

Freight Forwarders Training Courses

for Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan

Module 7 Inland Water Transport



This project is funded
by the European Union



A project implemented by
NEA and its partners STC,
TRADEMCO and Wagener &
Herbst Management
Consultants

Contents

	<u>Page</u>
7.1	Legal Requirements of Transport by Inland Waterway2
7.1.1	Agreements between the Countries Concerned2
7.1.2	Legal Framework.....7
7.1.3	Conditions of Carriage.....9
7.1.4	Conditions for the Transport of Dangerous Goods (ADN) 15
7.2	Geography of Inland Waterways22
7.2.1	Network of Navigable Waterways.....22
7.2.2	Most Important River Ports27
7.2.3	Side Rivers and Canals29
7.2.4	Locks and Other Obstacles in Inland Shipping32
7.3	Types of Barges used in Inland Waterway Carriage 35
7.4	Waybills and Accompanying Documents40
7.4.5	The Charter (Party).....41
7.4.6	The Bill of Lading42
7.4.7	The Waybill43
7.5	Determination of Freight Charges for Inland Waterway Transport.....44
7.5.1	Agreements / Conventions on Freight Charges44
7.5.2	How Freightage is Calculated.....48

7.1 Legal Requirements of Transport by Inland Waterway

Learning objectives

The student should have knowledge of the international conventions, regulations and conditions governing inland waterway transport in Europe.

Questions

1. *What is arranged by which international convention?*
(MC = Mannheim Convention)

Freedom of shipping on the Rhine	MC
Equal treatment of carriers	MC
Great uniformity between laws	MC
Technical matters, i.e. regarding the equipment of ships	CCNR
Waterways and the artificial structures on it	CCNR
Social matters relating to crews and labour conditions	CCNR
Liability in inland shipping	CMNI
Notice of claim in inland shipping	CMNI

7.1.1 Agreements between the Countries Concerned

Learning objectives

The student should have knowledge of the Mannheim Convention and the organization administering the inland shipping in Rhine River and the regulations as well as guidelines at European Union level.

The Rhine and other inland shipping industry is governed by international private law, national private law, international public law and national public law.

- Public law is the law that governs the legal relationship between governments among themselves and between the government and (legal) persons.
- Private law is law that governs the legal relationships between (legal) persons.

- The difference between national and international law is determined by the borders of countries.

Public law governs the legal relationships between, amongst others, the government and (legal) persons. The two most important international public law regulations in relation to inland shipping in Europe are:

- Mannheim Convention;
- Guidelines and Regulations of the European Union.

The Mannheim Convention - Rhine River

Because the Rhine is of great economic significance, it has always been of interest politically. The Mannheim Convention was signed in 1868 by Switzerland, Belgium, Luxembourg, France, Germany, The Netherlands and the United Kingdom. The Mannheim Convention is actually a treaty. Its official name is “The Revised Rhine Navigation Act of 17 October 1868”.

The Mannheim Convention specifies that the Rhine can be used freely by residents of the signatories to the convention and by residents of EU Member States. This means that there are no nautical or economic obstacles to inland shipping, unless required to ensure safe shipping. The principle behind the treaty is therefore freedom. There is no room for measures that protect particular markets. Consequently, trade and transport on and along the Rhine have been able to develop in complete freedom.

Objectives of the Mannheim Convention

The Mannheim Convention strives towards the following goals:

- freedom of shipping on the Rhine and its tributaries from Basel to the open sea;
- limitations on this rule may only be implemented in the interest of safety;
- no shipping levies;
- equal treatment - carriers from all convention states have the same rights on the Rhine;
- great uniformity between laws.

The Central Commission for Navigation on the Rhine

The Central Commission for Navigation on the Rhine (CCNR) was established in accordance with article 43 of the Mannheim Convention. The CCNR is based in Strasbourg and consists of representatives from the signatories to the Convention. The representatives are from the business community and the government and are called Rhine Navigation Commissioners.

The CCNR have the task of protecting the freedom of shipping on the Rhine. They draw up rules to guarantee safety on the Rhine. The regulations determined by the CCNR focus on

- technical matters, i.e. regarding the equipment of ships;
- matters relating to the waterway itself and the artificial structures on it;
- technical shipping and transport matters in shipping regulations;
- social matters relating to crews, sailing times, resting times and labour conditions.

The CCNR makes decisions regarding regulations that apply to the Rhine. If a CCNR decision is accepted unanimously, the decision is binding for the signatories to the Mannheim Convention. The convention states must incorporate the CCNR decision in their national laws. If, however, a CCNR decision is adopted with a majority of votes, a decision is considered to be a recommendation. In such cases, the convention states have no obligation to incorporate the decision in their national laws.

Shipping Waste Product Treaty

The CCNR also concerns itself with the environmental issues surrounding shipping. In this regard, the CCNR has established the Convention on Collection, Retention and Disposal of Waste Generated during Navigation on the Rhine and Other Inland Waterways in 1996.

For the sake of brevity, the convention is referred to as the "Shipping Waste Product Treaty".

This treaty must now be implemented in the national legislation of the Member States of the Mannheim Convention. There are three parts to the treaty, which cover:

- the ban on dumping of shipping waste (bilge water and cleaning cloths, also known as engine room waste or ship-related waste);
- the ban on dumping of leftover cargo;

- the ban on dumping of household waste.

Forwarder and left-over cargo

The forwarder is the one who is usually faced with the problem of leftover cargo. This is discussed in greater detail below.

When loading or discharging, the manager of the loading or discharge location must ensure that any possible leftover transfer cargo is added to the cargo. After cargo has been discharged, the “*clean ship received, clean ship returned*” principle usually applies. In either case, the ship must be delivered in broom clean condition by adding as much leftover cargo to the cargo. The shipping agents, recipients of the cargo or transfer companies are responsible for leftover cargo, not the skippers. The cleaning costs for the holds are paid by the recipient. As owner it is after all in his interest for as much leftover cargo to be added to the cargo as possible.

To prevent unnecessary cleaning and therefore the unnecessary generation of waste, no cleaning is required when uniform cargo is being transported, i.e. the same type of cargo is being transported.

Guidelines and Regulations of the European Union

After the Second World War, Europe was poor and had to be rebuilt to a great extent. This economic situation provided a reason for the various European countries to work together. More and more countries are joining the European Union.

When the EEC was established, the Treaty of Rome, the basis of the current EU, dedicated a whole chapter to the transport sector. A number of common rules were introduced. Users must, for example, have the freedom to choose a mode of transport. All public and private modes of transport and transport enterprises must be treated equally and enterprises must be financially and commercially independent. A number of sub-measures were taken by the Council of Europe for a number of areas. This is also the case in inland shipping.

The primary EC measures that have so far been established for inland shipping are:

- The guideline regarding access to the profession by barge owners. This guideline specifies the requirements with which barge owners in inland shipping must comply.
- The regulation regarding the structural reorganisation of inland shipping. Since 1989, this regulation has given inland shipping an instrument to influence the supply of ships on the market. In the past, ships were scrapped in terms of a *scrapping measure* and the urge to invest was inhibited by a so-called “old before new” measure.
- A regulation giving the conditions under which barge owners may enter the market for transporting inland goods and passengers in a member state where they are not based, is called **cabotage**.
- There is no restriction on cabotage within the European Union. This means that ships from a Member State are free to take part in inland shipping transport in another EU Member State under the conditions that apply in that Member State.
- A guideline regarding the abolishment of rotation systems. This guideline abolished all cargo allocation systems in the European Union as of 1 January 2000.

