



The Nautical Institute

Command Diploma Scheme



The Nautical Institute Command Diploma Scheme is a self-study programme designed for officers aspiring to command, or those who have just taken command, of vessels. Successful completion provides evidence of their readiness to serve successfully in the role of Master.

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The Nautical Institute

Command Diploma Scheme

Syllabus and Guidance for Candidates

Version 1, March 2017

The Nautical Institute

Command Diploma Scheme

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The scheme has been prepared to address the subject of Command. This should not be taken to mean that this document deals comprehensively with all of the concerns that will need to be addressed, or even, when a particular need is addressed, that this document sets out the only definitive view for all situations. The opinions expressed are those of the authors only and are not necessarily to be taken as the policies or view of any organisation with which they have any connection.

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Introduction and guidance for candidates

1. What is the Nautical Institute Command Diploma Scheme?

The Nautical Institute Command Diploma Scheme is a self-study programme designed for officers aspiring to command, or those who have just taken command, of vessels. Successful completion provides evidence of their readiness to serve successfully in the role of Master.

2. How was the Command Diploma Scheme created?

In early 2014 The Nautical Institute conducted an open survey to ask Masters what they wished they had known more about when they took command. It also asked those aspiring to command what they were most concerned about. Both the NI Sea Going Correspondence Group and some of those who attended the NI's Command Seminar series that year contributed their views.

The five top topics of concern were:

- Shiphandling
- Business and shipping law
- Crew management/welfare
- The ISM Code and day-to-day management of the ship
- Coping with catastrophe and salvage operations.

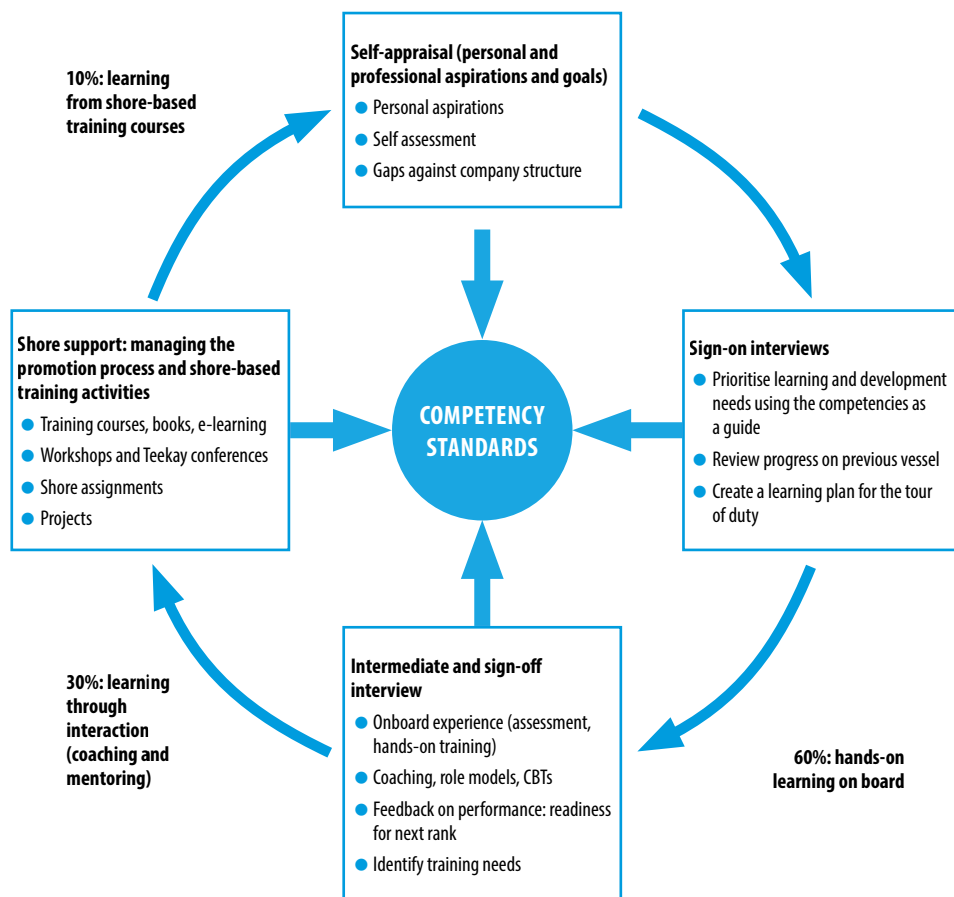
The NI brought together a panel of experts, both seagoing and shoreside members who represented the NI's global reach, to compose a scheme to address these issues. The draft scheme was reviewed by seafarers and shoreside personnel. This Command Diploma Scheme is the result.

3. Why participate in the Command Diploma Scheme?

Industry players, including employers, are becoming aware that STCW should be regarded as a minimum standard. There is significant variation between flag states and individual training institutions in the way that this standard is delivered and the degree to which it is met.

An article from issue 11 of the Institute's magazine *The Navigator*, Building on Competence, reveals that many shipowners now expect their deck officers to offer more than just the IMO-defined minimum competencies. They need to display greater proficiency than this before they are promoted to the next level. Some ship operators define extra competencies related to their business, such as specialist operations or commercial knowledge. The IMO focuses on safety, security and environmental protection, but the shipowner needs to consider profitability too.

You can download the magazine from here: <http://www.nautinst.org/en/Publications/the-navigator/index.cfm>



The article explains that future seafarers need to be:

- Self-motivated
- Proactive
- Good communicators
- Relationship builders
- Change-managers
- Aware of automation vulnerabilities.

They also need to be able to:

- Provide leadership
- Show professional development
- Demonstrate high standards of safety and good seamanship
- Concentrate on critical issues
- Process large amounts of data
- Cope with stress.

The Nautical Institute Command Diploma Scheme is our response. We believe that it will help seafarers to become the fully engaged, soft-skilled problem-solvers that the industry requires.

4. Who can enrol in the Command Diploma Scheme?

The scheme is available to individuals who wish to further their career prospects and to companies seeking to support the transition of their officers to Master.

5. What qualifications must I possess?

A minimum of an STCW A-II/2 ticket is needed. Local tickets issued by flag states will be considered on an individual basis. Candidates with particular experience who wish to start the scheme with different qualifications should contact The Nautical Institute to discuss this.

6. What topics will I study?

There are five units:

- Unit 1 Learning about Learning
- Unit 2 Onboard Management
- Unit 3 Navigation and Shiphandling
- Unit 4 Ship's Commercial Business
- Unit 5 Emergencies and Drills.

You must complete the units in sequential order, from 1 to 5, and will submit each unit to your assessor when you have completed it. You are given several topics for research and activities to complete within each unit, but it is up to you how you plan and organise your own work. This is called self-directed learning.

After completing the five units, you will need to write a 2,000-word reflective essay and to have an oral interview with an assessor (see page 61).

7. What is in each unit?

Each unit follows the same learning path:

- Aim of the unit
- Content
- Learning objectives
- Method of assessment
- Estimated timescale
- Introduction
- Topics to research and/or specific assignments
- Case studies (use the Case Studies Review template explained in section 14 below)
- Reflection (questions or topics that you MUST write about in your learning log)
- Further reading
- Record of evidence (use as the cover page for the material you submit for the unit).

8. How long will it take me to complete the Command Diploma Scheme?

Each unit has an estimated timescale for completion:

| | |
|--------------------------------|-----------------------------------|
| 1. Learning about Learning | 80 hours |
| 2. Onboard Management | 80 hours |
| 3. Navigation and Shiphandling | 120 hours |
| 4. Ship's Commercial Business | 80 hours |
| 5. Emergencies and Drills | 80 hours |
| Total | 440 hours or about 55 days |

You may find you spend more or fewer hours than this to complete units. It is important to allow enough time for carrying out thorough research, answering the questions to the best of your ability and completing your learning log (see section 13 below) so that you can reflect on what you have learned and done.

You have up to three years to complete the Command Diploma Scheme. If you need an extension you must discuss this as soon as possible with NIHQ at command@nautinst.org.

9. How should I submit my work?

All the work you submit must be in electronic format. We cannot accept handwritten material, so if you have hand-drawn diagrams or mind maps you will need to scan them. If your submission is not legible it will not be passed to an assessor but will be returned to you. It will be easiest for you and for your assessor if you type as much of your work as possible in Microsoft Word.

The Nautical Institute uses an Estech sharefolder system. You will be assigned your own secure online folder in which all course documents and supporting material are stored. When you are ready to submit your work for assessment, you upload it into that folder and let NIHQ know by emailing command@nautinst.org. Your assessor has access to that folder, so they can review your work and provide feedback.

You must submit all the assignments and case studies required in the unit. Each page that you submit MUST have a footer as shown:

| Your name | Name of document | Date completed |
|-----------|------------------|----------------|
|-----------|------------------|----------------|

For example, if you are submitting two pages for the first assignment in Unit 3 you would have the footer below for the first page of that answer:

| | | |
|-----------|-------------------------------|------------------|
| Joe Smith | Assignment 3.1.1, page 1 of 2 | 28 February 2018 |
|-----------|-------------------------------|------------------|

The learning log is an important element of this course. You use the log to document your research and your reflections on what you have learned. You need to submit these reflections as well, ensuring that each page has a footer. They should be placed right at the end of your work for that unit. The footer would look like:

| | | |
|-----------|--------------------|------------------|
| Joe Smith | Reflection: Unit 3 | 12 February 2018 |
|-----------|--------------------|------------------|

We explain more about the learning log in section 13 below. Reflection is discussed in section 12 below.

At the end of each unit there is a table called Record of Evidence. Before submitting work to the sharefolder, please label each document with the appropriate reference number and task description from this table. This will ensure your assessor is clear which area of research your material refers to. Don't forget to fill in the appropriate columns in the Record of Evidence itself.

When you are ready to submit a unit for assessment, attach the completed Record of Evidence to the front of your document as the table of contents. Do check that what you enter in the column Name of Document matches the footers on the pages that contain that work.

You must back up your work. The Nautical Institute and its assessors, employees and agents cannot be responsible for work submitted that is subsequently lost or corrupted.



Please refer to the Terms of Use on pp 62-66. In case of difficulty using the Estech sharefolder, please contact NIHQ at command@nautinst.org.

10. Is this course too academic for me?

Some of the material you will come across in your research may seem dauntingly academic. Do not be discouraged. There are many internet-based resources, such as YouTube, that will help explain the Command Diploma Scheme material in a variety of ways and in different languages.

There is no right or wrong method of study; you are asked to read about the subject, do some research and answer some questions. These are aimed at allowing you to show your reflective thoughts about the material and your understanding of it. Consider how some of the ideas might help you in your own learning or how you could use them to help others learn.

You are entering a new area of knowledge, so there is a new language to learn – just as someone joining a ship for the first time has to gain understanding of maritime language. For example, you will come across the term *metacognition*, which simply means thinking about thinking.

11. Which topics should I research?

In some of the units you will be given topics to research. You are expected to provide evidence of your research in your learning log and write down your reflections on the research. Once you have a better understanding of the subject, use the questions at the end of the unit to reflect on what you have learned and consider how you can integrate this into your role as Master.

Before beginning research into each new topic, carry out a self-assessment. You should ask yourself a series of questions and record the answers. You can then establish what you already know, what you would like to learn and how you might benefit from what you learn. For example, when you are about to research leadership you might ask yourself questions along these lines. What do I think leadership means? Is it different from management? What are my own leadership and management styles? Do others have the same view of me? What do I want to learn about leadership? How will it help me?

It is important that you reflect honestly and record your initial thoughts in your learning log. Investigate each of the topics and carry out the assignments. When you have finished all the research and assignments, look again at the record of your initial thoughts. Have your thoughts and ideas changed? What have you learned that is new? How will you apply what you have learned? *Be sure to record this entire process in your learning log.*

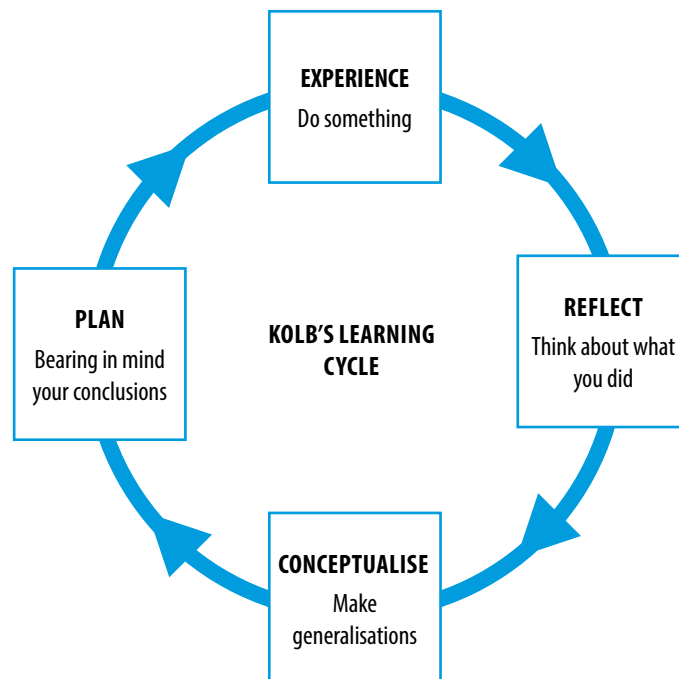
In providing evidence of your research and recording your reflections you do not need to limit yourself to writing text – you can also use notes, lists or a mind map.

12. What is reflective learning?

There are many ways of learning and of showing what you have learned. For example, you can record reflections of your experiences. This is known as *reflective learning*. By 'reflection' we mean 'thinking'; in other words you are recording your thoughts. Reflective learning is an important and valuable way of making progress in all areas of life, and it is the principle on which the NI Command Diploma Scheme is based.

Reflective learning works best when you think about what you are doing before, during and after your learning experience. In this way you can recognise something new and reconsider what you thought you knew.

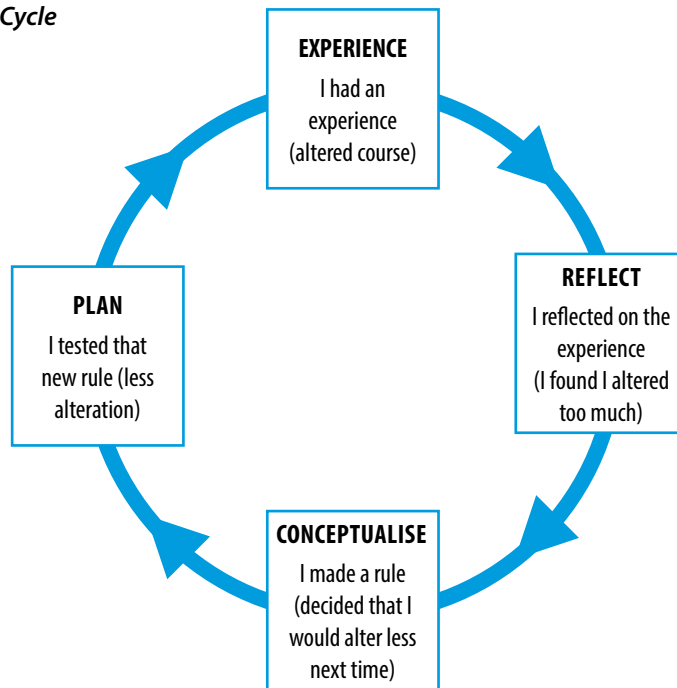
One of the most widely used learning theories is Kolb's Learning Cycle, which suggests that we learn from all our life experiences. Kolb says that learning follows a four-stage repeating cycle with reflection an integral part of the learning process.



