

**ΑΕΝ ΑΣΠΡΟΠΥΡΓΟΥ**

**ΝΑΥΤΙΚΑ ΑΓΓΛΙΚΑ**

**ΣΤ' ΕΞΑΜΗΝΟΥ**



**ΕΠΙΜΕΛΕΙΑ**

**ΑΓΛΑΪΑ ΔΙΑΜΑΝΤΗ**

**ΕΛΠΙΔΑ ΔΗΜΗΤΡΙΑΔΗ**

## WHAT HAS BEEN HAPPENING?

1a



What kind of general information do you discuss when handing over the watch? Circle the categories you talk about. Add some more categories to the list.



1b



Listen to the cassette. The Chief Officer is handing over the navigational watch to the 3rd Officer. Which of the topics in Exercise 1a are mentioned in the dialogue?

1c



Listen to the dialogue again. Decide if the statements are true or false.

- 1 The 3rd Officer has never sailed this route before.
- 2 The weather is expected to improve when they reach Port Elizabeth.
- 3 Some detached buoys can be seen from the bridge.
- 4 There is only a container ship and a warship in the vicinity.
- 5 The Chief Officer expects to rest well.

True	False



## Present Perfect Continuous and Present Perfect Simple

The Present Perfect Simple is often used to talk about how much has been done.

He **has read** two manuals this morning.

(He has finished reading two manuals.)

Remember that some verbs are not used in the continuous form. Look back at Unit 1 Exercise 3a for verbs that describe states, not actions.

I've always **liked** him. (I've always ~~been liking~~ him.)

He **has belonged** to that club for many years.

(He has ~~been belonging~~ to that club for many years.)

However, verbs that describe states can be used in the continuous form when talking about physical illness.

I've **been having** a lot of headaches recently.

She's gone home. She's **been feeling** ill all day.

Complete the sentences using the Present Perfect Simple or Present Perfect Continuous.

- 1 'Is Henri still working?' 'No, he ..... (finish / already).'
- 2 'How long ..... (you / know) him?' 'Oh, for about ten years.'
- 3 'I'm sorry I'm late. .... (you / wait) long?'
- 4 'How many times ..... (you / be) to the Far East?' 'Several times.'
- 5 'What ..... (you / do) this morning?' 'I ..... (paint) the bulkheads. I'll be finished this afternoon.'
- 6 'Why are you sweating so much?' 'Oh, I ..... (work out) in the gym for the past two hours.'
- 7 '..... (you / phone) the office yet?' 'I ..... (try) for an hour but I can't get through.'
- 8 'Come quickly! There ..... (be) an accident. Peter ..... (break) his leg.'
- 9 'There you are! I ..... (look) for you for ages!'
- 10 'I wonder what they are discussing at the meeting. They ..... (talk) for hours.'

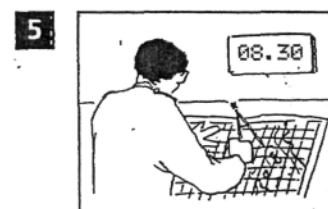
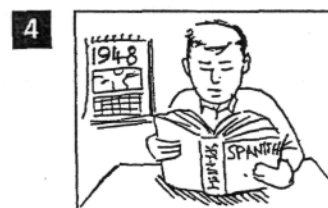
# 2b



Write a sentence in the Present Perfect Continuous to describe the situation in each picture.



He's been reading the manuals  
for three hours / since  
12 o' clock / since noon.



2c

### Since and for

Remember that **since** and **for** are used with expressions of time to say how long something has been happening. **Since** is used with points in time and **for** is used with periods of time.

'How long have you been working with that company?' 'For about 3 years.'

'How long has it been raining?' 'Since 3 o'clock.'



Do these time markers relate to a point in time or a period of time? Write each one in the correct section.

I've been working here **since** .....

.....  
 .....  
 .....  
 .....  
 .....

**two days**

**a couple of hours**

**Friday**

**Christmas**

**last month**

**for** .....

.....  
 .....  
 .....  
 .....  
 .....

**many years**

**a few minutes**

**the start of my watch**

**June 21st**

**six weeks**

**12 o'clock**

### The continuous form

The continuous form is used to describe actions in progress at different points in time. Notice the difference between the Present Continuous, the Past Continuous and the Present Perfect Continuous.

Be quiet. I'm **watching** a training video. (The action is happening now.)

I **was watching** a training video at 1400 yesterday.

(The action was happening at a specific time in the past.)

I'm tired because I **have been watching** this training video for 3 hours.

(The action is still happening or has recently finished.)



Read the dialogue. The 2nd Officer is handing over the watch to the 3rd Officer. Choose the correct form of the verb to complete the dialogue.

2nd Officer: Morning, Emilio. I'm glad you're here for your watch. **I am doing (1)** the monthly check on the Breathing Apparatus Sets but I haven't finished yet. I'd like you to take over from me now. I have to go and show an inspector around the ship.

3rd Officer: **How much have you done? Have you been doing (2)** so far?

2nd Officer: Well, here's the maintenance record. As you can see, **I have been doing (3)** the warning whistle and **have checked (4)** the rubber and the sealing in all the facemasks. They all seem to be fine. For the past hour **I have been doing (5)** the cylinder pressures and topping up the pressure where necessary. **I have done (6)** those three sets over there already so you can start on the sets in this locker.

3rd Officer: What about the harnesses and head straps?

2nd Officer: Yes, **I have already checked / I have been checking (7)** the harnesses and **made / making (8)** sure that all the headstraps are fully extended. Each set is ready for use. Oh, there's one problem, however. This set here appears to have a leak. **I am looking / I have been looking (9)** for it but I can't find it. Maybe you can check it over ...

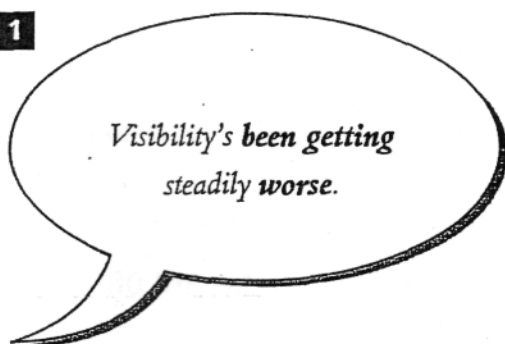
3rd Officer: No problem. I'll sort it out.

# 3a

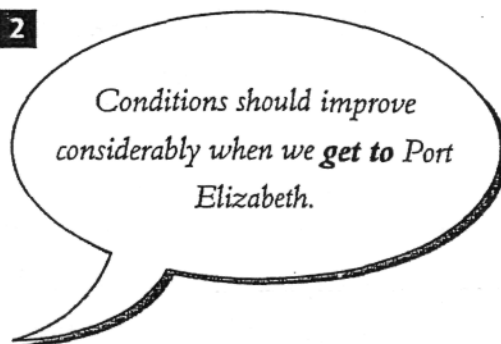


Read these examples from the dialogue in Exercise 1b. Notice the different uses of get.

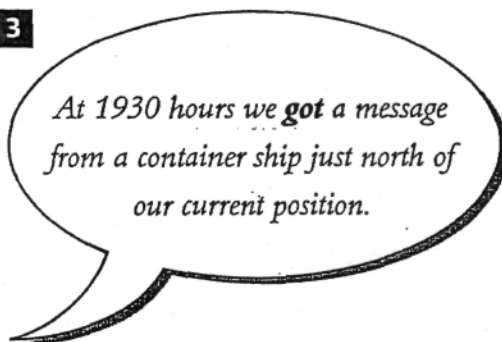
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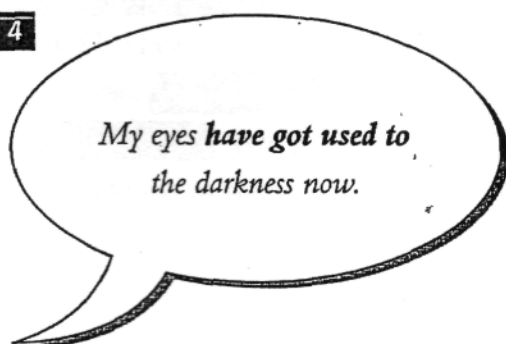
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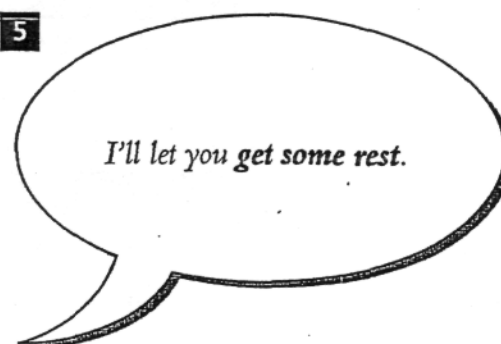
3



4



5



Each of the expressions using get can be replaced with another word or phrase. Match each expression in colour with its meaning from the list below.

- (a) reach
- (b) have become accustomed to
- (c) have some sleep
- (d) received
- (e) has become worse

## Get

Get is a very common English word which has various meanings depending on the words that follow it. Get is quite informal and can often be replaced with a more formal word. Here are some of the more common meanings and uses of get.

'get' + noun often means 'obtain', 'receive' or 'take'.

He couldn't **get a job** with that company.

I **got a letter** from my brother yesterday.

He's **been getting good results** at college this year.

Why don't you **get the bus**? It's cheaper and quicker than the train.

I must **get some sleep**. It's late.

'get' + adjective often means 'become'.

I hope the weather will **get better** soon.

I'm **getting hungry**. Let's try this cafe here.

My cough **has been getting worse** recently.

Everyone ~~got ready~~ for the fire drill. (= prepared)

'get' + past participle is like the passive 'be' + past participle, and is used to describe things that happen out of our control.

