ΙΔΡΥΜΑ ΕΥΓΕΝΙΔΟΥ
1954

ΧΡΥΣΟΥΝ ΜΕΤΑΛΛΙΟΝ
ΑΚΑΔΗΜΙΑΣ ΑΘΗΝΩΝ

ΕΚΠΑΙΔΕΥΤΙΚΟ ΚΕΙΜΕΝΟ
ΑΚΑΔΗΜΙΩΝ ΕΜΠΟΡΙΚΟΥ ΝΑΥΤΙΚΟΥ

MARITIME ENGLISH

FOR THE 1ST SEMESTER

ΠΑΡ. Λ. ΠΑΠΑΛΕΩΝΙΔΑ

ΑΘΗΝΑ 2010

ΙΔΡΥΜΑ ΕΥΓΕΝΙΔΟΥ

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ΕΚΠΑΙΔΕΥΤΙΚΟ ΕΓΧΕΙΡΙΔΙΟ

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ISBN: SET 978-960-337-095-6
978-960-337-092-5

ΠΡΟΛΟΓΟΣ ΙΔΡΥΜΑΤΟΣ ΕΥΓΕΝΙΔΟΥ

Ο Ευγένιος Ευγενίδης, ιδρυτής και χορηγός του «Ιδρύματος Ευγενίδου», προείδε ενωρίτατα και σχημάτισε τη βαθιά πεποίθηση ότι αναγκαίο παράγοντα για την πρόοδο του έθνους αποτελεί η άρτια κατάρτιση των τεχνικών μας σε συνδυασμό προς την ηθική τους αγωγή.

Την πεποίθησή του αυτή την μετέτρεψε σε γενναία πράξη ευεργεσίας, όταν κληροδότησε σεβαστό ποσό για τη σύσταση Ιδρύματος, που θα είχε ως σκοπό να συμβάλλει στην τεχνική εκπαίδευση των νέων της Ελλάδας.

Έτσι, τον Φεβρουάριο του 1956 συνεστήθη το «Ίδρυμα Ευγενίδου», του οποίου την διοίκηση ανέλαβε η αδελφή του Μαρ. Σίμου, σύμφωνα με την επιθυμία του διαθέτη. Από τη στιγμή εκείνη άρχισαν πραγματοποιούμενοι οι σκοποί που οραματίσθηκε ο Ευγένιος Ευγενίδης και συγχρόνως η εκπλήρωση μιας από τις βασικότερες ανάγκες του εθνικού μας βίου. Το έργο του Ιδρύματος συνέχισε από το 1981 μέχρι το 2000 ο Νικόλαος Βερνίκος-Ευγενίδης· έκτοτε συνεχίζει αυτό ο κ. Λεωνίδας Δημητριάδης-Ευγενίδης.

Κατά την κλιμάκωση των σκοπών του, το Ίδρυμα προέταξε την έκδοση τεχνικών βιβλίων τόσο για λόγους θεωρητικούς όσο και πρακτικούς. Διεπιστώθη πράγματι ότι αποτελεί πρωταρχική ανάγκη ο εφοδιασμός των μαθητών με σειρές από βιβλία, τα οποία θα έθεταν ορθά θεμέλια στην παιδεία τους και θα αποτελούσαν συγχρόνως πολύτιμη βιβλιοθήκη για κάθε τεχνικό.

Ειδικότερα, όσον αφορά στα εκπαιδευτικά βιβλία των σπουδαστών των Δημοσίων Σχολών Εμπορικού Ναυτικού, το Ίδρυμα ανέλαβε τότε την έκδοσή τους σε πλήρη και στενή συνεργασία με τη Διεύθυνση Ναυτικής Εκπαιδεύσεως του Υπουργείου Εμπορικής Ναυτιλίας, υπό την εποπτεία του οποίου υπάγονται οι Σχολές αυτές. Η ανάθεση στο Ίδρυμα έγινε με την υπ' αριθ. 61228/5031, της 9ης Αυγούστου 1966, απόφαση του ΥΕΝ, οπότε και συνεκροτήθη και η αρμόδια Επιτροπή Εκδόσεων.

Αποτέλεσμα της συνεργασίας αυτής ήταν η έκδοση της Σειράς Βιβλιοθήκη του Ναυτικού, όπου εξεδόθησαν: α) Για τους μαθητές των Δημοσίων Σχολών Εμπορικού Ναυτικού 30 τόμοι βιβλίων (1967 – 1979). β) Για τις ΑΔΣΕΝ (Ανώτερες Δημόσιες Σχολές Εμπορικού Ναυτικού) 54 τόμοι (1979 – 2001).

Κύριος σκοπός των εκδόσεων αυτών, των οποίων το περιεχόμενο είναι σύμφωνο με τα εκάστοτε ισχύοντα αναλυτικά προγράμματα του ΥΕΝ, ήταν η παροχή προς τους σπουδαστές των Ναυτικών Σχολών ΑΔΣΕΝ και Ναυτικών Λυκείων των αναγκαίων τότε εκπαιδευτικών κειμένων, τα οποία αντιστοιχούν προς τα μαθήματα που διδάσκονται στις Σχολές αυτές.

Επίσης ελήφθη ιδιαίτερη πρόνοια, ώστε τα βιβλία αυτά να είναι γενικότερα χρήσιμα για όλους τους αξιωματικούς του Εμπορικού Ναυτικού, που ασκούν το επάγγελμα ή εξελίσσονται στην ιεραρχία του κλάδου τους, χωρίς αυτό να σημαίνει ότι επέρχεται μεταβολή στη στάθμη του περιεχομένου τους.

Με την υπ. αρ. Μ 2111. 1/2/99/28-05-1999 (ΦΕΚ 1168Β/14-6-99) υπουργική απόφαση, όπως τροποποιήθηκε με την Κ.Υ.Α. των υπουργών Οικονομίας και Οικονομικών και Εμπορικής Ναυτιλίας αρ. Μ 3611.2/05/05/16-12-2005 (ΦΕΚ 1942 Β/30-12-2005 και ΦΕΚ 169 Β/13-02-2006), το ΥΕΝ ανέθεσε στο Ίδρυμα Ευγενίδου την συγγραφή και έκδοση των διδακτικών εγχειριδίων των Ναυτικών Ακαδημιών· ήδη το ΥΠ.ΟΙ.Α.Ν.

προεκήρυξε την συγγραφή 27 βιβλίων προς κάλυψη των αναγκών των σπουδαστών βάσει των ισχυόντων αναλυτικών προγραμμάτων.

Οι συγγραφείς και η Επιτροπή Εκδόσεων του Ιδρύματος καταβάλλουν κάθε προσπάθεια, ώστε τα βιβλία να είναι επιστημονικώς άρτια αλλά και προσαρμοσμένα στις ανάγκες και τις δυνατότητες των σπουδαστών. Γι' αυτό έχουν προσεγμένη γλωσσική διατύπωση των κειμένων τους και η διαπραγμάτευση των θεμάτων είναι ανάλογη προς τη στάθμη της εκπαιδεύσεως, για την οποία προορίζονται.

Με την προσφορά στους καθηγητές, στους σπουδαστές των ΑΕΝ και σε όλους τους αξιωματικούς του Εμπορικού Ναυτικού των εκδόσεών του, το Ίδρυμα συμβάλλει στην πραγματοποίηση του σκοπού του ιδρυτή του Ευγενίου Ευγενίδου.

ΙΔΡΥΜΑ ΕΥΓΕΝΙΔΟΥ
ΒΙΒΛΙΟΘΗΚΗ ΤΟΥ ΝΑΥΤΙΚΟΥ

MARITIME ENGLISH

for the 1st Semester

ΠΑΡΑΣΚΕΥΗΣ Λ. ΠΑΠΑΛΕΩΝΙΔΑ
Καθηγήτριας Αγγλικής ΑΕΝ/Μακεδονίας

ΑΘΗΝΑ
2012

ΙΔΡΥΜΑ ΕΥΓΕΝΙΔΟΥ
1954

ΠΡΟΛΟΓΟΣ ΣΥΓΓΡΑΦΕΑ

Το βιβλίο αυτό σχεδιάστηκε ώστε να αποτελέσει διδακτικό βοήθημα για το μάθημα «Ναυτικά Αγγλικά» Α' εξαμήνου στις Ακαδημίες Εμπορικού Ναυτικού. Έχει ως στόχο να βοηθήσει τους/τις σπουδαστές/τριες να αποκτήσουν τις γλωσσικές δεξιότητες εκείνες (κατανόηση και χρήση του προφορικού και γραπτού λόγου) που θα τους/τις επιτρέψουν να επικοινωνούν με ευχέρεια στο επαγγελματικό τους περιβάλλον, δηλαδή να ανταποκρίνονται σε γενικότερες και ειδικότερες καταστάσεις επικοινωνίας ως Αξιωματικοί (Πλοίαρχοι και Μηχανικοί) του Εμπορικού Ναυτικού.

Το παρόν εγχειρίδιο βασίζεται στο ισχύον αναλυτικό πρόγραμμα διδασκαλίας των ΑΕΝ, το οποίο με τη σειρά του ακολουθεί τις προδιαγραφές του Διεθνούς Ναυτιλιακού Οργανισμού (IMO), όπως αυτές καταγράφονται στο Model Course 3.17 για τα Ναυτικά Αγγλικά. Η μεθοδολογία που προτείνεται από το Model Course ως κατάλληλη για τη διδασκαλία του μαθήματος είναι η επικοινωνιακή προσέγγιση, μέθοδος που συναρμονίζεται με μία από τις βασικές απαιτήσεις της Συμβάσεως STCW (όπως τροποποιήθηκε το 1995), δηλαδή την ανάγκη για πρακτική «επικοινωνιακή επάρκεια» των Αξιωματικών Φυλακής στην Αγγλική. Η έμφαση στην «επικοινωνιακή επάρκεια», που βρίσκεται στον πυρήνα των απαιτήσεων της STCW από την ειδική Ναυτική Εκπαίδευση γενικότερα, αντικατοπτρίζεται στον προσανατολισμό του παρόντος βιβλίου. Χρησιμοποιώντας σύγχρονα αυθεντικά κείμενα ναυτικού ενδιαφέροντος, τονίζοντας την αλληλεπίδραση με την προώθηση της κατανοήσεως του λόγου κατά ζεύγη και ομάδες, συμπεριλαμβάνοντας συνεντεύξεις, εφιστώντας την προσοχή σε στρατηγικές αυτοδιαχείρισης της μαθήσεως, και μέσα από δραστηριότητες που (κατά τον δυνατό) προσομοιώνουν αυθεντικές διαδραστικές καταστάσεις και επιτρέπουν στους σπουδαστές/τριες να ασκούνται ως εν δυνάμει πομποί και δέκτες σε πραγματικά επικοινωνιακά γεγονότα, το βιβλίο γενικά λειτουργεί σ' ένα πλαίσιο θεματικής και επικοινωνιακής προσεγγίσεως της διδασκαλίας της Αγγλικής για Ειδικούς Σκοπούς.

Το βιβλίο ξεκινάει σε «στοιχειώδες» γλωσσικό επίπεδο αλλά, δεδομένου ότι απευθύνεται σε τάξεις μεικτής ικανότητας, καταβλήθηκε προσπάθεια ώστε να καλύψει και τις ανάγκες σπουδαστών/τριων «κατώτερου μέσου» επιπέδου, προσφέροντας στο διδάσκοντα την ευελιξία να επιλέγει, ανάλογα με το επίπεδο της τάξεως, από μια ποικιλία διδακτικού υλικού. Το υλικό αυτό παρουσιάζεται σε 9 ενότητες. Υπάρχουν επίσης 3 επαναληπτικές ενότητες με ολοκληρωμένες δραστηριότητες αποτελούμενες από ασκήσεις που βοηθούν στην εμπέδωση της σχετικής ορολογίας και την επέκταση ειδικών θεμάτων.

Οι γλωσσικές δεξιότητες που εξασκούνται σε κάθε άσκηση, καθώς και ο κεντρικός της άξονας επισημαίνονται με ειδικά σύμβολα στην αρχή κάθε ασκήσεως, ως εξής: α) Ομιλία, β) Ανάγνωση, γ) Γραπτός Λόγος, δ) Κατανόηση Προφορικού Λόγου – Συζήτηση στην τάξη, ε) Αυτοξιολόγηση, στ) Εργασία κατά ζεύγη, ζ) Εργασία σε Ομάδες, η) Πληροφορίες και θ) Κατανόηση ακουστικού κειμένου.

α) *β)* *γ)* *δ)* *ε)* *στ)* *ζ)* *η)* *θ)*

Ιδιαίτερη προσοχή δίνεται στους όρους που περιλαμβάνονται στο Γλωσσάριο Ναυτικών Όρων (glossary) των Τυποποιημένων Ναυτικών Φράσεων Επικοινωνίας (IMO SMCP). Επιχειρείται παρουσίαση και εξάσκηση των όρων στις επί μέρους ενότητες του βιβλίου και υπάρχει ξεχωριστό τμήμα με σχετικές ασκήσεις στην ενότητα Review 3.

Κάθε ενότητα περιέχει υποενότητες με τίτλο «Γλωσσική Ευαισθητοποίηση» (Language Awareness), όπου παρουσιάζονται οι γραμματικές δομές που υπάρχουν ενσωματωμένες στα επί μέρους θέματα. Επίσης μετά από κάθε κείμενο δίνεται ένα «Γλωσσάριο» (Glossary), όπου παρατίθενται συνώνυμα ή ορισμοί για το λεξιλόγιο του κειμένου, ώστε να αποτελέσει σημείο αναφοράς για την εξάσκηση και επανάληψη του

λεξιλογίου και να ενθαρρύνει τους/τις σπουδαστές/τριες να κρατούν τις δικές τους Άγγλο-Αγγλικές σημειώσεις λεξιλογίου με παρόμοιο τρόπο.

Το βιβλίο συνοδεύεται από δύο audio CDs που περιέχουν το υλικό για τις δραστηριότητες κατανοήσεως προφορικού λόγου. [CD1: Units 1-3, Review 1, CD2: Units 4-6, Review 2, Units 7-9, Review 3] Τα απομαγνητοφωνημένα κείμενα των ασκήσεων παρατίθενται στο παράρτημα «Audio Material Transcripts».

Ένα Παράρτημα για Μηχανικούς περιλαμβάνεται ως συμπλήρωμα του διδακτικού υλικού και έχει ως στόχο να εξοικειώσει τους/τις σπουδαστές/τριες στις σχολές Μηχανικών με την αγγλική ορολογία στο ειδικό γνωστικό αντικείμενο των σπουδών τους, παρουσιάζοντας χρήσιμα θέματα που αφορούν στην ειδικότητά τους πριν το πρώτο εκπαιδευτικό τους ταξίδι. Συγκεκριμένα, το Παράρτημα για το Α΄ εξάμηνο παρουσιάζει τα κύρια μέρη της μηχανής Diesel και τα βασικά εργαλεία μηχανουργείου. Θα ήθελα ολόψυχα να ευχαριστήσω την αγαπητή μου συνάδερφο Κάτια Γρηγόρογλου, Καθηγήτρια Αγγλικής στη Σχολή Μηχανικών της ΑΕΝ Μακεδονίας, που με προθυμία μοιράστηκε μαζί μου υλικό γι' αυτό το κομμάτι του βιβλίου.

Το έργο αυτό αποτελεί μεγάλη πρόκληση για μένα και τυχόν σχόλια, προτάσεις και συνεισφορές που θα βελτιώσουν την ποιότητά του από τους συναδέλφους που διδάσκουν στις Ακαδημίες, καθώς και από τους/τις σπουδαστές/τριες που είναι ο πραγματικός αποδέκτης της δουλειάς αυτής, θα είναι ιδιαίτερα ευπρόσδεκτα. Ελπίζω το βιβλίο να ανταποκρίνεται στις ανάγκες και προσδοκίες των σπουδαστών/τριών που θα το χρησιμοποιήσουν ως εργαλείο για να γίνουν επαγγελματίες στον ταχύτατα μεταβαλλόμενο χώρο της εμπορικής ναυτιλίας.

Θα ήθελα να ευχαριστήσω την Επιτροπή Εκδόσεων του Ιδρύματος Ευγενίδου για την εμπιστοσύνη που μου έδειξε επιλέγοντάς με να αναλάβω αυτό το έργο και τη συμπαράστασή της κατά την πραγμάτωσή του. Είχα την μεγάλη χαρά να συνεργαστώ με το εξειδικευμένο προσωπικό του Εκδοτικού Τμήματος του Ιδρύματος, που χωρίς την αμέριστη βοήθεια και τις φιλότιμες προσπάθειές του το βιβλίο δεν θα έπαιρνε την τελική του μορφή, και του ανήκουν ιδιαίτερες ευχαριστίες.

Επίσης, εκτιμώ ιδιαίτερα τα εποικοδομητικά σχόλια των συναδέλφων Ρουμπίνας Μενεγάτου και Βασίλη Σταυρόπουλου, τα οποία έδωσαν ώθηση στο όλο εγχείρημα κατά την αξιολόγηση του αρχικού δείγματος γραφής (ως μέρος της διαδικασίας αναθέσεως).

Είμαι ευγνώμων στον επιστημονικό σύμβουλο του βιβλίου, κ. Γεώργιο Δούναβη, καθηγητή Αγγλικής στην ΑΕΝ Σύρου, για την άψογη συνεργασία μας και την αδιάλειπτη παρουσία του ως υποστηρικτή αυτού του έργου και ως πολύτιμου συναδέλφου.

Ιδιαιτέρως ευχαριστώ τον κ. Αθανάσιο Καρπώνη, Πλοίαρχο Α' Ε.Ν. και Διευθυντή Σχολής Πλοιάρχων της ΑΕΝ Μακεδονίας, για το απαραίτητο υλικό και τις συμβουλές που μου παρείχε. Τέλος, θα ήθελα να εκφράσω την ευγνωμοσύνη μου σε όλους εκείνους τους συναδέλφους και φίλους στην ΑΕΝ Μακεδονίας που βοήθησαν ηθικά και πρακτικά στην πραγμάτωση του έργου και σε όλους τους/τις σπουδαστές/τριες που έδειξαν ενθουσιασμό και βοήθησαν με πολυάριθμους τρόπους.

Για την πρόθυμη βοήθειά τους στη ηχογράφηση ακουστικού υλικού που χρησιμοποιείται στο βιβλίο, ευχαριστώ θερμά τους/τις

Πλοιάρχους Νικόλαο Μαύρο, Μιχάλη Σιδέρη, Jan Hork

Καθηγητές/τριες Αγγλικής Δάνα Ρηγάκη, Δημήτρη Κουσκούκη, Laurie Drakontis, Tom Muravez, Fengmin Wang, Κάτια Γρηγόρογλου

Σπουδαστές/τριες της ΑΕΝ Μακεδονίας Ανδριάννα Ζέλλιου, Αντώνη Ξενίδη, Γιώργο Σούφη, Κώστα Πόλεσουκ, Χάρη Γαϊτανίδη, Χρήστο Υποδηματόπουλο, Φωτεινή Αρβανιτογιάννη, Μάνθο Λαφατζή, Σάββα Αντωνάκη, Άλκη Τσιακμάκη, Βασίλη Βουδούρογλου, Θοδωρή Δερμετζίδη, Βασίλη Μενεσελίδη, Δημήτρη Πιλίτση.

Ειδική μνεία οφείλεται στο Piraeus VTS Centre για την ευγενική παροχή ηχογραφημένου υλικού που αφορά στη θαλάσσια κυκλοφορία ρουτίνας.

Για τη γενναιοδωρία, με την οποία μου παρείχαν φωτογραφικό υλικό από τις ιδιωτικές τους συλλογές, θερμές ευχαριστίες στους: Κώστα Καρυαδάκη και Ιάκωβο Χαραλαμπίδη, Πλοιάρχους Α' ΕΝ, Κώστα Δημάνη, Δόκιμο Πλοίαρχο και Σωτήρη Χατζημανώλη, Μηχανικό Α' ΕΝ.

Η συγγραφέας

UNIT 1

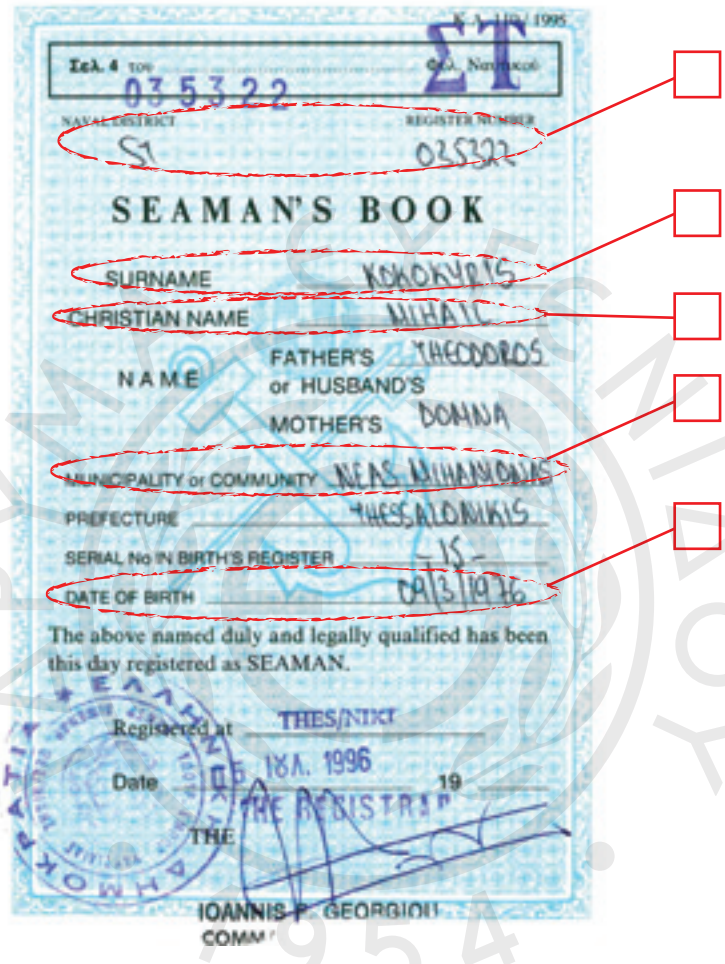
The Seafarer

1. *Welcome on board. What is your seaman's book number?*
   - *Language Awareness:*
     - *I. am / is / are*
     - *II. have / has - short answers with do / does*
     - *III. I / me / my / mine*
2. *Personal Information / Cadet Application Form*
3. *Numbers and Nationalities of World's Seafarers*
   - *I. Top 20 ship-owning countries*
   - *II. Members of the OECD*
4. *IMO Standard Marine Communication Phrases*

Round-up

1. Welcome on board. What is your seaman's book number?

A. *Listen to five numbered questions. Match the correct number to the highlighted information in the seaman's book.*



B. *Listen to the dialogue. The Captain meets the Second Engineer. Tick the questions you hear.*

☐	What is your surname?	☐	What is your date of birth?
☐	What is your first name?	☐	What is your place of birth?
☐	What is your job?	☐	Are you worried?
☐	What is your seaman's book number?	☐	Are you married?
☐	What is your passport number?	☐	Do you have children?
☐	Where are you from?		

C. *Listen again and answer the questions:*

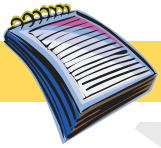
– Where is the 2nd Engineer from?

– How old is he?

– Is he married?

D. *The Captain says...*

…. There are four more Greek crew members on board. Greek seafarers have a good reputation….
…. First we have a period of familiarisation; you must become familiar with the vessel and especially its safety equipment….



Glossary

crew	personnel serving aboard a ship
ship familiarization	knowing the ship, becoming familiar with it
seafarer	somebody who works at sea

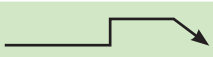
E. *The captain asks you...*

Write about yourself by answering the following questions.

What is your name?	My name is ...
What is your job?	
What is your seaman's book number? (if you have one)	
How old are you?	
Where are you from?	
What is your date of birth?	
Are you married?	
Do you have children?	

You understand a speaker is asking you a question by *intonation*. With intonation our voice goes up or down over a series of words; it helps create the music of language. In questions we can have rising (↗) or falling (↘) intonation.

Are you married? (↗)



How old are you? (↘)

– Usually yes/no questions have a rising intonation at the end of the sentence. This means that the speaker's voice gets a little higher as they finish the sentence.

e.g. Are you ready to go? (↗)

– Usually information questions (*wh-questions, what, how, why etc.*) have a rising/falling intonation at the end of the sentence. This means that the speaker's voice goes higher for a moment and then drops lower to end the sentence.

e.g. What's your name? (↘)

F. ***Use arrows, (↗) or (↘), to indicate the correct intonation for the questions in exercise E above. Then repeat the questions to practise the correct intonation.***

I. Language awareness: am / is / are

I'**m** hungry. **Is** it lunch time?
Close the window, please. I'**m** cold.
The Captain **isn't** on the bridge right now. He'**s** in his cabin.
Is the crew manager available? No, he **isn't**.
Petros **is** afraid of airplanes.
She'**s** a shop assistant.
This laptop **is** nice. **Is** it new?
Are mobile phones expensive in our country? No, they **aren't**.
Those seafarers **aren't** Australian. They'**re** English.

I	**am**		
You	**are**	**We**	**are**
He	**is**	**You**	**are**
She	**is**	**They**	**are**
It	**is**		

Short forms

I am a seafarer = **I'm** a seafarer
You are married = **You're** married

*Questions * Remember, no short forms in questions**

Is he the Captain?
Are they cadets?

Negative forms

We're not rich.
It isn't hot today.

a) Write the short form (she's / we aren't *etc.).*

1. They are _____
2. He is _____
3. I am not _____
4. She is not _____
5. It is _____
6. You are not _____

b) Write short answers (Yes, I am / No, he isn't etc.).

1. Are you married? _____
2. Are you tall? _____
3. Is it cold today? _____
4. Are you a pilot? _____
5. Are you tired? _____
6. Is it sunny? _____
7. Is your teacher tall? _____
8. Is it dark now? _____
9. Are you hungry? _____

c) Write am / is / are (use full or short forms).

1. ____ I right? No, you _____ wrong.
2. I ____ 32 years old.
3. Sorry I _____ late.
4. We ____ from Italy.
5. _____ she married?
6. This ship _____ 20 years old.
7. _____ he the Bosun?
8. _____ you from Pakistan?
9. How much _____ these postcards?
10. This suitcase _____ very heavy.
11. My brother and I _____ both seafarers.
12. He ____ the Chief Engineer. How old ____ he?

II. Language awareness: have / has – short answers with do / does

This port **has** a big container terminal.
I **have** brown eyes.
Do you have children? Yes, I do. / No, I don't.

I	**have**		
You	**have**	**We**	**have**
He	**has**	**You**	**have**
She	**has**	**They**	**have**
It	**has**		

Questions

Do they have seamen's books?

Negative forms

The vessel **doesn't have** many lifeboats.

You can also say "have got"

I've got a headache.
Jane **has got** two sisters.
Have you got your passport?
Has he got any onboard experience?
She **hasn't got** a car.
We **haven't got** the right information.

a) Complete the sentences with the correct form of "have" (or "have got").

1. The port _____ two pilot boats.
2. _____ you _____ the fire extinguishers?
3. The vessel _____ a cargo of crude oil.
4. _____ he _____ binoculars?
5. I _____ the electronic charts.
6. They _____ a yacht, the "Iris".

Do you like your job? **Yes, I do. / No, I don't.**

Does he come from Chios? **Yes, he does. / No, he doesn't.**

b) Write short answers.

1. Do you like your studies? _____
2. Do you smoke? _____
3. Do you work hard? _____
4. Do you listen to heavy metal music? _____
5. Do you speak Spanish? _____

c) Look at your partner's answers in the previous exercise. Write short answers about him/her.

1. Does s/he like his/her studies? _____
2. Does s/he smoke? _____
3. Does s/he work hard? _____
4. Does s/he listen to heavy metal music? _____
5. Does s/he speak Spanish? _____

III. Language awareness: I / me / my / mine

I know Tom.	Tom knows **me**.	It's **my** money.	It's **mine**.
You know Tom.	Tom knows **you**.	It's **your** money.	It's **yours**.
He knows Tom.	Tom knows **him**.	It's **his** money.	It's **his.**
She knows Tom.	Tom knows **her**.	It's **her** money.	It's **hers**.
We know Tom.	Tom knows **us**.	It's **our** money.	It's **ours**.
They know Tom.	Tom knows **them**.	It's **their** money.	It's **theirs**.

Subject			**Object**
I	I like Terry.	Terry likes me.	me
You	You like Terry.	Terry likes you.	you
He	He likes Terry.	Terry likes him.	him
She	She likes Terry.	Terry likes her.	her
We	We like Terry.	Terry likes us.	us
They	They like Terry.	Terry likes them.	them
It	It is nice.	I like it.	it

*Note:
Prepositions (for / to / with etc.) + me / him / her (object)

- We are going out for a drink. Do you want to come **with us**?
- Where is the captain? I want to talk **to him**.

a) Finish the sentences with him / her/ them.

1. I don't know those seafarers. Do you know **them**?
2. I don't know the captain's wife. Do you know ……..?
3. I don't know the company's agent. Do you know ……?
4. I don't know those students. Do you know ……..?

***b) Finish the sentences.* Use me / us / him / her / it / them.**

1. Who is that man? Why are you looking at **him**?
2. Do you know that woman? Yes, I work with …… .
3. Where are the seamen's books? I can't find …… .
4. This is the application form. Take …… .
5. Jim never eats mushrooms. He doesn't like …… .
6. I'm talking to you. This is serious. Please, listen to …….. .
7. Where is the train ticket? Do you have …….. ?
8. Where is the crew manager? I want to talk to …… .
9. I want the letter. Please give …… to …… .
10. We want the photographs. Please give …… to …… .

I	my	I like **my** job.	**Its** and **it's**
We	our	We like **our** jobs.	
You	your	You like **your** job.	
He	his	He likes **his** job.	The company is famous for **its** excellent crew.
She	her	She likes **her** job.	
They	their	They like **their** jobs.	I know this company. **It's** very good.
It	its	The island (= **it**) is famous for **its** nautical history.	

c) Put in my / our / your / his / her / their / its.

1. I like **my** job.
2. Does your brother like ……. job?
3. Irene is married. …….. husband works in a bank.
4. I know the director but I don't know …….. family.
5. Put on ……. coat. It's cold outside.
6. …… favourite sport is basketball. I watch a lot of NBA.
7. My son watches a lot of basketball on TV too. ……. favourite team is Chicago Bulls.
8. We are staying at the student dormitories in the Academy. …….. room is very big.
9. The Captain and the First Mate are both from Chios. ……. hometown is by the sea.
10. Thank you for …… e-mail. I'm glad to hear from you.
11. Pete is British but ……. wife is Thai.
12. He has two children but I don't remember …….. names.
13. The company has offices in Piraeus but ……. head office is in London.

Do you know that man? Yes, I know **him** but I can't remember **his** name.
My friend will stay with **us** at **our** house.
That passport is **mine**. Can you give it to **me**, please?
Give **me your** address and I'll give **you mine**.
It's **their** problem, not **ours**. (=our problem)
Is that **their** car? No, **theirs** is blue. (=their car)

d) Choose the right word.

1. Is this *your / yours* book?
2. It's *our / ours* problem, not *their / theirs*.
3. Are these *your / yours* clothes?
4. Is this camera *your / yours*?
5. That's not *my / mine* mobile phone. *My / Mine* is black.
7. They know *our / ours* home telephone number but we don't know *their / theirs*.
8. *My / Mine* cabin is bigger than *her / hers*, but *her / hers* has a better view.

e) Finish the sentences orally. Your partner says one phrase and you say the other one.

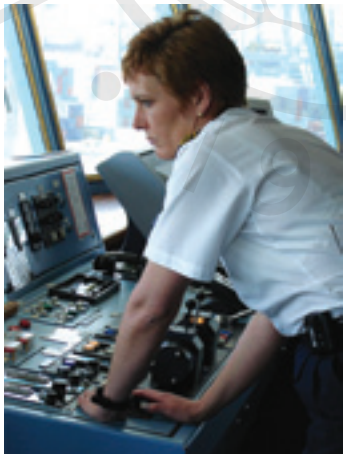
1. It's hers. Give *it to her*.

2. They're mine. Give *them to me*.
3. It's his. Give it . . . . . .
4. They're his. Give . . . . . .
5. It's ours. Give . . . . . .
6. It's theirs. Give . . . . . .
7. They're hers. Give them . . . . . .
8. It's mine. Give . . . . . .

2. Personal Information / Cadet Application Form

A. ***Listen to these two seafarers. They are talking about themselves. Complete the forms about them.***

AGE:
NATIONALITY:
RANK:
NAME OF VESSEL:
MARRIED?
CHILDREN?



AGE:
NATIONALITY:
RANK:
NAME OF VESSEL:
MARRIED?
CHILDREN?

B. ***Talk to your study partner about the two seafarers.***

This is Fiona. She is …….
This is Yiannis ……

C. ***Fill in the application form about yourself.***

CADET APPLICATION FORM	
Application for appointment as:	
Deck Cadet ☐	Engineer Cadet ☐
Personal Details	
Surname	
Forename	
Gender Male ☐	Female ☐
Age	Nationality
Date of Birth	Place of Birth
Contact Details	
Telephone number	
E-mail address	
Current address	

3. Numbers and Nationalities of World's Seafarers

Do you know…
- ☐ how many seafarers work on merchant ships today?
- ☐ their nationalities?
- ☐ which parts of the world the majority of the crew come from?

A. ***Read the article. Quickly find the answer to the questions above and note them down in your notebook. Compare your answers with your study partner's.***

Numbers and nationalities of world's seafarers[1]

The number of seafarers who work on merchant ships is around 466,000 officers and 721,000 ratings.

The OECD[2] *countries (Western Europe, North America, Japan, etc.) are an important source for officers but more and more officers now come from the Far East and Eastern*

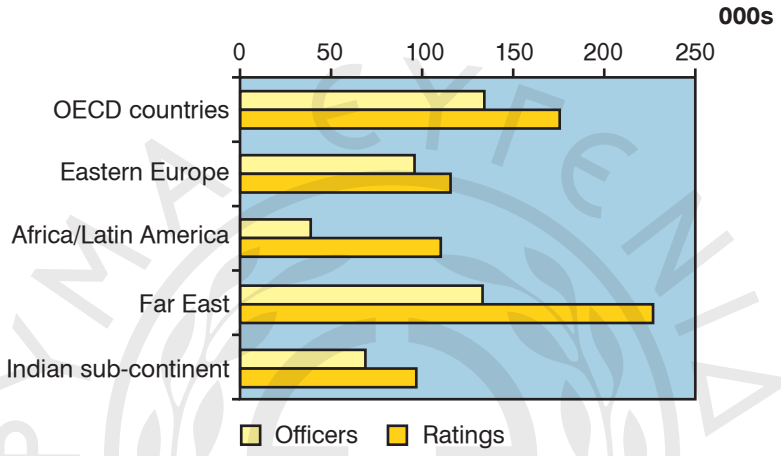
1. Source: BIMCO/ISF.
2. OECD – Organisation for Economic Co-operation and Development.

Europe. The majority of the shipping industry's ratings come from developing countries, especially the Far East and South East Asia.

The Philippines and India are very significant maritime labour supply nations. Many seafarers from these countries work on foreign flag ships. There is also an increase in seafarers from China but they mostly work on the Chinese fleet.

Eastern Europe is a large supplier of seafarers, especially countries like Ukraine, Croatia and Latvia.

Other major labour supply countries are Greece, Japan, Russia and the United Kingdom.



Glossary

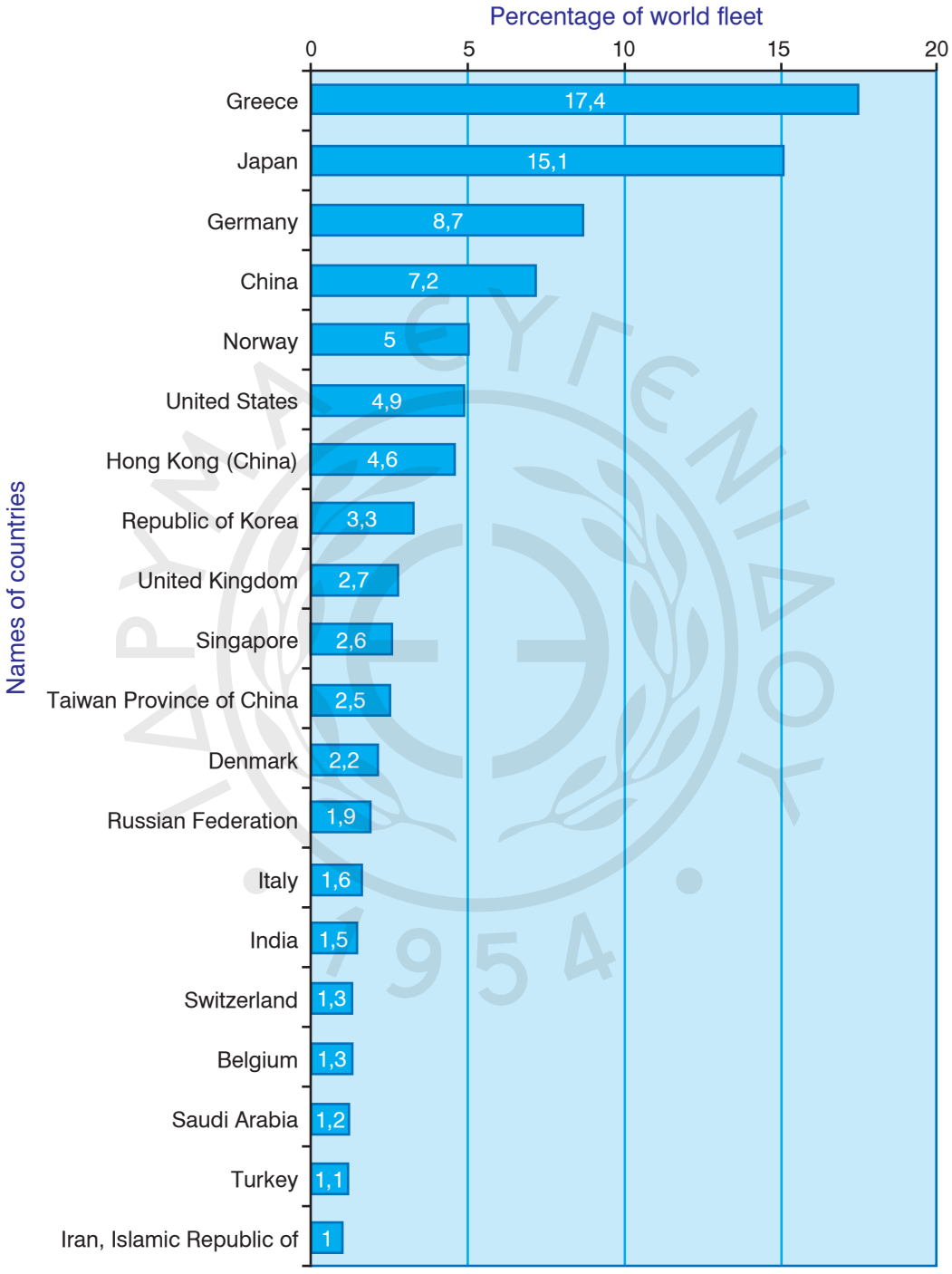
merchant ship	commercial, trading vessel
officer	person authorized to serve in position of authority on a vessel
ratings	low rank, non-officer crewmembers, e.g. deckhands, etc.
source	origin, one that supplies / provides with
shipping industry	branch of trade that deals with ship transportation
developing countries	poor countries whose citizens want to become more advanced socially and economically
labour	workers, people who work for wages
flag	emblem acting as a symbol of nationality
fleet	all the ships of a nation or company

B. *Reading Comprehension Question.*

Is there a difference between officers and ratings in terms of nationality?

I. Top 20 ship-owning countries

The graph is about the top 20 countries controlling the world fleet (January 2007)[3].



3. Source: UNCTAD Maritime Transport Review 2007, Top 20 beneficial ownership countries (Jan. 2007). Based on total of deadweight tonnes controlled by parent companies located in these countries.

a) Write the nationality for each country.

Greece –
Japan – *Japan*ese
Germany –
China –
Norway –
USA –
Korea – *Korea*n
United Kingdom –
Taiwan –
Denmark –
Russia –
Italy –
India –
Switzerland –
Belgium –
Saudi Arabia –
Turkey – *Turk*ish
Iran –

b) Complete the sentences according to the graph.

Shipowning companies from the following countries control the world fleet: first comes Greece, with the _____ fleet in second place. Then, in third place, come the ships of _____ companies, with the _____ fleet in the fourth place. The United States and _____ are close together and control around 5% of the world fleet each. Finally, in number 20, _____ companies manage 1% of the world's merchant ships.

II. Members of the OECD

The article on page 18 mentions that most merchant marine officers come from developed countries, members of the OECD. These are the flags of the OECD full members:

 Australia	 Austria
 Belgium	 Canada
 Czech Republic	 Denmark
 Finland	 France
 Germany	 Greece
 Hungary	 Iceland
 Ireland	 Italy
 Japan	 Korea

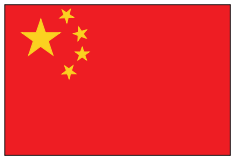
 Luxembourg	 Mexico
 Netherlands	 New Zealand
 Norway	 Poland
 Portugal	 Slovak Republic
 Spain	 Sweden
 Switzerland	 Turkey
 United Kingdom	 United States

a) Write the nationality for the following countries.

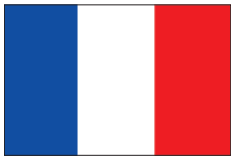
Canada –
Austria –
France –
Ireland –
Netherlands –
Portugal –
Spain –
Sweden –
Finland –
Australia –
Mexico –
Hungary –
Poland –

b) Complete the sentences:

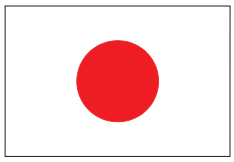
The Chief Engineer is from _____. He is _____.



The AB is from _____.
He is _____.



The owners are from _____.
They are _____.



The Pilot _____ _____ _____.
He is _____.

The 2nd Officer _____ _____ _____.
He is _____.

4. IMO Standard Marine Communication Phrases

Seafarers and the shipping industry use Maritime English as a common tool of communication. The Standard Marine Communication Phrases (SMCP) are an important part of Maritime English.

Crews of different nationalities work on board vessels and speak many different languages. Problems in verbal communication are a danger to the vessel, the people and the environment. Seafarers need a standard language to communicate with, for navigation at sea, in port, and on board vessels with multilingual crews. So, the **IMO** (International Maritime Organisation) proposes the SMCP to assist in the safety of navigation. Under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (**STCW** 78/95) officers must use and understand IMO SMCP. They are phrases useful for all modern conditions at sea. There are two parts,

- ☐ the External Communication Phrases, e.g. meteorological warnings.
- ☐ the On-board Communication Phrases, e.g. Pilot on the bridge.

Glossary

navigation	theory and practice of navigating, directing the course of a ship
multilingual	using, speaking more than one language
assist	help, aid
convention	a formal agreement between countries
watchkeeping	being on duty aboard ship for a period of time (usually four hours)
on-board	carried or used aboard a vessel

– ***Identifying Maritime English.***

Look at the Maritime English phrases in the box. How are they different from general English? Try to guess their meaning by matching them to their general English equivalent below. Discuss if it is a good idea to use standardized language for maritime communication and why.

The officer onboard says:

- My ETA is 15:00 UTC.
- M/T Trader: Tango Romeo Alpha Delta Echo Romeo
- Request: I require medical assistance.
- I have a list to port.

– I need doctor's help.
.....

– We will arrive at 3 pm.
.....

– I am leaning to the left side.
.....

– Tanker ship Trader: T-R-A-D-E-R.
.....

Round-up

A. Vocabulary Consolidation Self-Assessment.

In this chapter you practised vocabulary on the following topics; tick (✓) the topics which you feel confident you can use English to express yourself on, and give four key words for each topic.

___ The nationalities of current crews in seafaring
___ Fill in a cadet application form
___ Exchange personal information / Introduce yourself
___ IMO SMCP

B. Class Project.

Find information on, discuss with the captains teaching in your academy, and present in class one of the following:

- *Bring to class a seafarer job application form from a shipping company or the*

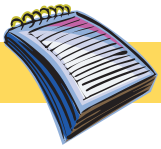
web. Fill it in with the rest of the class. Act out an interview between the crew manager and yourself, with questions and answers on basic personal information.

- *Check the information in a Seaman's Book and present it in class; you need to translate words and talk about* ***each enlistment / certificate / licence / registration port / rates / reasons for discharge****. Also, borrow a seaman's book from someone with long sea service and see how it looks when it is completed.*
- *Find out information about the nationalities of seafarers onboard Greek flag vessels; what particular nationalities are the majority of officers and the ratings?*

C. "Do you like it here?"

1. Listen to the dialogue and fill in the card.

- SURNAME: .....
- NAME: ..... Vladimir .....
- MARITAL STATUS: .....
- OCCUPATION: .....
- CURRENT ADDRESS: .....
- PERMANENT ADDRESS: .....
- NATIONALITY: .....
- TELEPHONE NUMBER: .....



Glossary

current	temporary, of the present time
permanent	something that does not change, not temporary
naval architect	ship designer
occupation	a person's job or profession
shipyard	place for building or repairing ships

2. Listen again. Write the questions to the answers provided.

A: … so, you live in Piraeus now Vladimir?

B: Well, yes, 7 months now.

A: _____?

B: It's all right. It's not the same as Moscow, of course. It's my hometown, you see, and I miss it.

A: _____? I mean in Russia.

B: I'm a naval architect.

A: Oh, that sounds interesting. But, are you on holiday at the moment?

B: No, I'm supervising repair works in a shipyard.

A. _____?

B. Yes, I'm here with my wife, Natasha. We have a beautiful flat in Piraeus. Do you know the area?

A: Actually it's close to where I live. Let's have a drink sometime. Are you on the phone?

B: Yes, it's 210 5562310.

A: OK. Oh, sorry, _____?

B: Motov. Give me a call, all right?

3. Use the information in the card above to write a small paragraph about Vladimir.

➢ His name is .....
.....
.....
.....
.....
.....

D. Circle the correct word:

1. IMO: International **Maritime / Mariner** Organisation.
2. SMCP : Standard Marine **Communication / Co-operation** Phrases.
3. My first days onboard are for **familiarization / appointment.**
4. I study at the Merchant Marine Academy to become a **sailor / seafarer**.
5. Do you have your **seaman's / mariner's** book?
6. Shipping terms are part of **Maritime / Naval** English.
7. My **permanent / standard** address is in Preveza.
8. Sea crews are **multimedia** / **multilingual**.

E. Fill in the gaps with words from the box:

watchkeeping	cadet	industry
chief	fleet	officer

1. The Greek merchant _____ is a commercial giant.
2. About 90% of world trade is carried by the international shipping _____.
3. Who is the _____ in charge of the ship's engines?
4. Standards of Training, Certification and _____ for Seafarers.
5. The _____ Mate and the Deck _____ are on deck.

F. Speaking; Seafarer information cards.

Look at the crew information cards. Work in pairs. Ask and answer questions about each seafarer. Then ask your partner and fill the last information card about him/her. Ask him/her to give you a picture and attach it in the space provided.

INFORMATION CARD

NAME	**Tony Ragazzi**
AGE	**34**
NATIONALITY	**Italian**
MARITAL STATUS	**single**
VESSEL	**Jason**
RANK	**Chief Mate**

INFORMATION CARD

NAME	**Ahmose Azizi**
AGE	**66**
NATIONALITY	**Egyptian**
MARITAL STATUS	**married**
VESSEL	**Sea Princess**
RANK	**Bosun**

INFORMATION CARD

NAME	**Alejandro Covas**
AGE	**42**
NATIONALITY	**Spanish**
MARITAL STATUS	**married**
VESSEL	**Hermes**
RANK	**Chief Engineer**

INFORMATION CARD

NAME	**Anja Paerson**
AGE	**25**
NATIONALITY	**Swedish**
MARITAL STATUS	**single**
VESSEL	**Solsund**
RANK	**2nd officer**

study partner's picture

INFORMATION CARD

NAME . . . . . .
AGE . . . . . .
NATIONALITY . . . . . .
MARITAL STATUS . . . . . .
VESSEL . . . . . .
RANK . . . . . .

UNIT 2

Working on Board

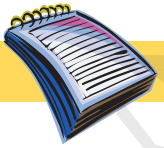
1. *"Read the names to me":*
   Spelling, Numbers and Call Signs
2. *Months of the year*
3. *What's the date?*
   Ordinal numbers: 1st, 2nd, 3rd....
4. *What's the time?*
5. *Work Routines On Board*
   "My life at sea"
   "Life on board a training vessel"
   - *Language Awareness*
   - *I. Present Simple*
   - *II. Prepositions of Time*
   - *III. Practice: Present Simple and Daily Routines*
6. *Crew Ranks and Roles*
   Maritime Jobs
   - *I. Officers*
   - *II. Ratings*
7. *Interviews with merchant marine cadets*
   - *I. Duties of an engineer cadet*
   - *II. Lifeboat drills*
   - *III. Duties of a deck cadet*
   - *IV. Officers' Roles*

Round-up

1. "Read the names to me": Spelling, Numbers and Call Signs

A. ***Listen to the dialogue. The crew manager is talking to the Captain. Circle the correct information from the words in blue.***

NAME	RANK	NATIONALITY	AGE
PAREZ, Manuel	Bosun	Italian / Peruvian	33 / 43
VOLDUNI, Tony	Assistant / Chief Engineer	Italian / Korean	40 / 50
HAZEVELD, Henrik	Chief / Second Mate	Dutch / Swiss	27 / 37
GOLDSMITH, Jerry	Deck / Engineer Cadet	French	19
KAPLAN, Carrie	Deck / Engineer Cadet	French	21



Glossary

port of call — a place where a ship stops on a voyage (to un/load, get supplies etc.)

crew list — list prepared by the master of a ship showing the full name, nationality, passport or discharge book number, rank and age of every officer and crew member engaged on board that ship

B. ***International Maritime Alphabet: Listen and underline the stressed syllable.***

A	Alfa	N	November
B	Bravo	O	Oscar
C	Charlie	P	Papa
D	Delta	Q	Quebec
E	Echo	R	Romeo
F	Foxtrot	S	Sierra
G	Golf	T	Tango
H	Hotel	U	Uniform
I	India	V	Victor
J	Juliet	W	Whisky
K	Kilo	X	X-ray
L	Lima	Y	Yankee
M	Mike	Z	Zulu

C. *Listen and circle the name you hear.*

– ARVANITIS or ARVANITES
– BAILEY or BAILLEY
– PAPANIKOLAOU or PAPANICOLAOU
– YIANNIOTIS or GIANNIOTIS
– WHITE or WHYTE
– JACQUE or JACKUE
– FUIDIZI or FUIDIXI

- According to the IMO SMCP, ***we speak numbers in separate digits***, e.g. for 150.5 we say "One-five-zero point five". [Note that we use full numbers in wheel orders, e.g. we say "Fifteen" for 15 or "Twenty" for 20, etc. for rudder angles].
- When you send a **GMDSS** (Global Maritime Distress and Safety System) message, you spell the vessel's name (using the Maritime Alphabet) and say the **Call Sign** and **MMSI** (the 9-digit Maritime Mobile Service Identity Number) ***using separate digits***.

D. *Work in pairs to exchange vessel identification information.*

Student A: Dictate the information in your card to your partner (using the phrasing in the example). Then, check his/her own completed card to see if s/he got it right.

e.g.: For this information	You say:
Vessel's Name: ANTARES **MMSI: 257689000** **Call Sign: LAPW5**	**This is** **two-five-seven-six-eight-nine-zero-zero-zero,** **Motor Vessel "ANTARES" Alpha November Tango Alpha Romeo Echo Sierra,** **Call Sign Lima Alpha Papa Whisky Five**

Vessel's Name:	APOLLON HELLAS	SAEHAN BAYSTAR	ADOUR	SACAGAWEA
MMSI:	237002600	440983000	6350050000	369855000
Call Sign:	SWFP	DSON9	FQEP	NSAC

Student B: Go to page 267. Listen to your partner and fill in your card. If you need, you can ask him/her to repeat: *e.g. Please, repeat the Name / MMSI / Call Sign.*

Car Carrier: A vessel carrying motor vehicles.

E. ***Listen to a routine traffic operation exchange between Piraeus Traffic (Vessel Traffic Service) and a vessel. The structure of the communication is the following:*** *[track 09]*

VESSEL ➔ PIRAEUS TRAFFIC
PIRAEUS TRAFFIC ➔ VESSEL

a. ***Lead-in.*** To familiarize yourself with the way VHF communication sounds (since there can be different amounts of distortion in it), listen and circle **the phrases** you can hear:

Type of Cargo	Number of Officers	Vessel's capacity	Number of crew members	Number of passengers	MMSI number	Port of Call
Ship's Flag	Master's Name	Pilot Station	Call sign	Name of local agent	IMO number	ETA

b. Listen again and fill in the information in the box:

VESSEL'S NAME:	
CALL SIGN:	
SHIP'S FLAG:	
IMO NUMBER:	
LAST PORT OF CALL:	MUNDRA, INDIA
DESTINATION:	
NEXT PORT OF CALL:	
VESSEL COMING TO PILOT STATION:	☐ YES TIME: ☐ NO
NUMBER OF CREW MEMBERS ON BOARD:	
NUMBER OF PASSENGERS ON BOARD:	
AMOUNT OF CARGO:	_____ units _____ metric tones
TYPE OF CARGO:	

2. Months of the year

A. ***Listen and repeat the months. Pay attention to the stress and underline the stressed syllable.***

January	**May**	**September**
February	**June**	**October**
March	**July**	**November**
April	**August**	**December**

Word stress is the emphasis we give to certain syllables in a word. With the wrong stress people cannot understand you.

B. ***Listen to the dialogue and fill in the blanks with the correct month. Listen to how the first speaker corrects the second speaker. Then, repeat the two sentences using the correct stress.***

*The semester finishes in _____.

*My training voyage as a cadet starts in _____.

C. ***Put the months in the correct column, according to how we stress them; the first one in each column has been done for you as an example.***

*Note: ■ = the main stress of a word; the stressed syllable is louder, longer and more highly pitched (in a higher voice)

▄ = unstressed syllables or secondary (weaker) stress

■ ▄ ▄	■	■ ▄	▄ ■	▄ ■ ▄
January	March	April	July	September

3. What's the date?

05 / **06** / **09**: "the fifth of June, two thousand (and) nine"

↓ ↓ ↓

Day / Month / Year (British system)

** Note the American system; **05** / **25** / **09**: "May twenty-five, two thousand (and) nine"

↓ ↓ ↓

Month / Day / Year

Ordinal numbers: 1st, 2nd, 3rd ....

a) Fill in the table of ordinal numbers.

1st	first	11th	eleventh	21st	twenty-first
2nd	second	12th		22nd	
3rd	third	13th	thirteenth	23rd	twenty-third
4th	fourth	14th		24th	twenty-fourth
5th	fifth	15th	fifteenth	25th	
6th	sixth	16th	sixteenth	26th	twenty-sixth
7th	seventh	17th		27th	twenty-seventh
8th		18th	eighteenth	28th	twenty-eighth
9th	ninth	19th	nineteenth	29th	
10th		20th	twentieth	30th	thirtieth

Spelling:

Just add **"th"** to the cardinal number: 4 – 4th : four – four**th** 11 – 11th : eleven – eleven**th** 40 – 40th : forty – fort**ieth** 70 – 70th : seventy – sevent**ieth**	but: one – first two – second three – third five – fifth eight – eighth nine – ninth twelve – twelfth
In compound numbers, write only the last figure as an ordinal number: 421st = four hundred and twenty-first 5,111th = five thousand, one hundred and eleventh	figures: add the last two letters of the word first = 1st fourth = 4th twenty-sixth = 26th hundred and first = 101st

b) Write the numbers:

eleven _____ eleventh _____
fifteen _____ fifteenth _____
twenty _____ twentieth _____
twenty-three _____ twenty-third _____
thirty _____ thirtieth _____

c) Write the words:

22 _____ 22nd _____
14 _____ 14th _____
50 _____ 50th _____
48 _____ 48th _____

d) Work in pairs to dictate and note down numbers.

Student A: Dictate the following numbers to your partner.

50	**15**	**50th**	**15th**	**20**	**20th**	**12**	**12th**

Student B: Go to page 267. Write down the numbers in the correct order; ask your study partner to repeat them if you are not sure.
e.g. Can you repeat the number please? Is it fifty or fifteen?

e) Write the dates (in numbers).

1. The third of May nineteen ninety-six: __3/5/96__
2. The twenty-sixth of January nineteen ninety-nine: _____
3. The twentieth of August two thousand (and) ten: _____
4. The seventh of November nineteen seventy-seven: _____

f) Write the dates (in words).

22/6/71: _____
28/11/05: _____
12/7/00: _____
30/4/67: _____

g) Now write (using words as well as numbers)

1. your date of birth ……...……/……...…….
2. the date today ……./……..
3. your study partner's date of birth ……...……../…….

4. What's the time?

My ETA is 08:00 ("zero eight hundred hours")
Loading starts at 09:10 ("zero nine ten")
Loading finishes at 14:15 ("fourteen fifteen")
Vessel's ETD is 15:50 ("fifteen fifty")

– At sea we speak times using the 24-hour UTC (Universal Time Co-ordinated) notation.
– The digital 24-hour clock system helps us avoid confusion with a.m. (ante meridiem = before noon) and p.m. (post meridiem = after noon).

Instead of saying **3 p.m.** we write **1500** and say **fifteen hundred hours** or **one five zero zero hours**. Instead of saying **3 a.m.** we write **0300** and say **zero three hundred hours** or **zero three zero zero hours**.

A. *Complete the times.*

		you write	you say
1 .	8.30 pm	2030	twenty thirty
2 .	8.00 am		
3.	7.05 pm		
4.	11.20 am		
5.	2.00 pm		
6.	4.00 pm		
7.	12.15 pm		
8.	11.40 pm		
9.	1.55 pm		
10.	1.00 am		

B. *Listen and circle the phrase you hear.*

– 14.40 or 14.30
– 4th Engineer or 4 engineers
– 3rd Officer or Radio Officer
– 23rd or 23
– 14th or 40th
– the fifth vessel or the fiftieth vessel of the company
– 15.00 or 13.00
– 08.15 or 08.50
– 16th May or 6th May
– 17.30 or 19.30

5. Work Routines On Board

A. *"My Life at Sea"*

a) Lead-in: look at the pictures and match them to the following titles:

Fire drill / Abandon ship drill / Drill review meeting / Lifeboat release hook

a) 

c) 

b) 

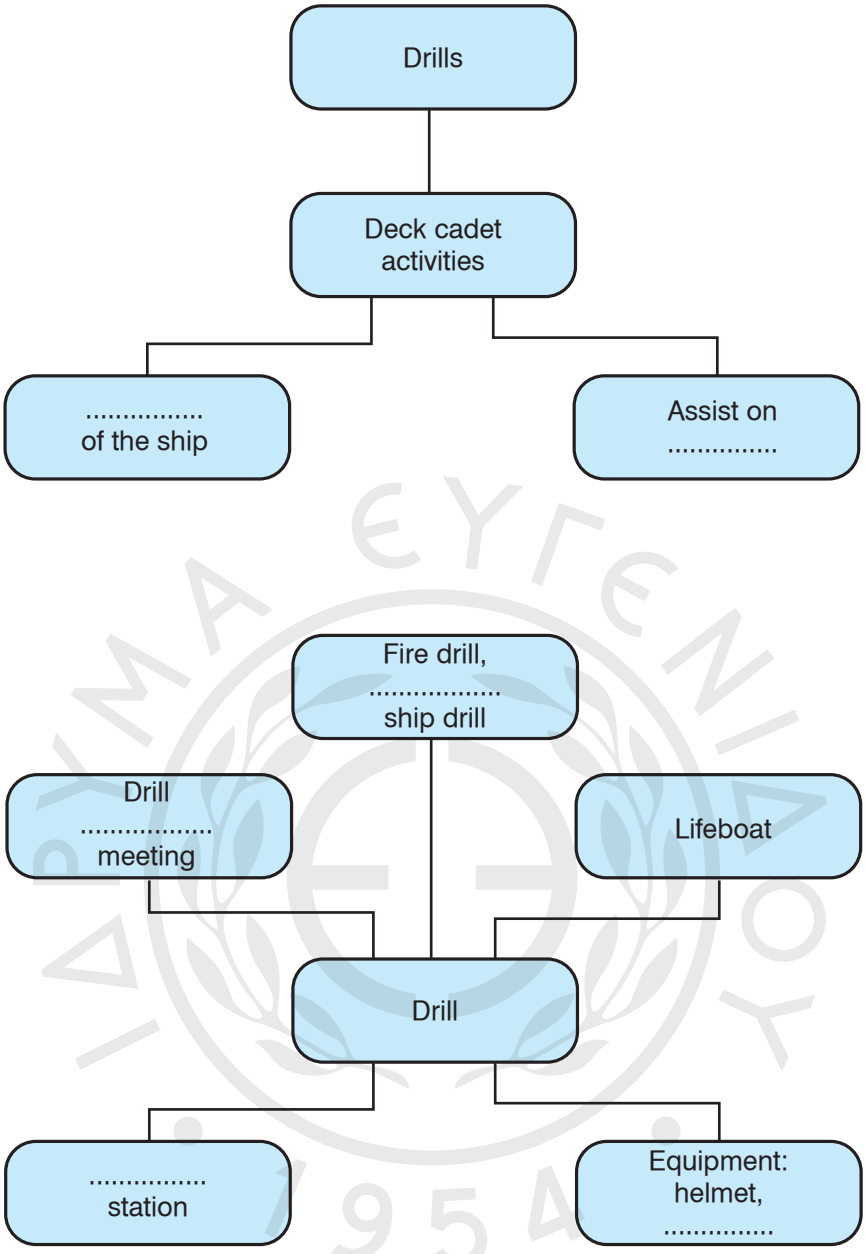
d) 

b) Read the following entry to a blog site with the title "My life at sea". Then complete the word webs.

This is my first experience on a merchant vessel. I study Nautical Studies and my curriculum requires seagoing service for a period of 12 months. I will be on board M/V Aurora Leigh for 6 months. I live and work with an international crew, speaking English 24 hours a day. I enjoy my work on board and look with anticipation into the next weeks on board the vessel.

What are the duties of a deck cadet on board? There are two parts in my working day. First I assist on the bridge; and the other part of my activities has to do with the maintenance of the ship.

Every week there are fire drills and abandon ship drills. I have my station bill card where I read what my duties are in emergency situations. Equipped with helmet and life jacket, I go to the muster station. After every fire drill we have an abandon ship drill. During this drill everybody learns how to use the lifeboats, start the engine and use the release hook. Afterwards everybody meets on the bridge for a review of the performed drills. In this meeting we discuss all positive and negative aspects. Every crew member has the opportunity to suggest ideas to make the drills safer and more effective.



Glossary

curriculum	all the courses of study offered by an educational institution
anticipation	looking forward with eagerness, expectation
station bill	a list showing the stations of a ship's crew in emergencies
performed	completed, carried out
effective	producing the desired effect, productive

B. *"Life On Board a Training Vessel"*

a) Lead-in: put the activities in the correct list.

boiler water tests pc-games read sea charts drain tanks collision regulations table tennis start up and shut down propulsion machinery add oil to different parts manual steering onboard cinema gym helm orders

Bridge	Engine	Spare time

– Life On Board a Training Vessel[1].

The following article reports the experience of a group of Danish cadets on board a container vessel. The writer is their Cadet Training Officer. The cadets work on deck, bridge and engine.

• ***Deck.***

Work on deck ranges widely. While at sea it mainly involves maintenance, tank inspections, weekly checks and small repairs. The cadets are of great help to the other crewmembers when they must count, grease and repair tons of lashing gear. The cadets are partly responsible for the implementation of dangerous cargo labels. Besides, the cadets take care of maintenance and repairs such as painting, greasing of hatches and bended handrails. Moreover, they are also in charge of locking the accommodation, safety equipment, and reading of draft.

• ***Bridge.***

Watch keeping navigator goes through collision regulations with cadets and instructs them in helm orders and manual steering. At present all the cadets are able to execute orders correctly concerning steering on arrival and departure. Besides, a large amount of work relates to going through all the instruments on the bridge, the seacharts, and nautical handbooks. At mooring the cadets at watch assist the officer on duty fore or aft.

• ***Engine.***

For the cadets in the engine room, the day starts with the daily check round. They inspect various engine components and add oil in some circumstances, they drain different tanks and implement daily boiler water tests. After the check round, each cadet assists one of the engineers in the daily work. Alternatively, the cadets get different tasks, such as finding out where a component is located, or how one of the systems in the engine works. A cadet participates in manoeuvring, start-up and shut-down of the extensive propulsion machinery and other components of the engine room.

• ***Spare time.***

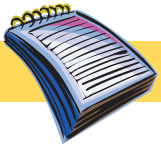
Though some might be on watch, the cadets usually meet at mealtime and share experiences obtained from various work areas. They spend their spare time on the f-deck where the

1. Source: *"Life On Board a Training Vessel"* by CTO Søren Westphal Rasmussen.

cinema and the it-café are placed. Pc-games on network are very popular and several officers also take part in games. The it-café also forms the basis of the contact with friends, family and cadets on board other training vessels **via** e-mails. All on board **are very fond of** the possibility to communicate. Members from the permanent crew also visit the it-café very often, which helps to create a good relationship between the cadets and the officers. In addition to the it-café, they all use the gym very much. Also, table tennis is very popular.

• ***Cadets in general.***

The cadets' background and interests **differ** a lot. It is also quite natural that the cadets look forward to the day when they are going to **sign off**. Generally they all miss their friends and family but nobody says that he or she is **homesick**.



Glossary

ranges widely	varies a lot, has a wide spectrum
involves	contains as a part, includes
lashing gear	equipment (such as ropes, straps, wires, etc.) we use to fasten something securely
implement	carry out, put into practical effect, perform, execute
greasing	lubricating with grease
execute	perform
components	elements, parts of a mechanical complex
extensive	large in amount, extent or range

b) Circle the odd word out.

1. execute, involve, perform, implement
2. securing, fastening, overhauling, lashing
3. check, examine, include, inspect
4. involve, include, drain, contain
5. assist, repair, help, aid

c) Collocations. Match.

locking / draining / executing / reading / keeping

1. _____ the draft
2. _____ the accommodation
3. _____ the tanks
4. _____ watch
5. _____ orders

d) Look at the last two paragraphs of the article, identify the words in bold and try to explain them. Then, use these words to fill in the definitions below.