We experience something; we think about that experience; we make a general rule about the experience; we test the rule. It is not enough just to have had the experience; to learn from it we must reflect on it, interpret it and test out that interpretation.

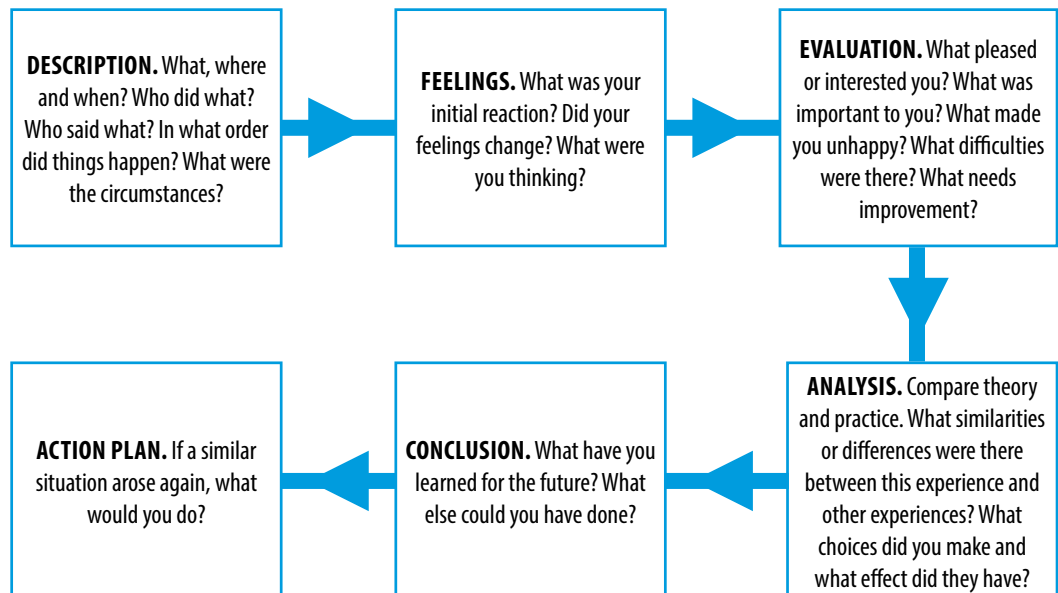
So reflection is a vital part of learning from experience. Most people follow this process without even realising it. Think about the first few times you had to alter course for another ship when you initially held a qualification as Officer of the Watch. If you altered too much, or not enough, the next time you altered course you did it better.

**Kolb's Learning Cycle
in practice**



This is the process: I had an experience (altered course), I reflected on the experience (I found I altered too much), I made a rule (decided that I would alter less next time), and I tested that new rule (less alteration). This test becomes the new experience, and the cycle restarts.

There are said to be six stages of reflection (Gibbs, 1988):

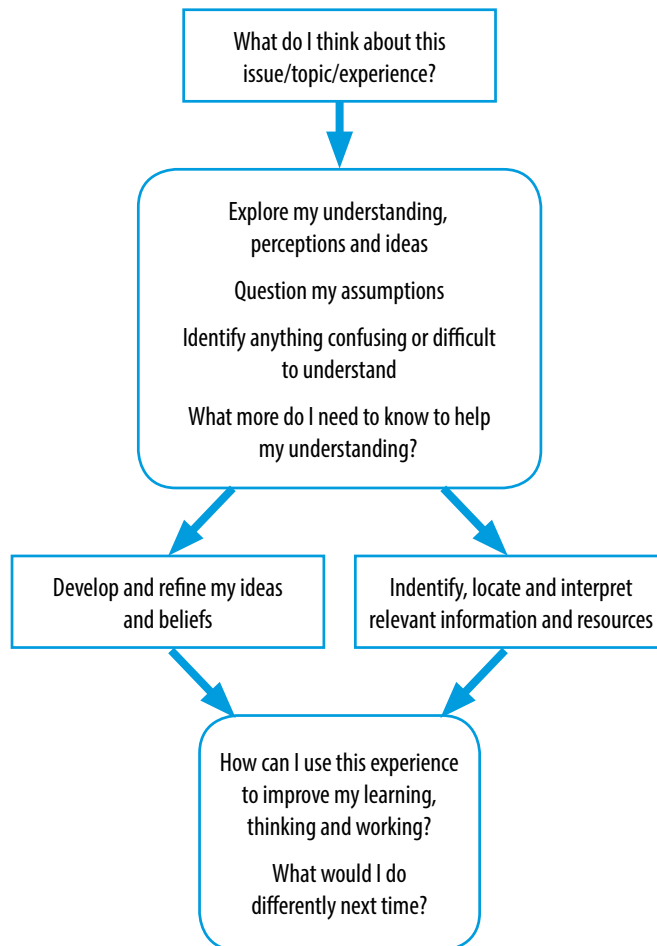


Your learning log will help you to reflect on or review what you have learned. In terms of Kolb's Learning Cycle, each assignment you complete can be thought of as the experience. You will complete the cycle and document the results, always looking to improve your performance. The result will be very personal to you, depending on your individual experiences.

Reflective learning process

Reflective learning is a process that can be learned with time and practice. It is an active process: you must think through the issues yourself. To help your understanding, you will need to ask questions and carry out research. The process is most effective when you think about what you are doing before, during and after your learning experience, because this can lead you to new learning.

The diagram illustrates how you can learn to engage in reflective learning.



Reflective learning process (from http://www.worcester.ac.uk/studyskills/documents/Learning_Journals_2012.pdf 02.02.2017, reproduced with permission from Worcester University)

13. How do I create a learning log?

A learning log is a collection of observations and other material that you build up while you are doing the Command Diploma Scheme. Its purpose is to make you think about and enhance your learning experiences.

Your learning log will include notes about what you have researched and reflections on the progress of your learning. You may either include your assignments in the learning log or keep them as separate documents.

Whether you create your learning log as hard copy or as an electronic document, you **MUST** submit it electronically (see section 9 above). The learning log will be a useful reference you can consult throughout your career, so organise it in a way that suits you. You may want a diary section for your reflections, a task section for assignments and a reference section for your research, or you may just want to keep all the work in chronological order as you finish it.

When recording personal thoughts and reflections you do not always need to write text – lists, mind maps or diagrams can be just as effective. Choose the method that suits your learning style and captures the essence of what you have learned.

Write up your learning log regularly. **DO NOT** try to compile it at the end of the unit.

You can always return to your learning log at a later date to add thoughts and reflections about work you have already completed.

Here are some ideas about what to include in your learning log:

- Your personal reactions to and reflections on new ideas that you come across in seminars, lectures, workshops or courses that you attend while working on the Command Diploma Scheme
- Research and reading, including visual research (television, film etc)
- Conversations and discussions with colleagues, other Command Diploma Scheme candidates, assessors
- Evidence of research and learning (including notes, lists, mind maps, photographs, video)
- Flashes of inspiration
- What you have understood so far
- What you find puzzling, difficult or contradictory
- Ways to reach a better understanding of the topic
- Topics you need to know more about, and sources of information on them
- The resources that helped you and those you found interesting to use
- Your thoughts on the way you have considered the subject so far
- New knowledge, skills or understanding you have gained while writing your journal
- How you might apply what you have learned to a situation on your ship
- What happened when you did apply what you learned to a situation on your ship.

We have shown these points in the form of a mind map on the next page.

Remember that your output will be assessed by a senior Master (see Section 19). You will therefore need to set it out in a way that is easy to follow, that shows you have completed the required tasks and that provides evidence of your research and reflection in each subject area.

14. Case studies

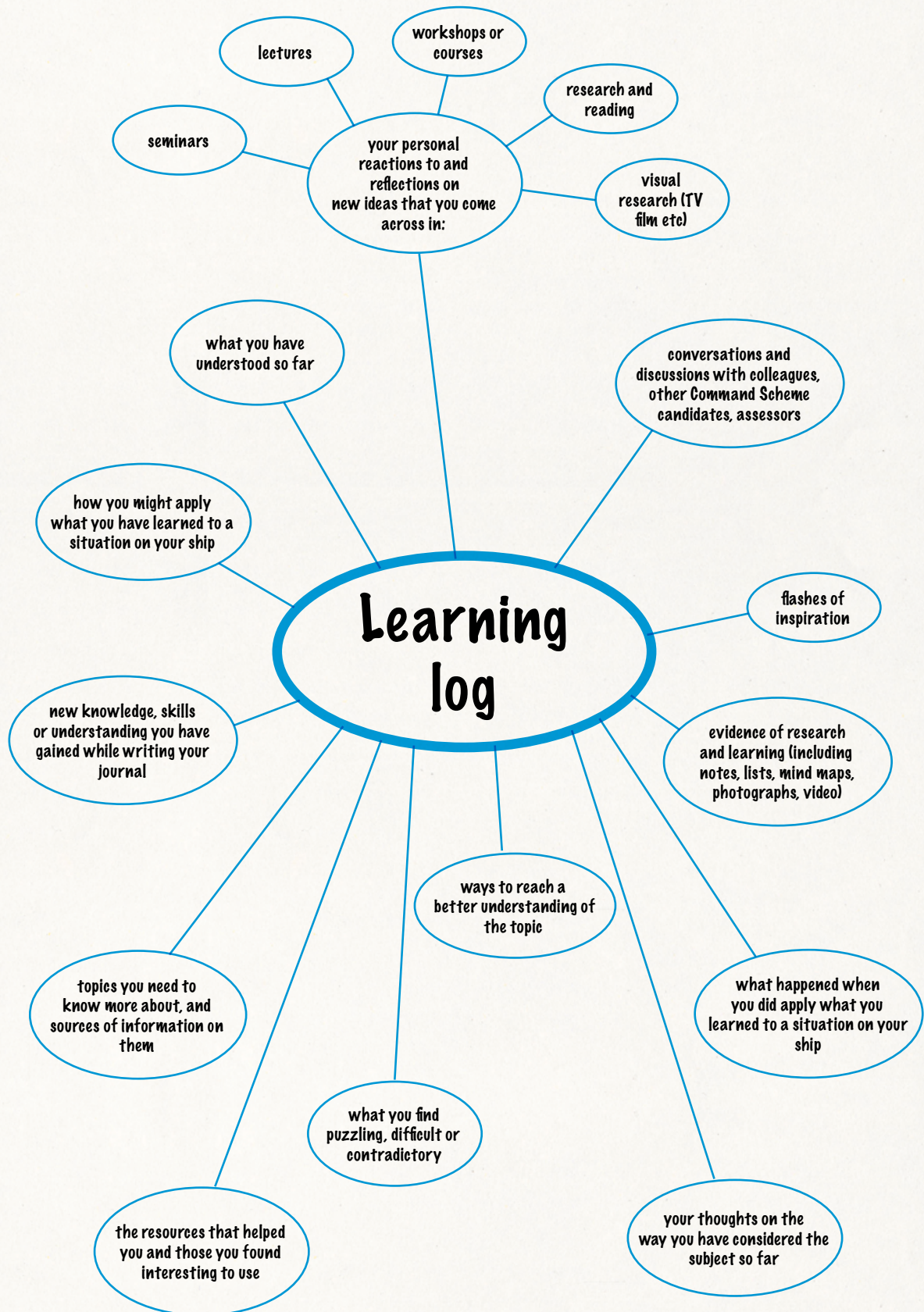
Throughout the Command Diploma Scheme you will be asked to undertake reviews of case studies, which will help you to:

- Become familiar with real incidents and the operational issues or deficiencies identified
- Reflect on the operations on board your own vessel and consider whether lessons learned can be applied to its operation, detailing how these might be implemented.

Your case study report will fall naturally into two parts: (i) a description of the incident and the investigators' conclusions; (ii) your reflection on the incident and how the lessons learned might be implemented on board your vessel.

Use the template overleaf to review case studies.

A mind map of what you can include in a learning log



Case Study Review Template

PART I: INCIDENT REPORT

Include the main details of the incident, as this will help the assessor identify the incident type (do not assume the assessor has access to all the information). It will also help you prepare for the analysis of the report. You should include:

- Report name and reference number; type of incident
- The primary causes and conclusions as indicated by the report
- Secondary or contributing factors identified in the report
- Relevant regulations and industry best practice; consider whether the report cites violations of domestic or international regulations or refers to other actions that fell short of industry best practice.

PART II: OWN VESSEL

This section of your case study report will probably be much longer than Part I. For this you need to compare the report's conclusions with operations aboard your own vessel. Comment on the following topics in your report, adding others if necessary:

- Company SMS – does this address the causes identified in the case study? Give examples. Is anything missing?
- Similar situations – provide an example of a similar situation that has occurred aboard your vessel
- Techniques for mitigation – what could be done on board to ensure that something similar does not occur on your vessel?
- Action steps – who would do what? How will you know if the action is effective?

Case Study Review Template

After completing this work you may find you have additional concerns about the case study, particularly regarding mitigation of adverse effects under similar circumstances. If any thoughts occur to you subsequently you can return to your learning log and add them.

15. How do I cite other people's work?

In the work you submit for the Command Diploma Scheme you will often need to provide supporting evidence for your statements from published sources such as books, magazine and journal articles, websites and official reports. This is all part of good research and will add to your personal experience. Be aware, though, that whenever you use someone else's words or ideas in this way, you **MUST** state clearly where they came from.

Failure to acknowledge in your written work the sources of your information is called plagiarism – presenting other people's work and ideas as your own. Plagiarism is intellectual theft and might even result in a legal case against you.

Assessors scrutinise all work submitted for the Command Diploma Scheme and must satisfy themselves that your knowledge and understanding of the subject comes from your own intelligence and thought.

Assessors may fail anyone who is found to have:

- copied the work of others and passed it off as their own
- included passages from official documents without proper acknowledgement
- cited items in the bibliography that were not used to inform the text.

Remember, the assessor wants to identify what *you* know about the subject you have chosen for your project and the case studies you are required to do.

References in the text

Providing proper acknowledgement of sources is termed citation. There are several ways of doing this, but we recommend the Harvard referencing system, which is simple and easy to use.

Here is an example of a Harvard-style citation for a passage quoted from a book:

Among your many functions, you as Master must be a leader, listener, confidant, mentor, diplomat and arbitrator. (Laffoucrière et al, 2015, p 81)

To distinguish it from the main text (which will be the text of your paper or dissertation), it is indented from the left margin. After the quoted text is written:

- The name of the author of the publication
- The date of its publication
- The page of the publication where the quoted passage appears.

As well as making the source of the information clear to the assessor, it also enables you to find the original quotation again later on, so make sure you have all the details down correctly. When quoting directly from a book in this way, be sure to copy the passage accurately, word for word.

If the quotation is short it can be included within your main text. It must be enclosed within quotation marks " " and followed by the author, date and page number within parentheses (). Overleaf we give two examples:

It is important to consider the whole question of pilots as part of the bridge team. "Pilots are the waterway experts and Masters are the vessel experts." (Gale, 2016, p 45)

Accident reports – not just in the maritime industry, but generally in transport – speak of the importance of the human factor. "Good health is crucial for seafarers as they are often far away from professional help." (Tavares et al, 2012, p 9)

These are acceptable methods of citing books, magazine and journal articles, reports etc to support your written work. Laffoucrière, Gale and Tavares are the authors of the actual words; shown indented in the case of Laffoucrière and within quotation marks in the case of Gale and Tavares. Included with each author's name are the publication date and page number. This sequence of author and date will appear in your bibliography.