Questions

1. Please state whether the following is true or false?
 - a. The Mannheim Convention aims to create an environment of free shipping in Rhine River. The Convention by nature is international public law. (T)
 - b. CCNR is the administering body in related to inland shipping on the Rhine. (T)
 - c. A unanimous decision by the CCNR is binding for signatories to the Mannheim Convention, i.e. Switzerland, Belgium, Luxembourg, France, Germany, The Netherlands and the United Kingdom. The decision with a majority of votes at CCNR has the same effect. (F)
 - d. Despite the existence of CCNR, the EU still draws a series of guidelines and regulations concerning inland shipping within the European Union. (T)

7.1.2 Legal Framework

Learning objectives

The student should have knowledge of the laws and regulations at international and national levels, and understand the difference in application power associated with such laws and regulations.

Legislative system in European Union

The EU has the authority to determine laws. These laws may take the form of regulations, guidelines, ordinances or recommendations/opinions.

EU regulations take priority over the national laws of the Member States. A regulation does not have to be incorporated into a national law to be binding. If a regulation and a national law contradict each other, the regulation takes precedence.

Once an EU guideline has been established, Member States are bound to incorporate the guideline in their national legislation. An example is the guideline that determines that all inland shipping barge owners must comply with the relevant professional competency requirements.

An ordinance is a decision that applies to an individual case. The ordinance is binding for that specific case.

Recommendations or opinions are not binding. They only reflect points of view.

CCNR - Relationship with the European Union

Before the establishment of the European Union (EU), the CCNR could take decisions independently. Since the establishment of the EU, however, co-ordination is essential. This is because the signatories to the Mannheim Convention are almost all Member States of the EU. Switzerland is the only signatory to the convention that is not a member of the EU.

A representative from the European Commission is therefore always present at CCNR discussions. Similarly, any EU regulations or guidelines relating to Rhine shipping must be discussed by the CCNR. Before a Guideline or

Regulation of the Council or the Commission relating to the Rhine river area can come into effect, the CCNR has to reach agreement on it.

An important difference between the decision-making processes in the CCNR and the EU is the fact that signatories to the conventions are only bound by CCNR decisions that are unanimous. EU decisions are taken on the basis of a qualified majority.

National laws

National public law regulations should preferably fit into the framework of the CCNR. This means that barge owners in Rhine and inland shipping must adhere to practically identical crew requirements and resting and sailing hours, irrespective of whether they are transporting within a country or internationally. The most important issues governed by national public law may be:

- Sailing hours and resting times;
- Crew numbers;
- The access of barges to transport on the national inland waterways;
- Access to the profession (in execution of the European guideline).

“Sailing hours and resting times”

There are three possible operating schedules for ships, namely:

A1 voyages

In this operating schedule, the sailing time of a ship may amount to 14 hours within 24 hours, with a maximum of 16 hours under specific conditions (tachograph).

A2 voyages

In this operating schedule, the sailing time of a ship may amount to a maximum of 18 hours within 24 hours.

B voyages

In this operating schedule, the sailing time of a ship may amount to more than 18 hours within 24 hours (non-stop).

Questions

1. True or False?

Laws in the EU may take the form of regulations, guidelines, and ordinances. Besides this, there are also recommendations and opinions from EU, and national laws in each individual country. Judge whether the statement below is correct.

- a. EU regulations have priority over national laws. (T)
- b. EU guidelines have priority over national laws too. (F)
- c. EU ordinances are binding for specific cases only based on which the ordinance is drawn. (T)
- d. EU recommendations and opinions are not binding to member countries. (T)

2. As far as the relationships between CCNR, EU and member countries are concerned, as well as the regulations each make, which of the following descriptions is incorrect?

- a. A representative from the European Commission is always present at CCNR discussions. Any EU regulations or guidelines relating to Rhine shipping must be also discussed by the CCNR
- b. The CCNR has to reach agreement before a Guideline or Regulation of the EU relating to the Rhine river area can come into effect
- c. It is suggested that the national laws fit into the framework of the CCNR
- d. National laws must fit into the framework of CCNR because the CCNR decisions are always binding despite the fact that it's a majority vote (d)

7.1.3 Conditions of Carriage

Learning objectives

The student should be aware of the different conditions for carriage stipulated in various legislations, including governing convention, national laws, and individual contracts.

Good cargo conditions

Cargo conditions result in obligations for the sender, the carrier and the recipient. These obligations entail the following:

- the sender is responsible for loading the cargo that is to be transported on board the ship;
- the carrier must make the ship available for loading and discharge purposes;
- the recipient is responsible for discharging the goods from the ship.

When agreeing to take on a voyage, it is important to negotiate good conditions.

Two international measures are mentioned in this regard, namely:

- the CMNI Convention
- the Shipping and Transport Conditions

The CMNI Convention (1999)

The full name of this convention is “Convention on the Contract for the Carriage of Goods by Inland Waterway”. The abbreviated form “CMNI Convention” is used for ease of reference. The purpose of this convention is to develop uniform civil inland shipping law. This means, amongst others, that a single liability system will apply in all countries where inland shipping is practised. The major features of this liability regime are listed below:

- | | |
|---|---|
| • Period of application: | from taking over until delivery |
| • Contract of carriage: | Consignment note required if requested |
| • Basis of liability: | Liability for loss, damage and delay |
| • Delay in delivery: | Delivery period as agreed period |
| • Liability for direct or consequential loss: | Cost for evaluating damage |
| • Limitations of liability: | 8.33 SDR/kg; Delay 3x value of freight |
| • Notice of claim: | Apparent loss, damage – on delivery at latest |
| | Non apparent loss: 7 days after delivery |
| | Delay: 21 days after delivery |

The Shipping and Transport Conditions

The Shipping and Transport Conditions (STC) are general conditions that apply to cross-border transport. These conditions have been in use for some decades and are very favourable towards carriers. Practically all liability is excluded.

General Conditions

When agreements are entered into, they often refer to the General Conditions. In this way, the parties to an agreement do not have to reformulate general or standard stipulations time and again. When confronted with the general conditions of a contractual counterpart, it is good to be aware that these conditions are one-sided and generally to the disadvantage of the other party.

The most important general conditions in inland shipping are the aforementioned (Shipping and Transport Conditions). The following supplementary conditions are used in specific sub-markets:

- the General Ferry and Barge Shipping Conditions in rotation systems
- the General Push-Towing Conditions of 1998 in push-towing, and
- the General Towing Conditions in towing services.

Charter Party: Loading & Discharge Times and Demurrage

Specific loading and discharge times are included in the agreed freightage for voyage charters.

National law may provide rules on loading & discharge times and demurrage, in addition to the mentioned international regulations, e.g. regarding:

- the number of loading and discharge days;
- the calculation of loading and discharge fees;
- the number of available demurrage days;
- the demurrage fees;
- the duration of working hours and the hours on which working hours start and end;
- the compensation for and/or inclusion of nights, Saturdays, Sunday and Public Holidays;

- the method used to determine the weight of goods that have been transported or are to be transported;
- the way in which notice should be given that the ship is ready to load or discharge.

These stipulations are not considered to be imperative law. This means that the stipulations may be deviated from. The carrier and the sender can agree on whatever they want to regarding loading time, discharge time, demurrage, arrangements regarding Sunday, etc.

If the parties make no specific arrangements regarding these issues, the relevant legal stipulations apply.

When loading or discharging happens in a specific country, the regulations of the loading or discharging country become relevant. A few examples are:

The Netherlands: Cargo Conditions of 1991 and the Loading and Discharge Times and Demurrage Decree

Belgium: Decree regarding port time and demurrage fees for inland shipping charters of 4-5-1999

Germany: Regulation regarding loading and discharge times, as well as demurrage fees in inland shipping of 23-11-1999.

From a legal perspective, this regulation is the only valid regulation that applies if the transport agreement does not stipulate the loading and discharge times or demurrage fees.

France : Loading and discharge times, as well as demurrage fees from 01-08-1994

The number of loading and discharge days are calculated based on the weight of the cargo being transported. The determining factor for the weight of the cargo being transported is the cargo weight as stated in the charter (carriage agreement). The weight of the cargo being transported can also be included in the bill of lading or in the waybill. If none of these documents have been drawn up, evidence regarding the weight of the cargo must be compared and used to calculate the number of days.