1. I like very much; I am _____
2. we are different; we _____
3. missing home; _____
4. by way of, through; _____
5. stop working, discontinue your employment; _____

e) Complete the sentences using the words above.

1. I am planning to _____ soon. Working for 8 months on board is enough for me!
2. The two companies _____ a lot; they don't have the same management philosophy.
3. I communicate with my friends _____ e-mails; we also use our cell phones to text message.
4. The cadet is very popular. Everybody is _____ him.
5. Do you ever feel _____, now that you live so far away from your family?

I. Language Awareness: Present Simple

The 2nd Mate **usually stands** a navigational watch.
The Captain **does not stand** a watch.
Does the Chief Engineer usually **work** during the day?
Does the Bosun **supervise** all A/Bs? Yes, **he does**.
The quartermaster **keeps** a lookout for other vessels and **steers** the ship in and out of port.
The Captain **pays** the crew.
I **don't usually go out** on Friday night.
I **live** in Southampton.
The chief steward **speaks** German and Spanish.
Does he smoke many cigarettes every day? Yes, **he does**./No, **he doesn't**.
Do you agree with the new anti-smoking regulations?
Do you like your studies? Yes, **I do**.
Do you worry about the future? No, **I don't**.

We use the Simple Present

(1) when we speak of habits and daily routines (what we do sometimes, often, always, every day, usually, never etc.) or

(2) when we speak about something permanent (where we live; what languages we speak; what we like, dislike, love, hate, know, understand etc.).

Which category, (1) or (2), do the example sentences above fall into? Read them again and write (1) or (2) next to them.

I	live	in Preveza	We	live	in Preveza
You	live		You	live	
He / she / it	live**s**		They	live	

I	watch	a lot of TV	We	watch	a lot of TV
You	watch		You	watch	
He / she / it	watch**es**		They	watch	

*Note: the ending –s or –es in the 3rd person singular, e.g. wash**es**, manage**s**; kiss**es**.

–es after –s/ -ch/ -sh: pass ⇒ pass**es**, watch ⇒ watch**es**, finish ⇒ finish**es**
also: do ⇒ do**es**, go ⇒ go**es**
study ⇒ stud**ies**, carry ⇒ carr**ies**.

Questions and Negative Sentences

Where **do** you **work**? I work in an office.
When **do** you **start**? I start work at nine.
When **do** you **finish**? I finish at four.
Do you like your work? No**, I don't**.
Jim work**s** in an office. He start**s** work at nine and he finish**es** at four.
He **doesn't like** his work.

Where	do / does Do / Does	you / he you, she, it, they	work? work	in an office?

I	do not (don't)		
You			
He / she / it	does not (doesn't)	live	in England
We			
You	do not (don't)		
They			

*Note: **no** –es ending in questions.
no –es ending in negative sentences.

a) Write the* he / she / it *(3rd person singular) form of these verbs.

1. read .....
2. repair .....
3. watch .....
4. supervise.....
5. have .....
6. do .....
7. kiss .....
8. buy .....
9. go .....
10. push .....

b) Write the negative.

e.g. I drive a BMW. **I don't drive a BMW.**
1. Jack plays chess very well. ……..
2. You know the truth. ……..
3. He works very hard. ……..
4. They do the same thing every day. ……
5. I like rock music. ……

c) Write the opposite (positive or negative).

e.g. I understand. **I don't understand.**
He doesn't smoke. **He smokes.**
1. They know. ……
2. She loves him. ……....
3. They speak German. ……..
4. I don't want you. ……..
5. She doesn't want money. ……..
6. He lives in Italy. ……..

d) Complete the sentences with the verbs in the box. Use the correct form.

shave / be / play / rain / travel / come / sail

1. At home he _____ basketball every Saturday.
2. We always _____ by train.
3. Joanna never _____ late, she _____ always on time.
4. Nick _____ every day.
5. We _____ on our yacht every holiday.
6. It _____ a lot in England.

e) Complete the sentences. Use the correct form of the verbs in the box.

supervise / require / drive / live / work / navigate / go / be / be / dock / ask / enjoy

1. Kostas Theodorou _____ for a marina in Piraeus.
2. He _____ with his family in Athens.
3. He _____ his children to school every day and then _____ to work.
4. The summer _____ a very busy time. Many holidaymakers _____ with their yachts and motorboats in the Aegean Sea. They _____ in the marina and _____ bunkers and food provisions. They also _____ for information on sightseeing and the night life.
5. In the winter, he _____ maintenance works and he _____responsible for security.
6. He _____ his work very much.

f) Ask your study partner "How often do you…?" S/he will give answers with "usually, never, always, sometimes…"

…….drink coffee in the morning?
…….read newspapers?
…….play internet games?
…….read newspapers?
…….go out with friends?
…….go to bed after midnight?

Then write sentences about your partner.
e.g. **Maria never drinks coffee in the morning.**

_____
_____
_____
_____
_____

g) Ask your study partner "Do you like…?" Then write sentences about him/her.

…….kick boxing?
…….horror films?
…….motor racing?
…….pop music?
…….exotic pets?

e.g. **Mike likes kick boxing**.

_____
_____
_____
_____

h) Write questions that begin with where / what / how...?

e.g. I wash my hair twice a week. (how often / you?) **How often do you wash your hair?**

1. I live in Kefalonia. (where / you?) _____
2. I watch TV every day. (how often / you?)_____
3. I have lunch at home. (where / you?) _____
4. I get up at seven. (what time / you?) _____
5. I go to football games a lot. (how often / you?) _____
6. I go to work by car. (how / you?) _____

II. Language Awareness: Prepositions of Time

I start my watch **at** 8 o'clock.
The galley closes **at** midnight.
See you **on** Wednesday. Bye now!
I don't work **on** Sundays.
My holiday is **in** August.
1st semester classes start **in** autumn.

8 o'clock
at 10.30
midnight etc.

Sunday(s), Monday(s) etc.
on 25 April / 7 July etc.
New Year's Day

April / June
in 1971 / 1880
(the) winter / summer etc.

Also:

I'm going home **at the weekend**.
I usually sleep late **at night**.
I finish my studies **at the end of** January.
I always feel good **in the morning**.
Do you often watch TV **in the evening**?

at the weekend
night
Christmas / Easter
the end of…
the moment

In	the morning the afternoon the evening	**but …**	**on**	Monday morning Tuesday afternoon Friday evening

*Note: Do **not** use **at / on / in** before

this… (this morning / this week etc.)	The traffic is terrible this morning.
every…(every day / every week etc.)	We take the bus every day.
last… (last month / last week etc.)	We worked together on the same vessel last year.
next… (next Wednesday / next year etc.)	Next summer I will work on board a container ship.

a) Write at / on / in.

1. …… 12 June
2. …… 11.30 a.m.
3. …… Tuesday
4. …… 1989
5. …… half past one
6. …… the afternoon
7. …… Monday evening
8. …… night
9. …… February
10. …… spring
11. …… the weekend
12. …… the end of the week

b) Write at / on / in *if necessary.*

1. Exams start _*at*_____the beginning of February.
2. Goodbye! See you _____ Monday.
3. My best friend is getting married _____ October.
4. Do you want to go out _____ Friday evening?
5. Do you often go out _____ the evening?
6. Let's meet _____ 9 o'clock tomorrow evening.
7. My new job starts _____ 9 September.
8. The manager isn't here _____ the moment.
9. Do you work _____ Saturdays?
10. I usually get my pay check _____ the end of the month.
11. I'm leaving _____ Saturday.
12. I'm leaving _____ next Saturday.
13. I always feel tired _____ the evening.
14. Are you free _____ this evening?
15. What do you usually do _____ the weekend?
16. Can you play tennis _____ next Sunday?
17. I'm afraid I can't come to the party _____ Sunday.
18. _____ spring I start my sea apprenticeship to become a Third Mate.

III. Language Awareness: Practice – Present Simple and Daily Routines

a) The third officer talks about his day. Listen and work in pairs to note down his daily routine and then check your answers with your study partner.

Student A: Listen and write the times next to his daily activities.

1. ____*0730*__ Get up
2. _____ Have breakfast
3. _____ Start 1st watch
4. _____ Drink coffee
5. _____ Eat lunch
6. _____ Discuss with Captain
7. _____ Sleep
8. _____ Start 2nd watch

Student B: Go to page 267. Listen and write what he does next to the times.

b) Say what he does:

e.g. The 3rd Officer gets up at 0730.

c) Listen to a person talking about his daily work routine.

– Write the activities next to the times:

inspect vessels	go to office in port and arrange the schedule for the day
review meeting with other inspectors	lunch break

08.00 _____
09.00 _____
12.00 _____
13.00 _____
17.00 _____

– Answer the questions:

Who does the speaker work for?
.....
How does he go to work?
.....
How many inspections does he perform per day?
.....
What does he do during each inspection?
.....

d) What about you? Note down your own work timetable for Mondays, and tell your partner about it.

e.g. I have Mathematics from 0815 till 0900, then I have a short break.

e) Match the questions to the answers. Then practise the dialogue with your partner and say it aloud without looking at your book:

1. What do you do?	___ Yes, usually in the morning, from about 0800 to 1330.
2. Do you have classes every day?	___ By bus.
3. How do you go to the Academy every day?	___ I am a student. I study at the Merchant Marine Academy.
4. What time do you have a break?	___ Around 1030.

f) Use the Present Simple to fill in the correct form of the verbs in the following e-mail:

Hi, buddy.
How are you?

I'm fine. Now we _____ (be) near Hong Kong. I _____ (work) on a huge tanker ship. Check the attachment in my e-mail for a picture of my vessel. It _____ (take) hours just to walk from one side to another! This vessel

_____ (carry) petroleum and we _____ (load) the cargo by means of pipes. Working here is not very easy. I _____ (work) for many hours a day so I can't sleep a lot. When I _____ (have) time I watch DVDs or read books.
The captain is very good. He always _____ (help) me when I _____ (not/know) what to do. I have a friend, too. He is Greek. He's from Volos. We _____ (talk) a lot when we have free time. The problem is that I _____ (not/go) out very often. We _____ (not/stay) at ports for a long time because loading and discharging _____ (not/take) a long time.
But, what about you? Are you OK? _____ (you/work) a lot? Say hi to Litsa for me.

That's all for now. Take care.

Manthos

6. Crew Ranks and Roles

I. Maritime Jobs: Officers

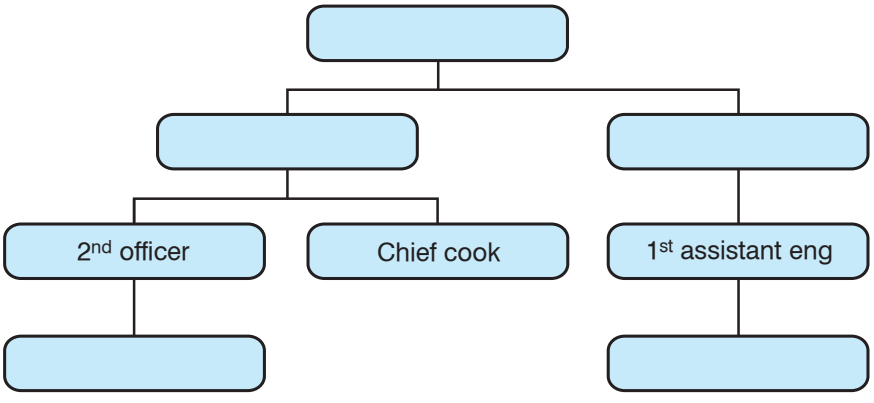
a) Lead-in. Listen to the seafarers. What is their rank? Choose one of the following:

Chief Engineer / Chief Officer / Master / Chief Cook / Cadet Engineer

Speaker 1 _____
Speaker 2 _____
Speaker 3 _____

b) Write the jobs in the correct position on the diagram.

Chief Engineer	Master	3rd Officer
Chief Officer	2nd Assistant Engineer	



Read about the activities of the various officers on board. Remember, the role and responsibilities of officers varies, depending on the country, the flag, the type of ship, etc.

So, you want to go to sea... Look at the following maritime jobs:

– The Master

On most legal documents in the merchant shipping industry, the captain is referred to as the ship's Master. The Master of a merchant vessel is the representative of the company that owns a ship and s/he makes sure that the vessel is legal according to local, international and company regulations. S/he deals with all shore and port officials and is responsible for the well being of the crew and the safety of the ship. The Master also maintains discipline and pays the crew.

– Chief Mate (C/M) or Chief Officer (C/O)

S/he is the head of the deck department and is in charge of the ship's cargo and deck crew. S/he is responsible for the loading and discharging of the vessel as well as for fire-fighting drills and boat drills. This means s/he supervises the Bosun, 2nd and 3rd Mates for cargo, maintenance, repairs and drills. S/he normally stands a navigational watch (4-8) and a cargo watch. S/he is typically the ship's Damage Control Officer, Safety Officer and Training Officer; this means that s/he has to make sure that the station bill and the muster bill are properly prepared and posted and that the fire-fighting equipment and the life-saving equipment are accessible and operational.

– Second Mate (2/M) or Second Officer (2(nd)/ O)

S/he is responsible for all aspects of navigation (voyage planning, chart correction, navigation equipme mmunications) while at sea, and is in charge of a cargo watch while in port. S/he is often designated Medical Officer and GMDSS operator, in charge of maintaining distress signaling equipment. S/he usually stands the 12-4 navigational watch and is responsible for the upkeep of onboard publications. On oil tankers the Second Mate assists the Chief Mate with tank cleaning operations.

- ***Navigational officer:*** the role of the navigational officer is to make sure that bridge electronics, navigational and alarm systems, and ship's lights are in good working order. S/he regularly checks bridge instruments and makes sure that up-to-date charts and navigational publications are available on board. S/he plots the voyage track and works out the course.

On bridge: Officer charting route / helmsman steering.

– Third Mate (3/M) or Third Officer (3(rd)/ O)

S/he is responsible for all safety inspections and the upkeep of all Life Saving Appliances and Fire Fighting Equipment on board. S/he usually stands the 8-12 navigational watch while at sea,

and is, sometimes, appointed ship's Safety Officer.

- ***Safety Officer:*** the duties related to the role of safety officer focus on responsibility for items such as firefighting equipment, lifeboats, and various other emergency systems.

– Chief Engineer (C/E)

A day worker, s/he is in charge of the engine department and is responsible for E/R personnel and the proper operation, overhauling, and safety of the vessel's propulsion system, power generation system and all auxiliary machinery and spaces.

- Responsible for ordering spare parts.
- Supervises critical engine repairs.
- Decides on repairs and reports defects that may affect the ship's performance to the Master.
- Advises the Master on all matters relating to fuel requirements.
- Logs fuel consumption.

– Second Engineer (or 1st Assistant Engineer, in some countries)

S/he keeps an E/R watch and reports directly to the Chief Engineer about the daily maintenance and operation of the engine department.

- Is in charge of engine room repairs.
- Allocates daily duties to E/R officers and crew.
- Keeps overtime records.

Inspecting and repairing generator.

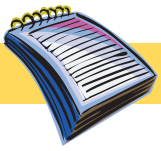
– Third Engineer (or 2nd Assistant Engineer)

S/he keeps an E/R watch and is responsible for the smooth operation of all engine room systems.

- Performs system checks.
- Normally in charge of electrical systems, generators, boilers, fuel, auxiliary engines and feed systems.
- Is typically in charge of bunkering, if the officer holds a valid Person In Charge (PIC) endorsement for fuel transfer operations.
- supervises tank soundings, monitors boiler room equipment.

– Chief Cook

S/he creates daily menus, orders and stocks sufficient amounts of food, cooks, bakes, and prepares food.



Glossary

representative	acting, serving as agent
regulations	body of rules
supervise	direct and watch over the work and performance of others, oversee
operational	ready for immediate use
designated	appointed, assigned as, selected for a duty or a specified purpose or role * e.g. DPA, Designated Person Ashore, for Safety Management
upkeep	maintenance, in proper operation, condition and repair
proper	suitable, appropriate, correct, fitting
overhaul	check carefully and make any necessary repairs
critical	so serious as to be at a point of crisis
defect	deficiency, imperfection, flaw
overtime	time somebody works beyond normal working hours, payment for additional work done outside the regular schedule
smooth	without difficulties, obstructions or irregularities, note the saying "A smooth sea never made a skilled mariner"
valid	legally sufficient and authorized by law
endorsement	official approval, authorisation
sufficient	enough, adequate

c) Fill in the correct prepositions.

1. Responsible _____ safety.
2. He is ____ charge _____.
3. She is ____ command _____.
4. The head _____ the engine department.
5. I am ____ duty.

d) Fill in the correct verb to make phrases.

chart / correct / report to / perform / steer / stand / complete

1. _____ a navigational watch.
2. _____ paper work, forms, documents.
3. _____ checks on engine systems.
4. _____ the chief engineer.
5. _____ the vessel.
6. _____ the charts.
7. _____ the route.

II. Maritime jobs: Ratings

There are three major departments on board a merchant ship: Deck, Engine and Catering Department.

a) Fill in the correct heading to describe the responsibilities of ratings in the three departments. Then, use the words in the box and put the ratings in the correct department.

– Engine room ratings
– Catering ratings
– Deck ratings

_____	_____	_____
are responsible for cleaning, sweeping, chipping, polishing, etc. They help in loading and unloading of cargo and in port they assist in the mooring of the ship.	are responsible for the day to day cleanliness of the E/R and for the routine oiling, greasing and servicing of machinery. They help the officers monitor and ensure the safe running of main plant and auxiliary equipment.	clean accommodation areas and public rooms, help in preparation of food, clean galleys and cooking utensils, maintain fridges and freezers. They also serve meals to officers and crew and help in loading and storing of food.
↓	↓	↓
…….	…….	…….
…….	…….	…….
…….	…….	…….

Wiper	A/B (Able Bodied Seaman)	Steward
Messmate	2nd cook (assistant cook)	Oiler
Bosun (boatswain)	Fitter	O/S (Ordinary Seaman)

b) The ratings speak about their duties. Complete the ratings (from the box above) next to their duties.

_____: I clean the galley, the mess and keep the living spaces on board tidy. I serve meals to officers and crew.

_____: I am responsible for cleaning various engine spaces. I wipe down machinery and keep it clean. I am also a general handyman in the E/R, and assist officers.

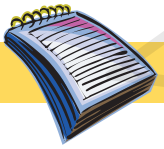
_____: I make rounds in the E/R and assist as directed by the officers. I am senior only to the wiper. My job is to oil and grease bearings and moving parts of the main engine and auxiliaries. Most of this work is now done automatically, of course, so I basically make sure this operation runs correctly.

_____: I prepare and cook food.

_____: I supervise all A/Bs during deck maintenance and repair. I usually work during the day. I am in charge of all deck ratings and answer directly to the Chief Officer.

_____: My work is similar to that of the A/B, but I do no steering, and I concentrate more on cleaning. I still need sea time and additional qualifications before becoming an A/B.
_____: I clean the officers' rooms and the galley area, I set tables, etc.
_____: My work on deck involves chipping rust, painting, lubricating fittings, cleaning various areas. I also stand a watch under the supervision of the OOW and I am responsible for keeping a lookout and steering the vessel. I am a fully-trained seaman, with good knowledge of all deck gear and equipment. I carry out maintenance of deck rigging and machinery, such as the loading gear, cranes, ramps, doors, lifts and hoses, and the mooring equipment, such as the windlass, anchors, cables, wires and hawsers. The deck hands help me clean, chip, scrape, wirebrush, prime and paint the hull, bulkheads, decks, passageways, deck machinery or spaces.
_____: I do sheet-metal work, welding and plumbing. I fabricate and install steel pipe work, which means that I do the measurement, preparation and installation of pipe work of varying lengths and diameters.

– Qualified Members of the Engine Department (QMEDs) are trained in all crafts necessary to engine maintenance, welding, refrigeration, lathe operation, electricity, pumping, water purification, oiling, evaluating engine gauges.
– The pumpman takes care of the pumps of an oil tanker - operates pumps and discharges petroleum products.
– The A/B stands a watch when the ship is underway as "helmsman" (or "quartermaster") and steers the ship under the direct orders of the deck officers. This means he has to understand steering commands and have certain knowledge of nautical terms, Rules of the Road, fog and distress signals, running lights, the compass, etc.



Glossary

handyman	a worker skilled in various odd jobs or other small tasks
senior	of higher rank (compare to "junior": lower in rank)
prime	to prepare a surface for painting by covering with primer or an undercoat
hawser	thick rope or cable used for mooring or towing the ship
underway	a vessel in motion, not at anchor, or made fast to the shore, or aground
Rules of the Road	Collision Regulations (COLREGs)

7. Interviews with merchant marine cadets

Listen to the interviews to find out about the various duties of deck and engine cadets (sometimes also called "apprentice deck officers or engineers") on board[2].

2. The interviews are authentic and spontaneous, and, since the cadets are non-native speakers/learners of English, there might be some minor grammar errors in them. Such minor errors do not actually disrupt natural oral communication, so don't pay attention to them.

I. Duties of an engineer cadet

Lead-in: Look at the following activities. Only some of them are part of the cadet's duties. Which ones? Discuss with you partner. Then, you will listen to check if you are right.

a) Listen and tick the phrases you can hear that describe the cadet's duties.

The engineer cadet…

- ☐ Follows commands of officers in E/R
- ☐ Assists as required
- ☐ Takes part in overhaulings
- ☐ Takes part in inspections
- ☐ Carries stores
- ☐ Keeps the PMS (Planned Maintenance System) informed
- ☐ Must do some cleaning
- ☐ Supervises the oiler and the wiper
- ☐ Must learn the cargo operation
- ☐ Learns about the E/R operation as an Unmanned Machinery Space (UMS)
- ☐ Learns about bunkering and sampling
- ☐ Uses LSA (Life Saving Appliances)
- ☐ Learns how to give First Aid
- ☐ Discusses the daily works with captain
- ☐ Reports to captain about inspections
- ☐ Is responsible for discharging fuel

b) Listen again and fill in the blanks, based on the information you can hear in the interview. The first letter of each missing word is given.

1. Overhauling is when you open up a machinery, take out its parts and r_____ them to keep it working properly, after a certain amount of working hours.
2. You do overhaulings in machinery such as a diesel g_____, fuel oil purifier or fuel oil high pressure pump.
3. You must learn how to operate the cargo oil pump turbine to discharge fuel to the s_____ connection.
4. You normally work 8 hours and then rest in your cabin, but when a problem is caused you need to work o_____.
5. Extra time is added to your normal hours when you are on stand-by before a terminal or sea passage, or for a special job, such as p_____ overhauling, which takes around 8 hours.
6. The Chief Engineer sends information to the company about fuel c_____ and the PMS.
7. Every morning the Second Engineer gives the o_____ to Third Engineers, the oiler, the wiper and the cadet, divides the overhaulings and the cleanings, and reports to the Chief Engineer.
8. The cadet must know all the valves we open and the p_____ we use for bunkering.
9. You take the fuel samples and send them to a chemical lab to check if there is w_____ or contaminants.

Overhauling piston no. 2.

10. Special ratings, such as technicians, come to do a special overhauling, such as r_____ of Main Engine turbo charger.
11. The fitter does all the welding for the pipes, if they must be replaced because they have h_____ due to corrosion.

II. Lifeboat drills

a) Listen to the two interviews and tick the topics the cadets mention in each interview.

	Interview 1	Interview 2
Master Messenger		
SART (Search and Rescue Transponder)		
Portable VHF (used to communicate with other vessels)		
Muster List Station		
Master supervises the operation from bridge		
A/Bs (and messmates) lower the boats		
Designated Officer for safety drills is Chief Officer		
How often drills take place		
Duration of drills		
Immersion suit		

b) Fill in the blanks. The first letter of each missing word is given:

1. The first thing you learn as a cadet is where your m_____ station is.
2. The Master s_____ drills from the bridge.

Lowering the lifeboat.

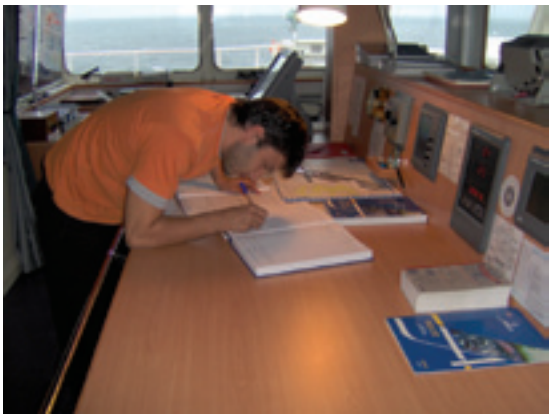
3. The role of the Master's m_____ is to transfer information from the bridge to Officers. Nowadays, of course, there is VHF bridge-to-crew communication to do this.
4. The Chief Officer is responsible for all the drills, since s/he is the S_____ Officer.
5. The Cadet must o_____ the lowering operation and assist A/Bs if necessary.
6. When you enter the lifeboat you f_____ your seat belt.

III. Duties of a deck cadet

a) Listen to the two interviews and tick the activities you hear. Then put them in the correct list.

- ☐ Greasing moving parts
- ☐ Observing the Officers during their watch
- ☐ Participating in manoeuvring
- ☐ Correcting charts
- ☐ Chipping rust off with (electric) chipping hammer
- ☐ Filling in documents and passage plans
- ☐ Sweeping and mopping the floor
- ☐ Updating logbooks
- ☐ Cleaning up tanks
- ☐ Cleaning manifolds and pipes

Working on bridge	Working on deck



Updating logbooks.

Using the sextant to take observations.

b) What about you? Imagine you are a cadet working on board. Which of the activities above do you like? Tell your partner: "I am fond of"... or "I don't like..."

c) Fill in the blanks, based on what you could hear in the two interviews.

A cadet normally works _____ hours on deck and _____ hours on bridge, but s/he works mostly on the bridge if there are extreme_____ conditions.

Depending on his nationality, the _____ is sometimes responsible for the deck cadet's duties on deck.

You have too much work on deck, if the vessel is _____.

IV. Officers' Roles

– Listen to the two interviews and fill in the information you hear. Leave the box blank when you don't hear any relevant information.

	Interview 1	Interview 2
Name of vessel:		
Type of vessel:		
Cargo:		
Year built:		
Trading Area:		
LOA (length overall):		
Breadth:		
Number & nationality of Second Officers onboard:		
Number & nationality of Third Officers onboard:		
Roles of Second Officers:	**Designated as:**	**Designated as:**
C/O designated as:		

Designated Safety Officers

STANDING ORDER: No1
M/V FAITH

PIRAEUS / 11026

Responsible Persons for Safety Maintenance

G..... MENELAOS, Chief Officer:

Overall responsible for Safety Maintenance. Oversees the 2nd Officers in their area of responsibility.

T..... ANTONIOS, 2nd Engineer

Chief Officer's substitute, responsible for Safety Maintenance.

S..... ELEFTHERIOS, 2nd Officer :

Responsible for the Life Boats, Life Saving Equipment and Bridge Equipment.

S..... MANOLIS, 2nd Officer :

Responsible for Fire Fighting Equipment in general, ventilation dampers, operational condition and maintenance.

The 2nd officers are fully responsible to undertake their duties every week, in their specific areas of responsibility, without waiting for specific instructions from the Chief Officer or 2nd Engineer. Every Saturday they will report to the master the work/checks done during the previous week, and bring the Maintenance Record Book for signing.
In areas or items where they need help or instructions they are to ask the Chief Officer's assistance.

AT YANTAI 22-06-2009

The Master of M/V FAITH

Capt. K..... ATHANASIOS

Designated GMDSS Operator

STANDING ORDER: No2
M/V FAITH

PIRAEUS / 11026

Responsible General Operator

The 2nd Officer S..... MANOLIS, who is holder of the G.O. certificate, is hereby assigned as General Operator of the vessel, to have primary responsibility for radio communications during distress incidents, to perform the routine communications and tests, maintain the equipment, process telecommunication charges, write the relevant Radio Log book and in general and in all respects carry out his duties as necessary for the proper operation of the G.M.D.S.S. system and the fulfilment of the vessel's national and international responsibilities as defined in the relevant laws and regulations. In his duties and as necessary, he is to be assisted by the other deck officers holding General Operation Certification.

AT YANTAI 22-06-2009

The Master of M/V FAITH

Capt. K..... ATHANASIOS

Round-up

A. Vocabulary Consolidation Self-Assessment

Tick ☑ what you can do. Cross ☒ what you still find hard to do in English.

- ☐ ☐ Dictate and note ship's call signs and messages using the international maritime alphabet.
- ☐ ☐ Give and receive information that contains times and dates.
- ☐ ☐ Talk about routine activities on board.
- ☐ ☐ Describe key responsibilities of all crew members.

B. Class Project.

Choose one of the following projects to present in class. Generally, projects will help you build up your research and presentation skills.

- Find information about two relatively new roles onboard, the **Environmental Officer**, responsible for Garbage Management Plan, and the **Ship's Security Officer**, according to Ship Security Plan. Who is appointed in these roles? If you have access to vessel's documents, ask for MASTER'S STANDING ORDERS, like the ones above, and bring to class documents appointing Officers to their duties.
- Some ranks have disappeared or have been replaced by others, like the "radio officer" or the "donkey man". Find out what they are and tell the class.
- Research what "dual cadets" are (a system used in some Scandinavian countries, for instance), and tell the class about their advantages and disadvantages.

C. Work in pairs to dictate and note down information.

Student A: Ask your partner the following questions. Fill in your card.

- What is the date?
- What is your ETA?
- What time does loading start?
- Who is the officer in charge?
- How much cargo do you expect to load?

	A	B	C
Date:			
ETA:			
Loading starts:			
Cargo:			
Officer in charge:			

Student B: Go to page 267. Dictate the information from the following card to your partner. Check if s/he notes it down correctly.

D. Remember what you know about the crew and their tasks. Match the tasks to the appropriate member of the crew by writing the correct numbers in the boxes provided.

1. Captain	2. Chief Mate	3. 2nd Mate	4. A/B	5. Chief Engineer

☐ carries out maintenance on deck equipment	☐ advises the Master on fuel requirements
☐ is head of the Engine Department	☐ is second in command
☐ corrects and updates the charts	☐ stands a watch as quartermaster
☐ is responsible for the safety of the ship, crew and cargo	☐ plots the voyage on charts
☐ is head of the deck department	☐ is the company agent
☐ scrapes and wire brushes the hull	☐ plans and supervises loading
	☐ is traditionally the ship's navigational officer

E. Write questions. Begin with "what time" or "when".

e.g. What time do you have dinner?
We have dinner at 18:00.

1. _____
She gets up at 09:00.
2. _____
They start work at 07:00.
3. _____
I hand over watch at 20:00.
4. _____
He goes to bed at 23:00.
5. _____
We check our e-mails at 16:00.

F. What do the acronyms stand for?

GMDSS _____
OOW _____
EOW _____
C/O _____
UTC _____
2/O _____

UNIT 3

Ship Familiarisation

1. *Identifying parts of the vessel (on diagrams)*
   - *Language Awareness: Prepositions and Shipboard Positions*

2. *Terminology Practice*
   - *Information: General Arrangement Plan*
   - *Language Awareness: Phonology - Word Stress*

3. *The Superstructure*
   - *Language Awareness*
     - *I: Plural*
     - *II: There is / There are*

4. *Location of Accommodation and Facilities on Board*
   - *Language Awareness*
     - *I: the apostrophe [']*
     - *II: a / an / the*

Round-up

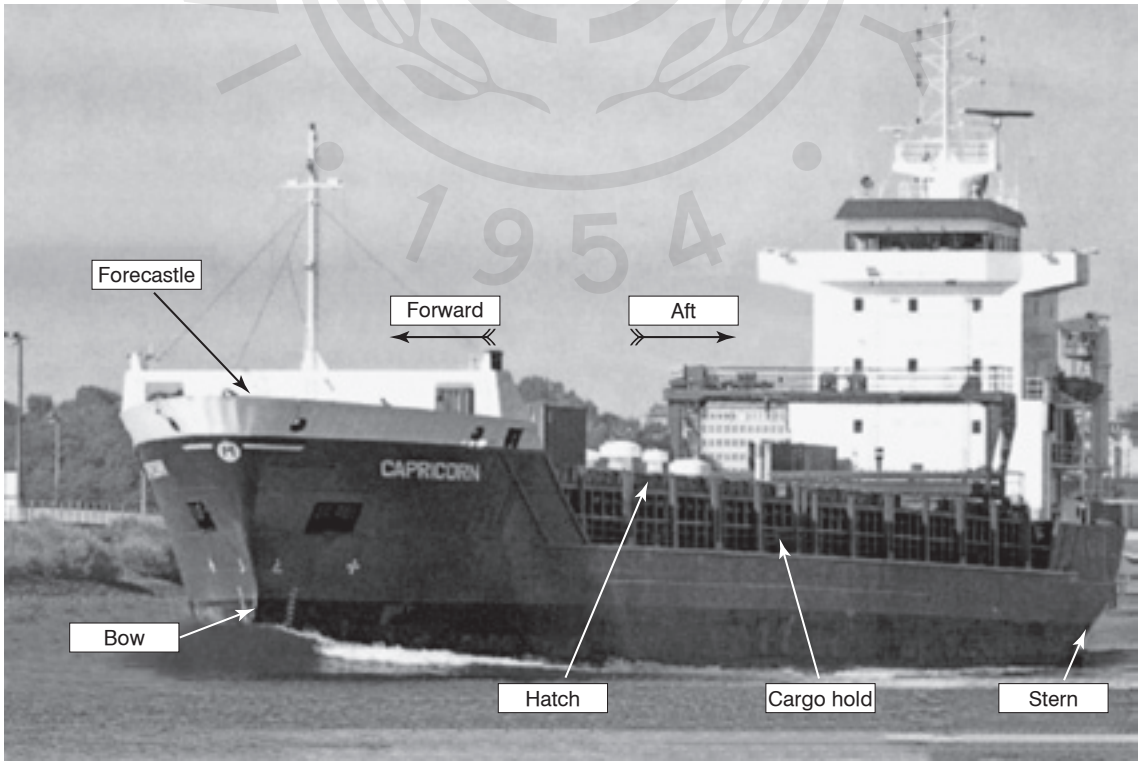
1. Identifying parts of the vessel (on diagrams)

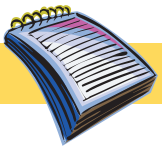
A. *Introduction: a multi-purpose dry cargo ship.*

The Capricorn is a multi-purpose dry cargo ship of 6600 DWT. She carries containers, general cargo, e.g. metal in coils, rolls of paper, and bulk cargo such as grain, coal, ore, fertilizers. The following are some of its main particulars:

Length: 118.5 metres. Breadth: 15.2 metres.
Draught: 6.3 metres. Speed in full load: 14 knots.

Lead-in: Identify the bow, the stern, the forecastle, the hatches and the cargo holds in the next figure.





Glossary

bow	the front part of a vessel
stern	the rear of a vessel
hatch	the opening on the deck of a vessel that provides access to the cargo hold
cargo hold	space where cargo is loaded
forward	towards the bow, at or near the bow
aft	towards the stern, at or near the stern

B. Terminology Development

a) The diagram below gives you a profile view sketching different parts of a vessel. Look at the diagram and read the text to learn the main parts of the vessel.

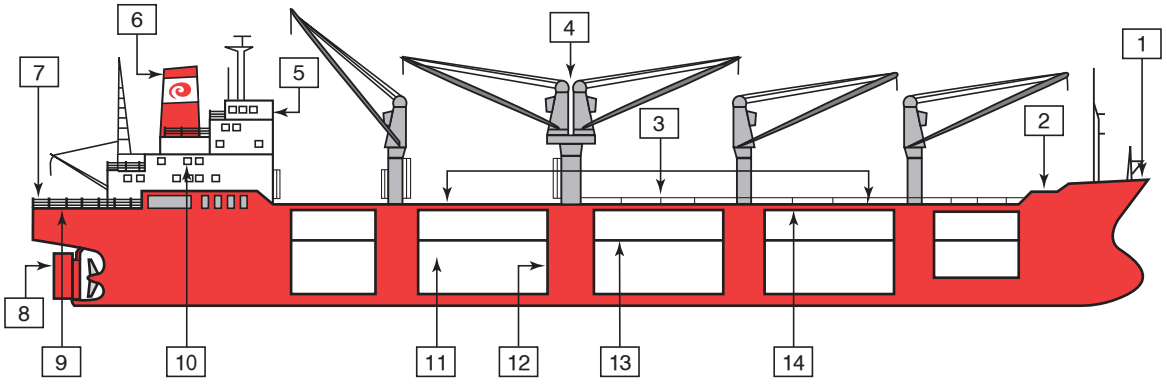
On the ***forecastle*** [2] deck superstructure we find the windlass for the anchor. Below the forecastle, inside the bulbous ***bow*** [1], there is a forepeak tank, where we store water for ballasting or for trimming the ship.

On the open ***main deck*** [3] we find large ***hatch covers*** [14] over the hatches that lead down to the ***cargo holds*** [11] below. These hatch covers are watertight and protect the hold.

Below the main deck are the cargo holds. Strong vertical ***bulkheads*** [12] separate the holds from each other. In addition to this, the holds can have removable between decks (***'tween-decks*** [13]) with their own hatches and tween deck hatch covers. This increases the number of cargo holds. Tween-decks separate the hold into a lower hold and an upper hold to store different (kinds of) cargoes. A geared vessel has its own ***cranes*** [4] that lift and move the cargo and assist in loading and discharging.

On most modern merchant vessels, towards ***the stern*** [7] of the ship we find ***the superstructure*** [10] and on it the accommodation and ***the navigation bridge*** [5].

On top of the superstructure and aft of the main mast are the ***funnels*** [6] from where the exhaust gases from the engine room go into the air. The engine room is usually at the stern of the ship below the main deck and aft of the cargo holds. Aft of the funnels is ***the poop deck*** [9] with a second set of mooring winches. The ***rudder*** [8] is a tool for changing course, changing the direction or the heading of the ship when she moves through the water.

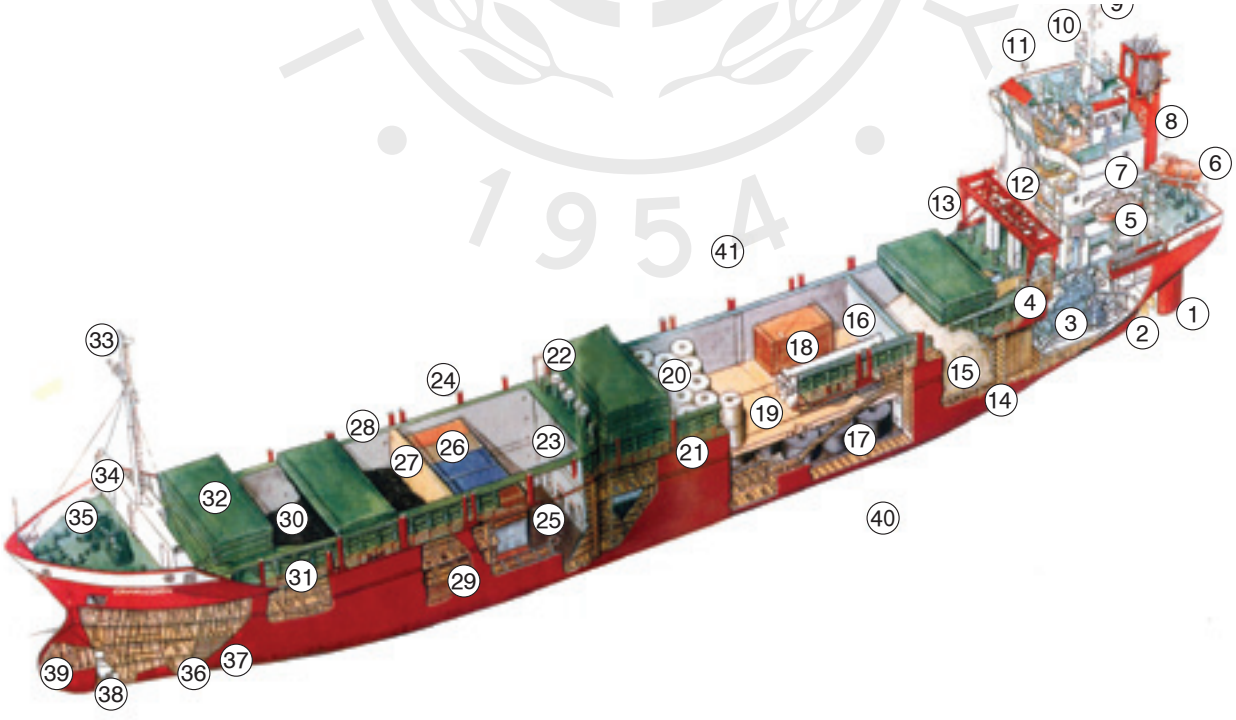


Glossary

ballasting	using water as ballast (in ballast tanks) for keeping the ship stable
trimming	to balance a ship by shifting its cargo
watertight	constructed so tightly as not to leak any water
vertical	the opposite of horizontal
separate	divide, come between
increase	become greater, larger
discharging	unloading
mooring	securing a vessel by cables, wires or ropes to a dock or to a buoy or anchoring with 2 anchors
mooring winch	a machine on a ship used to haul in mooring lines when securing the ship to a pier / wharf / quay

b) Find the following parts on the picture of the Capricorn below:

No **39** Forepeak tank in bulbous bow
No **35** Anchor windlass on the forecastle
No **8** Funnel with all exhaust pipes
No **1** Rudder
No **16** / No **23** / No **27** Vertical Bulkheads
No **19** 'tween-decks
No **12** Accommodation
No **32** Stacked Hatches



Closed hatches

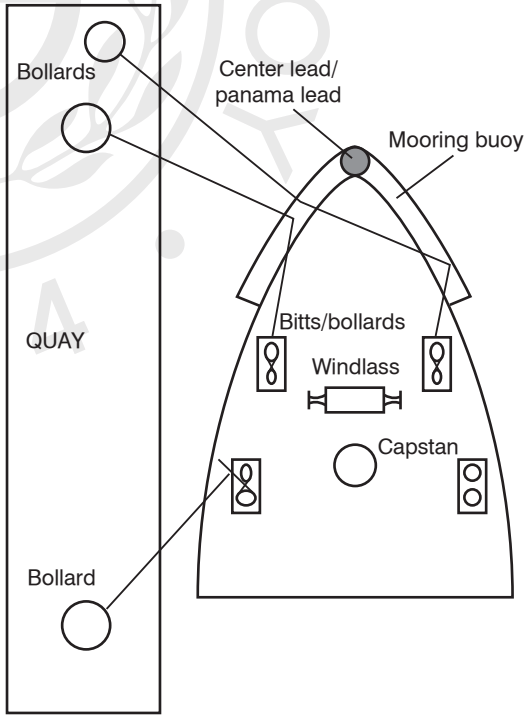
Hatch covers

– A **hatch** (hatchway, hatch opening, or hatch cover) leads to a lower level, especially a hold. Hatches open by special cranes or slide to the sides.

– The **anchor windlass,** up on the forecastle (also spelt foc'sle) of the ship, keeps the ship in position at the port anchorage area, waiting to go alongside to do cargo handling. The **windlass** is also used for handling the mooring ropes to make sure that the ship can stay alongside the quay while she is in the port.

Forecastle with anchor windlass

Bitts / bollards



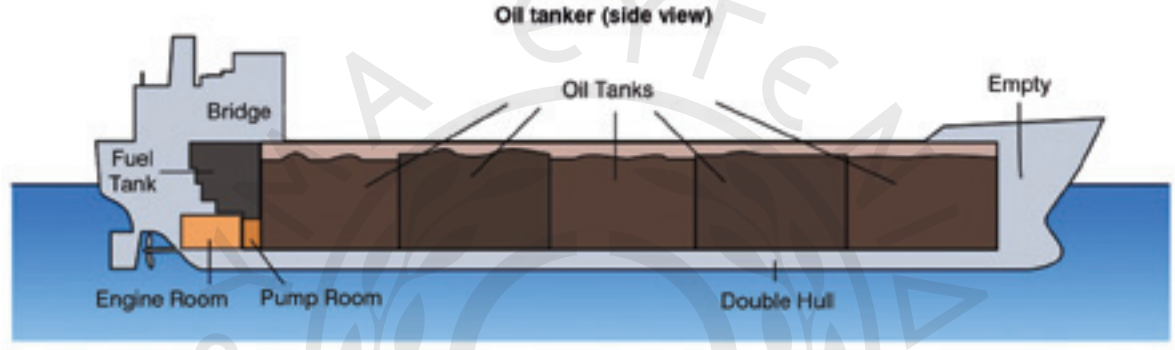
– Useful verbs. Distinguish between the following verbs and see how we use them in a maritime context:

Stack / store / stow

- You can stack containers on the main deck. [Stacked hatches; Hatch stacking crane]
- The captain stores ballast water in the tank. [Bosun's stores; Food stores]
- Don't stow heavy goods on top of light packages. [Stowage plan; Stowaway]

stack: to arrange in a pile, load or cover with stacks or piles
stow: place in a neat, compact way, fill by packing tightly
store: reserve, put away for future use, deposit in a storehouse, supply or stock

c) Look at the picture of an oil tanker. What are the parts you can find in the picture that are special to this type of ship?



Language Awareness: Prepositions and Shipboard Positions

a) Look at the words in bold that show the position:

The bow is the part of the ship **between** the stem and the collision or forepeak bulkhead.

The space **forward of** the collision bulkhead and **below** the main deck is the forepeak. The forepeak tank is the lowest space in the bow and we use it as a ballast tank (ballast water increases the draught and reduces the trim by the stern).

Above the weather deck in the bow there is often a forecastle, a superstructure from bow to at least **above** the collision bulkhead, sometimes even further **aft. On** the forecastle is the windlass and other mooring equipment. **At the after part** of the forecastle-deck we usually find the foremast.

– Useful vocabulary for talking about where the different parts are:

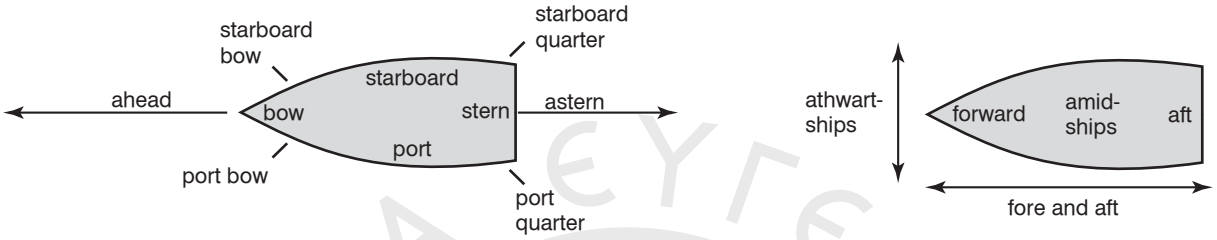
X	is	**on** **on top of** **above** **below** **between** **aft of** **forward of** **at the top of**	Y

For example: *Where is the anchor windlass?*
*The anchor windlass in **on** the forecastle.*

– In order to express position and movement relating to the ship, we use the following words:

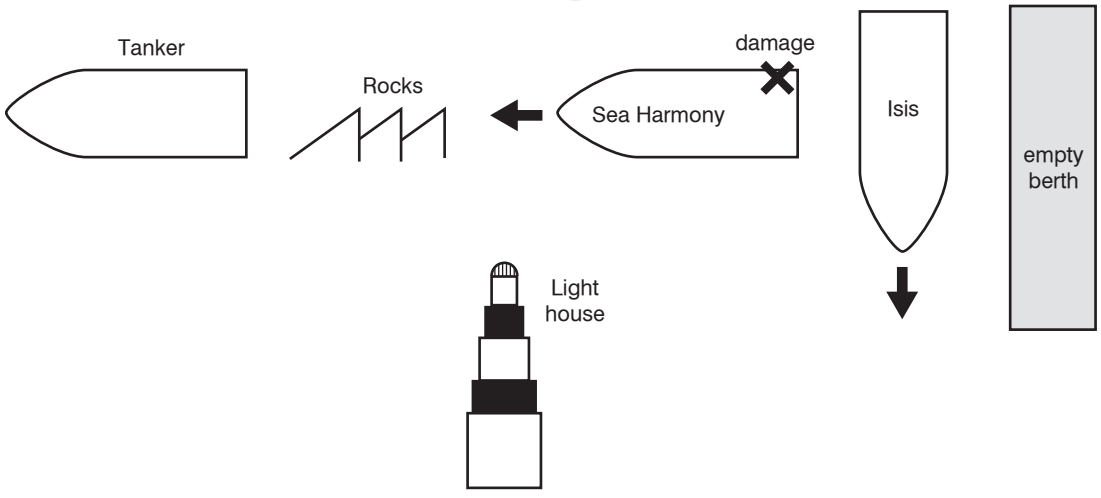
Ahead = forward
Astern = backward
Ahead of = in front of
Astern of = behind the ship
Amidships = in the middle (between forward and aft, or between port and starboard)

– Look at the shipboard positions and directions and study these sentences:



- There are ropes **fore and aft**. (fore and aft = at the bow and at the stern)
- The fire party is **amidships.** (amidships = in the middle of the ship)
- There is swallow water **ahead of** your vessel. (ahead of = in front of the ship)
- Do not pass **astern of** my vessel. (astern of = behind the ship)
- #1 hold is **forward of** #2 hold. (forward of = in front of)
- The funnel is always **aft of** the navigation bridge. (abaft or aft of = behind)
- There is a light buoy at a distance of two miles **ahead**. (=in front of the ship)
- When you are facing the bow you have the starboard side on your right and the port side on your left: right is called the **starboard** side and left the **port** side. The word "port" comes from the old times when a sailing ship always moored the left side of the ship to the quay in port. The ship is moored to the quay **in port**.
- The hull surface of the stern is called the **port quarter** or the **starboard quarter**.
- The hull surface of the bow is called the **port bow** or the **starboard bow**.
  e.g. the ship hit a rock on the port bow.
  e.g. there is damage to the hull on the port quarter.

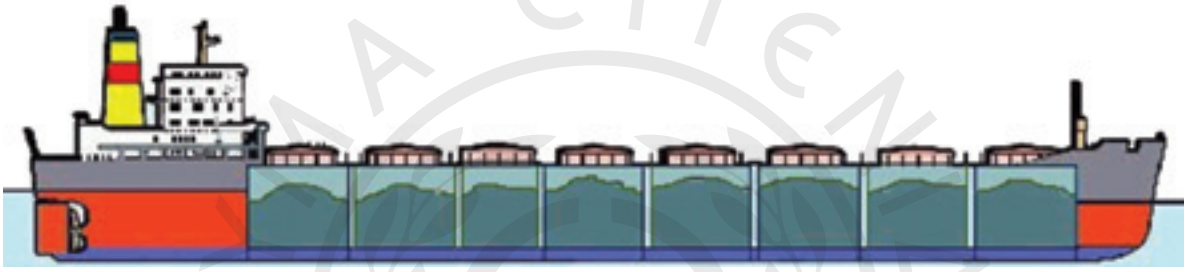
b) Fill in the correct preposition according to the sketch:



1. The rocks are _____ the Sea Harmony.
2. The lighthouse is on _____ of the Sea Harmony.
3. The Isis is passing _____ the Sea Harmony.
4. There is damage to _____.
5. If you look _____, you'll see a tanker two miles _____ the Sea Harmony.
6. If you look _____, you'll see an empty berth _____ the Sea Harmony.

2. Terminology Practice

A. ***Look at this picture of a large ungeared bulk carrier and answer the questions.***



How many holds does it have?
Does it have cranes? Where is the poop deck? The bridge? The forepeak tank?
Can you find the funnel? The hatch covers? The propeller? The superstructure? The forecastle?

B. ***Fill in the correct words. Then show the hull, double bottom and compartments in the picture above.***

bottom, compartments, hull, plating, ladders

1. The whole body of the ship is called the_____.
2. The outer surface is called the _____.
3. The space between the cargo holds and the _____ contains the **double bottom tanks** for ballast and sometimes for fuel.
4. Stairs on the ship are often called _____.
5. Rooms (space) on a ship are often called _____, separated by watertight bulkheads.

Lead-in: Underline the correct word.

1. M/V Tasoula had a **collision / crash**.
2. In case of fire, use your breathing **device / apparatus**.
3. Cargo is **stowed / stored** in the holds according to the stowage plan.
4. The Bosun checks the **stores / stowaways** and orders new ones regularly.
5. A **perpendicular / transverse** dividing wall is situated across (crosswise).

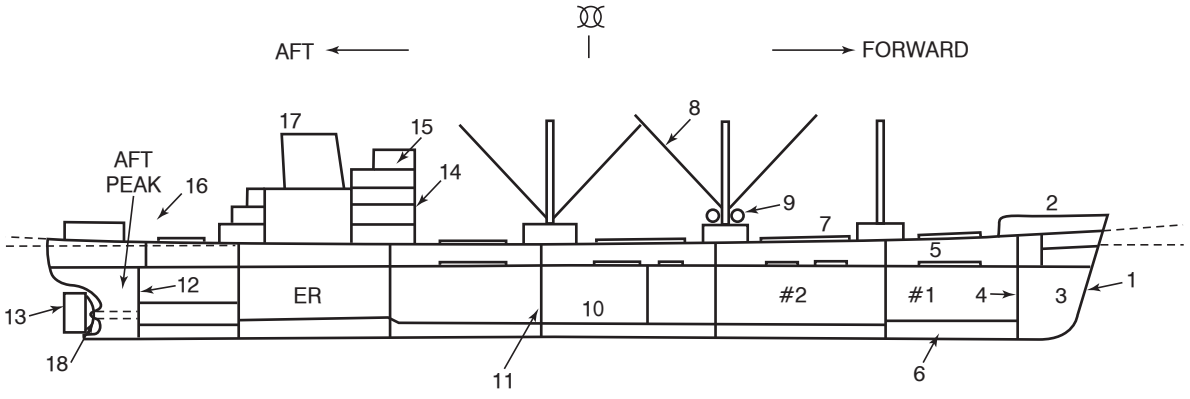
C. *The following are definitions or descriptions of the parts of the ship, so that you can learn their function. Choose words from the box to fill in the gaps for full definitions.*

cargo	**watertight**	**space**	**hull**	**stowed**
rotating	**above**	**stores**	**stern**	**lifting**

1. **forecastle**: a superstructure at the bow of a vessel used as a shelter for _____, machinery, etc.
2. **fore peak tank**: space between the collision bulkhead and the stem plating, the extreme forward part of the interior of the _____.
3. **double bottom tank**: _____ between the inner and outer bottom plating of the hull, used for storing fresh and ballast water and fuel oil.
4. **hatch cover**: cover for the opening through which _____ can be loaded and unloaded.
5. **derrick**: large device on the deck of a ship for _____ and moving heavy objects with the use of winches.
6. **hold**: compartment on board a ship where the cargo is _____.
7. **transverse bulkhead**: a wall-like transverse structure inside the vessel forming _____ compartments.
8. **collision bulkhead**: a watertight partition near the bow for keeping out water in the event of a collision.
9. **superstructure**: a construction built _____ the main deck of a vessel, including the forecastle, bridge and the poop.
10. **poop**: the aft part of the ship towards the _____.
11. **propeller**: a device with twisted blades, which while _____ causes the ship to move.

D. *Identify the numbered parts in the following diagram. Use the words from the previous exercise and all the words for parts of the ship you have learnt so far.*

1.	7.	13.
2.	8.	14.
3.	9.	15.
4.	10.	16.
5.	11.	17.
6.	12.	18.

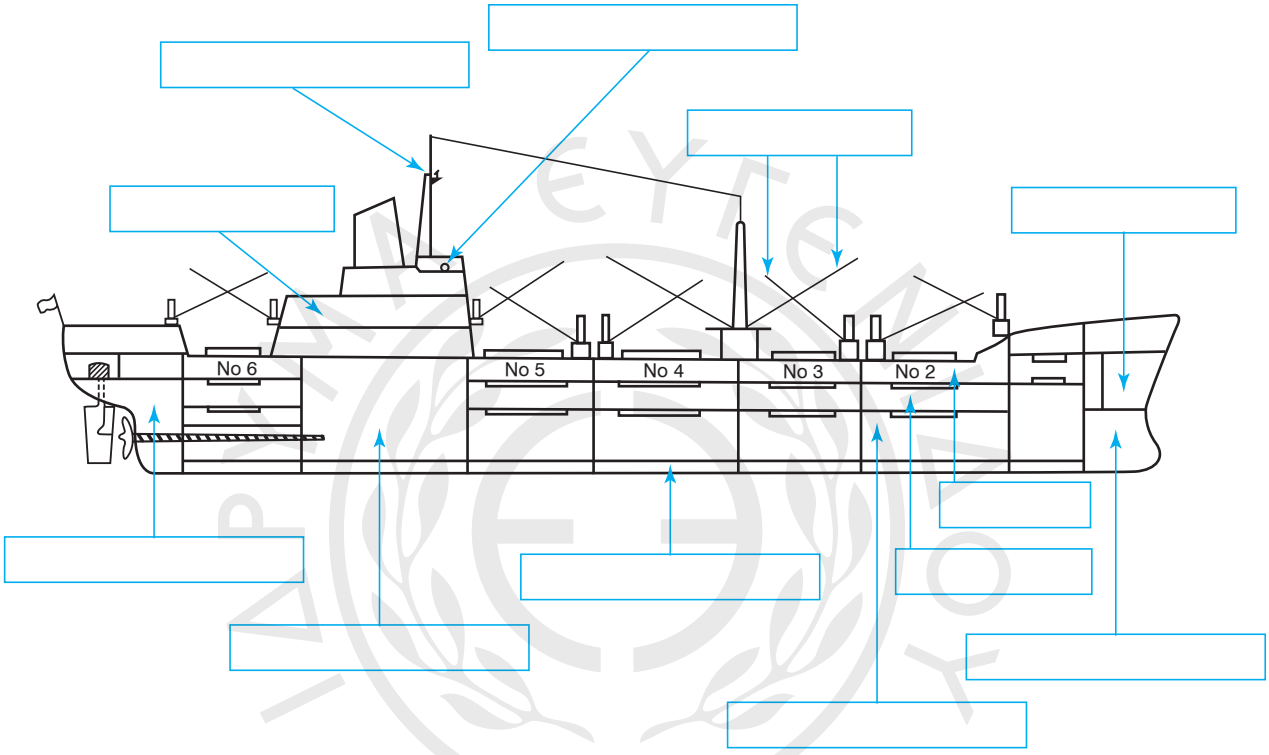


E. *Work in pairs to name parts of the ship.*

Student A: Write the parts of the ship indicated by the arrows. Get help from Student B.

For the following new spaces / terms that come up, ask your partner "Where is …?" "What is …?"

Radar scanner / Officers' accommodation
Wheel house and Chart room (= the Navigation Bridge)
Bosun's Store / Engine Room / After peak tank



Student B: Go to page 268. Your study partner does not have the names for the parts of the ship. Identify the places s/he asks you about, explain where they are so that s/he can write them on his or her own diagram.

For example: Your partner: "Where is the chain locker? What is it?"
You: "The chain locker is at the top of the forepeak, right below the anchor windlass. It is a space where we store the anchor chains."

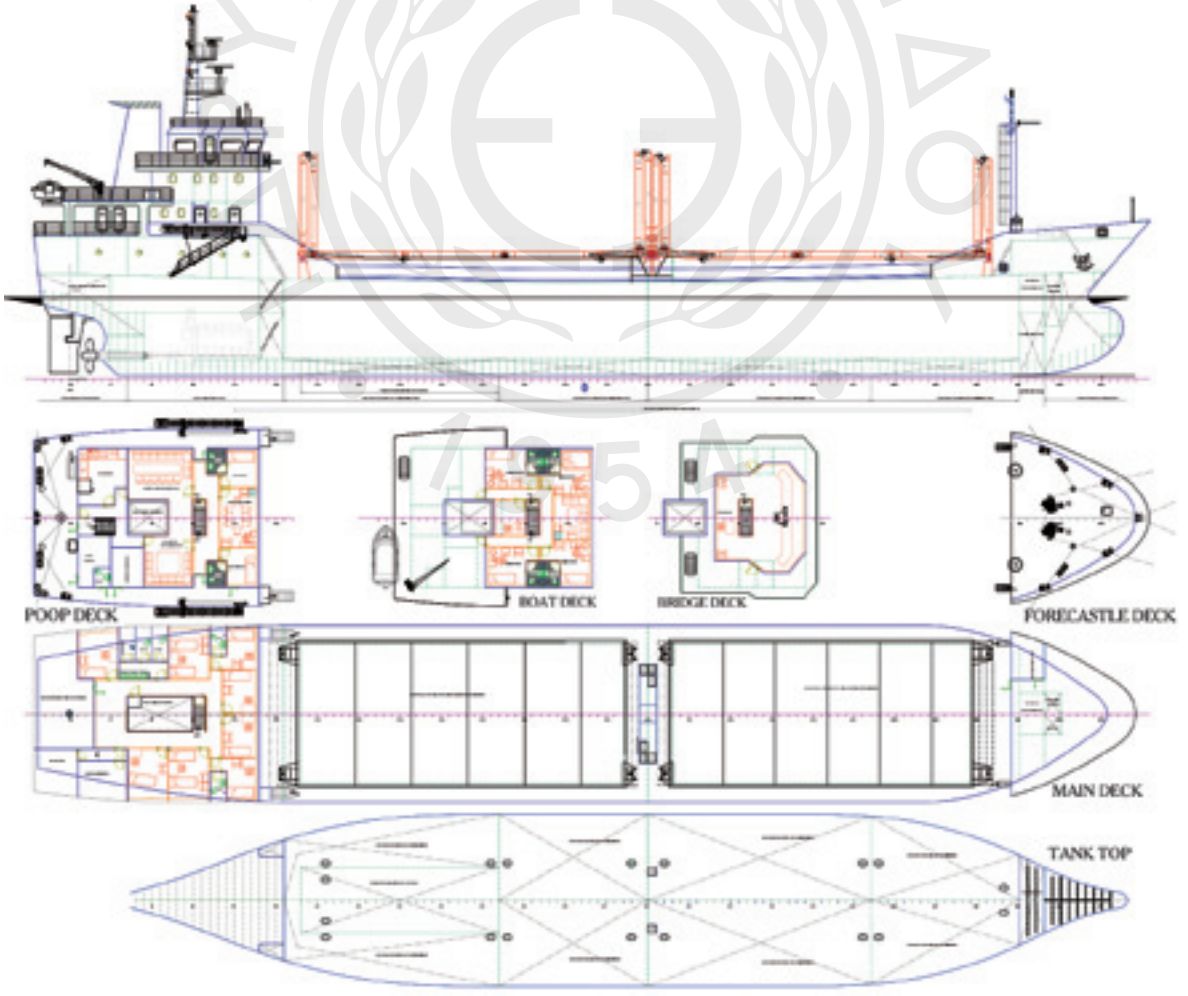
Remember some useful vocabulary:

X	is	**on** **on top of** **above** **below** **between** **aft of** **forward of** **at the top of**	Y

Information: General Arrangement Plan

The General Arrangement Plan of a vessel shows a profile view of the vessel and plan views of the decks and the tank top.

So, for the ship above this is what the general arrangement plan looks like:



When we identify the parts of a ship in a General Arrangement Plan,
– holds and other special spaces are **compartments**,
– decks and bulkheads are **partitions**, or, in other words, separations or divisions.

a) Put the compartments and partitions into the correct list.

Bosun's store
Superstructure
Main (or Upper) deck
Tweendeck
Chainlocker
Engine Room
Double Bottom
Forecastle
Tank top (or lower deck)
Fore / aft peak collision bulkhead
Fore / aft peak tanks
Upper / lower cargo holds

Compartments	**Partitions**

b) Match the parts of the ship from the previous exercise to their function, according to the purpose they serve on board.

Part of the Ship ***Function***

_____ : anchor, winches are there
_____ : storage of anchor chain
_____ : storage of ropes, paint, etc.
_____ : provides shelter for all contents of vessel
_____ : divides the vessel into separate holds
_____ : inside bottom of vessel
_____ : contain cargo
_____ : storage of ballast water, they also absorb impact in case of collision
_____ : prevent vessel from flooding, also fire proof and fire retarding
_____ : contains vessel's propulsion plant
_____ : accommodation, messroom and galley are there
_____ : provides strength, storage of fuel, luboil, fresh and ballast water

c) Speaking. In pairs, use the information above to talk about each part.

e.g:
- What are the cargo holds?
- The cargo holds are spaces that contain cargo. There are upper and lower holds in a general cargo ship.

Language Awareness: Phonology – Word Stress

a) Your teacher will read out two versions of the following words. Which one is correct? Tick the version with the correct stress.

Bulk-carrier Bulk-carrier	Wheel house Wheel house
Cargo hold Cargo hold	Accommodation Accommodation
Fore peak tank Fore peak tank	Superstructure Superstructure
Mooring ropes Mooring ropes	Radar scanner Radar scanner

b) Underline the words which do not have the main stress on the 1st syllable.

Starboard heading device Master Engineer
astern vessel arrangement ahead

c) Which of these vocabulary items fit the following word stress patterns? Write each word under the correct pattern. The first one in each column has been done for you as an example.

'tween-deck	**container**	**rudder**	**collision**	**bulkhead**	**compartment**
pollution	**removable**	**cargo**	**opening**	**forepeak**	**recreation**
forecastle	**loading**	**funnel**	**humidity**	**galley**	**messroom**
maximum	**below**	**watertight**	**above**	**propeller**	**navigation**
	extinguisher	**forward**	**hospital**		

▮ ▪	▪ ▮	▪ ▮ ▪	▮ ▪ ▪	▪ ▮ ▪ ▪	▪ ▪ ▮ ▪
forward	below	propeller	hospital	extinguisher	navigation

3. The Superstructure

– Read about the superstructure and then complete the sentences:

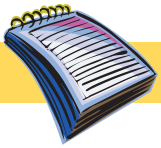
1. The superstructure has a number of decks.
2. On the 1st deck we can find _____.
3. On the 2nd deck there is accommodation for the crew.
4. On the 3rd deck, there is _____.
5. On the 4th deck, there is accommodation for the Captain, the Chief Engineer, the Chief Mate, the Ship Owner.
6. On top is _____.
7. Finally, on top of the bridge is the main mast, _____.

The superstructure: Accommodation and Navigation Bridge

The superstructure has a number of decks. On the 1st deck there are the dining rooms for the crew and the officers called "the mess" and the ship's galley. On this same deck are the dayroom for the crew, and a lounge or dayroom for the officers.