Bibliography

The bibliography is a list of all the publications that you have used when writing your essay, report or dissertation. It is a vital part of your submission for the Command Diploma Scheme because it allows assessor to consult the works that support your claims, ideas and conclusions. Again, it will also help you to review your work and go back to your original research materials even many years later.

There is a strict method of constructing a bibliography. Using the examples we gave before, here is how to record them:

CHIEF OFFICER A N OTHER [PROJECT NAME] JUNE 2018

Bibliography

Gale, H (2016). *Navigation Assessments*. London: The Nautical Institute

Laffoucrière, F et al (2015). *The Nautical Institute on Command*, 3rd edn. London: The Nautical Institute

Tavares, Bonfim D; Barreto, Molinari M; Gonçalves, M A (2012). *Seaways*, Aug. London: The Nautical Institute

The authors are listed in alphabetical order, followed by the date of publication in parentheses. The title of the work follows either in italics or underlined, then the place of publication and the name of the publisher.

Notice how the author's family name comes first, followed by their given name and/or initials. The phrase 'et al' used for Laffoucrière's work simply means 'and other authors', and is used when numerous authors have contributed to a book or article. Although three authors collaborated on the *Seaways* article only the lead author need be cited next to the quotation itself, but all should be listed in the bibliography. In many official reports no individual is credited as author. In such cases, you should use the official body (IMO or MAIB, for example) as the author.

Popular books are often updated in later editions, so be sure to state which edition you have used for your research – even if the words you use are the same, they are likely to appear on different pages in different editions.

You may need to quote from two works by the same author published in the same year. In this case, distinguish them in the text with 'a' and 'b' etc after the year, eg: (Smithson, 2015a, p 12; Smithson, 2015b, p 247).

Citation of laws, acts of Parliament, national regulations etc varies from country to country, so it is best to check how these should be set out. If you are referring to a number of such documents, group them together under a separate sub-heading in your bibliography.

When quoting from articles on websites you will need to copy and paste the address of the page into your bibliography along with the date and day you accessed that page. While printed material remains constant, web pages can change at any time, and an online news article might be updated several times in one day. It is therefore a good idea to make a hard copy or to keep on your computer a screenshot of the page to confirm that your information was current on that day.

If you quote from many publications the bibliography may be several pages long. This will show that you have researched the topic in depth and gained a variety of views on the subject.

You will now appreciate how important it is to keep a note of the publications, authors and page numbers when you do your research. Trying to retrace your research steps later on can be hugely time-consuming, and you may find some of that material is no longer accessible – for example, it could be on a ship you signed off from months ago.

This is just a basic guide to citation and referencing. For more information, type 'Harvard referencing' into a search engine – there are numerous websites to help you.

16. Academic conduct

Candidates are required to undertake the course in a fair and academically honest manner. They must not seek to gain unfair advantage for themselves, or for other candidates, by collusion, deceit, plagiarism or cheating in assignments, the essay or the oral interview. See also the Terms of Use on pages 62-66, especially section 5.

Collusion

Candidates are not permitted to collaborate in assignments without the prior approval of assessors or an authorised member of NIHQ staff. If one candidate is found to have copied another candidate's work, both may be penalised.

Deceit

A candidate must not present as their own work any material that has been used elsewhere.

Plagiarism

A candidate must not use other people's material, whether words or images, as if it was their own – ie without attributing it (see section 15 above).

Cheating

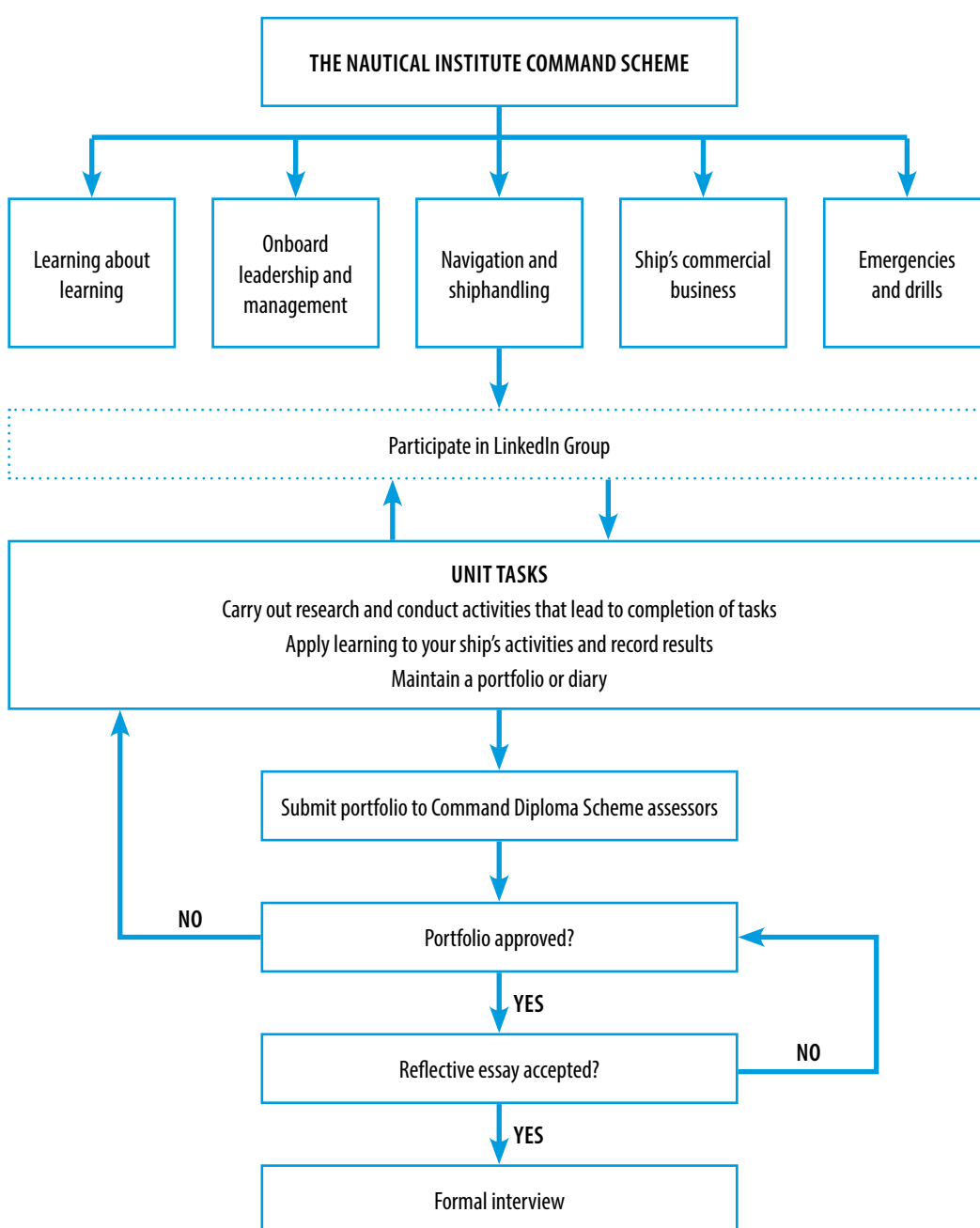
Candidates must not try to gain unfair advantage in assignments, the essay or the oral interview, nor must they help other candidates to do so. No unauthorised copying or collusion is permitted. Candidates must not impersonate other candidates nor must they try to gain unauthorised access to assessor papers.

17. How will I be assessed?

Each unit requires a body of work to be completed and for you to reflect on the activities undertaken. Assessors will review both the work and the reflective process in reaching a decision about whether or not adequate learning has taken place and benefit gained from this professional development.

Before the award of The Nautical Institute Command Diploma you will also be required to complete a reflective 2,000 word essay that identifies what you have gained from the process.

You will also be required to undergo an oral interview with an assessor who will make a final determination on your suitability for the award of the Diploma (see page 61).



18. Appeals

The assessors for the Command Diploma Scheme strive to be transparent and fair in their appraisal of work. If you are dissatisfied with any aspect of the scheme or if you wish to appeal against a decision reached by the assessor then you should contact The Nautical Institute at command@nautinst.org to explain your concerns. Every effort will be made to resolve the matter, but in case we cannot do this informally you will be provided with details of the formal appeal process.

19. Who are the assessors?

The assessors are experienced mariners of long standing. All are senior members of The Nautical Institute. They are ready to perform their responsibilities under this scheme and to make informed and impartial decisions.

20. How do I contact assessors and other candidates?

The Nautical Institute Command Diploma Scheme has its own LinkedIn group that all candidates will be invited to join. The assessors will be part of the group. Candidates will be able to share ideas and ask questions of each other and the assessors. We hope that participants who complete the scheme will stay involved in the group to act as mentors for new candidates.

21. How do I enrol in Command Diploma Scheme?

Enrolment is simple – just email command@nautinst.org.

22. What will I get out of undertaking the Command Diploma Scheme?

Completion of the Nautical Institute Command Diploma Scheme sets you apart from other seafarers.

In addition to the specific learning you will gain from completion of the units you will have:

- Demonstrated your commitment to self-development by investing in your own career
- Learned how to examine evidence and to reflect on that information
- Learned to digest and analyse information, giving you a deeper understanding than your peer professionals are likely to have
- Identified further areas to develop in order to become the best possible mariner
- Demonstrated positive engagement with the latest developments in the industry
- Undertaken activities of value to your employer, enhancing your opportunities for advancement
- Been awarded the Command Diploma from The Nautical Institute, the world's leading body for those responsible for the control of ships
- Prepared yourself in the best possible way for command of a ship.

23. Summary

Life aboard ship today is not easy: lower manning levels, compliance with ever-expanding regulation and the management of multinational crews are among factors are some of the challenges of command at sea. The Nautical Institute applauds your decision to spend some of your valuable time to develop your knowledge, understanding and skills. We believe you will benefit enormously from the time you spend reading, researching, reflecting and working on the assignments and from the discussions with others via the LinkedIn group. In feeling more confident to meet the challenges of command successfully you are likely to be less stressed at sea.

This scheme is dynamic, so we really welcome your feedback to help us improve it. If you think there are changes that would make the scheme better, please pass your comments to The Nautical Institute.

Contact us at:

command@nautinst.org

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Email: sec@nautinst.org; website: www.nautinst.org.

References

Driscoll, J (1994). 'Reflective practice for practise'. *Senior Nurse*, 14(1), p 47
Gibbs, G (1988). *Learning by doing: A guide to learning and teaching methods*. Birmingham: Sced
Kolb, D A (2014). *Experiential learning: Experience as the source of learning and development*. FT Press

1

Unit 1 – Learning about learning

Aim of the unit

To develop your knowledge and understanding of how people learn and the uses to which this knowledge can be put.

Content

This unit requires you to carry out some research into learning and offers some specific themes for research. You are asked to produce a portfolio of evidence or a journal of your progress in this area. You should reflect on a series of questions given at the end of the unit.

To help you monitor your progress and to provide a reference for assessment, the unit includes a table entitled Record of Evidence in which you should record tasks completed and the contents of your portfolio or journal.

Learning objectives

On completion of this unit you will be able to:

- Demonstrate research in the areas of learning styles and apply the knowledge you have gained to the role of Master
- Evaluate your own learning.

Method of assessment

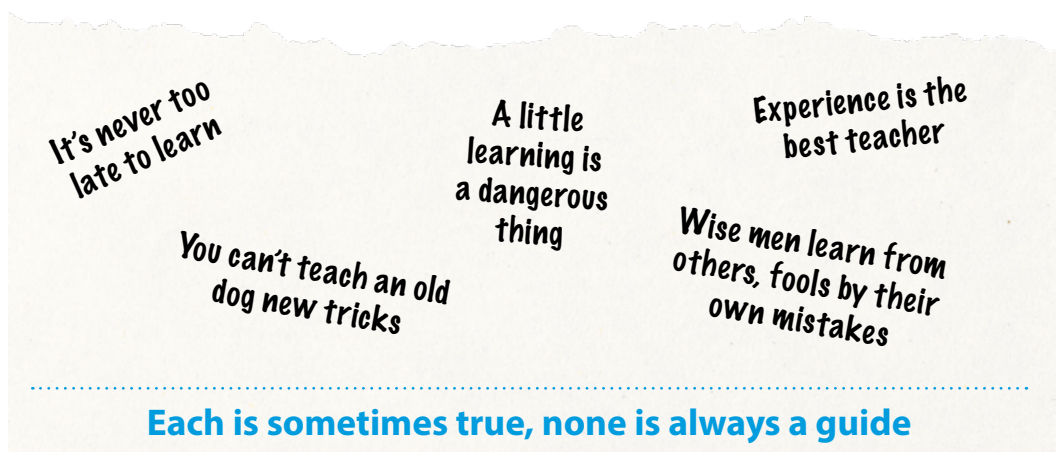
Completion of either a portfolio of evidence or a journal that provides a record of your personal development in this area.

Approximate timescale 80 hours.

Introduction

We learn from a large number of people and in a variety of ways and circumstances. If anyone tells you there is only one way to learn they cannot have reflected for long on their own experiences.

“We live and learn” is a common expression. Think for a moment of all the things you learned before you went to school, including walking, talking, eating (in the approved manner), being respectful and laughing. You learned even more during your school years, though not always at school: riding a bicycle, shopping, dealing with illness and much more. In or out of school you will have had some inspiring teachers. There will have been many who shaped your learning successfully and some who told you things you have since forgotten. But always you were learning. There is no doubt that you have the ability to learn. There is no doubt that when you want to help raise the standards of others that they will also have the ability to learn.



You have been learning all your life, but do you know *how* you learn?

Up to now you have, with the help of instructors, been responsible for your own learning as you found out about your vessel and the operations it will carry out, the crew, applicable regulations and commercial and legal requirements. You have been fairly successful; otherwise you would not have the qualifications that allow you to take command, or consider taking command, of a vessel. Taking command means you not only become entirely responsible for your own learning but also partly responsible for the learning that your crew members need to do.

Understanding how to learn and how to help others learn are essential tasks for a Master. To command a vessel in a safe and efficient manner demands a broad scope of knowledge, especially as procedures, regulations and equipment change constantly. The performance of both Master and crew is directly related to their ability to learn.

As Master, one of the roles you will assume on board is that of teacher or instructor. You will be the source of knowledge, a demonstrator of skills, a judge of standards and a mentor passing on values and expectations. You will encourage, steer and prompt those seeking to make progress and you will share the pleasure of success and the disappointment of setbacks. To do this successfully you must communicate well. Some of the best teachers are like good actors: they perform well in a variety of roles and they have thought hard about the parts they play.

Understanding how learning occurs will help you in two ways. First, it will make it easier for you to learn; second, it will help you to aid other people's learning.

In this unit you will be directed to some of the concepts in the areas of learning and teaching. It is up to you how deeply you research each topic. Once you begin to research this area you may well want to pursue material that will help you to acquire knowledge and improve your understanding. You can then use these skills both as a self-learner and as a catalyst for learning in others.

Based on this brief introduction, carry out your own research into how people learn. Research the topics listed below and note down your findings in your portfolio/journal. Once you have a better understanding of the subject, use the questions at the end of the unit to reflect on what you have learned and how you can integrate this into your role as Master.