The table below gives an example of the number of loading and discharge days depending on the weight of the cargo being transported.

Weight	Number of discharge days
550 tonnes or less	2
more than 550, but not more than 1000 tonnes	3
more than 1000, but not more than 1500 tonnes	3,5
more than 1500, but not more than 2000 tonnes	4
more than 2000, but not more than 2600 tonnes	4,5
more than 2600 tonnes	5

Start of the loading and discharge times

The loading time starts on the day after the carrier notifies the sender that the ship is ready to be loaded. The discharge time starts on the day after the carrier notifies the recipient that the ship is ready to be discharged.

Demurrage fees

Demurrage fee is the compensation the carrier receives if the allowed or agreed loading or discharge times are exceeded. If the loading time is exceeded, the sender pays the demurrage. If the discharge time is exceeded, the recipient pays the demurrage.

Even if the shipper or the recipient were unable to load or off-load due to *force majeure*, the carrier is still entitled to demurrage fees.

In relevant legislation, the size of the ship may determine the level of the demurrage fees. A large ship can transport more cargo than a smaller ship. It therefore costs more for a larger ship to lie still, than for a smaller ship. The level of the demurrage fees is specified in the charter agreement, or by referring to the regulation in which the level of the demurrage fees is stated.

Demurrage days

The sender (shipper) or the recipient do not have unlimited access to the ship after the loading or discharge times have expired. The time available is actually limited to a number of agreed demurrage days.

The sender and carrier may arrange “whatever they wish” with regard to the number of demurrage days. If no agreements have been made, the relevant legislation may apply.

After the demurrage period expires

If the number of negotiated demurrage days has expired, the skipper may cancel the agreement and possibly claim damages. Inland shipping law states the following in this regard: If no goods have been loaded at that time, the carrier may cancel the agreement. If only a part of the agreed cargo has been delivered, the carrier may cancel the agreement, or may decide to accept the voyage.

If the carrier suffers losses as a result of accepting the voyage, the sender will have to compensate the carrier for these losses.

The demurrage period may also expire before the cargo has been completely discharged. In this case, the carrier is entitled to store the cargo with a third party in an appropriate storage location or barge. The recipient then carries the risk and the costs.

A second possibility is for the carrier to request a judge to rule that he may keep the cargo in his own ship or to make other arrangements. In this case, too, the resulting costs are to be borne by the recipient.

Question

1. Who is responsible for what in inland shipping? Please indicate.

Cargo conditions result in obligations for the sender, the carrier and the recipient. These obligations entail the following:

Loading the cargo that is to be transported on board the ship	Sender
Make the ship available for loading and discharge purposes	Carrier
Discharging the goods from the ship	Consignee

7.1.4 Conditions for the Transport of Dangerous Goods (ADN)

Learning objectives

The student should have knowledge about the ADN and its provisions in carriage of dangerous goods.

European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterway (ADN)

The ADN was adopted on 25 May 2000 by the UNECE and the CCNR. The ADN consist of main legal text and Regulations annexed thereto. The annexed Regulations contain provisions concerning their carriage in packages and in bulk on board inland navigation vessels and tanker vessels, as well as provisions concerning the construction and operation of such vessels. They also address requirements and procedures for inspection, issue of certificates of approval, recognition of classification societies, monitoring, and training and examination of experts.

These regulations are the same as those applicable on the Rhine, and the Agreement is therefore intended to set up the same high level of safety on the entire European Inland Waterways Network. The ADN has not entered into force yet.

Structure of ADN – General

The structure of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterway (ADN) is also consistent with that of the UN Model Regulations. The annexed regulations of ADN however contains nine parts of which part 1 to 7 are in line with the UN Model Regulations and part 8 and 9 contain specific provisions affecting transport by inland waterway only. The parts are also subdivided in chapters, sections and subsections. The layout is as follows:

The titles of part 1 to 7 are:

- 1) General provisions
- 2) Classification
- 3) Dangerous goods list, special provisions and exemptions related to dangerous goods packed in limited quantities
- 4) Packing and tank provisions
- 5) Consignment procedures
- 6) Requirements for the construction and testing of packaging, intermediate bulk containers (IBC's), large packaging, tanks and bulk containers
- 7) Provisions concerning the conditions of carriage, loading, unloading and handling

The titles of part 8 and 9 are:

- 8) Requirements for vehicle crews, equipment, operation and documentation
- 9) Requirements concerning the construction and approval of ships

Dangerous Goods Lists (Tables A, B and C)

Contrary to the UN Model Regulations part 3 of the annexed regulations of ADN contains 3 dangerous goods lists which are also the central part to the use of the ADN regulations.

This was done to be able to divide the provisions in regulations for dry cargo vessels and tank vessels.

The dangerous goods lists are:

- Table A: List of dangerous goods in UN numerical order.
- Table B: List of dangerous goods in alphabetical order.
- Table C: List of dangerous goods accepted for carriage in tank vessels in UN numerical order.

Table A

Table A contains the list of dangerous goods in UN numerical order. This dangerous goods list is divided into 13 columns and is mainly used for the carriage of dangerous goods in dry cargo ships. In the official ADN publication the columns 1 to 13 have been printed one after the other on a single page. In these columns you can find after each UN number the relevant provisions and information in text, numbers and alpha-numeric codes.

At the beginning of the list in section 3.2.1 you are able to find the explanation of the data in the columns and the references to the detailed provisions in the relevant parts, chapters and sections.

Below a part of table A has been shown. The reference to the chapters or sections has been indicated between [...].

UN-No. or ID-No.	Name and description	Class	Classification code	Packing group	Labels	Special provisions	Limited quantities
	3.1.2	2.2	2.2	2.1.1.3	5.2.2	3.3	3.4.6
(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)
1017	CHLORINE	2	2TC		2.3+8		LQ0

Carriage permitted	Equipment required	Ventilation	Provisions concerning loading, unloading and carriage	Number of blue cones or blue lights	Remarks
3.2.1	8.1.5	7.1.6	7.1.6	7.1.5	3.2.1
(8)	(9)	(10)	(11)	(12)	(13)
	PP, EP, TOX, A	VE02		0	

Table B

To be able to use table A you need to know the UN number of the substance or article. If the UN number is not known you may find it via table B, the alphabetical index.

The use of the alphabetical index is limited because it does not comprise every existing substance or substance to be produced. Therefore a substance or article which cannot be found in the alphabetical index may not simply be considered harmless.

Table C

Table C comprises the list of dangerous goods accepted for carriage in tank vessels in UN numerical order. This table is divided into 20 columns. In the official ADN publication the columns 1 to 20 have been printed one after the other in a landscape format. In these columns you can find after each UN number the relevant provisions and information in text, numbers and codes.

At the beginning of the list in section 3.2.3 you are able to find the explanation of the data in the columns and the references to the detailed provisions in the relevant parts, chapters and sections.

Below a part of table C has been shown.

UN-No. or ID-No.	Name and description	Class	Classification code	Packing group	Labels	Type of tank vessel	Cargo tank design
(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)
1230	METHANOL	3	FT1	II	3+6.1	N	2

Cargo tank type	Cargo tank equipment	Opening pressure of the high- velocity vent valve in kPa	Maximum degree of filling in %	Relative density at 20 °C	Type of sampling device	Pump room below deck permitted	Temperature class	Explosion group
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2	3	50	95	0.79	2	yes	T2	II A

Anti-explosion protection required	Equipment required	Number of blue cones or blue lights	Additional requirements or remarks
(17)	(18)	(19)	(20)
yes	PP, EP, EX, TOX, A	1	23

Question

1. *The ADN consists of main legal text and Regulations annexed thereto. What provisions do the annexed Regulations contain?*

- a. Provisions concerning the carriage of dangerous goods in packages and in bulk on board inland navigation vessels and tanker vessels,
 - b. Provisions concerning the construction and operation of inland vessels for the transport of dangerous goods
 - c. Provisions concerning requirements and procedures for inspection, issue of certificates of approval, recognition of classification societies, and monitoring, and training and examination of experts.
 - d. All of the above
- (d)

7.2 Geography of Inland Waterways**Learning objectives**

The student should have knowledge of the European network of navigable waterways, inland ports and obstacles such as locks.