The seaman **got reprimanded** after he was found asleep. (= was told off)

I try not to **get drawn into** their arguments. (= become involved in)

I always **get lost** in a new city. (= become disorientated)

I can't **get used to** working at night. (= become accustomed to)

'get' + past participle is also used to describe things that we do to ourselves.

He **got married** last month.

'Have you heard? Tom and Maria have just **got engaged**.'

After **getting washed and dressed**, I went downstairs to breakfast.

'get' in multi-word verbs

They always **get up** very early. (= rise)

I **get on well** with my cabin mate. (= have a good relationship)

We **got to** Rio de Janeiro just in time for Mardi Gras. (= reached, arrived in)

The computer crashed but we **got around** the problem by using the old typewriter. (= overcame)

Complete these sentences using an appropriate phrase with get in the correct tense. Choose from the phrases in the box in Exercise 3b.

- 1 I ..... with this company in 1995. I've mainly been working on gas carriers since then.
- 2 He met Anna at Christmas, they ..... in the New Year and they are planning to ..... this summer. I'm looking forward to the wedding.
- 3 I have been at sea for many years but it is still difficult to ..... very stormy conditions. I am often sea-sick during heavy seas.
- 4 There were a few problems but after much discussion we managed to ..... them.
- 5 If you want to ..... good ....., you'll have to study hard.
- 6 When I moved to Bangkok, I kept ..... because I couldn't understand the street signs.
- 7 The rating ..... for wearing the wrong type of shoes on deck.
- 8 Hardly anyone writes to me! The last time I ..... was six months ago.
- 9 I'll call you when we ..... Rotterdam.
- 10 My English ..... these days. I have more time to study and I practise speaking with my colleagues.
- 11 Some of the workers could not agree to their new working conditions but I refused to ..... the argument.
- 12 'What are your travel plans?' 'I ..... the ..... at 1015 from Central Station so I should be in London by mid-afternoon.'

## 4a



You are going to read a news article. Before you read it, look at some key words from the text and answer the questions.

local environmentalists

a North Sea inlet

the rescue effort

beached whales

tragic results

- 1 What do you think the problem is?
- 2 What do you think the outcome is?
- 3 Why do you think the incident occurred?



4b



Read the news article and check your predictions.



Two sperm whales have recently beached themselves on a shallow sand bank near the harbour and four others are in danger of following them, according to environmentalists involved in the rescue operation.

Environmentalists, volunteers and vets have been working round the clock in an attempt to lead six sperm whales back to deeper waters. Fishermen say it is likely that the whales followed a trawler into the shallow North Sea inlet yesterday afternoon. There are fears that the two stranded whales might not survive. Rescue workers are trying to keep the other whales from following the first two to the shore. They hope that, if they can keep them in the tideway, they may be able to find

their way back into the North sea when the tide comes in.

"Attempts by local fishermen to try to lead the whales along the shore and out of the inlet will probably not work" commented one environmentalist.

Arrangements have now been

**"We are appealing for people to stay away from the beach."**

made for a barge to come and tow some of the whales back to deeper waters, in the hope that others will follow.

"We are appealing for people to stay away from the beach" said Jean Carey, a local marine

biologist. "Although it is heartening to see so many people offering to assist the rescue effort, we already have enough volunteers to help us keep the two beached whales wet and cool."

Many whales die along the North Sea coast, particularly younger

ones which appear to swim down the east coast of Scotland instead of the west on their way from the Arctic. The reason why whales become stranded in shallow waters or beach themselves is not known although it could be that

their sonar system does not detect gradual changes in depth, resulting in some whales becoming trapped in shallow water or on beaches. Once a few whales beach themselves, the rest of the pod may follow.

4c



Read these titles. In your opinion, which is the best title for the article in Exercise 4b? Why? Can you think of an alternative title?

**SOS (Save our Sperm Whales)**

**Whales in Danger**

**Fishermen at Fault**

**Locals lead whales to safety**

5a



Read these sentences from the article. Then read the article again and correct the statements. There is a mistake in each statement.

- 1 The whales followed a trawler into the inlet.
- 2 The two beached whales are going to die.
- 3 When the tide comes in, the four whales in the tideway will swim back into the North Sea.
- 4 Rescue attempts are not working.
- 5 Volunteers are not needed in the rescue effort.



### Expressing certainty and uncertainty I

May, might and could are used to say you are uncertain about something. There is little difference in meaning.

They **may** be able to find their way back into the North Sea.

(This means: It is possible but not certain that they will find their way back.)

Towing them back to deeper waters **may not** work.

(This means: It is possible that this strategy will not work.)

The four whales in the water **might** survive.

(This means: It is possible that they will survive.)

The two beached whales **might not** survive.

(This means: It is possible that they will not survive.)

It **could** be that their sonar system does not detect gradual changes in depth.

(This means: It is possible that their sonar system does not detect gradual changes in depth.)

The whales ~~**could not**~~ be alive in the morning.

(In the negative, use **may not** or **might not**.)

### Expressing certainty and uncertainty II

We can also express certainty and uncertainty in other ways. Look at these examples.

It is 100% certain that  
this will happen

It is 100% certain that  
this will not happen

- 1 Look at those clouds. It's **definitely** going to rain.
- 2 It is **likely** that the whales followed a fishing trawler.
- 3 The other whales will **probably** follow.
- 4 It is **possible** that the whales in the water will survive.
- 5 Attempts to save the whales will **probably not** work / **probably won't** work.
- 6 It is **unlikely** that the whales on the beach will survive.
- 7 We **definitely do not** need more volunteers.

Choose the correct item to complete these sentences.

- 1 He promised to come to the meeting. He'll definitely / It's likely that he'll be here.
- 2 If I run out of time, I may not / could not finish the varnishing until tomorrow.
- 3 I probably won't / definitely won't be at lunch today. I'm going to a meeting during my lunch break.
- 4 It is unlikely / It is possible that the weather will improve. The forecast is terrible.
- 5 We don't know for sure yet but the whales may not / will definitely not find their way back to deeper waters.
- 6 He might / will definitely get promotion if he proves his leadership qualities but it hasn't been decided yet.
- 7 This couldn't / might not be the correct phone number, but I'll try it anyway.
- 8 The match could / will probably be called off: there's a 50% chance of snow later.

## 5c Are you sure?



Which of these expressions do you use if you are certain about something? Which do you use if you are uncertain? Write the expressions in the correct box. Use a dictionary to help you.

I reckon    I'm sure    I bet    I know  
 I'd say    ~~I'm certain~~    I imagine    I think  
 I believe    I presume    I expect  
                  I'm positive    I guess    ~~I suppose~~

you are certain	you are uncertain
<p><u>I'm certain</u></p> <p>✓</p>	<p><u>I suppose</u></p> <p>?</p>

## 5d



Work with a study partner. Read the statements below. Discuss how certain or uncertain you are about them, using some of the words and phrases from Exercises 5b and 5c.

**1** It's official! English is the language of the seas.

A: *I'm certain that this is the case. Everything on our ship is written in English and we have to know English to get a job with this company.*

B: *Well, I suppose you're right.*

**2** The number of coastguard stations around the UK is being reduced.

**3** Security checks at all airports are getting better.

**4** Multi-national crewing seriously affects onboard efficiency.

**5** Working at sea prolongs your life expectancy.

## 6a Newsflash!



Read this newsflash and answer the questions below.



*'... And some late news ...*

*A bomb alert has just been announced at an oil terminal seven miles from the port of Newcarlton. The Operations Director, Mr Neil McCluskey, notified the police a short time ago after receiving news that an explosive device is hidden in the terminal and is set to go off in 24 hours' time. The news was communicated at 11 o'clock this morning by way of an anonymous phonecall. The police have been making preparations for a full evacuation of the premises and the local residential area. A bomb disposal team is on its way to the scene to search for the device. We will bring you further details of the incident shortly...'*

**1** Who put the bomb at the oil terminal?

**2** When is the bomb timed to explode?

**3** What is being done to safeguard the public?

## 6b What do you think?



Work with a study partner. What might happen next? Discuss these questions using some of the words and phrases in Exercises 5b and 5c.



- Who is responsible for planting the bomb?
- What do the people who planted the bomb want?
- Why did they choose an oil terminal?
- What kind of preparations will the police make?
- How do the people feel?



Listen to the cassette. The radio announcer is continuing the report about the bomb alert. Were your ideas correct?



## 7



Imagine you are one of the people below. Write a description of the event from your point of view, in your own words, using the information from Exercises 6a and 6b.

- 1** You are a newspaper journalist who has been sent to the scene. Write a short article about the bomb alert.
- 2** You are a policeman involved in evacuating the port area. Write an incident report.
- 3** You are a local resident who has been evacuated from Newcarlton. Write a letter to your family describing what happened.
- 4** You are a worker at the oil terminal. Write a letter to the local press, complaining about the security problem at the oil terminal.



The following is the check-list to be completed when the Deck Officer takes over the navigation watch. Read it and answer the questions below:

TAKING OVER THE NAVIGATION WATCH

From port :

To port :

When changing over the Watch relieving officers should personally satisfy themselves regarding following...

- 1 Standing orders and other special instructions of the Master relating navigation of the ship ☐
- 2 Position, course, speed and draught of the ship ☐
- 3 Prevailing and predicted tides, currents, weather, visibility and the effects of those factors upon course and speed ☐
- 4 Procedures for the use of main engines to manoeuvre when the main engines are on bridge control and the status of the watch-keeping arrangements in the engine room ☐

*Navigational situation, including but not limited to...*

- 1 The operational condition of all navigational and safety equipment being used or likely to be used during watch ☐
- 2 The errors of gyro and magnetic compasses ☐
- 3 The presence and movement of the ships in sight or known to be in the vicinity ☐
- 4 The conditions and hazards likely to be encountered during the watch ☐
- 5 The possible effects of heel, trim, water density and squat on under-keel clearance ☐
- 6 Maintenance works in progress, if any ☐
- 7 Form "Guidance for the Navigation OOW" has been read ☐

This check-list remains in Bridge Check list file, in order to be read each time an Deck Officer assumes the command of the navigation Watch.