Topics to research

1.1 Learning concepts

- 1.1.1 Maslow's Hierarchy of Needs
- 1.1.2 Bloom's Taxonomy. Metacognition is one of the highest dimensions of the cognitive domain. During this programme the aim is for your learning to be in the upper hemisphere of the diagram representing the dimensions of the cognitive domain, and as often as possible into the north-east quadrant
- 1.1.3 Other taxonomies
- 1.1.4 Metacognition
- 1.1.5 Learning strategies
- 1.1.6 Learning styles
- 1.1.7 Andragogy

1.2 Reflection

- 1.2.1 In what way is it relevant to your role as Master to learn something about the way that you and other people learn?
- 1.2.2 Which of the learning taxonomies that you have researched seems the most relevant to you as a Master? Explain why you prefer this taxonomy over the others in describing the learning required on board.
- 1.2.3 Think about your past learning and review the type of learning that you undertook. How does it fit into your chosen taxonomy?
- 1.2.4 What ideas will you try to apply when you need to learn something in the future and when you are instructing others? Devise a method you could use on board to implement some of the ideas you have researched. If possible, implement the approach. Comment on the method.
- 1.2.5 Review the process of completing and maintaining the portfolio or journal. Is there a value in reflecting on, and writing about, what you have learned or are trying to learn?

You should support your reflections with reference to the theories that you have researched.

Further reading

Below are some places where you may wish to start your research. These are not the only resources, and you are encouraged to find others. Record the sources of information that you discover, so that you can refer to them again.

<http://www.learning-theories.com/maslows-hierarchy-of-needs.html>
(a brief explanation of Maslow's Hierarchy of Needs)

<http://edorigami.wikispaces.com/Bloom%27s+Digital+Taxonomy>
(an overview of the development of Bloom's Taxonomy and its relevance in our digital world)

<http://www.youtube.com/watch?v=4Fy5MUzdWMg>
(the video supplements information about Bloom's Taxonomy)

http://www.youtube.com/watch?v=Qfp3x_qx5IM
(Bloom's cognitive domain explained)

<http://www.ucd.ie/t4cms/ucdtla0034.pdf>
(details of other learning taxonomies, including SOLO and Fink's)

<http://www.ericdigests.org/pre-9218/developing.htm>
(comprehensive article on metacognition)

<http://www.youtube.com/watch?v=mVE21QhY-II>
(short definition of metacognition)

<http://blogs.kqed.org/mindshift/2013/10/smart-strategies-that-help-students-learn-how-to-learn/>
(effective learning strategies)

<http://www.businessballs.com/kolblearningstyles.htm>
(Kolb's Learning Cycle and more)

<http://www.youtube.com/watch?v=E8klKdhNop8>
(a teacher explains how to learn about learning)

<http://www.youtube.com/watch?v=dUqRTWCdXt4>
(TED talk How Thinking Works)

<http://www.instructionaldesign.org/theories/andragogy.html>
(basic description of andragogy)

<http://www.youtube.com/watch?v=RssPiq3-XKM>
(video 1: What is andragogy?)

<http://www.youtube.com/watch?v=7HUNcCks7A>
(video 2: Characteristics of the adult learner)

<http://www.youtube.com/watch?v=DSBswXPyXTs>
(video 3: Instructional strategies)

http://www.assetproject.info/learner_methodologies/before/characteristics.htm
(characteristics of adult learners)

http://www.assetproject.info/learner_methodologies/during/strategies.htm
(teaching strategies for adult learners)

Record of evidence

Use this table to record your completion of each assessment task. Add in the name of the document that you have provided to show your learning, research, case study and/or reflections, and the date of completion for your own records.

| Area of research | Name of document | Completed | Date |
|-----------------------------------|------------------------|-----------|---------|
| <i>Example</i> | <i>Unit 1 Research</i> | ✓ | 14/6/17 |
| 1.1.1 Maslow's Hierarchy of Needs | | | |
| 1.1.2 Bloom's Taxonomy | | | |
| 1.1.3 Other taxonomies | | | |
| 1.1.4 Metacognition | | | |
| 1.1.5 Learning strategies | | | |
| 1.1.6 Learning styles | | | |
| 1.1.7 Andragogy | | | |

| 1.2 Reflection |
|--|
| <p>1.2.1 In what way is it relevant to your role as Master to learn something about the way that you and other people learn?</p> <p>Name of document..... Completed..... Date</p> |
| <p>1.2.2 Which of the learning taxonomies that you have researched seems the most relevant to you as a Master? Explain why you prefer this taxonomy over the others in describing the learning required on board.</p> <p>Name of document..... Completed..... Date</p> |
| <p>1.2.3 Think about your past learning and review the type of learning that you undertook. How does it fit into your chosen taxonomy?</p> <p>Name of document..... Completed..... Date</p> |
| <p>1.2.4 What ideas will you try to apply when you need to learn something in the future and when you are instructing others? Devise a method you could use on board to implement some of the ideas you have researched, and if possible implement the approach. Comment on the method.</p> <p>Name of document..... Completed..... Date</p> |
| <p>1.2.5 Review the process of completing and maintaining the portfolio or journal. Is there a value in reflecting on and writing about what you have learned or are trying to learn?</p> <p>Name of document..... Completed..... Date</p> |



Unit 2 – Onboard leadership and management

Aim of the unit

To research the skills and strategies needed for effective leadership and management, and to apply this knowledge in practice and in the review of case studies.

Content

This unit needs you to carry out some research into leadership and management under specific themes for research. You are asked to produce a portfolio of evidence or a journal of your progress in this area and to reflect on what you have discovered. You should then apply this knowledge to hypothetical situations similar to those that may be experienced on any ship.

To help you monitor your progress and to provide a reference for assessment, the unit includes a table entitled Record of Evidence in which you should record tasks completed and the contents of your portfolio or journal.

Learning objectives

On completion of this unit you will be able to:

- Demonstrate research in the areas of leadership and management and apply the knowledge gained to the role of Master
- Apply an appropriate leadership style to resolve problems on board, dealing with them in a manner based on sound management principles when acting as Master.

Method of assessment

Completion of a portfolio of evidence or a journal providing a record of your personal development in this area

Satisfactory completion of case studies

Interview on completion of the scheme.

Estimated timescale

80 hours.

Introduction

Management is defined in IMO Model Course 1.39 Leadership and Teamwork, Appendix 2, Guidelines on dealing with management level issues that arise during the course for operational level seafarers, p 45:

Management can be understood as getting people together to accomplish desired goals and objectives using available resources efficiently (with the least use of resources) and effectively (the intent of the work is achieved). The greater the management role to be carried out, the greater the responsibility to be borne.

Onboard ship the ultimate management role and responsibility rests with the Master, who must make the major decisions essential to the safe, efficient, clean, secure operation of the ship. While the focus of this course is on those working at the operational level, frequent consideration of the issues that must be addressed at the management level is likely. Leadership, teamworking and management involve a continuum of issues to be addressed, involving all on board in some way; however the roles will differ.

At the management level there is greater need for interpersonal skills for communicating, motivating, delegating and mentoring, conceptual skills for analysing complex situations, and diagnostic skills for determining and initiating appropriate situational responses.

There are three important pieces of information we can take from Model Course 1.39 Leadership and Teamwork:

- The IMO definition of management
- It concentrates on operational level training as required by the STCW 2010 Manila Amendments, not on management level training
- There are skills, not currently covered in the course, that are required at management level, such as communication, motivation, delegation, mentoring, risk analysis, problem-solving and decision-making.

There is no IMO Model Course for management level training in leadership and teamwork. However, STCW Table A-II/2 has a required competence, Use of leadership and managerial skill, and specific knowledge, understanding and proficiency objectives associated with this competence. How do you train to perform your leadership and managerial responsibilities successfully when you take command? After all, many people earn management degrees after spending years at university studying just that one topic. Is leadership a natural ability, or can one learn to be an effective leader?

This programme gives you the opportunity to research and reflect on some of the skills and strategies that result in effective leadership and management. It is hoped that you will choose to make some of those skills and strategies a part of your own unique leadership and management style as you take command.

Based on this brief introduction, carry out your own research into management and leadership principles. Research the topics listed below and for each topic make notes, lists or a mind map in your journal or portfolio to provide evidence of the research carried out. Each of the six topics for research has several suggested sub-topics for you to explore. Once you have completed your research, review it and propose a management solution to the situations presented in Sections 2.7. Finally, choose a case study from a published marine accident report (Section 2.8) and comment on the managerial or leadership techniques shown.

Topics to research

2.1 The terms human element and human limitations

- 2.1.1 Cultural awareness. How inherent cultural traits can affect attitudes and behaviours; special care required in cross-cultural communication aboard ship; common informal structures with multicultural crews and the need to recognise and allow for them
- 2.1.2 Human error. Active failures and latent conditions; errors of omission and commission; error chain; human risk behaviour; reasons humans break rules
- 2.1.3 Situational awareness. Definition; how to obtain and maintain it; challenges to situational awareness; ensuring that teams have shared mental models (shared situational awareness)

- 2.1.4 Human limitations. Common human limitations such as fatigue, stress, misunderstanding and complacency; indicators that human limitations are being exceeded; recognising fatigue in yourself and others; steps to avoid pushing crew members beyond personal limitations and consequences if a crew member is pushed too far
- 2.1.5 Workloads. Assessing the workload; dangers of high workload and disadvantages of low workload; provisions for seafarers to get adequate rest; ensuring compliance with hours of rest and work regulations.

2.2 The international regulatory framework relating to the management of ships

- 2.2.1 Understanding the need for each of the main maritime conventions and recommendations, codes of practice and guidelines document from a human element rather than a technical point of view. For the IMO, look at the SOLAS, MARPOL and STCW Conventions and the ISM and the ISPS Codes. Consider the ILO MLC 2006 Convention and how it works with the IMO regulations. Things to consider include: implementation of the convention provisions, the different roles of flag and port states in implementation, IMO guidelines on the mitigation of fatigue and IMO principles of safe manning
- 2.2.2 The difference between recommendations and regulations. Give examples of recommendations and state legislation dealing with human element issues.

2.3 Leadership or management?

- 2.3.1 The difference between a leader and manager
- 2.3.2 Models of best practice in leadership and management
- 2.3.3 Choosing a leadership and management style: different situations may require varying styles of management and leadership
- 2.3.4 Assessing and improving your own leadership styles
- 2.3.5 Leading and managing teams: recognise team potential and limitations, optimise skills and abilities of the team, lead multicultural teams effectively, basic motivation theories and techniques, setting clear and achievable goals, using authority and influence effectively, setting and maintaining high standards
- 2.3.6 Leading and managing an effective meeting
- 2.3.7 Assertiveness
- 2.3.8 Delegation
- 2.3.9 Just culture: benefits of a just culture, how to establish a just culture, why it is necessary
- 2.3.10 Conflict resolution.

2.4 Project management

- 2.4.1 Tools that may be used for project management such as SMART objectives and GANTT diagrams
- 2.4.2 Analysing risk

- 2.4.3 Using judgement; reality judgement; value judgement
- 2.4.4 Setting priorities
- 2.4.5 Short-term and long-term strategies
- 2.4.6 Generating options: creative problem-solving strategies and lateral thinking strategies
- 2.4.7 Decision-making
- 2.4.8 Managing errors
- 2.4.9 Evaluating an outcome
- 2.4.10 Root cause analysis when something goes wrong.

2.5 Effective communication principles

- 2.5.1 Communication models: types of communication; effective communication strategies; barriers to effective communication; listening as part of the communication process; providing constructive feedback
- 2.5.2 Effective briefings and debriefings
- 2.5.3 Effective questioning techniques
- 2.5.4 Closed-loop communication: when and where it is appropriate
- 2.5.5 Using challenge and response appropriately.

2.6 Structured shipboard training

- 2.6.1 Formal and informal learning; mentoring and coaching; continuing professional development (CPD)
- 2.6.2 The importance of structured shipboard training; the responsibility of officers to both undertake and provide this training; company responsibility for, and involvement in, shipboard training
- 2.6.3 Assessment techniques, including work performance appraisals
- 2.6.4 Best practice in ship familiarisation and ISM training.

2.7 Assignments

You must be able to adapt your leadership style to deal with various situations. For each of the situations below, write an account of how you would deal with the management and leadership problems that each presents. Refer to your research to support your approach.

- 2.7.1 You become aware that a deck rating has been persistently late for work and has failed to carry out his duties diligently. The Chief Officer has become ever more exasperated by his behaviour and reports that he has given him many verbal warnings.
- 2.7.2 During a safety meeting there is an argument between the Chief Officer and the Chief Engineer. The Chief Engineer reports that several of the deck ratings have not been wearing

goggles while scaling the deck. The Chief Officer says that this is not true and that it is none of the Chief Engineer's business. The Chief Officer and Chief Engineer do not get on and are of different nationalities.

- 2.7.3 The shore-based management plans to place a large number of contractors on board your vessel for one month as a riding gang/repair team to carry out major upgrade work while on passage. The numbers proposed will far exceed the available lifeboat capacity, as shown on the vessel's safety equipment certificate. What process will you undertake to ensure that your vessel remains in class and meets the safety requirements of the flag state? Consider this situation for a vessel you are familiar with.
- 2.7.4 You arrive in port where the following activities will take place within a very limited timeframe. Considering the high workload, what plans will you put in place to ensure a safe and efficient port visit? Which tasks can be safely delegated and to whom?
- 2.7.4.1 Major crew change (more than 50% of the crew will change)
 - 2.7.4.2 A classification society surveyor is to conduct annual statutory surveys
 - 2.7.4.3 The operator's representative will attend to carry out an internal audit of the safety management system
 - 2.7.4.4 The ship will undergo major stowage, including supply of provisions
 - 2.7.4.5 The software for the radars and ECDIS is to be updated
 - 2.7.4.6 Divers are to inspect the hull and polish the propeller.
- 2.7.5 After discussion with the Chief Engineer, it is clear there is a general problem with teamwork and communication. There have been several occasions when there has been confusion between officers and crew and misunderstanding between departments. How would you improve teamwork and communication?

2.8 Case studies

Choose one of the following case studies to review and use the Case Studies Review template (see section 14 of the introductory guidance, p 14). In addition to the questions in the Case Studies Review template, think about the management and leadership leading up to the incident and identify:

- 2.8.1 What went right?
- 2.8.2 What went wrong?
- 2.8.3 How you would do things differently.

Your answer should refer to the research you have undertaken.

Marine Accident Investigation Branch

<https://www.gov.uk/government/organisations/marine-accident-investigation-branch>
Safety Digest 1/2010 – Case 2 – Dream becomes a nightmare
Safety Digest 1/2010 – Case 10 – A fatal attraction
Safety Digest 2/2011 – Case 7 – Too little too late
Safety Digest 2/2011 – Case 10 – What were they thinking?
Safety Digest 2/2011 – Case 11 – Are they in or are they out?

Australian Transport Safety Bureau

<https://www.atsb.gov.au/publications/safety-investigation-reports/?Mode=Marine>
 319-MO-2015-002 Grounding of *Maersk Garonne*, Freemantle, Western Australia 28 Feb 2015
 277-MO-2010-006 Collision between *Far Swan* and barge *Miclyn 131* at Dampier 6 Oct 2010
 262-MO-2009-001 Grounding of *Atlantic Blue*, Kirkcaldie Reef, Torres Strait. 7 Feb 2009.