7.2.1 Network of Navigable Waterways**Learning objectives**

The student should have knowledge of the European network of navigable waterways, i.e. The Rhine and The Danube and Don/Volga Rivers.

Obviously, the major attribute to inland shipping in Western Europe is the presence of natural waterways and canals. Furthermore, the waterways are continuously being improved. A large number of natural waterways have been improved for inland shipping by human intervention such as deepening and the construction of locks and flood-gates. Thanks to the opening of the Main-Danube Canal in 1992, Eastern Europe as far as the Black Sea lies open to Western European inland shipping. For the time being this is not yet possible, because of large stretches of shallow water and long periods of low tide.



Northwest Europe has a dense grid of waterways, through which most of the country is accessible for inland shipping. There is, however, a concern in inland shipping circles that the smaller waterways are not receiving enough attention as a result of government policy. In practice, this can lead to major catch-up costs. The responsibility is being passed on to the lower authorities. This could lead to the closing of waterways, thereby depriving inland shipping of the opportunity to fulfil its required role, namely offering a solution to the gridlock on the congested roadways.

The Rhine

The Rhine, the main artery of Western Europe, is the most important river for goods transport via inland shipping. The Rhine has its origin in the St. Gotthard, passes the waterfalls at Schaffhausen and becomes a navigable river about 20 km above Basel. The total navigable length of the river is approximately 850 km. Like roadways, rivers are marked with kilometre stones.

At regular intervals along the Rhine, large white signs with black numbers can be seen standing on the river banks. This number is the distance to the Boden Sea. At the Maasbruggen in Rotterdam, the number is 1000, in other words 1000 kms downstream from the Boden Sea.

In recent years, the infrastructure of the Rhine has been canalized near Strasbourg, while many shallows have been eliminated. This cannot continue infinitely, since doing so may cause too much water to be carried down at once from the Boden Sea – the river's natural reservoir.



The Rhine is divided into specific “stretches”, namely:

- Lower Rhine : from the North Sea to Cologne / Bonn;
- Middle Rhine : from Bonn to Bingen;
- Upper Rhine : from Bingen to Basel;
- Hoch Rhein : from Basel to the Boden Sea.

The section between Koblenz and Bingen is known as *the mountains*.

Water always runs from high to low ground. In inland shipping, the direction of sail is therefore always expressed in terms of the direction of the river, and not in terms of north, east, south and west as the driver of a car would do.

A skipper sailing from The Netherlands to a destination in Germany on the Rhine, is therefore *sailing up, going up* or doing the *up voyage*. In Germany, this is called *Bergfahrt* (in French: *a mont*); captains that are doing the reverse, are *coming down, sailing down* or are doing the *down voyage* (in French: *a val*). Basel lies *above Cologne*. Anyone referring to “boats” instead of “ships” or does not use the terms used in inland shipping to indicate the direction of sail, is immediately recognised as an outsider.

Anyone having a look at the waterway map of Europe will immediately see the enormous possibilities offered by inland shipping. With the Netherlands at the centre, transport routes extend through Belgium deep into the South of France. By way of the German canals, goods can be transported as far as Poland. Rhine shipping, including the use of the tributaries, has long been the most import transport route for inland shipping. There is also a lot of transport to France via the Rhine and the Mosel. The destinations on the canalised Saar have become important industrial centres thanks to inland shipping.

Since the opening of the Main-Danube Canal in 1992, ships can now sail deep into the Eastern European countries. The navigability of the Danube, specifically the upstream section halfway, still leaves much to be desired, but the Black Sea is at least accessible!

The course of the waterways naturally determines the nature of the transport routes. Coal and ore are transported to the industrial areas, fertilizer to agricultural areas in need thereof, grain from agricultural areas and feed producers to areas with livestock farming. In short, from production area to consumption area, with the sea ports of Western Europe acting as transfer points to transport goods overseas.

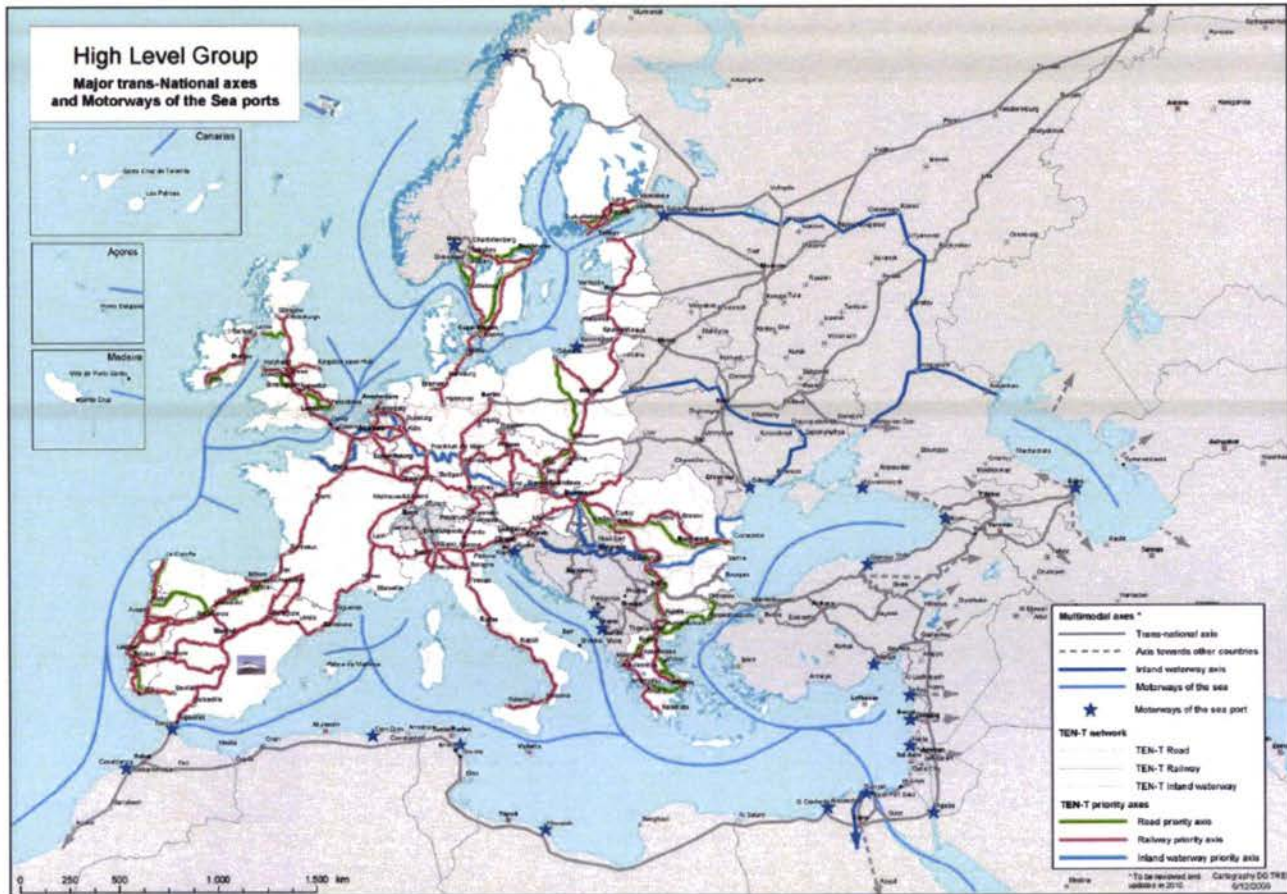
The Danube and Don / Volga rivers

According to estimates by EU specialists in the sphere of international water transport, the volume of transit cargo traffic along the Europe–Asia axis via the Black Sea and the Danube basins is to grow by 35–40% by 2010.