Other recreation space for the crew includes a gym and a sauna. On the 2nd deck we find the accommodation or living quarters for the crew including engineers and electricians. On the 3rd deck is the accommodation for the officers – on the starboard side the First Officer's cabin and office; on the port side the living quarters for the Second and Third Mate. Amidships on the 3rd deck is the Conference Room and the Ship's Office. On the 4th deck are the Captain's day room and bedroom, the Chief Engineer's cabin and office and aft of these on the starboard side the Chief Officer's cabin and office. On the port side is the cabin for the Ship's owner.

On top of the superstructure is the navigation bridge. A modern navigation bridge has workstations for navigating the ship, a Chart Desk and a Communication Workstation (also called the Radio Room). On the side are the bridge wings to improve visibility from the bridge. On top of the navigation bridge is the main mast with the radio antennas, navigational and signal lights and radar scanners.



Glossary

recreation	amusement, enjoyable activity
improve	make or become better
visibility	distance it is possible to see

I. Language Awareness: Plural

The plural is formed with **–s** or **–es**.

Pronunciation: *Fill in the following words to the pronunciation list:*

shipyard, hold, week, place, piece, match

/s/ after voiceless sounds	**/z/ after voiced sounds**	**/iz/ after sibilants**
Ship ships /s/	Buoy buoys /z/	Hatch hatches /iz/
Logbook logbooks /s/	Barrel barrels /z/	Box boxes /iz/
_____	_____	_____
_____	_____	_____
_____	_____	_____

Spelling: *Remember that*

After a consonant **-y** becomes **–ie** in the plural
a country countr**ies**

-f / -fe becomes	**-ves**
a half	hal**ves**
a shelf	shel**ves**

**But: Chief – Chiefs, roof – roofs, cliff - cliffs

Note the "irregular" plurals of the following words:

A man	many men	A craft	many craft
A woman	many women	A hovercraft	many hovercraft
A child	many children	A fish	many fish
An ox	many oxen	A deer	many deer
A foot	many feet	A sheep	many sheep
A tooth	many teeth	A person	many people
A mouse	many mice		
A louse	many lice		

The following things are plural in English:

scissors, glasses, trousers, jeans, shorts, pyjamas, tights

e.g. I need the scissors. Where are they?

You can say: "I need some new jeans or a new **pair of** jeans", but not "a new jeans".

Some of the following uncountable nouns have a plural meaning. Note the use of a singular verb.

Information	There **is** no information about the accident.
Knowledge	His knowledge **is** impressive.
News	No news **is** good news.
Baggage/luggage	This luggage **is** over the limit. Seafarers' airplane luggage can weigh 40 kgs.
Furniture	The furniture in the cabins **was** old.
Advice	That **is** good advice.

To refer to one item we can use the expression "a piece of".

e.g. That was a good piece of news / information / advice.
How many pieces of luggage do you have?

PRACTICE

a) Write the plural.

Ferry		Quay	
Pilot		Hatchway	
Hatch		Gas	
Derrick		Person	
Fore peak tank		Radio	
Mooring line		Seaman	
Engine		Winch	
Bitt		Windlass	
Chief		Thief	

b) Some of the following sentences are correct and some are wrong. Correct the sentences that are wrong. Tick *(✓) if the sentence is correct.*

1. The Bosun went fishing but didn't catch many fish.

2. There are three members of the crew on board, two womens and one man.

3. It's a big vessel with many spacious cabin.

4. He is a very nice people.

5. My foots are cold.

6. The citys in Northern Italy are rich.

7. Mice are small animals.

8. There are a lot of fishes in that lake.

9. He put on his pyjama and went to bed.

10. I like your trouser. Where did you get it?

11. The quay is usually full of dock worker.

12. Get me two knifes.

13. In some parts of the world a man can have two wifes.

II. Language Awareness: There is / There are

There is a hospital on the ship. (singular)
There are cabins on the 4th deck. (plural)
There is a cabin at the end of the corridor.
It's the captain's cabin. It's big.
There are two lounges on the Capricorn.
They are fully equipped.

a) Put in there or it / they.

1. _____ is a train from Thessaloniki to Athens at 10.20. _____ is an intercity express train.
2. I'm not going to buy this shirt. _____ is very expensive.
3. What's wrong? _____ is something in my eye.
4. _____ is a car in front of the house. Is _____ your car?
5. Is _____ anything on TV? Yes, _____'s a film at 8.25.
6. _____ is a letter on the floor. Is _____ for you?
7. Look, _____ is a photograph of Peter in the newspaper.
8. Excuse me, is _____ a restaurant near here?
9. _____ are 12 crew members on board.
10. How many students are _____ in your class?
11. Where can I smoke? _____ is a smoking area in the dayroom.
12. Is _____ a bus from the city centre to the airport?

b) Choose the correct word from each column to make sentences starting with there is/are; use the plural form of the words in the 3rd column if needed. Write the full sentences in the space provided.

There is **There are**	**7** **2** **24** **1**	**container(s)** **hold(s)** **funnel(s)** **deep tank(s)** **tweendeck(s)**	**inside** **in** **on top of** **below** **on**	**this vessel** **the superstructure** **the main deck** **# 2 hold** **the engine room**

1. _____.
2. _____.
3. _____.
4. _____.
5. _____.

c) The Egyptian is a small cruise ship. Look at the information given and write sentences about the ship with there is, there isn't, there are, there aren't.

Sauna	yes	1. There is a sauna on the Egyptian.
Gym	no	2. _____

Single cabins	yes (sixty)	3. _____
Restaurants	yes (three)	4. _____
Banks	no	5. _____
Theatre	no	6. _____
Doctor	yes	7. _____
Promenade deck	yes (two)	8. _____

d) The Pearl is a big cruise ship. Ask questions with is there and are there:

1. (any playrooms?) Are there any playrooms on board? _____
2. (a casino?) _____
3. (baby sitting service?) _____
4. (an iron room?) _____
5. (any cinemas?) _____
6. (a swimming pool?) _____
7. (ethnic food?) _____
8. (live music?) _____

4. Location of Accommodation and Facilities on Board

A. *Lead-in. Match the places on board to the activity that can be done there.*

Galley	**Hospital**	**Cabin**	**Radio room**	**Messroom**
Bridge	**Laundry**	**Gym**	**Lounge**	

1. _____ / eat
2. _____ / cook
3. _____ / sleep
4. _____ / wash clothes
5. _____ / send VHF radio messages
6. _____ / navigate
7. _____ / work out
8. _____ / watch TV with the rest of the crew
9. _____ / get first aid, basic medical treatment

The GRAMPIAN SURVEYOR

This is the Grampian Surveyor, a ROV [Remotely Operated Vehicle] Surveyor Vessel, which uses underwater robots to perform surveys. Look at the **Vessel Information Handbook**[1]. A group of people comes to work on board for two weeks. The captain talks to them about the facilities on board.

1. Source of Information and picture: Grampian Surveyor: Vessel Information Handbook.

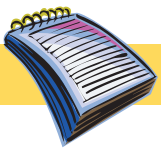
B. ***Listen to the captain. Which of the places above (ex. A) does he mention in his announcement? Tick the ones you can hear.***

C. ***Read the information from the Vessel Information Handbook:***

You should make yourself familiar with all relevant safety equipment and emergency escapes as soon as possible. You will be given a tour of the vessel, as well as view a Safety Induction Video / CD which is on board the vessel. Your emergency muster point is indicated in your cabin and on the Muster list. Also, make sure to wear appropriate PPE (Personal Protective Equipment) when working. Full PPE will be worn in all areas outside the accommodation, except the focsle deck area. Full PPE must also be worn during drills and emergency exercise. There are 3 x 25 Man **Life Rafts** on the Port Side Forecastle Deck and 3 x 25 Man **Life Rafts** on the Starboard Side Forecastle Deck. Lifejackets and survival suits are stowed in the cabins. Some spare lifejackets are stowed at the embarkation point. There are boarding ladders at the embarkation points on the main deck. Also, please note that there is a twin-bedded, fully equipped **hospital** on the upper deck.

For your recreation and convenience, there is a fully fitted **messroom** on the main deck. The **galley** provides a twenty-four hour service. It is on the main deck, too. There are also two **lounges** on the main deck. There are 21 **single cabins** (en suite), and 14 **double cabins** (en suite) on board. Please ask for the cabin allocated to you. All cabins are equipped with a desk, a toilet and a shower. There are two **client offices** on the focsle deck. The **laundry** is located on the upper deck level, forward. There is also a **gym** next to **the hospital** on the upper deck and a **sauna** next to the **gym**.

Finally, a word on where to find the officers; The **bridge office** and the **chart table** are in the **wheelhouse**, on the bridge deck. The **captain's cabin** and the **Chief Engineer's cabin** are opposite each other at the forward part of the officers' deck. The **ship's office** is on the officers' deck, too.



Glossary

indicate	show the way or the direction of, point out
PPE	Personal Protective Equipment, like helmet, goggles, safety boots, protective clothing, etc.
embarkation	boarding, getting aboard a ship
provide	supply, make available
allocate	to give to someone for his own use
MOB boat	Man Overboard rescue boat

Pay attention to the prepositions of place in the following sentences:

- The Master's cabin is **opposite** the Chief Engineer's cabin.
- The gym is **next to** the hospital.
- The CO_2 bottles are stored **between** the deck store and the change room on the port side of the Boat deck.
- The Bridge Deck is **above** the Officers' deck.
- The Focsle deck is **below** the Officers' deck.
- There is an On-line survey room **to the right of** the ROV deck on the Upper deck.
- There is a ladder **to the left of** the store room on the Boat deck.

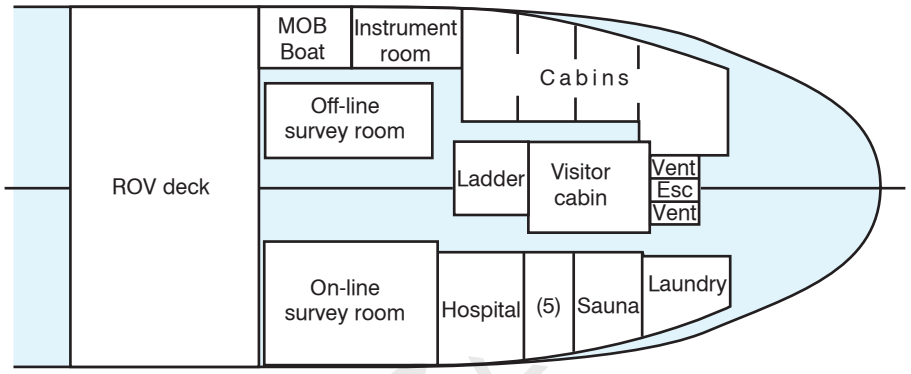
D. ***Fill in the seven gaps in the following chart (a) and deck plans (b) according to the information given in the Vessel Handbook and the sentences above:***

a) This is how the different decks are arranged in the superstructure, and the spaces they contain:

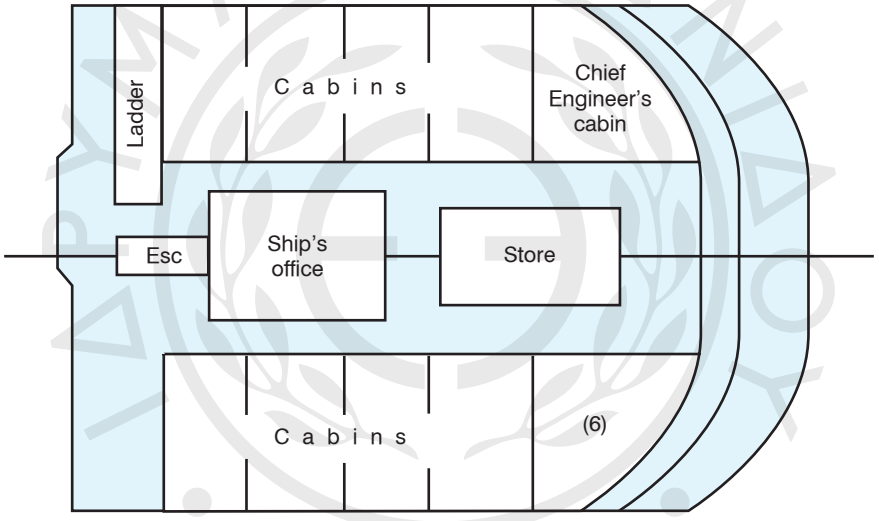
(1) _____	wheelhouse, bridge office, chart table
Officers' deck	Captain's cabin, Chief Engineer's cabin, ship's office, single cabins
(2) _____	client offices, stores, single & double cabins, (3)_____
Boat deck	8 double cabins, change room, stores, mooring winches, CO_2 bottles
Upper deck	hospital, sauna, gym, laundry, 6 double cabins, MOB Boat and davit
Main deck	messroom, (4)_____, galley

b) These are plans of the decks:

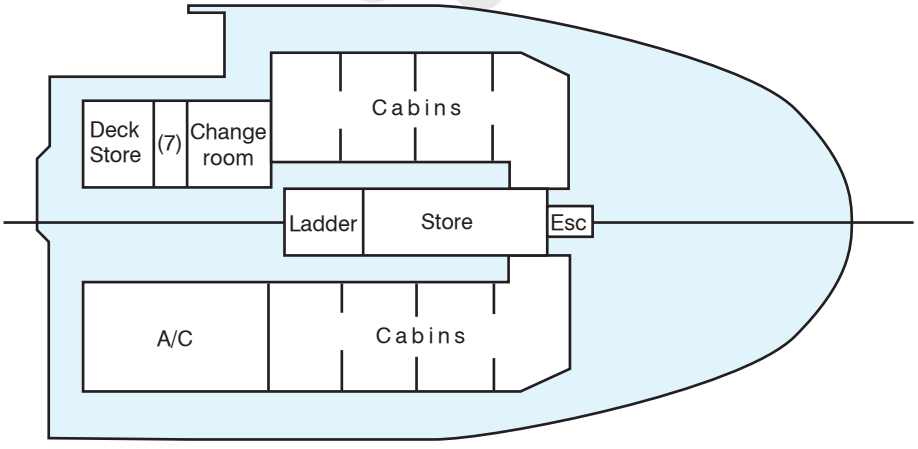
UPPER DECK



OFFICERS' DECK



BOAT DECK



E. ***Look at the plans of the decks. Ask your study partner questions about the Grampian Surveyor. Then, complete his/her answers.***

e.g. Excuse me, where is the hospital?
The hospital is on the Upper deck next to the On-line survey room.

1. What deck is the laundry on? _____
2. Where is the Visitor's cabin? _____
3. Is the Master's cabin next to the Engineer's cabin? _____
4. Where is the chart table? _____
5. Is the bridge on the fifth deck? _____
6. What deck is the sauna on? _____
7. Where is the A/C machinery? _____
8. Where is the escape route on the Boat deck? _____
9. Where is the superstructure located? _____
10. How many cabins are there on the Boat deck? _____
11. How many cabins are there on the Boat deck? _____
12. Where is the escape route on the upper deck? _____

I. Language Awareness: the apostrophe [']

Study the following three phrases. Then fill in (') (of) or ('s) to describe how we express possession:

the rating**'s** cabin [*the cabin belongs to one rating*]
the ratings' messroom [*the messroom is for all the ratings*]
the forward part **of** the ship

1. We use _____ for people, in the singular
2. We use _____ for people, in the plural
3. We use _____ for things, places, etc.

a) Correct the following sentences:

1. The cabin of the Chief Mate _____
2. The uniform of the Cadet _____
3. The Bridge's equipment _____
4. The office of the visitors _____
5. The pilot ladder's spreader _____
6. The passport of the Bosun _____

b) Complete the sentences as in the examples. Use the apostrophe (') or of.

1. The promenade deck is *the best part of the ship*. [best part / ship]
2. This is *the Chief Engineer's identity card*. [identity card / Ch. Engineer]
3. What is _____? [the name / this port]
4. _____ is very hi-tec. [the laptop / the captain]

5. _____ is 2 km from here. [the house / my parents]
6. The vessel stopped at _____ [the entrance / the fairway]
7. What is _____? [phone number / the agent]
8. _____ is pasta. [the favourite dish / Mike]
9. When is _____ birthday? [the birthday / the cadet]
10. _____ is not very fluent. [the English / the AB]

II. Language awareness: a / an / the

There is **a** hospital on the ship. **The** hospital is on B deck.

Generally, "a/an" refer to something not specific, "the" to something specific. Look at the following examples and fill in the blanks to show when we use "a/an" or "the" with nouns.

Let's make a tour of **The Capricorn**. We'll start at **the bow**. Here is **the forecastle**; on it is **the windlass**. Now we are on **the main deck**.

Is there **an engineer** onboard?

There is **a new cadet** on board. Look! **The new cadet** is coming towards us.

We have **a bridge simulator** in the Academy. **The simulator** is in room 11.

The captain gave orders to **the navigating bridge**.

The wind is in **the north**. **The fresh air** cheered me up.

1. We use _____ when speaking of a certain place and its various parts, especially when these parts are one of a kind.
2. We use _____ when we talk about something for the first time.
3. We use _____ when we refer to something we know or is already mentioned.
4. We use _____ when there is only one of something.
5. We use _____ when something is known or clear to us, even though mentioned for the first time.

Note the use of "the" with Geographical Names:

Use "the" with:		**Use no article:**	
Oceans / Seas	The Atlantic, the Mediterranean	**Continents**	Europe, Africa, Asia
Rivers / Canals	The Nile, the Suez Canal	**Countries**	Greece, Iraq, Italy
Channels / Straits	The English Channel, the Straits of Gibraltar	**Islands**	Cyprus, Crete, Cuba
Gulfs / Currents	The Persian Gulf The Gulf Stream	**Cities**	Athens, Paris, New York
Plural names / Groups of islands	The Canary Islands, the Alps, the Netherlands, the Cyclades	**Lakes**	Lake Ontario, Lake Tanganyika

– Put* a/an *or* the *where necessary in these sentences.

1. What is _____ name of this ship?
2. _____ Greece is a country in _____ Europe.
3. _____ pilot is on _____ bridge.
4. _____ container ships carry _____ containers.
5. _____ ships of all types use this port. _____ ship over there is _____ LPG carrier.
6. _____ tanker we saw yesterday had a collision.
7. There is _____ bulk carrier ahead of us.

Note: We use "a/an" and "the" differently in the SMCPs. Sometimes we omit these words.

• **Phrases with "a/an"** Do you have an automatic pilot? Do you require a pilot?	• **Phrases without "a/an"** Is there danger of explosion? MV Panos has dangerous list to starboard.
• **Phrases with "the"** Is the fire under control? Keep the sea on your starboard quarter.	• **Phrases without "the"** MV Carib has problems with engines. I cannot control flooding.

Round-up

A. Vocabulary Consolidation Self-Assessment.

Can you talk in English about the following topics? Give at least 10 words as examples for each.

- ☐ accommodation and facilities on board
- ☐ general arrangement plan and main parts of a ship

B. Class Project.

In groups of 2 or 3 choose one of the following projects to present in class. The class can make a poster of your findings.

- **"That's my vessel":** Imagine you are working on board. Write a letter to a friend, with a picture of your vessel and a description, mentioning the facilities on board.
- Bring a **General Arrangement Plan** to class (they are huge plans) and study it in class. You can ask the naval architect who teaches in the academy to come and help you with your presentation.

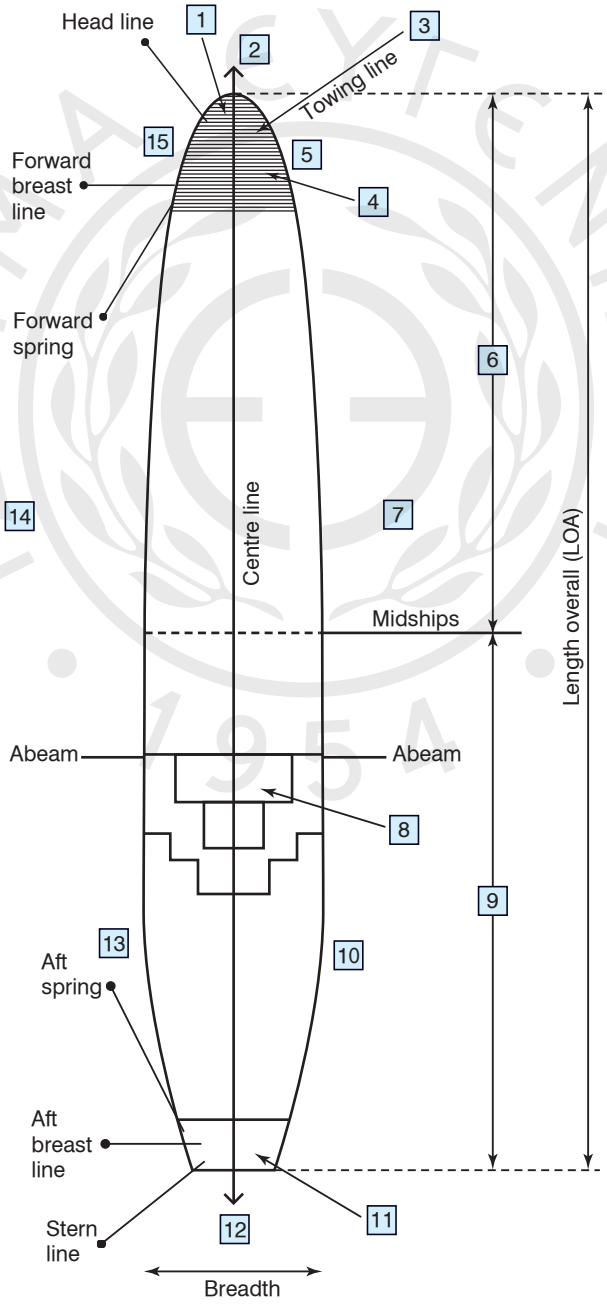
C. Vocabulary Revision. Find the missing word (the first letter is given).

1. The anchor winches are situated on the f_____.
2. The spaces that contain cargo are called upper and lower cargo h_____.
3. Ropes and paint are stored in the b_____ s_____.
4. You can wash your clothes in the ship's l_____.
5. M_____ ropes are used to make fast the ship to the q_____.
6. To go aboard a vessel you can use the e_____ ladder.
7. The r_____ is a tool for changing the direction or the h_____ of the ship when she moves into water.

D. Fill in the SMCP sketch with words you learnt in this unit. These are the words you need:

Forecastle	**Port**	**Aft**	**Port quarter**	**Bow / stem**
Port bow	**Starboard**	**Stern**	**Starboard quarter**	**Ahead**
Tug	**Forward**	**Bridge**	**Starboard bow**	**Astern**

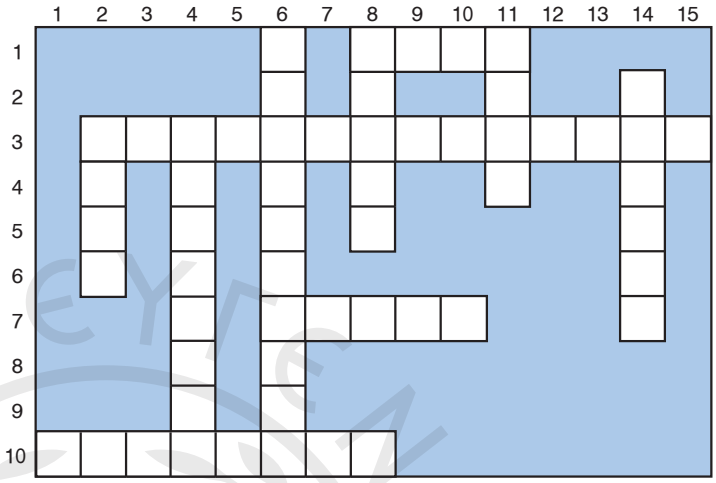
1.		6.		11.	
2.		7.		12.	
3.		8.		13.	
4.		9.		14.	
5.		10.		15.	



E. Crossword.

You have two different types of crosswords, both on the same parts of the ship. Divide into two groups. One group will solve the American crossword, the other will solve the ordinary one. See which group can solve the crossword faster. Check your answers by asking the other group.

– Classic Crossword.



Horizontally

1. space inside a ship for carrying cargo.
3. the raised "house" containing the navigating bridge, etc.
7. after end of a vessel.
10. a wall that separates one part of a ship from another.

Vertically

2. another word for bow.
4. a short raised deck, right aft.
6. raised deck, right forward.
8. opening in the deck of a vessel.
11. I am a cadet _____ officer.
14. all navigational activities take place in it.

– American Crossword. *(Go to page 268)*

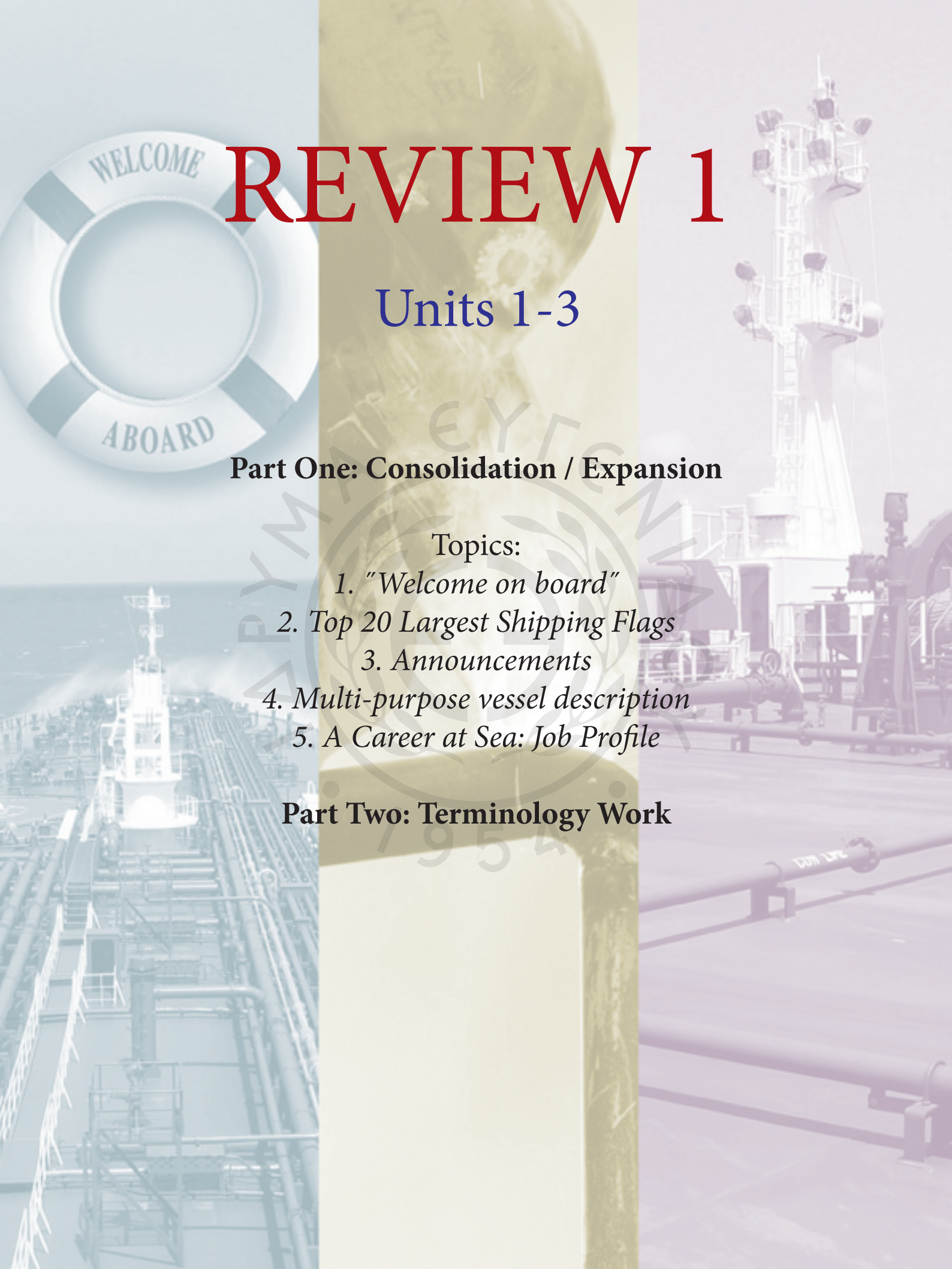
F. PA announcement: Location of facilities on board.

i. Listen to an announcement and answer the questions.

☐ What type of ship is it?
☐ How many decks are mentioned in the announcement?
☐ What facilities are there on board?

ii. Listen again and decide if the following statements are True or False.

1. The vessel is crossing the channel from France to England.
2. ETA is 02.50 UTC.
3. They are expecting good weather and calm sea.
4. You can have a hot meal in the snack bar.
5. Children can play under supervision in the games room.
6. There is a duty free shop on board.
7. There is no bank on board.
8. Toilets are situated to the aft part of B deck.
9. You can take your car on board this vessel.



REVIEW 1

Units 1-3

Part One: Consolidation / Expansion

Topics:

1. "Welcome on board"
2. Top 20 Largest Shipping Flags
3. Announcements
4. Multi-purpose vessel description
5. A Career at Sea: Job Profile

Part Two: Terminology Work

Part One: Consolidation / Expansion

1. "Welcome on board"

Task: understand seafarer's personal information

Lead-in. *What questions do you expect to be asked on your first day on board? Working in pairs, write down at least six questions.*

A new crewmember arrives on board. Listen to the dialogue and circle a, b, or c.

1. *This is a dialogue between*
   a. The Chief Mate and the new AB
   b. The Chief Mate and the new OS
   c. The Chief Engineer and the new Cadet

2. *The new crewmember's seaman's book number is*
   a. B 452198 *b.* D 452158 *c.* P 452188

3. *The new crewmember's family name is*
   a. PARKIN *b.* PARKER *c.* PARCER

4. *The new crewmember is*
   a. Australian *b.* American *c.* Canadian

5. *The new crewmember is*
   a. Married *b.* Single *c.* Divorced

6. *Who has the same nationality as the new crewmember on board?*
   a. The Chief Mate *b.* The Cook *c.* The Cadet

7. *The new crewmember's date of birth is*
   a. 12th July 1979 *b.* 20th July 1979 *c.* 20th July 1989

8. *The vessel the new crewmember worked before was a*
   a. Ro-Ro *b.* Dry Bulk Carrier *c.* Reefer

9. *The new crewmember must now go to*
   a. the ratings' smoking room
   b. the officers' messroom
   c. the ratings' messroom

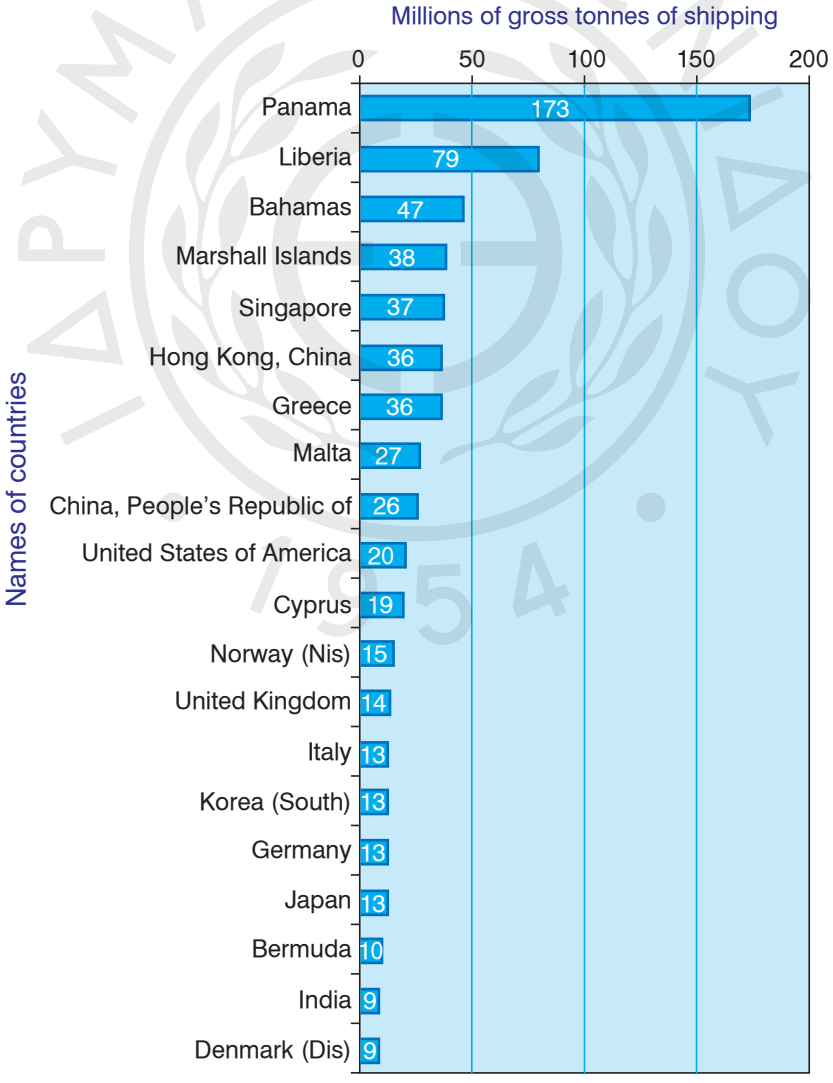
10. *The new crewmember will take orders from*
    a. the Captain *b.* the Chief Mate *c.* the Bosun

Follow-up: Work with your partner to answer the following questions.

1. How many of the questions you noted down yourself can you hear in the dialogue?
2. Generally, what are the duties of the particular new crew member? (at least five)
3. Spell the new crewmember's name using the international maritime alphabet.
4. In the dialogue we hear about "the messroom"; what other maritime accommodation spaces on board do you know? (at least five)
5. Who is the officer in charge of deck ratings?
6. Name as many rating and officer ranks as you can.
7. Multicultural crews speak English in different accents. *The international world of seafaring requires you, as a future officer, to be able to understand non-native speakers of English from many countries.* What is the accent of the two speakers in the dialogue?

2. Top 20 Largest Shipping Flags

Task: Describe orally a statistics graph using numbers and nationality adjectives.

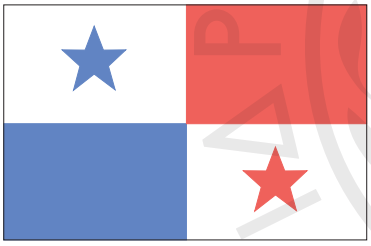
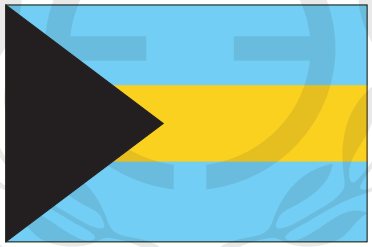


Top 20 Largest Shipping Flags 2008[1]

Step 1. Keep notes using the graph above. Fill in the gaps.

___, the Panamanian (or Panaman) flag
___, the Liberian flag
___, the Bahamian (or Bahaman) flag
___, the flag of the Marshall Islands
___, the Singaporean flag
___, the flag of Hong Kong
7th , the _____flag
___, the Maltese flag
___, the Chinese flag
10th, the _____ flag
11th, the _____ flag
12th, the _____ flag
___, the Union flag (British, "Union Jack" flag)
___, the Italian flag
15th, the _____ flag
16th, the _____ flag
17th, the _____ flag
___, the Bermudan flag
19th, the _____ flag
20th, the _____ flag




Top 5 Largest Shipping Flags

Step 2. Which Continent do the largest flags belong to? How many of the largest shipping flags are European? Fill in the chart below and create your own statistics, that will help you make comments on the graph.

Europe	Africa	America	Asia

40% (8 out of 20) _____
30% (6 out of 20) _____
25% (5 out of 20) _____
5% (1 out of 20) _____

1. Source: Lloyd's Register / Fairplay Top 20 Largest Shipping Flags.

Step 3. Use the graph and your notes to give a 5-minute-talk. Explain the percentage of the top 2 that are European, African, American or Asian, the place different countries occupy in the list, the millions of gross tonnes each country flag has, etc. Talk separately about the most important country flags of each Continent, and mention what you personally find interesting or unexpected.

e.g., you can say

The top three flags are the following:…
They have … millions of gross tonnes
Then comes... / Moving on, we see that…
In the seventh place we find …
About 40% of the top 20 largest flags are …
The most important European flags are…

Follow-up: Assess your fluency. Record your talk (on your mobile phone or using a voice recording device). Then, to help you monitor your speaking abilities and revise language work, tick the following checklist. Alternatively, your study partner can use the grading scale and assess your spoken work.

	1	2	3	4
Vocabulary				
Pronunciation				
Grammar				
Fluency				

1 = not at all satisfied *Weak performance, I need much more practice and revision.*
2 = not very satisfied *Many mistakes that I need to work on.*
3 = satisfied *Some mistakes, I know I can correct them.*
4 = pleased *Good performance, no major errors.*

Verbs: Revise basic verbs and their structures

*A. Write positive or negative sentences, use **am** / **am not** / **is** / **isn't** / **are** / **aren't** etc.*

1. (Athens / the capital of Greece) Athens is the capital of Greece.
2. (I / interested in engineering) _____
3. (the Amazon / in Africa) _____
4. (diamonds / cheap) _____
5. (motor-racing / a dangerous sport) _____
6. (tankers / safe ships) _____

*B. Write questions with **have**.*

1. (you / a passport?) Do you have a passport?
2. (your girlfriend / a car?) _____
3. (the Captain / any children?) _____
4. (how much money / you?) _____
5. (what kind of car / Thanos?) _____

C. Correct the mistakes.

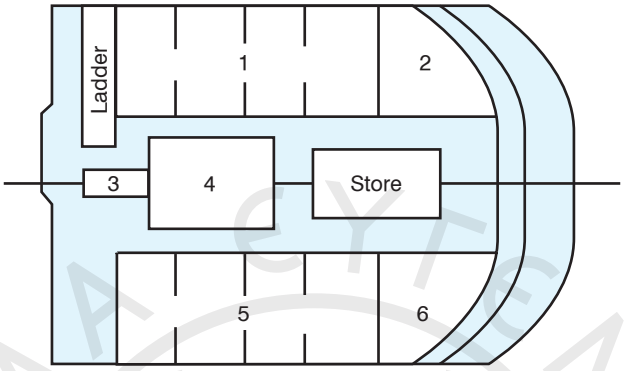
1. I wipes down the machineries and keep it clean.
2. "You know the new Cooker?" "Yes, I know him. He come from Chios."
3. It is the Chief Engineer's duty to order spare parts. He also log fuel consumption.
4. "What do you do?" "I am a student. I studying Nautical Studies."
5. "Does he smokes?" "Yes, he smokes a lot."
6. "What time you get up?" "Usually after 10. I not like getting up early".

3. Announcements

Task: Listen and label a diagram showing places on board / note down vessel details.

i: Accommodation. *Listen to a description of the location of the living quarters on fourth deck. Write what is in the different spaces in the diagram below:*

4th DECK



ii: The vessel

a. Listen to the audio clip. The Master is making an announcement. Tick [✓] a, b, c or d.

The Master…

☐ a. announces a fire-fighting drill
☐ b. takes new crewmembers on a familiarisation tour
☐ c. gives new crewmembers details about the vessel and its safety equipment
☐ d. dictates the vessel's particulars

b. Listen again and complete the chart with the vessel's details.

VESSEL'S NAME:	
CALL SIGN:	
TYPE OF VESSEL:	
YEAR BUILT:	
PORT OF REGISTRATION:	
NUMBER OF CREWMEMBERS ON BOARD:	

4. Multi-purpose vessel description

Task: listen to a description of a ship and identify its main parts on a diagram

A. Listen to the audio clip. A Norwegian captain, Capt. Jan Horck[2], gives a descrip-

2. Capt. Horck, who works at World Maritime University, in Sweden, recorded this spontaneous oral description in September 2007. It is an authentic-in-nature oral discourse, where it is also useful to note his Norwegian accent.

*tion of the main parts of a multi-purpose vessel. First you will hear only the beginning of the talk. Tick [✓] **only** the phrases you can hear.*

	The forward part
	The aft part
	The back of the ship
	The bulbous bow
	The bow thruster forward
	A stern thruster in the aft part of the ship
	The forecastle of the ship
	In the starboard side
	# 2 and # 1 holds
	The entrance into the cargo hold
	Hatch (the opening)
	Breaking the cargo
	Navigational charts
	The port side of the ship

B. Listen to the full description of the ship and fill in the gaps with the parts mentioned in the order they are mentioned. The words you need are provided in the box below. Then check your answers on the diagram of the ship that follows.

Engine	**Lights**	**Covers**	**Lifeboat**	**Bottles**	**Mast**	**Containers**
Tweendeck	**Bulkhead**	**Forepeak**	**Funnel**	**Windlass**	**Bulk**	**Breakwater**

No 39. _____ tank
No 35. anchor _____
No 34. _____ bulkhead
No 32. hatch _____
No 30. _____ cargo
No 19. horizontal deck or _____
No 9. aft _____ with navigational _____
No 8. _____
No 5. Man Overboard _____
No 3. _____ room
No 4. CO_2 _____
No 26. _____
No 16. vertical _____

C. Fill in the missing words, based on the lecture you heard. The sentences appear in the same order as in the oral description.

1. Some ships, beside the bow thruster forward, also have a _____ _____ in the aft part of the ship.
2. The breakwater bulkhead prevents the green sea to roll into the # 2 and # 1 holds and enter into the _____ _____.
3. The navigational lights are at the _____ _____.
4. _____ _____ is the floor in the hold where the captain has stored his cargo, in this case containers.
5. CO_2 (Carbon Dioxide) bottles are stored on board for use in case there is a _____ _____ the ship.
6. The bridge is where the _____ _____ take place, on the very top of the aft part of the ship.

7. A _____-_____lifeboat is covered.
8. Through the funnel the _____ _____ from the engine room are guided into the environment and we get air pollution.

D. Speaking. Work in pairs. Prepare a description of the ship parts on a particular area and focus on either

- the stern and the superstructure area (numbers 1-13 on the diagram) or
- the maindeck area (numbers 14-32) or
- the bow area (numbers 33-39)

The following figure offers a full view of the multi-purpose ship, naming all the visible parts.

Multi-purpose ship[3]

1. Rudder
2. Propeller
3. Main Engine with gearbox and shaft generator
4. CO_2 bottles in CO_2 room
5. Man Overboard boat (MOB)
6. Free Fall Lifeboat
7. Crane for MOB, lifeboat, liferaft and provisions
8. Funnel with all exhaust pipes
9. Rear mast with navigation lights
10. Cross trees with radar scanners
11. Topdeck with magnetic compass and search light
12. Accommodation
13. Hatch stacking crane
14. Heavy fuel oil tank
15. Bulk cargo
16. Vertical bulkhead
17. Heavy cargo, steel coils
18. Project cargo
19. Horizontal decks, or tweendecks, or hatchcovers
20. General cargo, rolls of paper
21. Sheer strake
22. Hold fan
23. Fixed bulkhead
24. Container pedestal
25. Tanktop, max. load 15t/m^2
26. Containers, 5 rows, 3 bays

[3] Source: *Ship Knowledge* by Klaas Van Dokkum, Dokmar, 2008 (5th edition), pp. 10-11.

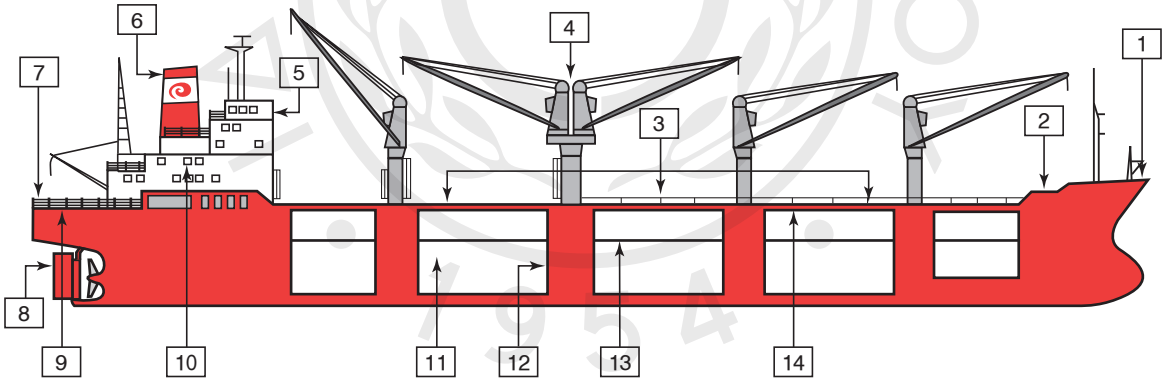
27. Vertical bulkhead or pontoon
28. Hatch coaming
29. Wing tank (ballast)
30. Bulk cargo
31. Gangway
32. Stacked hatches
33. Top light, range light
34. Breakwater
35. Anchor windlass
36. Collision bulkhead
37. Deep tank
38. Bow thruster in nozzle
39. Forepeak tank in bulbous bow
40. Port side
41. Starboard side

E. What words commonly occur with each other? Match the following words to make correct collocations (that you heard in the oral description):

1. bow _____ handling
2. starboard _____ hold
3. cargo _____ thruster
4. cargo _____ quarter
5. hatch_____ deck
6. hatch_____ deck
7. main _____ cover
8. poop _____ coaming

F. Match the (14) numbers to the correct parts of the ship in the diagram below.

___ Hatch cover
___ Tween deck
___ Navigation bridge
___ Cargo hold
___ Rudder
___ The bow
___ The superstructure
___ The poop deck
___ The main deck
___ Forecastle
___ Crane
___ Bulkhead
___ Funnel
___ The stern



5. A Career at Sea: Job Profile

Task: listen, read about and discuss the job profile of a merchant navy officer.

A. Fill in the blanks. The first letter is given:

Onboard a Merchant Ship…

The Master:

acts as r_____ of the ship's owner

The Chief Officer:

is the head of the d_____ department

The Second Officer (N_____ officer):
corrects the charts and keeps everything up to date

The Third Officer (S_____ officer):
is responsible for Life Saving Appliances (LSA), checks the lifeboats, rafts, lifebuoys etc.

The Engine Department:
ensures the smooth o_____ of all propulsion machinery, power generating equipment and auxiliaries

The Catering Department:
is responsible for preparing meals, ordering food s_____ and maintaining living quarters.

B. Write up the words for some of the crew ranks you know:

C _ _ _ f M _ _ e,
S _ _ _ _ d E _ _ _ _ _ _ r,
D _ _ k C _ _ _ t,
B _ _ _ n
M _ _ _ _ _ _ e
S _ _ _ _ _ d

C. Reading Comprehension: Careers Advice Information

a. The following text answers five basic questions asked by someone who wants to have a career as a Merchant Marine Deck Officer. Use the questions below (in red letters) to fill them in the correct part of the text.

b. There are five sentences missing in the text. Fill in the green gaps with the sentences (A-E) below. Write the correct letter (A-E) in the blanks.

What are the hours and working conditions? What opportunities are there? What is the work like? What salary and other benefits can I expect? What skills and knowledge do I need?	A. On a large vessel, you would work four hours on duty followed by eight hours off. B. Your employer would pay for food and accommodation whilst at sea, and for some travel costs when on-shore. C. Good spoken and written communication skills D. You would have full responsibility for the overall running and safety of the ship, crew (ratings), passengers and cargo. E. You would be responsible for navigation, using radar, satellite and computer systems.

Merchant Marine Deck Officer

1. _____?

Merchant marine deck officers work aboard container vessels, bulk carriers, tankers, cruise liners and ferries. They help to manage a ship's navigation, communications, crew and cargo. They also look after passengers on ships and take part in onboard social events.

As a deck officer, you would work at one of four levels, depending on your experience:

- Master (Captain) – _____ You would handle legal and commercial matters and keep all the ship's records up to date.
- Chief Officer – you would assist the Master and oversee deck operations and maintenance, cargo handling and storage. You would also manage work schedules and supervise other officers.
- Second Officer – _____ You would also monitor the vessel's position, speed, direction and weather reports, and carry out watch duties at sea and in port.
- Third Officer – this would usually be your first post after training, dealing with the ship's safety equipment and lifeboats. You would assist the Second Officer and carry out watch duties.

2. _____?

- Cadet trainees' salaries are around €1,000 per month of service.
- Qualified junior deck officers earn between €3,500 and €4,500 a month.
- Experienced officers earn from €6,000 to over €8,000, depending on rank.
- _____ *Figures are intended as a guideline only.*

3. _____?

Merchant Navy vessels operate around the clock and you would work shifts, known as 'watches', that vary according to the size of your ship. _____

Your time at sea could vary from a few days or weeks to several months. Periods of leave between voyages would also vary.

You would work on deck, below deck and on the bridge, in all weather conditions.

4. _____?

- a confident approach and the ability to inspire confidence in others.
- an interest and understanding of the latest vessel technology.
- the ability to cope with being away from home for long periods of time.
- good teamworking skills.
- excellent maths skills for navigational calculations.
- _____
- the ability to deal with emergencies in a calm and controlled manner.
- enthusiasm and self-belief.

5. _____?

According to economic forecasts, there will be a considerable increase in seaborne trade over the coming years.

You could find both onshore and offshore positions with shipping companies, port authorities, maritime insurance companies and shipping brokers.

Follow-up:

a. Look again at the "skills and knowledge" required for this job. Which of these do ***you*** have yourself? Which skill is the most important? Discuss in class to see if other students agree with you.

b. Imagine that, after reading this information, a student interested in this job noted down some questions s/he would like to ask.

I shouldn't forget to ask
1. how many hours deck officers work
2. where a deck officer works
3. how much money a cadet makes
4. why a cadet needs maths
5. what jobs there are onshore

Work in pairs. One of you is the student interested in this job, the other is the career advisor. Use the student notes to ask questions and the information from the leaflet to answer them. Remember to use **"do"** and **"does"**, where needed, to make correct questions.

Example

D. Listening Comprehension: the Maritime Profession and the EU

The Vice-President of the European Commision in charge of Transport, Jacques Barrot, gave a speech[4] on an event organized by the Hellenic Chamber of Shipping. Listen to a report of his speech and do the following exercises.

i. What is the *main* point of the report that EU Transport officials are interested in?
   a. The fleet controlled by Greek interests is the biggest in the world.
   b. It is important to attract young people to the maritime profession because there is a lack of European officers.
   c. Maritime Safety will suffer and decline because of a shortage of European professionals in the field.

ii. Fill in the numbers:
   a. This is a speech given on Hellenic Maritime Day _____, and it is concerned with European shipping in the _____ century.
   b. The tonnage under the Greek flag represents _____ of total EU flagged tonnage. More than _____ ships are under construction for Greek owners.
   c. In the speech, we also hear about the _____ Maritime Safety package proposed by the Commision.

4. The full text of the speech (J. Barrot's participation in the Hellenic Maritime Day, Athens, 30 March 2007) can be found in http://ec.europa.eu/ellada/pdf/jbarrothellenicmaritimeday300307.doc

Part Two: Terminology Work

Acronyms

A. What do the acronyms stand for?

PMS: Planned M_____ System
UMS: Unmanned M_____ Space
PPE: Personal P_____ Equipment
MOB: Man O_____ Boat
SART: Search and R_____ Transponder

B. Game: With your partner, say as many acronyms from the following list as possible. Pick one and say what it means. Take turns. The one who stops first loses.

DPS	**MMSI**	**UTC**		**OOW**
LSA	**COLREG**	**SMCP**		
IMO	**COC**	**DWT**		**GMDSS**

Vocabulary practice

A. Choose the correct prepositions.

1. Please go _____ the instructions and tell me if you have any questions.
   a. through
   b. from
   c. into

2. You must become familiar _____ the emergency procedures.
   a. in
   b. with
   c. at

3. _____ the first deck, you can find the messroom and the galley.
   a. on
   b. at
   c. in

4. When you enter the lifeboat, you must be equipped _____ your lifejacket.
   a. for
   b. with
   c. to

5. I am fond _____ sending e-mails.
   a. at
   b. of
   c. with

6. "How long do you plan to stay on board?" "One more month. I plan to sign _____ next month. I must attend a training seminar that the company offers".
   a. of
   b. out
   c. off

7. The Master deals _____ port officials.
   a. about
   b. with
   c. by

8. "When does your first training voyage start?" "_____ March. More specifically, I'm flying _____ the 11th of March, _____ the evening.
   a. on / on / in
   b. in / at / at
   c. in / on / in

B. Word-building: Write the correct derivatives of the words in capital letters.

1. Which officer is _____ for checking that all life saving equipment is _____? **RESPONSIBILITY**
2. Go and meet the _____ at the _____ ladder. **OPERATE**
3. The _____ of the vessel is 20 metres and the _____ overall is 200 metres. **INSPECT** **EMBARK** **BROAD** **LONG**

C. What words commonly occur with each other? Match the following words:

compartments / gas / machinery / architect / address / hook / bottom / plan

1. naval_____
2. current _____
3. watertight _____
4. exhaust _____
5. stowage _____
6. double _____
7. release _____
8. auxiliary _____

D. Choose the correct alternative.

1. The Mediterranean Sea _____ Europe and Africa.
   a. increases
   b. stacks
   c. separates
2. To work as an Officer you must have a _____ Certificate of Competency (COC).
   a. true
   b. valid
   c. real
3. The engineers ensure the _____ operation of machinery.
   a. useful
   b. defective
   c. smooth
4. STCW is an international _____.
   a. convention
   b. occupation
   c. recreation
5. What is your next port of _____?
   a. visit
   b. berth
   c. call
6. After every drill, we have a drill _____ meeting.
   a. revise
   b. review
   c. supervising

E. Match the synonyms:

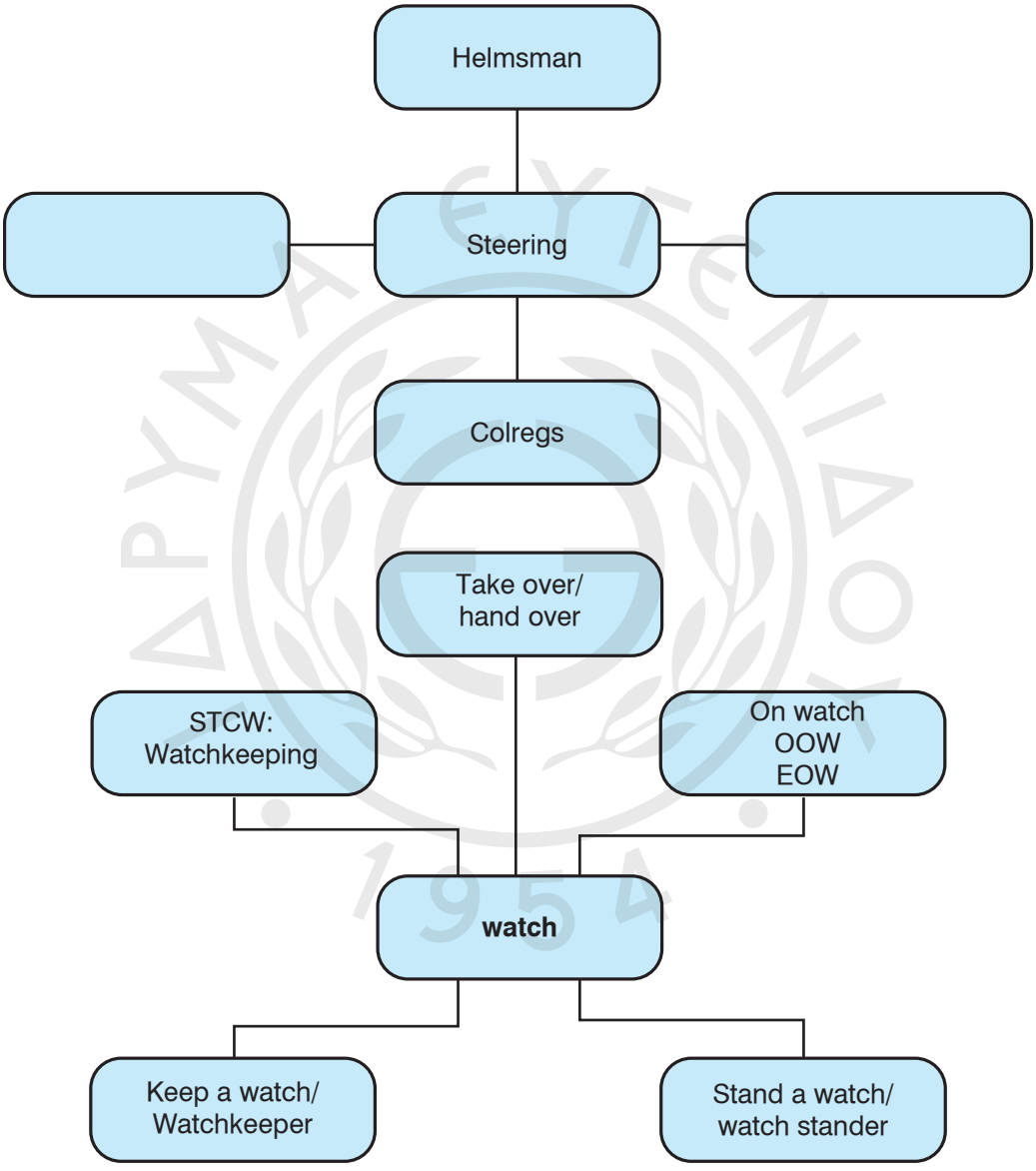
part / upkeep / securing / unloading / repairing / agent

Maintenance _____
Component _____
Fastening _____
Discharging _____
Representative_____
Overhauling _____

Word Webs

Word webs help you learn words that are related to the same topic or help you remember how a certain word is used. *Putting new vocabulary into groups and associating words to one another are helpful techniques you can practise yourself when you revise.*

A. In pairs, create a word grid related to the topic "steering a vessel". Add as many words that quickly come to mind as possible (this activity is called "brainstorming"). Then, say sentences that contain these words.

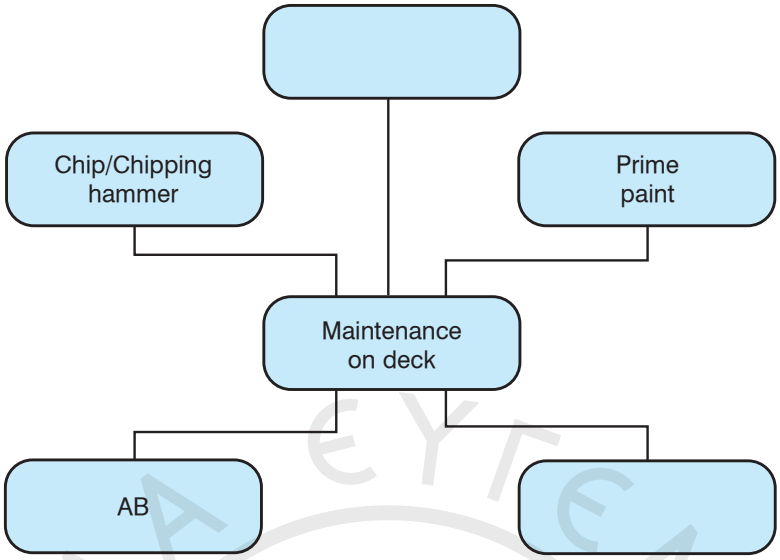


B. Look at the graphic web related to the use of the noun "watch" that we have seen so far. Use words from the web above to fill in the gaps:

_____ is a very responsible job. Anything can go wrong _____ your watch and you will have to answer for it.

When an Officer takes _____ a watch, s/he must follow a standard procedure.

C. In pairs, take turns brainstorming on the topic "maintenance on deck"; try to group the words you come up with and write them on the word web below:



Speaking. ***Free vocabulary production.***

Match the following phrases to the pictures below. Then choose five of the pictures and describe them. ***Talk about the places you can see / the activities that take place in particular places / the crew members and their responsibilities****.*

- *Entrance to / View of the E/R*
- *Chart work*
- *Engine Control Room*
- *Forecastle*
- *Cleaning in the E/R*
- *Superstructure fore*
- *Maintenance on deck: painting*
- *Coast guard checking crew member's papers*
- *Master dealing with port authorities*

a) 

b) 

c) 

d) 

e) 

f) 

g) 

h) 

i) 

UNIT 4

Types of vessels

1. Recognising Ships

What types of vessels are these?

A. ***Match the vessels in the pictures to their descriptions:***

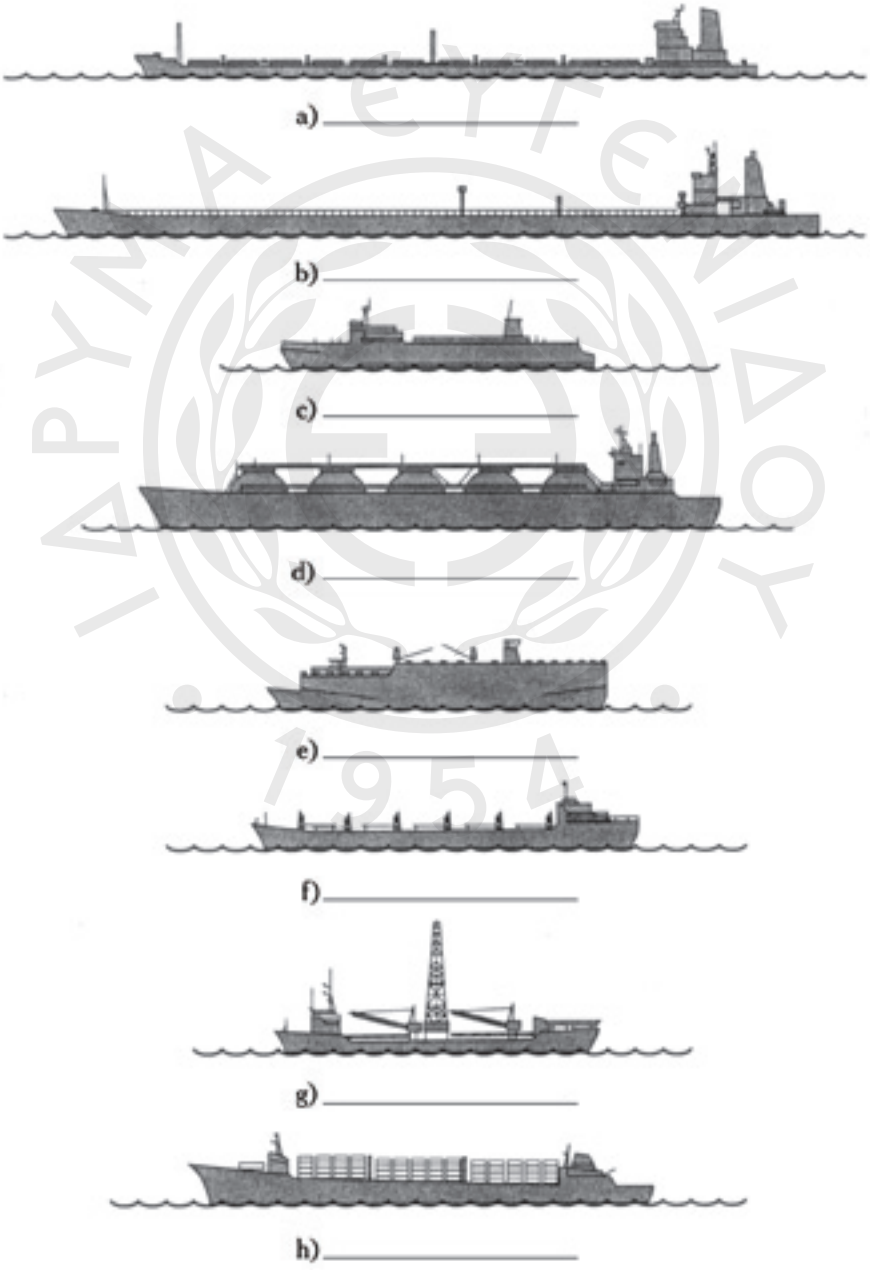
1. **Container ships** are known as "box" ships. The "boxes" they carry are containers, generally found in 20 and 40–foot lengths.
2. Ferries with passenger facilities suitable for longer routes are called **passenger-car ferries** (Paxcar ferries). They have a full length superstructure for the passenger cabins and public spaces.
3. **Tankers** carry liquid cargo, not only oil, in tanks. They usually have an aft superstructure.

B. ***Write the name of each type of ship under the profiles of the figure that follows; use the following descriptions:***

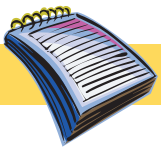
1. **The LNG (Liquified Natural Gas) carrier** is a kind of tanker. The LNG vessels carry extremely dangerous cargo, explosive gas, kept at below freezing temperatures. The shape of the LNG carrier, with the huge round tanks seen along the deck, has led to the nickname of "Dinosaur Eggs Carriers".
2. The **bulk carriers** are single deck vessels, generally with five to nine holds, their hatches are equipped with sliding hatch covers.
3. **Drill ships** are vessels fitted with a drilling apparatus that can drill below the seafloor,

looking for new oil or gas wells in deep water or helping in scientific survey.

4. Some bulk carriers are designed to function also as tankers. Such vessels are called **Ore Bulk Oil (OBO) carriers**.
5. **Railway ferries** have internal rails for taking trains.
6. Seen from a distance **the container ship** has a very characteristic "flat" silhouette. The small superstructure with the navigating bridge is usually at the stern of the ship and the containers are stacked fore of the bridge along the whole length of the vessel.
7. **Tankers** have a long hull with small freeboard and a number of pipelines on deck.
8. **Vehicle carriers** carry cars and trucks on a "drive on / drive off" basis. There are a number of decks and the hull has a box-type rectangular profile.



Which of these vessels is not a cargo vessel, but a specialized one?



Glossary

fitted with	installed with, equipped with
apparatus	device, piece of equipment, for a particular purpose
freeboard	the distance from the surface of the water to the main deck
draught (draft)	depth to which the ship is immersed in water.

2. Shipping Fleets

The following extracts are from the website of a shipping company[1]. *In learning Maritime English it is important to be exposed to authentic texts. Don't try to understand all the unknown words.*

A. ***What types of vessels does this company have? Based on the types of cargoes they transport, guess what types of ships the company's fleet is comprised of.***

Transport Fleet
Range of transported cargoes
Bulk cargoes – grain, sugar, bauxite, fertilizers, coal.
General – metals, metal products, timber, building constructions, containers, motor-vehicles, large-sized and heavy cargoes, supply and equipment for oil and gas extraction companies.
Dangerous – A class – 5, 6.1., 7 - 9 (explosives, pressurized gases, highly inflammable liquids and solids, corrosive, poisonous, radioactive and caustic materials).
Bulked cargoes – crude oil, gas condensate.
Oil products – fuel oil, diesel fuel, gas oil, kerosene, gasolines, naphtha.
The "Klavdija Elanskaja" motor-ship transports passengers, tourists and small lots of cargoes.