**Questions**

1. Should he be aware of the weather conditions prevailing at that time?
2. What does 'the operational condition of all...' mean?
3. Does he have to know about the traffic in the vicinity?
4. Is it possible that some ABs are working at that time?
5. Can you find any grammatical mistakes in the list?

Study the guidance for the navigation OOW and do the following exercises.

MA

DATE:

GUIDANCE FOR THE NAVIGATION OOW

From port :

To port :

*In General the officer in charge of the Navigation Watch shall...*

- 1 Keep the Watch on bridge
- 2 In no circumstances leave the bridge until properly relieved
- 3 Be assigned or undertake any duties which would interfere with the safe navigation of the ship
- 4 Make the most effective use of all navigational equipment at his disposal
- 5 When using radar, the officer in charge of the navigational watch shall bear in mind the necessity to comply at all times with the provisions on the use of radar contained in the International Regulations for Preventing Collisions at Sea, in force (1972)
- 6 Have full knowledge of the location and operation of all safety and navigational equipment on board the ship and shall be aware and take account of the operating limitations of such equipment.
- 7 Know the handling characteristics of their ship, including its stopping distances, and should appreciate that other ships may have different handling characteristics.
- 8 Continue to be responsible for the safe navigation of the ship, despite the presence of the Master on the bridge, until informed specifically that the Master has assumed the responsibility and this is mutually understood and
- 9 Notify the master when in any doubt as to what action to take in the interest of safety (form F07-05 "Calling the Master")
- 10 Not hesitate to take immediate action for the safety of the ship where circumstances so require, despite the requirement to notify the master immediately

*During the Watch the Officer in charge of the Navigation Watch shall...*

- 1 Check the ship's course, position and speed at sufficiently frequent intervals, using the navigational aids in order to ensure that the ship follows the planned course.
- 2 Record ship's movements and activities relating to the navigation of the ship
- 3 Not hesitate to use the helm, engines and sound signalling apparatus
- 4 Give timely notice of intended variations of engine speed at the Engine Officer of the Watch or effective use made of UMS engine controls provided on the bridge in accordance with the applicable procedures.
- 5 Use the radar whenever restricted visibility is encountered or expected, and at all times in congested waters, having due regard to its limitations
- 6 Give watch-keeping personnel all appropriate instructions and information that will ensure the keeping of safe watch, including a proper look-out.
- 7 In a ship with a separate chartroom the officer in charge of the navigational watch may visit the chartroom, when essential, for a short period for the necessary performance of navigational duties, but shall first ensure that it is safe to do so and that proper look-out is maintained

MA

DATE:

*The officer in charge of the navigational watch shall make regular checks to ensure that:*

- 1 The person steering the ship or the automatic pilot is steering the correct course ☐
- 2 The automatic pilot is tested manually at least once a watch ☐
- 3 The navigational and signal lights and other navigational equipment are functioning properly ☐
- 4 The GMDSS is functioning properly and the UMS controls alarms and indicators are functioning properly. ☐
- 5 The standard compass error is determined at least once a watch and, when possible, after any major alteration of course; the standard and gyro-compasses are frequently compared and repeaters are synchronised with their master compass ☐

*The officer of the navigational watch shall take into account...*

- 1 The need to station a person to steer the ship and to put the steering into manual control in good time to allow any potential hazardous situation to be dealt with in a safe manner ☐
- 2 That with a ship under automatic steering it is highly dangerous to allow a situation to develop to the point where the officer in charge of the navigational watch is without assistance and has to break the continuity of the look-out in order to take emergency action ☐

*When the Radar is used the Navigation Officer of the watch shall....*

- 1 Ensure that range scales employed are changed at sufficiently frequent intervals so that echoes are detected as early as possible. It shall be borne in mind that small or poor echoes may escape detection ☐
- 2 select an appropriate range scale and observe the display carefully, and shall ensure that plotting or systematic analysis is commenced in ample time ☐

This check-list remains in Bridge Check list file, in order to be read each time an Deck Officer assumes the command of the navigation Watch.

**A. Answer the questions**

1. In what cases can he leave the bridge?
2. Does he have to apply any rules so as to avoid collisions?
3. When the Master enters the bridge, is OOW relieved?
4. Is he allowed to call the Master?
5. Do you know why the auxiliary verb *shall* is used instead of *will*?
6. Is it advisable for the OOW to put the steering into manual control?  
If yes, why?

**B. Check how many of the above duties you can memorize.**



Using the following log book entry, write a report to the owners to inform them of the problem.

Table 3.18.2: Specimen of D.L. entry in case of fire in the engine room.

Πορ Time (3)	Δρομ Log (4)	ΠΟΡΕΙΣ COURSE			Παρα- λαγή αριθμ- ήσιδος Error (8)	ANEMOS WIND (9)		Βαρομ Baro (10)	ΣΥΜΒΑΝΤΑ REMARKS (11)
		Αληθιν- ή Τιμή (5)	Γυρο- μετρίδα Gyro (6)	Ευθύν- ησιδος Standard (7)		Διεύ- θυνση Direc- tion	Ενταση Force		
1530	4412	187	188	192		NW	5-6	1003	At this time, while sailing/being in position Lat ..... Long ..... fire broke
									out in the engine room.
1532									Fire alarm sounded.
1533									Engine stopped.
1534									Emergency Response Team activated / summoned.
1535									Emergency fire pump in operation.
1536									Ventilation and fuel supply shut down.
1537									Due to the extent of the fire I ordered the engine room crew to
									evacuate the engine room and release CO <sub>2</sub> in the entire
									compartment.
1538									Engine room evacuation completed. Check for possible injuries.
									No person injured.
1539									Commenced releasing CO <sub>2</sub> .
1544									Completed releasing CO <sub>2</sub> . Fire extinguished.
1545									Inspection for damage.
1615									Initial report to Owners as per S.M.S. ....



# It Used To Be Different

## 1a Back in the old days



Look at the list of topics below. What were these things like forty years ago?

communication systems on ships

cargo handling

seafarers' health

ship design

ships' crews

engine room systems

food on board

navigation equipment



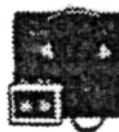
Work with a study partner. Exchange your ideas.



## 1b Let's look back to the 1950s



Listen to the cassette. An interviewer is asking a retired Captain about his days at sea. They discuss two points connected with each topic. Circle the points they discuss.



### 1 Ship design

- ship size
- steam engines
- bridge position

### 2 Cargo handling

- shifting boards
- loading timber
- discharging phosphate

### 3 Navigation

- GMDSS
- radar
- sextants

### 4 Crew

- quarter-master
- engineers
- helmsman

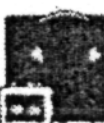
### 5 Improvements

- reefers
- health
- air travel

## 1c



Listen again. Note down some interesting or unusual comments that Captain Franklin makes about each topic. Then work with a study partner. Tell each other the information that you wrote down. Did you write any of the same things? Explain why you found the Captain's comments interesting or unusual.



2a



Here are some phrases from the interview in Exercise 1b.

We didn't **use to** have radar.

Did you **use to** have VHF radios?

There **used to** be a quarter-master at the wheel all the time.

The engines **used to** be manned around the clock.

They **used to** give you fortified lime juice every day.

It's not the fun that it **used to** be.



How do you think use(d) to affects the meaning?

2b

### Used to

Used to describes past habits and routines which are not done now. It can also describe past situations that are no longer true.

I **used to** play football every week when I was young. I don't play football at all now.

Used to is a past form. You cannot use it to talk about present habits and routines.

~~I use to smoke now.~~

Used to is always followed by a verb in the infinitive.

That building **used to be** a factory. It's a warehouse now.

Questions and negative sentences with **used to** are formed in the same way as the Past Simple.

**Did you use to** study hard at college?      No, I **didn't use to** study at all!

**Did there use to** be a port?

No, there **didn't use to** be a port, just a harbour.

There is a difference in meaning between **used to + infinitive** and **be used for + -ing**.

I **used to work** on shore. (*This means: In the past I worked on shore but now I don't.*)

A saw **is used for cutting** wood. (*This means: The purpose of a saw is for cutting wood.*)

There is also a difference in meaning between **used to + infinitive** and **be used to + -ing**.

I **used to get up** early. (*This means: In the past I got up early but now I don't.*)

I **am used to getting up** early. (*This means: I am accustomed to getting up early.*)





Read the questions below and choose one to write about. Include *used to* in the affirmative and negative forms in your description.

- 1** What was navigation like before radar was invented?
- 2** What was a typical day at marine college like before you graduated?
- 3** What kind of activities did you *use* to do during the summer holidays when you were a child?
- 4** What was your village / town / city like when you were younger?

1  
2



Listen to the cassette. You will hear five sentences containing a form of *used to*. Write the sentences you hear. Then listen again and repeat the sentences. Pay attention to the disappearance of the *d* in *used to* and the weak sound of *to*.