This is connected with a number of international (re-) construction projects, such as:

- Gradual restoration of a free navigation on the Danube, which is determined by the EU as the 7th international transport corridor (TEN 7).
- Inland waterway projects on the Don / Volga linking the Caspian Sea – Black Sea and a connection from Volga to the Baltic Sea via St. Petersburg

These projects will create a more international transport system using also inland waterway transport uniting the Black Sea, the Sea of Azov and the Caspian Sea on the one hand, and the Baltic Sea and the North Sea, on the other hand.



Source: EU / Report from the High Level Group chaired by Loyola de Palacio, November 2005

Question

1. True or False?

- Most of the country in Northwest Europe is accessible for inland shipping thanks to the dense grid of waterways. (T)
- At regular intervals along the Rhine, there are large white signs with black numbers standing on the river banks. These numbers indicate the distance to the North Sea. (F)
- A skipper sailing from the Netherlands to Germany on the Rhine is called "sailing down". (F)
- The opening of Main-Danube canal in 1992 facilitates the transit cargo traffic along the Europe-Asia axis via the Black Sea and the Danube basins. (T)

7.2.2 Most Important River Ports

Learning objectives

The student should be aware of the major river ports in Europe.

Related to inland waterway transport, the main ports in Europe can be distinguished in two categories:

- Sea ports with an inland waterway connection to (a part of) the European hinterland, such as:
 - Rotterdam, Antwerp (Rhine, Meuse, Scheldt and beyond)
 - Hamburg, Bremen (Weser, Elbe and beyond)
 - Constantza (Danube and beyond)
 - Odessa (Dniepr)
 - St. Petersburg, Astrakhan, Rostov-on-Don (Neva, Don, Volga)

Also sea ports such as Baku, Turkmenbashi and Poti may benefit from the developments mentioned in the previous chapter, uniting the Black Sea, the Sea of Azov and the Caspian Sea with the Baltic Sea and the North Sea.

- Inland river ports with a major multimodal transshipment hinterland, such as:
 - Duisburg, Frankfurt
 - Vienna, Budapest, Belgrade
 - Volgograd

In recent years the number of inland waterway container terminals is rapidly growing, making inland waterway transport an increasingly competitive alternative transport mode for this type of transport.

Question

1. Indicate the following ports on the map:

- Rotterdam
- Antwerp
- Hamburg
- Bremen
- Constantza
- Odessa
- St. Petersburg
- Astrakhan
- Rostov-on-Don
- Baku
- Turkmenbashi
- Poti
- Duisburg
- Frankfurt / Main
- Vienna
- Budapest
- Belgrade
- Volgograd



7.2.3 Side Rivers and Canals

Learning objectives

The student should understand how the inland waterways in Europe are classified.

Classification of the waterways

European main waterways and side rivers and canals are divided into CEMT classes to standardise the dimensions of the waterways in Europe. This classification was compiled by the *Conférence Européenne des Ministres de Transport* (hence the term CEMT classes).

All waterways are divided into so-called waterway classes. The classification is based on the dimensions of artificial structures such as bridges, locks and flood-gates. These structures, together with the width and depth of a waterway, determine the maximum size of ships that may navigate a particular waterway. When determining the maximum dimensions that ships may have to use a particular waterway, some clearance has been given to ensure safety. Apart from the classification system indicating the size of ships that may use a waterway, the maximum permissible dimensions of ships and the combinations of pushed barges are specified in the regulations.

Additional rules have been set for ships that exceed the specified dimensions. During the long period of extreme low tide in 2003, Rhine shipping directly experienced the difficulties involved in (large) ships sailing, meeting up and combining under such circumstances. Simultaneous meetings at specific places on the river must therefore be arranged well.

CEMT Classes

The table below lists the various CEMT classes, providing a description of each.

Maximum vessel dimensions according to CEMT (1992)

Motor vessels					
Class	Tonnage	Length m.	Width m.	Draught m.	
I	300	38.50	5.05	2.20	
II	650	55.00	6.60	2.50	
III	1,000	80.00	8.20	2.50	
IV	1,500	85.00	9.50	2.50	
V a	2,500	110.00	11.40	2.80	
VI b	6,000	140.00	15.00	3.90	
Push convoys					Barges
IV	1,500	85.00	9.50	2.80	1
V a	3,000	110.00	11.40	4.50	1
V b	6,000	185.00	11.40	4.50	2
VI a	6,000	110.00	22.80	4.50	2
VI b	12,000	195.00	22.80	4.50	4
VI c	18,000	270.00	22.80	4.50	6
VI c	18,000	195.00	34.20	4.50	6

Table: CEMT Classification System

CEMT Class I, Spits

With its dimensions of 38.5 x 5.05, this is the smallest class designed for the smaller canals.

CEMT Class II, Kempenaar

This class covers both the traditional Kempenaars (often built before 1980) and the new Neo Kemps, 24 to 36 TEU.

CEMT Class III; Dortmund-Ems-Canal barge

Ships in this class have a capacity of 24 to 48 TEU.

CEMT Class IV; Rhine-Herne-Canal barge

In this class you will find a large number of ships of approx. 81 to 120 TEU.

CEMT Class Va; Big Rhine barge

Barges with a capacity of 120 to 208 TEU. Found mostly in The Netherlands. The length of these barges is approx. 110 metres, with a width of approx. 11.40 metres.

CEMT Class Vlb, Jowi Class container barges

The capacity of these barges, with dimensions of 135 x 17 metres, is between 300 and 470 TEU. This is a relatively new class of barge.

CEMT Classes IV, Va, Vb, VIa, Vlb, VIc, VII; Push-towing

These barges can be combined and built up, therefore the capacity of the barges can vary between 50 TEU and approx. 500 TEU (depending on the composition of the pushed convoy).

Other Conditions in using Waterways

The conditions under which a waterway may be used are not only determined by its type and the dimensions of the ships it may carry. The load carried by the ships also plays a role.

All ships used to transport goods have **load lines**. Ships may only be loaded up to the bottom of this line, also called the **loaded water line**. A ship may not sail if its draught exceeds its load line. For most types of goods, this does not happen. In sand and shingle transport, however, the cargo is often wet. In such cases, it is often necessary to exceed the load line to carry the maximum tonnes. After the cargo has been loaded, some time needs to pass before the water in the cargo has drained to the bottom and has been pumped out of the ship. The art of loading a ship in this way is to reach the loaded water line. The time required to pump out the water is at odds with the number of voyages that can be made.

Other types of cargo can be too high, thereby limiting the open view of the helmsman. This usually affects the forward view (dead angle). In container shipping, where ships are often equipped with height-adjustable steering cabins, the increase in height can also have an adverse effect on the backward and side views. The stability of the ship can also be affected adversely.

Question

1. All waterways are divided into waterway classes. What descriptions below about the waterway classes are correct?

- a. The classification is based on the dimensions of artificial structures such as bridges, locks and flood-gates.
- b. Ships in CEMT Class III have a capacity of approx. 81-120 TEU
- c. Waterway classes determine the maximum size of ships that may navigate a particular waterway.

- d. Waterway classes does not require the maximum tonnage that the ships may carry.
(a & c)

7.2.4 Locks and Other Obstacles in Inland Shipping

Learning objectives

The student should be aware that there are obstacles in inland shipping. The students shall further understand what such obstacles imply, and what the measures are to minimize the negative effects of such obstacles.

Artificial obstacles: locks, bridges

Where artificial structures (bridges, locks, etc) are involved, they determine the inland shipping possibilities. This has resulted in a number of standard dimensions for ships. Ships were, and still are, built to make optimal use of a waterway.