Check to see if you were right. In the following pictures you can see three types of ships that are part of the company's "transport fleet." What types of vessels are they?

B. ***Which sentences are missing from the "purpose" part of each description of the ship's particulars? Fill in the gaps with one of the following:***

1. Transportation of passengers in Northern region and on cruise ships
2. Transportation of general cargoes, wheeled equipment, containers, timber cargoes, grain and bulked cargoes
3. Transportation of oil products, oils

1. Information taken from Murmansk Shipping Company.

"Kotlas" vessel

Wharf - builder: Valmet Lajva Teollisuus (Turku, Finland)
Purpose:
Class: RF KM ⍟ UL 1 A1 Register
Max. lenght: 97.40 m
Width: 14.20 m
Draught: 4.90m
Deadweight capacity: 2,853 t
Capacity of cargo tanks (98 %): 3240.6m^3
Main engine: 6 CH 40 /46 OM4
Power: 2,576 kW
Service speed: 13 knots
Navigation area: unlimited

"SA-15 type" vessel

Wharf - builder: Vjartsilja (Turku, Finland); Valmet* (Helsinki, Finland)
Purpose:
Class: RF KM ⍟ ULA 2 A2 Register (Kola, Kandalaksha, Jury Arshenevsky, Captain Danilkin, Arhangelsk, Monchegorsk), Lloyd Register of Shipping + 100 A1 ICE Class 1A Super (Norisk)
Max. lenght: 173.7 m
Width: 24.50 m
Draught: 10.52 m
Deadweight capacity: 19,942 t
Capacity of holds (grain): 27,000m^3/30,000m^3*
Container capacity: 20 feet – 576; 40 feet – 236
Main engine: WARTSILA - SULZER 14 Z V 40 / 4
Power: 2 × 7,700 kW (10,500 electric h/p)
Service speed: 15 knots
Navigation area: unlimited

The "Klavdija Elanskaja" vessel

Wharf - builder: Titovo - Brodogradilishte (Kralevitsa, Yugoslavia)
Purpose:
Class: RF KM ⍟ L1 1 A2 Register
Max. lenght: 100.00 m
Width: 16.00 m
Draught: 4.65m
Deadweight capacity: 1,465 t
Hold capacity (98 %): 938.5m^3
Main engine: 8M 35 BF (B & W)
Power: 2 × 2640 el. h/p
Service speed: 13 knots
Navigation area: unlimited

3. Merchant Vessels

– Vocabulary assessment

Use the vocabulary development scale to rate the following words:

5 can explain and use in different contexts
4 use in a limited way in speaking/writing
3 understand the "gist" of it
2 recognise but don't understand
1 unknown to me

Decline	Container securing	Routes
Collision	Pipeline	Massive
Edible	Replaced	Convenient
Cargo shifting	Removable	Bunkering
Prevent	Rapidly	Grounding
Available	Installed	Maintained

Which of these words are definitely part of Maritime English terminology?

Types of merchant vessels

– The bulk carrier

Today, modern commercial vessels are highly specialized, designed to carry specific types of cargo. The names of ships tell us what type of cargo they are designed to carry. As their name suggests, bulk carriers, also known as "Bulkers" or "Bulkies", transport their cargo in bulk. They carry bulk cargo, "loose" cargo, either "dry bulk" such as coal, grain, iron ore, fertilisers, cement, sugar, light minerals or "liquid bulk" such as a range of chemicals including petroleum products.

Dry bulk carriers

- have huge under-deck specialized holds where the bulk products are poured and stored.
- come in different sizes, from the so-called "handysize" bulk carriers of about 25.000 to very large carriers of up to 220,000 dwt, with a typical speed of no more than 15 knots.
- can have deck cranes or simply deck hatches
- have longitudinal and cross walls, called bulkheads.

– The tanker

The tanker is one of the most important vessels in the world's merchant fleets today. Tankers carry liquid cargo in tanks. Their size is growing rapidly in recent years. The best known are the oil tankers. They come in two kinds: the crude carrier, which carries crude oil, and the clean-product tanker, which carries refined products such as petrol, gasoline, aviation fuel, kerosene and paraffin.

Tankers range in all sizes from small bunkering tankers of 1000 dwt, used for refueling larger vessels, to the real giants, the VLCC of 200000 - 300000 dwt and the ULCC of over 300000 dwt., the biggest ships afloat. The most common type of tankers today are the VLCCs, accounting for 50% of the world tanker fleet. Their large draught limits their sailing routes. There are only a few ports that supertankers can enter and so they are mostly loaded and unloaded from off-shore pumping stations. They operate at normal speeds of around 16 knots.

LNG carriers carry Liquefied Natural Gas at temperatures below minus 160°C in free standing spherical tanks with domes visible above the deck. This means that they carry extremely hazardous cargo, so safety measures on board have to be very strict. The LPG is designed to carry liquid petroleum gas at very low temperatures.

- Tankers have pipelines on deck.
- For safety and ease of walking a catwalk is provided.
- The cargo space is divided into tanks with transverse and longitudinal bulkheads.
- Tankers must have large pumps to move the cargo out of the tanks.
- Some of them have double hulls to prevent pollution in case of a collision.

– The general cargo ship

Until a few decades ago, the most important cargo ship was the break-bulk carrier, sometimes called the general cargo ship or freighter. The cargo is carried in break bulk form i.e. it is loaded into and broken out of the ship piece by piece. General cargo ships are different from bulk carriers as they can transport cargo in various shapes and sizes, for instance packaged products, heavy machinery items, etc.

- The size of these ships is between 10 to 20,000 dwt, and normally they operate at speeds between 16 to 20 knots.
- They have double bottom tanks, which are used for storage of fuel and water.
- The hull is divided by transverse bulkheads to form holds, typically four to six.
- The holds are further divided by one or two 'tweendecks with hatch ways that may be folded on sides.
- The general cargo ships may sometimes have one or two holds as "reefer holds" to carry refrigerated cargo.

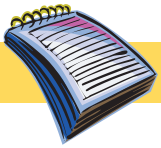
Even though it still takes a lot of time to load and unload general cargo ships, over the years there are changes in the cargo handling equipment. Cranes and heavy lifting equipment have replaced the derricks. Also, the design and operation of hatch covers is now much better and this makes operations easier and faster.

– The container ship

The first container ship was built in the 1960s and since then it has revolutionized shipping. Container vessels are designed to carry cargo placed inside containers of a uniform size. The TEU (twenty-foot equivalent) unit is used to measure container volume and it refers to a container with external dimensions of 8x8x20. Volume is sometimes measured by FEUs, forty-foot equivalents ($8\times8\times40$), as well. In the past couple of years, the largest container vessels have grown in capacity up to 14.500 TEU. Fully containerized vessels (cellular vessels) have permanently installed cell guides which not only guide the containers in stacking one on top of the other, but also provide adequate securing.

Containers can be filled with just any type of cargo, from refrigerators to fruit or meat. They are usually stowed on the deck of the ship or inside. At the container terminals these ships can quickly load and discharge by means of large quay-side cranes called gantry cranes. The cranes lift the containers off or onto the quay or trucks and off or onto the ship's deck. While a

conventional dry cargo vessel may take 3-4 days to load or discharge, a container ship can do the same in a matter of hours. Also, the higher speed of around 26 knots is the main advantage of container vessels over other cargo ships.



Glossary

rapidly	quickly
bunkering	supplying a ship with fuel
operate	work, do business / control the working of a machine
strict	following carefully and exactly a set of rules
longitudinal	placed lengthwise, in the direction of the length
refrigerated	made / kept cold by refrigeration
revolutionise	change radically, cause a transformation
uniform	always the same, having the same characteristics
adequate	enough, sufficient
conventional	following accepted standards, traditional

A. ***Form four groups. Each group chooses one of the types of ships in the following chart. Fill in the information you can find in the text about the characteristics of the type of ship you chose. Then one person of each group will present this information in class.***

Type of ship	Cargo	Cargo is carried in/on…	How loaded/ unloaded	Special structural features	(Max.) Speed	Size(s)
General cargo ship						
Dry Bulk carrier						
Container ship						
Tanker						

As you listen to the other groups present their type of ship, take notes of their basic characteristics by filling in the chart. Then read about the other types of ships to check this information.

Handymax Dry Bulk Carrier

Chemical Tanker

B. ***Each of the following paragraphs has a missing sentence. Use the sentences (1-5) to fill in each gap.***

– More facts about types of ships:

- ***General cargo ships*** are gradually replaced by container ships. Their number is on the decline. (A)_____ They carry cargo that is too large to be carried in a container, for example steel coils, rolls of wire and machinery. They also carry boxed goods that are too small to fill a whole container.
- When a ***crude oil tanker*** is damaged by collision or grounding, the leaking of vast amounts of oil into the sea can destroy the environment. This explains the strict requirement for these vessels to have a double hull. In 1990, the United States passed the Oil Pollution Act (OPA). It requires a gradual introduction of tankers with double hulls, not just with double bottoms but also double on both sides, until 2015; (B)_____ However most tankers trading worldwide today are still single-hulled vessels.
- The ***Ro-Ro*** (which means a roll-on, roll-off vessel) is a special cargo vessel with huge stern (or bow) doors which are lowered to make a bridge from the ship to the wharf. Whole trucks can roll on and off very rapidly at ports. There are two main types: the passenger Ro-Ro and the cargo Ro-Ro. Modern car-passenger ferries operate on short-sea routes. The whole bow section lifts up leaving a massive entrance for lorries and cars. And there is another pair of doors and a ramp in the stern. Cars and lorries drive around inside the ship. (C)_____ An extreme number of vehicles can be packed into these ships. They are convenient for local ferrying jobs, especially in places where there are lots of islands, or fjords, or big rivers.
- Modern ***cruise ships*** offer more luxury and style to holiday makers than ever before, turning an ordinary ship into a mini-city for 3000+ guests. (D)_____ The passenger ships have several decks in their large superstructure above the uppermost continuous deck to provide accommodation, dining rooms, lounges, restaurants, theatre, shops, swimming pools, promenade decks, etc.
- ***Multi-purpose carriers*** transport different kinds of cargo; break-bulk and/or pure bulk cargoes and/or containers, even reefer containers for frozen meats or fruit. Many of them are geared vessels, they are equipped with their own cargo cranes for loading and discharging. (E)_____ Hatch openings are designed to fit standard container sizes. Removable 'tweendecks increase the number of available holds. In the huge bulk holds

there are removable bulkheads that help prevent the grain and other bulk cargoes from shifting.

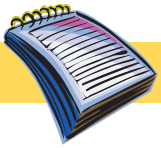
1. The modern double-hulled Mobil Oil tanker "Eagle" of 284,493 dwt was built in 1993.

2. They have huge entertainment facilities.

3. So what is the function of these ships now?

4. And there are ramps inside, to enable vehicles to climb up to a higher deck.

5. They can have as many as four cranes.



Glossary

gradually	step by step
on the decline	the number is going down, decreasing
grounding	to run aground, running ashore, hitting the bottom
leaking	minor inflow of water into the vessel due to damage to the hull or escape of liquid out of pipes, tanks, etc.
massive / huge / vast	extremely large
convenient	suited to your needs, fitting, handy

C. *Listen to the text and fill in the missing words.*

The Lash vessel

LASH means lighter aboard ship. LASH vessels have a huge 500 ton crane on the main deck. The (1)_____ are divided into cells to make room for the LASH barges which the crane plucks from the water at the stern of the ship, carries along the deck and (2)_____ in the ship's cells for the voyage. LASH barges are loaded at inland rivers and ocean ports. The barges are then towed to meet the LASH mother vessel and lifted aboard. When the mother vessel arrives at its port of destination the huge (3)_____ lowers the lash barges into the water, where they are towed to their final destination. That way the LASH ships can load and unload very quickly. A lash ship does not need to tie up to a port during (4)_____. It's like a bigger version of container ships; in this case, the container is a 60-foot steel lighter, which can be quickly launched over the ship's (5)_____.

D. *Quiz:*

Read the following information / descriptions and say which type of vessel it refers to:

1. In this type of ships, bow and stern doors and adjustable steel ramps permit vehicles to drive on board and drive off again, requiring only minimum dock facilities.
2. The cargo holds of these ships carry almost any kind of cargo, both piece goods and bulk cargo. The cargo is packed into boxes, bags and crates or on pallets and portside cranes

Ro-Ro vessel

LASH vessel

and ship's derricks that lift the cargo through the hatches and store it into the holds or on deck.

3. These ships are responsible for a huge part of the total world trade and essential for the maritime industry. Goods are locked and sealed in huge boxes of standard size, stowed both in holds and on the main deck.
4. These ships pick up fully-laden barges which are then stowed in layers in their hold. When they get to their destination they launch the barges over the stern and tugs take them in tow.
5. These ships are mostly found in channels and areas with high traffic density. They can carry passengers as well as cars.
6. These ships come in various shapes and sizes, types and categories. They carry dirty oil (crude oil), clean oils (refined petroleum products), edible oils, juices, wine, chemicals, liquefied gases etc.

E. *Tick the correct box:* True or False?

True	False	
☐	☐	"Handymax" is a classification according to size.
☐	☐	An "ungeared" vessel does not need port facilities.
☐	☐	A refined product tanker carries crude oil.
☐	☐	Break bulk cargo is carried in dry bulk carriers.
☐	☐	An example of liquid bulk cargo is chemicals.
☐	☐	A TEU is a container with dimensions 8 × 8 × 60.
☐	☐	A barge is a boat without an engine that is towed to position.
☐	☐	A lighter is a barge, has 8 × 8 × 60 dimensions.
☐	☐	In a Ro-Ro, cars drive through the stern door.

Vocabulary Development

a) Choose the correct preposition:

1. Piece **to / by / from** piece
2. **At / on / in** the decline
3. **In / at / on** low temperatures
4. They are equipped **from / at / with**

5. Prevent cargo **by / through / from** shifting
6. Transport cargo **in / by / with** bulk
7. Port **of / to / at** destination
8. Tow **to / at / in** its destination
9. **By / with / in** means of
10. Divided **with / into / at** holds
11. Divided **with / by / at** tweendecks

b) Match the synonyms:

to bend back	merchant	to offer/to give	part	standard
refueling	usual	huge	to carry	enough

1. bunkering _____
2. to fold _____
3. vast _____
4. adequate _____
5. commercial _____
6. to provide _____
7. to transport _____
8. section _____
9. uniform _____
10. ordinary _____

c) Match the words to form phrases / collocations:

1. Sailing _____
2. Passenger_____
3. Cargo _____
4. General arrangement _____
5. Liquefied Natural _____
6. Oil Pollution _____
7. Double-hulled _____
8. External _____
9. Holiday _____
10. Promenade _____

Shifting
Dimensions
Gas
Tanker
Decks
Accommodation
Maker
Act
Plan
Routes

d) Underline the correct explanation:

Hazardous = harmful / harmless
You can see it = edible / visible
Rapid = quick / slow
Group of ships = fleet / afloat
Ordinary = conventional / convenient
Stop = prevent / improve
Barge = leak / lighter
Install = build in / arrange

e) Match the opposites:

refined	discharging	fixed	longitudinal	lowering

1. removable _____
2. transverse _____
3. loading _____
4. lifting _____
5. crude _____

f) Choose the correct word:

1. Bridge wings improve **visibility / visible**.

2. Double-hulled tankers **gradual / gradually** replace single-hulled vessels.
3. Good knowledge of the ship's safety features is a basic **requirement / require** for all crewmembers.
4. **Longitude / longitudinal** and transverse partitions are an important structural feature of the ship.
5. The Coast Guard station **operations / operates** on a 24-hour basis.
6. Does this ship carry **refrigerator / refrigerated** cargo?

g) Derivatives / Word building: Put all the words in bold from the previous exercise in the correct column.

VERB	NOUN	ADJECTIVE	ADVERB
1.	visibility		
2.			
3.			
4.			
5.			
6.			

4. Special Duty Vessels

There are also vessels designed to assist other vessels or provide special services to navigation. We call them auxiliary vessels, or special duty vessels. Can you think of any?

A. ***Read the following statement and say which of the three pictures above it goes with.***

Tugs might look like small, harmless ships but they can have more power than a medium-sized cargo vessel and can manoeuvre in any direction with ease. In this way they make sure that the big ocean-going vessels reach their berth quickly and safely.

B. ***Listen to a lecture on three types of auxiliary vessels. Fill in the chart and match the pictures on the previous page to the three types of vessels.***

1. _____ 2. _____
   a. *seagoing* _____ 3. _____ *boat*
   b. _____
   c. _____

C. ***Read the following sentences from the lecture. Find synonyms to the words below:***

1. *Seagoing tugs* are used for: salvage, towing, anchor handling in the offshore industry.
2. Tugs can tow to a position at sea any floating object, like partly completed ships, floating wrecks.
3. *Escort tugs* operate in confined coastal waters and are small seagoing tugs that can push or pull a large ship away from a dangerous area when its own propulsion is not sufficient.
4. *Harbour tugs* are used for fighting fires and environmental disasters.
5. A Vessel Traffic Service (VTS) controls the shipping using a shore-radar system and radio communication. A shore-based controller informs the ship's crew and/or the pilot of possible hazards and other traffic.

– Rescue = ……
– Pulling along through the water (by a rope) = ……
– Not on land = ……
– Staying on the surface of the sea, not sinking = ……
– Limited, where movement is restrained = ……
– Enough = ……
– Catastrophe = ……
– Dangers = ……

Piraeus VTS Tower

Round-up

A. Vocabulary Consolidation Self-Assessment.

Can you talk in English on the following topics? Give at least 5 examples plus 5 keywords for each.

☐ different types of merchant vessels
☐ special duty vessels

B. Class Project.

In groups of 2 or 3 choose one of the following projects to present in class. The class can make a poster of your findings.

- Look up a type of vessel and present it in class. Choose one of the following: **reefer, dredger, cement carrier, cable-laying ship, heavy-lift ship.** Bring pictures, a general arrangement plan, any information you can find on its basic characteristics, its function, its cargo.
- **"The Inside Story"**. You want to learn more about a particular type of ship discussed in this unit, its history, development, different sizes, port facilities required for loading / discharging, etc. Find someone, a cadet or captain in the academy, for instance, who travelled on board such a ship. They will tell you about the advantages or disadvantages of working on this type of ship, the average stay in port, etc.

C. Look these words up in the SMCP glossary. What do the initials stand for?

SAR _____
RCC _____
TEU _____
VTS _____
VHF _____
PA-system _____
ETA _____

D. Listen to the speakers. Which type of ship do they work on? Choose from the list below.

Tanker	Container ship	Cruiser
Pilot boat	Dredger	Bulk carrier
Reefer	Tug	

1. Speaker A works on a _____
2. Speaker B works on a _____
3. Speaker C works on a _____
4. Speaker D works on a _____
5. Speaker E works on a _____
6. Speaker F works on a _____
7. Speaker G works on a _____
8. Speaker H works on a _____

E. These are some more abbreviations we have encountered. What do they stand for?

ER _____
DWT _____
PPE _____
OPA _____
ULCC _____
LASH _____

F. Vocabulary Revision. Fill in the missing words.

- _____ ships carry cargo in special "boxes".
- _____ carriers carry loose cargo, like grain.
- The Capricorn makes a speed of 14 _____. She can carry 416 _____ containers. Her grain _____ is 328500 cubic feet. Her _____ is 15.2 meters and her _____ overall is 118.55 meters.
- The escape _____ is situated between the ventilation areas in the forward part of the upper deck, opposite the sauna.
- There are sea-going and harbour _____.

G. Word grid

Do the following word grid activity in pairs.

Student A: There are fourteen types of ships hidden in this table. Look for them horizontally or vertically. Your study partner has the key. If you can't find a word, ask him/her to give you hints, descriptions, etc.

P	I	L	O	T	T	E	N	D	E	R	I	E
I	T	U	L	F	I	T	A	S	O	P	H	A
S	U	R	V	E	Y	S	H	I	P	E	Y	V
A	G	O	Q	W	B	R	E	C	U	R	W	O
R	P	A	C	R	U	I	S	E	S	H	I	P
V	O	X	C	V	L	B	N	B	M	L	K	A
E	Z	S	D	F	K	G	H	R	O	R	O	S
S	R	T	V	L	C	C	J	E	Q	Z	B	D
S	I	F	U	W	A	L	K	A	M	X	O	F
E	D	H	F	E	R	R	Y	K	N	C	J	G
L	I	C	N	I	R	P	O	E	B	V	H	L
C	O	N	T	A	I	N	E	R	S	H	I	P
T	B	S	E	F	E	O	H	T	I	N	U	G
R	E	E	F	E	R	F	C	A	R	T	Y	E

Student B: Go to page 269. You have the key. Be prepared to give key words but try **not** to use the exact words that describe the vessels, for instance PILOT, CONTAINER, CRUISE etc. You might use some of the following explanations.

Say: *look for a ship that carries passengers,*
that we use to save people in an emergency
that is a type of tanker, etc.

UNIT 5

Safety Equipment On Board

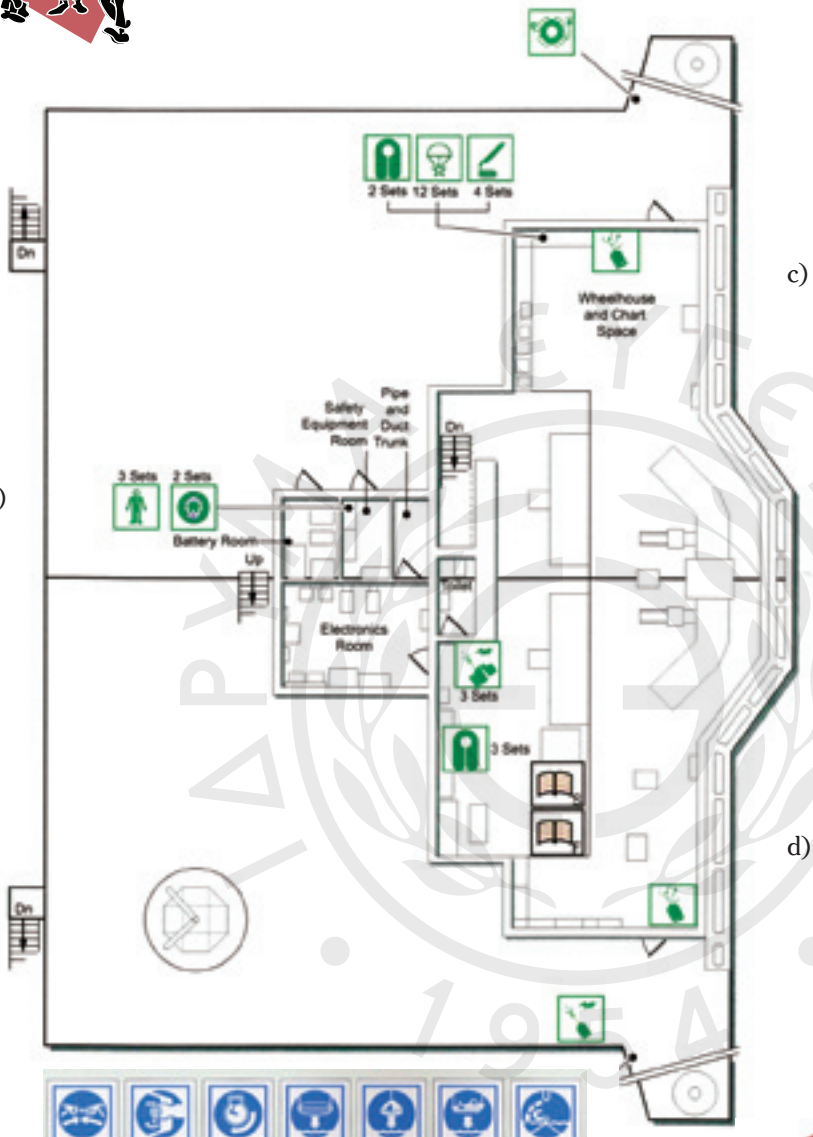
1. *Safety of Life at Sea: The Convention*
   - *I. SOLAS and the LSA Code*
   - *II. Amendments to SOLAS '74: the "Carriage of Immersion Suits" example*
   - *Language Awareness: Word Stress (Life-Saving Appliances)*
2. *IMO Safety Signs*
3. *Safety On Board: Oral Commands*
4. *Location and Purpose of Safety Equipment*
   - *I. Where is the safety equipment? – checklists, inventories and safety plans*
   - *II. When do you require life-saving equipment?*
5. *SOLAS requirements: Surviving Disaster*
   - *I. The Titanic and SOLAS*
   - *II. SMCP: Distress, Urgency and Safety Signals*
   - *III. PA announcements on passenger vessels / Instructions on how to put on your lifejacket*
6. *Launching a Lifeboat*
   - *I. Basic steps to launch a lifeboat*
   - *II. Describe survival equipment in writing*

Round-up

Lead-in: Check what you know.

The following pictures show items related to Safety On Board, and particularly Safety Equipment On Board. What is shown in each picture? Match the text to the pictures as a starting point to discuss in class.

a)



b)

c)

d)

e)

f)

g)

• Instructions on how to use survival craft	• Personal Life-saving Appliance approved by SOLAS – inflatable lifejacket	• Where safety equipment is located on the bridge	• Instructions on how to use a personal life-saving appliance
• IMO Safety Signs	• The most important convention protecting the safety of merchant vessels	• A Code with a description and the technical requirements of appliances for saving lives in an emergency on board.	

1. Safety of Life at Sea: The Convention

I. SOLAS and the LSA Code[1]

The IMO has a Maritime Safety Committee (MSC). It is a senior technical body which has developed and adopted international collision regulations and global standards for seafarers as well as international conventions and codes relating to search and rescue, the facilitation of international maritime traffic, load lines, the carriage of dangerous goods, etc.

The most important of the international conventions dealing with maritime safety is the international convention for the Safety of Life at Sea (SOLAS 74, as amended) which covers a wide range of measures designed to improve the safety of shipping. The convention in force today is referred to as "SOLAS, 1974, as amended": it was adopted in 1974, entered into force in 1980, and has been updated and amended on numerous occasions.

1. Info from the site of IMO (www.imo.org).

Chapter III of SOLAS contains the requirements of Life-Saving Appliances, the description of these appliances and the description of procedures for emergency and routine drills.

In 1996 the International Life-Saving Appliance (LSA) Code was adopted to provide international standards for the testing and technical characteristics of life-saving appliances required by Chapter III of the SOLAS convention. The LSA Code entered into force in 1998. It gives more precise technical requirements for LSAs and is mandatory under SOLAS Regulation 34, which states that "all life-saving appliances and arrangements shall comply with the applicable requirements of the LSA Code".

– The following items are covered by the LSA Code. Write them under the correct heading.

Liferafts
Lifebuoys
Immersion suits
Rocket parachute flares
Smoke signals
Lifeboats
Rescue boats
Hand flares
Lifejackets

Personal life-saving appliances	Survival Craft	Visual signals

II. Amendments to SOLAS'74 – the "Carriage of Immersion Suits" example[2]

When reading (about) regulations and conventions, it is important to understand certain key words, such as:

Amendment:	a change or addition to a convention, a law, etc.
Requirement:	something specified as compulsory

*To give you an illustration of how **amendments** provide new **requirements**, read the following statement, which contains a requirement, and try to decode it by answering the questions.*

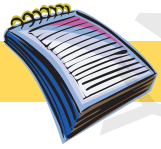
> In accordance with SOLAS regulation III/32.3 (effective July 1, 2006) one immersion suit per crew member is required on commercial vessels.

1. Imagine you are an inspector who wants to make sure that a merchant vessel operates under SOLAS. What must you check?
2. Before July 2006, was it compulsory to have one immersion suit for each member of the crew on board?
3. What do "III" and "32.3" refer to?
4. On "July 1, 2006", was the amendment introduced or did it come into force?

2. Source: "The May 2004 amendments: Carriage of immersion suits".

Now read the following background information that explains the amendment behind the requirement, in other words, how the ***new*** *requirement came about.*

In May 2004, the MSC adopted amendments to SOLAS chapter III Regulation 32 – Personal life-saving appliances to make changes to the number of immersion suits to be carried on all cargo ships. The amendments entered into force in 2006 and introduced carriage requirements for one immersion suit per person on board all cargo ships, including bulk carriers. Before that, the regulation required carriage of at least three immersion suits for each lifeboat on a cargo ship, as well as thermal protective aids for persons not provided with immersion suits. With the 2006 amendments, immersion suits became, as lifejackets, a personal life-saving appliance for each person on board, thus offering better thermal protection and improved chance of survival and rescue.



Glossary

adopt	formally accept or approve
facilitation	the act of making easy or easier
amend	to alter and improve formally by adding, deleting or rephrasing, to prepare a new version of
enter into force	coming to have legal force and effect
require	to demand as obligatory or appropriate, oblige to do by force of authority, also, need or call for
precise	exact, detailed, clearly expressed
mandatory	required by law, compulsory, obligatory
comply with	to follow (an agreement or instructions), meet specified standards, act in accordance with a wish or command
applicable	that can be applied, relevant or appropriate
in accordance with	in agreement with, in conformity with
thus	in this way, so

a) Dates are another key item you need to be clear about in relation to conventions. Fill in the correct date, based on the two texts above:

	SOLAS	LSA Code	Amendment on Carriage of Immersion Suits
Adoption:			**May 2004**
Entry into force:	**1980**		

b) Word-building. Give the noun for the following verbs.

Adopt –	Require –
Amend –	Comply –
Enter –	Carry –
Update –	Facilitate –

Language Awareness: Word Stress (Life-Saving Appliances)

a) Listen to the audio clip and circle the correct word stress pattern for the following words:


life raft


fire hose


life jacket


First Aid box


fire extinguisher


breathing apparatus


emergency telephone


life raft


fire hose


life jacket


First Aid box


fire extinguisher


breathing apparatus


emergency telephone

b) Work in pairs to identify the correct stress.

Student A: Dictate the following words to your partner, using the word stress pattern.


life boat


life buoy


fire alarm


eye rinse station


clean up equipment

Student B: Go to page 269. Listen to the words and <u>underline</u> the stressed syllable. Check your answers with your partner.

2. IMO Safety Signs

A. *Tick [✓] the correct alternative.*

1. What does this mean?

☐ fasten seatbelts
☐ start engine
☐ secure hatches
☐ release falls

2. What does this mean?

☐ start engine
☐ start air supply
☐ secure hatches
☐ release falls

3. What does this mean?

☐ start power
☐ start engine
☐ secure sprinkler
☐ release air supply

4. What does this mean?

☐ secure hatches
☐ fasten seatbelts
☐ release falls
☐ fasten lines

5. What does this mean?

☐ lower liferaft
☐ lower lifeboat
☐ lower rescue boat

6. What does this mean?

☐ lower liferaft
☐ lower lifeboat
☐ lower rescue boat

7. What does this mean?

☐ lower liferaft
☐ lower lifeboat
☐ lower rescue boat

B. ***Work in pairs. Discuss what the following signs mean.***

a) 

b) 

c) 

d) 

e) 

f) 

g) 

h) 

i) 

j) 

k) 

l) 

m) 

n) 

o) 

p) 

q) 

C. ***Write the correct caption under each sign; use the following lists:***

parachute rocket flares
evacuation slide
EPIRB (distress radio)
lifebuoy with line
immersion suit
survival craft distress signal
fire extinguisher
fire hose
line throwing apparatus
lifejacket
fire alarm
embarkation ladder
eye wash station
breathing apparatus (EEBD)
muster station
stretcher
radar-transponder

3. Safety On Board: Oral Commands

A. ***Listen to oral commands that mention life saving equipment. All the commands are phrases from SMCP, Section B2 "Safety on Board". Circle the words you hear.***

[general emergency activities]

1. Operate the general emergency alarm / fire alarm.
2. All officers to go / report to the bridge.
3. Watchkeepers remain at stations / locations until further order.
4. Take lifejackets / life rafts with you.
5. Take your emergency equipment with you according to the safety list / muster list.
6. Follow the safety routes / escape routes shown.
7. Do not go to the lifeboat stations / lifebuoy stations before ordered.
8. Provide first aid in the vessel's office / hospital.
9. Watchkeepers to assembly / eye rinse stations.
10. Put on your emergency suits / immersion suits.
11. Passengers and crew! Follow the lifeboatmen to the lifeboat stations on the operation deck / embarkation deck.
12. Throw overboard / onboard number 2 liferaft and report.
13. Salvage boat / Rescue boat! Assist number 2 liferaft and report.
14. Report the total number / whole number of persons in liferaft.
15. Fire rockets for embarkation / identification.

[checking status of equipment]

16. Check the lifeboat / liferaft equipment and report.
17. Launch / Release number two lifeboat and report.
18. Replace the liferaft in the next dock / port.
19. Secure the inflation cord / operation cord of number 2 liferaft.

[fire protection and fire fighting]

20. Check the transportable / portable extinguishers and report.
21. Fire on board! Fire fighting team must have protecting clothing, smoke helmets and breathing apparatus / breathing mask.
22. Stand by / Retreat first aid team.

[SAR on-board activities]

23. Man overboard on port side. Drop lifeboat / lifebuoy.
24. Switch on searchlights / toplights.
25. Stand by life-saving apparatus / line-throwing apparatus and report.

B. ***The commands above contain some SMCP GLOSSARY terms. Match the words to their definitions by writing the correct number in the gaps.***

1. Launch	_____ place assigned to crew and passengers to muster before being ordered into the lifeboats
2. Escape route	_____ a sound signal of seven short blasts and one prolonged blast given with the vessel's sound system.
3. Lifeboat station	_____ to lower, e.g. lifeboats, to the water

4. General emergency alarm	_____ a clearly marked way in the vessel which has to be followed in case of an emergency
5. Muster list	_____ to assemble crew, passengers or both in a special place for purposes of checking
6. Muster	_____ list of crew and passengers on board and their functions in a distress or drill
7. Stand by	_____ able to be easily carried or moved
8. Portable	_____ to be in readiness or prepared to execute an order; to be readily available

4. Location and Purpose of Safety Equipment

I. Where is the safety equipment? – checklists, inventories and safety plans

The Chief Officer (C/O) asks the cadet questions about the safety equipment.

a) Look at the checklist that the C/O is using. Listen and check the things he asks the cadet about.

LSA CHECKLIST
Personal life-saving appliances ☐ Life-jackets ☐ Life-buoys ☐ Immersion suits
Survival Craft ☐ Life-rafts ☐ Lifeboats ☐ Rescue boats
Visual Signals ☐ Rocket parachute flares ☐ Hand flares ☐ Smoke signals
Launching and embarkation appliances ☐ Embarkation ladder ☐ Line-throwing apparatus ☐ General Alarm and PA System
Fire-fighting equipment ☐ Fireman's outfit ☐ Fire blanket ☐ Fire extinguishers

b) Listen again. The C/O is asking about some items that are not on his list. Circle the ones he is asking the cadet about.

– safety plan / fire plan / fire alarm?
– fire drills / abandon ship drills / man overboard drills?
– first aid equipment / hospital / resuscitation equipment?

c) Listen again. What equipment can you find…

…next to the door, in the galley? _____
…behind the chartroom, on the bridge? _____
…in the cabin, inside the cupboard? _____
…on the deck railings? _____
…on the bridge wings? _____
…next to the pilot ladder? _____
…outside the entrance to the accommodation? _____
…in the muster station? _____

d) Where is the safety equipment? Look at the six pictures below. Match the sentences to the pictures, then choose the correct preposition.

1. The lifejackets are **on / in / at** the box.
2. The liferaft is **next to / above / below** the deck railing, in front of the accommodation.
3. The PA speaker is on the wall, **outside / inside / under** the passenger lounge.
4. The children's lifejackets are **to your left / to your right / up the stairs**.
5. The lifebuoy is **on / above / below** the deck railing.
6. The rescue boat is **below / above / next to** the liferafts.






e) Match the sentences to the pictures below and fill in the gaps with the following words:

EPIRB, fire blanket, stretcher, EEBD (Emergency Escape Breathing Device), Fireman's Outfit, Vessel's Emergency Response Plan

1. The _____ is in the galley, on the wall, next to the oven.
2. The _____ is in the Fire Station.
3. The _____ is on the wall outside the Fire station.
4. The _____ is in the hospital.
5. The _____ is on the bridge wings.
6. The _____ is in a box in the Fire Station, next to the door, in front of the EEBD.

☐

☐

☐

☐

☐

☐

f) Where are the CO_2 extinguishers on board the vessel? How many are there? Look at the card and talk about the location and number of the CO_2 extinguishers.

e.g. There is one CO_2 extinguisher on the bridge. There is another one... Also…

M/V ....

/03/2008

FIRE EXTINGUISHERS LIST (LAST INSPECTION 09/2007)						
LOCATION	**Q'TITY**	**CAPACITY**	**CO_2**	**FOAM**	**DRY POWDER**	**NR**
		ACCOMMODATION / DECK				
BRIDGE	**1**	**5,0 KGR**	✓			1
BATTERY ROOM	**1**	**6,0 KGR**			✓	2
D'DECK	**2**	**6,0 KGR**			✓	3 & 4
C'DECK	**2**	**6,0 KGR**			✓	5 & 6
B'DECK	**2**	**6,0 KGR**			✓	7 & 8
A'DECK	**2**	**6,0 KGR**			✓	9 & 10
BALLAST CONTROL ROOM	**1**	**5,0 KGR**	✓			11
GALLEY	**1**	**5,0 KGR**	✓			12
PROVISION STORE	**1**	**6,0 KGR**			✓	13
FORECASTLE	**1**	**6,0 KGR**			✓	26
UPPER DECK	**2**	**6,0 KGR**			✓	14 & 15
ACETYLENE	**1**	**6,0 KGR**			✓	17
OXYGEN	**1**	**6,0 KGR**			✓	18
EMERGENCY FIRE PUMP	**1**	**6,0 KGR**			✓	23
AIR CONDITION ROOM	**1**	**5,0 KGR**	✓			19
EM/CY GENERATOR ROOM	**1**	**5,0 KGR**	✓			21
MAST HOUSE	**1**	**6,0 KGR**			✓	24
FIRE CONTROL ROOM	**1**	**5,0 KGR**	✓			51
No. 1 PAINT STORE (FORE)	**1**	**6,0 KGR**			✓	25
No. 2 PAINT STORE (AFT)	**1**	**6,0 KGR**			✓	16
CASING – FUNNEL	**1**	**6,0 KGR**			✓	20
STEERING GEAR ROOM	**1+2**	**5,0 KGR &6,0 KGR**	✓		✓	28 & 29 + 27
1ST FLOOR	**7**	**6,0 KGR**			✓	32-33-34-35-36-37-38
CONTROL RM	**1**	**5,0 KGR**	✓			30
WORKSHOP	**1**	**6,0 KGR**			✓	31
2ND FLOOR	**7**	**6,0 KGR**			✓	39-40-41-42-43-44-45
3RD FLOOR	**5**	**6,0 KGR**			✓	46-47-48-49-50
LIFEBOAT	**1**	**2,0 KGR**			✓	**22**
RESCUE	**1**	**2,0 KGR**			✓	
LIFEBOAT (SPARE)	**1**	**6,0 KGR**			✓	**D - DECK**
RESCUE (SPARE)	**1**	**6,0 KGR**			✓	**D - DECK**

		IN USE	**SPARE**	**GRAND TOTAL**	**LAST INSPECTION**
CO2	6,0 Kgr	**9**	**9**	**18**	Sep-07
DRY POWDER		**43**	**18**	**60**	Sep-07
NON PORTABLE	135 Ltrs	**1**		**1**	Sep-07
	45 Ltrs	**1**		**1**	Sep-07
FOAM APPLIC.	20 Ltrs	**1**	**1**	**2**	Sep-07
FIXED S. FOAM	2300 Ltrs	**1**		**1**	Sep-06

CHIEF OFFICER

THE MASTER

g) Checking the condition of LSAs: Inventory of Safety Equipment

An **inventory** is a detailed list or record of items, such as provisions, equipment, etc.

The Third Officer is talking to the Chief Officer about the condition of LSAs. Look at the inventory they are using, listen to the dialogue and

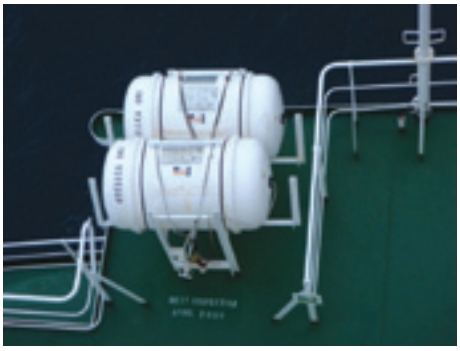
- fill in the dates that are missing (in the yellow cells).
- circle the equipment that has a short expiry period.

M/V ... **AT SEA**

PIRAEUS 11526 **DATE :** **/03/2008**

INVENTORY OF PYROTECHNICS AND SAFETY EQUIPMENT			
ITEM	**QTTY**	**MAN. DATE**	**EXPIRY DATE**
BRIDGE			
PARACHUTE SIGNAL RED ROCKETS	12	March-06	Jul-09
LINE THROWING APPLIANCES	4	May-06	_____
MAN OVERBOARD PORT SIDE	1	Apr-06	Jul-09
MAN OVERBOARD STBD SIDE	1	Apr-06	Jul-09
RADAR TRANSPONDERS (BATTERY)	2	Apr-06	Mar-09
EPIRB	1		
EPIRB BATTERY			_____
EPIRB RELEASE			Aug-08
PORTABLE 2WAY VHF (GMDSS)	3	Apr-06	
IMMERSION SUIT	42	Oct-05	_____
BATTERIES FOR 2WAY VHF (GMDSS)	3		_____
FREE FALL LIFEBOAT			
ORANGE SMOKE SIGNALS	2	May-05	May-08
PARACHUTE SIGNAL RED FLARES	2+2	04/2005-06/2006	04/2008-06/2009
HAND FLARES RED	6	May-05	May-08
FOOD RATION	60	Feb-06	Jan-11
FIRST AID KIT	1	Feb-06	_____
LIFE RAFTS:			
			LAST INSP.
MAIN DECK 6 PRSN			Aug-07
BOAT DECK STBD 2 × 20 PRSN			Aug-07
BOAT DECK PORT 2 × 20 PRSN			Aug-07
			EXP.DATE
L.RAFTS HYDROSTATIC RELEASE P			Jun-08
L.RAFTS HYDROSTATIC RELEASE S			Mar-09
			LAST INSP.
BREATHING APPARATUS AIR CYL.BOTTLES	12		Dec-07
			NEXT TEST.
PRESSURE TEST			Aug-10
			NEXT INSP.
E.E.B.D.	**10**	Apr/06	Apr-21
			EXP. DATE
LIFE JACKETS FOR ADULTS			
LIFE JACKET'S LIGHTS	**50**	Nov/05	Nov-10

CHIEF OFFICER **THE MASTER**



Liferafts and "next inspection" stencil painting

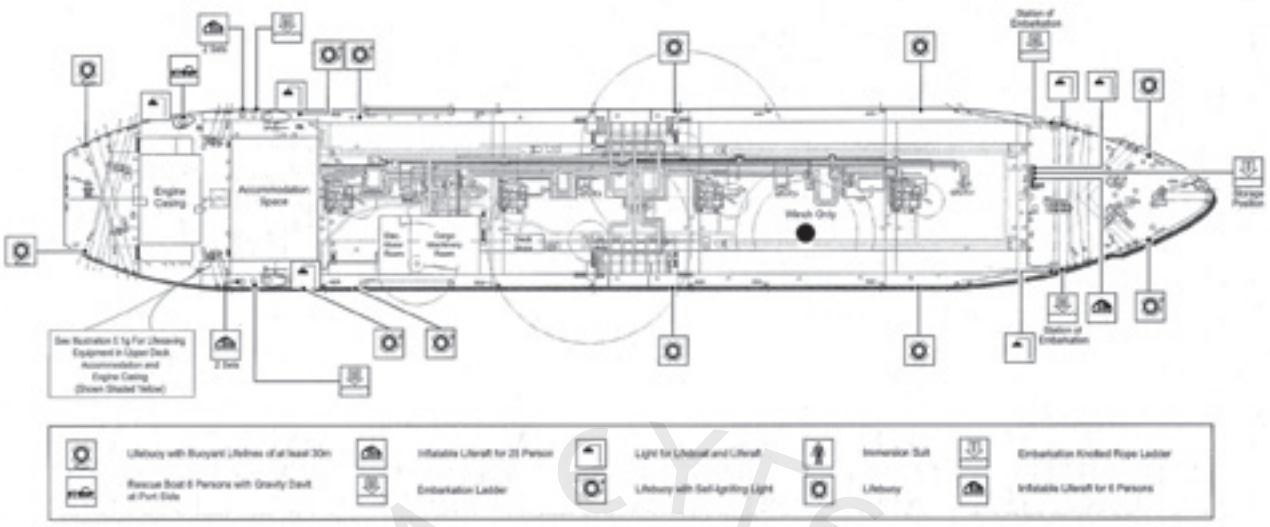
Hydrostatic release unit

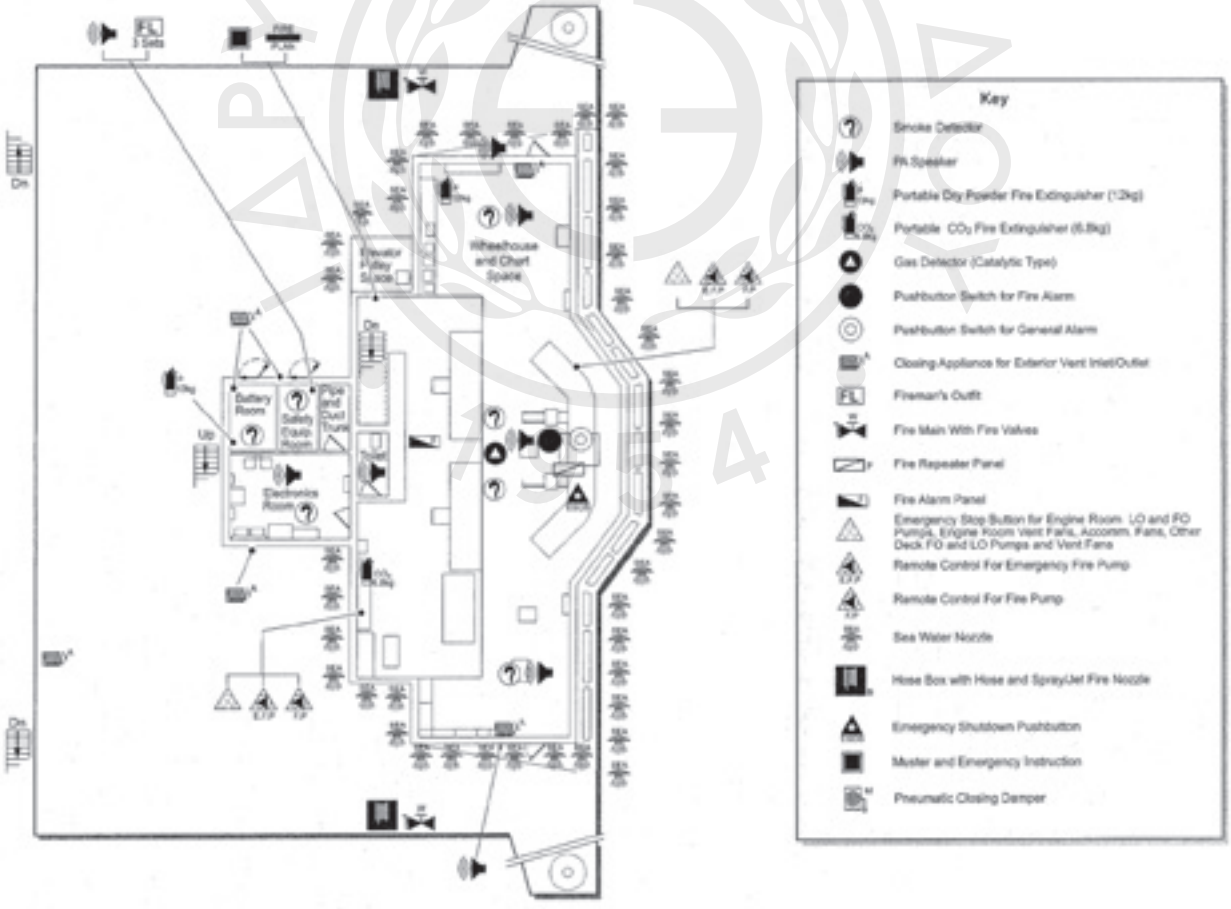
h) Work in pairs to locate equipment on a Safety Plan.

Student A: Ask your study partner about the location and quantity of the specific items on the checklist. You can say: *Where is / are the…? How many … are there?* Tick ☑ your checklist when s/he describes the location of the item correctly and write the number of items in the quantity box.

Student B: Use the Safety Plans on the next page: mark an **X** on the plans when you locate the item your partner asks you about and then tell him/her where it is. Use prepositions: *On the port / starboard side, next to, inside (the…), behind, on, near, in front of, etc.*

ITEM	QUANTITY
BRIDGE DECK	
☐ Rescue boat	☐
☐ 25-person Liferafts	☐
☐ 6-person Liferafts	☐
☐ Lifebuoys with light	☐
MAIN DECK	
☐ Fireman's Outfit	☐
☐ CO_2 Fire Extinguishers	☐
☐ Dry Powder Fire Extinguishers	☐
☐ Fire hoses	☐
☐ Fire plan	☐
☐ Smoke detectors	☐
☐ Muster List & Emergency Plan	☐
☐ PA-speakers	☐


Engine Casing
Accommodation Space
Winch Only
Lifebuoy with Buoyant Lifelines of at least 30m
Rescue Boat 6 Persons with Gravity Davit at Port Side
Inflatable Liferaft for 25 Person
Embarkation Ladder
Light for Lifebuoy and Liferaft
Lifebuoy with Self-Igniting Light
Immersion Suit
Lifebuoy
Embarkation Knotted Rope Ladder
Inflatable Liferaft for 6 Persons


Wheelhouse and Chart Space
Elevator Trolley Space
Battery Room
Safety Equip. Room
Pipe and Duct Trunk
Electronics Room
Key
Smoke Detector
PA Speaker
Portable Dry Powder Fire Extinguisher (12kg)
Portable CO2 Fire Extinguisher (6.8kg)
Gas Detector (Catalytic Type)
Pushbutton Switch for Fire Alarm
Pushbutton Switch for General Alarm
Closing Appliance for Exterior Vent Inlet/Outlet
Fireman's Outfit
Fire Main With Fire Valves
Fire Repeater Panel
Fire Alarm Panel
Emergency Stop Button for Engine Room LO and FO Pumps, Engine Room Vent Fans, Accomm. Fans, Other Deck FO and LO Pumps and Vent Fans
Remote Control For Emergency Fire Pump
Remote Control For Fire Pump
Sea Water Nozzle
Hose Box with Hose and SprayJet Fire Nozzle
Emergency Shutdown Pushbutton
Muster and Emergency Instruction
Pneumatic Closing Damper

II. When do you require life-saving equipment?

a) Fill in the gaps for the appropriate safety equipment.

_____ apparatus: you need it against asphyxia when there is too much smoke in the air

_____ suit: you need it in the cold sea

_____ kit: you need it to take care of a wound / when you are injured

_____ buoy: you need it to float in water

fire _____ : you need it to spray water / powder to a fire to put it out

b) Match the type of life-saving equipment to its function. Fill in the gaps with the words in the box.

lifeboat	**MOB lifeboat**	**free fall lifeboat**
ship-launched lifeboat	**life buoy**	**life raft**

A _____ is launched instantly, directly by the ship; it is stored in a slip-way and drops into the water for a quick getaway in case of fire, explosion etc.

A _____ is a rescue boat we use when there is a man overboard.

A _____ is designed to be lowered with the use of davits on a ship's deck.

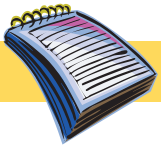
A _____ is usually inflatable, it is stored in a container (called canister) aboard a ship, and you need it to save lives in case the vessel has to be abandoned in an emergency at sea.

A _____ is designed to save people who must abandon ship in case of emergency, such as sinking or fire; it is unsinkable, with buoyancy that cannot be damaged, and is constructed to withstand heavy, rough seas.

A _____ is an object that keeps a person afloat; you must throw it after a person overboard, so it is attached to railings close to the water.

Free-fall lifeboat.

Ship-launched lifeboat.



Glossary

inflatable	able to be inflated or blown up, e.g. a boat that can be filled with air
canister	a round or cylindrical container
buoyancy	tendency or capacity to remain afloat in a liquid; the upward force on a body immersed or partly immersed in a fluid
davits	small cranes for lowering a lifeboat
withstand	to remain undamaged by, offer strong resistance to
rough	(of weather or the sea) wild and stormy

c) Guessing Game.

Think of a life-saving appliance. Your partner will ask you **Yes** or **No** questions to guess what it is. If s/he can guess what it is in less than 8 questions, s/he wins.

E.g. *Is it inflatable?*
Is it portable?
Can you find it on the rails?
Does it keep you afloat?
Does it protect you from the cold?
……..?

5. SOLAS requirements: Surviving Disaster

II. The Titanic and SOLAS

SOLAS is one of the oldest conventions of its kind. The first version was adopted in 1914 following the sinking of the TITANIC. The following graph describes how, nowadays, SOLAS regulations provide better chances of survival to people who find themselves in a disaster at sea[3].

Lead-in: *Match the questions to their answers, based on what you know. Then read the graph on "Surviving Disaster" to check if your answers are correct.*

What are the requirements under SOLAS for...

1. the number and capacity of survival craft on passenger ships? ☐
2. sending the ship's position quickly to help locate it? ☐
3. vessels being on stand by to receive a distress call? ☐
4. the communication with the passengers to avoid panic due to lack of information? ☐
5. the construction of lifeboats? ☐

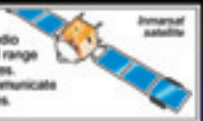
[3] "Ship Safety – the Titanic & SOLAS (graphic)".

Surviving disaster – The Titanic and SOLAS

In 1914, two years after the Titanic disaster of 1912, in which 1,503 people lost their lives, maritime nations gathered in London adopted the International Convention for the Safety of Life at Sea (SOLAS Convention), taking into account lessons learned from the Titanic. The 1914 version was superseded by SOLAS 1929, SOLAS 1948, SOLAS 1960 (the first adopted under the auspices of the International Maritime Organization) and SOLAS 1974. SOLAS 1974 is still in force today, but it has been amended and updated many times. The regulations relating to life saving appliances and arrangements, contained in chapter III of SOLAS, a new version of which entered into force on 1 July 1998, are intended to ensure that in the event of a catastrophe at sea, passengers and crew have the greatest chances of survival. Improved design and equipment, better fire protection, satellite communications, rescue planes and helicopters and trained personnel also contribute to improved safety at sea.

IMO

Distress alert
The Titanic used radio which had a limited range of 200 nautical miles. Ships can now communicate globally via satellites.



Marconi radio wires

Helicopters and rescue planes
Unavailable in 1912, helicopters and rescue planes are now used to locate, search for and rescue survivors.

Speed of navigation around ice
The Commission into the Titanic ruled the loss was due to collision with an iceberg brought about by excessive speed at which she was being navigated.
Under SOLAS, when ice is reported on or near his course the master of every ship at night is bound to proceed at a moderate speed or alter course.

Lifeboat drill
No lifeboat drill was held on the Titanic. Under SOLAS chapter III an 'abandon ship' and fire drill must take place weekly on all passenger ships.

Ice patrol
In the first SOLAS 1914, after the Titanic disaster, ice patrols in the north Atlantic were set up and continue to be a SOLAS requirement.

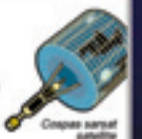
Evacuation chutes
Passengers on the Titanic jumped from windows and doorways into the lifeboats as they were lowered, often injuring themselves or other passengers
New emergency evacuation chutes are both safer and quicker.

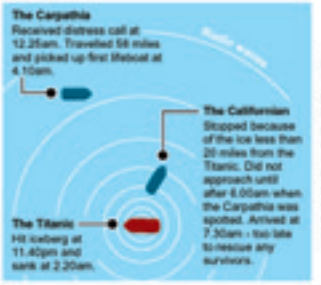
Public address system
There was no public address system on the Titanic and news filtered to the passengers slowly, adding to the disorder and confusion.
Under SOLAS, all passenger ships must be fitted with a public address system.

Training of crew in lifeboat drill
The crew of the Titanic lacked training in loading and lowering the lifeboats and few knew which boat they were assigned to. Lifeboats were not filled to capacity because senior officers did not know the boats had been tested and were strong enough.
Under SOLAS, every crew member must participate in regular practise drills and have easy access to training manuals.

Number of lifeboats
The Titanic did not have enough lifeboats for all passengers.
Under SOLAS, passenger ships must carry enough lifeboats (some of which can be substituted by liferafts) for all passengers, plus liferafts for 25%.

Location
The land station at Cape Race, Newfoundland and ships other than the Carpathia and the Californian heard the Titanic distress call but the airwaves were crackling and the Titanic's position was misinterpreted. With EPIRBs and global positioning systems, the position of a ship in distress can be automically sent.





Distress watch
The Californian was less than 20 miles away but the radio officer had gone off duty when the distress messages were sent.
Under SOLAS, every ship while at sea must maintain a continuous watch on the distress and safety frequencies.

Lifeboat design
Some people died from hypothermia in the Titanic lifeboats because they were open and gave no protection against the cold.
Under SOLAS, lifeboats must be fully or partially enclosed. On passenger ships, partially enclosed lifeboats can be used as they are easier to get into, but they must have a collapsible roof to fold across.

Immersion suits
The sea temperature when the Titanic sank was below freezing point and many people died in the water from hypothermia.
Under SOLAS, a specific number of immersion suits must be carried on both passenger and cargo ships, mainly for the crews of rescue boats.

6. making passengers familiar with emergency procedures? ☐
7. training crew in handling lifeboats? ☐
8. making evacuation safer for passengers? ☐

A. The position of a ship in distress can be sent automatically via EPIRB.
B. There should be enough lifeboats for all passengers, plus liferafts for 25%.
C. All ships must have a PA system.
D. Every ship while at sea must keep a continuous watch on the distress and safety frequencies.
E. All lifeboats must be enclosed, at least partially, to protect against the cold.
F. There must be emergency evacuation slides for passengers.
G. Passengers must attend fire drills and abandon ship drills.
H. The crew must participate in regular practice drills.

– Scanning and looking for specific vocabulary. Find synonyms for the words below in the following parts of the graph:

i. "Public address system"
– a lack of order: _____
– a state of panic, uncertainty: _____
– ships must be provided with: _____

ii. "Speed of navigation around ice"
– average, medium speed: _____
– the speed is more than necessary, normal or desirable: _____
– the ship is obliged to: _____

Glossary

supersede	to take the place of
under the auspices of	with the support or protection of
intend(ed) to	designed for a particular purpose, having as an aim to
ensure	to make certain that something will occur or be so
contribute to	to help to cause, bring about, help to achieve or provide something
substitute by	to replace with another, use in place of
via	by means of, by way of, through
misinterpret	to understand wrongly
evacuation chute	a long slide or inclined passage used to evacuate passengers
limited range	restricted distance within which (the radio) is able to operate or be effective

II. SMCP: Distress, Urgency and Safety Signals

a) Match the type of message to the situation it indicates and the signal we use to announce it.

MESSAGE	SITUATION	SIGNAL
Distress	Serious danger to ship, crew or passengers	SÉCURITÉ
Urgency	Imminent risk for navigation	PAN PAN
Safety	Serious and immediate danger to ship, crew or passengers	MAYDAY

b) Listen and identify the type of message. Circle the correct one.

– Message number 1 is **a distress** message
an urgency message
a safety message

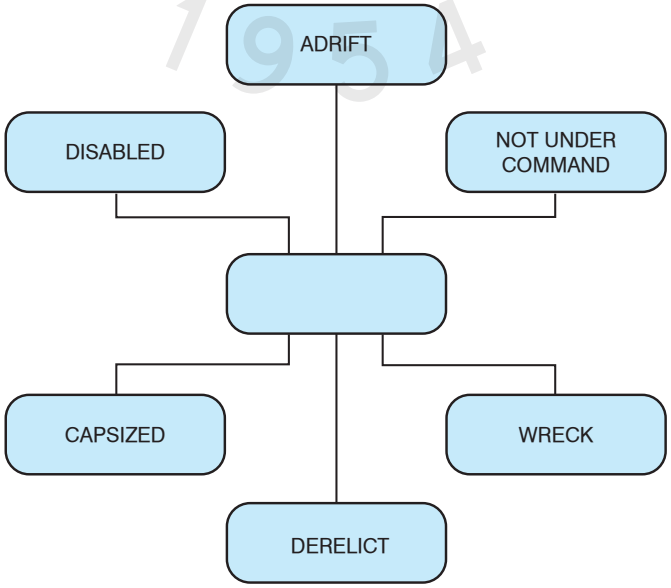
– Message number 2 is **a distress** message
an urgency message
a safety message

c) Listen to the first message again. What information can you hear in it? Tick [☑] ***the information the message contains.***

- ☐ The 9-digit MMSI number
- ☐ The call sign
- ☐ The name of vessel calling
- ☐ The type of vessel calling
- ☐ The position of the vessel
- ☐ The number of crewmembers on board
- ☐ The nature of distress
- ☐ The assistance required

d) What do the following terms have in common? Fill in the middle of the graph what the terms describe:

1. types of messages 2. emergency situations on board 3. the condition the ship is in



e) Match the following SMCP terms to their definition.

adrift	NUC (Not under command)	wreck	derelict	capsized	disabled

1. _____ vessel turned over
2. _____ vessel moving uncontrollably by current, wind or tide
3. _____ vessel still afloat abandoned at sea
4. _____ vessel destroyed, sunk, or abandoned at sea
5. _____ vessel unable to manoeuvre as required by the COLREGs
6. _____ vessel damaged in such a manner as to be incapable of proceeding

f) Safety or Security? Fill in the gaps with one of these words.

1. There are _____ checks every 30 minutes by port authorities, as an anti-piracy measure.
2. For _____ reasons, there is a close circuit surveillance system in the cruise ship.
3. International _____ Management Code
4. Maritime _____ Committee
5. International Ship and Port Facility _____ Code
6. Read the _____ Notice: no unauthorized personnel.
7. For your own _____, lock the door of your cabin.
8. For your personal _____, fasten your seat belt as soon as you enter the life-boat.

III. PA announcements on passenger vessels (SMCP, Section B4 "Passenger Care") / Instructions on how to put on your lifejacket

The purpose of "Passenger Care" announcements is to
- inform passengers on safety aspects
- manage passengers in case of an emergency

a) Listen to the following PA announcements and tick ☑ accordingly.

Announcement 1.

In case of emergency,

☐ passengers must obey the safety instructions given by the crew.
☐ passengers must listen to announcements given on the public address system.
☐ passengers must do what they have read in the notes and leaflets in their cabins.

Announcement 2.

The announcement

☐ informs passengers about the spaces on board they are not allowed to enter.
☐ gives instructions on how to enter special areas and compartments on board.
☐ informs passengers of how they can have access to their cars.

Announcement 3.

The announcement

☐ allocates passengers to their assembly stations.
☐ explains what the abandon ship alarm sounds like.
☐ informs passengers about evacuation and boat drills and gives instructions on how to put on their lifejackets.

b) The following pictures demonstrate how to put on your lifejacket. What is the main instruction for each picture? Choose one of the following verbs for each picture:

tie in front – pull over – tighten

Now listen to Announcement 3 again and write instructions under each picture.

1. _____
_____
_____

2. _____
_____
_____

3. _____
_____
_____

6. Launching a Lifeboat

I. Basic steps to launch a lifeboat

GENERAL INSTRUCTIONS

Life boats and liferafts are a means of life saving in case of emergency. Remember it is important to:

- Ensure easy and unobstructed access to these appliances in order to be able to use them without any time delay.
- Inspect the equipment periodically as per the regulations to ensure seaworthiness.
- Conduct drills periodically to make sure the ship's crew is confident to use the appliances in case of emergency.
- Display posters on board on launching procedures.

Glossary

unobstructed	free from obstructions, clear, unblocked
access	the means to approach or enter a place
seaworthiness	the fitness of a ship to sail on the sea
conduct	to organize and carry out
display	to hold up to public view, lay out in a prominent place so as to be seen

a) With your study partner, try to guess the correct order of the following six steps on how to launch an ˝open lifeboat˝.

embarking personnel	initial preparations
lowering to deck level	securing to embarkation deck
letting go	lowering to water

1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

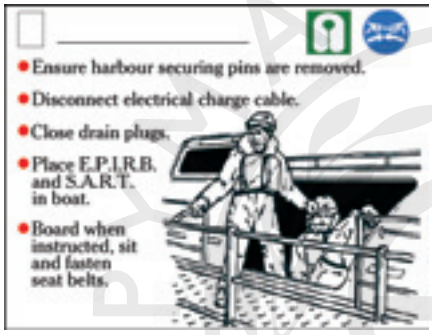
b) Look at the following six pictures which illustrate how to launch an ˝enclosed lifeboat˝.

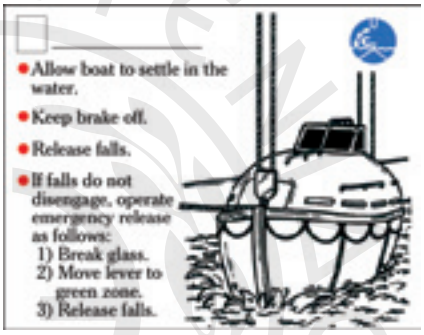
1. Match the stages of the procedure to the pictures. Write a title in each picture. Use the following titles:

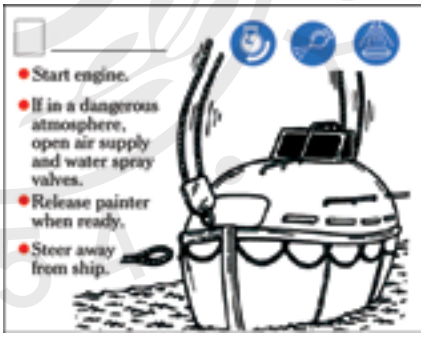
Lower to water	Initial preparations
Entering water	Letting go
Final actions	Launch actions

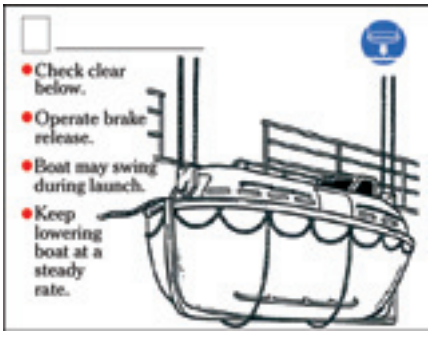
2. Guess the correct order of the six stages. Put a number in the boxes provided in each picture.