2d



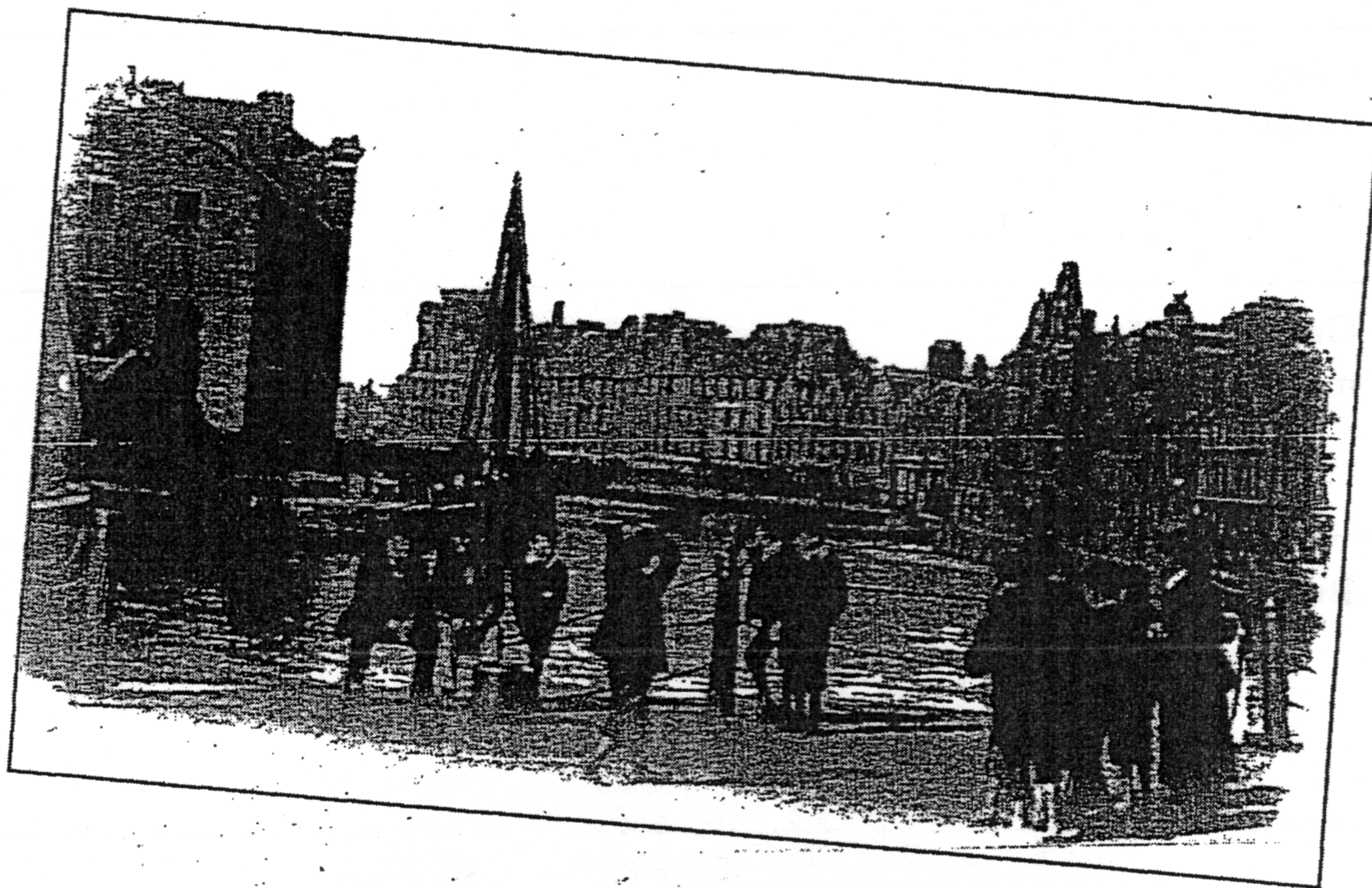
Read the question below and write a few paragraphs about it. Refer to the Guide To Good Writing in Unit 4 Exercise 7c to help you plan your work.

The maritime industry has changed over the years. What did it use to be like when you first went to sea?

3a



Look at this picture and answer the questions.



- 1 Where could this place be? Why do you think so?
- 2 When do you think that the picture was taken? Why do you think so?
- 3 What is happening in the picture? Which of these activities are still done today?
- 4 What are the main differences between seafaring then and now?
- 5 Would you like to have been a seafarer at this time? Why / why not?



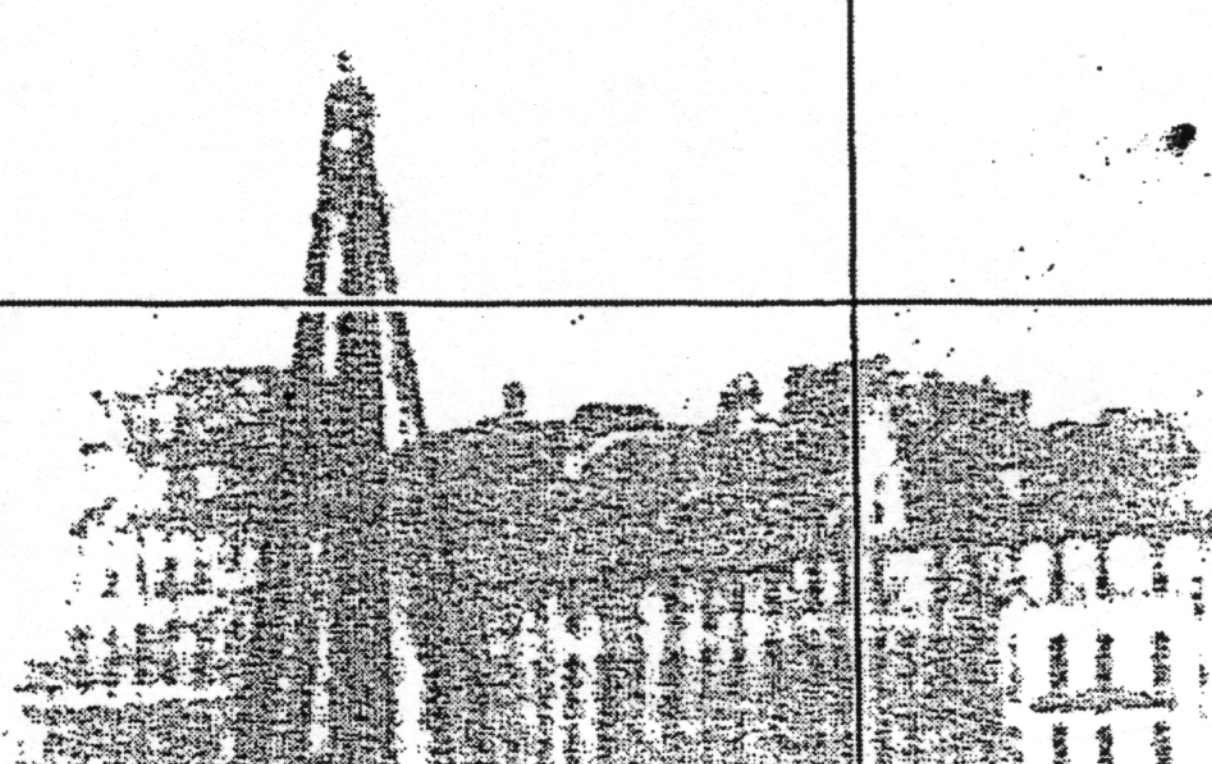
Work with a study partner and discuss your answers.



3b



Scan read the article about the port in the picture. Make notes in the table with information from the article.

	What was Leith like in the 1800s?	What changes have been made since the mid-1800s?
The port		
Cargo Types		
Cargo-handling methods		
Buildings		



## The Port of Leith: Past and Present

Today, the port of Leith is Scotland's principle port, as it has been for centuries. Situated on the east coast, just two and half kilometres from the capital city of Edinburgh, it was recognised as a strategic trading point for Europe as long ago as the twelfth century when fish was exchanged for luxury goods to supply the court of King David I. Since then, each century has brought major changes to the port but certain links with the past still endure.

Leith was originally a tidal port and the depth of water used to be signalled to vessels from the old round tower which still exists today. Ships used to sail up the river estuary, passing under the swing bridge that has now been rebuilt for cars. The present-day port only began to take shape during Leith's period of independence from Edinburgh (1833-1920). In order to keep up with the rise in trade at that time, many improvements were needed: new docks and piers were built and then extended; the sand bar was dredged; a new harbour was made and a separate deep-water berth was created for steamships. It was not until 1968, however, that a lock was built to completely enclose the port. Today, it can cater for vessels of up to 50,000 DWT with ample storage facilities for grain and bulk liquid cargoes.

At its peak during the nineteenth century, imported goods made Leith a hub of local industry: timber yards, whale-blubber boiling house, flour mills and wine merchants were all congregated around the port. However, whaling stopped in 1842 and nowadays timber is no longer needed for coal-mine pit props. Grain is the only one of the old cargoes which is still imported although today it is mainly used in the brewing and distilling industries rather than in bread making.

The twentieth-century swing from an industrial economy to a manufacturing and service-based one has forced Leith to keep up with the times. Oil has now replaced coal as Scotland's most significant export making Leith port a service provider for the many companies which operate in the North Sea oilfields. Untreated pipes are now imported from the Far East to be coated at the port in preparation for underwater installation. The port has been modernised to offer other services such as a computerised stock-control system, hydraulic cargo-handling equipment and access to transportation networks. Cargo-handling methods have come a long way from the days of the nineteenth century when hundreds of porters were paid to carry barrels of wine, grain and wool from ships to horse-drawn carts.

Many old buildings still exist to remind us of Leith's history. Over the last decade or so they have been modernised to create centres for tourism and business developments. Many of the old warehouses have been converted into flats; the old sailors' home has been made into a restaurant and a new government office complex has been built on a central waterfront site. More plans have been made to increase the number of tourists to the area: the Former Royal Yacht Britannia has been decommissioned and allocated a place at the harbour and a new Ocean Terminal will be developed to accommodate large cruise ships on the site of the old shipyard.

The age-old motto of Leith is 'persevere'. Whatever changes the new millennium may bring, it seems that the port will continue adapting as it has been doing for centuries.