With the increase of container transport, *height*, in particular, has become an important aspect. On many Western European rivers bridges are built at what is called the **Rhine shipping height**. At this height, ships fully laden with containers can also pass underneath these bridges without hindrance. However, on many waterways in Western and Eastern Europe, the infrastructure still leaves much to be desired. When improving and expanding the wet infrastructure, the necessary adjustments to bridge heights, specifically, plays an important role. Plans for such improvements are, if possible, submitted to the EU and elaborated with help of the EU.

River information systems and related computer / ICT applications can support barge operators to improve their voyage planning, taking into account the closing times of locks and bridges.



Natural obstacles

Apart from the artificial obstacles in inland shipping, there are also natural obstacles.

Water level

Because inland shipping depends on water, water levels are crucial to the effective use of these waterways. Low and high water levels (tide differences), as well as ice, are all natural enemies of inland shipping. The water levels of the Rhine and its tributaries are available on a daily basis via telephone or teletext. A large numbers of so-called water level gauges, from which the relative water height can be read, have been placed along the Rhine.

When taking cargo on board, it is very important for a carrier to know whether he can rely on a rise or fall in water levels. Local knowledge and practical experience are indispensable in this regard. The bed of a river is not smooth, but is in fact a creepy landscape in which the peaks and valleys move around and may change height daily. The changes to the river bed are determined, to a great extent, by the strength of the current, which in turn depends on the amount of water being carried down from "above". When specific high water levels are reached on the Rhine, sailing is limited or, in the worst cases, even prohibited.

High water is expressed as either *Marke I* or *Marke II*. At *Marke I* or higher, specific safety precautions are in force, while all sailing is suspended at *Marke II* or higher.

Floating ice

One of the natural obstacles in inland shipping is ice, specifically in the rivers, canals and lakes in Northern Europe. Rivers freeze less easily these days than before. This is not only the result of pollution, but also because the ships and engines have much more power than before.

There is also a lot more that can be done to combat ice than before. When required, ice-breakers can keep a channel open or create one, enabling ships to move through in convoy. The increased engine capacity of ships also plays an important role. This has enabled them to reach their destinations on their own for longer periods than before. The risk of sailing through ice should, however, not be underestimated.



Long periods of frost cause major ice build-up on artificial structures (such as flood gates) in rivers. To prevent damage to flood gates, which would cause them to be completely unusable, they are sometimes closed when the ice build-up is extreme. Since flood gates serve to regulate the water levels on rivers, this may cause temporary low water levels.

Important waterways between mainports such as between Rotterdam and Antwerp (the Scheldt-Rhine route) is kept open at the expense of the government.

Storms, Fog etc.

Storms are of course a natural phenomenon which must be kept in mind in practice, but they can hardly be considered an obstacle.

The same holds true for fog. For the most part, the fleet is equipped with *radar installations* that can be used to sail under foggy conditions. To sail with radar, skippers must have a radar permit.

Question

1. There are all kinds of obstacles in inland shipping. The following are all obstacles except:

- a) Storms and fogs
 - b) locks and bridges
 - c) Water level
 - d) Floating ice
- (a)

7.3 Types of Barges used in Inland Waterway Carriage**Learning objectives**

The student should know the main types and classes of barges applied in inland water transport.

Below some examples are illustrated, which indicate that river transport is applied for many different commodities.



Gas vessel



Liquid bulk vessel



Ro/Ro vessel



Jowi Class container vessel



Push barge
convoys

Inland barges can be divided into motor barges, towed barges and pushed barges.

Overview of classified barge types

 <p>SPITS - PENICHE length 38,50 m - width 5,05 m - draft 2,20 m - loading capacity 350 t</p>	 <p>14X</p>
 <p>NEO K length 63 m - width 7 m - draft 2,50 m - loading capacity 32 TEU*</p>	 <p>32X</p>
 <p>RHK length 80 m - width 9,50 m - loading capacity 1350 t</p>	 <p>64X</p>
 <p>RO-RO SHIP length 110 m - width 11,40 m - draft 2,80 m</p>	 <p>72X</p>
 <p>CAR VESSEL length 110 m - width 11,40 m - draft 2,20 m - loading capacity 600 t</p>	 <p>600X</p>
 <p>TANK SHIP length 110 m - width 11,40 m - draft 3,50 m - loading capacity 3000 t</p>	 <p>120X</p>
 <p>CONTAINER SHIP length 110 m - width 11,40 m - draft 3,00 m - loading capacity 200 TEU*</p>	 <p>200X</p>
 <p>CONTAINER SHIP JOWI-CLASS length 135 m - width 17 m - draft 3,00 m - loading capacity 47X TEU*</p>	 <p>470X</p>
 <p>PUSH CONVOY (4) length 180 m - width 22,80 m - draft 2,60/3,70 m Loading capacity 11.000 t</p>	 <p>480X</p>

The Stability of an Inland Barge

Apart from a few exceptions, the stability of inland barges has for many years been evaluated based on experience. No calculations were made. Even today, many ships are loaded without any stability calculations having been made. It is generally said that if the cargo is stowed properly and does not exceed the height of the gangway, stability is not an issue. With the increase in container transport, and after an accident on the Rhine where a barge with containers capsized, stability has received more attention and legal requirements have been introduced.

For the transport of cargo other than containers, the only requirement is that the loading method should not endanger stability. There is also no requirement to prove the stability beforehand. For container transport, some countries' regulations like the Netherlands require that stability should be inspected before the ship sails. A stability plan is used for this purpose. Stricter requirements apply to transporting containers on the Rhine. Approved stability figures for the ship (i.e. without cargo), a loading plan or loading list and a stability calculation are required.

The obligation to perform a stability calculation rests on ships listed in the table below.

Width of ship	Width of container layer	Height of container layer
Less than 9.50 m		More than 1 layer
Between 9.50 to 11 m		More than 2 layers
11 m or more	More than 3 rows	More than 2 layers
11 m or more		More than 3 layers



Question

1. Give the picture of the vessels the right description.

Liquid bulk vessel



Ro/Ro vessel



Container vessel



Push convoy



7.4 Waybills and Accompanying Documents

Learning objectives

The student should have knowledge of the main documents in inland shipping and their application.

Various documents are used in inland shipping. The following documents are discussed in this chapter:

- the charter (party);
- the bill of lading;
- the waybill.

Charter parties, without any other documents, are widely used in inland shipping. Waybills are sometimes drawn up. Bills of lading are only used sporadically.

Questions

1. Which document(s) is negotiable?

- a) Waybill
 - b) Charter party
 - c) Bill of lading
 - d) All of the above
- (c)

2. True or False?

- a) The Charter Party contains the carriage agreement (T)
- b) The Charter Party is also the Cargo receipt (F)
- c) With the B/L the carrier promises to deliver the goods to the rightful party (T)
- d) The Waybill can be addressed “on order” or “to bearer” (F)
- e) The B/L can be addressed “on order” or “to bearer” (T)

7.4.5 The Charter (Party)

Learning objectives

The student should have knowledge of the charter party used in inland shipping, and the common elements contained in charter parties.

The carriage agreement can be detailed in a charter. Although this may not be prescribed by the national law, it is recommended. The charter includes the following information:

- name and address of the owner (the skipper);
- description of the ship;
- name and address of the charterer;
- nature and volume of the cargo;
- loading location;
- destination;
- the agreed freightage;
- instructions to the carrier.

In addition, the charter may refer to possible applicable general conditions. In practice the number of loading and discharge days and demurrage fees are also stipulated or a reference is included to the applicable national laws.

Question

1. *The Charter Party usually includes the following information:*

- a) name and address of the owner (the skipper), and the charterer
 - b) reference to the applicable general conditions
 - c) number of loading and discharge days and demurrage fees
 - d) all of the above
- (d)

7.4.6 The Bill of Lading

Learning objectives

The student should have knowledge of the bill of lading used in inland shipping, the function of and the common elements contained in bill of lading.