Further reading**Human element/human limitations**

Gregory, D, Shanahan, P (2010). *The Human Element: a guide to human behaviour in the shipping industry*. Southampton: Maritime and Coastguard Agency. ISBN 978 0 11553120 0 (this outstanding document is relevant to the whole of this unit)

http://www.nautinst.org/filemanager/root/site_assets/forums/fatigue_forum/mca_the_human_element_a_guide_to_human_behaviour_in_the_shipping_industry.pdf

Nautical Institute video: Human Factors (1) – Alert! Maritime Education & Training <http://www.youtube.com/watch?v=r40eheaVqO8>

MCA paper: *Human element strategy and research*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/292662/Human_Element_strategy_and_research.pdf

Fatigue

Nautical Institute video: Fatigue (13) – Alert! Maritime Education & Training, <http://www.youtube.com/watch?v=8aS6jN5wCw0>

Cardiff University film: *Fatigue*, <http://www.seafarersfatigue.com/>

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/288177/mca_heat-s_v1_0906_2013.pdf. This tool, created by the UK's Maritime & Coastguard Agency (MCA), outlines the way to embed a culture of continuous improvement in safety performance so that human element issues are given regular and effective consideration. You may find it useful as a source of ideas, a self-assessment tool or even for use when you are in command.

Regulation

<http://www.imo.org/en/OurWork/HumanElement/Pages/Default.aspx>

Nautical Institute video: Human Factors (2) – Alert! Maritime Education & Training, <http://www.youtube.com/watch?v=dhMjZs5TO7o>

Leadership and management

MCA paper: *Improving safety and organisational performance through a just culture*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/286139/just_culture.pdf

Project management

Project Management Institute: <http://www.pmi.org/About-us/About-Us-What-Is-Project-Management.aspx>

<http://www.cio.com/article/2950579/project-manager/how-to-pick-a-project-management-methodology.html>

Effective communication

Nautical Institute video: Communication (14) – Alert! Maritime Education & Training: <http://www.youtube.com/watch?v=HsTeo41mWLO>

Structured shipboard training

http://commons.wmu.se/cgi/viewcontent.cgi?article=1119&context=all_dissertations

Books

Jeffery, R (2007). *Leadership Throughout*. London: The Nautical Institute. ISBN 978 1 870077 85 9

Laffoucrière, F *et al* (2015). *The Nautical Institute on Command*, 3rd edn. London: The Nautical Institute. ISBN 978 1 906915 21 6

Le Goubin, A (2012). *Mentoring at Sea: The 10 minute challenge*. London: The Nautical Institute. ISBN 978 1 906915 48 3

NI (2015). *Human Performance and Limitations for Mariners*. London: The Nautical Institute. ISBN 978 1 906915 34 6

Reflection

Once you have completed the research and assignments, reflect on what you have learned, and how it will help you in your role as the Master of a vessel. Note particularly how the six areas you have been asked to research will have an impact on this role, either positively or negatively.

Record of evidence

Use this table to record your completion of each assessment task. Add in the name of the document that you have provided to show your learning, research, case study and/or reflections, and the date of completion for your own records.

| Area of research | Name of document | Completed | Date |
|--|-----------------------|-----------|----------|
| <i>Example</i> | <i>Unit 2 Example</i> | ✓ | 07/07/17 |
| 2.1 The terms human element and human limitations | | | |
| 2.2 The international regulatory framework relating to the management of ships | | | |
| 2.3 Leadership or management? | | | |
| 2.4 Project management | | | |
| 2.5 Effective communication principles | | | |
| 2.6 Structured shipboard training | | | |

| Scenario |
|---|
| <p>2.7.1 You become aware that a deck rating has been persistently late for work and has failed to carry out his duties diligently. The Chief Officer has become ever more exasperated by his behaviour and reports that he has given him many verbal warnings.</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.2 During a safety meeting there is an argument between the Chief Officer and the Chief Engineer. The Chief Engineer reports that several of the deck ratings have not been wearing goggles while scaling the deck. The Chief Officer says that this is not true and that it is none of the Chief Engineer's business. The Chief Officer and Chief Engineer do not get on and are of different nationalities.</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.3 The shore-based management plans to place a large number of contractors on board your vessel for one month as a riding gang/repair team to carry out major upgrade work while on passage. The numbers proposed will far exceed the available lifeboat capacity, as shown on the vessel's safety equipment certificate. What process will you undertake to ensure that your vessel remains in class and meets the safety requirements of the flag state? Consider this situation for a vessel with which you are familiar.</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.4 You arrive in port where the following activities will take place within a very limited timeframe. Considering the high workload, what plans will you put in place to ensure a safe and efficient port visit? Which tasks can be safely delegated and to whom?</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.4.1 Major crew change (more than 50% of the crew will change)</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.4.2 A classification society surveyor is to conduct annual statutory surveys</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.4.3 The operator's representative will attend to carry out an internal audit of the safety management system</p> <p>Name of document..... Completed..... Date</p> |
| <p>2.7.4.6 Divers are to inspect the hull and polish the propeller.</p> <p>Name of document..... Completed..... Date</p> |

2.7.5 After discussion with the Chief Engineer, it is clear there is a general problem with teamwork and communication. There have been several occasions when there has been confusion between officers and crew and misunderstanding between departments. How would you improve teamwork and communication?

Name of document..... Completed..... Date

2.8 Case study: state which one you have chosen:

Name of document..... Completed..... Date

Reflections in journal or portfolio

Name of document..... Completed..... Date

3

Unit 3 – Navigation and shiphandling

Aim of the unit

To determine the managerial role of the Master in navigation and shiphandling. To apply what you have learned in Units 1 and 2 to develop the navigation and shiphandling skills of your junior officers and to the critical analysis of chosen case studies.

Content

This unit asks you to carry out a series of assignments in which you will be asked to apply your understanding of navigation and shiphandling to the management of these tasks. You will also be asked to reflect on what you have learned in Units 1 and 2 of the scheme to formulate a strategy for the encouragement and development of your junior officers in achieving the high standards required in these safety-critical areas.

To help you monitor your progress and to provide a reference for assessment, the unit includes a table entitled Record of Evidence in which you should record tasks completed and the contents of your portfolio or journal.

Learning objectives

On completion of this unit you will be able to:

- Specify the managerial role of the Master in navigation and shiphandling
- Based on your learning from Unit 1 Learning about learning and Unit 2 Onboard leadership and management, devise a scheme to develop the navigation and shiphandling expertise of junior officers, so you can develop your own mentoring skills
- Critically analyse a case study.

Method of assessment

Satisfactory completion of the assignments, and case study, recorded in your portfolio or journal.

Interview on completion of the scheme.

Expected timescale

120 hours.

Introduction

As Master, part of your role is to ensure that navigation and watchkeeping on your vessel are maintained to the standards required by international regulators, flag state, port state and company. You will have learned about these requirements during your studies for certificates of competency, but may not have been taught how to implement these standards on board. This unit therefore has a dual purpose: to give you the opportunity to develop your own navigation and shiphandling skills, and to consider how you, as Master, will ensure that your junior officers meet these standards. You will also be asked to review how you will use the navigation information available to you on board.

The encouragement and guidance you give to your junior officers will have a significant effect on the standards maintained on board. The Master's mentoring role is often undervalued, but it ensures that junior officers are aware of your requirements and it can have a positive effect on their morale. Mentoring is especially useful when conducting shiphandling. It enables more experienced ship handlers to step in if necessary to resolve any problems and explain what went wrong with any manoeuvre.

The unit is divided into eight assignments, each highlighting a different area of knowledge. In completing the assignments you should be developing your own work rather than simply cutting and pasting from existing material. You need to know where this information has come from and why it is included, so numerous references have been included for you to use in your research. This is not a complete list of every available resource for the subject and, as in previous units, you are encouraged to carry out your own research.

Topics to research

Assignment 3.1 The Master's responsibilities in voyage planning and navigation

3.1.1 Using the resources available aboard your vessel and taking into account company policy, select a short coastal voyage that will make particular demands on an inexperienced officer responsible for passage planning. The voyage should include:

- Area(s) of restricted navigation involving large alterations of course
- Restricted depth
- Strong current or tidal conditions
- Local regulations and VTS reporting system
- Poor visibility
- High concentrations of traffic (including crossing traffic)
- Traffic separation systems. Two obvious examples are transits of the Dover Strait and Singapore Strait.

Briefly describe the voyage selected. State the starting point, end point and the route taken.

- 3.1.2 Describe in detail the discussion you would have with the officer responsible for passage planning during the appraisal stage of the passage planning process. Include in your description the guidance you would give to ensure that the passage planning officer is clear about your requirements for the voyage and that they are able to produce an appropriate and workable passage plan.
- 3.1.3 How would you determine that the completed passage plan (and set-up of ECDIS, if fitted) is comprehensive and suitable for all aspects of the voyage?
- 3.1.4 Describe how you would assess the security risks for the voyage, the information you would seek, and the precautions you would take to keep the vessel safe from piracy, theft, terrorism etc.
- 3.1.5 Determine the instructions you would give to the bridge team members conducting such a voyage with regard to position-fixing and continually monitoring the vessel's progress.
- 3.1.6 Produce a list of reference materials that you would suggest the junior officer refer to when determining the passage plan. Identify the information in each source that should be consulted.
- 3.1.7 What systems or services external to the ship are available to assist with planning your passage, and how would you use them? Examples include weather routing and MSI.

For the planning stage of the voyage and while navigating, describe the importance of ship stability information and calculations and continued awareness/surveillance of these throughout the passage.



Note: If your vessel has ECDIS, submit copies of display screenshots to illustrate your account.

Assignment 3.2 Position-fixing

Bridge watchkeeping officers will have been required to demonstrate a level of competence in position-fixing during their training. Once at sea, however, they must be able plot the vessel's position quickly, assess the accuracy of the derived position and communicate the position with respect to the track or some point of reference without the luxury of re-reading a question as they might do in the classroom.

- 3.2.1 Use sailing directions, charts and other information available to you to select a small restricted area within your normal trading area through which your vessel might transit. This may be the same area you selected in Assignment 1 on passage planning or another of your choice.

The selected area should:

- Include hazards and be close to buoys, lighthouses, oil rigs and other structures. It might be a narrow channel, fairway or the lane of a TSS, for example
- Make intense demands upon your bridge watchkeeping team with regard to position-fixing
- Involve strong currents and/or leeway caused by strong prevailing winds
- Require a major alteration of course.

Once you have selected an appropriate area, go to Section 3.2.2 below.



Note: Use screenshots of ECDIS or scanned copies of charts to illustrate your answer.

- 3.2.2 As Master you must be able to advise your deck officers (particularly inexperienced junior officers) of your expectations regarding position-fixing. Describe in detail the briefing you would give to your navigating officers before entering such an area with particular regard to position-fixing. Your briefing should include:

- The position-fixing techniques you would require as the primary method of establishing the ship's position and what you would use as a secondary means of checking the ship's position, giving reasons for your choice
- The position-fixing intervals you would use for various segments, giving your reasons
- The advice you would give about reliance on GNSS as a means of determining the ship's position, and explaining the reasons for this advice
- Guidance on the errors that might be expected when taking visual or radar bearings and radar distances, and advice on the selection of navigation marks
- Instructions on the methods for checking the accuracy of position fixes
- Precautions needed when using ECDIS display overlaid on ARPA (or vice versa)
- An explanation of the systematic approach required when a large discrepancy is noted after comparing primary and secondary position fixes
- Instructions to officers on the way positional information is to be communicated to the person conducting navigation (pilot or Master). You should include the position information required when conducting a large critical turn.

- 3.2.3 Before and during the transit of such an area the performance and functionality of the navigational aids available to you and your bridge team should be established.

Prepare a comprehensive checklist or procedure to cover the testing of all the electronic and non-electronic navigational aids available to your bridge team. This checklist or procedure should include:

- A list of all the navigational aids that need to be checked
- Frequency of checking
- Method of checking
- Acceptable errors or level of performance; explain where you might find this information
- Action required when errors are discovered that are outside acceptable limits, or when the system is in alarm condition or does not function as designed.



Note: In your answer, list the make and model of each navigational aid.

3.2.4 Your bridge team must be proficient in continually monitoring the progress of the vessel along the charted track during transit of the area chosen in 3.2.1 above. What instructions and advice would you give to an inexperienced watchkeeping officer regarding continual position monitoring using parallel index techniques using ARPA or ECDIS with ARPA overlay. Include in your instructions details of:

- Selecting suitable reference targets
- Setting up parallel index lines
- Working within acceptable limits of cross index range
- Setting wheel-over points
- Transiting the channel at low speed with a strong cross-current
- Transferring to a new course
- Using ECDIS with ARPA overlay.

3.2.5 Explain in detail how you expect ECDIS to be used to display the ship's position and how guard zone (safety frame), safety depths and contours would be set so that the vessel's position and progress in relation to navigational and grounding hazards can be monitored closely.

- Explain, in a convincing way, why it is important not to be totally reliant on GNSS as the main source for position monitoring
- Explain the situations in which GNSS may be rendered unsuitable or unavailable as a navigational aid for monitoring the ship's position
- Explain how you would confirm the accuracy and reliability of the charted information displayed on the ECDIS.

3.2.6 As Master you should always consider the possibility of navigating with GNSS denial. In this exercise you will consider how to lead your bridge team in transiting the selected area without the use of GNSS.

- Describe how you would detect a GNSS failure and its impact on all ship systems
- Provide instructions on how to plot radar or visual bearings and radar distances on ECDIS in the absence of GNSS
- Instruct your bridge team on how you would set up ECDIS to display continual position information
- Provide guidance on the accuracy of the position displayed by ECDIS
- Describe a secondary method of checking any position fix.



Note: Detail the manufacturer and model of ECDIS in the relevant sections of your answers.

Assignment 3.3 Watchkeeping arrangements

3.3.1 You are about to take command for the first time. Think about the watchkeeping and manning arrangements on your vessel and your expectations of the navigational watch officers.

List all of the factors you need to consider when planning the watchkeeping arrangements for your vessel.

3.3.2 Now that you have considered the factors required for a suitable watchkeeping plan, create comprehensive watchkeeping plans for your vessel, based on the available manning on board, covering the following situations as they apply to your vessel:

- A coastal passage
- Open sea conditions
- Periods of reduced visibility
- Heavy weather
- Periods of restricted navigation without a pilot
- During pilotage
- At anchor
- Mooring and anchoring operations
- Helicopter arrangements
- Embarking and disembarking the pilot or officials.

Justify your choice of personnel for each of your plans. Detail the manning level for your vessel.

Note: If your vessel has training software used for recording work and rest hours, such as ISF Watchkeeper, you may wish to use this resource.

If your manning arrangements include times when a single officer of the watch is the only person on the bridge while at sea, what arrangements would you include to prevent errors or omissions that could result in grounding or collisions?

Note: It is not necessary to use the actual names of personnel on board

3.3.3 Consider an operation of your vessel that would make the maximum demand on manpower requirements on board. You may wish to make use of historical data (from the log book). Demonstrate how your watchkeeping plan meets STCW and MLC 2006 rest hours requirements. State what action you would take to ensure compliance.

Note: If available, use training software used for recording work and rest hours, such as ISF Watchkeeper.

3.3.4 Think about when your presence on the bridge is required. Describe the briefing you would give to a deck officer who has just joined the vessel. What advice would you give regarding:

- Calling you to the bridge when your presence is urgently required
- Your arrival on the bridge before taking over the conduct of the vessel
- Your routine arrival on the bridge
- Calling you when restricted visibility is suddenly encountered
- Sounding the emergency alarm.

3.3.5 Write standing orders giving guidance to your watchkeeping officers on how they are to conduct navigation on board the vessel. Consider the following elements:

- General conduct of officers
- What OOW needs to be familiar with
- Conduct of navigation
- Verbal communication, including use of VHF radio
- Collision avoidance, limits of CPA to avoid CQS
- What to do in an emergency
- Calling the Master
- Navigation with pilot embarked.

3.3.6 Write night orders, as they apply to your vessel, for the following:

- During a coastal passage with light to medium traffic
- The night before an early morning arrival at a pilot station or anchorage
- When heavy weather or poor visibility is expected
- At an anchorage in heavy weather or when heavy weather is expected
- Navigation with pilot on board.