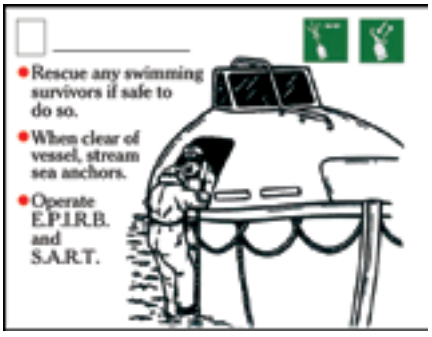
3. Look closely at the IMO signs in the pictures. How many can you identify?









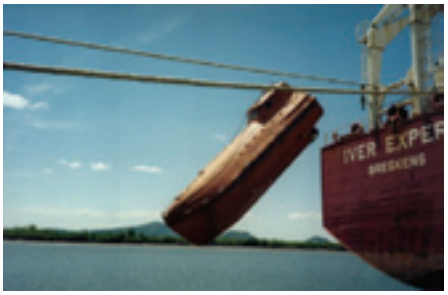


II. Describe survival equipment in writing

Choose one of the following appliances to describe in writing.

Write about its shape, colour, construction material, and any other characteristics. Where do you find it? What is its purpose? How do you use it?

…it is inflatable…
…it gives you buoyancy…
…it has a whistle and a light…
……..
…it keeps you afloat…
…it is red and round…
…it has a carrying capacity of 25 people…



Round-up

A. Self-assessment.

How well can you talk in English on the following topics? Tick ☑ accordingly and give as many examples as possible.

Very well	moderately well	poorly	
☐	☐	☐	Personal LSAs and survival craft
☐	☐	☐	Where safety equipment is on board
☐	☐	☐	Conventions on safety
☐	☐	☐	SOLAS requirements
☐	☐	☐	IMO safety signs
☐	☐	☐	SMCP signals

B. Class Project.

Choose one of the following to present to class:

- Find out more about the history of SOLAS and its various parts.
- Research another convention that relates to safety, the **International Convention on Maritime Search and Rescue (SAR) 1979**.
- Free-fall lifeboats: How do they operate? What are their advantages and disadvantages? How widely are they used in comparison with conventional lifeboats?

C. Quiz.

1. Which device throws a line? .....
2. Which device helps you embark the lifeboat? .....
3. Which device helps launch the liferafts? .....
4. Which item keeps you warm in the water? .....
5. Which device helps you be seen and heard in the water? .....

D. Fill in the correct prepositions.

via	to	per	under	with	in	against	from

1. This appliance offers protection _____ the cold.
2. People can die in the water _____ hypothermia.
3. _____ accordance with your instructions, we will relocate the equipment.
4. The company must make sure to comply _____ international regulations.
5. _____ SOLAS, lifeboat drills are obligatory.
6. Nowadays, ships communicate _____ satellites.
7. The technical characteristics are applied as _____ regulations.
8. According _____ new standards, all officers must be fluent users of English.

–able and –ible: suffixes that form adjectives

One of the meanings of these suffixes is **"that can be".** For example:

- The **applicable** LSA Code requirements are the requirements that can be applied to particular vessels.
- Lifeboats onboard are easily **accessible:** you can have easy access to them. Hopefully, they are also **unsinkable**.
- Liferafts are **inflatable,** they can be inflated.
- An **adjustable** spanner can adjust to the size of the nut.
- A **portable** extinguisher can be moved or carried.

E. Fill in the gaps with the following words to give SMCP Glossary definitions:

permissible	**compatible**	**navigable**	**variable**

1. a fairway is the part of a waterway that is _____, in other words that can be navigated
2. _____ goods can be safely stowed in one cargo space or in an adjacent hold.
3. a _____ wind is likely to change or vary, it is wind constantly changing speed or direction.
4. the maximum _____ pressure in cargo hoses is the Safe Working Pressure.

F. Cross the odd one out.

1. It takes many years for the MSC to **adopt / amend / release / update** conventions.
2. You must practise on how to **release / lower / inflate / reduce** a liferaft.
3. An international **convention / treaty / agreement / awareness** is adopted by many governments.
4. Various installations on board achieve fire **protection / comprehension / detection / extinction.**
5. You must maintain life-saving **applications / appliances / devices / equipment** regularly.
6. Can you check when the **inspection date / arrangement date / expiry date / manufacture date** is?

G. Match the words to their synonyms or definitions:

1. regulation	☐ in a good enough condition to sail on the sea
2. facilitate	☐ a personal flotation device (PFD)
3. improved	☐ able to float
4. life jacket	☐ rule
5. buoyant	☐ better
6. seaworthy	☐ make easy
7. initial	☐ printed sheet of paper containing information
8. leaflet	☐ occurring at the beginning

UNIT 6

The Voyage: Charts, Routes and Directions

1. *The Voyage.*
   - *I. Large numbers and distances*
   - *II. Geographical relationship and coordinates: latitude and longitude*
2. *Standard Wheel Orders*
   - *I. Wheel / Helm orders*
   - *II. Course to be steered by compass*
   - *III. SMCP General; position; bearing; course; distance; speed; draught*
   - *IV. Practice: Prepositions of Place*
3. *Nautical Charts and Aids to Navigation*
   - *– Aids to Navigation*
4. *Routes: Passage Planning Guidelines*
5. *Directions: Finding your way*
   - *I. Asking for and giving directions (using a city map)*
   - *II. Places in town*

Round-up

Lead-in: Key words: ***map / chart / course / route***

A. ***"course" or "route"? Fill in the following phrases / sentences: What other meanings / idioms / collocations of these two words do you know?***

1. Stay on _____
2. Escape_____
3. En _____ to Pireaus
4. Bus _____
5. In due _____
6. _____ _____ planner
7. The best _____ of action
8. We are off _____, we are not sailing in the right direction.
9. "WARNING. Dangerous wreck ahead. Alter _____ immediately."
10. "Will you help me?" "Do you have to ask? Of _____ I will."
11. The road ahead is blocked. We must use an alternative _____.

B. ***"map" or "chart"? Fill in the following phrases to make correct collocations. Do you know any other expressions / meanings of these two words?***

1. World _____
2. Nautical _____
3. _____plotter
4. Pie _____
5. Flow _____
6. Astrological _____
7. A detailed _____ of the city centre

C. ***How do we call...***

1. … a map showing coastlines, water depths, and other information of use to navigators? _____
2. … the way taken when getting from a starting point to a destination, made up of tracks (from A to B) that are plotted / recorded on a chart? _____
3. … the compass direction in which the ship moves, the direction followed or intended? _____

1. The Voyage

"1000 nautical miles in the Mediterranean"

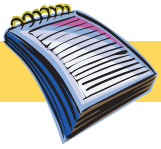
Listen to the Chief Officer describing the charted route to the Captain and do the exercises that follow:

A. *Draw the route on the map.*

B. *Listen again and circle the correct distance.*

Passage Plan

From	To	Distance (in nautical miles)
Genoa	Marseille	204 / 240 NM
Marseille	Barcelona	207 / 211 NM
Barcelona	Valencia	130 / 180 NM
Valencia	Cartagena	122 / 172 NM
Cartagena	Gibraltar	237 / 277 NM



Glossary

Traffic Separation Scheme (TSS)	a routeing measure which separates opposite streams of traffic and establishes traffic lanes
circumstances	conditions or facts connected with an event or action, information that should be kept in mind when making a decision
ordnance exercise	naval firing practice
deviate	to change the direction or course of; diverge from an established course

I. Large numbers and distances

Look at how we say large numbers[1]:

204 ⇨ two **hundred and** four
8.139 ⇨ eight **thousand**, one **hundred and** thirty-nine
44.567 ⇨ forty-four **thousand**, five **hundred and** sixty-seven

a) Listen and note down the numbers you hear.

1.	**6.**
2.	**7.**
3.	**8.**
4.	**9.**
5.	**10.**

Look at how we ask and answer about distances between places: Note the use of "***it***".

• **How far is it from Athens to Thessaloniki?** • **How many kilometers is it from Athens to Thessaloniki?**	• **It is approximately 515 km from Athens to Thessaloniki.**

b) Work with a study partner. Ask and answer questions about the distances between cities in Greece.

How far is it from …

Larissa to Athens?
Komotini to Alexandroupolis?
Preveza to Ioannina?
Thessaloniki to your hometown?
Kalamata to Pyrgos?
Rethimno to Heraklio?

c) What is the capital city of the South American countries marked on the map?

In pairs, discuss and then write the name of the capital city on the map on the left.

E.g. *Santiago is the capital of ….*

[you need : Santiago, Quito, Lima, Brasilia, Bogota, Buenos Aires, Caracas]

1. The dot is used as a thousand separator here.

d) What is the distance between the capital cities in South America? Work in pairs.

Student A: Listen to your study partner and write the distances on the map on the right.

Student B: Dictate the distances to your study partner. Go to page 269.

II. Geographical relationship and coordinates: latitude and longitude

a) Look at the map of South America again, use the phrases that describe geographical location, and answer the following questions. In some cases there are more than one correct answers.

Peru is **to the east of** Brazil.
Paraguay is **to the west** of Chile.
Bolivia is **to the north of** Argentina.
Chile is **to the south of** Peru.

1. Where is Peru? It's to the _____ of Chile.
2. Where is Chile? It's to the _____ of Argentina.
3. Where is Ecuador? It's to the _____ of Peru.
4. Where is Venezuela? It's to the _____ of Brazil.
5. Where is Bolivia? It's to the north of _____.
6. Where is Ecuador? It's to the west of _____.
7. Where is Argentina? It's to the south of _____.
8. Where is Brazil? _____.
9. Where is Colombia? _____.
10. Where is Paraguay? _____.

b) Write about your country and the place you live. Remember to include the location, population and distances between major cities, the capital city, etc.

I am from Belgium. I am Belgian. Belgium is **to the west of** Germany, bordering the North Sea, **between** France and the Netherlands. The population of Belgium is 10.5 million. Brussels is the capital city. It is **in the centre of** the country and has a population of approximately 1 million. It is the seat of the European Union.

I live in Antwerp. Antwerp is a city **in the north of** Belgium **on** the Scheldt River, **north of** Brussels. Antwerp is one of Europe's busiest ports, and it is a centre of the diamond industry. The population of Antwerp is 466,000.

There are many beautiful cities in Belgium. My favourite city is Ghent. Ghent is **to the west of** Antwerp, and it is approximately 50 km from Antwerp. It is half the size of Antwerp. It has a busy port, too. Access to the port is through canals. For me, Ghent has the best waffles and the best beer in Belgium.

I am from _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

c) Latitude and Longitude.

1. Fill in the Latitude and Longitude of the following European capital cities.

	City, Country	Latitude	Longitude
1.	Helsinki, Finland	°N	24°E
2.	Stockholm, Sweden	°N	°E
3.	Copenhagen, Denmark	°N	°E
4.	Amsterdam, the Netherlands	°N	°E
5.	London, UK	51°N	°W
6.	Lisbon, Portugal	°N	9°W
7.	Madrid, Spain	°N	°W
8.	Bern, Switzerland	°N	°E
9.	Rome, Italy	°N	°E
10.	Athens, Greece	°N	°E

2. *Student A:* Listen to your study partner and fill in:

	City, Country	Latitude	Longitude
1.	Genoa, Italy		
2.	Marseille, France		
3.	Barcelona, Spain		
4.	Valencia, Spain		
5.	Cartagena, Spain		
6.	Gibraltar		

Student B: Go to page 269. Say the following information to your study partner: Then check if s/he has filled it in correctly.

2. Standard Wheel Orders [SMCP A2/1]

Lead-in: Words you need.

What do the following words mean? Match them to the correct definitions.

1. Helm ___ the person who steers a ship
2. Helmsman ___ a wheel for steering the ship
3. Steer ___ keep at a certain level, continue to follow (e.g. a course)
4. Swing ___ quickly
5. Rapidly ___ the direction the ship is moving toward
6. Hold ___ movement backward and forward or from side to side
7. Heading ___ control the movement of a ship and guide in a particular direction

I. Wheel / Helm Orders

a) Match the helm orders to their meaning. Write the correct helm order for each action. Then, in pairs, practise saying the orders by repeating them.

ORDER	MEANING
Midships	_____: 5° of port rudder to be held
Port five	**Steady**: reduce swing as rapidly as possible
Starboard ten	_____: reduce amount of rudder to 10° and hold
Starboard fifteen	_____: rudder to be held in the fore and aft position
Hard-a-port	_____: avoid allowing the vessel's head to go to starboard
Meet her	_____: rudder to be held fully over to port
Steady	_____: 15° of starboard rudder to be held
Ease to ten	_____: check the swing of the vessel's head in a turn
Steady as she goes	_____: 10° of starboard rudder to be held
Nothing to starboard	_____: steer a steady course on the compass heading indicated at the time of the order

b) Listen to the helm orders and circle [a] or [b] accordingly.

1. When you hear this order, you must
   a. reduce the amount of rudder and hold.
   b. hold rudder in the fore and aft position.

2. When you hear this order, you must
   a. check the swing of the vessel's head in a turn.
   b. reduce the vessel's swing rapidly.

3. When you hear this order, you must
   a. reduce the vessel's swing rapidly.
   b. reduce the amount of rudder and hold.

4. When you hear this order, you must
   a. hold the rudder on steady course.
   b. reduce the amount of rudder and hold.

5. When you hear this order you must
   a. reduce the vessel's swing rapidly.
   b. steer steady course on the compass heading.

II. Course to be steered by compass

- *All wheel orders given by the officer of the watch should be repeated by the helmsman.*
- *For the course to be steered by compass, first you say the direction in which the wheel is to be turned and then say the numbers (including zero) separately.*

e.g. (port) 180° A: "Port, steer one eight zero"
B: "Steady on one eight zero"

a) In pairs, give orders and repeat them using the example above.

Student A: Give the order for the course to be steered by compass.
Student B: Imagine you are the helmsman. Repeat the course.

Course to be steered:
1. (starboard) 094°
2. (port) 302°
3. (port) 158°
4. (starboard) 083°
5. (port) 125°

b) Listen to the helm order for the course to be steered by compass and circle the correct alternative.

1. The order tells you to steer **018 / 180 degrees, port / starboard** side.
2. The order tells you to steer **052 / 025 degrees, port / starboard** side.
3. The order tells you to steer **099 / 091 degrees, port / starboard** side.
4. The order tells you to steer **120 / 130 degrees, port / starboard** side.

III. SMCP General; position; bearing; course; distance; speed; draught

a) Match the examples to the headings. Choose from the box.

Position: .....
Position related to a mark: .....
Bearing: .....
Relative bearing: .....
Course: .....
Distance: .....
Speed: .....
Draught: .....

Buoy 015° on your port bow.	7,2 meters	3 nautical miles	Our position bearing 130° from Angelohori lighthouse distance 3 nautical miles.
Pilot boat is bearing 210° from you.	56° 22' North, 021° 02.5' East	130 degrees	14 knots

b) Listen to a briefing given by an officer before handing over the watch.

What information can you hear?

a. Tick the display readings given in the briefing and then write the exact reading after each heading in the space provided:

☐ Position _____ ☐ Speed _____
☐ ETA _____ ☐ Draught _____
☐ Course _____ ☐ Under keel Clearance _____

b. What navigational aids are mentioned?

☐ Port Radar ☐ Magnetic compass
☐ Starboard Radar ☐ Gyro-compass
☐ Echo Sounder ☐ Navtex
☐ GPS ☐ VHF DSC / DSC controller

IV. Practice: Prepositions of place

a) The following extract gives information / instructions about how to enter the Port of Aden, in Yemen. Choose the correct prepositions from the words in italics.

Sea buoys, fairways and channels. The Aden and Little Aden peninsulas are very prominent, with the harbour *between / among* them. Approaching *through / from* the W, pass 1 nm south *of / from* Little Aden Peninsula and then to the entrance to the dredged channel *at / in* 12° 44.5' N, 044° 57' E marked *from / by* the No. 1 buoys (QR and QG). At night, with Elephant's Back light (red and white sectored) *on /at* a bearing of not greater than 061° (white sector) a ship will clear the Little Aden Peninsula *on / at* a course to bring her close to the port entrance.

b) Match:

The vessel is	**of at on**	____ a position of … ____ a course / bearing of … south ____ a mark, location etc.

c) Choose the correct preposition.

1. Turn starboard ***at / in*** Buoy No 5.
2. The container is ***at / in*** the warehouse.
3. The cabins are ***under / below*** deck.
4. I can't see what is ***under / below*** this cover.
5. This vessel is sailing ***at / to*** Antarctica. It is coming ***from / over*** Canada.
6. Go ***at / through*** the lounge to reach the smoking room.
7. The seagulls are flying ***over / up*** the ship.
8. There are nice cafés ***along / ahead*** the promenade.
9. We are drifting ***on / towards*** shallow waters.
10. The ABs are working ***on / in*** deck.
11. Cranes load the cargo ***into / to*** the hold and unload the cargo ***out of / from*** the hold.
12. Climb ***from / up*** the rope ladder and be careful when you climb ***down / under*** again.
13. The oil spill is moving ***away from / ahead of*** the shore.
14. Do not go ***below / across*** the channel.

3. Nautical Charts and Aids to Navigation

– **Navigation(al) aid**: An onboard instrument, device, chart, method, etc., intended to assist in navigation.
– **Aid to navigation**: A device or structure external to the ship, designed to assist in determining the ship's position, define a safe course, or warn of dangers or obstructions.

Lead-in: In the following pictures you can see the **GPS and Chart Space** on the bridge of a vessel. What is their purpose? How are they related to each other? Discuss in class.

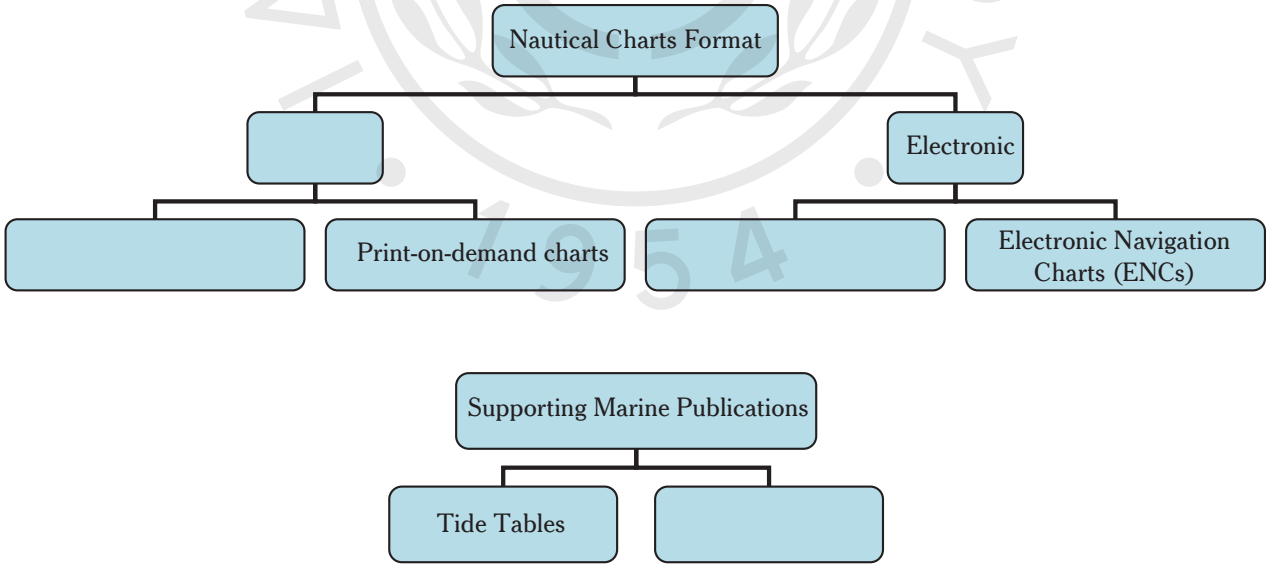
What is a nautical chart[2]?

You will listen to two excerpts of an interview on nautical charts given by a scientist who works for the US National Ocean Service.

A. ***Read the following sentences, listen to the first part of the interview and fill in the missing words:***

1. A _____ shows what is on land.
2. A _____ shows what is under, in, on and around the water.
3. Nautical charts are working documents: mariners add _____ lines, turning points and _____.
4. Vessels are required to keep charts and publications updated using weekly Local _____ to Mariners.
5. Numbers on a nautical chart represent _____, which tell us how deep the water is in that particular area.
6. Charts include locations of dangers to navigation such as coral reefs, rocks, _____ and shoals.
7. Other data on nautical charts include the _____ rose as well as latitudes and _____.
8. You may also find pipelines and submerged cables, lighthouses and _____, and channels and tunnels.

B. ***Listen to the second excerpt of the interview and fill in the diagrams:***



[2] Source: Podcast "Diving Deeper : Episode 5 (Mar. 23, 2009) — What is a Nautical Chart?", Weekly news of NOAA (US National Oceanic & Atmospheric Administration) National Ocean Service.

C. *Close listening:*

Listen carefully to the following passage from the interview and correct the mistakes. Identify which five words are incorrect, even though they sound similar to the correct ones.

> "Nautical charts contain information about the shape of the coast, the lengths of the water and the general configuration of the button of the sea floor. Nautical charts also show locations of obstacles to navigation, the rise and fall of the tights, and locations of navigation gates. Nautical charts make safe and efficient marine transportation possible."

– Aids to Navigation

a) Fill in the blanks with the words in the box:

hazards, floating, location, conformance, navigate

Aids to Navigation

Unlike the roads and highways that we drive on, the waterways we go boating on do not have road signs that tell us our (1)_____, the route or distance to a destination, or of (2)_____ along the way. Instead, the waterways have AIDS TO NAVIGATION (or ATONs), which are all those man-made objects used by mariners to determine position or a safe course.

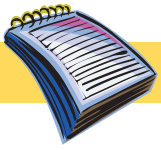
The term "aids to navigation" includes buoys, day beacons, lights, lightships, radio beacons, fog signals, marks and other devices used to provide "street" signs on the water.

The term "aids to navigation" encompasses a wide range of (3)_____ and fixed objects (fixed meaning attached to the bottom or shore), and consist primarily of:

- **Buoys** – floating objects that are anchored to the bottom. Their distinctive shapes and colours indicate their purpose and how to (4)_____ around them.
- **Beacons** – structures that are permanently fixed to the sea-bed or land. They range from structures such as lighthouses, to single-pile poles.

Aids to navigation systems are in (5)_____ to the International Association of Lighthouse Authorities (IALA), which is an international committee that seeks to ensure safe navigation, primarily through the use of common navigation aids and signals.

Buoy: Safe Water Mark



Glossary

determine	ascertain or establish definitely by calculation
encompass	include or contain comprehensively

attach	fasten, join
primarily	mainly, chiefly
distinctive	individually characteristic, distinguishing
pole	rod, post
odd numbers	1, 3, 5, etc. (not divisible by two)
even numbers	2, 4, 6, etc. (divisible by two without a remainder)
isolated	remote, separated from others

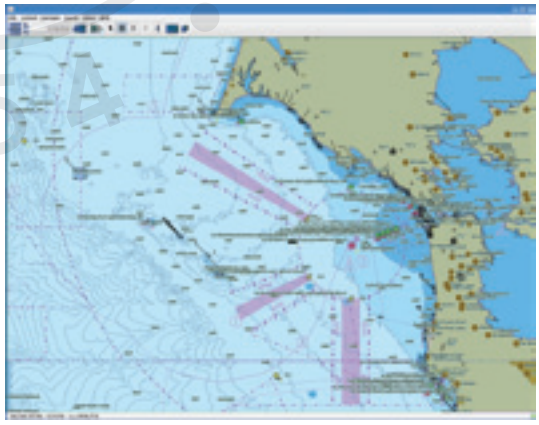
b) Look at the nautical chart on pages 160-161 and identify the following aids to navigation / information in it. Use the list below and put the correct number in the boxes shown on the map. Consult the appendix on Nautical Chart Symbols (page 287) for help.

1. Anchorage prohibited / Restricted Area
2. Limit of safety zone around off-shore installation (oil-rig)
3. (part of) Compass Rose
4. Traffic flow direction (mandatory)
5. Separation line
6. Dangerous wreck, depth unknown, with danger mark west
7. Pilot
8. Tower
9. Road
10. Airport
11. Sandy shore
12. Submarine cable
13. Mooring buoy
14. Oil / Gas pipeline
15. Spring in Seabed
16. Tanker anchorage area

4. Routes: Passage Planning Guidelines

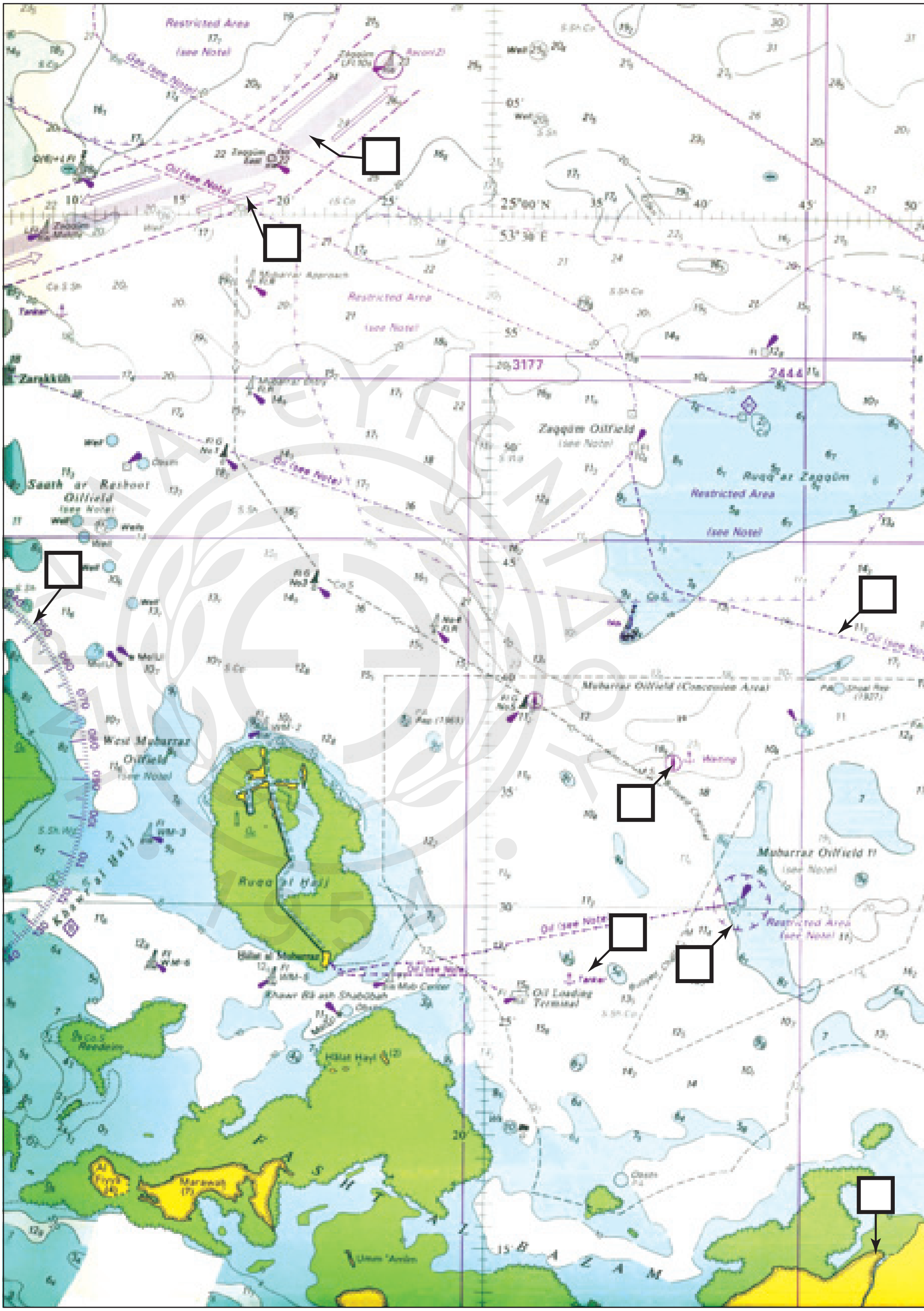
Lead-in:

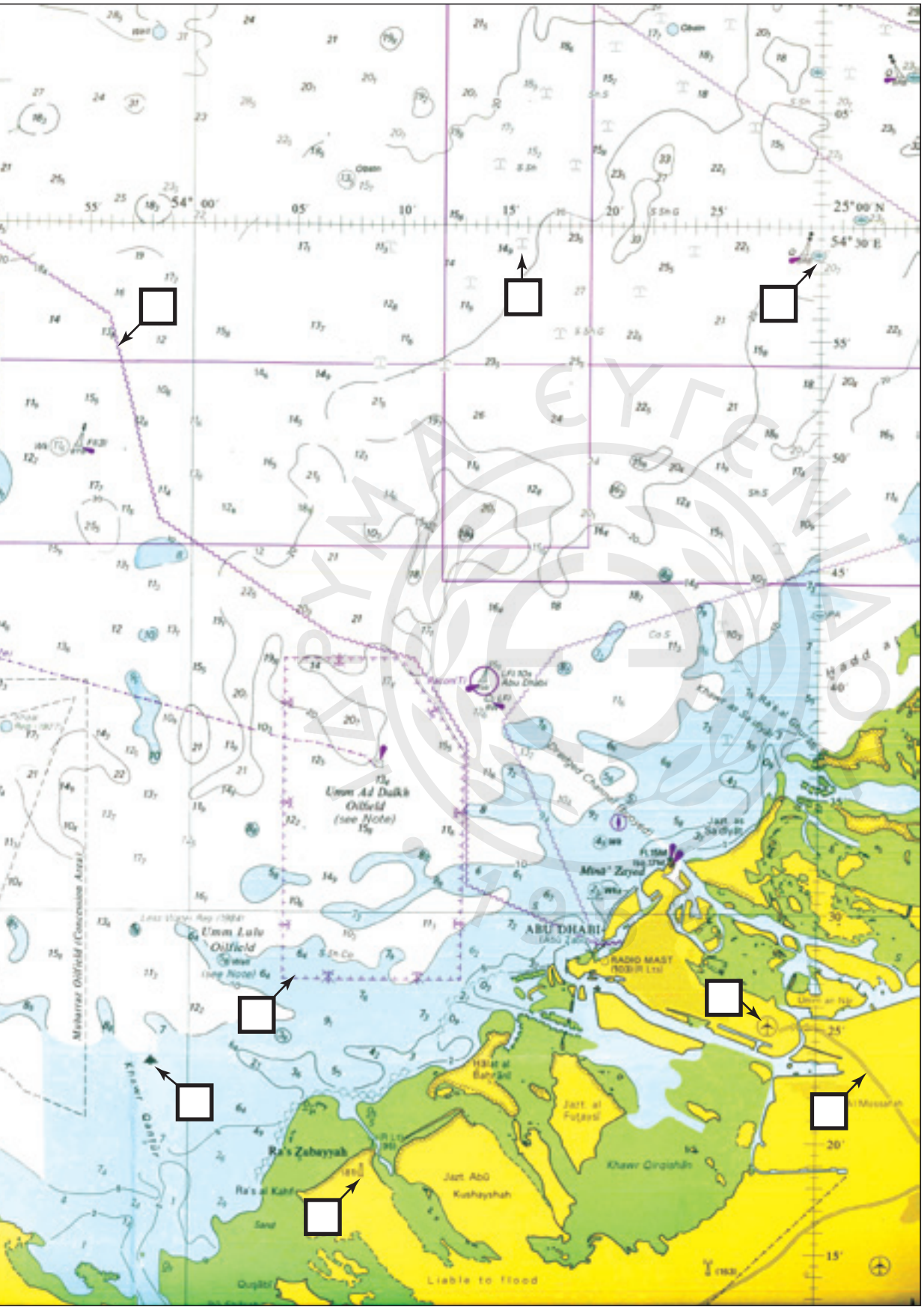
A. ***In the following pictures you can see the* Radar and ECDIS *on the bridge of a vessel. What do you know about them? Do some brainstorming with English words related to them.***



B. ***Do you know the answers to the following questions? Discuss in class.***

1. What is a Notice to Mariners?
2. What is Passage or Voyage Planning?
3. What is an Electronic Navigation Chart?


Restricted Area
(see Note)
Gas (see Note)
Oil (see Note)
Zaqqum Oilfield
(see Note)
Ruqq az Zaqqum
Restricted Area
(see Note)
Saath ar Rasboot
Oilfield
(see Note)
West Mubarraz
Oilfield
(see Note)
Mubarraz Oilfield (Concession Area)
Mubarraz Oilfield
(see Note)
Ruqq al Hajj
Oil Loading
Terminal
Khawr Bil ash Shububah
Reedeim
Hilat Hayl
Marawah
Umm 'Amim
Zarakkuh
25°00'N
53°30'E
3177
2444


54° 00'
05'
10'
15'
20'
25'
25° 00' N
54° 30' E
55'
50'
45'
40'
35'
30'
25'
20'
15'
Umm Ad Dalkh Oilfield (see Note)
Umm Lulu Oilfield (see Note)
Mubarraz Oilfield (Concession Area)
Mina' Zayed
ABU DHABI
RADIO MAST
Ra's Zabayyah
Ra's al Kahf
Jazt. Abū Kushayshah
Jazt. al Futaysi
Khawr Qirqahūn
Liable to flood

C. *Match the following answers to the questions in exercise B.*

- an official database created by a national hydrographic office for use with an Electronic Chart Display System
- it advises mariners on important matters affecting navigational safety; a publication whose purpose is to provide corrections to navigational publications and nautical charts
- a procedure to develop a complete description of a vessel's voyage from start to finish; it includes leaving the dock and harbour area, the route of a voyage, approaching the destination and mooring

Passage Planning

Text 1. Passage planning in general: an introduction[3].

- Read the text and fill in the blanks with the words in the box.

fixing	efficient	current	regulations	stores	route

A good passage plan will include a track line laid upon the largest-scale charts available which cover the vessel's track. The navigator will draw and redraw the track line until it is safe, (1)_____ and in line with all applicable laws and (2)_____. When the track is finished, it is becoming common practice to also enter it into electronic navigation tools such as an Electronic Chart Display and Information System, a chartplotter or a GPS unit.

Once the voyage has begun, the progress of the vessel along its planned (3)_____ must be monitored. This requires that the ship's position be determined, using standard methods including dead reckoning, radar (4)_____, celestial navigation, pilotage and electronic navigation, to include usage of GPS and navigation computer equipment.

Passage planning software can greatly simplify the process and ensure that nothing important is overlooked, a good passage planning software program will include great circle waypoint/distance calculators, tide and tidal (5)_____ predictors, celestial navigational calculators, consumables estimators for fuel, oil, water, and (6)_____, and other useful applications.

Text 2. Passage planning procedures[4].

Passage planning procedures are specified in IMO Resolutions, in the law of countries and a number of professional books.

- Read the following two extracts from the relevant IMO Annex.

> The Annex to IMO ***Resolution A.893(21) (ANNEX 25)***, "Guidelines for Voyage Planning", should be followed on all vessels. The key elements of the Voyage Plan are:
>
> **Appraising** all relevant information
> **Planning** the intended voyage
> **Executing** the plan taking account of prevailing conditions
> **Monitoring** the vessel's progress against the plan continuously

[3] "Navigator": Facts, Discussion Forum and Encyclopedia Article, extract from "Mission/Passage Planning".
[4] Source: IMO Resolution and information on "Passage planning".

"Voyage and passage planning includes ***appraisal***, i.e. _____ relevant to the contemplated voyage or passage; detailed ***planning*** of the whole voyage or passage _____, including those areas necessitating the presence of _____; ***execution*** of the plan; and the ***monitoring*** of the progress of the vessel _____ of the plan."

D. *Fill in the following phrases in the text above:*

1. in the implementation
2. from berth to berth
3. gathering all information
4. a pilot

E. *Which stage do the following activities belong to? Choose two activities for each stage. Two of them have already been done for you.*

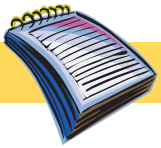
☐ *laying out the track line upon charts and entering the track line into ECDIS, ARPA etc.*	☐ *consulting nautical charts, checking local regulations and warnings*
☐ *recording deviations from the plan*	☑ *captain reviewing or changing plan in case of special circumstances*
☑ *particular tasks such as checking the reliability and condition of navigational equipment, as well as meteorological and traffic conditions*	☐ *determining the ship's position to check the progress of the vessel along its planned route*
☐ *communicating the plan to team in a pre-voyage conference*	☐ *weather forecasting, prediction of tides*

1. **appraisal**
   a. _____
   b. _____

2. **planning**
   a. _____
   b. _____

3. **execution**
   a. *captain reviewing or changing plan in case of special circumstances*
   b. *particular tasks such as checking the reliability and condition of navigational equipment, as well as meteorological and traffic conditions*

4. **monitoring**
   a. _____
   b. _____



Glossary

dead reckoning	a method of estimating the position of a ship by applying to a previously determined position the course and distance travelled since
celestial navigation	to calculate your position using time, the position of celestial bodies (the sun, moon, planets and stars), and mathematical tables
simplify	to make simpler
overlook	to ignore or disregard, fail to notice or consider
waypoint	a position a vessel has to pass or at which she has to alter course according to her voyage plan
predict	to state that a specified event will happen
annex	an addition to a document
Resolution	formal statement of a decision adopted by an assembly, an expression of intention agreed on by a legislative body
appraise	to assess the nature or quality of, evaluate
prevailing	predominant, most frequent or common, existing or encountered at a given time
contemplate	to consider carefully and at length, have as a probable intention, plan
berth	place assigned to a vessel when anchored or lying alongside a pier, etc. / also, a sea room kept for safety around a vessel
necessitate	to make necessary or unavoidable, require

5. Directions: Finding your way

I. Asking for and giving directions (using a city map)

Look at the questions you can use to ask for directions:

> Excuse me, how do I get to the port?
> How do I get from the airport to the port?
> Which way to the bank?
> Where is the post office?
> Can you tell me the way to the hospital, please?

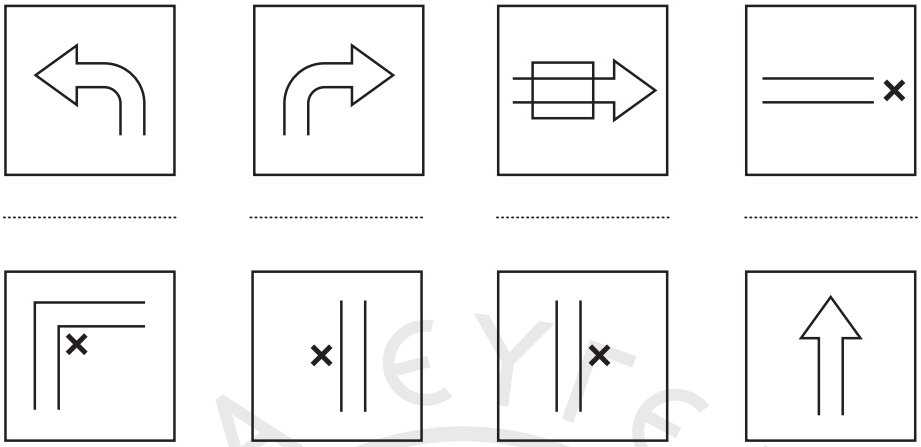
a) Do you remember rising and falling intonation in questions? Use arrows (↗) and (↘) to indicate the correct intonation in the questions above.

We use **imperatives** for giving directions. To form the imperative, use the infinitive of the verb without "to" at the beginning of a sentence.

> Start from the port.
> Go straight.
> Turn south.

b) Prepositional phrases for indicating directions:

Write the correct phrase under each picture: *go straight; turn right; turn left; (go) through (the park), at the end of the (street), on the right, on the left, on the corner.*



c) Look at the map of the Westminster Bridge area in London. Follow the directions and answer the questions.

1. Start at point A. Turn South. Go straight on Margaret Street. What is on the right, past the Jewel Tower?
2. Start at point A. Turn North. Go straight on Margaret Street. Turn right on Bridge Street. What is on your left, across the road, before you reach Victorian Embankment?
3. Start at point A. Turn North. Go straight on Margaret Street. Turn right on Bridge Street. Go straight on Bridge Street. Cross Westminster Bridge. Go past the County Hall. Turn left on Belvedere Road. What is on your left side?

d) Start at the Pier. *Ask for and give directions to:*

Student A, ask for directions to	Student B, ask for directions to
✔ the post office [1]	✔ the newsagent's [3]
✔ the Crown hotel [2]	✔ the Crown bar [4]

e) Look at the map again. You are at point A. Write directions to...

- the Millennium Pier for a River Boat Cruise [5]
  . . . . . .
  . . . . . .
  . . . . . .
- St. Thomas Hospital [6]
  . . . . . .
  . . . . . .
  . . . . . .
- General Lying-in Hospital [7]
  . . . . . .
  . . . . . .
  . . . . . .

II. Places in town

a) Where can you do the following? Choose from the places in the box.

hospital, sports stadium, pharmacy (or chemist's), barber shop, post office, hardware store, gas (or petrol) station, museum, bank, metro (or subway) station, bakery, newsagent's, library, travel agency

…get a shave and a hair cut _____
…buy bread and cakes _____
…buy a newspaper and a magazine _____
…send a parcel to a friend _____
…read about the history of your town _____
…plan a trip, order airplane tickets and book a hotel _____
…buy a hammer, nails, paint brushes etc. _____
…fill the tank of your car with gasoline and check the air in your tyres _____
…have an operation _____
…buy medicine _____
…look at famous art _____
…deposit your money _____
…take the underground railway train _____
…watch a football game live _____

b) Which of the places above can you find in your area / town? Ask your partner about these places.

e.g. Does your town have a sports stadium?
Yes, it does. / No, it doesn't.

c) A friend is coming to visit you at the Academy. S/he is travelling by bus, train or boat. E-mail him/her directions on how to get from the center / central bus station / train station / port of the nearest city to the Academy. Words you need:

✓ *take bus no…*
✓ *get off at…*
✓ *turn left/right at …*
✓ *take (metro) line... in the direction of...*
✓ *walk straight for … metres*

e.g. From Thessaloniki Train Station take local bus no 3 to IKEA. Stay until the end of the line and get off at IKEA. It takes approximately 20 minutes, depending on the traffic. Then, take …

Round-up

A. Vocabulary Consolidation Self-Assessment.

How well can you do the following in English?
Tick ☑ what you can do. Cross ☒ what you still find hard to do in English.

☐ ☐ Say and note down large numbers
☐ ☐ Say latitude and longitude
☐ ☐ Say vessel's position, bearing, course, distance, speed, draught
☐ ☐ Repeat and understand helm orders
☐ ☐ Describe the geographic relationship of one place to another
☐ ☐ Ask for and give directions
☐ ☐ Understand an oral description of a ship's route
☐ ☐ Write about a place in your country

B. Class Project. Choose one of the following topics to present to class.

- Find out more about IALA. Are there different maritime buoyage systems under it? What are "IALA-A" and "IALA-B" and where are they applicable?
- Bring a nautical chart to class and show the basic information regarding the organization of the chart (publishing authority, title and number, scale, sounding datum, sounding and height units, corrections and edition) and information on the chart (tidal information, lighthouses, buoys and marks, seabed qualities, landmarks, etc).
- Interview a captain about the actual supply of nautical charts on board; What publishing authorities do they get their charts from? (Admiralty [UK Hydrographic Office], NOOA, Hellenic Navy Hydrographic Service, etc); How often are they corrected? What software is there in the market?

C. Dictate the following numbers to your study partner. Check if she/he notes them down correctly.

300.768
45.091
121.330
9.019,4
58° 20' N, 024° 02.5' E

D. Circle the correct alternative.

1. Kavala is *to the west / to the east of* Xanthi.
2. Katerini is *to the north / to the south* of Larissa.
3. Kalamata is *to the east / to the west* of Sparta.
4. Orestiada is to *the north / to the south* of Alexandroupolis.

E. What do the following acronyms stand for?

ARPA: .....
GPS: .....
ECDIS: .....
IALA: .....

F. Quiz: How many of the following questions can you answer?

1. What are the two basic formats of nautical charts?
2. What are "print-on-demand" charts?
3. What are the four stages of passage planning, according to IMO guidelines?
4. What are the aids to navigation? Give some examples.

G. Ask the appropriate question according to the following answers:

…? It is approximately 515 km from Athens to Thessaloniki.
…? Go straight for 200 meters. The bank is on your right.
…? From the port to the airport? Take the express bus X96.
…? It takes about 50 minutes, depending on traffic.
…? Brussels is the capital city of Belgium.
…? I live in Antwerp.
…? Antwerp is 43 km from Brussels.

H. Match the synonyms.

1. obstacle	___ beneath the surface of the water
2. soundings	___ planned
3. coordinates	___ water depth measurements
4. approximately	___ obstruction
5. forecast	___ predict (esp. weather conditions, by analysis of meteorological data)
6. submerged	___ give the latest information to
7. update	___ plane of reference to which all data as to the depth on charts are referenced
8. intended	___ latitude and longitude
9. datum	___ about, nearly

I. Try to guess the words:

1. A navigator is responsible for charting r _ _ _ _ s, forecasting weather, t _ _ _ s and currents; updating and checking nautical p _ _ _ _ _ _ _ _ _ _ _ s.
2. If it is cloudy, no land can be sighted, and all other navigational aids are out of function, the ship's position may still be calculated by d _ _ d r _ _ _ _ _ _ _ g.
3. An e _ _ _ _ _ _ _ _ c c _ _ _ t shows the ship's position and route.
4. You can determine depth by using an e _ _ o s _ _ _ _ _ r.
5. With c _ _ _ _ _ _ _ l n _ _ _ _ _ _ _ _ n you determine the ship's position by measuring the apparent altitude of a celestial body above the horizon using a s _ _ _ _ _ t, recording the times of these sightings with an accurate clock, and using this information with tables in the Nautical Almanac.

REVIEW 2

Units 4-6

Part One: Consolidation / Expansion

Topics:

1. Shipping Fleets
2. Vessels of Assistance and Service
3. Ship's Diagrams: Location of LSAs / Directions to places on board / IMO Safety Signs
4. LNG shipping overview
5. Planned Maintenance Record Card: LSAs and Fire-fighting Inventory
6. Titanic Life Jacket Up for Sale

Part Two: Terminology Work

Part One: Consolidation / Expansion

1. Shipping Fleets

Task: understand information on types of vessels

Read the following information from the website of a ship management company[1].

*A. Fill in the headlines missing from the parts of their website below (**gaps 1-3**):*

- Type of ships in our technical management
- Management Philosophy
- New building supervision

B. Fill in the types of vessels missing (gaps a-d), according to the shipyard list below.

Ship Management Services

(1)_____

We provide shipowners with safe ship operation and pollution prevention services, at the same time, ensuring optimum cost effective performance.

(2)_____

General Cargo vessels, Multipurpose vessels,
(a)_____ vessels
Capesize, Panamax, and (b)_____bulk carriers
(c)_____ vessels, Ro-Ro Vessels
(d)_____, Gas Carriers, Product Tankers, Crude Oil Tankers / VLCC

(3)_____

We have considerable experience in this field. After 2000 and to date we have taken delivery of the following new building vessels from shipyard.

YEAR OF BUILD	TYPE OF VESSEL
2001	One 530,000 Cu.ft Reefer vessel from Japanese yard
2002	One 1000 TEU Cellular Container vessel One 12,000 DWT Chemical Tanker. Both vessels from Japanese yards
2003	One 19,500 DWT Chemical Tanker from Japanese yards Three 1600 TEU Cellular Container vessels from Korean yards
2004	One 1600 TEU Cellular Container vessel from Korean yard Two 22,000 DWT Chemical tankers from Japanese yard
2005	One 12,500 DWT Chemical tanker from Japanese yard
2006	One 25,000 DWT Chemical tanker from Japanese yard
2007	Two 25,000 DWT Chemical tankers from Japanese yard

(continued)

[1] Source: "Fleet Management Ltd: Company Profile".

2008	Three 53,000 DWT Handymax Bulk Carriers from Chinese yard One 25,000 DWT Chemical Tanker from Japanese yard
2009	One 8,000 DWT Chemical Tanker from Japanese yard One 53,000 DWT Handymax Bulk Carrier from Chinese yard

2. Vessels of Assistance and Service

Task: understand information on specialized vessels and their characteristics

A. Review: What is the name of the vessel which

- assists other vessels to enter or leave the port? _____
- assists with the pilotage of another vessel? _____
- opens a way through ice? _____

B. Listen to a lecture on vessels of assistance and service and tick ☑ the types of vessels you hear.

	Survey ship
	Tug
	Icebreaker
	Dredger
	Pilot tender
	Lightship

	Weather ship
	SAR vessel
	Cable layer
	Supply ship
	Drilling ship

C. What is the name of the vessel which...

- searches and rescues vessels in distress? _____
- lays cables on the bottom of the sea _____
- serves as a beacon for navigation? _____

D. Listen to the lecture again and tick in the grid appropriately as in the example.

	Tug	SAR vessel	Pilot tender	Cable layer	Light-ship	Ice-breaker
Sheltered aft deck						
Powerful engine	✓					
Strong stem						
Dynamic Positioning System						
Not self-propelled						
Controllable Pitch Propeller						
Modern Communication Equipment						
Bow and stern thrusters						
Aft deck clear of obstructions						
Developing high speeds						

3. Ship's Diagrams: Location of LSAs / Directions to places on board / IMO Safety Signs

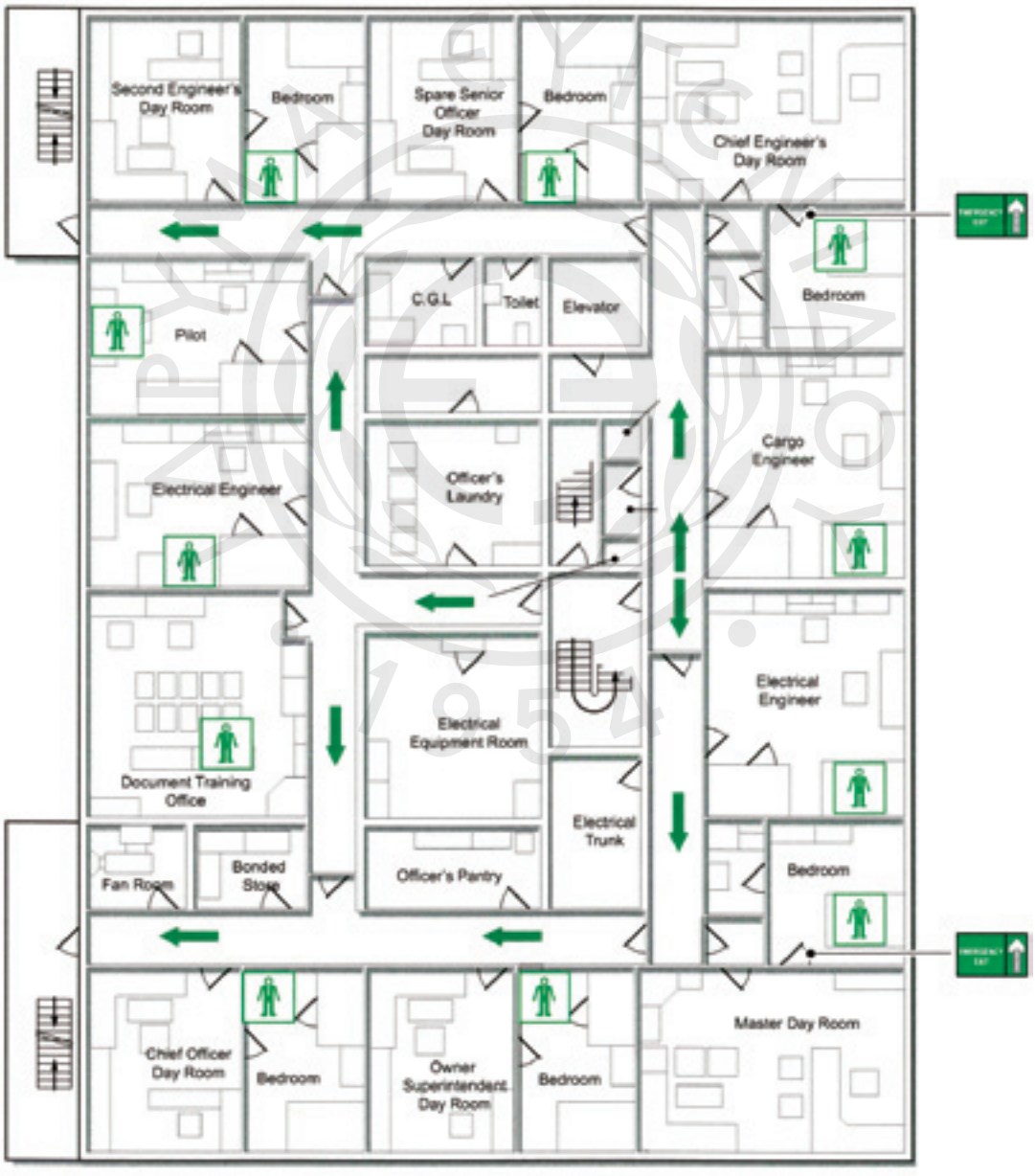
Task: ask for and give directions to different places on board / describe the location of safety equipment from diagrams.

A. Look at the plan of D Deck of an LNG ship[2]. Answer the following questions:

1. Where is the elevator?
2. Where is the Chief Officer's cabin?
3. Where is the Chief Engineer's cabin?

– Use prepositions/expressions like *opposite, next to, between, at the end of the corridor…*

D Deck



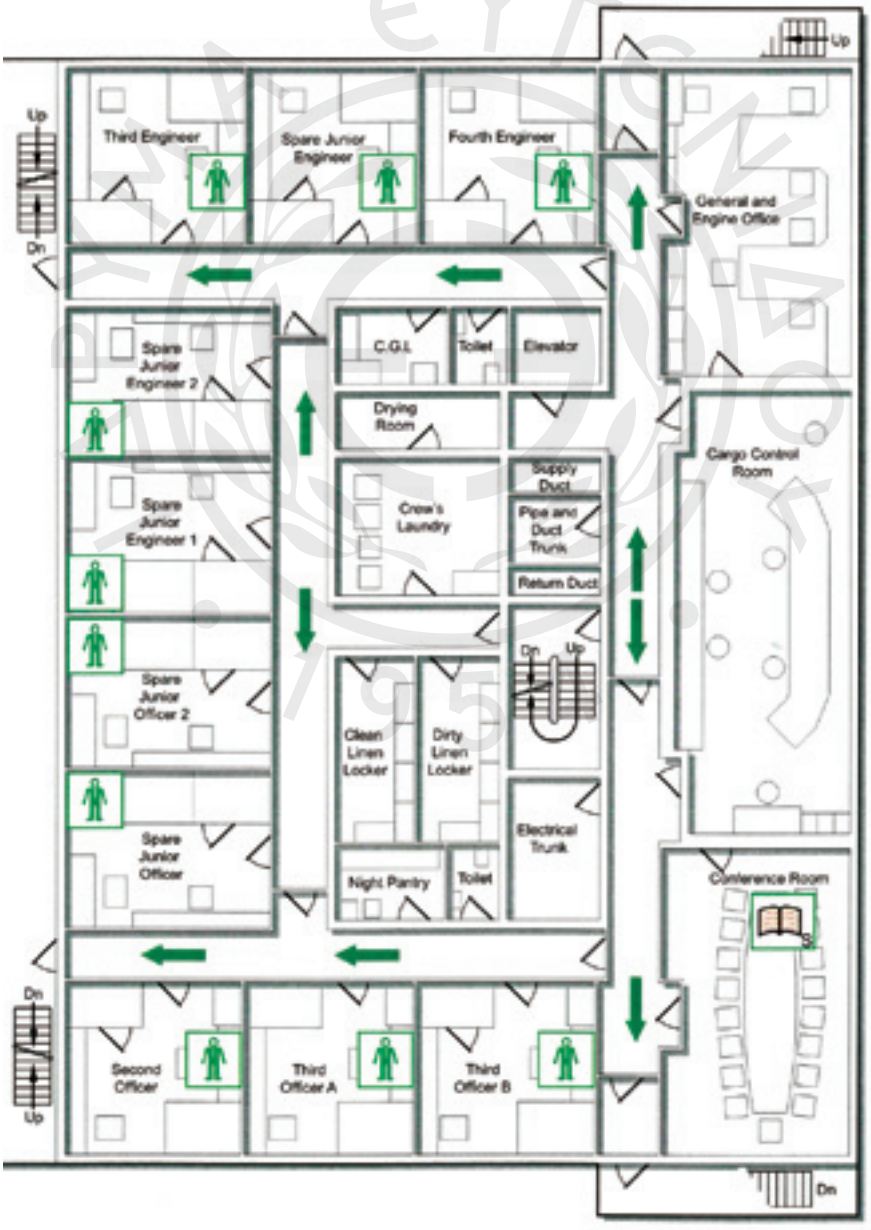
[2] The plans are from "SOLAS and Fire Fighting Manual", Methane Jane Elizabeth, Ceres LNG Services Ltd.

B. Look at the plans of D Deck and C Deck of the ship. Work in pairs to ask for and give directions to different places on board.

Student A, you are at the **Conference Room, on C Deck.** Ask for directions to the ✓ Officer's Laundry ✓ Owner's Cabin	Student B, you are at the **Document Training Office on D Deck.** Ask for ask directions to the ✓ swimming pool ✓ Engine Office

– Use expressions like: *Excuse me, how do I get to…?*
Go up the stairs / straight… Turn right / left… It's the 2nd door to your right…

C Deck



C. What do the following signs stand for? Complete the missing words.

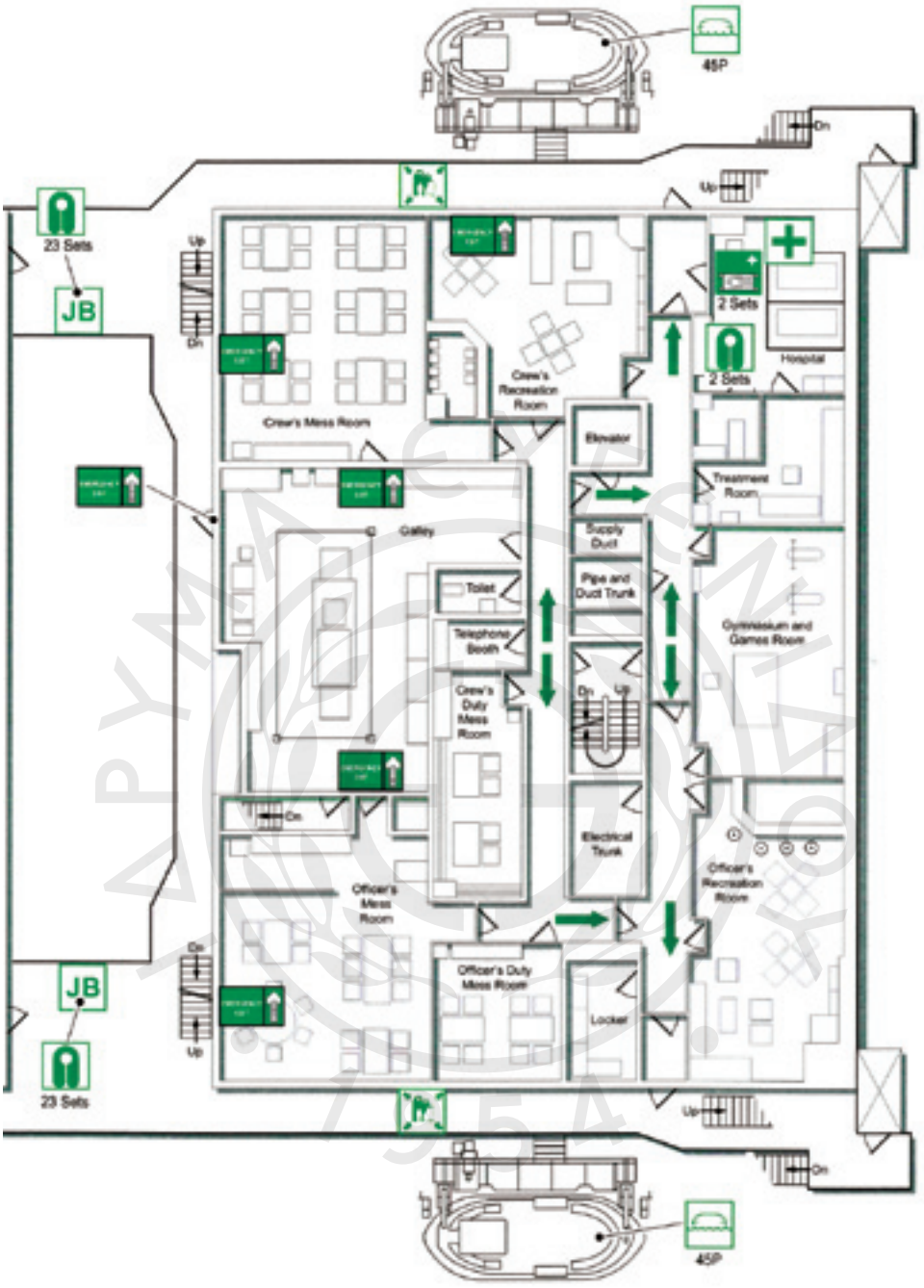
1. Totally E_____ Type Lifeboat (50 persons) with davit
2. R_____ Boat 6 Persons with Gravity D_____ at Port Side
3. M_____ Station
4. L_____ for Lifeboat and Liferaft
5. S_____
6. Air Compressor for Breathing A_____
7. I_____ Liferaft for 25 Persons and 6 Persons
8. L_____ with Self-Igniting Light and Self-Activating Smoke S_____
9. P_____ VHF Transceiver
10. Satellite E_____
11. Radar T_____
12. Fire F_____ M_____
13. Emergency Escape B_____ Device
14. Life J_____
15. E_____ Ladder
16. I_____ Suit
17. L_____ Throwing Appliance (1 set)
18. Rocket Parachute F_____
19. Direction for E_____
20. F_____ Aid Kit (Include Oxygen R_____ in the Hospital)

D. Look at the plan of A Deck of the LNG ship. Act out a dialogue on the location of Lifesaving Equipment.

Student A: You are the Chief Officer.
Ask the Cadet, *where is / are the lifeboats? How many … are there?*
the lifejackets?
the stretcher?
the first aid kit?
the muster station?

Student B: You are the Cadet.
Look at the plan and answer the questions. Also, wherever you can, give additional information on the number / the capacity of some appliances.

A Deck



4. LNG shipping overview

Task: understand detailed information on a particular type of ship and the shipping market.

LNG shipping overview[3]. You will listen to an overview of the LNG industry recorded in 2005.

[3] Extract from "LNG Shipping overview", 2005, Podcast recorded for Seamanship International.

A. The following topics are covered by the overview. In what order are they mentioned? Listen and write the correct number (1-5) in the boxes provided:

☐ Terminals: Plans for the building of more loading and receiving terminals.
☐ Routes: Existing trade route patterns and plans for new ports and routes.
☐ Personnel: There is a need for competent personnel to transport this demanding cargo.
☐ Fleet expansion: The world fleet of LNG ships is rapidly expanding in terms of both vessel numbers and operators.
☐ Ship Types and Sizes: The types of LNG ships and percentages for each type; plans for the building of ultra large ships.

B. Listen again and fill in the gaps.

1. In 2004, number of ships: _____, capacity: 80.000-138.000 m^3 (cubic meters)
2. Number of new ships on order: _____
3. Types:

Moss-Rosenberg sphere design:	_____ %
Gaz Transport membrane system:	_____ %
Technigas membrane system:	11 %
Other types:	2 %

4. New Ultra Large ships, capacity: _____ m^3
5. Loading terminals: existing: 36, under construction: _____
6. Receiving terminals: existing 43, under construction: _____
7. Quantity of LNG gas transported now: _____ million tonnes per year, future increase: 50 million tonnes.
8. By 2015, Qatar will produce _____ million tonnes per year.
9. Existing regular trade route patterns:

From:	**To:**	**From:**	**To:**
Australia, Indonesia, Oman, _____, Brunei	Japan	Algeria, _____, Trinidad	_____

10. More routes and new discharge ports in:

Qatar Saudi Arabia _____ Egypt	India _____ the Caribbean the USA

5. Planned Maintenance Record Card: LSAs and Fire-fighting Inventory

Task: understand information on maintenance of life-saving appliances.

Act out a dialogue to fill in information on an Inventory Card.
Student A: You are the Chief Officer. Ask the Third Officer for the missing dates in the following inventory card. Fill in the 10 gaps.
Student B: Go to page 270, use the card and help student A fill in the information s/he needs.