After the ship has been loaded, a bill of lading can be drawn up. This document is signed by the skipper and contains:

- a description of the cargo;
- the destination;
- the name and address of the recipient to whom the cargo must be delivered;
- the conditions under which the delivery will take place.

The original bill of lading is sent to the recipient of the cargo. The carrier will only surrender the transported goods upon submission of the original bill of lading by the recipient. The bill of lading determines ownership of the goods.

The bill of lading is a duly dated document in which the carrier declares that he has taken receipt of particular goods in order to transport them to a designated destination where the goods are to be surrendered to a designated person. It also states the conditions under which the delivery is to take place.

A bill of lading is a declaration by the skipper (the owner) that he has received a particular volume of cargo in a particular condition from someone and it is a promise to deliver the goods to the rightful party/parties.

A bill of lading is negotiable, in other words it may be transferred to third parties.

Question

1. *What description(s) about bill of lading used in inland shipping is/are incorrect?*

- a) The carrier will only deliver cargoes to the rightful bill of lading holder
- b) The bill of lading is a duly dated document, which also states the conditions under which the cargo is received by the carrier
- c) A bill of lading is negotiable and cannot be transferred to third parties
- d) A bill of lading is a declaration by the carrier of the receipt of the cargo, but not a promise to deliver the goods

(c & d)

7.4.7 The Waybill**Learning objectives**

The student should have knowledge of the waybill used in inland shipping, the difference between waybill and bill of lading, and the common elements contained in waybills.

The following information is included in a waybill, based on the information provided by the sender:

- the goods received for carriage;
- the location where the carrier is to receive the goods;
- the destination to which the carrier is to transport the goods;
- the addressee;
- the cargo;
- anything else the carrier and sender would like to include.

Waybills can only be addressed directly to a person, therefore not “on order” or “to bearer” and are therefore **not negotiable**.

The difference between a bill of lading and a waybill

An important distinction between a waybill and a bill of lading is that a bill of lading is a valuable negotiable document. Because of the negotiable nature of the bill of lading, it is crucially important for the carrier to ensure that the cargo is delivered to the rightful party. If he should deliver the cargo to the wrong recipient, he runs the risk of being held liable for the loss!

Question

1. *Which answer is incorrect?*

- a) A waybill is non-negotiable and cannot be transferred to other person than the one indicated in the waybill.
 - b) A waybill contains the location where cargo is delivered to the carrier.
 - c) A waybill gives the carrier the right to deliver goods to other person than the addressee.
 - d) Waybills are not issued “on order” or “to bearer”.
- (c)

7.5 Determination of Freight Charges for Inland Waterway Transport**Learning objectives**

The student should understand how tariffs in inland shipping are calculated and by which agreements / conventions this is governed.

7.5.1 Agreements / Conventions on Freight Charges**Learning objectives**

The student should understand the market structures where the inland shipping industry operates, and be aware that freight charges are concluded with reference to different factors including the forms of inland shipping companies.

International organisations in inland shipping

There are two international inland shipping organisations, namely the EINU (European Inland Navigation Union) and the ESO (European Skippers Organisation) that look after the interests of the European private inland shipping entrepreneurs on a European level. There is a separate managing body for Rhine shipping, namely the Central Committee for Rhine Shipping (CCR) in Strasbourg.

The *Labour Organisation for Rhine Shipping* (IAR) can be approached for matters specific to Rhine shipping.

These organisations do not issue specific rules on freight charges in inland water transport.

Inland shipping companies

As a result of growing demand and healthy entrepreneurship, the originally one-man businesses in inland shipping grew into larger businesses with more ships, emerging into shipping companies. Shipping companies were received well in the transport market, since they also offered clients more assurance that goods would be transported on time.

In the recent past, two types of inland shipping companies have been identified, namely:

- **standard shipping companies** which use their own ships and constitute a single legal entity in the market;
- **working shipping companies** which specifically carry goods for industrial businesses with which they have an economic relationship. Large ore companies may, for example, decide to establish their own working shipping company to sail for themselves exclusively. This is in fact a form of own carriage. Thyssen in Germany is an example of a working shipping company.

Through the central land-based organisation, a shipping company has good access to the market. In addition, security of carriage can be offered over longer periods.

In the past few years, the reliable image of the shipping companies has, however, changed drastically. Developments in inland shipping cargo pricing, specifically regarding dry cargo, have made it impossible to exploit their own ships profitably.

Reading

One-man business vs. Shipping companies

There are both advantages and disadvantages to individuals or one-man businesses in inland shipping. One strength of individual inland shipping is the low cost price as compared to that of shipping companies. The number of “foreign staff” is relatively low and this translates directly to lower wage costs. In addition, the overheads are much lower, despite the fact that the extensive equipment on board modern inland ships is a major overhead.

Shipping companies no longer use their own ships, but *ships contracted from individuals*. It could also be said that they have become *cargo offices* where the emphasis has shifted to logistical support. The *container operators* in inland shipping organise line services using contracted ships belonging to individuals. An exception is those shipping companies that specialise in push-towing. Such shipping companies own a large number of push barges and pusher tugs. The old shipping company formats have also continued in tanker services and the chemical sector.

Individual enterprises also have disadvantages. Since there is no land-based operation that explores the market for them to find cargo, they have to do it themselves. This is done especially on the so-called *same-day freight market*. This is easy when there is a lot of cargo to carry, because the carrier can make reasonable freightage and a high turnover rate. When there is little cargo on offer, individuals are at a disadvantage and often have long waiting periods between voyages. The effects of the market mechanism are especially noticeable in the *same-day freight market*. Supply and demand determine the freightage. When a higher supply of cargo coincides with a low water level on the Rhine, the demand for tonnage rises very quickly. Higher demand will lead to higher freightage. This of course applies to normal market conditions when there is a realistic relationship between demand and the supply of ships. When there is a structural oversupply of tonnage, the market mechanism has no effect. At most, waiting times are shortened.

It is almost impossible for individual inland shipping barge owners operating alone to acquire cargo for longer periods. After discharging their cargo, they approach known cargo brokers for new cargo, obviously as close to the place of discharge as possible. The fluctuations in operating results will therefore be greater than in the case of shipping companies. The fact that they cannot offer clients security of carriage over longer periods is also a disadvantage.

Co-operatives in Inland Shipping

To limit the disadvantages of individual ownership as much as possible and to take advantage of the structure of a shipping company, many individuals form part of so-called co-operatives. Members of the co-operative make their ships available to the co-operative, carrying out carriage commitments that have been agreed on collectively. The skipper remains the owner of his ship.

The acquisition of cargo is arranged centrally, as is the distribution of the ships. A major advantage of this form of co-operation is the fact that it becomes possible to take over transport operations. In addition, co-operatives can offer security of carriage. For individual ship owners, this method of operation strengthens their market position.

Parties Involved in Inland Shipping

The forwarder is someone who enters into an agreement with his client for the transport of goods. That transport may also be transport through inland shipping.

When the forwarder carries out this agreement himself, he is considered to be a carrier, the way any other counterparties of the shipping agent would be. There are a number of FIATA forwarding companies that have knowledge of/and or are specialists in transporting goods through inland shipping. A shipper can, of course, enter into a charter agreement with an individual carrier. As far as this is already being done, the shipper will always involve a third person, namely a *ship charterer*.

The mentioned parties *can* therefore act as carriers, since the carrier is after all the client's counterpart. As soon as these carriers accommodate the cargo in ships that are to be chartered, they become ship charterers and are no longer carriers. The charterer enters into an agreement with a carrier, whereby the carrier makes a ship available. At that moment, the carrier becomes the *chartered owner*. He has, after all, become the charterer's counterpart in the charter agreement. Shipping companies or co-operatives will, as far as possible, use their own ships to transport the cargo for which they, as carriers, have entered into an agreement.