3.3.7 Master's dilemma. The Second Officer advises you that due to the intensive trading pattern and the very large number of chart corrections required following a substantial increase in the folio carried, their workload is particularly high. They are also responsible for routine checking of SCBA as part of looking after fire-fighting equipment on board. You are mindful of a forthcoming internal SMS audit and probable port state control inspection at the next port (since the vessel is new and it is the first time in the port). Describe the action you would take to (a) deal with the Second Officer's concerns and (b) ensure that the charts and nautical publications are presented in a way acceptable to any inspector.

Assignment 3.4 Application of the Collision Regulations

3.4.1 The Officers of the Watch must know and apply the International Collision Regulations. As Master you must be able to assess the OOWs' proficiency in the application of COLREGS and, if necessary, further develop their skills.

- Consider and then describe a training session that you could run to assess and help develop your deck officers' skills in applying the Collision Regulations. Describe how you could use some of the systems on the bridge to assist you.
- Look at the trading pattern of your vessel and think about areas of high traffic density that might make particular demands on the skills of your watchkeeping officers when applying the Collision Regulations.
- Select one of these areas and explain why you have chosen it.
- What distance of closest point of approach would you require for transit vessels in this area (bow, and stern crossing, overtaking and passing on a reciprocal course)? Justify your reasons for the distances you have selected appropriate to your vessel. What guidance would you give to officers when they encounter concentrations of fishing vessels or other small vessels drifting or proceeding at slow speed?
- Describe in detail the advice you would give to officers who are not used to transiting this area.

3.4.2 Think about your role as Master during a prolonged period of reduced visibility in an area in where traffic density is likely to be high. Make a list of the factors you would consider while navigating in this area in reduced visibility.

3.4.3 Discuss each factor in turn and explain the measures you would take to ensure that the vessel is properly navigated in compliance with the Collision Regulations during this time.

Assignment 3.5 Using navigation equipment and systems, including ECDIS, to assist command decision-making

3.5.1 Determine and document all sources of navigational information aboard your ship. Identify the capabilities and limitations (including sensors and power sources) of the individual pieces of navigational equipment.

3.5.2 Develop a system for the management of ECDIS, covering operational procedures, system and backup files, charts and corrections. Ensure that you address the following points:

- Manage procurement, licensing and updating of chart data and system software to conform to established procedures

- System and information updating, including the ability to update the ECDIS system version in accordance with the vendor's product development
 - Create and maintain the system configuration and backup files
 - Create and maintain log files in accordance with established procedures
 - Create and maintain route plan files in accordance with established procedures
 - Use the ECDIS log book and track history functions for inspection of system functions, alarm settings and user responses.
- 3.5.3 Consider how you might integrate the information obtained from the various pieces of equipment when making a command decision. You may use any format that suits you and your learning style: mind map, flow chart, outline, bullet points, spreadsheet etc. Use all sources available to you, including other Masters and the LinkedIn group
- 3.5.4 Design and implement a plan on your ship that will ensure your junior officers develop their knowledge and skills in the use of the system as well. Provide a description of your plan and how you implemented it. Record the results and comment on the results.

Assignment 3.6 Weather

- 3.6.1 Considering the vessel on which you are currently serving and her trading area, discuss how you would analyse a weather report and subsequent reports forecasting extreme weather in each of the following situations:
- While in port
 - While at anchor
 - At sea.
- State the area, or the port you have chosen in each case.
- 3.6.2 Create a weather forecast based upon an extreme weather event that could occur in the area you have selected. Specify the weather information – wind direction, wind speed, significant wave height, swell height and position of the system. Specify the weather information and the source of the information that you have used to generate your forecast, such as port information guides, sailing directions or historical weather forecasts.
- 3.6.3 For the event that you have chosen in 3.6.2 above, consider your vessel, cargo or passengers, as appropriate, and identify the issues that would concern you regarding safety of the crew and the ship in such an event.
- 3.6.4 For the chosen event, describe the decision process you would go through to take action to ensure the safety of your vessel.
- 3.6.5 Explain how you would take account of the commercial considerations of your actions.
- 3.6.6 Prepare the text of an email that you would send to the appropriate person in your organisation explaining your actions, the reasons for those actions and their commercial consequences.

Assignment 3.7 Practical shiphandling

Below you will find a list of manoeuvres. The goal here is to become proficient in as many of the manoeuvres as it is possible to practise aboard your particular ship type. The manoeuvres in blue print MUST be practised by all candidates. The remaining manoeuvres should be practised if possible.

For those manoeuvres you are unable to perform, submit a written explanation, with supporting diagrams, showing how the manoeuvre should be carried out and/or the factors that should be considered.

Whenever you practise one of the manoeuvres, note the date, location and weather conditions in the Practical Shiphandling Log below. Add comments about the planning you carried out for the safe completion of the manoeuvre, together with any other information you think important. Please have the Master of the vessel verify the entry.



3.7.1 Manoeuvre the ship approaching a pilot station to embark or disembark pilots

Have due regard for the weather, tide, headreach and stopping distances.



3.7.2 Manoeuvre the ship to a chosen anchorage

Consider single anchor, twin anchors, the length of cable to use, final anchor position:

3.7.2.1 Action on dragging anchor

3.7.2.1 Clearing a foul hawse.



3.7.3 Navigating the ship in a river or estuary

Consider the effect of current and wind, and the effect of shallow water on helm response:

3.7.3.1 Manoeuvring the ship in shallow water, including the reduction in under-keel clearance caused by squat rolling and pitching

3.7.3.2 Manoeuvring close to other ships and banks, noting interaction and canal effect and their effect on the manoeuvre

3.7.3.3 Importance of navigating at reduced speed to avoid damage caused by own ship's bow and stern wave.



3.7.4 Manoeuvring the ship in heavy weather

Consider means of keeping an unmanageable ship out of trough of the sea; methods of reducing the rate and direction of drift:

3.7.4.1 Assisting a ship or aircraft in distress

3.7.4.2 Manoeuvring to launch rescue boats or survival craft in bad weather

3.7.4.3 Manoeuvring to take on board survivors from rescue boats or survival craft

3.7.4.4 Towing operations.

3.7.5 Berthing and unberthing the ship – consider the manoeuvres under various conditions of wind, tide and current with or without tugs:

3.7.5.1 Ship and tug interaction.

3.7.6 Determine the manoeuvring and propulsion characteristics of common types of ships, with special reference to stopping distances and turning circles at various draughts and speeds.

3.7.7 Application of constant rate-of-turn techniques.

3.7.8 Practical measures to be taken when navigating in or near ice or when there is ice accumulation on board.

3.7.9 Use of, and manoeuvring in or near, traffic separation schemes and in vessel traffic service (VTS) areas.

3.7.10 Manoeuvre particular to your vessel type.

Practical ship handling log

Manoeuvre number 3.7.2 Date 24/06/2017
 Location: lat/long 54 34.5 N 001 15.8 W Weather NE 2, slight sea, visibility good
 Comment **Ship approaching Southampton UK, and sent to anchorage off Nab Tower to await berth. Vessel brought up in 23m water using 5 shackles of the port anchor**
 Master's signature W Bligh

Manoeuvre number..... Date.....
 Location: lat/long Weather.....
 Comment
 Master's signature

Manoeuvre number..... Date.....
 Location: lat/long Weather.....
 Comment
 Master's signature

Manoeuvre number..... Date.....
 Location: lat/long Weather.....
 Comment
 Master's signature

Manoeuvre number..... Date.....
 Location: lat/long Weather.....
 Comment
 Master's signature

Assignment 3.8 Case study

The following case studies are reports of marine accidents, and each raises questions about the navigation and/or shiphandling of a vessel that may lead to damage to the ship or cargo or even cause injury to or the death of a crew member.

Review one report from the list below or another suitable full accident report with which you are familiar. Use the Case Studies Review template (see section 14 of the introductory guidance, p 14). In addition to the questions on the Case Studies Review template, think specifically about the management and leadership leading up to the incident and identify where the management on board the vessel/s in question contributed to the accident.

Formulate a process you could follow in identical circumstances that would ensure this kind of accident did not happen on your vessel.

Note: Simply answering “I would not allow the OOW to go to sleep”, for example, is not a process. Describing how you could prevent the OOW from falling asleep, is a process.



Australian Transport Safety Bureau (ATSB), www.atsb.gov.au

262-MO-2009-001 Grounding of *Atlantic Blue*

319-MO-2015-002 Grounding of *Maersk Garonne*

Bureau d'enquêtes sur les événements de mer (BEAmer), www.bea-mer.developpement-durable.gouv.fr/about-us-r50.html

Report Nov 2013 Grounding of the Oceanographic Vessel *Marion Dufresne*

Federal Bureau of Maritime Casualty Investigation (BSU), www.bsu-bund.de/EN/Home/homepage_node.html

Report 1/08 Grounding of MV *LT Cortesia*

Report 167/08 Grounding of MV *Pacific Challenger*

Report 174/10 Grounding of MV *Beluga Revolution*

Marine Accident Investigation Branch (MAIB), www.gov.uk/government/organisations/marine-accident-investigation-branch

Report 21/2008 Grounding of *CFL Performer*

Report 2/2009 Grounding of *Pride of Canterbury*

Report 24/2014 Grounding of *Ovit*

Report 28/2015 Collision between *Ever Smart* and *Alexandra 1*

Reflection

Maintaining standards of navigation and watchkeeping on board are my responsibility. What techniques can I use or develop to ensure that my officers maintain the high standards that I expect? What are those standards?

Further reading

ECDIS information on NI website: <http://www.nautinst.org/en/forums/ecdis/index.cfm>

E-navigation information on NI website: <http://www.nautinst.org/en/forums/enavigation.cfm>

Hull specification manual from the shipyard

Manufacturers' manuals for navigational equipment

Routeing charts

Sailing directions

Chapman, P (2009). *Monitoring Turns Using Radar*. London: The Nautical Institute. ISBN 978 1 906915 96 5

Davies, H (2013). *Numerical Weather Prediction*. London: The Nautical Institute. ISBN 978 1 906915 40 7

Gale, H (2013). *From Paper Charts to ECDIS: a practical voyage plan*. London: The Nautical Institute. ISBN 978 1 906915 17 9

ICS Bridge Procedures Guide. International Chamber of Shipping

Lee, G W U and Parker, C J (2007). *Managing Collision Avoidance at Sea*. London: The Nautical Institute. ISBN 978 1 870077 86 6

NI (2009). *Modern Watchkeeping and the Human Element* (DVD). London: The Nautical Institute. ISBN 978 1 870077 99 6

NI (2015). *Navigation Accidents and Their Causes*. London: The Nautical Institute. ISBN 978 1 906915 32 2

Squire, D (2013). *The Use of Visual Aids to Navigation*, 2nd edn. London: The Nautical Institute. ISBN 978 1 906915 29 2

NP100 *The Mariner's Handbook*

NP231 *Admiralty Guide to the Practical Use of ENC's*

NP232 *Admiralty Guide to ECDIS Implementation, Policy and Procedures*

NP5012 *Admiralty Guide to ENC Symbols Used in ECDIS*

Record of evidence

Use this table to record your completion of each assessment task. Add in the name of the document that you have provided to show your learning, research, case study and/or reflections, and the date of completion for your own records.

| Assignment | Name of document | Completed | Date |
|--|-----------------------|-----------|--------|
| <i>Example</i> | <i>Unit 3 example</i> | ✓ | 7/7/17 |
| 3.1 Voyage planning and navigation | | | |
| 3.1.1 Select voyage | | | |
| 3.1.2 Passage plan discussion | | | |
| 3.1.3 Check passage plan | | | |
| 3.1.4 Security risks | | | |
| 3.1.5 Instructions to bridge team | | | |
| 3.1.6 Reference materials | | | |
| 3.1.7 External systems and services | | | |
| 3.2 Position-fixing | | | |
| 3.2.1 Selected area | | | |
| 3.2.2 Position-fixing briefing | | | |
| 3.2.3 Navigation aids checklist | | | |
| 3.2.4 Instructions for continuous monitoring of position | | | |
| 3.2.5 ECDIS management | | | |
| 3.2.6 Navigation without GNSS | | | |
| 3.3 Watchkeeping arrangements | | | |
| 3.3.1 List of factors for watch arrangements | | | |
| 3.3.2 Watchkeeping plan | | | |
| 3.3.3 Watchkeeping at maximum stretch | | | |
| 3.3.4 Calling the Master | | | |
| 3.3.5 Standing orders | | | |
| 3.3.6 Night orders | | | |
| 3.3.7 Master's Dilemma | | | |
| 3.4 Collision Regulations | | | |
| 3.4.1 Assess proficiency with COLREGS | | | |
| 3.4.2 List of factors navigating in reduced visibility | | | |
| 3.4.3 Discussion of factors | | | |
| 3.5 Using navigation equipment | | | |
| 3.5.1 Sources of navigation information | | | |

| | | | |
|---|--|--|--|
| 3.5.2 Management of ECDIS | | | |
| 3.5.3 Integration of information | | | |
| 3.5.4 Plan for implementation plus results | | | |
| 3.6 Weather | | | |
| 3.6.1 Analyse weather reports for: <ul style="list-style-type: none"> ● Port ● Anchor ● At sea | | | |
| 3.6.2 Create a weather report | | | |
| 3.6.3 List of concerns | | | |
| 3.6.4 Decision process | | | |
| 3.6.5 Commercial considerations | | | |
| 3.6.6 Email text | | | |
| 3.7 Practical shiphandling Complete records attached (Practical Shiphandling Log) | | | |
| 3.8 Case study Review of the case study | | | |
| Reflection | | | |

4

Unit 4 – Ship's commercial business

Aim of the unit

To determine the managerial role of the Master in the commercial venture, the way in which the outcome of the venture is affected by the Master's decisions and the factors that affect those decisions in both operational and emergency situations.

Content

This unit consists of a series of assignments in which you will be asked to apply your understanding of Shipmaster's business and law in a series of scenarios. The Master's decisions can have a considerable effect on the outcome of the venture.

To help you monitor your progress and to provide a reference for assessment, the unit includes a table entitled Record of Evidence in which you should record tasks completed and the contents of your portfolio or journal.

Learning objectives

On completion of this unit you will be able to:

- Specify the managerial role of the Master in relation to a commercial venture
- Determine the major factors influencing the Master's decisions in operational and emergency situations as they affect the commercial venture
- Predict the effect of the Master's onboard decisions in safeguarding the owner's or charterer's commercial interests.

Method of assessment

Satisfactory completion of the assignments, recorded in your portfolio or journal.

Interview on completion of the scheme.

Expected timescale

80 hours.

Introduction

It is essential for Shipmasters to understand the commercial aspects of the voyage and any maritime laws that might affect their decisions. In both normal operations and in emergencies, these decisions may have profound financial consequences. Awareness of the possible effect of a decision can help limit potential financial losses to shipowner, charterer and cargo owner.

Eight assignments are to be completed on the commercial aspects of your employment. In each assignment you should take into account the following, either individually or together, to help make informed decisions relating to the commercial undertaking:

- Liability
- Marine insurance (P&I and H&M)
- Carriage of Goods by Sea including the Rotterdam Convention
- Charter parties – key clauses including safe port, cargo exclusions, warranty limits, NAABSA and delivery of cargoes without bills of lading

- Bills of lading, including ship and shore difference, delivery of cargo without bills of lading
- Issues related to notice of readiness
- Bunker measurements
- Seaworthiness concept and ISM Code
- Laytime and laytime calculation – understand laytime and laycan, demurrage and dispatch
- Issuing a letter of protest (cargo, terminal etc)
- Particular and general average
- Salvage including Lloyd's Open Form (LOF)
- Towage
- Port of refuge
- Deviation (justifiable and unjustifiable)
- Duties of Master to owners/charterers
- Collecting evidence.