### 3c What changes have been made?



Read these questions about the port today. Find the answers in the article.

- 1 What has happened to coal exports?
- 2 What has happened to many of the old buildings?
- 3 Does the old sailors' home still exist?
- 4 What has happened to the Former Royal Yacht Britannia?

#### Present Perfect Passive

In Unit 6 you studied the difference between the active and the passive form. The passive form can be used with most tenses. When it is used with the Present Perfect, it is usually used to talk about changes or events that have taken place. Compare these sentences.

(active)

Developers **have built** new buildings.

(passive)

New buildings **have been built**.

Remember that the passive form emphasises the action, not the person who does the action.

More plans **have been made** to increase the number of tourists to the area.

(This means: The plans were introduced by an authority but we do not know which one.)

The form of the Present Perfect Passive is:

Subject + have/has —+ (not) been + past participle

Warehouses have been converted.

The plan has not been carried out.



Read the text about Leith again. Identify sentences which use the Present Perfect Passive.

3d



Look at Plan A and Plan B of the Port of Leith. Plan A shows the historical development of the port. Plan B shows the port as it is today. Look carefully at both plans. What changes have been made since the 1950s? Using the information in the plans, write a paragraph describing these changes. Include the Present Perfect Passive form of some of these verbs in your description.

construct

build

develop

expand

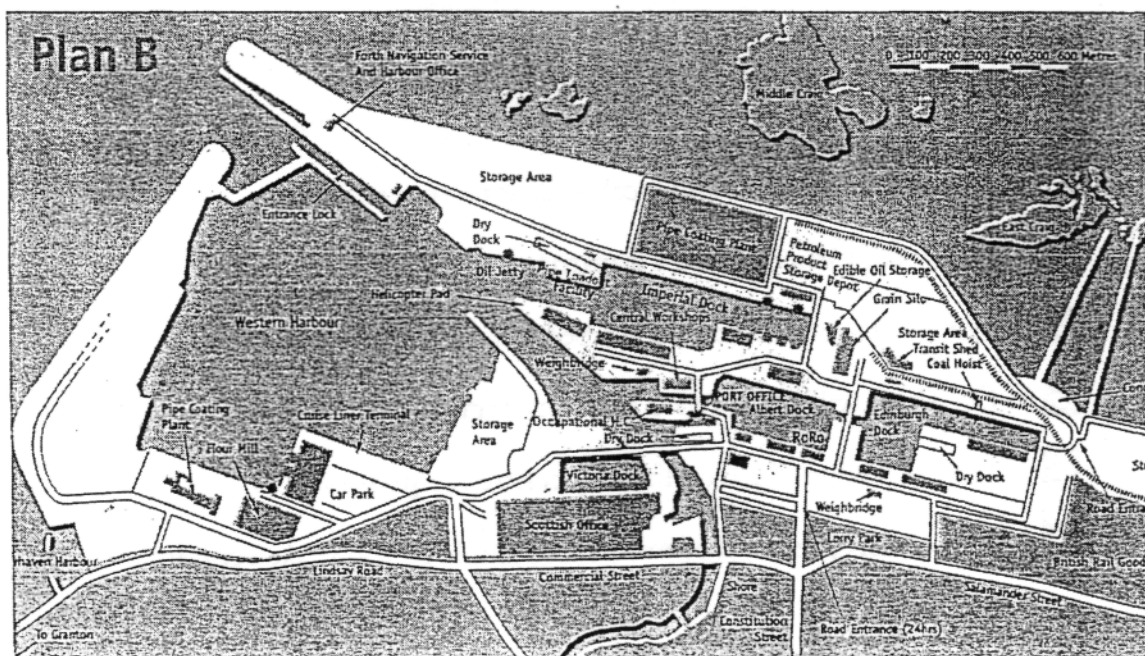
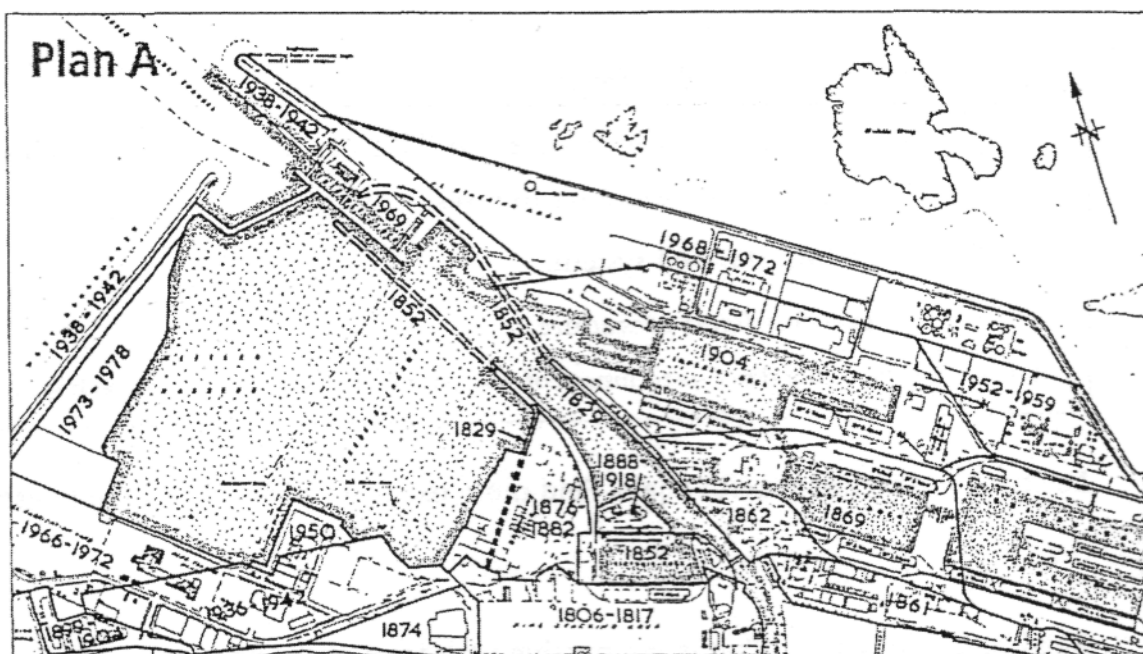
extend

install

upgrade

improve

widen





## 4a The buildings have been modernised

### The suffix -ise / -ised

In Unit 9 you learned how a prefix can be added to the beginning of a word to change its meaning. A group of letters added to the end of a word is called a suffix.

The suffix -ise / -ised shows that something is **done** / **has been done** to an object. The suffix -ise / -ised can change some adjectives and nouns into verbs.

(adjective)		(verb)
legal	⇒	legalise

The equipment is now **modern**. ⇒ The equipment has been **modernised**.

(noun)		(verb)
industry	⇒	industrialise

There is a lot of **industry** in this area. ⇒ This area has been **industrialised**.

Past participles of verbs can also be used as adjectives.

We have a **computerised** system.

We run a **standardised** procedure.

It is also possible to use -ize / -ized instead of -ise / -ised. Most dictionaries give both spellings.



Look at the text about Leith again. Find more examples of words ending in -ised.

## 4b



Read these sentences. What is the passive verb form of the words in colour? Rewrite the sentences in the passive using a verb with the suffix -ised.

- 1 Television has made many sports **popular**.  
⇒ Many sports have been **popularised** by television.
- 2 Tourism has made many local traditions **commercial**.
- 3 The Chief Officer made a **summary** of the incident report.
- 4 Many state-owned companies became **private** in the 1980s.
- 5 The IMO will make more shipping regulations **standard** next year.
- 6 The local council paved the city centre for **pedestrians**.
- 7 Economists predict that modern technology will make economies **global**.

5a



Read this statement about seafaring. Do you agree or disagree with it? Circle the reasons that you agree with. Add some reasons of your own to the list.

Seafaring is easier now than it used to be.

Reasons to support the statement	Reasons against the statement
Technology has speeded up many processes.	Seafarers are expected to work much harder and faster.
It is easier to make communications now.	There is an excess of information.
International legislation makes everything safer.	Bureaucratic regulations take up too much time these days.
Health and leisure have improved.	People don't have enough time off.
International flights make crewing easier.	It is complex co-ordinating seafarers from around the world.
There are more ports equipped with efficient cargo-handling equipment now.	



Here are some other statements about seafaring. Do you agree with them? Make a list of reasons for and against each statement, as in the example above.

- 1 Technology has improved every aspect of shipping.
- 2 There is a lot we can learn from retired seafarers.
- 3 The world trade in shipping has passed its peak now.
- 4 The size of ships' crews will continue to decrease.

5b



Work with a study partner. Discuss your ideas for and against each statement in Exercise 5a. Then give your own opinions, saying why you agree or disagree.

5c How have you been affected by the changes?



Read the topics below and choose one to write about.