SAFETY MANAGEMENT SYSTEM
PLANNED MAINTENANCE RECORD CARD
ANNUAL ROUTINES

DATE: 06/02/2008

SHIP: M/V …

PYROTECHNICS LIFE SAVING & FIRE FIGHTING MAINTENANCE INVENTORY CARD

BRIDGE ROCKET PARACHUTE FLARES (3 Years Duration) 12 Pcs	Manufacture date: 03/2006 Expiry Date: (1)_____
LIFEBOAT ROCKET PARACHUTE FLARES (3 Years Duration) 2+2 Pcs in lifeboat	Manufacture date No1 04/2005 + 06/2006 Expiry date (2) ___ + ___
LIFEBOAT HAND FLARES (3 Years Duration) 6 Pcs in each lifeboat	Manufacture date No 1 05/2005 Expiry date (3) _____
LIFEBOAT BUOYANT SMOKE SIGNALS (3 Years Duration) 2 Pcs in lifeboat	Manufacture date No 1 05/2005 Expiry date (4) _____
QUICK RELEASE DEVICES ON BRIDGE WINGS (MAN OVERBOARD) (3 Years Duration)	Manufacture date PORT: 04/2006 STBD: 04/2006 Expiry date 07/2009 (5) _____
LINE THROWING APPLIANCES (3 Years Duration) 4 Rockets	Manufacture date: 05/2006 *Expiry date:* *05/2009*
LIFEBOATS FRESH WATER (Change every 3 months)	Date of last change: TO BE REPLACED NOT LATER THAN 5 YEARS
LIFEBOATS FOOD RATIONS (Replace every 5 Years)	Date of Manufacture: 02/2006 *Expiry date:* *01/2011*

LIFERAFTS AND AUTO - RELEASE SYSTEMS (Servicing annually) NEXT SERVICE 2 PCS 06/2008 2 PCS 03/2009	Date of last Service STBD SIDE (2 L.Rafts) :08/2007 NEXT 08/2008 PORT SIDE (2 L.Rafts) :08/2007 NEXT 08/2008 MAIN DECK 08/2007 *(Without Auto Release)* NEXT (6) _____
LIFE JACKETS BATTERIES (Replace every 5 Years)	Expiry date: (7) _____
E.P.I.R.B. BATTERIES	Expiry date (8) _____ *Auto Release System Expiry Date: 08/2008*
RADAR TRANSPONDER BATTERIES	Expiry date : 03/2009
FIRE EXTINGUISHERS (Servicing annually)	***Date of last service*** Foam :09/2007 CO_2 :09/2007 Dry Powder :09/2007
FIXED FIRE SMOTHERING SYSTEM (Servicing every 2 Years)	***Date of last service*** CO_2 :N/A **Foam** **:09/2006 MAN.DATE JULY/06** Halon N/A
HYDRAULIC TESTS (According to intervals specified by Greek Administration) – All portable fire extinguishers and bottles for fixed CO_2 system should be hydraulically tested every 10 years. – The air bottles of Breathing Apparatus should be hydraulically tested every 5 years. – The gas cylinders (CO_2) of the liferafts should be hydraulically tested every 5 years.	***Date of Last Test*** Portable CO_2 Bottles 02/2006 & 1PC 8/2006 Portable Foam Bottles: (9) _____ Portable D.Powder Bottles 20 PCS 07/04, 5 PCS 10/05, 1PC 02/05, 2PCS 08/05 & 33PCS 12/05 Fixed CO_2 System Bottles N/A ***Next Test*** ------ Air Bottles of Breathing apparatus ***Next Test*** *AUG/10* Gas (CO_2) Cylinder of life rafts ***Next Test*** *(10)* _____

CHIEF OFFICER THE MASTER

6. Titanic Life Jacket Up for Sale

Task: understand a news report on a maritime related topic

Titanic life jacket up for sale[4]*. Listen to a Reuters report. The news story is about auctioning a life jacket from the Titanic at Christie's.*

a. Answer the following questions. Note down your answers while listening.

b. Compare your answers to your study partner's before presenting them to class.

1. What is the expected price for the life jacket at the auction?

   . . . . . .

2. Why are artifacts from the Titanic rare? What happened to the objects that were not lost at sea?

   . . . . . .

3. How many life jackets from the Titanic are remaining?

   . . . . . .

4. What were the port of origin and the port of destination of the Titanic?

   . . . . . .

5. What other items from the Titanic are for sale in the auction?

   . . . . . .

6. What is another word for "life jacket" that the reporter uses?

   . . . . . .

Life jacket from the Titanic.

Glossary

auction	a public sale in which goods or property are sold to the highest bidder
artifact	a man-made object (functional or decorative)
debris	the scattered remains of something broken or destroyed

[4] Reuters Report by Fred Katayama, New York, June 19, 2008 "Titanic life jacket up for sale".

Part Two: Terminology Work

A. Wheel orders: Choose the correct order for each action.

1. Check the swing of the vessel's head in a turn.
   a. Swing her. c. Steady.
   b. Meet her. d. Ease her.
2. Hold rudder in the fore and aft position.
   a. Fore to aft. c. Hold her.
   b. Midships. d. Ease her.
3. Steer steady course on the compass heading.
   a. Steady as she goes. c. Steer her.
   b. Steady. d. Ease her.
4. Reduce the vessel's swing rapidly.
   a. Steady as she goes. c. Swing her.
   b. Steady. d. Ease her.
5. Reduce the amount of rudder and hold.
   a. Hold her. c. Steady as she goes.
   b. Steady. d. Ease her.

B. Word-building. Write the correct derivatives of the words in brackets.

1. Officers must make sure there is _____ access to the lifeboats. (OBSTRUCT)
2. When it was built, everybody thought the Titanic was _____. The disaster was a big shock to the international maritime community. (SINK)
3. According to international _____, ports should have surveillance systems for security reasons. (REQUIRE)
4. _____ gas is an extremely dangerous cargo. (EXPLODE)
5. There are increased _____ measures against piracy in the Gulf of Aden. (PREVENT)
6. In order to increase the number of available holds, multi-purpose ships have _____ 'tweendecks. (REMOVE)

C. Match the words to make correct collocations:

1. evacuation	_____	station	6. harbour	_____	tug
2. immersion	_____	range	7. helm	_____	city
3. eye wash	_____	suit	8. passage	_____	orders
4. wide	_____	platform	9. capital	_____	reef
5. offshore	_____	slide	10. coral	_____	planning

D. Write up the missing words in the following sentences. The first and last letters are given.

1. G_____d vessels are equipped with their own cargo cranes.
2. B_____k b_____k cargo is un/loaded piece by piece.

3. To understand the depth on nautical charts you must refer to the chart's sounding d_____m.
4. There are two b_____e systems applied to different areas in the world, IALA A and B.
5. A nautical chart shows you if the s_____d is sandy, rocky, etc.

E. Match the two parts to produce compound words. Write them in the space provided.

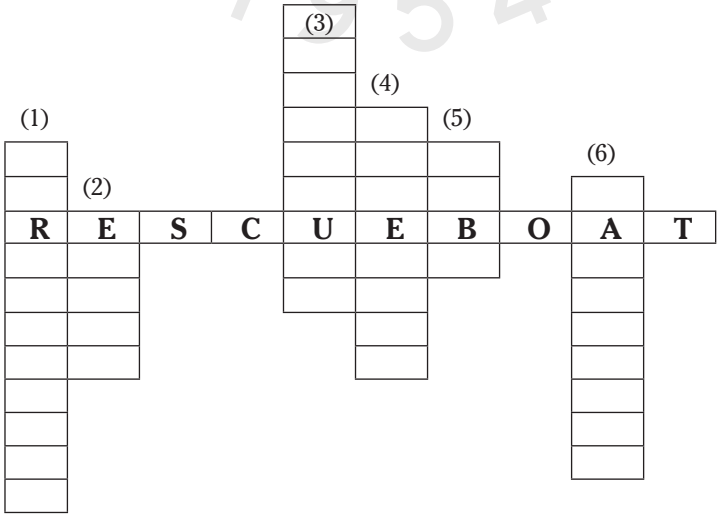
Way-	_____	-line
Fair-	_____	-worthy
Check-	_____	-ware
Pipe-	_____	-point
Life-	_____	-boat
Sea-	_____	-list
Soft-	_____	-way

F. Say what the following abbreviations stand for:

- TSS
- TEU
- ECDIS
- ULCC
- ISPS (Code)
- ISM (Code)
- OPA
- VTS
- SOLAS
- VHF DSC

G. Guess the LSAs in the word grid below.

1. A sheet of material that can extinguish small fires; you find this safety device in the galley.
2. Small buoyant transmitter which automatically sends a distress message via satellites.
3. Life ring; it supports a person in the water.
4. Small inflatable boat, used to abandon ship.
5. A device that protects your breathing when there is not enough oxygen or when there is toxic gas in the atmosphere. (abbreviation)
6. _____ flare: Pyrotechnic device, using smoke to show location in a survival craft.



UNIT 7

Leisure Time on Board

1. *Free time activities*
   Language Awareness: like + -ing

2. *Types of films*
   Language Awareness
   I: Adverbs of Degree
   II: Sentence Stress

3. *Personal Likes and Dislikes*
   Language Awareness: Adverbs of Frequency

4. *Life at Sea: Leisure Time*

Round-up

1. Free time activities

– Match the activities with the pictures

– Playing table tennis
– Making pottery
– Drinking coffee
– Driving
– Playing the guitar
– Painting
– Reading
– Riding a bike
– Collecting stamps
– Walking / running on a treadmill
– Playing football
– Playing cards

a) 
d) 
g) 
j) 

b) 
e) 
h) 
k) 

c) 
f) 
i) 
l) 

Language Awareness: like + -ing

Study the examples on the use of "like":

– "What do you do in your free time?"

– "I like listen**ing** to music. I download music from the internet. Do you like listen**ing** to music"?

– "Yes, I do. But I like CDs.I love collect**ing** CDs."

– I enjoy danc**ing** [**NOT I enjoy to dance]
– Do you like driv**ing** fast cars?
– I hate get**ting** up in the morning.
– He loves go**ing** to the cinema.

I like playing basketball [like + -ing]

Like
Enjoy
Love + -ing (work-ing, eat-ing etc.)
Dislike
Hate

I like basketball [like + noun]

a) What do you like doing in your free time? Look at the pictures in exercise A and say what you "really like", "like" or "don't like" doing.

b) Use phrases from the list, together with the prompts in the box below, to act out dialogues in pairs, as in the example.

– Go to the theatre
– Go to the cinema
– Go window shopping
– Go to bars
– Play / watch football
– Dance to traditional music
– Listen to loud music
– Go to rock concerts
– Go to parties
– Stay up all night
– Play party games
– Play online PC games
– Eat exotic food
– Visit art exhibitions

love **(+++)** enjoy **(++)** like **(+)**	don't mind **(0)**	don't like **(x)** can't stand **(xx)** hate **(xxx)**

e.g.
Student A: *Do you like dancing to traditional music?*
Student B: *Yes, I do. Actually, I love dancing to traditional music. Do you like listening to loud music?*
Student A: *No, I don't. I can't stand listening to loud music.*

c) Read the interview and fill in the gaps with a sentence from the box.

I like playing football
do you like reading?
what do you do in your free time?
do you have any hobbies?

Interviewer: Hello, everyone! We're here today with Xavi Hernandez, the famous football player. Xavi, (1) _____
Xavi: Hi, there. Well, I don't have a lot of time for myself, but (2) _____, of course!
Interviewer: Well, that doesn't count. It's your job! (3) _____
Xavi: Yes, I do. I like making model planes and model ships.
Interviewer: That sounds really interesting! Do you like going to the cinema?
Xavi: Yes, I love going to the cinema.
Interviewer: (4) _____
Xavi: No, but I spend a lot of time on facebook. And I like talking to people online.
Interviewer: That's a great hobby!

2. Types of films

A. ***Match the words to the pictures.***

Types of films:

– Romance	– Action
– War	– Comedy
– Musical	– Western
– Science Fiction	– Horror

a) 

b) 

c) 

d) 

e) 

f) 

g) 

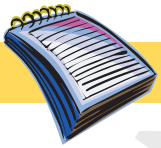
h) 

1. Which types of films do you like?
2. Which types of films do you hate?
3. Give an example for each type of film. e.g. *"Star Wars" is a science fiction film.*

B. ***Write two keywords for each of the following main film genres. Choose from the box:***

Film Genres	Characteristics / features
1. Action films	Car chases and rescues, good-guy-battling-bad-guy stories
2. Adventure films	
3. Comedies	
4. Crime & Gangster films	
5. Dramas	
6. Epics / Historical films	
7. Horror films	
8. Musicals	
9. Science Fiction films	
10. War (Anti-War) films	
11. Western	
12. Romance films	

- Horses and dusty towns
- Love stories
- Choreography inside the narrative
- Car chases and rescues ①
- Exciting stories in exotic scenery
- Detective mystery
- Provoking laughter
- Monsters
- Futuristic technology
- Song and dance
- Passion and "live happily ever after"
- Period costumes
- Military operations
- Aliens and distant planets
- Light-hearted plots
- Realistic characters
- Cowboys and Indians
- Serious plot and life situations
- Mythic figures
- Good-guy-battling-bad-guy stories ①
- Combat fighting
- Frightening atmosphere and shocking finale
- Bank robbers and stealing
- Treasure hunts



Glossary

genre	a style or category of art, literature, etc.
narrative	a story, an account of connected events
to provoke	to cause (a reaction or emotion) in someone
combat	fighting, especially between armed forces

C. *Vocabulary work.*

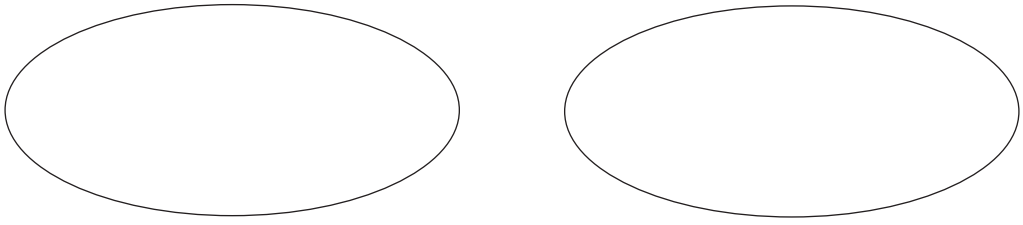
1. Look at the following sentences, then write synonyms below:
   – One of the most famous naval *battles* in history took place in Salamis, between Greek city-states and the Empire of Persia, in 480 BC.
   – The policeman *chased* the thief.
   – *Hunting* whales is illegal.
   – Soldiers go into *combat* knowing they could die.

   Armed fighting: ……..
   Chase for killing: ……

2. Put the following words in the correct list:

BATTLE, HUNT, PURSUE, STRUGGLE, CHASE, COMBAT

[=RUN AFTER] ⬇ [=FIGHT AGAINST] ⬇



D. ***Listen to two seafarers talking about films. Tick ☑ the films you can hear.***

☐ Comedy
☐ Horror film (or "movie")
☐ Western
☐ Musical
☐ Science Fiction film
☐ Action film

I. Language Awareness: Adverbs of Degree

Westerns are absolutely awful.
⇩ ⇩
adverb adjective

- "absolutely" tells you "how much": it is an adverb of degree.

a) Read the following sentences and underline the adverbs of degree:

Science fiction movies are completely ridiculous.
The water is extremely cold.
I totally disagree.
She's very beautiful and quite strong.
The crew is perfectly capable of handling an emergency. They're fully prepared.

b) Choose the correct alternative:

1. The Master is a *highly / completely* skilled professional.
2. Santos is a(n) *very / absolutely* well-known port in Brazil.
3. Jahor is *highly / completely* mad.
4. The third engineer is *extremely / absolutely* lazy.
5. I enjoy jazz music *remarkably / tremendously*.
6. The cook cooks *fairly / absolutely* well.
7. It's *absolutely / totally* freezing outside.
8. The book is *very / absolutely* fantastic.
9. They cleaned the hold *very / totally* well.
10. Take some cold water with you. It's *entirely / very* hot outside.

II. Language Awareness: Sentence Stress

You can express your personal opinion by using adjectives like "great" or "terrible".
- "Ice skating is ***great***."
- "No, it's not. Ice skating is ***terrible***."

a) Say the two sentences above aloud, stressing the adjective to emphasize your personal opinion.

b) Say the sentence below aloud. Does the sentence stress fall on the adverb or on the adjective? What do you think sounds more natural?

- "I think westerns are absolutely terrible".

c) Use the adjectives below to express your personal opinion about various sports. You can talk about volleyball, basketball, football, hockey, athletics (sprints, jumps, etc), wrestling, badminton, tennis, golf, etc.

excellent / great **(++++)** very good **(+++)** good **(++)** quite good **(+)**	OK	not bad **(x)** bad **(xx)** really bad **(xxx)** terrible / awful **(xxxx)**

- Sentence stress is the accent on certain words within a sentence; it gives spoken English its "music" or rhythm. Like word stress, sentence stress can help you understand English, especially when spoken fast.
- The words you stress can change the underlying meaning of a sentence when you speak English. There are different ways you can understand a sentence and its "true" meaning can also be expressed through the stressed words.

d) Say the following sentences aloud, stressing strongly the word in bold. What is the difference in meaning? Match each sentence to the underlying meaning below. Write the correct number in each box.

I hate watching volleyball. → ☐
I **hate** watching volleyball. → ☐
I hate **watching** volleyball. → ☐
I hate watching **volleyball**. → ☐

Underlying meaning

1. It's something I really dislike.
2. I like playing, though.
3. I'm talking about myself, not somebody else.
4. I like watching basketball, though.

e) Now, listen to a dialogue between two people discussing their preferences in sports. Check your answers on the "true" meaning of each of the four differently stressed sentences above.

3. Personal Likes and Dislikes

A. ***Imagine you are working on board a vessel. What do you like doing in your free time? How often do you do the following activities? Which activities can help you keep fit?***

- Listening to music
- Reading
- Watching films
- Swapping sea stories [swap = exchange]
- Writing letters / e-mails
- Sleeping
- Playing video / PC games
- Walking / running on the treadmill
- Playing table tennis
- Working out (free weight lifting, stretching, doing abs [abdominals])
- Riding a stationary bike
- Swimming

B. ***Listen to a seafarer talking about his free time on board.***

1. Tick ☑ appropriately in the table below according to whether the seafarer likes or dislikes each activity. Then, circle the correct alternative in the last column according to how often he does each activity.

Activity	likes	dislikes	How often…? (frequency)
Listening to music			always / often
Writing letters			always / often
Sending e-mails			from time to time / never
Relaxing in the officers' day room			often / sometimes
Swapping sea stories			never / occasionally
Watching films			very often / occasionally
Exercising in the gym			rarely / never

2. Which on-shore activity does he miss the most?

☐ watching satellite TV ☐ watching football
☐ sleeping ☐ playing football

Language Awareness: Adverbs of Frequency

How **often** do you play cards?
I **rarely** play cards.

- "rarely" tells you "how often"; it is an adverb of frequency.

a) In the following list, Tracy notes down the things she does in her free time. Write "sometimes, always, usually, often, never" in the last column, accor-ding to how often she does each activity. Then say sentences about her free time activities:

e.g. Tracy never goes swimming.

Go swimming	Not at all – (0/7)	Never
Go shopping	Once a week – (1/7)	
Go for coffee with my friends	Three times a week – (3/7)	
Cook dinner for my friends	Six days a week – (6/7)	
Listen to the radio	Seven days a week – (7/7)	

b) Write sentences about yourself. Use "always, often, sometimes, never, etc".

1. (write e-mails) *I never write e-mails.*
2. (play chess) _____
3. (surf the net) _____
4. (read magazines) _____
5. (play video games) _____

c) Ask your study partner about his/her activities. Then write his/her answers.

e.g. You: *"Do you often write e-mails?"*
Study partner: *"No, I never write e-mails."*

1. S/he never writes e-mails.
2. _____
3. _____
4. _____
5. _____

4. Life at Sea: Leisure Time

Read the following three texts on the issue of free time on board. Then do the exercises.

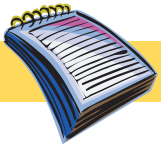
A. ***Read quickly through the texts and supply the correct title for each one. Choose from the following titles (there is an extra title you will not need to use):***

1. Spending time alone and away from your family: a young seafarer's experience.
2. Free-time activities among seafarers: a scientific survey.
3. Sports and group activities on board: a young seafarer's experience.
4. "Healthy mind in a healthy body": A scientific survey on the problems caused by lack of fitness on board.

Text A
Title: _____

Seafarers' free time activities on board ship and on shore were investigated by means of a questionnaire sent to 507 seafarers working on 35 ships. All the seafarers were Finnish citizens and all the ships in Finnish ownership. The questionnaire was returned by 245 seafarers (22 of them were women) from a total of 34 ships. Reading was the most popular way of spending free time while on

board ship. Next came watching television or listening to the radio; then chatting with friends and sleeping/keeping to oneself. About one in four put physical exercise and sauna baths among the three most common ways of spending free time. The most common ways of spending free time on shore were meeting friends and acquaintances and watching TV or listening to the radio. In third place were "other ways of spending leisure time", most of which included being out of door, hunting, going to the summer cottage and gardening. Physical exercise activity was greater on shore than on board ship. The respondents were grouped into four categories:
A) reader/student/hobbyist, B) sociable, C) exercise enthusiast, D) TV watcher/radio listener. Group A considered the ship's atmosphere and the spirit of solidarity on board better than the others. Group B had more often a good friend on board ship and less often suffered from anxiety or depression. Group C more often considered their health and working capacity good. Group D had no positive differences over the other groups. More attention should be paid to developing the ways in which free time is spent not only on board but also during the compensatory free time on shore[1].



Glossary

investigate	to examine systematically
questionnaire	a set of printed questions, usually with a choice of answers, devised for a survey or statistical study
chat	to talk lightly and casually, in an informal way
acquaintance	a person you know slightly but who is not a close friend
leisure	time spent in or free for relaxation or enjoyment
cottage	a small house in the country
respondent	a person who responds to a questionnaire or an advertisement
sociable	friendly, outgoing, willing to talk and engage in activities with others
solidarity	unity (among the members of a group) resulting from common interests, purposes, feelings or sympathies
anxiety	a feeling of uneasiness, uncertainty, fear of future events or situations, a troubled state of mind
depression	a condition of feeling sad or helpless, a mood of melancholy or despair
working capacity	the ability or power to work

B. ***Read carefully Text A again and fill in the following table:***

MOST POPULAR FREE TIME ACTIVITIES ON BOARD	MOST POPULAR FREE TIME ACTIVITIES ON SHORE
1. 2. Watching TV or listening to the radio 3. 4. ***Also:*** Physical Exercise and Sauna Baths	• • • outdoor activities (hunting, gardening, etc)

1. "Free-time activities among seafarers on board Finnish cargo ships." Saarni H; Pentti J. Bulletin of the Institute of Maritime and Tropical Medicine in Gdynia 1996.

1. What are the four categories seafarers are grouped in, according to their leisure habits?
2. Which group do **you** belong to? Explain. What do you like doing in your free time, that makes you belong to this category?

Text B

Title: _____

Working at sea is a challenge to all seafarers. Spending at least 6 months working inside a boxed metal thing floating at sea, called a ship or vessel. Away from our families and loved ones. In order to survive the boredom and homesickness, leisure is a must. Working hard from Monday until Friday, and some over-time work on Saturdays, we all deserve to have some time for ourselves to rest or have some leisure.

There are different ways for us seafarers to enjoy our leisure time. It can be a form of group activities, or an individual choice of activity. One of the most common activities that I experienced on the ships that I have been with, is playing basketball. It can be a small court or a whole court installed on the upper weather deck of a vessel or inside an open space in the cargo hold. For us, playing basketball is not just for fun but also a way of exercise. Not most of the time we can play basketball on board, it always depends upon the outside forces such as the weather conditions. If the weather is bad, such as strong wind and heavy seas, then it's not possible for us to play.

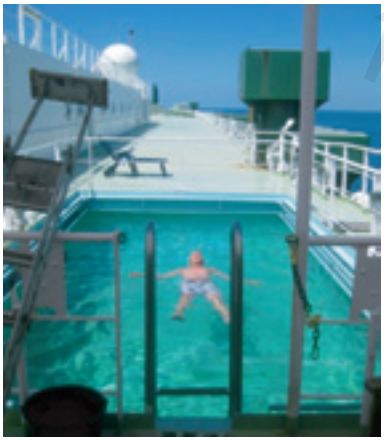
Other than playing basketball, we also have some other activities to do. If the Olympics have swim cup, here on board we also have our own swim cup. A competition among the crew on board, and winners are given some prizes as well. Swim cup is only one way for us to be encouraged to swim, but most of us who enjoy the pleasure in swimming, also spend our free time swimming while others just want to get wet in the pool. […]

Life at sea becomes enjoyable when the days spent on board are mixed with fun and exciting leisure activities that take away work-related stress.

A ship is not a house, but it is our home. – sailor[2]

Read carefully Text B again, and answer the following questions:

1. Where is the basketball court on board?
2. When is it impossible to play basketball on board?
3. What category (of the four ones mentioned in Text A) does the writer belong to?



Let's go and swim.

Let's play basketball.

2. Source: "Life at sea: Leisure" by Sirc Korthz, 29/09/2009, "crimson" Blog at WordPress.com.

Text C

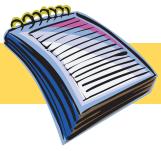
Title: _____

You can pretty much guarantee that my life each day on the 4-8 watch involved the same things, day after day after day. You get yourself into a routine and everything just starts to happen automatically after time. [...]

Anyway my daily routine when on the 4-8 watch was basically set out as follows:

0330 – Wake up and get ready for watch.
0400 – Bridge or Cargo Watch commences.
0800 – End of Watch.
0815 – Breakfast, usually by myself.
0930 – Study.
1000 – Morning cup of tea.
1200 – If not doing safety checks or study then may have lunch.
1500 – Afternoon nap.
1530 – Wake up and get ready for Bridge or Cargo Watch.
1600 – Bridge or Cargo Watch commences.
2000 – End of Watch.
2015 – Dinner, usually by myself.
2030 – Study.
2200 – Try and be asleep before clock reads 2200.

Don't you get bored of routine? What do you do to relax? Do you ever become complacent? These are just some of the many questions I get when explaining deep sea life to my friends and family. Going deep sea you get a lot of time to reflect back on your own life (1)_____. I had a friend who went deep sea for a few months and planned an entire world trip for him and his wife when he hopped off. The amount of time you get to pay attention to detail is incredible. Having no distractions around you so that you are able to focus on what you enjoy the most and having beautiful scenery to relax in at the same time makes it all worthwhile. Sure you do miss your friends and family with being away for so long, (2)_____. You resort back to the old fashioned hand written snail mail letters which take a week or two to get back home (3)_____. Nowadays though most ships have caught up on the latest technology and internet accessible throughout most of the world. E-mailing and even Skype. You can talk and see your friends and family while you are away on the ship (4)_____[3].



Glossary

commence	to begin, start
bored	uninterested, feeling weary and impatient because you have no interest in your current activity
complacent	self-satisfied and unconcerned, contented to a fault
reflect (on/upon)	to think deeply or carefully about
entire	whole, with no part left out
incredible	impossible or hard to believe

3. "4-8 on a Coastal Product Tanker" by Megan Stewart, "Young Women Seafarer" Blog at Blogspot.com.

distraction	a thing that diverts attention
worthwhile	worth the time, money or effort spent
Skype	a software application that allows users to make voice calls over the internet; it also offers messaging and video conferencing

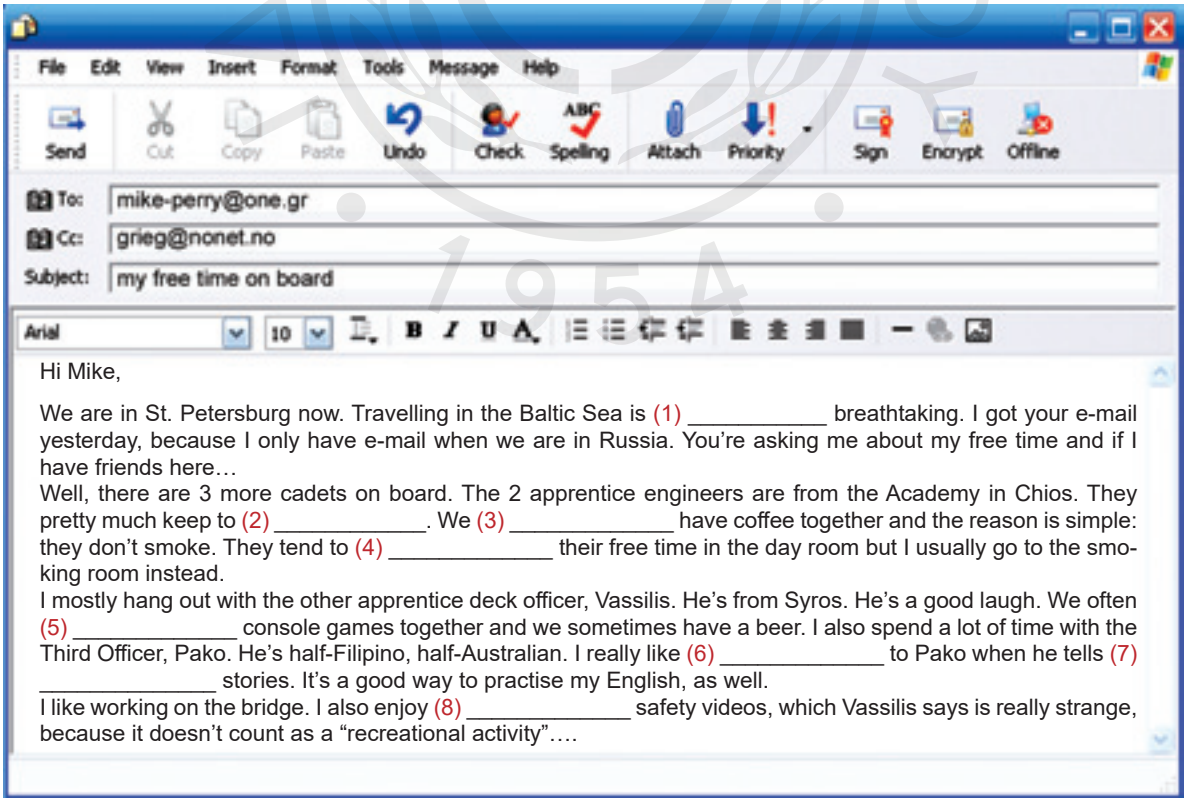
C. ***There are four clauses missing from the text. Choose from the box below to fill them in.***

a. but the times that you get to spend together when you see them is like gold to you
b. so it actually feels like they are there with you
c. and also look forward to future plans that may happen
d. when you do actually get into port and send them

D. ***Discuss: "Going deep sea you get a lot of time to reflect back on your own life." Do you think this is important? How can it affect your personality?***

E. ***Read the e-mail. Use the words in the box to complete the sentences. Change the form of the verbs if you need to.***

watch	rarely	sea	play
listen	absolutely	themselves	spend



Hi Mike,

We are in St. Petersburg now. Travelling in the Baltic Sea is (1) _____ breathtaking. I got your e-mail yesterday, because I only have e-mail when we are in Russia. You're asking me about my free time and if I have friends here…

Well, there are 3 more cadets on board. The 2 apprentice engineers are from the Academy in Chios. They pretty much keep to (2) _____. We (3) _____ have coffee together and the reason is simple: they don't smoke. They tend to (4) _____ their free time in the day room but I usually go to the smoking room instead.

I mostly hang out with the other apprentice deck officer, Vassilis. He's from Syros. He's a good laugh. We often (5) _____ console games together and we sometimes have a beer. I also spend a lot of time with the Third Officer, Pako. He's half-Filipino, half-Australian. I really like (6) _____ to Pako when he tells (7) _____ stories. It's a good way to practise my English, as well.

I like working on the bridge. I also enjoy (8) _____ safety videos, which Vassilis says is really strange, because it doesn't count as a "recreational activity"….

F. ***Imagine you are on board for your training voyage as a cadet. Write a letter / e-mail about things you usually do in your free time, and things you like doing in your job. Remember to use the Present Simple.***

Round-up

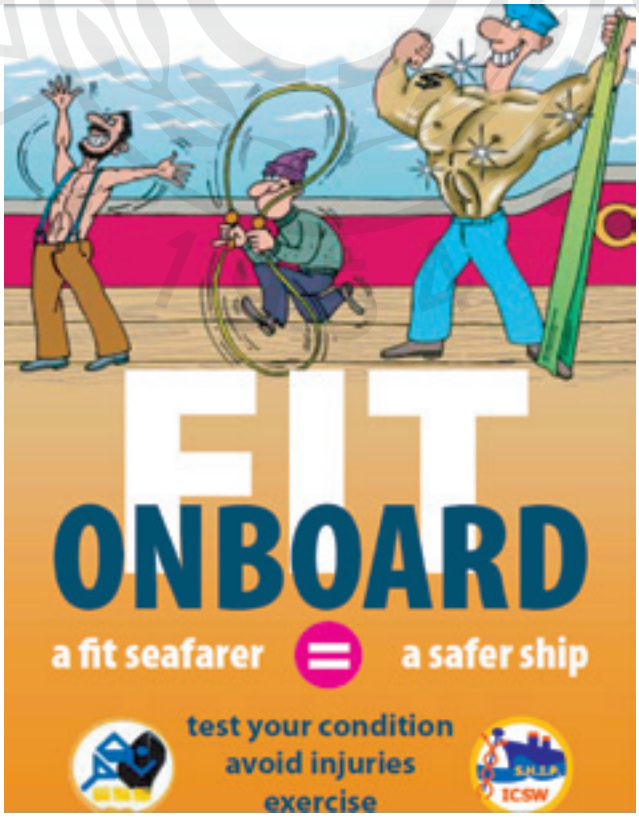
A. Vocabulary Consolidation Self-Assessment.

How fluently can you speak in English about the following?

Very Fluently	With some hesitations	
☐	☐	express personal likes / dislikes on films, sports, etc.
☐	☐	talk about leisure time on board
☐	☐	ask / answer questions about frequency of activities

B. Class Project. ***Choose one of the following topics to present to class.***

- What communication technology is there on board for seafarers to keep in touch with their families? How expensive are different communication modes on board? Do seafarers prefer satellite phones to private cellular phones? Are there personal private e-mail accounts available?
- Use the following poster to talk about the importance of seafarers' physical fitness onboard merchant ships. You can ask cadets who have served on



deep-sea going vessels if it is difficult to keep fit and if they feel that seafarers exercise enough. For more information, you might also want to visit a relevant site: www.seafarershealth.org

C. Choose the correct alternative.

1. They're always *fighting / hunting* about money.
2. He was wounded in *battle / chase*.
3. I don't like watching science fiction. The plot is *unrealistic / light-hearted*.
4. If you take the country road, the *scene / scenery* is amazing.
5. Seafarers like *swapping / stretching* sea stories.
6. A new scientific *survey / solidarity* investigates the importance of internet facilities on board that enable seafarers to keep in touch with their families.

D. Match.

1. Naval	nap
2. Bank	exhibition
3. Art	robbery
4. Window	time
5. Leisure	shopping
6. Afternoon	battle

E. Fill in the correct prepositions.

My friend Jacob is the type of person who likes reflecting ____ his past life and focusing ____ small details. But he doesn't like keeping ____ himself. On the contrary, he likes discussing his problems; it takes ____ stress, he says.

F. Word building. Fill in the table below:

Noun	Adjective
boredom	
	depressed
homesickness	
fitness	
	recreational
anxiety	
	traditional

G. Look at the following pictures of places on board. Which leisure activities take place in each room? [Officers' smoking room / Gymnasium]

UNIT 8

Routine Operations and Events on Board

1. *What is happening on board now?*
   Language Awareness: Present Continuous (Progressine)
2. *Work routines / activities taking place on board*
3. *Standard Engine Orders*

Round-up

1. What is happening on board now?

The Chief Officer is talking to the Second Officer. What is happening on board now?

A. ***Listen and match:***

1. The Third Officer	__ is supervising the ABs
2. The Cadet	__ are lowering the embarkation ladder
3. The Bosun	__ is washing the deck
4. Marcus (OS)	__ is greasing the anchor chain
5. Ruperto (OS)	__ is checking the liferafts
6. Danilo and Bayani (ABs)	__ is helping the Third Officer

B. ***Look at the previous exercise. Write questions and give the correct answers.***

1. Bosun / read a newspaper?
   Is the Bosun reading a newspaper?
   No, he isn't. He is supervising the ABs.
2. The cadet / wash the deck?
   . . . . . .
   . . . . . .
3. ABs / prepare for a fire drill?
   . . . . . .
   . . . . . .
4. Third Officer / correct the charts?
   . . . . . .
   . . . . . .
5. The Chief Officer / call from the bridge?
   . . . . . .
   . . . . . .

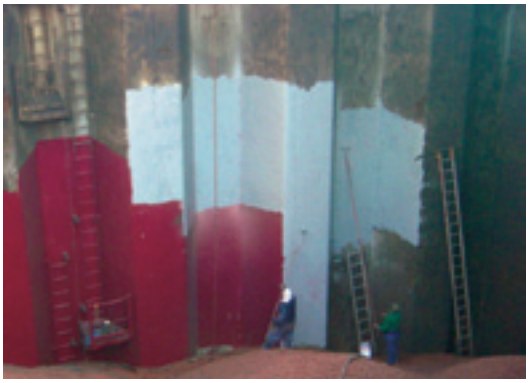
C. ***What are the crewmembers doing? Match the sentences to the pictures.***

They are painting the hold.	They are correcting the charts.
He is washing the deck.	He is looking through the binoculars.

a)

b)

c) 

d) 

Language Awareness: Present Continuous (Progressive)

a) Look at the following sentences. What use of the Present Continuous do they demonstrate? Match the examples to the appropriate description in the chart below.

- I'm meeting the crew manager tomorrow morning.
- We're repairing the ship in the dry-dock yard these days.
- It isn't raining now. We can go outside.
- Are you doing anything tonight?
- What are you cooking?
- What classes are you taking this semester?

Examples	Description
• _____ • _____	Actions happening at the present moment
• _____ • _____	Planned future events (usually in the near future, e.g. this evening, next week, etc.)
• _____ • _____	Actions or events happening around the present moment

Structure → **to be (am / is / are) + verb –ing**

Positive Form

I **am** (I'm) You **are** (You're) He, She, It **is** (He's, She's, It's) We, You, They **are** (We're, You're, They're)	eat**ing** lunch	now.

Negative Form

I am **not** (I'm not) You are **not** (You aren't) He, She, It is **not** (He, She, It isn't) We, You, They are **not** (We, You, They aren't)	com**ing**	this evening.

Question Form

Am **Are** **Is**	I you / we / they he / she / it	talk**ing** too fast? listen**ing** to me?

Note the spelling of the **-ing form of the verbs:

work	work**ing**
come	com**ing**
stop	stop**ping**
die	d**ying**

** Note the verbs that are not used in the continuous forms:

Some verbs express an action, something a person does: • He **is cooking** dinner at the moment: The Present Continuous is used only with action verbs: I am working right now. *NOT* ~~I am believing you~~.	Some verbs express a "state" and cannot be used in the continuous forms: • I **want** to travel around the world Common verbs **not** used in the continuous forms: *believe, understand, think (expressing opinion), want, hope, smell, taste, feel, sound, look, seem, appear, etc.*

b) Write the correct form in the Present Continuous tense.

1. How _____ (things/go)? Are we ready? The inspector _____ (arrive) soon.
2. He _____ (read) a book at the moment.
3. "What _____ (you/do) tomorrow?" "I _____ (take) my driving licence test tomorrow. Wish me luck!"
4. They _____ (not/work), they _____ (watch) the football game on TV.
5. Where _____ (she/stay)?

c) Say some sentences to describe what ...

... ***you*** and ***your*** friends are doing ***now***,
tonight, and
currently (around this time).

d) Compare the use of Present Simple and Present Continuous.

1. Which tense do we use to express the following? Write "Present Simple" or "Present Continuous" next to each phrase in the box.

2. Write the correct title for each tense use above each time graph:

Longer Actions in Progress Now
Repeated Actions
Near Future
Facts or Generalization
Now (this second, at this very moment) ***Pr. Continuous***

– *Present Continuous*

USE 1: _____

Examples: What *are you doing*? *Are* you *sleeping*? Why *aren't* you *doing* your homework?

USE 2: _____

Examples: (You say, while having coffee with a friend) "*Are* you *working* on any special projects at work?" "Yes, we *are preparing* the new year's financial proposal."

USE 3: _____

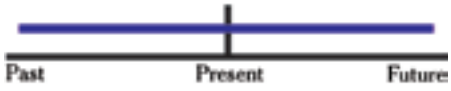
Examples: I *am meeting* some friends after work. *Is* he *visiting* his parents next weekend?

– *Simple Present*

USE 1: _____

Examples: *Does* he *play* tennis? She always *forgets* her keys.

USE 2: *Facts or Generalization* _____



Examples: Cats *like* milk. Birds *do not like* milk.

** Note other uses of these tenses:

We use the Present Continuous to express	We use the Simple Present for
Repetition and Irritation with «always»	**Scheduled Events in the Near Future**
• I don't like him because he **is always complaining.**	• The ship **does not arrive** at 11 am, it **arrives** at 11 pm.

** Note **where we place adverbs** such as: *always, only, never, ever, still, just, etc.*

- You are **still** watching TV.
- Are you **still** watching TV?
- You **only** speak English.
- Do you **only** speak English?

e) Use the Present Continuous or the Present Simple tense of the verbs in brac-kets to fill in the gaps:

1. Usually, I _____ (work) as an assistant cook for Celebrity Cruises, but this summer I _____ (study) French at a language school in Paris. That's why I am in Paris.
2. Shh! Be quiet. The Chief _____ (sleep).
3. Every time it's someone's birthday, the Cook _____ (make) a birthday cake and we _____ (have) a little party.
4. Don't forget your raincoat. It _____ (rain).
5. Do you want to come over for dinner tonight? –Sorry, I can't. I _____ (go) to the Deep Purple concert with John.
6. I can't hear you. The music _____ (play) too loudly.
7. I _____ (read) a very interesting book these days.
8. Jenny _____ (work) eight hours a day.
9. What _____ (she/do)? She's an assistant manager in an insurance company.

f) Correct the mistakes.

1. I working on deck this afternoon. We cleaning an oil spill.
2. I am geting my degree in July.
3. She is writeing an e-mail to her boyfriend.
4. You are lieing! Come on, tell me the truth.
5. "You are working tonight on the bridge?" "No, I'm not. I'm thinking James is on duty tonight."
6. I am not understanding what you mean. Can you explain, please?
7. Does he come always late to work?
8. She speaks never about her problems.

9. Are they fighting still the fire?
10. We currently are looking for a better job.

g) Choose the correct alternative.

1. He _____ English at the moment.
   a. studies
   b. is studying
   c. does study

2. What _____ this afternoon? Would you like to watch a film?
   a. do you do
   b. you doing
   c. are you doing

3. _____ Russian? I can only speak English.
   a. Are you speaking
   b. Do you speak
   c. Are you speak

4. They rarely _____ in the evening.
   a. are going out
   b. go out
   c. goes out

5. Claire _____ what to do!
   a. doesn't know
   b. isn't know
   c. know

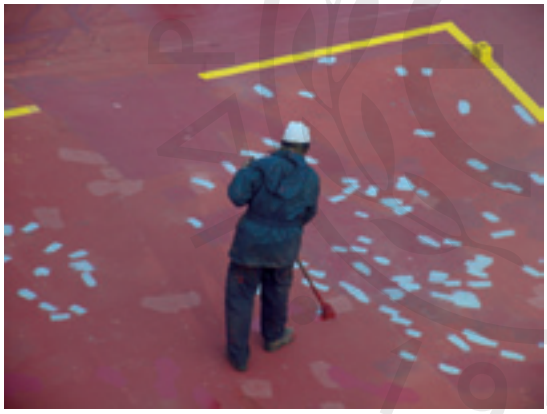
2. Work routines / activities taking place on board

What is happening on deck?

The crew members are having a drill preview meeting.

A. ***What is happening? Write up the sentences and then match them to the pictures.***

1. I _____ (chip) the rust off.
2. The engineers _____ (prepare) a new cylinder liner.
3. The ship _____ (pull) alongside for an STS (ship-to-ship) operation.
4. A crewmember _____ (demonstrate) the use of an immersion suit.
5. A rating _____ (paint) the deck.
6. A rating _____ (wash) the anchor.



B. *Fill in the gaps. Use the Present Continuous or Present Simple tense of the verbs in brackets.*

"My Cadet's Journal"

22 March — Today is my second day on the ship. I am overwhelmed. Everything is so different and I ……. (try) to adapt to the way of life here. I ……. (learn) very fast. Although I ……. (not/understand) the way of thinking of the rest of the crew (they share some kind of special code of communication), I believe I am gradually fitting in. Right now, the Chief Engineer ……. (sit) with the Master in the officers' lounge. They ……. (discuss) the overall performance of the crew. I ……. (not/know) if they are talking about me.

25 March — The Second Engineer is Polish. He ……. (speak) English very well and he is trying to teach me the names of tools. Every time he ……. (say) a new word, I try to repeat it.

30 March — It's my birthday today. The Cook ……. (make) me a cake and we ……. (have) a small party in the officers' lounge. It's weird: I ……. (celebrate) my 20th birthday with a group of men on a ship! I feel my life ……. (change) a lot these days!

7 April — We are in the port now. Everybody is terribly busy. The Master ……. ……(meet) port officials and agents.
The deck officer ……. (supervise) loading.
The engineers ……. (strip down) and ……. (overhaul) the machinery.
I'm in my cabin because I have the flu.

C. *What are they doing? Use the verbs in the box to complete the sentences.*

carry out	clean	complete	print	supervise
inspect	brief	operate	make	check

1. The Third Officer ***is inspecting*** the holds.
2. The Bosun _____ the maintenance works on deck.
3. A surveyor _____ an inspection.
4. The ratings _____ the tanks.
5. The Master _____ the crew on new safety regulations.
6. The Chief Steward _____ an announcement.
7. The Cadet _____ some documents.
8. The Deck Officers _____ the containers for damage.
9. The Third Engineer _____ the engine logbook.
10. The ABs _____ the cranes.

D. ***Imagine you are working on a passenger ferry. The vessel is preparing to get underway. What activities are taking place on board? Talk about who is doing what.***

e.g. The First Officer is giving orders on the VHF to manoeuvring stations.
A rating is …….. / Some crewmembers are ……..

- put the windlass in gear
- prepare to heave up anchor
- wait for traffic clearance from the port
- let go the head line
- check passenger tickets
- wait for engine orders from the bridge for unberthing
- search for stowaways
- secure cars and trucks
- fold and secure the bow ramp

E. ***What is happening on the MV Troop? Use the pictures, the prompts below and your own ideas to write what activities the crewmembers are engaged in.***

[Fasten the ropes / Load food supplies / Prepare the stowage plan / Supervise bunkering / Cook dinner / Mop the floor in the cabins / Drink coffee / Speak on the phone…]

On the MV Troop someone is .....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

3. Standard Engine Orders

Lead-in.

i. Read the following text and choose the correct alternative for the missing words.

> The ***Engine Order Telegraph*** is a device that communicates (a) _____orders from the navigation bridge to the engine room.
> It consists of a command unit, for making settings and for the (b) _____ of orders from the wheelhouse to the engine room, and an executive unit for acceptance and (c) _____ of the received order.

a. speed / safety / cargo
b. shipping / transmission / transportation
c. certification / confirmation / documentation

ii. Which of the following are engine orders?

a. Dead slow astern.
b. Starboard, steer zero eight two.
c. Full ahead.
d. Stand by engine.
e. Hard-a-port.
f. Maximum revolutions ahead are 55.

A. *Fill in the gaps using the following words:*

engine	pushbutton	normally	lever
astern	stand	control	displays

Engine telegraph unit[1]

Telegraph types

The engine telegraph is a fully integrated part of the propulsion control system. Both (1)_____ and (2)_____ type units are available.

Lever type telegraph

The lever type engine telegraph is used on the bridge, enclosed bridge wings and in the engine control room. It includes three text (3)_____ and LED indication to give instant view of selected telegraph position. Push-buttons to select sub telegraph mode and for control transfer are also included.

Pushbutton type telegraph

In the engine room and on open bridge wings pushbutton telegraphs are (4)_____ used. This unit includes push-buttons to select telegraph position, sub telegraph mode and for control transfer.

Engine telegraph positions

- Ahead: Dead slow, slow, half, full, navigation full
- Stop
- (5)_____: Dead slow, slow, half, full, emergency astern

Sub-telegraph modes

- Finished with (6)_____ - FWE
- (7)_____ by
- At sea

Available control locations

- Bridge / bridge wings
- Engine (8)_____ room - ECR
- Local
- Optional, other locations

Lever type engine telegraph

1. Source: "The Auto Chief C20 Engine Telegraph Unit".

B. *What can you see in each of the following pictures?*

1. an engine order telegraph throttle lever
2. a pushbutton propulsion (engine) telegraph
3. a traditional round-dial Engine Orders Telegraph

a) 

b) 

c) 

C. *Fill in the dial indications / positions of an Engine Order Telegraph.*

Write: HALF, FULL, STOP, SLOW, DEAD SLOW

AHEAD	**FULL**
	SLOW
	FINISHED WITH ENGINES
	DEAD SLOW
ASTERN	
	HALF

D. *What do the engine orders mean? Fill in the meaning for each order. Choose from the box below and use the pilot card[2] on the next page wherever you need a particular.*

ORDER	MEANING
Full ahead	
Half ahead	____ revolutions (as indicated in ship's orders)
Slow ahead	____ revolutions
Dead slow ahead	____ revolutions
Stop engine (s)	
Dead slow astern	____ revolutions
Slow astern	____ revolutions
Half astern	____ revolutions
Full astern	____ revolutions
Stand by engine(s)	
Finished with engine(s)	

• No engine revolutions
• Engine Room personnel fully prepared to manoeuvre and Bridge manned with personnel to relay engine orders
• Maximum manoeuvring engine revolutions for ahead propulsion
• Movement of engine(s) no longer required

E. *Practise saying and repeating the standard engine orders.*

Student A: You are the OOW. Give all the engine orders one by one to manoeuvre the ship.
Your vessel is fitted with twin propellers. Add the word "both", "starboard" or "port", depending on which propeller you are using.

Student B: You are operating the bridge telegraph. Listen and repeat each order clearly.

e.g. Student A: "Full ahead both"
Student B: "Full ahead both"

Glossary

integrated	part of a larger unit
lever	a projecting arm or handle that is moved to operate a mechanism
LED (light emitting diode)	an electronic light source used as indicator lamp in electronics
instant	immediate
includes	contains as a part of a whole
select	to carefully choose the best or most suitable

2. Charleston Container Terminal Simulation Study, p. 21.

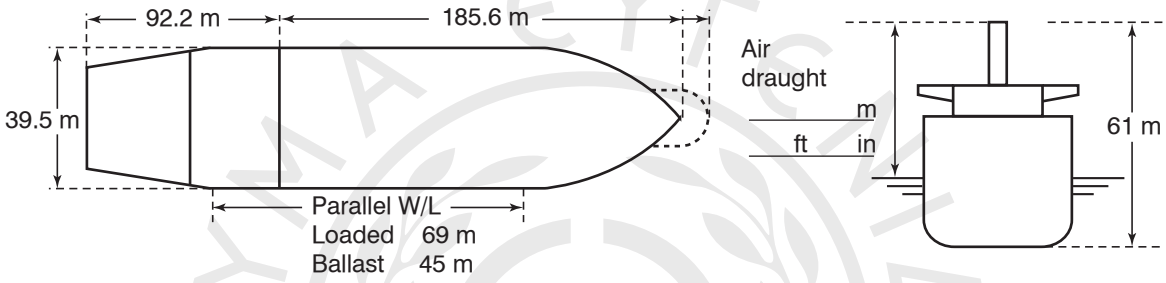
PORT: CORYTON, UK DATE OF ISSUE: 16 JUNE 2008 M/T "NERO"

PILOT CARD

Call sign: KZGY	Summer Deadweight: 117055 tonnes	Year built: 2006
Draught: AFT 8.40m	FORWARD: 6.40m	Displacement: 61001.0 tonnes.
Squat: 1.64m	Min UKC: 5.46m	Position of Min UKC: OUT OF BERTH

SHIP'S PARTICULARS

Length overall 249.9m	Breadth 44.09m	Bulbous bow Yes ☒ /No 0
Anchor chain:		
Port 13 shackles	Starboard 13 shackles	Stern N/A shackles



Type of Engine SULZER 12RTA		Maximum Power 40.000 kW (55.400 HP)	
Manoeuvring engine order	RPM / pitch	Speed (knots)	
		Loaded	Ballast
Full ahead	87	13.40	14.95
Half ahead	68	10.65	12.12
Slow ahead	52	8.11	9.33
Dead slow ahead	32	5.51	6.12
Dead slow astern	32	Time limit astern	min
Slow astern	52	Full ahead to full astern	9m 30s
Half astern	68	Max.no.of consec. starts:	23
Full astern	87	Minimum Rpm 24.5	4.96 knots
		Astern power	51% ahead

NOTE : IN ORDER TO MAKE ASTERN THE SPEED MUST BE LESS THAN 6Knts

As soon as possible, after the pilot has boarded the vessel, the Master and Pilot will discuss the following issues:

- The responsibilities of each bridge team member
- Identify the members of the bridge team with English proficiency
- Waterway characteristics such as depths, type of bottom, under keel clearances, currents, tides and anchoring areas
- Ship-to-shore communication procedures
- Expected weather and traffic
- Local traffic management rules and requirements

The Master _____ The Pilot _____

mode	a given condition of functioning, a way in which something is done
transfer	moving something from one location to another
optional	possible, available as a choice
throttle	a device controlling the flow of power or fuel to an engine
manned	having a crew
relay	to receive and pass on (a message, information etc.)

Round-up

A. Self-assessment.

How fluently can you …

very	moderately	a little	
☐	☐	☐	• use the Present Continuous to talk about work activities in progress? Give examples. What **are** different crewmembers do**ing**?
☐	☐	☐	• give and understand Standard Engine Orders?

B. Class Project.

- What elements make up the Propulsion Telegraph System of a vessel? Find out more about different types of control panels and stations, and the meaning of "bi-directional communication".
- Find out more about the communication between Bridge and Engine Room: compare the current modes of communication to the ones used in the past. Is the procedure and technology for the reception and acknowledgement of orders different now?

C. Correct the mistakes.

1. "Why are you runing?"
   "I'm late for work. See you later."
2. Oh look! There's Bill. He stands near the door. Can you see him?
3. I'm wanting to come with you, but I can't at the moment. Maybe later.
4. "Are we ready to start? Where is Nigel?"
   "He's prepareing still for his presentation. Let's wait for another 10 minutes."
5. We are normally going out for a drink every Friday night. But this Friday we are staying in to watch the football match.

D. Word-building. Write the correct derivative of the words in brackets.

1. The engine room operates as a(n) _____ Machinery Space: the crew is not needed 24-hours a day. Alarm bells are installed which report any machinery fault and then the engineers onboard attend to the problem. **MANNED**
2. When you receive a propulsion telegraph order, you must acknowledge it. You do this through the _____ unit of the telegraph. **EXECUTE**
3. I'm waiting for official _____ from the headquarters before I go ahead with the plan. **CONFIRM**
4. The _____ of the message is successful. **TRANSMIT**
5. They offered me a job. I'm not sure if I _____ it or not. **ACCEPTANCE**

UNIT 9

In the Mess

1. *Galley equipment*

2. *Food / Drink*

   I. How's your food?

   Language awareness: using "would like", "some" / "any" to offer and order food /drink

   II: Ways of cooking / Groups of food

3. *Ordering food from a menu*

Round-up

1. Galley equipment

Lead-in:

i. What is the galley equipment made of?

a. stainless steel
b. wood
c. fiber glass

ii. Match the words to the definitions and the pictures below:

cook	dishwasher
cooker	refrigerator (fridge)
hob	

an appliance for cooking food, typically consisting of an oven, hob and grill _____	a person who cooks _____	the flat top part of a cooker, with burners or (ceramic or metal) hotplates _____
an appliance for washing glassware, dishes, etc. _____	an appliance for keeping food and drink cool _____	

a)

b)

c)

d)

e)

iii. Match. In the galley, where do you...

…wash vegetables, etc.?	**freezer**
…store dishes, utensils, food, etc.?	**sink / water basin**
…preserve food at very low temperatures?	**cupboard**

iv. Look at the following galley pictures. Put the correct number in the boxes provided.

1. Cupboards / storage cabinets
2. Oven / heated cabinet
3. Sink / water basin
4. Ventilator / extractor fan
5. Working surface
6. Cooking utensils
7. Cooking surface
8. Storage shelves

v. Work with your partner. Which of the following things can you identify in the previous pictures? The arrows will help you.

waste / litter bins, kitchen towels, cook aprons, plastic food containers,
ladles, cooker knobs, cleaning buckets and mops,
lighting (galley work light), fridge with freezer compartment

2. Food / Drink

I. How's your food?

a) Put the adjectives in the correct column.

awful, great, terrible, delicious

(+) very good taste	(-) very bad taste

b) Listen to five short dialogues. Does the second person like his/her food? Circle the correct mark (+) or (-), write the word s/he uses to characterize the food / drink, and what they are talking about. The first one has been done as an example.

1.	⊕	–	*delicious*	*rice*
2.	+	–		
3.	+	–		
4.	+	–		
5.	+	–		

c) Which intonation pattern shows you like / don't like something? Listen to the following sentences and try to identify if they have a rising or falling intonation.

- This bread is terrible!
- This coffee is great!

 [rising intonation] _____

 [falling intonation] _____

Language awareness: using "would like", "some" / "any" to offer and order food / drink

Offering food and drink: **"would like"** and **"some"**

Would you like some cheese cake? **Would you like** to try **some** cheese cake?	Thanks but I'm getting full.

Would	you	like	some	milk? of this?	Yes please. / Yes, I would. No, thanks.
	he she		a	biscuit?	No, s/he wouldn't.
	they		some	biscuits?	No, they wouldn't.

I You He She We They	would /('d)	like	some a one some two	milk biscuit spoonful biscuits of those

Asking for things: "**some**" and "**any**"

Can / could I have some more salad, please?
I would / (I'd) like some milk, please.
Do you have / Have you got any more fish?

a) Listen to the cook serving a seafarer his lunch. Complete the sentences.

Seafarer: This salad looks good. _____, please?
Cook: Of course. Here you are. Would you like some oil with it?
Seafarer: Yes, please. _____, too?
Cook: It's on the table. Make sure you try the chicken. It's really good today.
Seafarer: OK, I'd like two pieces, then. _____?
Cook: Sorry, I don't have any.
Seafarer: _____, too.
Cook: Here you go. Bon appetit.

Usually, we use **some** in affirmative sentences and **any** in negative sentences. e.g. *There is **some** juice.* *There isn't **any** wine.*	**Some** and **any** can be used in questions. e.g. *Is there **any** ice cream?* *Can I have **some** tea?*

b) Some or any?

1. We need _____ bananas.
2. We haven't got _____ oranges at the moment.
3. She always takes _____ sugar with her coffee.
4. There are _____ apples on the table. Help yourself.
5. Do you have _____ more cigarettes?
6. Is there _____ rice?
7. I would like _____ orange juice, please.
8. There aren't _____ onions in the soup.
9. Can I have _____ vanilla ice cream?

c) Put the words in the correct column.




Dairy products	Meat / Poultry	Vegetables	Fruit
milk	*beef*	*corn*	*grapes*

cauliflower	yoghurt	strawberries	lamb	kiwi
watermelon	chicken	butter	pear	pork
sausages	lettuce	mushrooms	onion	cherries
ice cream	pineapple	~~milk~~	cheese	~~grapes~~
~~beef~~	cucumber	garlic	~~corn~~	

d) Write questions for the following answers.

1. [olive oil] _____ ?
   Sorry, I don't have any.
2. [yoghurt] _____ ?
   Yes. Here you are.
3. [sausages] _____ ?
   Yes, of course. How many would you like?
4. [strawberries] _____ ?
   Yes, they're in the fridge.
5. [pork chops] _____ ?
   Sure. Help yourself. They're on the table.

II. Ways of cooking / Groups of food

a) Work with a study partner. Put the words in the correct column.

steam	tough	litre	past its sell-by date	sour	~~bitter~~
off	slice	~~fresh~~	portion	swallow	loaf
bake	grill	salty	~~roast~~	ripe	boil
tasteless	chew	raw	fry ~~bar~~	sip	spoonful
~~bite~~	mild	sweet	undercooked	spicy	cook

F O O D

Condition	Verbs	Quantities	Taste	Eating / Drinking
fresh	*roast*	*bar*	*bitter*	*bite*

b) Try to fill in the gaps using words from the box. Then listen to the dialogue and check your answers.

A: How do you usually _____ vegetables like broccoli or cauliflowers?
B: I _____ them or I _____ them. It preserves their vitamins.
A: And fish?
B: I don't _____ fish. I prefer _____ it.
A: How about potatoes?
B: I _____ them in the oven with just a _____ of olive oil on non-sticky paper.

c) Circle the correct word to complete the following sentences.

1. "Your coffee smells nice! Can I have a ___*sip / swallow*___?"
   "Sure, but be careful. It's too hot to ___*sip / swallow*___."

2. "The salad is ___*tough / tasteless*___. We need some salt and some dressing."
   "Yes, but don't put much. If it's too ___*salty / sour*___, I can't eat it."

3. In Japan, people like eating ___*raw / ripe*___ fish.

4. "Do you like ___*spicy / bitter*___ food, with a lot of exotic herbs and chilly peppers?"
   "No, I only enjoy ___*raw / mild*___ tastes."

5. I like ___*off / fresh*___ fruit. Especially when it's ___*ripe / undercooked*___.

6. This ___*bar / loaf*___ of bread looks delicious. Can I have a ___*bar / slice*___?

7. The ___*portions / bites*___ in this restaurant are really big. Don't order any more dishes.

8. "This milk is ___*off / ripe*___. It smells awful! And it's ___*sour / tough*___."
   "Let me look. It's way ___*fresh / past its sell-by date*___. That's a pity. I have a whole ___*litre / spoonful*___ of it."

9. "Would you like some chocolate? I have three whole ___*loaves / bars*___."
   "Is it milk chocolate? Because, I don't like ___*sweet / mild*___ milk chocolate. I prefer *sour / bitter* dark chocolate."
   "It's dark chocolate with almonds."
   "OK, then. I'll have a ___*chew / bite*___."

10. This meat is ___*tough / ripe*___ . I can't ___*chew / cook*___ it. It's definitely ___*undercooked / sour*___. You need to ___*bake / roast*___ it for at least another hour.

d) Match the ways of cooking to the food.

Roasted ……..
Steamed …….
Baked …….
Grilled …….
Boiled …….

vegetables, potatoes, egg, steak, beef

e) Common Ways of Cooking Food. Fill in the sentences with the following:

Boiling – Stewing – Sautéing – Grilling – Baking – Frying – Roasting

1. _____ is cooking in confined heat in the oven. This method, when applied to meat, is commonly called _____.
   Examples: Bread, cake.
2. _____ is cooking by immersion in water at 212° F (100°C).
   Examples: Potatoes, macaroni.
3. _____ is cooking over or under direct heat, as over glowing coals or under a gas flame.
   Examples: Steak, chops.
4. _____ is cooking by immersion in hot deep fat.
   Examples: Doughnuts, croquettes.
5. _____ is cooking in small amount of fat in a shallow pan on top or range.
   Examples: Sliced fish, meat.
6. _____ is cooking slowly in a small amount of water (about 160° F) until food is very tender.
   Examples: Beef, lamb.

f) Read about the food pyramid and then do the exercises that follow.

Healthy Diet Foods: The Food Pyramid[1]

[…] Let us see what the different groups of healthy diet foods are, what they contain, and why they are good for us.

There are 5 main food groups -

1. Cereals and grains
2. Milk and milk products
3. Meat and Legumes
4. Fruit and vegetables
5. Fats and oils

Cereals and grains include grain and products made with grain like bread, pasta, rice, wheat and breakfast cereals. They contain high amounts of carbohydrates. So they are also called 'carbohydrate rich foods'. They are easy to digest and provide energy to keep us going all day and a feeling of fullness that keep us from the urge to munch something all day.

Add plenty of these foods to your daily diet. Make it a point to choose whole grain breads, crackers, biscuits, etc rather than refined products made with just white flour.

Milk and milk products include cow's milk, goat's milk, milk shakes, cheese, cheddar, feta, yoghurt and steamed puddings made from milk.
They are good sources of calcium and vitamin D needed by our bodies for building strong bones and teeth. If you don't like milk and milk products or you are allergic to them, try to include non-dairy products like soy milk, rice milk, tofu, etc in your diet.

Eggs, Meat and Legumes include poultry and poultry products, veal, lamb, beef, pork, fish, seafood, beans, peas, nuts and seeds.
These food sources have high amounts of proteins. So they are also called 'protein rich foods'. They build muscles in our body, provide immunity against infections, etc. They are very essential for our body and not eating enough of these can cause improper physical and mental growth. Try to include a good amount and variety of these foods like eggs, meat, poultry, beans, legumes, lentils, etc wherever possible.

Fruit and Vegetables include:

- Fruit - Berries, citrus fruits, apples, bananas, pears, melons, yellow fruit like mangoes and papayas, etc.
- Vegetables - Yellow and orange vegetables like pumpkins and carrots, dark green vegetables like peas, green beans, zucchini, and broccoli, and starchy vegetables like potatoes.

Fruit and vegetables are colourful, attractive, juicy, tasty, and easy to digest. Not only that, they are also very healthy. They are very good sources of vitamins, minerals and dietary fiber that are needed in order to keep all the activities in our body running smoothly. These foods can be included in as many servings as you like. Choose a variety of fruit and vegetables every day, as each of them have different nutrients and also variety keeps boredom away.

Fats and oils include vegetable oils like peanut oil, sunflower oil, coconut oil, olive oil, and fats like butter, margarine, lard, hydrogenated or solidified oils, etc.
Fats and oils are packed with energy, but it takes a long time to digest them. And if they are not used up for energy, they get stored in our body as fat. Choose vegetable oils rather than animal

1. Ruth Courtis, "Healthy Diet Foods", October 2008.

fats, as vegetable oils are easy to digest compared to animal fats. Also avoid as much as possible hydrogenated fats and solidified oils. These foods are also needed by our body, but not in very large quantities. So, do not exclude them completely, but just take them in moderation.

i. Look at the food pyramid below and name as many foods as you can:

ii. Match the words to the pictures below:

a. **legumes;** peas, beans, lentils, etc.
b. **starchy vegetables (root vegetables);** edible roots, like potatoes, carrots, etc.
c. **cereal grains;** edible grain (=seed) like rye, wheat, oats, etc.
d. **poultry;** chicken, turkey, duck, etc.
e. **citrus fruits;** orange, lime, lemon, grapefruit, etc.

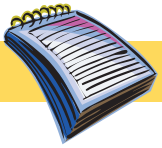
a)

b)

c)

d)

e)



Glossary

digest	to break down food in the stomach and intestines into substances that can be absorbed by the body
urge	a strong desire or impulse
immunity	the ability of an organism to resist a particular infection
infection	contamination and disease caused by bacteria, viruses, etc.
essential	absolutely necessary, fundamental, central
nutrients	a substance that provides nourishment essential for life and growth
exclude	to prevent from being included, reject
moderation	the avoidance of extremes in your actions or opinions

3. Ordering food from a menu

A. ***Fill in the missing words:*** *order, ready, want, try, can, what*

- ***Ordering in a restaurant.***

Waiter's questions	*Customer's responses*
⇨ Are you _____ to order?	⇨ I'd like (a steak).
⇨ May I take your _____?	⇨ I'll have (chicken and rice).
⇨ Do you _____ (an appetiser)?	⇨ I'll _____ the (roast beef).
⇨ Would you like (soup) or (salad)?	⇨ _____ I have (an orange juice), please?
⇨ _____ would you like to drink?	⇨ May I have (a glass of wine) please?
⇨ Would you like (a drink)?	