You should research each area in sufficient depth to complete the assignments. Understanding these points will assist you, as Master, in making decisions that will be safe and minimise potential losses.

All the assignments should be answered taking into consideration the impact of any decisions made by the Master. Matters such as whom to inform of the situation, recording actions taken and official log book entries must be addressed. A statement of facts must be prepared immediately after the event ready for use in any subsequent inquiry.

Topics to research

Assignment 4.1 Towage and salvage

You are Master of a 15,000dwt geared container ship trading in the Pacific. Your vessel is on passage between two ports 900 miles apart. There are no islands close to the route, which is a direct rhumb line course. At a point approximately halfway along the route you encounter a 2,000dwt general cargo vessel that is drifting, having suffered engine failure. It is only able to communicate via a handheld VHF radio, which has an effective range of 12 miles.

- 4.1.1 Discuss, as Master, your responsibilities to the disabled vessel.
- 4.1.2 The Master of the other vessel requests a tow. If you are to carry out the tow, discuss the actions you would take to confirm your legal position.
- 4.1.3 How will your decision affect the outcome of the voyage?

Note: This assignment does not require an explanation of the seamanship aspects of case, such as passing a tow.



Assignment 4.2 Machinery breakdown at sea – port of refuge – deviation

You are Master of a 30,000dwt product tanker on a voyage across the Atlantic Ocean, from the Gulf of Mexico towards the Mediterranean Sea for discharge. After three days the engineer on watch rings Emergency Slow on the telegraph and you are called to the bridge. After an hour the Chief Engineer informs you that the engine has cracked a cylinder head, which has started to self-destruct in the engine casing. He can make a temporary repair by isolating the cylinder. However, it will take about 10 hours to complete, after which the engine power will be limited. He will not guarantee that the engine in this configuration will last more than a few days. There are several options for repair, but all require deviating from the planned route.

- 4.2.1 What actions will you take to assess risk and ensure the minimum loss to the ship operator and charterers?
- 4.2.2 Discuss your options with regard to a port of refuge.
- 4.2.3 What are the effects on the voyage of each of these options?
- 4.2.4 What are the commercial implications of deviating from the route?

Assignment 4.3 Notice of arrival and laytime

Based upon a ship you have experience of, imagine you arrive at a port to load. You also need to undertake engine repairs. Because of the ship's configuration, cargo handling cannot start before the repairs are completed.

- 4.3.1 Describe the liability for the ship operator and charterer (either time or voyage charter). Based on your knowledge of a current contract, what actions can you take to minimise the impact on the commercial side of the venture? How will these actions affect the outcome?

Assignment 4.4 Grounding and refloating considering general average declaration and contribution

You are called to the bridge of your vessel by the Officer of the Watch, who has lost GNSS signal and is unsure of his position. You are navigating offshore through an area of known sandbanks. Your initial action is to slow down while you assess the situation. Shortly afterwards the vessel starts to vibrate and the log speed drops significantly. The vessel then stops and you realise that you are aground. You believe you have gone aground near high water. After careful assessment by the crew, you decided that the hull is not breached and that it would be safe to try to refloat the vessel. To do so, you will need to lighten the ship.

- 4.4.1 Identify the interested parties involved and describe the actions you will take to ensure the minimum loss to shipowners, managers, charterers and cargo owners, stating how these actions will affect the outcome.

Note: You do not need to explain how you would lighten the ship, but you must explain the legal actions you would take.

- 4.4.2 What steps should you take in declaring a general average call?

Assignment 4.5 Crew arrest in foreign port – delays to vessel – sailing shorthanded – effect on charter party terms

Choose a port with which you are familiar. After completing discharge and just before you are due to sail the Chief Mate reports that two ABs and a motorman are still ashore. The agent tells you that all three crew members have been arrested. None of the crew members is a national of the country in which the port is situated and none is carrying a passport, although they do all have photo ID as required for port security.

- 4.5.1 Describe the actions you will take to minimise delay to the ship and how these actions will affect the outcome.
- 4.5.2 Describe the actions you would need to take to sail the ship without the full crew on board.
- 4.5.3 How could this affect the terms of a charter?



Assignment 4.6 Collision – actions – pollution – reporting to authorities

- 4.6.1 Following a collision where a ship on your port side failed to give way, describe the information you should gather to protect your owner's and charterer's interests.
- 4.6.2 Assuming that the incident occurred in the jurisdiction of your current vessel's flag state, describe the type of report and the authority that will be contacted (if completing this assignment on leave, choose a flag state).
- 4.6.3 As the two vessels pull apart, a quantity of fuel oil is noticed in the water. It appears to be coming from under the water near one of your vessel's double-bottom bunker tanks. Describe the actions you would now take regarding the reports that must be made to comply with national and international requirements.

Assignment 4.7 Preparing checklist for hold inspection

You are employed by the ABC LTS as a Master on a handysize vessel. You had quite a busy time to meet the deadline set by the charterers to load grain. The hold cleaning is now completed and ready for grain loading. You, along with the Chief Officer, are required to carry out a hold inspection.

- 4.7.1 Prepare a checklist for a hold inspection to be undertaken by a surveyor.

Assignment 4.8 Failure of hold inspection

A 24-year-old Panamax bulk carrier was chartered out for a single voyage time charter to load barley in a Black Sea port in the Ukraine. The voyage orders from the head charterer gave the following instructions to the Master based on the charter party terms:

On arrival at the load port, vessel to be clean, swept/washed, dried and ready in every respect and in all compartments to receive charterer's cargo to local surveyors' and/or competent authorities' satisfaction – failing which the ship to be offhire and owners to take immediate steps to expedite cleaning as fast as possible including the use of shore labour. If ship fails inspection the bunkers consumed and extra directly related costs to be for owner's account until ship has been passed in all loading holds.

The ship left the last port having discharged a cargo of petcoke. The voyage to the next loading port was four days. Poor weather hampered the hold cleaning by the crew. The Master advised the owners about the slow progress in hold cleaning due to the previous cargo and bad weather. The sequence of the previous four cargoes had been petcoke, coal, coal, bauxite. As a guide, with a normal crew complement who are experienced, organised and have the correct equipment, it will take one day to clean a hold of a Panamax bulk carrier, although drying the holds will obviously take longer and will normally require the hatch lids to be opened to air. Holds with previous cargoes such as petcoke or bauxite may take longer to achieve a grain clean condition. An inspection took place on arrival at the load port and all seven holds were rejected because of the presence of residue and dust from previous cargoes and remaining water in the holds and bilges.

The following day, shore cleaning gangs attended the ship and six days later the ship was presented to the surveyor. Again the ship failed for similar reasons plus the fact that loose rust scale was present on the tank top. It was found that the cleaning gangs did not have sufficient personnel or equipment.

The claim from the charterers was that the ship was not ready to load under the terms of the charter party and there was a loss because the first cargo of grain could not be loaded. The claim amounted to some \$400,000.

Analyse the case, responding to the following:

- 4.8.1 Comment on the actions taken by the Shipmaster and consider whether they could have avoided this situation
- 4.8.2 Explain how you would have handled the situation
- 4.8.3 Explain the lessons learned from this case and highlight key points that may have avoided the situation and offhire.

Further reading

Gard Guidance to Masters: www.gard.no/Content/20651969/GTM_web.pdf

Maclachlan, M (2004). *The Shipmaster's Business Companion*, 4th edn. London: The Nautical Institute. ISBN 978 1 870077 45 3

Maclachlan, M (2015). *The Shipmaster's Business Self-Examiner*, 10th edn. London: The Nautical Institute. ISBN 978 1 906915 35 3

NI (2017). *Collecting Marine Evidence*, 4th edn. London: The Nautical Institute. ISBN 978 1 906915 54 4

NI (2015). *Human Performance and Limitation for Mariners*. London: The Nautical Institute. ISBN 978 1 906915 34 6

NI and ISU (2012). *Casualty Management Guidelines*. London: The Nautical Institute. ISBN 978 1 906915 39 1

<http://www.shipinspection.eu/index.php/chartering-terms/86-t/4969-timesheets-and-laytime-calculation>

The Institute of Chartered Shipbrokers publishes many books that are likely to be helpful in this unit, including:

- *Introduction to Shipping*
- *Shipping Business*
- *Legal Principles in Shipping Business*
- *Ship Operations and Management*.

Reflection

Once you have completed the research and assignments, reflect on what you have learned and consider how it will help you in your role as the Master. Note particularly how the areas you have been asked to research will affect this role, either positively or negatively.

Record of evidence

Use this table to record your completion of each assessment task. Add in the name of the document that you have provided to show your learning, research, case study and/or reflections, and the date of completion for your own records.

| Assignment | Name of document | Completed | Date |
|---|--|-----------|---------|
| <i>Example</i> | <i>4.1.1 Responsibilities to disabled vessel</i> | ✓ | 14/6/17 |
| 4.1 Towage and salvage | | | |
| 4.1.1 Responsibilities to disabled vessel | | | |
| 4.1.2 Legal position | | | |
| 4.1.3 Effect on voyage outcome | | | |
| 4.2. Machinery breakdown | | | |
| 4.2.1 Initial actions | | | |
| 4.2.2 Port of refuge | | | |
| 4.2.3 Effects on the voyage | | | |
| 4.2.4 Commercial implications of deviation | | | |
| 4.3 Arrival and laytime | | | |
| 4.3.1 Actions to prevent loss | | | |
| 4.4 Grounding and refloating | | | |
| 4.4.1 Minimising loss to interested parties | | | |
| 4.4.2 Declaring general average | | | |
| 4.5 Crew arrest | | | |
| 4.5.1 Minimise delay | | | |
| 4.5.2 Sailing without full crew | | | |
| 4.5.3 Effect on charter terms | | | |
| 4.6 Collision reporting | | | |
| 4.6.1 Information collected | | | |

| | | | |
|---|--|--|--|
| 4.6.2 Type of report and flag state | | | |
| 4.6.3 Actions and reports after pollution by fuel oil | | | |
| 4.7 Checklist for hold inspection | | | |
| 4.7.1 Checklist prepared | | | |
| 4.8 Failure of hold inspection | | | |
| 4.8.1 Comments on the Master's actions | | | |
| 4.8.2 Explanation of actions taken | | | |
| 4.8.3 Lessons learned | | | |
| Reflection Were all sections of the unit helpful? | | | |

5

Unit 5 – Emergencies and drills

| | |
|-----------------------------|---|
| Aim of the unit | To determine the Master's strategic role in preparing for and managing an emergency or crisis onboard ship. |
| Content | <p>In this series of assignments you are asked to apply your understanding of the Shipmaster's role in emergency preparedness on board, and to develop the leadership and mentorship skills required to deal safely with the emergency.</p> <p>To help you monitor your progress and to provide a reference for assessment, the unit includes a table entitled Record of Evidence in which you should record tasks completed and the contents of your portfolio or journal.</p> |
| Learning objectives | <p>On completion of this unit you will be able to:</p> <ul style="list-style-type: none"> ● Provide instructions to be carried out in the event of emergencies at sea ● Plan drills to practise crew reactions in the event of emergencies on board. |
| Method of assessment | <p>Satisfactory completion of the assignments and case study recorded in your portfolio or journal.</p> <p>Interview on completion of the scheme.</p> |
| Expected timescale | 80 hours. |

Introduction

Part of your responsibility in command at sea is the emergency preparedness of the crew and the ship's equipment. The type, capacity and nature of the equipment on board will be determined by the flag state based on IMO requirements. Manufacturers' guidance on the maintenance and operation of the equipment will be available on board. Correct use of the equipment will be the responsibility of the crew aboard the vessel, which is where the Master's role begins. Your crew must be able to operate all emergency equipment to the point that they can deal with any emergency efficiently, effectively and safely, with minimal injury or material loss.

How do you achieve this? One way is to train the crew on board through a series of specific drills. You are, of course, required to carry out drills, but if you want your crew to respond quickly and effectively to any emergency, what actions should you put in place, as Master of the vessel, to ensure that this happens? Is it sufficient to muster the crew once a week, roll out a hose and run water through it? Should you take a more proactive approach and hold drills without notice? Should you plan the emergency drills in detail, to ensure a realistic scenario, with realistic problems to overcome? Can more be achieved by careful debriefing following the drill?

When an incident occurs, part of your role as Master is to collect evidence. You may also have to write a report. It is therefore important to maintain good records of what happens as the incident unfolds, so that your report is based on facts rather than on your limited memory of events. On a

ship fitted with a voyage data recorder (VDR), it may be useful to talk about what you can see and hear and the information that you are getting from your nav aids such as radar, ARPA and ECDIS. The VDR will record this via the bridge microphone(s). This acts as a unique time-stamped record of the events, which should provide the factual basis for a very clear and accurate report

In this unit, the assignments ask you to detail how you would undertake certain emergency actions in port and at sea. You must provide a detailed explanation showing how you would ensure a safe, timely conclusion to the situation.



Note: This should not be a textbook report, but a realistic account of what you and your officers and crew would actually do.

The actions you describe should be based on vessels with which you are familiar in areas that you regularly trade

Topics to research

5.1 Dealing with oil pollution

As Master you must be able to react quickly to initiate the appropriate action in the event of oil pollution.

Consider the following scenario.

During bunkering, alongside or at anchor from a bunker barge, the Chief Engineer raises the alarm and informs you that there has been a major bunker spill, with bunker fuel in the water. Consider such an event at a port or anchorage you regularly visit. Using records on board, construct the incident based on a successful bunkering operation that has been carried out on your vessel. Identify the cause of the pollution (bunker hose split, for example), the type and quantity of fuel spilled, location of the spill and other details relevant to the scenario.

- 5.1.1 Give a detailed account of your initial actions, based upon your emergency procedures and port and port state requirements, as appropriate. Your report should include copies of any mandatory or company incident reports.
- 5.1.2 Describe your strategy for dealing with this incident to prevent further spillage and water pollution.
- 5.1.3 You are the person in overall command and the on-scene commander's responsibility to organise clean-up activities is under your direction. Describe how you will organise your team to control, monitor and report to you on the progress of pollution mitigation and clean-up activities.
- 5.1.4 How would you reassure those to whom you are required to report that you are controlling the incident and are carrying out the appropriate action?

Based upon your description of the incident:

- 5.1.5 Describe the reporting procedures you would develop to keep interested parties updated about actions taken to stop, or reduce the quantity of, oil going overboard; to mitigate the effects of pollution; and to clean up the spill. Your account should include a list of the parties you would advise, details of the information you would report and the frequency of reports.
- 5.1.6 Provide an example of a report that you would issue.

- 5.1.7 Provide a list of all the documents that you will need to assemble for any subsequent investigation.

5.2 Dealing with a medical emergency

As Master you may be required to take action when a medical emergency occurs on your vessel.

Consider the following scenario.

While at sea, the Chief Officer reports that a crew member has fallen from height and has sustained a broken arm and leg, but is conscious.