Question

1. *What characterises best the following types of shipping companies? Please indicate.*

Uses its own ships and constitutes a single legal entity in the market	standard shipping company
Specifically carry goods for one industrial business	working shipping company

2. *The following characteristics are valid for an inland shipping cooperation except*

- a) Less underutilization
 - b) Less waiting time on cargo acquisition
 - c) Less transport assurance
 - d) More regular revenues
- (c)

3. *True or False?*

Which relative factors compared to other transport modalities are valid for inland waterway transport?

- a) Limited cargo capacity (F)
- b) Loading- / discharge points need connection to IWT infrastructure (T)
- c) High penetration (F)
- d) Low transport speed (T)
- e) Large cargo volumes possible (T)
- f) High transport costs per tonne (F)
- g) Applicable for containers (T)
- h) Low energy consumption (T)

7.5.2 How Freightage is Calculated

Learning objectives

The student should understand how tariffs in inland shipping are calculated, and what the influential factors are.

Transporting goods via inland shipping

When transporting goods via barge, the following factors should be borne in mind:

- The types of goods that are to be transported.
 - Loose bulk cargo, packaged units, large inseparable pieces
 - Must the cargo be covered (under the hatches) or be kept dry in another way?
- The annual volumes.
 - With which frequency is the cargo to be transported?
 - Is there a possibility of return cargo?
- Is haulage to and from the terminal required?
 - Are there good storage facilities?

- Can the government subsidy for “connecting waterways” be utilised?
- Ship size
 - What are the maximum dimensions, the draught and (bridge) height at the load and discharge locations and on the route to be travelled?
- How quickly can the cargo be loaded and discharged?
- What is the total sailing time, including delays at locks and (railway) bridges?
- Additional costs such as port and shipping charges.

Determinants of freight and surcharges

In co-operatives, skippers do not have to negotiate prices, since the co-operative usually operates according to agreed fixed rates.

In the free market, however, negotiation is required and supply and demand then play a role in determining the price.

When offering a voyage, the charterer usually includes a suggested price. However, the charterer’s offer is always low and the skipper then makes a higher counteroffer. The parties try to reach an agreement through negotiation. Other factors and surcharges then play a role, such as:

- freightage per ton or lump sum payment;
- the duration of the loading and discharge times;
- high and low tide surcharges;
- surcharges for ice, level of watermark and the ship being stranded.

The charterer will, however, always try to find a cheaper ship.

And the only competition the inland shipping barge owner has is therefore his colleague who is also looking for work. The barge owner may, however, never lose sight of his cost price when determining a price. This sounds logical, but it is far from being a given in inland shipping. Specifically long-term costs such as repairs resulting from wear and tear and labour costs are often forgotten.

The Freight Account

Once the ship has been discharged at the destination, the inland shipping barge owner can collect his freightage.

In earlier times this was paid cash, but nowadays freightage is paid by bank transfer.

The inland shipping barge owner draws up a freight account and sends this to the charterer from whom he accepted the voyage, along with the original bill of lading and proof that the cargo has been discharged. The charterer's commission and VAT, if required, are also calculated in the freight account. Demurrage is also calculated in the freight account.

Ascertain Weight of Goods (Official Verification)

If fewer tonnes were loaded because, for example, there was not enough cargo to load, it has been agreed that the charterer may deduct no more than 2 ½ % from the freightage.

The calculations of the amount of cargo loaded/discharged are done by a certified draught surveyor, at least in the case of dry load barges. In the case of tankers, it is a tonnage agent.

The freightage is based on the volume of cargo discharged.



Questions

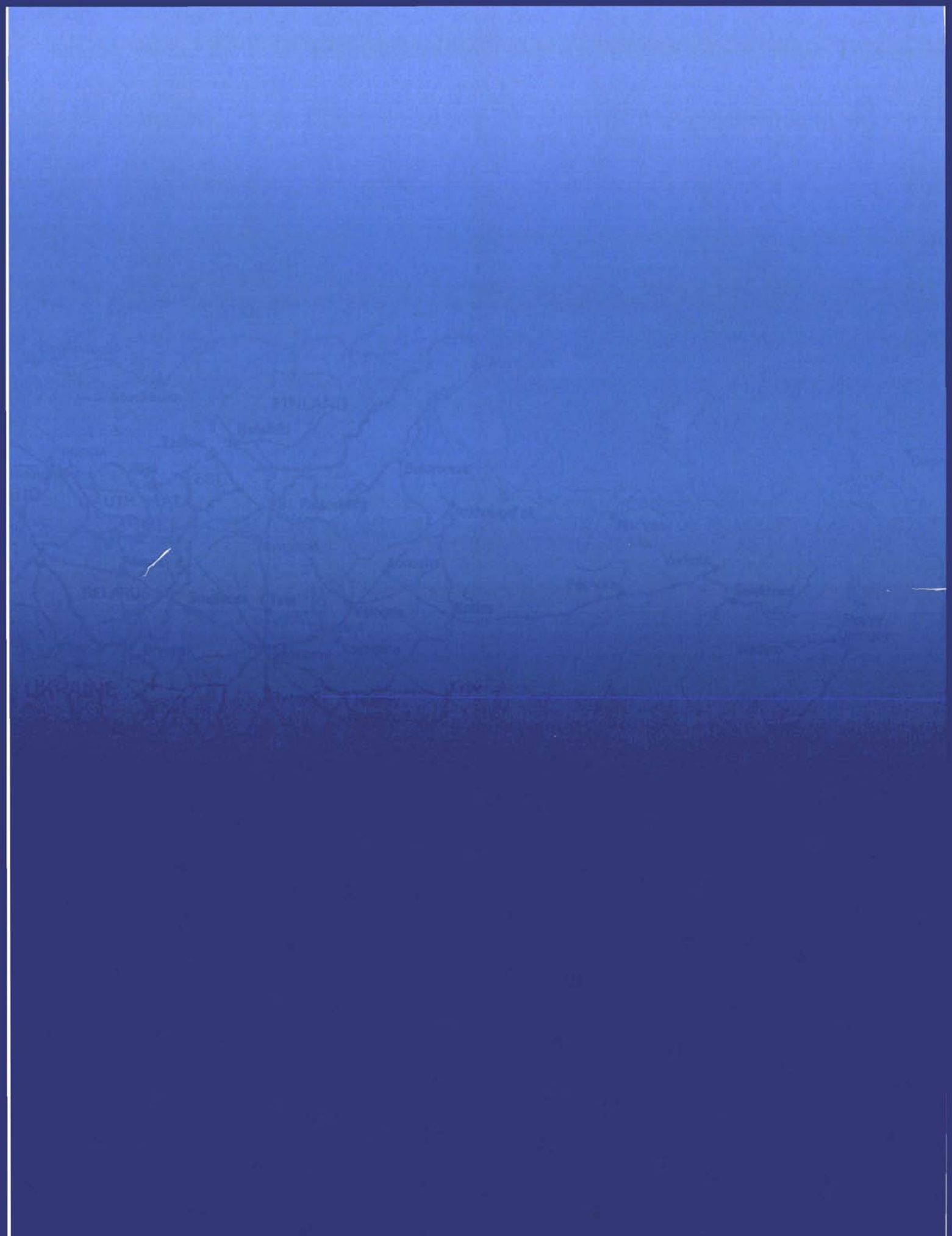
1. *True or False?*

How prices are determined in inland shipping?

- a) Based on schemes agreed by international conventions (F)
- b) Based on negotiation related to demand and supply (T)

2. *In the free market, the inland shipping price is negotiated between the carrier and the charterer, and is largely determined by the market supply and demand. But other factors play a role too. Such factors include*

- a) the duration of the loading and discharge times
 - b) high and low tide surcharges
 - c) surcharges for ice, level of watermark and the ship being stranded
 - d) all of the above
- (d)



This publication has been produced with the assistance of the European Union.
The contents of this publication is the sole responsibility of NEA and its partners and can in no way be taken to reflect the views of the European Union.