B. ***You are ordering from the following menu. Complete the conversation. Choose the correct answer from the sentences in the box. How much does your order cost?***

⇨ Yes, that's all.
⇨ Yes, I am.
⇨ I'd also like a salad.
⇨ I'd like some carrots, please.
⇨ I'd like the soup of the day and the roasted chicken, please.
⇨ Yes, can I have a beer, please? A cold one.
⇨ A small Chef's salad, please, with extra sauce.

MENU

Starters:		
Soup of the day		3 €
Mushroom soup		4 €
Main courses:		
Roasted Chicken		7 €
Pork Chops (with barbecue sauce)		9 €
Grilled fish (salmon or swordfish fillet)		12 €
Steak		9 €
Pasta Bolognese (tomato & minced meat sauce)		7 €
Side dishes:		
Baked / Mashed Potatoes		2 €
French Fries		2 €
Rice		2 €
Steamed vegetables (green beans, carrots, w hini)		3 €
Salads:	small	large
Farmer's salad (green vegetables, tomato, cucumber)	4 €	6 €
Chef's salad (lettuce, ham & cheese, hard-boiled egg, mayonnaise)	5 €	7 €
Cauliflower & Broccoli salad	3 €	5 €
Spinach Salad (with goat cheese, bacon, balsamic vinegar dressing)	5 €	7 €
Desserts:		
Apple pie (with whipped cream or vanilla ice cream)		4 €
Fruit salad		4 €
Drinks:		
House wine		4 € / glass
Beer		2 €
Mineral Water		2 €
Coffee		2 €

Waiter: Hello. Are you ready to order?
You: ……
Waiter: OK. What would you like?
You: ……
Waiter: Sure. On the side? Would you like some French fries or some steamed vegetables?
You: ……
Waiter: Certainly. Anything to drink?
You: ……
Waiter: Of course. Is that everything?
You: ……

Waiter: By all means. What can I bring you?
You: .....
Waiter: Right. Is that all?
You: .....
Waiter: Great. Thank you very much.

C. ***Use the menu to place another order. Practise a similar conversation with your study partner.***

D. ***Complete your own weekly menu for breakfast, lunch and dinner.***

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	corn flakes, milk						
Lunch		club sandwich, French fries				cheese and ham omelet, tomatoes	
Dinner			grilled fish, boiled vege-tables				

Round-up

A. Self-assessment.

very	moderately	a little	How fluently can you
☐	☐	☐	• order from a menu?
☐	☐	☐	• talk about different groups of food / ways of cooking? (give 5 examples for each)
☐	☐	☐	• identify galley equipment? (give 5 examples)
☐	☐	☐	• express your opinion / personal taste about food?

B. Class Project.

- Find out more about the management of food supplies on board. Who is responsible for the food supplies on board? What is the process for ordering them? Are members of the crew charged for their food? [a few key words; *victualling:* taking food supplies, *ship chandler:* supplier of food and equipment]
- What is your favourite recipe? How do you cook it? Tell the class the ingredients of your recipe, the way of cooking and the matching side-dish you prefer.
- Can seafarers follow a healthy balanced diet on board? Do different nationali-

ties of crewmembers prefer different types of food on board? Interview a cadet / seafarer and tell the class your findings. Was there a particular type of food they missed while working on board?

C. Match: hotplates / oven / cupboard.

_____	_____	_____
storage space, with shelves (and a door), especially for dishes, utensils, food, etc.	flat heated metal or ceramic surface on an electric cooker	an enclosed compartment in which food is cooked or heated

D. Look at the pie-chart. Write some examples for each category. Then, give a talk on "a healthy – balanced diet".

Carbohydrates:

Fresh vegetables:

Fruit:

Milk products:

Protein:

Fat:

E. Match the food on the right to the verbs on the left.

1. Cook	__ Bread
2. Boil	__ Beef
3. Fry	__ Cake
4. Bake	__ Potatoes
5. Toast	__ Food
6. Roast	__ Eggs

F. Choose the correct alternative.

1. Salad and fresh vegetables are ...
   a. fatty foods b. very sweet food c. healthy food
2. Chips and crisps contain ...
   a. a lot of water b. a lot of salt and fat c. protein
3. Fish is rich in ...
   a. vitamins b. protein c. carbohydrates
4. Tzatziki is made from ...
   a. cucumber and yoghurt b. potatoes and mayonnaise c. cheese and yoghurt
5. Sausages are made from ...
   a. meat b. dairy products c. grains

G. Match the opposites:

Shallow -..... - Exclude
Tender - ..... - Sweet
Include - ..... - Tough
Mild - ..... - Deep
Bitter - ..... - Spicy

H. Match the words to their definitions.

recipe	straw	menu	apron	dressing	overcharge
appetiser	bill (cheque, check)	tip	main course	ingredients	side dish

	A small snack before a meal
	Liquid topping for salads
	The slip of paper that tells the customer how much to pay
	A cloth covering you wear over the clothes while cooking
	The largest part of a meal (after appetiser, before dessert)
	Extra money given as a thank you for service
	All the different foods that are combined in a recipe
	Long hollow plastic stick for drinking out of
	To ask someone to pay more money than is reasonable / the real price (by mistake)
	List of ingredients and instructions for preparing a certain type of food
	Choice of food that goes with a main meal
	A booklet of all the food that can be ordered

I. Use the words from the previous exercise to fill in the sentences below. You might need to change them by adding an ending.

1. The _____ are on page 6 of the menu.
2. Would you like some garlic bread or another _____ to start with?
3. Can we have the _____ please? We are ready to go.
4. Remove your _____ after cooking to greet your dinner guests.
5. Would you like French or Greek _____ for your salad?
6. I'll check the _____ to make sure there aren't any nuts.
7. Add a 10% _____ to the bill, because it's the Christmas holiday.
8. Can I have a _____ for my ice tea, please?
9. The two _____ for the steak are mashed potatoes or French fries.
10. Do you have a children's _____ we could see?
11. The apple pie is delicious. You must give me the _____. I'll try making it myself.
12. I think you _____ us for our drinks; we only had one each.

REVIEW 3

Units 7-9

Part One: Consolidation / Expansion

Topics:

1. Marine Engine Types
2. Pilot Card Information
3. Leisure on board
4. Safety Equipment Regulations
5. Current Affairs: the Greek Shipping Industry and the Economic Crisis

Part Two: Terminology Work

Part Three: IMO Standard Marine Communication Phrases – Glossary

Part One: Consolidation / Expansion

1. Marine Engine Types

Task: understand information on marine engine types and the particular features of a marine engine.

Lead-in: check what you know.

a. There are four main types of marine engines. Match the following words to find out:

The diesel _____	turbine
The steam _____	plant
The gas _____	engine
The marine nuclear _____	turbine

b. Which one of the four types of marine engines above is not used in merchant ships, but is mainly used in submarines?

A. Propulsion Diesel Engines

Study the following chart on propulsion diesel engines. Then do exercises (a) and (b).

	High-Speed	Medium-Speed	Low-Speed
RPM	Above 960	240-960	Below 240
Ship Types	Harbour tugboats Ships for inland navigation	Middle-size ships Seagoing tugs Ro-Ro ships	Ships over 30,000 dwt

a. What do the abbreviations in the chart stand for?

RPM .....

dwt .....

Ro-Ro .....

b. Use the chart to fill in the text with the missing words.

Engine types[1]

Propulsion diesel engines can be divided into three groups:

– High-speed four-stroke diesel engines, RPM above 960.
– Medium-speed four-stroke diesel engines, RPM ranging 240-960.
– Low-speed (crosshead) two-stroke diesel engines, RPM range below 240.

The fast-running and medium-speed engines drive the propeller after being reduced in RPM in a reduction gearbox. The fast-running engines are found in small ships, such as

1. Source: Van Dokkum, K. (2005). *Ship knowledge: Covering ship design construction and operation*, 2nd Ed. The Netherlands: Dokmar.

(1)……, and ships for inland navigation.
Medium-speed engines are found in the various middle-size ships and (2)……..,
or in ships where the height of the engine room is limited, such as (3)…….. .
This engine also drives the propeller after being reduced in RPM.
The slow-running engine is directly coupled to the propeller, and is normally installed in (4)…… .

B. A presentation of the MAN Diesel 48/60B engine[2]. Listen to the presentation and do the following tasks:

1. Circle the correct one:
   a. The engine has *14 / 16 / 18* cylinders.
   b. Its power is at *1015 / 1050 / 1500* kilowatts per cylinder.
   c. It is a *2-stroke / 4-stroke* engine.

2. What fuel does the 48/60 use? (tick ☑ as many as you can hear)
   a. crude oil
   b. heavy fuels
   c. kerosene
   d. bio-fuels

3. Fill in the missing words.
   Features / advantages of the engine
   a. Low ……
   b. Long times between ……
   c. Self rotation of the …… valves
   d. High …….. fuel injection
   e. Advanced …….. charging
   f. Clean efficient ……..

2. Pilot Card Information

Task: exchange orally and fill in basic vessel information

Act out a dialogue to fill in information by using a Pilot Card

Student A: Ask your study partner and note down in the following Ship's Particulars and Engine information.

e.g. What is …(the name / call sign / etc.) of the vessel?

2. A Virtual Tour of the 48/60B, GMD Multimedia, MAN Diesel, 2009.

Student B: Use the Pilot Card on page 271 to provide the information your study partner is asking for.

SHIP'S PARTICULARS
Name:
Call Sign:
Deadweight:
Draught aft:
Draught forward:
LOA:
Breadth:
ENGINE
Type of engine:
Horse power:
Revolutions per minute for slow astern:
Speed at full ahead / loaded:
Speed at full ahead / in ballast:

3. Leisure on board

Task: speak about leisure time activities and understand a cadet's personal account of life on board

Leisure time

- What's your hobby?
- What do you usually do in your free time?
- What do you like doing at the weekends?
- Do you like working out in a gym?

Leisure time on board

a. Listen to the following conversation and tick ☑ the activities the cadet likes doing in his free time onboard.

☐ Listening to music	☐ Talking with other crewmembers	☐ Sleeping
☐ Watching films	☐ Spending time in his cabin	☐ Fishing
☐ Swimming in the pool	☐ Playing table tennis	☐ Reading books
☐ Working out in the gym	☐ Playing basketball	☐ Writing letters

b. According to the cadet, what is the most important thing to do in your free time on board? What do you think? Do you agree?

4. Safety Equipment Regulations

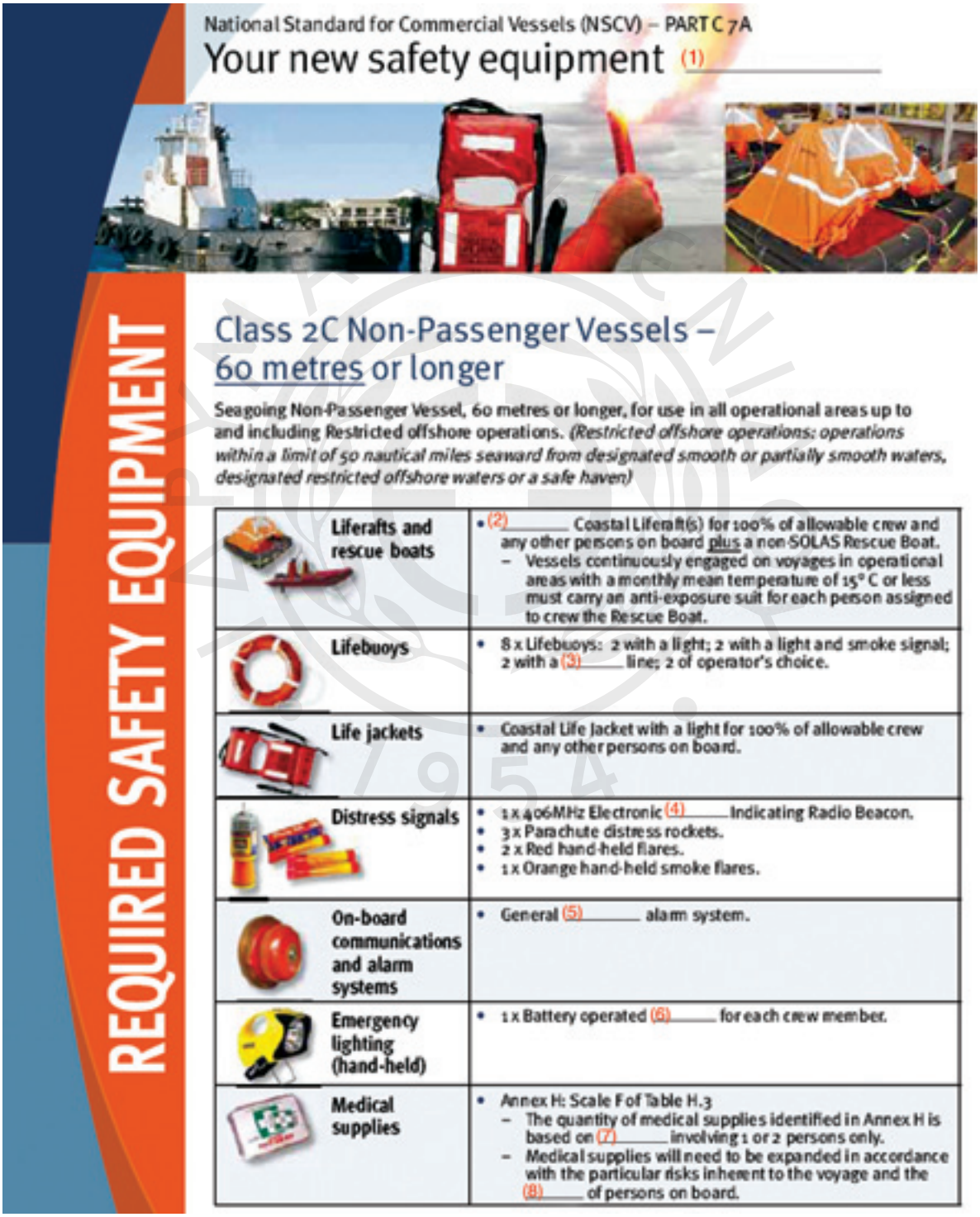
Task: understand information about the application of safety regulations

Safety Equipment Information[3]: Read the following text and choose the correct word for each gap.

1. requests / requirements / obligations / necessities

3. Source: Maritime Safety Queensland, 2008, page 7.

2. inflatable / adaptable / convertible / compatible
3. spring / floating / towing / buoyant
4. Position / Place / Location / Point
5. evacuation / abandon / emergency / urgency
6. spotlight / torch / illumination / lantern
7. incidents / errors / happenings / disasters
8. figure / sum / profile / number



National Standard for Commercial Vessels (NSCV) – PART C 7A

Your new safety equipment (1) _____

REQUIRED SAFETY EQUIPMENT

Class 2C Non-Passenger Vessels – 60 metres or longer

Seagoing Non-Passenger Vessel, 60 metres or longer, for use in all operational areas up to and including Restricted offshore operations. *(Restricted offshore operations: operations within a limit of 50 nautical miles seaward from designated smooth or partially smooth waters, designated restricted offshore waters or a safe haven)*

Liferafts and rescue boats	• (2) _____ Coastal Liferaft(s) for 100% of allowable crew and any other persons on board plus a non-SOLAS Rescue Boat. – Vessels continuously engaged on voyages in operational areas with a monthly mean temperature of 15° C or less must carry an anti-exposure suit for each person assigned to crew the Rescue Boat.
Lifebuoys	• 8 x Lifebuoys: 2 with a light; 2 with a light and smoke signal; 2 with a (3) _____ line; 2 of operator's choice.
Life jackets	• Coastal Life Jacket with a light for 100% of allowable crew and any other persons on board.
Distress signals	• 1 x 406MHz Electronic (4) _____ Indicating Radio Beacon. • 3 x Parachute distress rockets. • 2 x Red hand-held flares. • 1 x Orange hand-held smoke flares.
On-board communications and alarm systems	• General (5) _____ alarm system.
Emergency lighting (hand-held)	• 1 x Battery operated (6) _____ for each crew member.
Medical supplies	• Annex H: Scale F of Table H.3 – The quantity of medical supplies identified in Annex H is based on (7) _____ involving 1 or 2 persons only. – Medical supplies will need to be expanded in accordance with the particular risks inherent to the voyage and the (8) _____ of persons on board.

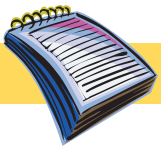
5. Current Affairs: the Greek Shipping Industry and the Economic Crisis

Task: understand a news report on a maritime related topic

Sailing into stormy waters: Greek shipping industry and the economic storm[4].
Listen to a news report (dated November 2008) about how the economic crisis affects the shipping industry in Greece.

a. Decide if the following sentences are True or False.
b. For the statements that are False, underline the false information (number or word) and write the correct one in the space provided, as in the example.

According to the news report…	True or False	Correct info
1. The shipping industry is facing its biggest economic crisis in decades.	TRUE	
2. Dry cargo rates are down by more that 19% in a few months.	FALSE	90%
3. Greece has a lot to lose because it owns half of the world's merchant fleet.		
4. The best word to describe the situation is "panic", according to shipowners.		
5. The Greek merchant fleet is the largest in the world.		
6. In Greece, shipping accounts for 17% of GDP (Gross Domestic Product).		
7. Banks refuse to give money to shipowners or financial guarantee for vessels.		
8. The crisis affects both demand for transportation and the supply of vessels in the market.		
9. ¼ of the shipping orders may be cancelled.		
10. Both prices and jobs are going to be hit by the economic storm.		
11. Commercial traffic in Piraeus is down by 20%.		



Glossary

rate	a fixed price paid or charged for something
accounts for	makes up (a specific amount)
GDP	the total value of goods produced and services provided within a country during one year

4. Reuters Video News Report: "Greece braces for shipping storm" News Report by Helen Long, Nov 18, 2008, Reuters.

refuse	to state you are unwilling to do something, to decline to do
guarantee	a formal assurance (or promise) that certain conditions will be fulfilled
affect	to make a difference to, to have an effect / influence on
commercial traffic	trade, the commercial exchange of goods

⇨**Tip:** for successful listening activities

Question:	**Answer:**
How can I understand better an authentic audio text, such as the news report above?	(match the sentences below)

1. First, read carefully your task (e.g. the True/False sentences) to …	… have time to note down the particular things you need.
2. Secondly, listen once to the whole track to …	… check your answers.
3. Then, play the track again pausing at 2 or 3 points to …	… know what to expect and what you are looking for.
4. Finally, listen to the whole track again to …	… familiarise yourself with the accent and rhythm of the speech, and get an overall idea.

Part Two: Terminology Work

A. Choose the correct alternative.

1. Using this device, orders are transmitted from the bridge to the engine room to power the vessel at a certain desired speed.
   a. engine order telegraph
   b. gyro compass repeater
   c. bridge steering wheel
2. The order "stand by engine" indicates that
   a. the movement of the engine is no longer required
   b. the Engine Room personnel is fully prepared to manoeuvre
   c. there are no engine revolutions
3. To receive and pass on a message is to _____ it.
   a. repeat
   b. relay
   c. retransmit

B. Match the ways of cooking to the food: sliced fish / pork chops / doughnuts / beef / bread / potatoes

Baking - .....
Roasting - .....
Boiling - .....
Grilling - .....
Frying - .....
Sautéing - .....

C. What is happening in each picture? Use the phrases in the box to finish the sentences and match them to the pictures (put the correct number in each box). Use the Present Continuous.

paint under the bridge wing	complete the logbook	tow a heavy lift ship	hold the fire hose
prepare the lifeboat for embarkation	~~put on a breathing apparatus~~	work on the winches	let go the tug

1. In order to take part in the fire drill, the O.S. ..... is putting on a breathing apparatus ...
2. The firemen .....
3. At the aft mooring station, the crewmembers .....
4. Up on the davit ladder, the Chief Mate and two crewmembers .....
5. The tug boat .....
6. Look! This must be very difficult. The A.B. .....
7. The Bosun with two ABs .....
8. On the bridge, the 2nd Mate .....

☐ 

☐ 

☐ 

☐ 

Part Three: IMO Standard Marine Communication Phrases – Glossary

A. Match the terms to the definitions.

Adrift	NUC	Hampered	Underway	Capsized
Moored	Wreck	Derelict	Disabled	

1. vessel turned over
2. vessel secured by ropes or made fast to the shore or anchors
3. vessel moving uncontrollably by current, tide or wind
4. vessel still afloat, abandoned at sea
5. vessel destroyed, sunk, or abandoned at sea
6. vessel unable to manoeuvre as required by the COLREGs
7. vessel damaged in such a manner as to be incapable of proceeding
8. vessel not at anchor, or made fast to the shore or aground
9. vessel restricted by her ability to manoeuvre by the nature of her work

B. What do the following initials stand for?

GMDSS: *Global* _____
SWL: *Safe* _____
CPA: *Closest* _____
EPIRB: *Emergency* _____
ETA: *Estimated* _____
RCC: *Rescue* _____
VTS: *Vessel* _____
TSS: *Traffic* _____

C. Match the words to create correct collocations:

call	signal	area	orders	pattern	alert
move	points	exercise	cargo	station	party

Cardinal	Distress
Rig	Fire
Ordnance	Lifeboat
Restricted	Roll
Standing	Search
Retreat	Shifting

D. Work with a study partner to group the following terms. First put the terms in the correct column. Then use them to fill in the gaps below.

Segregation	Damage Control Team	Shifting	Abandon Vessel
Survivor	Leeward	OSC	Compatibility
Variable	Assembly Station	Foul	Initial Course
Dragging	IMO-class	Windward	Dredging
Veer out	PA-System	Casualty	Backing

SAR	CARGO	WIND	EMERGENCY ON BOARD	ANCHOR
1.	1.	1.	1.	1.
2.	2.	2.	2.	2.
3.	3.	3.	3.	3.
4.	4.	4.	4.	4.

WIND

- A wind is _____ when it is constantly changing speed and direction.
- The anticlockwise change of direction is called _____.
- To be on the sheltered side of the ship is called _____.
- To be on the direction from which the wind blows is called _____.

ANCHOR

- _____ of anchor is when the anchor has its own cable twisted around it.
- The movement of the anchor over the sea bottom to control the movement of the vessel is called _____ of anchor.
- The involuntary movement of the anchor over the sea bottom is called _____.
- To let out a greater length of cable is to _____ the anchors.

SAR

- The _____ is a person designated to co-ordinate search and rescue operations within a specified area.
- The course to be steered at the beginning of a search, directed by the On-Scene Co-ordinator or other authorised person is called_____.
- _____ is a case of death in an accident or shipping disaster.
- A _____ is a person who continues to live in spite of being in a shipping disaster.

EMERGENCY ON BOARD

- The _____ is a group of crew members trained for fighting flooding in the vessel.
- To _____ is to evacuate crew and passengers from a vessel following a distress.
- The place assigned to crew and passengers where they meet according to the muster list when they hear the corresponding alarm or announcement is the _____.
- _____ are the loudspeakers in the vessel's accommodation or on deck through which announcements are made.

CARGO

- The separation of goods which for different reasons must not be stowed together is called _____.
- _____ indicates whether different goods can be safely stowed together in one cargo space.
- The group of dangerous or hazardous goods, harmful substances or marine pollutants in sea transport as classified in the IMDG Code is referred to as _____.
- The transverse movement of cargo, especially bulk cargo, caused by rolling or a heavy list is called cargo _____.

E. Write a key word for each term.

1. PA-system – .....
2. Spill control – .....
3. Casualty – .....
4. Blind sector – .....
5. Damage control – .....
6. Digital Selective Calling – .....
7. COW (Crude Oil Washing) – .....
8. Crash-stop – .....
9. Blast – .....
10. Hoist – .....

main engine, loudspeaker, tank cleaning, death, pollution, flooding, radar, helicopter cable, GMDSS system, whistle

F. Write the correct derivative of the words in capital letters.

1. Passengers must go to their assembly stations when they hear the corresponding _____ .	**ANNOUNCE**
2. The _____ part of a waterway is called fairway.	**NAVIGATE**
3. When a piece of equipment is not functioning, we say it is _____.	**OPERATE**
4. When some equipment is ready for immediate use, it is _____.	**OPERATE**
5. The _____ gas produced by chemicals, fires, fuel, etc. are called "fumes".	**HARM**
6. "To inert" is to reduce the oxygen in a tank by inert gas to avoid an _____ atmosphere.	**EXPLODE**
7. When the _____ of a radio station have broken down, switched off or suspended, the station is "off air".	**TRANSMIT**
8. The maximum _____ pressure in cargo hoses is called Safe Working Pressure.	**PERMIT**

G. Match the terms to their definitions:

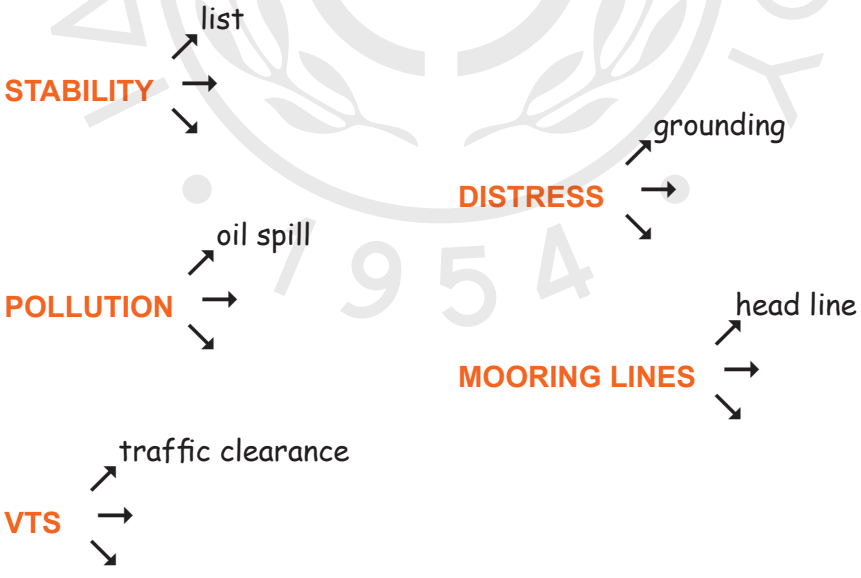
Traffic clearance	Refloat	Fairway	Stand clear	Jettison
Boarding Arrangements	Proceed	Foul	Launch	Waypoint
Off station	Let go	Spill	Operational	Transit

	1. Navigable part of a waterway.
	2. The anchor has its own cable twisted around it.
	3. The accidental escape of oil into the sea.
	4. All gear necessary for the safe transfer of the pilot.
	5. VTS authorisation for a vessel to proceed under conditions specified.

	6. To pull a vessel off after grounding.
	7. To lower, e.g. lifeboats, to the water.
	8. To continue with the voyage or sail for a certain direction.
	9. Ready for immediate use.
	10. To set free or cast off lines, anchors etc.
	11. To throw goods overboard in order to lighten the vessel or improve its stability.
	12. A buoy not at the position charted.
	13. A mark or position at which a vessel is required to report to establish its position.
	14. To keep a boat away from a vessel.
	15. The passage of a vessel through a canal, fairway, etc.

H. Match the following:

reference line	~~list~~	jettison	~~head line~~	collision
breast line	receiving point	forward spring	capsize	oil clearance
~~oil spill~~	polluter	~~grounding~~	sinking	~~traffic clearance~~



I. Choose the correct alternative.

1. A space in a vessel where, for safety reasons, entry is only permitted for authorized crew members is a _____ area.
   a. forbidden *b. restricted* *c. limited*

2. When the light of a buoy or a lighthouse is inoperative, it is _____.
   a. dark *b. off* *c. unlit*

3. The position a vessel has to pass according to her voyage plan is called _____.
   a. passing point *b. route point* *c. waypoint*

4. The speed of a vessel required for passage through a canal, fairway, etc is called _____ speed.
   a. transit *b. transfer* *c. travel*

5. The final pumping of a tank's residues is called _____.
   a. stripping *b. draining* *c. clearing*

6. The sound, visual or other signal to a team ordering it to return to its base is called _____ signal.
   a. retreat *b. withdrawal* *c. exit*

7. An object, such as a wreck, net, etc., which blocks a fairway, route, etc. is called _____.
   a. blockage *b. obstruction* *c. obstacle*

8. The escape of liquids (water, oil, etc.) out of pipes, boilers, tanks, etc., or a minor inflow of seawater into the vessel due to damage to the hull is called _____.
   a. flooding *b. spill* *c. leaking*

9. North, east, south and west, are called _____ points of the compass.
   a. basic *b. principal* *c. cardinal*

10. The concise explanatory information to crew and/or passengers is called _____.
    a. briefing *b. meeting* *c. conference*

11. A group of crew members trained for fighting fire on board is called _____.
    a. fire patrol *b. fire party* *c. fire group*

12. The highest possible speed of a vessel is the vessel's _____ speed.
    a. boarding *b. full* *c. fairway*

13. When attending a vessel in case of need, an icebreaker, tug, etc. is _____ her.
    a. going after *b. escorting* *c. accompanying*

14. A navigational aid placed to act as a beacon or warning is a _____.
    a. seamark *b. sea-sign* *c. sea-indicator*

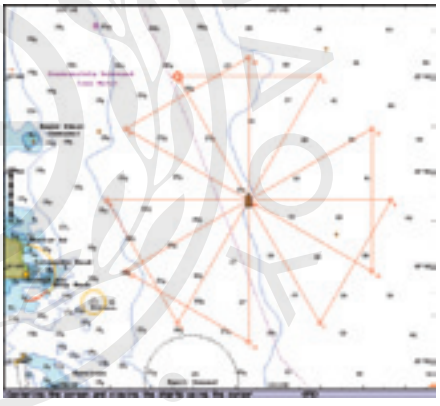
J. Choose the correct alternative.

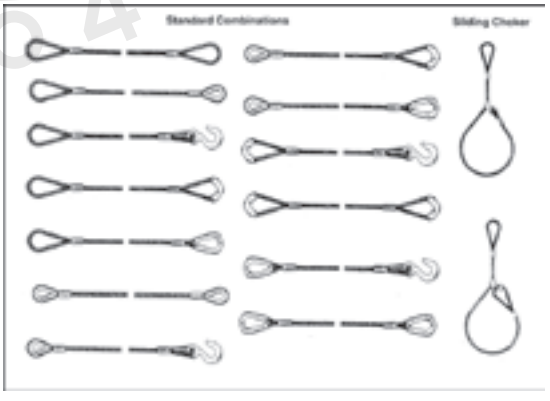
1. To decrease the distance to the vessel ahead by increasing your own speed is to *close up / drop back / stand clear.*

2. To increase the distance from the vessel ahead by reducing your own speed is to *close up / drop back / keep back*.
3. To set free or cast off anchors, lines, etc. is to *let out / let off / let go*.
4. To pull a vessel off after grounding is to *refloat / drift / proceed*.
5. To keep a boat away from the vessel is to *keep clear / stand clear / keep away*.
6. To keep out of the way of another vessel is to *give way / give out / get away*.
7. To maintain course and speed is to *stand in / stand on / stay on*.
8. To sail or head for a certain position or to continue with the voyage is to *proceed / approach / move forward*.
9. To pick up shipwrecked persons is to *regain / retrieve / recover* them.
10. To be in readiness or prepared to execute an order is to *stand in / stand by / stand clear*.
11. To reverse the action of a windlass to ease the cable of the anchor is to *walk back / walk off / walk on*.
12. To regulate the motion of a cable, rope, etc. when it is running out too fast is to *check up / check / stop up.*

K. Write a title under each picture. Then say what is the use of each thing shown in the pictures.

1. Mooring winch
2. Targets (on a radar screen)
3. Traffic Lanes in a Traffic Separation Scheme
4. Anchor
5. Search Pattern
6. Bollard
7. Anchor Chain
8. Bow Ramp
9. Capstan and Windlass
10. Slings
11. Bob-cat
12. Double Bitt




Standard Combinations
Sliding Choker

APPENDIX I
English for Marine Engineers

1. Workshop Tools

Lead-in: Which of the tools in the following drawings is used to...

1. drive in a nail?
2. drive a screw?
3. drill a hole?
4. cut metal?
5. cut or bend wire?
6. measure the diameter?
7. loosen a nut?

pliers

callipers

electric drill

hacksaw

screwdriver

combination spanner

hammer

In the following pages you will find ***hand tools*** useful in an engineer's workshop for repairing and maintaining machine parts, as well as ***machine tools*** for activities included in machining, like measuring, cutting, shaping, drilling, finishing, etc.

measuring

Feeler gauges
used for measuring narrow gaps or clearances; they consist of a number of thin blades

Screw pitch gauges
used for determining the pitch of screw threads

(pair of) Calipers
used for measuring thickness(es) and linear dimension; consist of two adjustable (in-turned or out-turned) legs

(pair of) Compasses
used for drawing circles and arcs and measuring distances between points; consist of two arms linked by a movable joint

Vernier calipers
used for precision measurement of small distances by comparing a fixed scale to a sliding one

Micrometer (calipers)
used for measuring small distances or thicknesses, typically for precision measurement of wires, spheres, shafts etc.

(pair of) Dividers
a measuring compass, especially one with a screw for making fine adjustments

1. Calipers (firm joint)
2. Compasses for setting and maintaining a precise radius
3. Beam and regular compasses
4. Chart dividers

cutting

Pliers
pincers with parallel flat jaws, used for gripping small objects and bending or cutting wire

Tinsnips or tin cutters
a pair of clippers for cutting sheet metal

Cutter
a tool for cutting

Side cutter
diagonal cutting pliers, used for cutting wire

Hacksaw
a saw with a narrow blade set in a frame, used for cutting metal

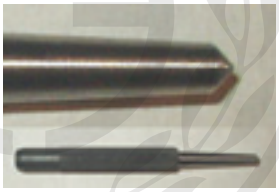
Cutting torch
a device that uses fuel gases and oxygen to cut metals

machining and ... hammering

Mallet
a hammer with a large wooden (or plastic) head

Straight-peen (or "pein") hammer
a hammer with a flat striking face on one end of the head for striking punches and chisels

Ball-peen (pein) hammer
a hammer with one end of the head flat and the other end rounded, used for forming soft metal



Centre punch
a small steel tool with a conical tip used to punch a small indentation at the location of the centre of a hole to be drilled

Cold chisels
tools with cutting edges used for cutting and shaping cold metal (they are struck with a hammer)

Fitter's vise (or vice)
a metal tool with movable jaws which are used to hold an object firmly in place while work is done

Conventional lathe
A lathe is a machine tool which turns cylindrical material, touches a cutting tool to it, and cuts the material in order to shape it. It is used to perform various operations such as sanding, drilling or deformation.

CNC lathe
CNC means Computer Numerical Control. This means a computer converts the design into numbers which the computer uses to control the cutting and shaping of the material.

Hand grinder (electric)
mechanical device which allows you to reshape, form, sharpen metal cutting tools or other tools

Bench grinder
a device with a rotating abrasive disc, used to grind, polish or cut metal and other materials

– Which of the mechanical devices above:

1. has a large wooden or plastic head?
2. is driven with a hammer or mallet in order to shape or work (soft) metal?
3. marks the spot you will drill and starts the hole?
4. can be used to cut wire and thin rods and also for bending and holding?
5. can be used for cutting thin sheet metal and comes in three basic types, straight, left hand and right hand?
6. is used for cutting and welding?

drilling

– Write the tool under each picture.

heavy duty drill, breast drill, electric drill, drilling machine, drill bits

a) _____

b) _____

c) _____

d) _____

e) _____

reaming

Reamer
After you drill a hole, you can finish it to an accurate dimension with the use of a reamer, a tool that can shape and enlarge holes with precision. To achieve the correct size and finish, you drill a hole to slightly undersize and then use a reamer.

1. Reamers
2. Spiral fluted machine reamer
3. Straight fluted chucking reamer

finishing: filing, scraping, rasping

Files
tools with a roughened surface, used for smoothing or shaping a hard material

1. Round file with handle
2. Triangular file
3. Flat file

Rasps
coarse files for use on metal, wood or other hard material

Scrapers
hand tools used for scraping off paint or other adherent matter

spanners / wrenches

- **Spanner** (British English) or **wrench** is a hand tool (sometimes adjustable) with a shaped opening or jaws for holding and twisting a nut or bolt.

Monkey wrench
a spanner with one fixed and one adjustable jaw, in some countries also called "French" or adjustable spanner

Pipe wrench
adjustable wrench with two toothed jaws for gripping and turning a pipe

Single German (open-ended) spanner
a tool with a U-shaped opening (or jaw) on one end for gripping and turning a nut or bolt

Double German (open-ended) spanner
a tool with fixed open jaws on both ends of the handle; it usually has different sized openings at each end

Ratchet wrench
a wrench activated by its handle through a hinged catch (pawl) that causes the wrench to rotate in one direction only (may be adjusted for either direction)

Ratchet ring spanners
a type of ring spanners whose end sections ratchet

Combination spanners
double-ended tools with one end being like an open-end spanner and the other end like a ring spanner. Both ends usually fit the same size of bolt.

Ring spanner (hex)
double-ended spanner, with an enclosed opening that grips the faces of the bolt or nut, usually with offset handles to improve access to the nut or bolt

Ratchet wrench and sockets
a wrench with an interchangeable socket to fit over a nut or bolt

Allen key (or hex key)
a (usually L-shaped) wrench for Allen screws

nuts and bolts

Bolts
long metal pins with a head that screws into a nut, used to fasten things together

Nuts
small flat pieces of metal, typically square or hexagonal, with a threaded hole through them for screwing on to a bolt

Washers
flat discs with a hole, placed beneath a nut to relieve friction, prevent leakage or distribute pressure

Taps (machine screw taps: taper, plug, bottoming)
used for cutting internal threads in metal, plastic or hard rubber

screws

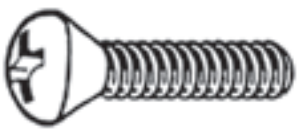
A. Study the two pictures below showing the types of screws. Then do the exercise that follows.

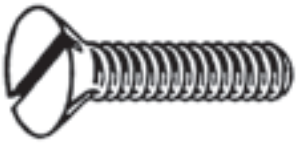
Types of screw head

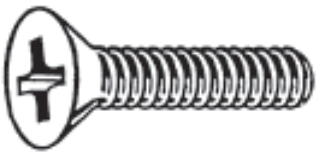
Types of machine screw drive

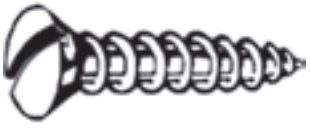
Now, match the pictures to the type of screw.

1. Philips flat machine screw
2. hex head slotted sheet metal screw
3. slotted oval sheet metal screw
4. Philips oval machine screw
5 slotted flat machine screw

a) 

b) 

c) 

d) 

e) 

Screwdriver
a tool with a shaped tip that fits into the head of a screw to turn it

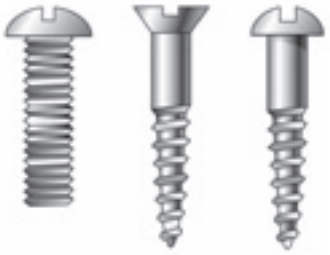
Spiral screwdriver
ratcheting screwdriver with a "spiral ratchet" mechanism to turn pressure (linear motion) into rotational motion

B. Quiz. Write the tool next to the description. First try this exercise without looking at the list below. Then match to the words provided in the box.

1. a tool with a narrow fine-toothed blade set in an adjustable frame, used for cutting metal
2. a tool with a heavy metal head mounted at the end of a handle, used for breaking things and driving in nails
3. a tool with which you can shape and enlarge holes with more precision than a drill; it cannot be used to start a hole
4. a device resembling a compass, used for dividing lines and transferring measurements
5. a tool which rotates a grindstone at high speed to sharpen tools
6. a cutting tool used to create holes, held in a drill which rotates it
7. sets of thin steel strips of accurate thicknesses; they measure the gap between two surfaces
8. a piece of equipment for measuring something by adjusting movable arms to enclose it
9. a machine useful for fabricating parts that have a circular cross section; it rotates a part against cutting tools, controlling their position
10. a coarse file for use on metal, wood, or other hard material
11. an instrument used for cutting as well as welding metal
12. pincers with parallel flat jaws, used for gripping small objects or bending wire
13. a small flat piece of metal or other material, typically square or hexagonal, with a threaded hole through it for screwing on to a bolt
14. tools used for cutting threads in metal for inserting a screw

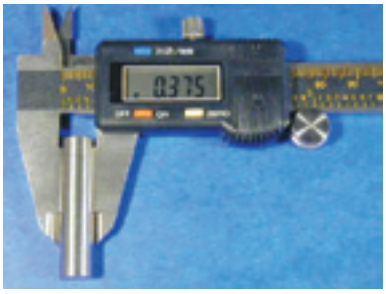
Cutting torch	Calipers	Lathe	Dividers
Pliers	Rasp	Reamer	Drill bit
Feeler gauges	Bench grinder	Hacksaw	Hammer
	Taps	Nut	

C. Naming game. Try to identify the tools you know. In groups of three, take turns and quickly say what hand tools you can see. The one who finds more tools wins.



D. What is shown in each picture?

sand paper, digital calipers, rubber mallet with wooden handle, grip pliers, chipping hammer, mini lathe

a) 

b) 

c) 

d) 

e) 

f) 

E. Describe what is happening in the pictures.

Student A: match the phrases to the pictures and write them in the space provided; then help your partner describe the pictures to you by giving him/her some key words.

1. processing material on a drilling machine
2. measuring with a micrometer
3. marking with a centre punch
4. cutting with a hacksaw
5. loosening a nut with an adjustable wrench
6. measuring an outer diameter with Vernier's calipers
7. working on the lathe

Student B: say what is happening in each picture. If you need help, ask your study partner to provide key words for each picture. Take notes and write them next to each picture before you start your description.

a) 

.....
.....
.....
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b) 

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c) 

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d) 

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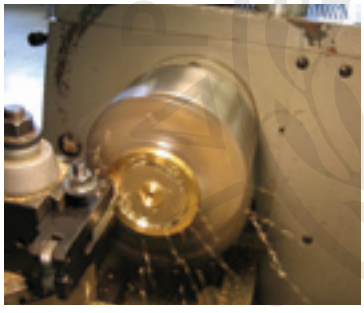
e) 

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f) 

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.....
.....

g) 

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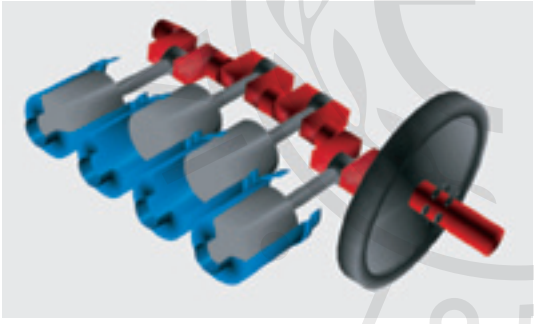
.....

2. Marine Diesel Engine Components

Lead-in: Check what you know.

A. Discuss in class and choose the correct alternative.

1. The Diesel engine is
   a. an internal combustion engine
   b. an external combustion engine
2. The Diesel engine is
   a. a spark ignited engine
   b. a compression ignited engine
3. Marine Diesel engines burn
   a. heavy fuel oil
   b. petrol
4. Two-stroke marine Diesel engines work on
   a. slow speed – up to 300 rpm
   b. high speed – over 900 rpm
5. In the figure below, find the following and show them with an arrow
   a. the crankshaft
   b. the pistons
   c. the cylinders
   d. the flywheel



6. This is a picture of main engine spare parts. What parts can you identify?
   a. Piston rings, bearing and connecting rod
   b. Cylinder liners, piston and piston rod

7. This is a picture of
   a. a purifier room
   b. main engine cylinders

B. Vocabulary assessment.

i. Use the vocabulary development scale to rate the following words:

5 can explain and use in different contexts
4 use in a limited way in speaking/writing
3 understand the "gist" of it
2 recognize but don't understand
1 is unknown to me

combustion	operation	cycle
ignition	strokes	slide
component	friction	compression
rotate	reduce	principle
reciprocate	support	consist of

ii. Search the vocabulary assessment list to find the words defined below:

- move back and forth alternately: ……
- the process of burning: ……
- travels, a series of repeated upward or downward movements: ……
- move in a circle, turn around an axis: ……

Diesel Engines

The Diesel engine is a type of internal combustion engine. This means that the combustion of the fuel takes place inside the cylinder of the engine. The principle of operation of a Die-

sel engine is based on the fact that when the air in the cylinder is compressed, its pressure and temperature rise. Therefore, when the fuel is sprayed into the cylinder, it is self-ignited because of the compression heat.

There are two types of Diesel engines:

the ***four-stroke diesel engine*** and

the ***two-stroke diesel engine***.

In the four-stroke Diesel engine one cycle of operation of the engine is completed in four strokes of the piston. In the two-stroke Diesel engine the cycle is completed in two strokes of the piston.

The main parts of a Diesel engine are

– the pistons,
– the piston rods,
– the cylinders,
– the connecting rods,
– the crankshaft,
– the camshaft and
– the cylinder head with the valves.

C. Look at the following pictures of the main parts of Diesel engines and write the appropriate term under each picture. If you need help, look at the words in the box below.

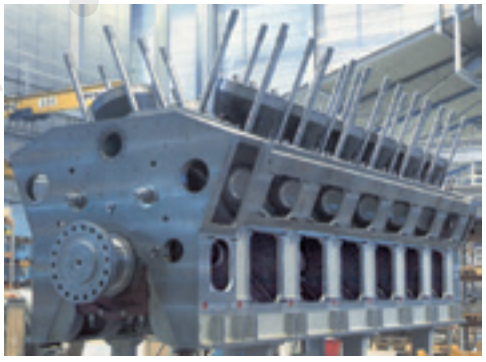
a) 

b) 

c) 

d) 

e) 

f) 

g) 

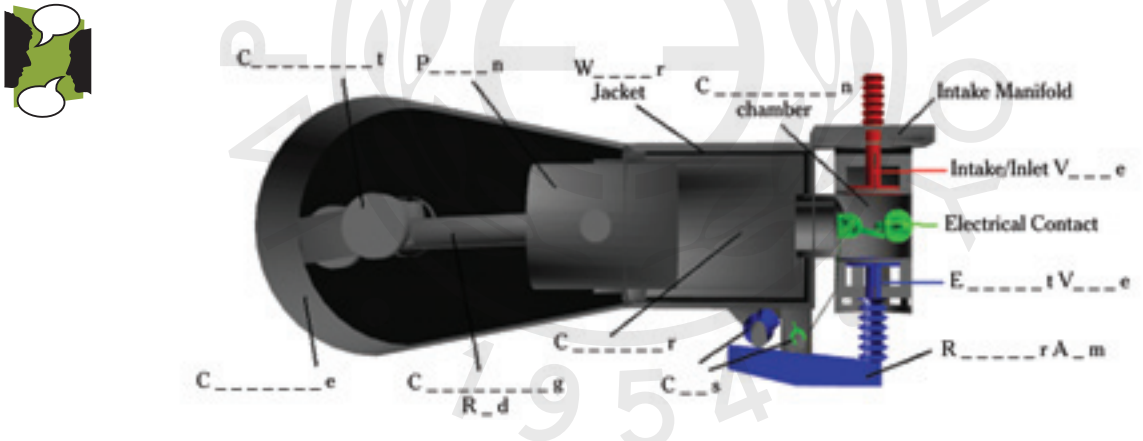
h)

i)

j)

camshaft / bearings / piston / piston rings / connecting rod / bedplate / crankshaft(s) / frame / cylinder head / cylinder liner

D. i. Write up the names of the components in the following graph.
ii. Work with your partner to say what each of these parts of the engine does. In your sentences use verbs such as those in the box below:



rotate, reciprocate, connect, change, compress, give motion, reduce, support, open, slide

E. Read the passage below and insert the correct form of the above mentioned verbs in the blanks. Use each verb only once.

The ***piston*** _____ inside the ***cylinder***. It _____ the air and _____ to the ***connecting rod***.

The cylinder has a ***cylinder liner*** which protects the cylinder and _____ friction.

The connecting rod _____ the piston to the ***crankshaft***. It is joined to the piston with the ***gudgeon (piston) pin*** and to the crankshaft with the ***crank pin*** and ***bottom end bearing***. The connecting rod gives motion to the crankshaft which _____ the reciprocating motion of the piston into rotating motion. The crankshaft consists of the

cranks, ***crank webs, crank pins*** and ***crank journals***. It _____ inside the crankcase which houses and _____ the crankshaft.

In two-stroke diesel engines the piston is attached to the piston rod which reciprocates in the ***stuffing box***. In these engines the ***crosshead*** connects the piston rod to the connecting rod. The crosshead _____ on the ***guider***.

The camshaft takes motion from the crankshaft through ***gear wheels*** or a ***chain*** and it _____ and closes the ***inlet*** (intake) and ***outlet*** (exhaust) valves in order to operate the cycle. The shaft is circular but the cams have an irregular shape. The inlet valve, exhaust valve and fuel injection valve are all housed (fitted) in the ***cylinder head***. The inlet valve is similar to the exhaust valve while the fuel valve is rather different in design.

F. Match the parts of a diesel engine to their function:

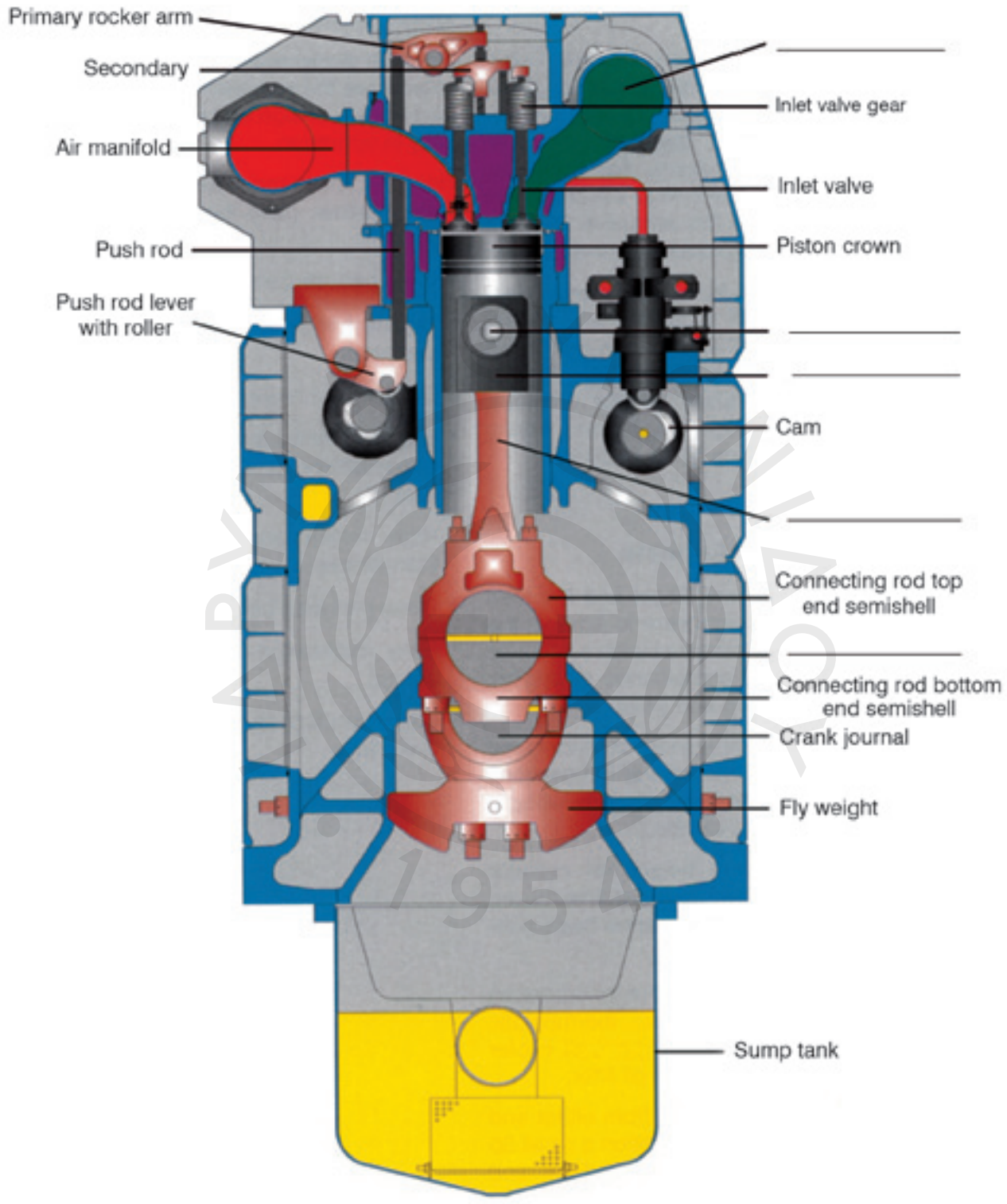
1. camshaft	_____ it gives rotating motion to the crankshaft
2. piston	_____ it rotates and gives motion to the propeller
3. cylinder liner	_____ it connects the piston rod to the connecting rod
4. connecting rod	_____ it supports the whole engine
5. gudgeon pin	_____ it opens the valves
6. crankshaft	_____ it reduces friction
7. crank pin	_____ it reciprocates in the stuffing box
8. crosshead	_____ it compresses the air
9. bedplate	_____ it connects the piston to the connecting rod
10. piston rod	_____ it connects the connecting rod to the crankshaft

G. Find the terms that the following definitions correspond to.

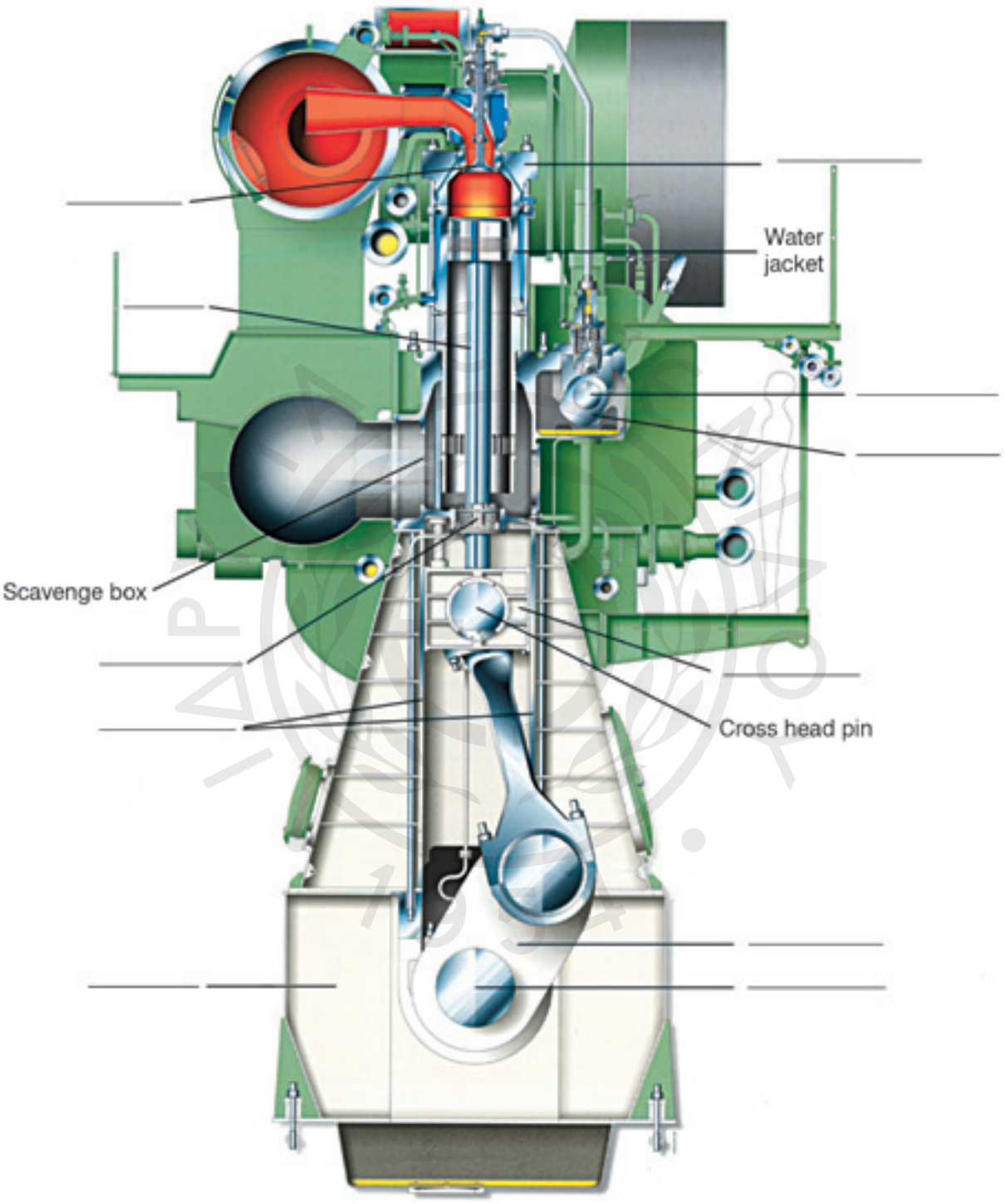
1. The crankshaft rotates in it: _____
2. The air is drawn into the cylinder through this valve: _____
3. The lubricating oil is in here: _____
4. The crosshead slides on them: _____
5. The gases escape through this valve: _____
6. It cools the cylinder externally: _____
7. The valves are fitted in it: _____
8. Parts of the camshaft having irregular shape: _____
9. It connects the piston rod to the connecting rod: _____
10. The camshaft opens the valves with the help of this rod: _____

H. Look at the cross section of a four-stroke Diesel engine and a two-stroke Diesel engine. Work with your study partner to insert the following missing terms.

- Crankpin
- Cylinder head
- Connecting rod
- Stuffing box
- Piston
- Crank web
- Bedplate
- Piston rod
- Guides
- Cam
- Crosshead
- Crank journal
- Air manifold
- Gudgeon pin
- Camshaft
- Exhaust valve



Four-stroke Diesel engine

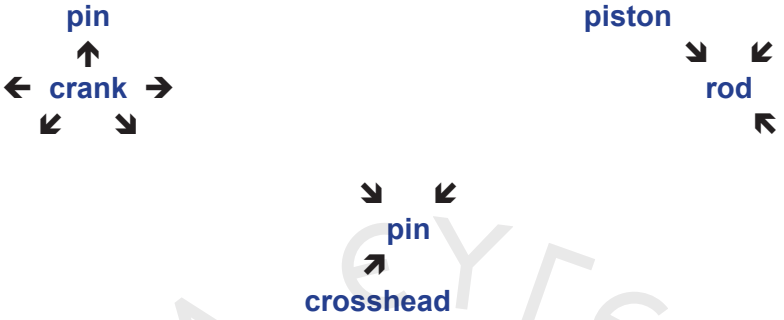


Two-stroke Diesel engine

• We can form compound nouns by combining two words

e.g. crank + pin = crank pin
piston + rod = piston rod

I. Complete the missing words in the diagrams below:



J. Form more compound nouns by matching the words of the 1st column with appropriate ones of the 2nd column.

1. air	_____ board
2. water	_____ proof
3. free	_____ list
4. fly	_____ tight
5. water	_____ ship
6. fire	_____ plate
7. check	_____ weight
8. diesel	_____ proof
9. light	_____ oil
10. bed	_____ line

The Most Powerful Diesel Engine in the World.

Two-stroke Diesel engines such as the Wärtsilä-Sulzer RTA96-C and the MAN B&W K108ME-C, are the most powerful Diesel engines in the world today, designed primarily for very large container ships. One type of the RTA96-C, for instance, powers Emma Maersk, a 11,000 TEU container vessel.

The Wärtsilä-Sulzer RTA96-C turbocharged two-stroke Diesel engine is available in 6 through 14 cylinder versions. Some facts on the 14 cylinder version[1]:

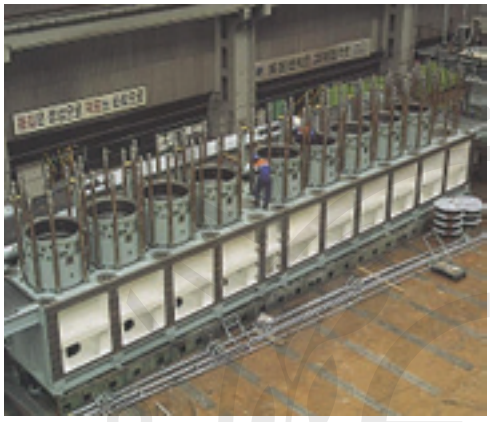
Total engine weight:	2300 tons
	(The crankshaft alone weighs 300 tons)
Length:	89 feet
Height:	44 feet
Maximum power:	108,920 hp at 102 rpm
Fuel consumption:	1,660 gallons of heavy fuel oil per hour.

1. Source of text and pictures: "The Most Powerful Diesel Engine in the World!" by Todd Walke.

– Look at the following pictures showing the building of the RTA96–C. Put the correct caption under each picture:

- Pistons
- Piston rods
- Piston and piston rod (the large square plate at the bottom is where the structure attaches to the crosshead)
- Cross section of the RTA 96–C
- The completed 12–cylinder engine
- The cylinder deck (10–cylinder version)
- The crankshaft sitting in the bedplate
- The bearings; crank and rod journals are 38” in diameter and 16” wide.

a)



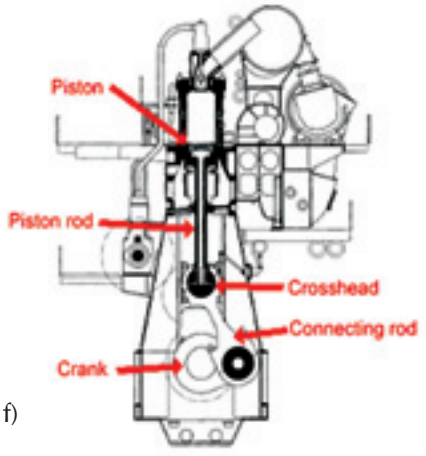
b)

c)

d)

e)

f)



g) 

h) 

3. Follow-up

A. Fill in the missing words. The first letter is given.

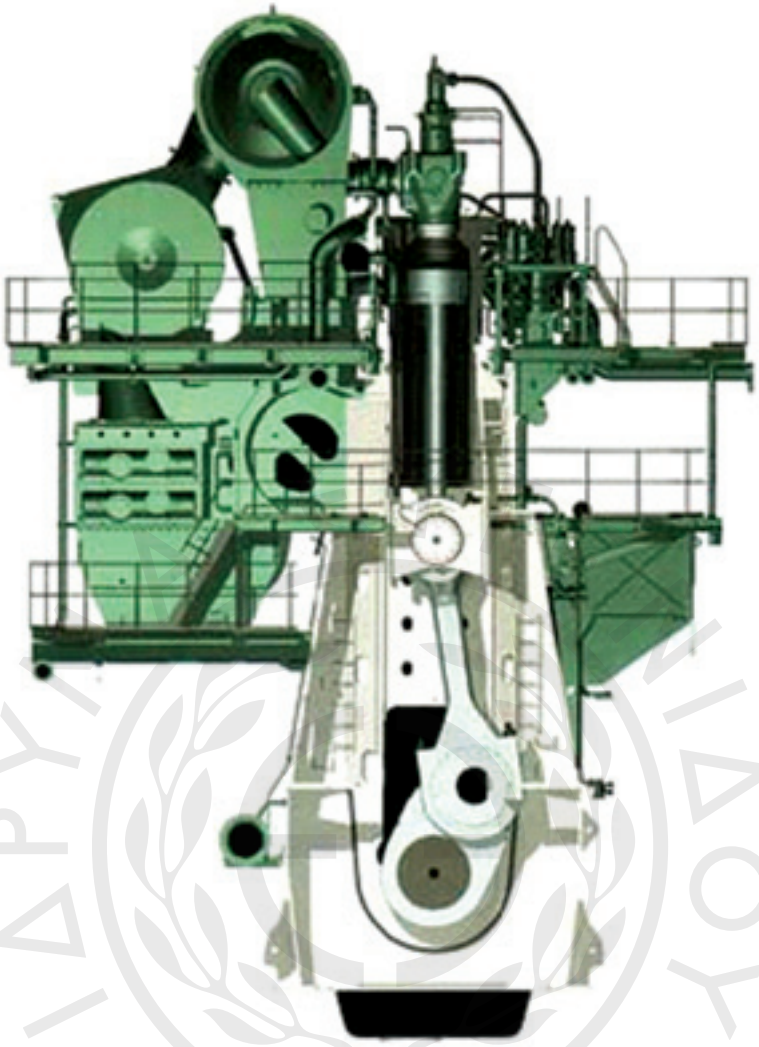
1. The c_____ liner forms the cylindrical space in which the piston reciprocates.
2. The b_____ is the foundation on which the engine is built; it supports the weight of the rest of the engine and houses the huge crankshaft.
3. The c_____ carries the cams which operate the fuel pumps and exhaust valves.
4. The c_____ is the part of an engine which translates reciprocating linear piston motion into rotation.
5. The Diesel engine is a CIE: C_____ Ignition Engine.

B. Ask and answer the following questions with your partner orally.

1. What / piston / do?
2. Where / piston rod / reciprocate?
3. Where / crankshaft / rotate?
4. Where / be / valves?
5. What / gudgeon pin / do?
6. What / the cylinder liner / do?
7. What / the crank pin / do?
8. What / open / valves?

C. Look at a two-stroke power plant. How many components can you show on this picture?

1. Draw arrows and write the names of the parts on the picture.
2. Use the picture to make a presentation. Show as many parts as you can to your class and try to explain their purpose.
   e.g. This is the …. It …. It is connected to ….



APPENDIX II
Pair-work: Student B material

Unit 2

Exercise D (page 31).

#1. Name:	
MMSI:	
Call Sign:	
#2. Name:	
MMSI:	
Call Sign:	
#3. Name:	
MMSI:	
Call Sign:	
#4. Name:	
MMSI:	
Call Sign:	

Exercise (d) (page 34).

Exercise (a) (page 44).