- 5.2.1 Describe in detail the instructions you would give concerning this crew member.
- 5.2.2 Describe in detail the action you would take to assess, as fully as possible, the crew member's condition.
- 5.2.3 Based on a typical voyage, consider the location where the incident has occurred and challenging circumstances (weather and remote location, for example). Describe the action you would take to disembark the casualty as soon as possible. Provide examples of any email communications or reports you would send.
- 5.2.4 Provide a detailed account of how you would arrange to evacuate the casualty by helicopter. Your account should include deployment of your officers and crew and details of communications with helicopter, helicopter base, agency, SAR organisations etc.
- 5.2.5 What records would you need to keep?
- 5.2.6 Describe the service that you could contact for medical advice.

5.3 Man overboard

Your deck officers must know what to do if a crew member or passenger falls overboard so as to recover them as quickly as possible.

Consider the following scenario.

While at sea, the emergency alarm is sounded with the announcement "man overboard". The sea state is moderate, wind force 4.

Provide detailed accounts of:

- 5.3.1 The actions you would expect of the Officer of the Watch.
- 5.3.2 The course manoeuvres and engine alterations you would carry out until you are in a position to launch the rescue craft.
- 5.3.3 How you would deploy officers and crew.
- 5.3.4 Procedures you would implement for monitoring the position of the overboard crew member and reporting this to the person conducting the manoeuvre.
- 5.3.5 Preparations for launching the rescue boat.
- 5.3.6 Preparations for dealing with the casualty once recovered.

5.4 Planning a fire drill

A Master should appreciate the importance of planning and executing realistic and detailed drills. Thinking back to what you have learned in other units of this Command Diploma Scheme, develop a drill as follows.

Plan a realistic emergency drill, involving an accommodation fire. Identify the particular demands this would place on your officers and crew. The scenario should include trapped personnel.

- 5.4.1 Provide a detailed description of the scenario and illustrate with drawings. Explain why this drill would be demanding.
- 5.4.2 Provide a list of resources and personnel available to you to deal with this emergency. Include copies of relevant sections of the fire plan and muster list.
- 5.4.3 Devise a strategy for dealing with the emergency. Explain your priorities.
- 5.4.4 Having run the above drill (either in practice or as a table-top exercise), write a report that includes:
 - A definition of the purpose of the drill – for example, testing emergency procedures, testing competence in the use of SCBA, testing the effectiveness of crew training
 - Realistic and measurable objectives for this drill (eg rescue of trapped personnel within 15 minutes)
 - Measurable performance indicators, eg reaction times for correctly donning SCBA, rigging fire hoses for boundary cooling, correctly adjusting ventilation, rescue of personnel, effective use of SCBA
 - Command and control; communication and reporting methods
 - The importance of:
 - Teamwork
 - Debrief
 - Video recording of the drill for use in the debrief
 - Using a just culture approach in the debrief
 - Identifying lessons learned.
 - A description of how the lessons learned could be converted into either a procedural or an equipment change.

5.5 Case study

Choose one of the two investigation reports listed below. Each concerns a situation where a series of decisions culminated in a serious incident. In both incidents several alternative actions could have been taken to prevent the situations developing as they did.

Both reports are available from the Marine Accident Investigation Branch, <https://www.gov.uk/government/organisations/marine-accident-investigation-branch>.

MAIB Report 9/2009 – Fatality during heavy weather aboard *Maersk Kithira*

Section 1.3 of the report describes what happened. The incident can be divided into several stages, where a decision to take some action was taken. All the actions taken were reasonable at the time, but alternative action could have been taken.

Use the Case Studies Review template (see section 14 of the introductory guidance, p 14). In addition to the questions on the Case Studies Review Template, specifically identify the decisions that were made and any alternative action that could have been taken. State what effect your alternative actions would have had and how they would have affected the outcome of the incident.

MAIB Report 5/2006 – Explosion and fire on board *Border Heather*

Section 1.3 of the report describes what happened. Had certain decisions and actions prior to incident been approached differently, the incident would not have occurred. However, all the actions probably seemed appropriate at the time.

Use the Case Studies Review Template (see section 14 of the introductory guidance, p 14). In addition to the questions on the Case Studies Review Template, specifically identify the decisions and actions that affected the outcome and indicate a different approach that could have been taken. Describe how this alternative approach would have changed the outcome of the incident.

5.6 Reflection

In your journal or portfolio, reflect on the following:

- 5.6.1 In your view, when does an emergency become a crisis?
- 5.6.2 What is the purpose of an emergency drill?
- 5.6.3 Based on your experience, describe a good shipboard drill
- 5.6.4 Can you prepare more effectively for emergencies at sea without holding a drill?
- 5.6.5 What information and/or techniques have you learned from other units in the scheme that would help you improve crew performance in drills? How do you evaluate this?

Further reading

Laffoucrière, F *et al* (2015). *The Nautical Institute on Command*, 3rd edn. London: The Nautical Institute. ISBN 978 1 906915 21 6

NI (2015). *Human Performance and Limitation for Mariners*. London: The Nautical Institute. ISBN 978 1 906915 34 6

NI and ISU (2012). *Casualty Management Guidelines*. London: The Nautical Institute. ISBN 978 1 906915 39 1

NI (2017). *Collecting Marine Evidence*. London: The Nautical Institute. ISBN 978 1 906915 54 4

NP100 *Mariner's Handbook*, HMSO

Record of evidence

Use this table to record your completion of each assessment task. Add in the name of the document that you have provided to show your learning, research, case study and/or reflections, and the date of completion for your own records.

| Assignment | Name of document | Completed | Date |
|---|------------------------|-----------|---------|
| <i>Example</i> | <i>Unit 1 Research</i> | ✓ | 14/6/17 |
| 5.1 Dealing with oil pollution | | | |
| 5.1.1 Initial actions | | | |
| 5.1.2 Strategy to prevent further pollution | | | |
| 5.1.3 Organisation | | | |
| 5.1.4 Reassurance | | | |
| 5.1.5 Report procedures | | | |
| 5.1.6 Example of report | | | |
| 5.1.7 Documents | | | |
| 5.2 Medical emergency | | | |
| 5.2.1 Instructions | | | |
| 5.2.2 Assessment | | | |
| 5.2.3 Disembarkation | | | |
| 5.2.4 Helicopter evacuation | | | |
| 5.2.5 Records | | | |
| 5.2.6 Medical advice | | | |
| 5.3 Man overboard | | | |
| 5.3.1 Actions of OOW | | | |
| 5.3.2 Manoeuvres | | | |
| 5.3.3 Deployment of team | | | |
| 5.3.4 Monitoring of position | | | |
| 5.3.5 Launching rescue boat | | | |
| 5.3.6 Casualty reception | | | |
| 5.4 Plan a fire drill | | | |
| 5.4.1 Description of scenario | | | |
| 5.4.2 Resources | | | |
| 5.4.3 Strategy | | | |
| 5.4.4 Report of exercise | | | |
| 5.5 Case study | | | |
| Decisions made and alternative actions | | | |
| 5.6 Reflection | | | |
| 5.6.1 Emergency to crisis | | | |
| 5.6.2 Purpose of emergency drill | | | |
| 5.6.3 What makes a good drill | | | |
| 5.6.4 Prepare without drills? | | | |
| 5.6.5 Improvement and evaluation of drills | | | |

Reflective essay and interview

Reflective essay

In addition to the work you need to complete for each unit, you are required to reflect on those activities. Assessors will review both the work and the reflection to decide whether you have demonstrated adequate learning and gained sufficient benefit from the scheme.

You will therefore need to submit a reflective essay of 2,000 words written in accordance with reflective learning theory, as explained in section 12 of the introductory guidance (pages 9-11).

You have had an 'experience' by completing the work for the study units and receiving feedback from an assessor. In your essay you should share your thoughts and reflections about that experience to answer the questions below.

What?

Discuss your thoughts at the start of the experience and your thoughts at the end. Did your feelings change? What interested you most? What were the most important things you did and learned? Why? What difficulties did you experience during the course?

So what?

Discuss any conclusions you reached. What have you learned for the future? What else could you have done?

Now what?

Describe how you will take forward what you have learned. Do you have plans to implement any of what you have learned?

This essay will be reviewed by the assessor and you will receive feedback.

Interview

The final stage of assessment before you are awarded the Nautical Institute Command Diploma consists of an oral interview with an assessor. This will be conducted via video conferencing such as GoToMeeting and will be recorded and stored in your file. The interview will take about one hour.

The objective of the oral interview is to find out whether the scheme has helped you develop a well-rounded understanding of the five topics of study. The assessor will ask you questions based on each of your submissions for the five units. This will give you a chance to explain what you have learned through your research and how you have applied that learning aboard your vessel.

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- An authorised access to or use of our secure servers and/or any and all personal information stored therein
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- Bugs, Trojan horses, viruses or the like that may be transmitted to or through The Nautical Institute Estech folder by any third party
- Omissions or errors in any content or for any loss or damage of any kind incurred as a result of your use of any content posted, transmitted, emailed or otherwise made available via The Nautical Institute Estech folder, whether based on warranty, tort, contract or any other legal theory, and whether or not the Institute is advised of the possibility of such damages. The foregoing limitation of liability shall apply to the fullest extent permitted by law in the applicable jurisdiction.

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13. Governing law and jurisdiction

These terms and conditions are governed by and constructed in accordance with English law and in the event of any disputes or claims associated with the terms and conditions will be subject to the jurisdiction of the courts of England.

14. Security policy (payments)

Our payment services are provided by Worldpay, PayPal and by credit card. Use of these services ensures that transaction data is handled in a safe and secure way. When buying through our site, you can be sure that you are completely protected.

15. Data protection

The Nautical Institute uses personal data of the candidate for appropriate purposes and according to UK statutory regulations. The personal data given for ordering products (including name, email address, delivery address and bank details) is used by The Nautical Institute for fulfilment and handling of the contract only. This data is treated confidentially by The Nautical Institute and is not given to any third parties that are not part of the ordering, delivery and payment procedures.

16. Violations of these terms of use

If you breach these terms and conditions in any way we may take such action as we deem appropriate to deal with the breach, including suspending your access to The Nautical Institute Estech folder and/or bring court proceedings against you.

17. Data protection

The Nautical Institute will handle personal information in accordance with the terms of its privacy policy. The Nautical Institute privacy statement is detailed in section 2 above (page 62).

18. General

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19. Updates to terms and conditions

Terms and conditions updated 2 March 2017

SUPPORT YOUR STUDIES WITH THESE TITLES FROM THE NAUTICAL INSTITUTE



The Nautical Institute on Command Third edition Various authors

The Nautical Institute on Command is the

Institute's flagship publication and distils the best advice available for aspiring officers, new Masters and experienced Masters.

It aims to promote reflection on aspects of the job that they may not have yet experienced. Commanding a ship requires all the skills and knowledge, professional and technical, gained up to the point of taking up command, plus soft skills.

The book's expert authors cover these in short practical articles that will guide the transition from chief officer to Master and also serve as reference for years to come. The book leads readers through the basics of command, looking at legislation and how it affects the day job and relationships with the various stakeholders. The focus on day-to-day management includes operations and personnel management.

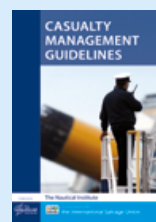


Mentoring at Sea The 10 minute challenge Captain André L Le Goubin MA FNI

Anyone can be a mentor

at sea and anyone can benefit from mentoring – and it only takes 10 minutes to get started. This book explains how knowledge gained through experience, and then reflected upon, can be passed on in an informal but purposeful way. Every suggestion will take no more than 10 minutes to carry out but incorporating opportunities for mentoring into the daily onboard routine will widen and consolidate the on-the-job experience of those progressing through the ranks. It will also improve communications and enhance team-building, which should lead to a reduction in accidents and incidents.

This practical guide sets the 10 minute challenge for potential mentors and candidates to identify concerns and practical solutions.



Casualty Management Guidelines The Nautical Institute in association with the International Salvage Union

Casualties are not straightforward and mariners who find themselves involved in them rarely have previous experience. These comprehensive practical guidelines will help seafarers during a casualty when demands can be confusing, contradictory, unclear or a combination of all three. Masters and crew members are told what to expect from people or organisations that might be involved as the casualty unfolds. Chapters are presented in a largely chronological order of how Masters should expect to deal with different people, from owners to government officials, insurance representatives and salvage experts. It will give all involved an idea of the job each may be undertaking, together with priorities and responsibilities.



Human Performance and Limitation for Mariners Various authors

A system of examinations for aviation pilots in human performance and limitation has produced great advances in safety for that sector. This book introduces the concept to seafarers so that they can understand their own limitations and make the best use of their physical and mental abilities in the challenging shipboard environment. This book looks at the realities of living and working on board and explains how recognising human limitations can improve performance, safety and job satisfaction.

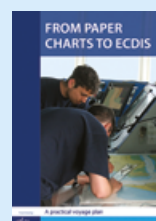


Navigation Accidents and their Causes Various authors

Navigation Accidents and their Causes looks at

major casualties to illustrate the lessons that can be learned from them and sets out practical ways for those on the bridge to consider risks, plan for them and then take action to avoid them.

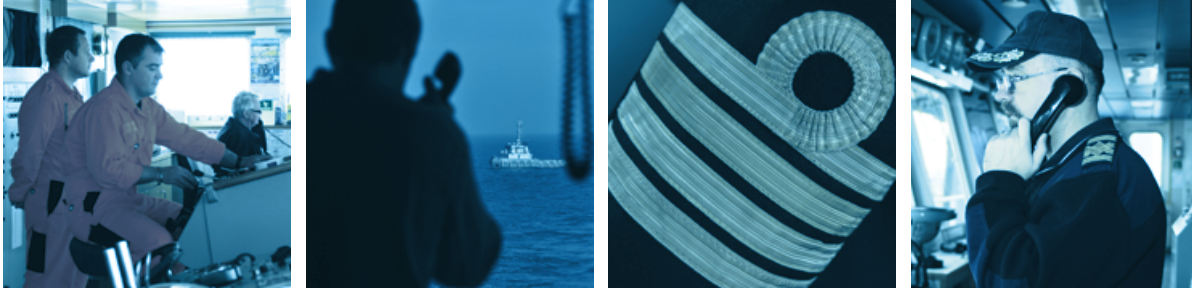
The authors, drawn from accident investigators, Masters, navigation specialists, pilots and university lecturers from all over the world, detail the need for risk assessment in advance of a voyage, including bridge resource management and passage planning. Situational awareness is highlighted throughout.



From Paper Charts to ECDIS A practical voyage plan Captain Harry Gale FNI

This second edition recognises that practical guidance on equipment, training and operational practices is now urgently needed. Everything necessary to manage this fundamental change is covered, and theoretical knowledge is made real through contributions from seagoing members of The Nautical Institute. Best practice is encapsulated in the industry recommendations for ECDIS training and familiarisation.

Plus many more available from www.nautinst.org/shop



Life aboard ship today is not easy: lower manning levels, increasing regulation and the particular challenges posed by multinational crews have made command at sea more demanding than ever before. Employers are becoming aware that STCW should be regarded as a minimum standard and are expecting more from their deck officers than just the IMO-defined minimum competencies.

The Nautical Institute's response has been to develop the Command Diploma Scheme. The five units of this self-study programme are intended for officers aspiring to command and also those who have just taken command of vessels.

Senior Masters assess candidates' responses to the Scheme's mix of theoretical and practical assignments, with their emphasis on research, application and reflection. Successful completion and award of the Nautical Institute Command Diploma provides evidence of the candidate's readiness to serve successfully in the role of Master.



The Nautical Institute is the international membership organisation for maritime professionals, both at sea and ashore, who are responsible for the control of seagoing ships. We promote safer and more effective shipping practices through our worldwide network of branches, our CPD Online scheme, certification and assessment services, and best practice publications.

For more information on membership, products and services, please contact us.

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