Life in rural areas of your country 40 years ago

Life in cities in your country 40 years ago

The fishing industry in your country 40 years ago

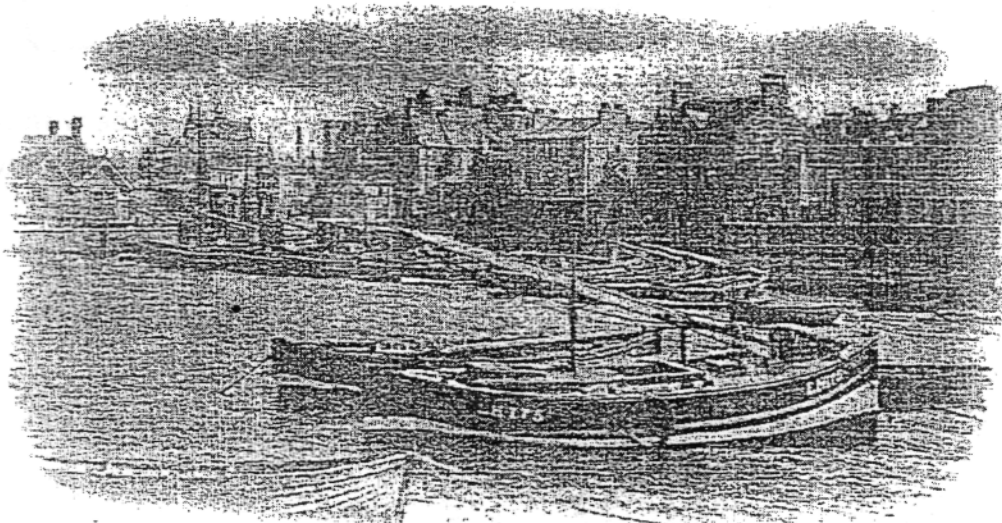
Changes in the job that you do over the last 40 years

Changes in seafaring since the STCW95 regulations were introduced



Include these points in your writing.

- Describe what it used to be like.
- Describe some changes that have taken place.
- Give reasons for these changes.
- Explain how these changes have affected you.
- State your opinion about the changes, giving reasons to support your opinion.
- Predict what future changes will develop.



# SAFE LOADING AND UNLOADING OF BULK CARRIERS 2003

The purpose of EC Directive 2001/96/EC and of this MCA document is to enhance the safety of bulk carriers calling at terminals in the Member States in order to load or unload solid bulk cargoes, by reducing the risks of excessive stresses and physical damage to the ship's structure during loading or unloading, through the establishment of:

1. harmonised suitability requirements for those ships and terminals, and
2. harmonised procedures for co-operation and communication between those ships and terminals.

## REQUIREMENTS IN RELATION TO THE OPERATIONAL SUITABILITY OF BULK CARRIERS FOR LOADING AND UNLOADING SOLID BULK CARGOES

### Part 1: General

Terminal operators shall satisfy themselves as to the operational suitability of bulk carriers for the loading or unloading of solid bulk cargoes by checking that the bulk carriers comply with the following requirements:

1. They shall be provided with cargo holds and hatch openings of sufficient size and such a design to enable the solid bulk cargo to be loaded, stowed, trimmed and unloaded satisfactorily;
2. They shall be provided with the cargo hold hatch identification numbers as used in the loading or unloading plan. The location, size and colour of these numbers shall be clearly visible to and identifiable by the operator of the terminal loading or unloading equipment;
3. Their cargo hold hatches, hatch operating systems and safety devices shall be in good functional order and used only for their intended purpose;
4. List indicating lights, if fitted, shall be tested prior to loading or unloading and proved to be operational;
5. If required to have an approved loading instrument on board, this instrument shall be certified and operational to carry out stress calculations during loading or unloading;
6. Propulsion and auxiliary machinery shall be in good functional order;
7. Deck equipment related to mooring and berthing operations shall be operable and in good order and condition.



## Guidance

The ship's master or ship operator/agent should confirm the above, by providing the terminal operator with a checklist, an example of which is contained in Part 2 of this Schedule, before the ship is due to arrive at that terminal. This checklist may be sent by electronic means (XML or EDIFACT), fax or any other suitable method.

If it is not practicable then the master should provide this information to the terminal operator as soon as possible. This could either be by VHF/MF/HF radio or as soon as the vessel arrives.

The content of this checklist should cover all the matters referred to above.

### Part 2: Requirements in relation to the suitability of terminals for loading and unloading solid bulk cargoes

1. Terminals shall only accept bulk carriers for loading or unloading of solid bulk cargoes at their terminal that can safely berth alongside the loading or unloading installation, taking into consideration waterdepth at the berth, maximum size of the ship, mooring arrangements, fendering, safe access and possible obstructions to loading or unloading operations.
2. Terminal loading and unloading equipment shall be properly certified and maintained in good order, in compliance with the relevant regulations and standards, and only operated by duly qualified and, if appropriate, certified personnel.
3. Terminal personnel shall be trained in all aspects of safe loading and unloading of bulk carriers commensurate with their responsibilities. The training shall be designed to provide familiarity with the general hazards of loading and unloading of solid bulk cargoes and the adverse effect improper loading and unloading operations may have on the safety of the ship.

## Part 1

# RESPONSIBILITIES OF THE MASTER

## Part 1 : General

1. The master shall be responsible at all times for the safe loading and unloading of the bulk carrier under his command.
2. The master shall, well in advance of the ship's estimated time of arrival at the terminal, provide the terminal with the information set out in *Part 2*.
3. Before any solid bulk cargo is loaded, the master shall ensure that he has received the required cargo information and, where required, a solid bulk cargo density declaration. This information shall be contained in a form for required cargo information as set out in Appendix 5 of the BLU Code, which is reproduced in Part 4 below. If the ship is due to unload solid bulk cargo then the master shall give a copy of the form for cargo information to the terminal representative, before the unloading operation begins.

4. Prior to the start of and during loading or unloading the master shall discharge the duties listed in Part 3.

## Part 2

## Part 2- Information to be provided by the master to the terminal

1. The ship's estimated time of arrival off the port as early as possible. This advice shall be updated as appropriate.
2. At the time of the initial time of arrival advice:
  - a) name, call sign, IMO number, flag, port of registry;
  - b) loading or unloading plan, stating the quantity of cargo, stowage by hatches, loading or unloading order and the quantity to be loaded in each pour or unloaded in each stage of the discharge;
  - c) arrival and proposed departure draughts;
  - d) time required for ballasting or de-ballasting;
  - e) ship's length overall, beam, and length of the cargo area from the forward coaming of the forward-most hatch to the after coaming of the aft-most hatch into which cargo is to be loaded or from which cargo is to be unloaded;
  - f) distance from the waterline to the first hatch to be loaded or unloaded and the distance from the ship's side to the hatch opening;
  - g) location of the ship's accommodation ladder;

- h) air draught;
- i) details and capacities of ship's cargo-handling gear, if any;
- j) number and type and size of mooring lines;
- k) specific requests, such as for trimming or continuous measurement of the water content of the cargo;
- l) details of any necessary repairs which may delay berthing, the commencement of loading or unloading, or may delay the ship sailing on completion of loading or unloading;
- m) Any other information related to the ship requested by the terminal.

The information above must be supplied by the master in addition to any written confirmation of compliance, referred to in the guidance for Schedule 1.

Terminals may request other information in addition to that set out above, but the aim of the Directive is to harmonise procedures.


### **Part 3: Duties of the Master Prior to and During Loading or Unloading Operations**

Prior to and during loading or unloading operations the master shall ensure that:

1. the loading or unloading of cargo and the discharge or intake of ballast water is under the control of the ship's officer in charge;
2. the disposition of cargo and ballast water is monitored throughout the loading or unloading process to ensure that the ship's structure is not overstressed;
3. the ship shall be kept upright or, if a list is required for operational reasons, it shall be kept as small as possible;
4. the ship remains securely moored, taking due account of local weather conditions and forecasts;
5. sufficient officers and crew are retained on board to attend to the adjustment of the mooring lines or for any normal or emergency situation, having regard to the need of the crew to have sufficient rest periods to avoid fatigue;

The Merchant Shipping (Hours of Work) Regulations 2002 (S.I. 2002/2125) require the companies to ensure that they have adequate crew onboard a ship and that they be adequately rested.

6. the terminal representative is made aware of the cargo trimming requirements, which shall be in accordance with the procedures of the IMO Code of Safe Practice for Solid Bulk Cargoes last published in 2002, ISBN 92-801-5129-0.
7. the terminal representative is made aware of the requirements for harmonisation between de-ballasting or ballasting and cargo loading or unloading rates for his ship and of any deviation from the de-ballasting or ballasting plan or any other matter which may affect cargo loading or unloading;

- 
8. the ballast water is discharged at rates which conform to the agreed loading plan and does not result in flooding of the quay or of adjacent craft. Where it is not practical for the ship to completely discharge its ballast water prior to the trimming stage in the loading process, he agrees with the terminal representative on the times at which loading may need to be suspended and the duration of such suspensions;
  9. there is agreement with the terminal representative as to the actions to be taken in the event of rain, or other change in the weather, when the nature of the cargo would pose a hazard in the event of such a change;
  10. no hot work is carried out on board or in the vicinity of the ship while the ship is alongside the berth, except with the permission of the terminal representative and in accordance with any requirements of the competent authority;
  11. close supervision of the loading or unloading operation and of the ship during final stages of the loading or unloading;
  12. the terminal representative is warned immediately if the loading or unloading process has caused damage, has created a hazardous situation, or is likely to do so;
  13. the terminal representative is advised when final trimming of the ship has to commence in order to allow for the conveyor system to run-off;
  14. the unloading of the port side closely matches that of the starboard side in the same hold to avoid twisting the ship's structure;
  15. when ballasting one or more holds, account is taken of the possibility of the discharge of flammable vapours from the holds and precautions are taken before any hot work is permitted adjacent to or above these holds.

### Questions

1. Describe the general responsibilities of the Master for safe loading and unloading.
2. What information must be provided by the Master?
3. Describe the duties of the Master prior to, during loading and unloading.



## Berthing and unloading procedures

The Baltic Eagle is approaching the docks and after being instructed by her agents to start discharging on completion of mooring at berth number two, she does so. The moment she is made fast at Purfleet Harbour, the stern ramp and heavy lorries and container trucks start rolling off the vessel. It is 0900 hours GMT and the vessel has to complete discharging her cargo and taking new trailers and lorries on board by 1300 hours GMT.

1. „Baltic Eagle", this is Harbour Master's on VHF channel one-four. How do you read? Over.

2. Harbour Master's, this is „Baltic Eagle" on VHF channel one-four. READ: five. We have nearly completed loading. It will take another hour to have everything lashed and made fast. Over.