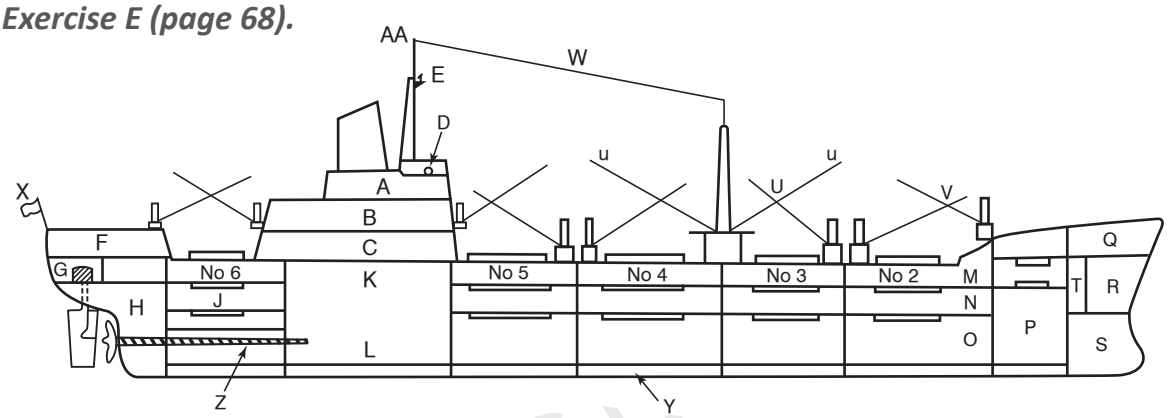
0730: *Get up*
0745: _____
0800: _____
1030: _____
1215: _____
1300: _____
1500: _____
2000: _____

Exercise C (page 57).

	A	B	C
Date:	23/08/2009	06/01/2010	15/02/2010
ETA:	0600	2055	1200
Loading starts:	0640	2145	1300
Cargo:	70,000 mt of grain	80,000 mt fuel oil	2,300 motor vehicles
Officer in charge:	C/O DELLIS	2/O STANGAS	C/O O'NEILL

Unit 3

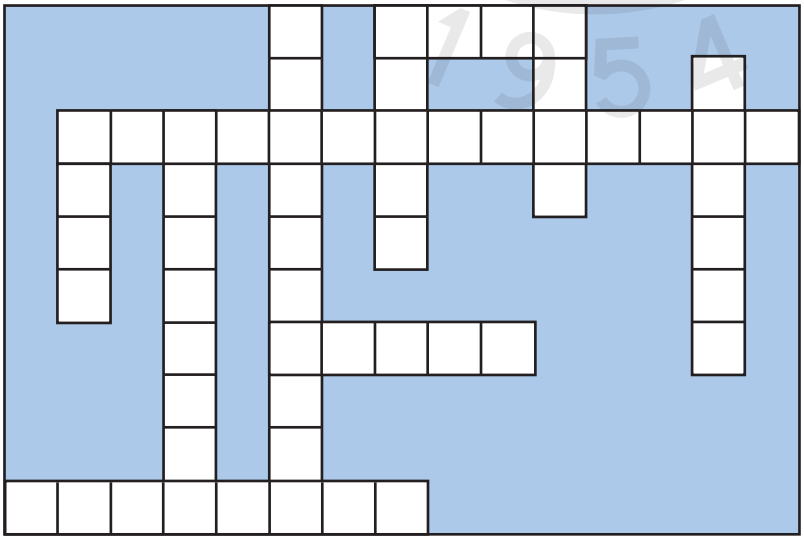
Exercise E (page 68).



GENERAL CARGO SHIP (longitudinal section) AA Flag of country in (courtesy ensign) Company's house flag Signal flags and lights		
A Captain and passengers	K Refrigerating machinery	T Chain locker
B Officers' accommodation	L Engine room	U Derricks
C Crew accommodation	M No 2 upper 'tween deck	V Crane
D Wheelhouse and chart room	N No 2 lower 'tween deck	W Radio aerial
E Radar scanner	O No 2 lower hold	X National flag
F Cargo space	P Deep tank	Y Double bottom
G Steering gear	Q Store	Z Propeller shaft
H Aft peak tank	R Bosun's store	
J Refrigerated Cargo	S Fore peak tank	

Exercise E (page 84).

– American Crossword.



4 LETTERS
STEM-HOLD-DECK
5 LETTERS
HATCH-STERN
6 LETTERS
BRIDGE
8 LETTERS
POOPDECK-BULKHEAD
10 LETTERS
FORECASTLE
14 LETTERS
SUPERSTRUCTURE

Unit 4

Exercise G (page 118).

P	I	L	O	T	T	E	N	D	E	R	I	E
I	T	U	L	F	I	T	A	S	O	P	H	A
S	U	R	V	E	Y	S	H	I	P	E	Y	V
A	G	O	Q	W	B	R	E	C	U	R	W	O
R	P	A	C	R	U	I	S	E	S	H	I	P
V	O	X	C	V	L	B	N	B	M	L	K	A
E	Z	S	D	F	K	G	H	R	O	R	O	S
S	R	T	V	L	C	C	J	E	Q	Z	B	D
S	I	F	U	W	A	L	K	A	M	X	O	F
E	D	H	F	E	R	R	Y	K	N	C	J	G
L	I	C	N	I	R	P	O	E	B	V	H	L
C	O	N	T	A	I	N	E	R	S	H	I	P
T	B	S	E	F	E	O	H	T	I	N	U	G
R	E	E	F	E	R	F	C	A	R	T	Y	E

Unit 5

Exercise (b) (page 124).

life boat	**life buoy**	**fire alarm**
	eye rinse station	**clean up equipment**

Unit 6

Exercise (d) (page 151).

Bogota (Colombia) to Quito (Ecuador)	747 km
Quito to Lima (Peru)	1.330 km
Lima to Santiago (Chile)	2.441 km
Santiago to Buenos Aires (Argentina)	1.138 km
Buenos Aires to Brasilia (Brazil)	2.350 km
Brasilia to Caracas (Venezuela)	3.586 km
Caracas to Bogota	1.031 km
	Total: 12.623 km

Exercise (c)2 (page 153).

	City, Country	Latitude	Longitude
1	Genoa, Italy	44°N	8°E
2	Marseille, France	43°N	5°E
3	Barcelona, Spain	41°N	2°E
4	Valencia, Spain	39°N	0°W
5	Cartagena, Spain	37°N	0°W
6	Gibraltar	36°N	5°W

Review 2 *(page 176)*

PYROTECHNICS LIFE SAVING & FIRE FIGHTING MAINTENANCE INVENTORY CARD	
BRIDGE ROCKET PARACHUTE FLARES (3 Years Duration) 12 Pcs	Manufacture date: 03/2006 *Expiry Date:* *07/2009*
LIFEBOAT ROCKET PARACHUTE FLARES (3 Years Duration) 2+2 Pcs in lifeboat	Manufacture date No 1 04/2005 + 06/2006 Expiry date 04/2008 + 06/2009
LIFEBOAT HAND FLARES (3 Years Duration) 6 Pcs in each lifeboat	Manufacture date No 1 05/2005 Expiry date 05/2008
LIFEBOAT BUOYANT SMOKE SIGNALS (3 Years Duration) 2 Pcs in lifeboat	Manufacture date No 1 05/2005 Expiry date 05/2008
QUICK RELEASE DEVICES ON BRIDGE WINGS (MAN OVERBOARD) (3 Years Duration)	Manufacture date PORT : 04/2006 STBD : 04/2006 Expiry date 07/2009 07/2009
LINE THROWING APPLIANCES (3 Years Duration) 4 Rockets	Manufacture date: 05/2006 *Expiry date:* *05/2009*
LIFEBOATS FRESH WATER (Change every 3 months)	Date of last change: TO BE REPLACED NOT LATER THAN 5 YEARS
LIFEBOATS FOOD RATIONS (Replace every 5 Years)	Date of Manufacture: 02/2006 *Expiry date:* *01/2011*

LIFERAFTS AND AUTO - RELEASE SYSTEMS (Servicing annually) NEXT SERVICE 2 PCS 06/2008 2 PCS 03/2009	Date of last Service STBD SIDE (2 L.Rafts) :08/2007 NEXT 08/2008 PORT SIDE (2 L.Rafts) :08/2007 NEXT 08/2008 MAIN DECK 08/2007 *(Without Auto Release)* NEXT 08/2008
LIFE JACKETS BATTERIES (Replace every 5 Years)	Expiry date: 1/2010
E.P.I.R.B. BATTERIES	Expiry date: 08/2011 *Auto Release System Expiry Date: 08/2008*
RADAR TRANSPONDER BATTERIES	Expiry date: 03/2009
FIRE EXTINGUISHERS (Servicing annually)	**Date of last service** Foam :09/2007 CO_2 :09/2007 Dry Powder :09/2007
FIXED FIRE SMOTHERING SYSTEM (Servicing every 2 Years)	**Date of last service** CO_2 :N/A **Foam :09/2006 MAN.DATE JULY/06** Halon N/A
HYDRAULIC TESTS (According to intervals specified by Greek Administration) – All portable fire extinguishers and bottles for fixed CO_2 system should be hydraulically tested every 10 years. – The air bottles of Breathing Apparatus should be hydraulically tested every 5 years. – The gas cylinders (CO_2) of the liferafts should be hydraulically tested every 5 years.	**Date of Last Test** Portable CO_2 Bottles 02/2006 & 1PC 8/2006 Portable Foam Bottles: 12/2005 Portable D.Powder Bottles 20 PCS 07/04,5 PCS 10/05,1 PC 02/05, 2PCS 08/05 & 33PCS 12/05 Fixed CO_2 System Bottles N/A ***Next Test*** ------ Air Bottles of Breathing apparatus ***Next Test*** *AUG/10* Gas (CO_2) Cylinder of life rafts ***Next Test*** *DEC/10*

Review 3 *(page 232)*

PILOT CARD

SHIP'S PARTICULARS

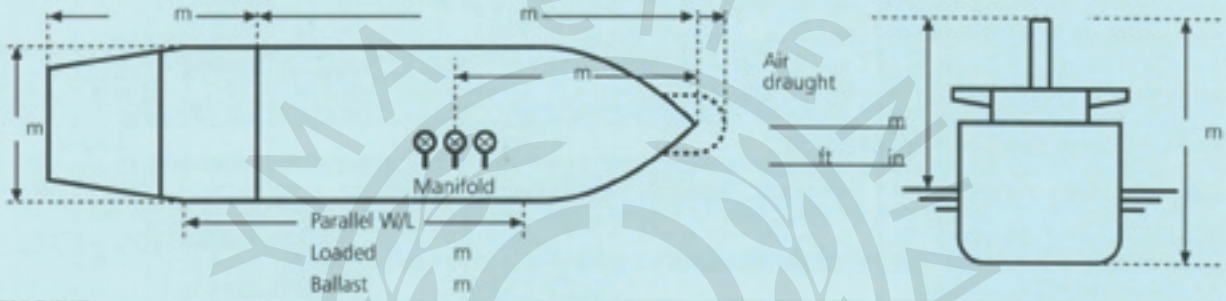
Name LAZY LIZARD Call sign SGYZ7

Displacement 61.002 (tonnes) Deadweight 116.050 (tonnes) Year built 2008

Length OA 256 (m) Breadth 45 (m) Bulbous bow: yes

Draught fwd 7,5 (m) Draught aft (m) Draught amidships (m)

Port anchor (shackles) Stbd anchor 14 (shackles) (1 shackle=27.4 m/15 fathoms)



ENGINE

Type of engine SULZER 12 RTA (DIESEL) Maximum power 42.000 (kW) 57.000 (HP)

	rpm/pitch	loaded speed		ballast speed	
Full ahead	62	15	(kts)	16	(kts)
Half ahead	53	12	(kts)	13	(kts)
Slow ahead	44	9	(kts)	10,3	(kts)
Dead slow ahead	30	8	(kts)	8,6	(kts)
Dead slow astern	30				
Slow astern	44				
Half astern	53				
Full astern	62				

(% of full ahead power)

Engine critical rpm Maximum number of consecutive starts 23

Time full ahead to full astern (sec) Time limit astern (min)

APPENDIX III
Audio Material Transcripts

Audio • CD tracks

CD 1

1. Unit 1 Exercise 1A
2. Unit 1 Exercise 1B
3. Unit 1 Exercise 2A *(speaker 1)*
4. Unit 1 Exercise 2A *(speaker 2)*
5. Unit 1 Round-up, Exercise C
6. Unit 2 Exercise 1A
7. Unit 2 Exercise 1B
8. Unit 2 Exercise 1C
9. Unit 2 Exercise 1E
10. Unit 2 Exercise 2A
11. Unit 2 Exercise 2B
12. Unit 2 Exercise 4B
13. Unit 2 Language Awareness III, Exercise (a)
14. Unit 2 Language Awareness III, Exercise (c)
15. Unit 2 Exercise 6(a)
16. Unit 2 Section 7, Exercise I(a)
17. Unit 2 Section 7, Exercise II(a)
18. Unit 2 Section 7, Exercise II(a)
19. Unit 2 Section 7, Exercise III(a)
20. Unit 2 Section 7, Exercise III(a)
21. Unit 2 Section 7, Exercise IV(a)
22. Unit 2 Section 7, Exercise IV(a)
23. Unit 3 Exercise 4B
24. Unit 3 Round-up, Exercise F
25. Review 1 Part One, Exercise 1
26. Review 1 Part One, Exercise 3.i
27. Review 1 Part One, Exercise 3.ii
28. Review 1 Part One, Exercise 4A
29. Review 1 Part One, Exercise 4B
30. Review 1 Part One, Exercise 5D

CD 2

1. Unit 4 Exercise 3C
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CD 1

Unit 1: The Seafarer

Exercise 1A ***"Seaman's book questions"*** (page 10)

1. What is your surname?
2. What is your first name?
3. Where are you from?
4. What is your date of birth?
5. What is your seaman's book number?

Exercise 1B ***"Welcome on board dialogue"*** (page 10)

Captain: *Welcome on board. I am Captain Fotiou.*
2nd Engineer: *Good morning, Captain. I am the new Second Engineer.*
Captain: *What is your surname?*
2nd Engineer: *Lontaris.*
Captain: *And what is your first name?*
2nd Engineer: *Michael.*
Captain: *Do you have your seaman's book?*
2nd Engineer: *Yes. Here, Captain.*

Captain: *What is your seaman's book number?*
2nd Engineer: *ST 64990.*
Captain: *Where are you from?*
2nd Engineer: *I'm from Greece.*
Captain: *Oh, OK. There are four more Greek crew members on board. Greek seafarers have a good reputation. What is your date of birth?*
2nd Engineer: *11th May 1984.*
Captain: *Are you married?*
2nd Engineer: *Yes. I am married.*
Captain: *Do you have children?*
2nd Engineer: *No, I don't sir.*
Captain: *First we have a period of familiarisation; you must become familiar with the vessel and especially its safety equipment. But now, let's go and meet the Chief Engineer.*
2nd Engineer: *Thank you, sir.*

Exercise 2A ***"Two seafarers introduce themselves"*** (page 17)
Hello, my name is Yiannis Alexiou and I am the Chief Mate on the M/T "Maria". I am 40 years old and have a wife and two children. My wife is a doctor and my two twin daughters are 4 years old. I live in Thessaloniki, Greece and I am a fan of ARIS Salonika.

Hello, I am Fiona Briggs, the Second Mate on the Container Ship "Star". I live in Toronto, Canada. Toronto is a multicultural city of 2,5 million people from many different ethnic groups. I am 25 years old and this is my first voyage as a Second Mate. I am single but I want to have a family in the future.

Round-Up, Exercise C ***"Do you like it here?"*** (page 25)
A: ... so, you live in Piraeus now Vladimir?
B: Well, yes, 7 months now.
A: Do you like it here?
B: It's all right. But it's not the same as Moscow, of course. It's my hometown, you see, and I miss it.
A: And what is your job? I mean in Russia.
B: I'm a naval architect.
A: Oh, that sounds interesting. But, are you on holiday at the moment?
B: No, I'm supervising repair works in a shipyard.
A. Are you married?
B. Yes, I'm here with my wife, Natasha. We have a beautiful flat in Piraeus . Do you know the area?
A: Actually it's close to where I live. Let's have a drink sometime. Are you on the phone?
B: Yes, it's 210 5562310.
A: OK. Oh, sorry, what's your family name?
B: Motov. Give me a call, all right?

Unit 2: Working On Board

Exercise 1A ***"Read the names to me"*** (page 30)
Crew Manager: Good morning. This is Mr Black from the company's local office.
Captain: Good morning. This is Captain Fotiou , M/V Carol.
Crew Manager: I have the names of the new crew joining you in the next port of call.
Captain: Please read the names and nationalities. And their age, if it is possible.
Crew Manager: Of course.

NAME	RANK	NATIONALITY	AGE
PAREZ, Manuel	Bosun	Peruvian	43
VOLDUNI, Tony	Assistant Engineer	Italian	50
HAZEVELD, Henrik	Second Mate	Dutch	37

Captain: Repeat the first two names, please.
Crew Manager: PAREZ, Papa Alpha Romeo Echo Zulu. And VOLDUNI, Victor, Oscar, Lima, Delta, Uniform, November, India.
Captain: OK, thank you.
Crew Manager: One more thing, can we check some information on the crew list, please? I need the name and date of birth of the two French deck cadets.
Captain: The crew list? Stand by... Let me find the French deck cadets on the list. The first one is Jerry GOLDSMITH, Golf Oscar, Lima, Delta, Sierra, Mike, India, Tango, Hotel, and his date of birth is 4th January 1990. The second one is Carrie KAPLAN, Kilo, Alpha, Papa, Lima, Alpha, November,

and her date of birth is 2nd July 1988.
Crew Manager: Thank you very much. That's all for now. Goodbye.

Exercise 1B ***Maritime Phonetic Alphabet.*** (page 30)

A	Alfa	H	Hotel	O	Oscar	V	Victor
B	Bravo	I	India	P	Papa	W	Whisky
C	Charlie	J	Juliet	Q	Quebec	X	X-ray
D	Delta	K	Kilo	R	Romeo	U	Yankee
E	Echo	L	Lima	S	Sierra	Z	Zulu
F	Foxtrot	M	Mike	T	Tango		
G	Golf	N	November	U	Uniform		

Exercise 1C ***Names-*** answer key in bold (page 31)

- ARVANITIS or **ARVANITES**
- BAILEY or **BAILLEY**
- **PAPANIKOLAOU** or PAPANICOLAOU
- YIANNIOTIS or **GIANNIOTIS**
- **WHITE** or WHYTE
- **JACQUE** or JACKUE
- **FUIDIZI** or FUIDIXI

Exercise 1E ***VTS COMMUNICATION*** - answer key (page 32)

VESSEL'S NAME:	PACIFIC SPIRIT
CALL SIGN:	A8HQ2
SHIP'S FLAG:	LIBERIA
IMO NUMBER:	8600193
LAST PORT OF CALL:	MUNDRA, INDIA
DESTINATION:	PIRAEUS
NEXT PORT OF CALL:	LIVORNO, ITALY
VESSEL COMING TO PILOT STATION:	☐ YES TIME: 1030 ☐ NO
NUMBER OF CREW MEMBERS ON BOARD:	25
NUMBER OF PASSENGERS ON BOARD:	NONE
AMOUNT OF CARGO:	___4654_____ units ____6414,6____ metric tones
TYPE OF CARGO:	MOTOR VEHICLES

Exercise 2A ***Word stress: Months*** (page 32)

Exercise 2B ***Dialogue: Months*** (page 33)

A: When does the 1st semester finish at the Academy?
B: In a few months, in Fe**brua**ry.
A: In **Fe**bruary? That's very soon.
B: Yes, in **Fe**bruary. And my training service starts at the beginning of Ap**ri**l.
A: Oh, you mean **A**pril.
B: Yes, in **A**pril. My first voyage as a cadet starts in **A**pril.

Exercise 4B ***Numerical phrases*** – answer key (in bold) (page 35)

- **14.40** or 14.30
- **4th Engineer** or 4 engineers
- **3rd Officer** or Radio Officer
- 23rd or **23**
- **14th** or 40th
- the fifth vessel or **the fiftieth vessel of the company**
- 15.00 or **13.00**
- **08.15** or 08.50
- 16th May or **6th May**
- **17.30** or 19.30

Language Awareness III, exercise (a) ***Daily Routine On board: The third officer talks about his day.*** (page 44)
Every morning I get up at 0730. I have breakfast at 0745 and then go to the bridge to take over the watch from the C/O. At 0800 I start my watch. I drink a cup of strong coffee at around 1030. At noon I hand over watch to the second officer. At 1215 I eat lunch in the galley. At 1300 I usually discuss matters that come up with the captain. Then I read magazines or listen to music, and usually I sleep at 15.00. I have free time until 20.00 when my next watch starts.

Language Awareness III, exercise (c) ***Daily work routine: Dialogue*** (page 45)
A: What do you do, Phil?
B: I work as an Inspector for the Port State Control of the port of Southampton.
A: What time do you go to your office?
B: I take the port minibus and I reach the office at around 0800 hours. You don't mind if I use "sea time", the 24-hour clock system, do you? It's a habit from work, you see. Well, then I arrange my schedule for the day. I usually perform two inspections per day, on a normal work day, that is.
A: What time is your first inspection?
B: At about 0900.
A: And what does it include?
B: I ask the crew questions about emergency procedures and drills, I check the ship's documents, particularly the crew identification and crew lists.
A: What time does the inspection finish?
B: It takes about 3 hours if nothing extraordinary comes up. So, I normally finish at noon.
A: What time do you have lunch?
B: I have lunch at around 1200. Then I normally start another inspection at 1300.
A: When do you finish work?
B: At 1700. Me and my colleagues usually meet at the office and review the day's inspections.

Exercise 6(a) ***Ranks and responsibilities*** (page 46)
[Chief Cook]: It is my job to decide on the menu and supervise meals.
[The Master]: I am in charge of everything and everyone on board. I do not stand a watch but in reality I am on duty 24 hours a day; I am also the last to abandon ship in case of a disaster. My work involves a lot of paperwork. And I pay the crew.
[Chief Officer]: I am second in command under the Master and take command if the Master cannot command the ship; I stand a watch on the bridge when the ship is at sea. My watch is usually the 4-8 watch and involves all ordinary work on the bridge; seeing that we steer the correct course, posting radar and visual lookouts and monitoring the navigational equipment and their readings. I also have to make sure that deck department equipment is in good working order.

Section 7, exercise I(a) ***Interview: Duties of an engineer cadet*** (answer key) (page 52)
– Overhauling is when you open up a machinery take out its parts and replace them to keep it working properly, after a certain amount of working hours.
– You do overhaulings in machinery such as a diesel generator, fuel oil purifier or fuel oil high pressure pump.
– You must learn how to operate the cargo oil pump turbine to discharge fuel to the shore connection.
– You normally work 8 hours and then rest in your cabin, but when a problem is caused you need to work over-time.
– Extra time is added to your normal hours when you are on stand-by before a terminal or sea passage, or for a special job, such as piston overhauling, which takes 8 hours.
– The Chief Engineer sends information to the company about fuel consumption and the PMS.
– Every morning the Second Engineer gives the orders to Third Engineers, the oiler, the wiper and the cadet, divides the overhaulings and the cleanings, and reports to the Chief Engineer.
– The cadet must know all the valves we open and the pipelines we use for bunkering.
– You take the fuel samples and send them to a chemical lab to check if there is water or contaminants.
– Special ratings, such as technicians, come to do a special overhauling, such as replacement of Main Engine turbo charger.
– The fitter does all the welding for the pipes, if they must be replaced because they have holes due to corrosion.

Section 7, exercise II(a) ***Two interviews: Lifeboat drills*** (answer key) (page 53)
– The first thing you learn as a cadet is where your muster station is.
– The Master supervises drills from the bridge.
– The role of the Master's messenger is to transfer information from the bridge to Officers. Nowadays, of course, there is VHF bridge-to-crew communication to do this.
– The Chief Officer is responsible for all the drills, since s/he is the Safety Officer.
– The Cadet must observe the lowering operation and assist A/Bs if necessary.
– When you enter the lifeboat you fasten your seat belt.

Section 7, exercise III(a) ***Two interviews: Duties of a deck cadet*** (answer key) (page 54)

– A cadet normally works four hours on deck and four hours on bridge, but s/he works mostly on the bridge if there are extreme weather conditions.
– Depending on his nationality, the Bosun is sometimes responsible for the deck cadet's duties on deck.
– You have too much work on deck, if the vessel is old.

Section 7, exercise IV(a) ***Two interviews: Roles of officers*** (answer key) (page 55)

	Interview 1	Interview 2
Name of vessel:	PROPONTIS	CHIOS
Type of vessel:	Clean tanker	VLCC
Cargo:	Oil products	Crude oil
Year built:	2006	-
Trading Area:	Baltic Sea	-
LOA (length overall):	-	337 metres
Breadth:	-	60 metres
Number & nationality of Second Officers onboard:	3, 2 Greeks and 1 Filipino	3
Number & nationality of Third Officers onboard:	1, Russian	None
Roles of Second Officers:	Designated as: Navigation Officer Safety Officer	Designated as : Safety Officer Navigation Officer GMDSS Operator
C/O designated as:	Cargo officer	Medical Officer

Unit 3: Ship Familiarisation

Exercise 4B ***"Places on board the Grampian Surveyor"*** (page 77)

Attention please. Welcome on board the Grampian Surveyor. I have a little information for you about the facilities on this ship. We are now in the lounge. The messroom and the galley are on this same level too. The hospital is one level up, on the upper deck. Please make sure you know where it is. There is a gym on the upper level too, and you can wash your clothes in the washing machines in the laundry, next to the gym. Finally, to familiarize yourself with the vessel, study the vessel information handbook in your cabin.
And, where are the liferafts captain?
The liferafts are on the Forecastle deck. Don't worry, there are six liferafts on board!

Round-Up, exercise F ***"PA announcement"*** (page 84)

Hello, ladies and gentlemen, this is your Chief Steward speaking. I'd like to welcome you aboard your Sealink ferry from Folkestone to Boulogne and wish you a pleasant and enjoyable trip with us. We are due to leave Folkestone in about five minutes and the journey to Boulogne will take approximately two hours. Our estimated time of arrival in Boulogne is 2.50 p.m. local time, that's 2.50 p.m. local time, and at the moment French time is one hour ahead of British time, so please remember to adjust your watches.
We are getting good reports of the weather in the Channel and in France, so we should have a calm crossing. Sun and temperatures of 30°C are reported on the French coast.
For your convenience on the journey, we would like to point out that there are a number of facilities available on board. There is a snack-bar serving sandwiches and hot and cold refreshments situated to the front of A deck, directly opposite the main stairway. There is also a restaurant serving hot meals situated on B deck, that's B deck, also at the front end of the ship. If you need to change money or cash travellers' cheques, we have a bank on board. You can find the bank on C deck, between the ship's office and the duty free goods. Passengers are reminded that the duty-free allowance they are permitted to bring into France is one litre of spirits, two litres of wine and 200 cigarettes.
Toilets are situated on B deck at the rear of the ship and on A deck next to the snack-bar, I'll repeat that...toilets on B deck at the rear, and A deck next to the snack bar. For the children there is a games room on C deck next to the duty-free shop. Here, children can find a variety of electronic games, as well as table tennis and table football. A trained member of the crew will be there to supervise the room. Passengers are reminded that the lounge on B deck is for the sole use of passengers travelling with cars and that there is another lounge on C deck, at the front of the ship, for passengers travelling without cars.
Finally, ladies and gentlemen, we would like to wish you a pleasant journey and hope that you will travel with us again in the near future.

Review One (Units 1-3)

Part One, exercise 1 ***Welcome dialogue*** [C/M is Taiwanese, OS American] (page 86)

C/M: Welcome on board. I am the Chief Mate.
O.S.: Good morning Chief. I am the new OS.
C/M: Do you have your seaman's book?
O.S.: Yes. Here, Chief.
C/M: What is your seaman's book number?
O.S.: B 45 2198. And this is my passport.
C/M: What is your family name?
O.S.: Parker. Papa Alpha Romeo Kilo Echo Romeo.
C/M.: And what is your first name?
O.S.: Bob.
C/M.: Where are you from, Bob?
O.S.: I'm from Los Angeles in California.
C/M: Oh, OK. There is another American on board. The cadet. Are you married?
O.S.: No, I am not married.
C/M: What is your date of birth?
O.S.: 20th July 1979.
C/M: And where did you work before?
O.S.: I worked as a deck hand on the BRIGGITE, a Reefer.
C/M: What were your tasks in the previous vessel?
O.S.: Washing, cleaning and scrubbing the deck, oiling and sanding wooden parts, working with the chipping hammer and painting. I'm a good worker, Chief.
C/M: Good. I will guide you to the rating messroom to meet the Bosun. You will take orders from him. He will take you to your cabin and then you can go and meet the captain.
O.S.: Thank you Chief.

Part One, exercise 3.i ***Accommodation: Location of living quarters on 4th deck*** (page 90)

At the forward part of the fourth deck, there are the Captain's and the Chief Engineer's cabins. The Captain's cabin is on the starboard side and opposite it, on the port side, is the Chief Engineer's cabin. The Ship's Office is in the middle, next to the store room. Aft of the Ship's Office there is an escape route leading to the ladder and giving access to all the corridors. There are cabins on both sides of the corridors. The Chief Officer's cabin is on the starboard side, next to the Captain. And on the port side, between the Chief Engineer's cabin and the ladder, we find the Ship Owner's cabin.

Part One, exercise 3.ii ***ANNOUNCEMENT: Vessel Information*** (page 90)

Attention please. Listen everyone. This is important information. I want you to note these particulars and then familiarize yourselves with the ship's life saving equipment and emergency procedures. This ship's name is Maxim: Mike Alpha X-ray India Mike – and her call sign is CORE7: Charlie, Oscar, Romeo, Echo, seven. The vessel is only 2 years old and the port of registration is Rotterdam. It is an LPG carrier, and we have 24 crew members on board. I want you all to look at the Muster List and then locate your emergency muster station and check your life boats. The same goes for life jackets, life buoys and life rafts. Also, check the location of the fire-fighting equipment on board this vessel. Spend the rest of the day familiarizing yourself with the ship's safety features. Do not hesitate to ask if you have any questions. Thank you.

Part One, exercises 4A and 4B ***Parts of the ship: on a multi-purpose vessel*** (pages 90-91)

[part one] So, good day ladies and gentlemen. You have a picture now in front of you, a multi-purpose ship, also called a general cargo ship.

And if we look from the forward part and move to the aft part and identify a few things, we immediately can see in the very front, in the bulbous **bow**, the **forepeak tank**, where the captain sometimes stores water used for ballasting or for trimming the ship.

At forward we also have a thruster, it is called, No 38, **a bow thruster**, and some ships beside the bow thruster forward also have a stern thruster in the aft part of the ship. But this ship does not have that here.

What else do we see? Well, a very important thing is **the anchor or the windlass** up on the forecastle of the ship. The anchor is used of course when the ship needs to be staying in position at the port anchorage area waiting to go alongside to do cargo handling. The windlass is also used for handling the mooring ropes to make sure that the ship can stay alongside the quay while she is in the port.

No 34 is **a breakwater bulkhead** to prevent the green sea to roll into the # 2 and # 1 holds and maybe enter into the cargo compartment. But to protect the cargo hold we have No 32, the hatch covers. Here's a little bit of a strange identification, or words. **Hatch cover** and **hatch opening** and **hatch coaming** is usually the entrance into the cargo hold. So, separate between hatch (the opening), and hold that is the whole compartments for taking the cargo.

We forgot maybe No 33, where we have **the navigational lights** at **the forward mast**. There is also an **aft mast**,

No 9, where the ship also has some navigational lights, depending on the size of the ship, so that other ships can identify our ship when it's dark.

[full description]
Back to **the cargo hold**, and we have in # 1 hold bulk cargo, [No] 30, that has been loaded. Bulk cargo is sometimes loaded in multi-purpose ships or general cargo ships but mainly, of course, you see the bulk cargo in purpose-built ships, in bulk carriers that are made to move bulk cargo.
No 28 is a very sensitive point, particularly when handling **bulk cargo**. It is the hatch coaming. Bulk cargo is usually unloaded with a grab and the poor people sometimes touch the hatch coaming, [No] 28, with a grab and if they do the hold will not be watertight any more. The hatch covers, [No] 32, will not cover up the hold to prevent the green sea from entering. So, one has to be very careful in maintaining the hatch coaming for this reason.
In the other hold, No 2, they have loaded, in [No] 26, **containers**, containing general cargo. And you can see that also No 25, that **tank top** is the floor in the hold where the captain has stored his cargo, in this case containers.
So, what else, if we continue our voyage to the aft of the ship, we have No 22. Many cargo ships have a lot of **fans** in order to assure that humidity (sweatening) is taken away from the cargo compartments because the wetness can of course destroy the cargo, and particularly if the cargo is as in No 20, rolls of paper.
No 19 shows you that in the cargo hold we have a tweendeck, **a tweendeck** separating the cargo hold in a lower hold and a tweendeck to store different cargoes.
And the cargo No 18 is called project cargo, usually a cargo with very strange configurations and usually very heavy and difficult to handle when both loading and unloading the cargo. [No] 16 is **a vertical bulkhead**, this is what we call it, and [No]15 you see another bulk cargo loaded.
No 4 is very important, we have to have fire extinguishers and No 4 shows how **CO2 (Carbon Dioxide) bottles** are stored for use in case there is a fire on board the ship.
And No 3 is of course very important. This is **the engine room** that makes the **propeller**, No 2, to rotate, to make the ship go forward. There are many different types of propellers, either you push or you pull the ship forward, depending on how the propellers are constructed.
In the very end of the ship you see the rudder. The rudder is of course a tool for changing course, changing direction or the heading of the ship when she moves into the water. And this rudder is controlled from the bridge, where the navigational activities take place on the very top of the aft part of the ship.
You also have in the aft part No 5 that is **a man overboard lifeboat**. And if there is, for instance, a lot of fire in the water, because oil has been coming out around the ship, it's very clever to go to No 6 instead, that is a free fall lifeboat. And, as you can see, that boat is covered, so people can stay inside there and sail in water that is full of flames from oil that has caught fire.
In the aft you see also No 8, that is **the funnel** from where the exhaust gases from the engine room are guided into the environment and we get air pollution that is very much discussed in today's shipping.
So now we have moved from the forward part to the aft part and identified some important things that we see. So, I wish you good luck with your future studies. Thank you.

Part One, exercise 5.D ***EU and the Maritime profession*** (page 96)
In his speech for Hellenic Maritime Day 2007, entitled "Shipping and the EU in the 21st cetnury – Quality Shipping", Jacques Barrot emphasizes the importance of shipping for Greece and the EU. He mentions that the maritime sector is considered a matter of national honour in Greece. "And rightly so," he adds, "since the fleet controlled by Greek interests is the biggest in the world. The tonnage under the Greek flag represents almost one fourth of the total tonnage under the EU flags. More than 600 ships are currently under construction for Greek owners and many will be flagged under the Greek flag" (p. 2-3)

The vice-president stresses two of the main issues regarding maritime transport that the Commission is interested in:

– how to further improve the quality and competitiveness of EU shipping
– how to attract young people to the profession

The vice-president puts emphasis on the fact that "all economic forecasts show that the sector has the potential for constant progress and expansion. However, there is a threat coming from the inside: the increasing shortage of European seafarers (particularly officers).This shortage and the decreasing maritime know-how represent a real threat not only to the maritime profession itself but also to the entire maritime cluster" (p.8).

After drawing attention to the proposals presented by the Commission in its "3rd maritime safety package", he finishes his talk by highlighting the "main challenges for European shipping in the future. The first, and most urgent challenge, is the human element. It is urgent to attract, train and maintain European professionals, both on board ships and ashore. Without adequate and qualified human resources, European shipping will suffer and decline" (p.9).

CD 2
Unit 4: Types of Vessels

Exercise 3C ***"The Lash vessel"*** (page 112)
LASH means lighter aboard ship. LASH vessels have a huge 500 ton crane on the main deck. The holds are divided into cells to make room for the LASH barges which the crane plucks from the water at the stern of the ship, carries along the deck and stows in the ship's cells for the voyage. LASH barges are loaded at inland rivers and ocean ports. The barges are then towed to meet the LASH mother vessel and lifted aboard. When the mother vessel arrives at its port of destination the huge crane lowers the lash barges into the water, where they are towed to their final destination. That way the LASH ships can load and unload very quickly. A lash ship does not need to tie up to a port during discharging. It's like a bigger version of container ships; in this case, the container is a 60-foot steel lighter, which can be quickly launched over the ship's stern.

Exercise 4B ***"Auxiliary vessels"*** (page 116)
We are going to look at some examples of auxiliary vessels.
First, we will consider **tugs**. Tugboats are relatively small ships with a large pulling power. A common characteristic of all tugboats is their low aft deck. This is to provide the towing wire with some freedom of movement.

- Seagoing tugs are used for:
  - salvage,
  - towing,
  - anchor handling in the offshore industry,
  - environmental service and
  - assistance to ships with engine and/or steering problems.

Tugs can tow to a position at sea any floating object, like partly completed ships, floating wrecks, docks, drilling rigs and other large objects.

- Escort tugs are used to escort large ships along dangerous passages. They have been developed after a number of serious tanker accidents in recent years. Escort tugs operate in confined coastal waters and are small seagoing tugs that can push or pull a large ship away from a dangerous area when its own propulsion is not sufficient.
- Harbour tugs are used in ports, inland waterways and coastal areas for:
  - assisting and towing vessels in and out of ports
  - salvaging, or assisting in salvage in ports or coastal waters
  - fighting fires and environmental disasters
  - keeping ports free of fixed ice

Secondly, we move to the **icebreaker**. Icebreakers are similar to tugboats; a large engine power in a relatively small ship and moreover they are fully equipped for towage and salvage. Their main function is to cut a channel through an ice-layer at sea, in a port, a river or other (inland) waterways.
Finally, another important type of auxiliary vessel is the **pilot boat**. Entering and departing of a port needs to be carried out in a safe way. The ship's crew often has limited knowledge of local conditions. Dangers, recent changes, customs and rules are different from port to port or changing continuously. Therefore local knowledge is hired in. Usually this is a pilot coming on board just before entering the particular port. That pilot can be boarded or debarked by

- a tender (small fast boat) coming from the actual port,
- a pilot boat at station at sea, close to port,
- –a helicopter (often only for very large ships)

From shore, a ship can get directives how to manoeuvre from a so-called Vessel Traffic Service (VTS). A VTS controls the shipping using a shore-radar system and radio communication. A shore-based controller informs the ship's crew and/or the pilot about possible hazards and about other traffic.

Round-Up, exercise D ***"What type of ship do they work on?"*** (page 118)
Speaker 1: I like my work, but we work for many hours every day. It's really hard. Loading is done by means of pipes.
Speaker 2: I work on a ship that is really nice. It's very big and has many facilities, bars, restaurants, swimming pools, etc. Plus I get to meet a lot of people every day.
Speaker 3. Dockside big gantry cranes do the loading for my ship. Everything is automatic, well organized and quick. Loading takes only 6 to 8 hours, so we don't stay in port for long.
Speaker 4: We usually transport grain, but sometimes we may transport other products, like iron-ore. It depends.
Speaker 5: Whenever ships are in trouble we go. I like my job and the good thing is I don't have to be far from home for a long time.
Speaker 6: We carry meat on my vessel and we are careful to keep the correct temperature.
Speaker 7: The captain needs someone to guide him in the harbour or in narrow waters. That's when he asks for my vessel.

Speaker 8: The vessel I operate is a specialist one. It's also noisy and dirty. You use it when there is mud in the sea or you need a deeper port.

Unit 5: Safety Equipment On Board

Language Awareness, exercise (a) ***Word stress patterns of life-saving appliances*** –answer key (page 124)


life raft


fire hose


life jacket


First Aid box


fire extinguisher


breathing apparatus


emergency telephone

Exercise 3A ***Safety on Board [SMCP B2]:*** **Oral commands that mention life-saving items** (answer key in bold) (page 127).

[general emergency activities]

1. Operate the **general emergency alarm** / fire alarm.
2. All officers to go / **report** to the bridge.
3. Watchkeepers remain at **stations** / locations until further order.
4. Take **lifejackets** / life rafts with you.
5. Take your emergency equipment with you according to the safety list / **muster list**.
6. Follow the safety routes / **escape routes** shown.
7. Do not go to the **lifeboat stations** / lifebuoy stations before ordered.
8. Provide first aid in the vessel's office / **hospital**.
9. Watchkeepers to **assembly** / eye rinse stations.
10. Put on your emergency suits / **immersion suits**.
11. Passengers and crew! Follow the lifeboatmen to the lifeboat stations on the operation deck / **embarkation deck**.
12. Throw **overboard** / onboard number 2 liferaft and report.
13. Salvage boat / **Rescue boat**! Assist number 2 liferaft and report.
14. Report the **total number** / whole number of persons in liferaft.
15. Fire rockets for embarkation / **identification**.

[checking status of equipment]

16. Check the **lifeboat** / liferaft equipment and report.
17. Release / **Launch** number two lifeboat and report.
18. Replace the liferaft in the next dock / **port**.
19. Secure the **inflation cord** / operation cord of number 2 liferaft.

[fire protection and fire fighting]

20. Check the transportable / **portable** extinguishers and report.
21. Fire on board! Fire fighting team must have protecting clothing, smoke helmets and **breathing apparatus** / breathing mask.
22. **Stand by** / Retreat first aid team.

[SAR on-board activities]

23. Man overboard on port side. Drop lifeboat / **lifebuoy**.
24. Switch on **searchlights** / toplights.
25. Stand by life-saving apparatus / **line-throwing apparatus** and report.

Exercise 4(a) ***"Where is the safety equipment?"*** (page 128)

C/O: First, tell me about your lifejacket. Where is your lifejacket?
Cadet: In my cabin, in the cupboard.
C/O: What about the lifebuoys? Can you tell me where they are?
Cadet: Yes, of course. On the deck railings, also on the bridge wings, and next to the pilot ladder.

C/O: Now, is there a Man Overboard boat on board?
Cadet: Yes, there is a rescue boat on the port side. In fact one of the lifeboats is a rescue boat.
C/O: And how many liferafts do we have on board?
Cadet: Let me think. Six liferafts.
C/O: How do we check that the liferafts are operational?
Cadet: Sorry, can you repeat the question, please?
C/O: When do you check that they work all right?
Cadet: Oh, during an abandon ship drill. That's when you release and launch the liferafts to check if they are operational.
C/O: Good. Tell me, how many hand flares are there inside the lifeboats?
Cadet: There are six hand flares. There are also four parachute flares and two smoke signals.
C/O: Where is the line–throwing apparatus?
Cadet: On the bridge, behind the chartroom.
C/O: Let's now move on to fire fighting. What is a fire plan?
Cadet: The fire plan is a diagram that shows the location of fire-fighting equipment on board.
C/O: OK. Where are the fire plans? Give me an example.
Cadet: In a special weather-proof container outside the entrances to the accommodation.
C/O: Where is the fireman's outfit?
Cadet: In the muster station.
C/O: And, in the galley, what fire-fighting equipment can you find in the galley?
Cadet: There is a fire blanket, and also a fire-extinguisher next to the door.
C/O: Ok, that's excellent. One last question. Where is the hospital?
Cadet: On the second level, next to the laundry.

Exercise 4(g) ***Checking the condition of LSAs: Inventory of Safety Equipment*** (page 132)

C/O: Come in. Have you inspected the safety equipment?
3rd/O: Yes, Chief, everything is in good working order.
C/O: Good. I need to fill in some expiry dates on the inventory. Can you help me with that?
3rd/O: Of course. I have my checklists right here.
C/O: Let me fill in the date on the inventory first; today is the 25th of March 2008. Now, let's see. Oh, yes. The batteries. I'm always a bit concerned about batteries. Do we need to change any of them? I can see here that the expiry date of the batteries for the Radar Transponder is March 2009, in one year's time, is that correct? OK. What about the EPIRB battery?
3rd/O: That expires in August 2011. And the batteries for the portable two-way VHF, let me check, January 2012.
C/O: OK. What about the Immersion Suits? Do we need to replace any of them?
3rd/O: Not until October 2008.
C/O: October ..08. And, the line–throwing appliances?
3rd/O: The line–throwing appliances? All four of them expire in May 2009.
C/O: Fine. The First Aid Kit in the Free Fall Lifeboat, when is the expiry date for that?
3rd/O: January 2009.
C/O: Is there anything that has a short expiry period? Anything that expires within the next few months?
3rd/O: Well, the handflares in the free fall lifeboat expire in May, the release system of the port side liferaft expires in June, the auto release system of the EPIRB expires in August, and the Immersion suits, as we said earlier, in October.
C/O: Let me note these down. The handflares, yes they have a three year duration and the manufacture date was May 2005, so they expire in May 2008. The liferaft hydrostatic release expires in June 2008, and the EPIRB auto release in August 2008. And of course the immersion suits. I'll mark these with red letters, then. Good job, thank you.

SMCP: Distress, Urgency and Safety Signals

Section 5.II, exercise (b) Message #1 (page 139)

MAYDAY MAYDAY MAYDAY
THIS IS TWO-FOUR-ZERO-EIGHT-NINE-SEVEN-ZERO-ZERO-ZERO MOTOR VESSEL "AEGEAN ACE" CALL SIGN SIERRA VICTOR ALPHA TWO TWO NINE ZERO
POSITION THREE SEVEN DEGREES NINE FOUR MINUTES NORTH TWO THREE DEGREES SIX THREE MINUTES EAST
I AM ON FIRE AFTER EXPLOSION
I REQUIRE FIRE-FIGHTING ASSISTANCE
OVER

Section 5.II, exercise (b) Message #2 (page 139)
SÉCURITÉ SÉCURITÉ SÉCURITÉ
ALL SHIPS ALL SHIPS ALL SHIPS IN THE VICINITY OF MEDITERRANEO STATION
THIS IS TWO-THREE-NINE-EIGHT-THREE-TWO-ZERO-ZERO-ZERO MOTOR VESSEL "RAVENNA" CALL SIGN SIERRA X-RAY TANGO HOTEL
DANGEROUS WRECK LOCATED IN POSITION THREE NAUTICAL MILES NORTH OF MEDITERRANEO STATION
OVER

PA Announcements: Passenger Care

Section 5.III, exercise (a) Announcement 1 (page 141)
Ladies and gentlemen. This is Captain Antoniou speaking.
I have pleasure in informing you that all safety equipment is in full working order. The bow and stern doors are all closed and secured. The vessel is in all respects ready for sea. Please listen carefully to the safety instructions which follow. In the unlikely event of an emergency, please obey the orders given on the public address system.
Passengers are also requested to read all notes and leaflets concerning safety regulations.
Thank you.

Section 5.III, exercise (a) Announcement 2 (page 141)
Safety regulations do not permit passengers to enter the following spaces; navigating bridge, engine room, manoeuvring areas at the front and back end of the ship, all areas and spaces and compartments marked "Crew only". Please remember passengers are not allowed to enter car decks when the vessel is at sea. Thank you.

Section 5.III, exercise (a) Announcement 3 (page 141)
A drill will be held to familiarize passengers with their assembly stations, with their life-saving equipment and with emergency procedures. All passengers must attend this drill. Passengers will be taught how to act and behave in case of emergency.
When the general emergency alarm is sounded, which consists of seven short blasts and one prolonged blast, all passengers have to go to their assembly station. Take your lifejackets and blankets with you. Lifejackets are stored in your cabins under your beds and at your assembly stations. You are encouraged to try on your lifejacket.
Listen now to the instructions on how to put on your lifejacket and follow closely the demonstration given by the crew.

Pull the lifejacket over your head.
Tighten the strings well.
Pull the strings around your waist and tie in front.

Unit 6: The Voyage: Charts, Routes & Directions

Exercise 1A ***"1000 nautical miles in the Mediterranean"*** (page 149)
Master: Tell me about the route, Chief. Is it charted?
C/O: Yes, Captain. We'll be in the Mediterranean for another 4 days. It's a total distance of approximately 1000 nautical miles: starting from Italy, then France and finally Spain, before we reach the Straits of Gibraltar and follow their traffic separation scheme.
Master: Which ports do we visit before the Straits of Gibraltar?
C/O: Here, have a look. It's five ports. Genoa, Marseille, Barcelona, Valencia and Cartagena.
Master: OK, tell me about the distances.
C/O: Let's see. Genoa to Marseille 204 nm, Marseille to Barcelona 207 nm, Barcelona to Valencia 180 nm, Valencia to Cartagena 172 nm, and Cartagena to Gibraltar 237 nm.
Master: And the total...you said approximately 1000 nautical miles. Remember to check the fuel bunkers, will you?
C/O: Of course, sir.
Master: Any special circumstances we need to take into account?
C/O: Well, yes, we received on Navtex a warning that there is an ordnance exercise in the Balearic sea area. So, to avoid it we'll deviate slightly.

Section 1.I, exercise (a) ***Large numbers.*** (page 150)
1. 400.032
2. 14.444
3. 1.250
4. 70.077
5. 8.350
6. 4.500
7. 10.013
8. 2.200
9. 300.402

Section 1.II, exercise (c) ***Latitude and Longitude of European cities.*** (page 152)

	City, Country	Latitude	Longitude
1.	Helsinki, Finland	60˚N	24˚E
2.	Stockholm, Sweden	59˚N	18˚E
3.	Copenhagen, Denmark	55˚N	12˚E
4.	Amsterdam, the Netherlands	52˚N	4˚E
5.	London, UK	51˚N	0˚W
6.	Lisbon, Portugal	38˚N	9˚W
7.	Madrid, Spain	40˚N	3˚W
8.	Bern, Switzerland	46˚N	7˚E
9.	Rome, Italy	41˚N	12˚E
10.	Athens, Greece	37˚N	23˚E

Section 2.I, exercise (b) ***Helm orders*** (page 154)
#1. Midships.
#2. Meet her.
#3. Steady.
#4. Ease her.
#5. Steady as she goes.

Section 2.II, exercise (b) ***Course to be steered by compass*** (page 154)
#1. Port, steer one eight zero
#2. Starboard, steer zero five two
#3. Starboard, steer zero nine nine
#4. Port, steer one three zero

Section 2.III, exercise (b) ***Briefing before handing over watch.*** (page 155)
We are entering the port of Aden area; it's an area with heavy traffic.

As you can see on the display, our present position is Lat 12˚ 45.5′ N, Long 044˚ 57′ E.

ETA at the port dredged channel is 0715 hrs UTC. True course is 027˚ and speed over ground is 14 knots. Present maximum draft is 8.5 meters.
Port side radar is at eight miles range scale. Starboard radar is at 10 miles. The radar is at true-motion north-up representation. GPS is operational, Navtex is on and VHF DSC channel 70 and DSC controller are switched on, too.

What is a Nautical Chart[1]?

Exercise 3A ***[Part One]*** (page 157)
(INTRO) HOST: Welcome to Diving Deeper where we interview National Ocean Service scientists on the ocean topics and information that are important to you! I'm your host, Kate Nielsen.

Today's question is...What is a Nautical Chart?

Nautical charts contain information about the shape of the coast, the depths of the water and the general configuration of the bottom of the sea floor. Nautical charts also show locations of obstacles to navigation, the rise and fall of the tides, and locations of navigation aids. Nautical charts make safe and efficient marine transportation possible. To help us dive a little deeper into this question, we will talk with Tom Loeper about nautical charts – what they are, how they are developed, and why they are so important. Tom is the Chief for the Coast Pilot Branch in the Office of Coast Survey. Hi, Tom, welcome to our show.
TOM LOEPER: Thank you Kate for inviting me here to talk more about nautical charting.

(DEFINING NAUTICAL CHARTS)
HOST: First can you explain to us the difference between a map and a nautical chart?

TOM LOEPER: Kate, that's a good question. There are many differences between a map and a nautical chart. A map is focused more on what is on the land where a nautical chart shows what is under, in, on, and around the water. Nautical charts help mariners travel safely on the water where maps are focused more on helping people travel from place to place on land. Other differences are that nautical charts are working documents. Mariners add course lines, they add turning points and waypoints. They are legal documents that can be used in a court. Maps can be many sizes and formats like a road atlas for example. The paper charts used on many ships are variable in size and they can be relatively large – some as big as three feet by four feet. Regulated vessels are required to keep charts and publications updated using weekly Local Notice to Mariners.

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1. Source: Podcast "Diving Deeper : Episode 5 (Mar. 23, 2009) — What is a Nautical Chart?", Weekly news of NOAA (US National Oceanic & Atmospheric Administration) National Ocean Service.

HOST: Tom, you mentioned the Local Notice to Mariners in your last response. Can you explain to us a little bit more about what this is?

TOM LOEPER: A Local Notice to Mariners are weekly corrections to nautical charts that are published by each Coast Guard District. Mariners apply the corrections to their charts on a regular basis to keep them up-to-date. New chart editions are also announced in the Local Notice to Mariners.

HOST: I think what most of us are familiar with are the little numbers we see on nautical charts. What do these numbers mean?

TOM LOEPER: The numbers you see on a nautical chart represent soundings. Soundings are water depth measurements and they tell the user how deep the water is in that particular area in either feet or fathoms. A fathom is a nautical unit of measurement. There are six feet to a fathom. On a chart, sounding data with the same values are usually connected with a line known as a depth curve, similar to the topographic lines or surface features that you see on a map.

HOST: Tom, besides the depth readings that help with safe navigation, what other information is available on a nautical chart?

TOM LOEPER: Charts include locations of obstacles or dangers to navigation such as coral reefs, rocks, wrecks, and shoals. Other data on nautical charts include when the document was developed, the edition of the chart, projection and scale of the chart, the compass rose as well as latitudes and longitudes. You may also find pipelines and submerged cables, lighthouses and buoys, and channels and tunnels.

Exercise 3B **[Part Two]** (page 157)
HOST: Are nautical charts only available in paper format?

TOM LOEPER: Nautical charts are available in two basic formats – paper and electronic. Our two most popular paper products are the traditionally printed charts and print-on-demand product. The print-on-demand chart is a cooperative effort we have with a private printer. We keep our chart images in a state of continual maintenance - the printer downloads our images, they include some additional value-added information, and then they sell them through their sales agents. Commercial mariners like this product since they don't have to update it before they use them – the charts have all the latest information included so mariners save time and money. Over half our charts are sold by print on demand.
On the electronic side, we offer Raster Navigational Charts, or RNCs, which are full-color digital images of our entire suite – basically, they are scans of our paper charts. Electronic Navigation Charts, or ENCs, are the newest and most powerful electronic charting product we offer. Think of an ENC as an image generated from a database file. These charts are available for free download from the Office of Coast Survey Web site and they are updated on a regular basis.
Regulated vessels are also required to have other supporting marine publications on board including tide tables and something near and dear to my heart, the Coast Pilot. The Coast Pilot is a series of nine books arranged geographically and they are a companion document to the nautical chart – it is a text supplement to the chart. The Coast Pilot is available as a hard copy book or they are available for free download in a number of formats from our Web site.
There is much more information on the Office of Coast Survey Web site about all of our products and how to download or purchase the products that I mentioned today.

Exercise 3C ***Nautical Chart: Short Definition – answer key in bold*** (page 158)
Nautical charts contain information about the shape of the coast, the *lengths*/***depths*** of the water and the general configuration of the *button*/***bottom*** of the sea floor. Nautical charts also show locations of obstacles/***obstructions*** to navigation, the rise and fall of the *tights*/***tides*****,** and locations of navigation *gates*/***aids***. Nautical charts make safe and efficient marine transportation possible.

Review Two (Units 4-6)

*Exercise 2B****"Vessels of Assistance and Service"*** (page 171)
Vessels of assistance and service are designed to perform specific tasks, for example assisting other vessels, or providing special services to navigation.
A tug is a vessel that assists other vessels with entering or leaving port, tows an oil rig to its position or assists with a salvage operation. There are sea-going and harbour tugs. Their engines can develop enormous powers. The largest and most powerful tugs are often fitted with Controllable Pitch Propeller (C.P.P.) that have adjustable blades. In order to manoeuvre well in difficult situations, tugs have bow thrusters and stern thrusters. One of the main features is that the aft deck of a towing vessel is kept clear of all obstructions that may interfere with the towing line.
A SAR-vessel performs Search and Rescue when a ship is in distress. She can develop high speeds and is equipped with the most modern communication equipment to maintain contact with Rescue Co-ordination Centres (RCC).
A pilot tender (or pilot launch) is a small boat that may be launched from the pilot boat. The pilot will embark the ship that has requested pilotage from the pilot tender. She is often fitted with a sheltered aft deck to prevent the pilot from getting wet.
A cable layer lays cables on the bottom of the sea. This type of ship is often equipped with a Dynamic Positioning

System to keep her in the exact position when the submarine cable is reeled off.
A lightship serves as a beacon for navigation and is anchored in the vicinity of crowded channels or seaways. She is usually not self-propelled, which means she has to be towed to her position.
Icebreakers are designed to ride up the ice and crush a way through for other ships to follow. This requires a powerful engine and a considerable strengthening of her stem.

Exercise 4A ***LNG Shipping Overview*** (page 176)

Exercise 6a ***News Report: Titanic Lifejacket[2].*** (page 178)

Unit 7: Leisure Time On Board

Exercise 2D ***Two seafarers talk about films.*** (page 186)
A: What are you doing in the afternoon? Let's play table tennis.
B: I'll probably be too tired. My watch finishes at 20:00. But we can watch a movie after dinner, if you like.
A: Good idea. Do you like comedies?
B: Comedies are OK, I guess, but I really like westerns.
A: Westerns? No way! Westerns are absolutely awful.
B: How about a science fiction movie?
A: You're kidding me, right? They're completely ridiculous.
B: Perhaps it's not a good idea to watch a movie together, after all.
A: What types of film do you like, apart from westerns, of course?
B: Well, I love action movies.
A: Great. There is a huge stock of action movies on board. We'll choose one together.
B: OK, see you after dinner.

Language Awareness II, exercise (e) ***Preference in sports.*** (page 187)
A: What's on Eurosport tonight?
B: A volleyball game, I think. It's absolutely terrible. I **hate** watching volleyball.
A: Really? I thought you sometimes play volleyball with your buddies at home.
B: Well, I hate **watching** volleyball, on TV at least.
A: That's strange. I mean, we watched a basketball game together the other day, didn't we, and you seemed to enjoy it.
B: Well, I hate watching **volleyball.** With basketball, it's different.
A: Anyway, I might watch tonight's game with Mark and Ellie.
B: Good idea. Just because **I** hate watching volleyball, this doesn't mean other people do as well.
A: Yeah. You're the weird one, I guess.

Exercise 3B **A seafarer talks about his free time on board.** (page 188)
During my free time on board I like keeping to myself. I like listening to music and writing letters. In fact, I always listen to music in the evenings in my cabin. I write a couple of letters a week and I like the traditional way of mailing letters when we reach a port. I never send e-mails. The reason I don't like sending e-mails is because they are not private, since the rest of the crew and the people at the company have access to them. I sometimes spend a few hours in the officers' day room, but not very often because I hate swapping sea stories, most of them are big lies, and it's something I never do myself. I occasionally watch films but not very often; I enjoy watching James Bond-type of films, they're my favourite. I generally like exercising and I know I should exercise and try to keep fit, but I am too bored or too tired to go to the gym. So I rarely actually do it. I prefer sleeping to exercising. If you ask me what activity I miss more, well..., on shore I go to a lot of football games. On board I don't watch football games, and I miss that a lot. For instance, when Greece won the European championship in 2004, I couldn't watch that, not live anyway, because we don't have satellite TV. Luckily, my brother recorded the matches and I could watch them later.

Unit 8: Routine Operations & Events On Board

Exercise 1A ***"What is happening on deck?"*** (page 198)
C/O: This is the bridge. Who is speaking?
2nd/O: This is Capt. Fotis.
C/O: Is everything ready for the inspection? The inspector is arriving at 1300.
2nd/O: Don't worry sir. Everything is in order.
C/O: What is the Bosun doing?
2nd/O: He's supervising the ABs. Danilo and Bayani are lowering the embarkation ladder.
C/O: What is happening on deck?

2. No transcript is included for certain audio clips (like news reports or podcasts) whose source is given in footnotes.

2nd/O: Marcus, the OS, is washing the deck.
C/O: Is Ruperto washing the deck too?
2nd/O: No, he's greasing the anchor chain.
C/O: Where is the Third Officer at the moment?
2nd/O: He's checking the safety standards of the liferafts.
C/O: Who is accompanying him?
2nd/O: I think the cadet is helping him.

Unit 9: In the "Mess"

Section 2.I, exercise (b) ***"How's your food?"*** (page 216)

1. How's your rice?
   It's delicious. Can I have some more, please?
2. Have some bread. The cook baked it this morning. What do you think?
   It's great. I love it.
3. Would you like some more coffee?
   No, thanks. This coffee is too strong for me. It's awful.
4. What's wrong?
   This fish is terrible. I feel sick!
5. Would you like another piece of pizza?
   Yes, please. It's delicious. Just as I like it, crispy and light.

Section 2.I, exercise (c) ***Falling/rising intonation sentences.*** (page 216)

Language Awareness, exercise (a) ***The cook is serving lunch.*** (page 217)

Seafarer : This salad looks good. Can I have some, please?
Cook: Of course. Here you are. Would you like some oil with it?
Seafarer: Yes, please. Could I have some salt, too?
Cook: It's on the table. Make sure you try the chicken. It's really good today.
Seafarer: OK, I'd like two pieces, then. Do you have any mustard?
Cook: Sorry, I don't have any.
Seafarer: I would like some carrots, too.
Cook: Here you go. Bon appetit.

Section 2.II, exercise (b) ***Ways of cooking*** (page 219)

A: How do you usually cook vegetables like broccoli or cauliflowers?
B: I boil them or I steam them. It preserves their vitamins.
A: And fish?
B: I don't fry fish. I prefer grilling it.
A: How about potatoes?
B: I bake them in the oven with just a spoonful of olive oil on non-sticky paper.

Review Three (units 7-9)

Part One, exercise 1B ***MAN Diesel Engine*** (page 231)

Part One, exercise 3a ***Interview: Free time on board*** (page 232)

Part One, exercises 5a & b ***News Report: Shipping Economic Crisis in Greece*** (page 234)

APPENDIX IV
Nautical Chart Symbols

Cultural Features

- Airport
- Church
- Tower
- Motorway
- Road
- Railway with station

Offshore Installations

- Limit of Safety Zone around off shore installation
- Oil, Gas pipeline
- Submarine Cable
- Well / Submerged Production Well
- Oil, Gas installation Buoy
- Production Platform, Oil

Services

- Pilots

Nature of the Seabed

- Spring in seabed

Lights - Buoys - Marks

- Light
- Light bouys
- Mooring buoy
- Isolated Danger Mark (stationed over dangers with navigable water around them)

Wrecks, Obstructions

- Wreck showing any portion of hull or superstructure at level of chart datum
- Dangerous wreck, depth unknown
- Sunken wreck, not dangerous to surface navigation
- Obstruction

Areas, Limits

- Limit of restricted area
- Anchorage
- Anchoring prohibited
- International maritime boundary

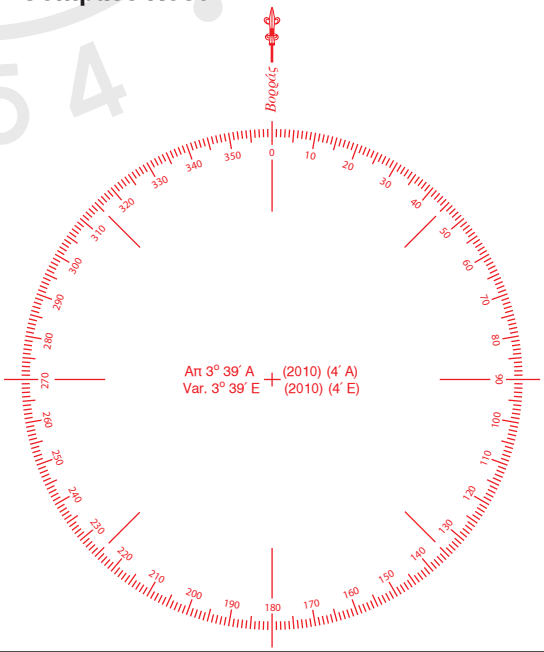
Tracks, Routes

- Established (mandatory) direction of traffic flow
- Recommended direction of traffic flow
- Separation line
- Separation zone

Natural Features

- Sandy shore
- Steep coast / steep coast with rock cliffs

Compass Rose



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Martin Leduc "The marine Diesel engine. Part one: The two stroke engine" www.dieselduck.net

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www.fleetship.com
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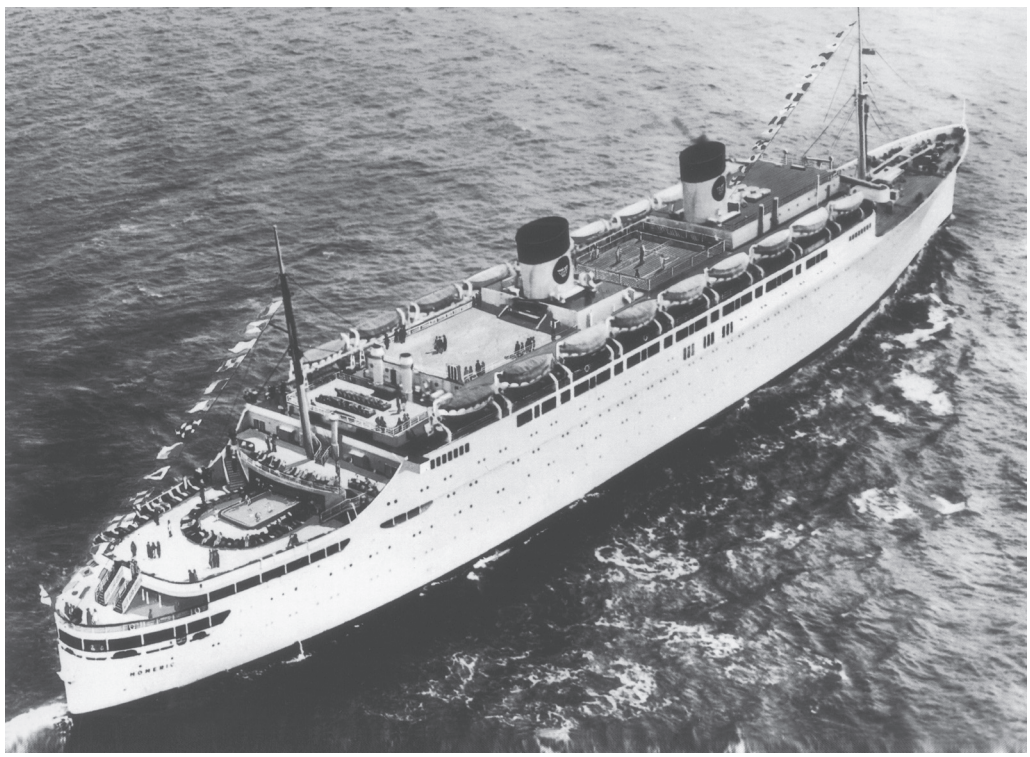

Το υπερωκεάνιο «Ομηρικός» ναυπηγημένο το 1931
της Home Lines Inc.

ISBN (SET) 978-960-337-095-6

ISBN 978-960-337-092-5