire fighting, ventilation, illumination and air conditioning, etc. shall conform to the relevant regulations of the Contracting Parties.