3. „Baltic Eagle", Harbour Master's here. INFORMATION: tugs and pilot will be ready at 1430 GMT. Over.

4. Harbour Master's, „Baltic Eagle" here. ROGER: tugs and pilot will be ready at 1430 GMT. Thank you. Over.

5. „Baltic Eagle", this is Harbour Master's. Read- -back is correct. Nothing more. Out.

The „Baltic Eagle" is loading containers and trailers via her stern doors. The loading is nearing completion. The crew are lashing the trailers. The port authorities call the vessel up to find out when she is ready to sail and inform her of the tug and pilot arrangements.



Photo from: demotix.com

1. „Baltic Eagle" BXXX, this is Stelp and Leighton Agency on VHF channel one-two. How do you read? Over.

3. „Baltic Eagle" BXXX, this is Stelp and Leighton. ADVICE: start discharging immediately after mooring as there are 150 trailers to be loaded by 1300 hours GMT. Over.

5. „Baltic Eagle", Stelp and Leighton here. Read-back is correct. Nothing more. Out.

2. Stelp and Leighton Agency, this is „Baltic Eagle". I read you loud and clear. Over.

4. Stelp and Leighton Agency, this is „Baltic Eagle". ROGER ADVICE: start discharging at once after mooring. REASON: there are 150 trailers to be loaded by 1300 hours GMT. Over.

#### ASSIGNMENT

Complete the following conversation between the port authority and the vessel which is about to leave port.

Port authority

..... this is
Harbour ..... When
..... finish
loading? Over.

Baltic Condor this is.....
Master's. The pilot will be
..... at 1630GMT

Baltic Condor, harbour's Master here.
Read-back..... Nothing
more. ....

Baltic Condor

..... this is Baltic Condor.
We are going to
.....at
1600 hours. What time .....
the pilot ..... available?
Over.

Harbour Master's .....
.....
ROGER: .....
.....

## NEW CARGO HANDLING TECHNIQUES

The port authorities all over the world are doing their best to improve back-up services such as enlarging warehouses and yards, providing modern equipment and the latest types of mobile and floating cranes, forklift trucks and straddle carriers, gantry cranes and various new types of quay cranes. The port operators have been developing new cargo handling techniques for some time now, so there may be considerable changes in the years to come.

One of such new techniques has been termed as „luffing" which means loading containers onto Ro-Ro ships, four at a time. The system has been named LUF which stands for Lifting Unit Frame and can be best described as a way of putting containers on pallets. It consists of three elements: an H section frame, a five-metre by six-metre slave trailer and a standard tractor unit. The frame is constructed in such a way that it can carry four 20-ft containers, double stacked. Prior to the ship's arrival the containers are loaded onto the frames.

When the vessel is ready to receive them, the pallets are rolled onto the ship on a specially designed slave trailer towed by a standard terminal tractor unit. The trailer has hydraulic rams for raising the loaded frame clear off the ground. The pallet sails with the ship and is unloaded by a similar slave trailer at the port of destination.

Double stacking of containers on board is desirable to make maximum use of the available stowage space. However, to achieve this with presently existing single unit lift trucks is time consuming and often less practical because of the fast port turn-round time involved.

The LUF system has been introduced in Scandinavia by the Tor Line. The company is confident that the introduction of the LUF system will enable it to achieve considerable handling economies, more effective use of existing handling equipment and to control more efficiently port turn-round time.

The LUF system will be available to other Ro-Ro operators. So far the trials with the system have been promising. The LUF system has been introduced in order to complement the existing straddle carrier fleet in the Ports and to reduce wear-and-tear on these expensive machines.

The LUF system may further speed up cargo handling operations in the Port. The authorities at the port of Gothenburg have been looking at the development of the LUF system for all internal horizontal carriage and haulage at the terminal as a feeder system to the container gantries, feeding boxes in units of four and six. The costs involved would be compensated by the much more rapid movement of cargo throughout the terminal for both the Ro-Ro and Lo-Lo operations.

### *Words and expressions*

improve  
back-up services  
considerable changes  
slave trailer  
double stacked  
ensure

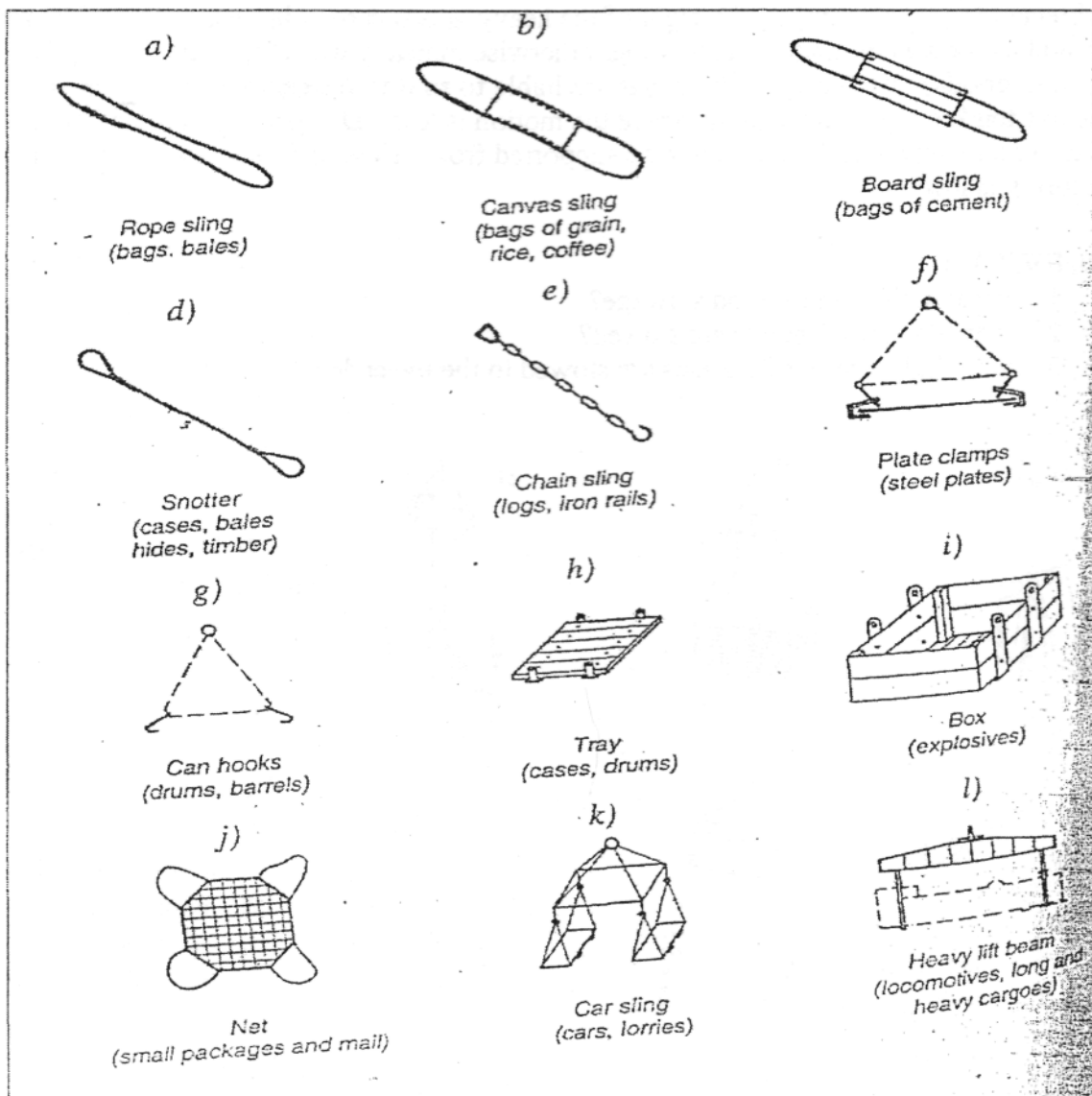
equal distribution  
desirable  
available  
achieve  
time consuming  
confident

enable to  
in due time  
entirely  
promising  
wear-and-tear  
feeder system

Answer the questions on the text

- What do the port authorities try to improve?
- What techniques have they been developing?
- What does LUF stand for? How is LUF constructed?
- What is the slave trailer used for?
- What is its construction?
- What is the profit of double stacking?
- Where has the LUF system been introduced?
- What are the pros and cons of the LUF system?

*Cargo handling gear*



## The stowage of general cargo

General cargo is a term which comprises a large variety of goods. They may be packed in bags, cases, casks or drums and crates. They may be kept together in bales or they may be packed in large containers. There may also be individual items like pieces of machinery, sanitary ware, earthen ware, pipes etc.

A considerable amount of general cargo gets damaged during the sea transport. One of the aims of good stowage is to prevent any loss or damage of cargo. Dangerous cargoes, specially chemicals, are usually stowed on so that they can be easily jettisoned in case of danger to the ship or to other cargoes.

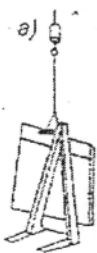
Heavy lifts, unsuitable for stowage below decks, are also carried on but the deck must be properly dunnaged and supported from below and heavy lifts must be securely lashed.

Heavy crates are usually stowed on the bottom of the lower hold as they seldom suffer from crushing. Dirty and strong smelling cargoes such as wet salted hides are segregated into their own hold and stowed there separately from other cargoes.

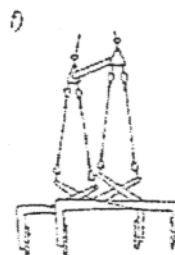
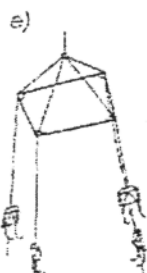
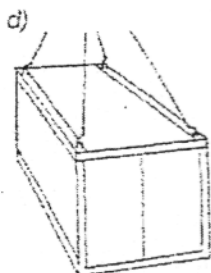
Light and fragile goods are usually stowed in the tweendecks. In this way they are not subjected to the superimposed weight of the heavy goods carried in the lower hold. Goods should be stowed hard up, wing to wing, otherwise in heavy weather, when the ship is rolling, goods stowed only in the wings are liable to shift to the centre of the hatch. They always tend to move to the point where the motion is least. Dangerous goods and heavy lifts are stowed on deck, but it must be supported from below and the heavy lift must be securely lashed.

### QUESTIONS

1. What is the aim of good stowage?
2. How dangerous goods are stowed?
3. Why light and fragile goods are stowed in the tweendecks?



Stevedoring gear used for handing general cargo



- a. car sling
- b. pallet sling
- c. emergency sling
- d. clamp sling
- e. chain sling
- f. spreader

## /Stowage/

**Cadet:** Now I'm sure that there must be too many problems in stowing the cargo, too!

**Chief Mate:** A lot of them, as most bagged cargoes are liable to be damaged if stowed with moist cargo or cargo liable to sweat. They should be well protected against obstructions such as beams, brackets, stringers, etc., because as the cargo settles, pressure on the unsupported or projecting part of the bag may result in tearing and spilling the contents. Which is more, bags should be protected by mats, paper, etc., from bare steel work; and against discolouration by rusty metal.

**Cadet:** What about two types of bagged cargo carried in the same space?

**Chief Mate:** There exists the risk of one contaminating the other, for instance, bagged plastic granules over bagged rice - proper protection should be provided in the form of plastic or similar sheeting between the different cargo types. Similar sheeting should be provided where sifting or loss of cargo might be expected - particularly in the use of valuable cargo such as coffee - so that sweepings may be collected and included in the discharge.

**Cadet:** I'll be a tallyman in the afternoon, so will you give me some instructions as to tallying bagged cargo?

**Chief Mate:** Careful tallying is essential, and to facilitate it, slings should always be made up of the same number of bags, as should pallet loads. Bagged cargo Bills of Lading should never be endorsed for a definite weight or quantity, and the endorsement should be for the number of bags. Advisable remarks, in this connection, are „weight and quantity unknown" or at the very least, „said to contain...". Obviously under-weight or slack bags should be rejected. If in doubt, the occasional spot weighing of bags or sling loads should take place.

**Cadet:** I've seen double bags are used sometimes. When is that?

**Chief Mate:** Some commodities are liable to rot the natural fibre bag, e.g. certain manures and chemical products, or are not sufficiently strong, or not of the correct texture to prevent loss of contents due to leakage. In all such cases the Bills of Lading should be claused so as to protect the ship from having to bear the cost of re-bagging. Don't forget that the stowage factor will vary depending on whether the bags are well filled, as for instance coffee and cocoa, or not.

## NOTE

1. to protect by/from = against

e.g. Bags should be protected by mats.

The bagged cargo should be well protected against obstructions.

Bags should be protected against discolouration by rusty metal.

Bags should be protected from bare steel work.

B/L should be claused so as to protect the ship from having to bear the cost of re-bagging.

2. *Notice the difference between:*

to spill

spilling

spillage = a general term meaning, goods which have escaped from their containers  
= sweepings

to leak

leaking

leakage = a term used in Bs/L to apply to leaking of liquids from their receptacles or due to the breakage of glass cases stowed in a cargo. It is considered as normal when it does not exceed 3 per cent for liquids in metal containers and 5 per cent for those in casks, barrels and so on.

3. *Pay attention to the following remarks, concerning bagged and baled cargo.*

Bags torn

Bags eaten by rats

Torn by use of hooks

Bags wet

Bags stained

Marks from dampness

Marked by seawater

Marked by fresh water

Bales with hook holes

Cover torn

Bags with sweepings

Bags slack

## WORDS AND PHRASES

cargo liable to sweat

to settle

bare steel work

plastic granules

sheeting

to swift

sweepings

to collect the sweepings

to tally

a tallyman/tallymen

occasional spot weighing

to rot

manures

texture

loss of contents

to endorse a B/L

to clause a B/L

to bear the cost of

## Broken Stowage

Chief Mate: Break Bulk Cargo operations include the handling, carriage, stowage and storage of cargo in individual items, i.e. crates, cases, cartons, bags, bales, bundles, drums, barrels etc., listed in a number of Bills of Lading, each consisting of a different commodity. Any break of stowage - or broken stowage - caused by the presence of pillars, stanchions, brackets, web frames, etc., for the filling of which certain packages are not available, or space which is unsuitable to receive a package of cargo, should be packed firmly with suitable dunnage, in order to prevent any



movement of cargo in a seaway and to afford a suitable and level platform for the next tier.

Cadet: And how is the loss of valuable cargo space avoided?

Chief Mate: Well, first of all, compactness of stowage and selecting packages which, by the nature and value of their contents and their construction, are suitable for filling broken stowage. Reels or barbed wire, bales of binder twine, coils of small wire, for example, are very useful for this purpose. Another example is stowing casks and cylindrical metal liquid containers „bilge and cantline" in preference to „bilge and bilge". And still another one is - special selection of cargo suitable for filling beam spaces, i.e. cargo which is not liable to chafe, bale goods being very unsuitable. It should be borne in mind that up to 6/8 percent of the hold capacity in 'tween decks may be contained between the deck beams.

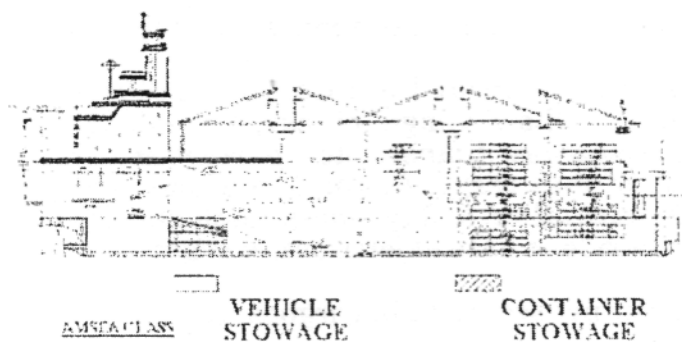


Photo from: [globalsecurity.org](http://globalsecurity.org)

## CARGO SECURING

**Cadet:** Is cargo securing so very important for the safety of the ship?

**Chief Mate:** Yes, the failure to lash the cargo properly is considered a failure to exercise due diligence to make the ship seaworthy. I can tell you about a number of problem areas, such as the unsuitable state or absence of lashing points on some road vehicles, high centres of gravity on some loads, the surge effect of liquids in tanks, and inadequate lashing equipment. Many ships are involved in accidents resulting from shifting cargo due to failure of securing arrangements. For instance, inadequate lashings of cargo on Ro-Ro vessels has frequently been the cause of cargo shifting, and the vessel taking on a list.

**Cadet:** But it is not possible for ship's staff to examine the securing of the cargo within a closed container.

**Chief Mate:** Sometimes random samples of containers are inspected - usually those with dangerous goods - to examine them for correct stowage and securing.

**Cadet:** The Second Officer was telling the Boatswain yesterday, that a container loaded with tin ingots broke loose and 43 containers were swept overboard a vessel I didn't remember.

**Chief Mate:** It is quite different with cargo which is visible - such as that on Flatracks - it can be examined at the ship's rail and any lashing arrangements which are damaged may either be adjusted by ship or shore staff before leaving port or, if this is not possible, the container should be landed ashore. I also heard about this container carrier - the ingots shifted during the sea passage, and burst through the door. As a result the lashings parted and subsequently 43 adjacent containers went overboard.

**Cadet:** What about the securing of some special types of cargo?

**Chief Mate:** Let me tell you about Deck Cargo. Since cargo stowed on the weather deck may be one of a whole range of cargoes - vehicles, livestock, containers, Dangerous Goods, perishables, timber, etc., particular care should be given to the stowage and securing of that cargo. At the same time, adequate access to sounding pipes, fire hydrants and other safety equipment should be allowed. Also, where necessary, to the ship's side in case of jettisoning requirements.

**Cadet:** But we can not secure bulk cargoes, can we?

**Chief Mate:** The shifting of bulk cargoes while the vessel is on passage may cause listing or even endanger the safety of the vessel. For this reason some cargoes, when carried in bulk, require shifting boards to be rigged or installed prior to the commencement of loading.

### NOTE

1.-ing - verbal noun

2.-ing = participle (placed before a noun and showing a permanent characteristic)

lashing points

cargo securing

inadequate lashings

cargo shifting

jettisoning requirements

correct securing

cargo securing

securing arrangements

lashing arrangements

shifting boards

3. to fail - e.g. All our plans failed. We failed to sail on time.  
e.g. Our supplies failed.

failure - e.g. The failure to lash the cargo properly is considered a failure to exercise due diligence.

### WORDS AND PHRASES

to lash  
lashing materials/ lashings  
lashing equipment  
lashing arrangements  
lashing points  
to exercise due diligence  
surge effect  
to be involved in accidents  
securing arrangements  
cargo shifting  
to take on a list  
ship/shore staff  
random  
tin ingots  
to break loose

to sweep overboard  
Flatrack/Flats  
at the ship's rail -  
to part  
weather deck  
livestock  
perishable goods/perishables  
access to  
sounding pipes  
fire hydrants  
to jettison cargo  
to endanger  
shifting boards  
to rig  
to install

### Exercises

*Please answer the following questions:*

1. Why is cargo securing of paramount importance for the safety of the ship?
2. What is the possible result of inadequate lashings?
3. What precautions should be taken in securing deck cargo?
4. Can we secure bulk cargoes and if so - how?