ROYAL CANADIAN SEA CADETS

PHASE FOUR

INSTRUCTIONAL GUIDE

SECTION 1

EO M423.01 – IDENTIFY ASPECTS OF A CHART

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-604/PG-001, *Phase Four Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Review Chart 3441 *Haro Strait, Boundary Pass and / et Satellite Channel* to be familiar with the placing of the chart information referred to in this lesson.

Photocopy Attachment A for each cadet.

Set up the classroom or training area so that cadets can sit in pairs at tables suitable for chartwork.

Distribute one copy of Chart 3441 to each table.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

An interactive lecture was chosen for this lesson to orient the cadets to information found on marine charts and generates an interest in small craft navigation.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall have explained chart maintenance and identified the title block and other information found on a chart.

IMPORTANCE

It is important for cadets to identify aspects of a chart in order to properly select charts for passage planning. A successful passage plan begins with knowing how to interpret information found on the chart.

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

Teaching point 1 **Describe how to care for and maintain a chart.**

Time: 10 min Method: Interactive Lecture

CARE AND MAINTENANCE OF A CHART

There are two main types of paper charts available:

- **Lithographic.** These charts are mass printed on one side of large-format, durable paper. These charts are limited in the number and brightness of colours used.
- **Print On Demand (POD).** These charts are printed by the Canadian Hydrographic Service (CHS) when the charts are ordered. These charts are easily recognized by the bright white paper they are printed on and they have a coloured CHS logo. These charts are not as durable as traditional lithographic charts.

Charts are essential to navigation. Paper charts are available from many different sources and can be expensive to replace. With proper care, paper charts can last for many seasons. The following tips can extend the life of paper charts:

- **Keep the chart dry.** POD charts are significantly less durable than lithographic charts. However with either type of chart, make every effort to keep it dry at all times.
- **Storage.** When storing charts, it may be necessary to either roll or fold them and place them in a dry location. Whether the charts are rolled or folded depends on how much storage space is available.
    - **Folded charts.** Mainly used on large ships as there is sufficient room on board to store all of the charts in drawers. The biggest drawback to folding charts is they quickly become illegible and can tear easily at the folds.
    - **Rolled charts.** If there is not sufficient room to store folded charts, then rolling them is the best solution. Rolling is considered better than folding as the charts remain flat and straight.
- **Marking on a chart.** When making marks on the chart, always use a 2H pencil. Draw with light pressure on the pencil to avoid damaging the surface of the paper.
- **Scrubbing charts.** At the end of each day, the chart must be erased of all tracks, marks and notes. This allows for easy set up for the next navigation plan. Always use gum or white vinyl erasers on the charts. Many erasers have a very abrasive texture which can scrub away important information and damage the surface of the paper.



Additional information on pencils and erasers is given in EO M423.02 (Use Navigation Instruments).

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What should be remembered when marking on a chart?

Q2. Why should only gum or white vinyl erasers be used on a chart?

Q3. What are two ways to store a chart?

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

ANTICIPATED ANSWERS:

A1. Use light pressure and a 2H pencil.

A2. Certain types of erasers have an abrasive texture which could damage the surface of the chart.

A3. Folded or rolled.

Teaching point 2 **Describe and have the cadets find the chart title block and other information found on a chart.**

Time: 40 min Method: Interactive Lecture



Have the cadets sit in pairs at tables with *Chart 3441* in front of them.

Have the cadets find the information as it is presented.

Emphasize the importance of knowing where to find the information on a chart rather than memorizing it.



The chart for this TP is *Chart 3441 Haro Strait, Boundary Pass and / et Satellite Channel*. The title block for this chart has been divided into two sections and placed on large land masses within the chart in order to avoid covering any navigation information.



Charts are oriented with true north at the top, east on the right-hand side, west on the left-hand side and south at the bottom.

CHART TITLE BLOCK INFORMATION



The following six items are illustrated in Figure 1.

The title block on a chart contains important information required for navigation in the area depicted.

Chart title. The name of the major navigational body of water in the area covered by the chart. The chart title is quoted along with the chart number when ordering charts.

Example: This chart is referred to as *Chart 3441 Haro Strait Boundary Pass and / et Satellite Channel*.

Projection. A statement of which type of chart projection was used to make the chart.

Example: *Chart 3441* uses Mercator projection.

Scale of the chart. The ratio of a unit of distance on the chart to the actual distance on the earth's surface.

Example: *Chart 3441* has a scale of 1 : 40 000; one inch on the chart equals 40 000 inches on the earth's surface.

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

There are two scales of charts that are mainly used in small craft navigation. These are:

- **Large-scale.** Cover a small area and show more detail of the earth's surface. These charts are best for navigating in coastal areas. Large-scale charts will have low scale ratios (eg, 1 : 5 000).
- **Small-scale.** Cover a large area of the earth's surface and show little detail. Small-scale charts will have high ratios (eg, 1 : 150 000).

Depth measurement. The unit of measurement for soundings and from which point they are taken.

Example: On *Chart 3441*, depths are measured in metres and are reduced to Chart Datum. (The reference for the Chart Datum is in Fulford Harbour located on Saltspring Island at the top of the chart).



Chart Datum. The plane of vertical reference to which all charted depths and drying heights are related. In non-tidal waters, it is also the vertical datum for elevations and clearances. It is chosen to show the least depth of water found in any place under "normal" meteorological conditions; it is a plane so low that the water level will seldom fall below it.

Elevation measurement. Can be either the height of both natural or man-made objects. The height of rocks and other features along the coastline are also defined.



Spot elevation. The height on a chart of the top of a hill or other natural feature.

Higher High Water, Large Tide (HHWLT). The average of the highest high waters, one from each of 19 years of predictions.

Clearances. The vertical distance between HHWLT and man-made objects such as overhead power cables and bridges.

Elevations on *Chart 3441* are given as:

- Spot elevations and clearances are in metres above HHWLT.
- Underlined figures on drying areas or in brackets against drying features are in metres above Chart Datum.



Examples on *Chart 3441*:

Spot elevation. Mount (Mt.) Newton has an elevation of 305 m. (Located north of the CHS logo in the title block).

Clearance. Christmas Point (Pt.) power cable has a charted clearance of 55 m. (Located in the inset found in the lower left corner of the chart).

Drying areas. The foreshore of Island View Beach has a drying height of 1.5 m at Chart Datum. (Located west of the title block on the Saanich Peninsula).

Drying features. Two charted rocks in Sannichton Bay have charted heights of 2.1 m and 3.4 m (Located west of the chart title).

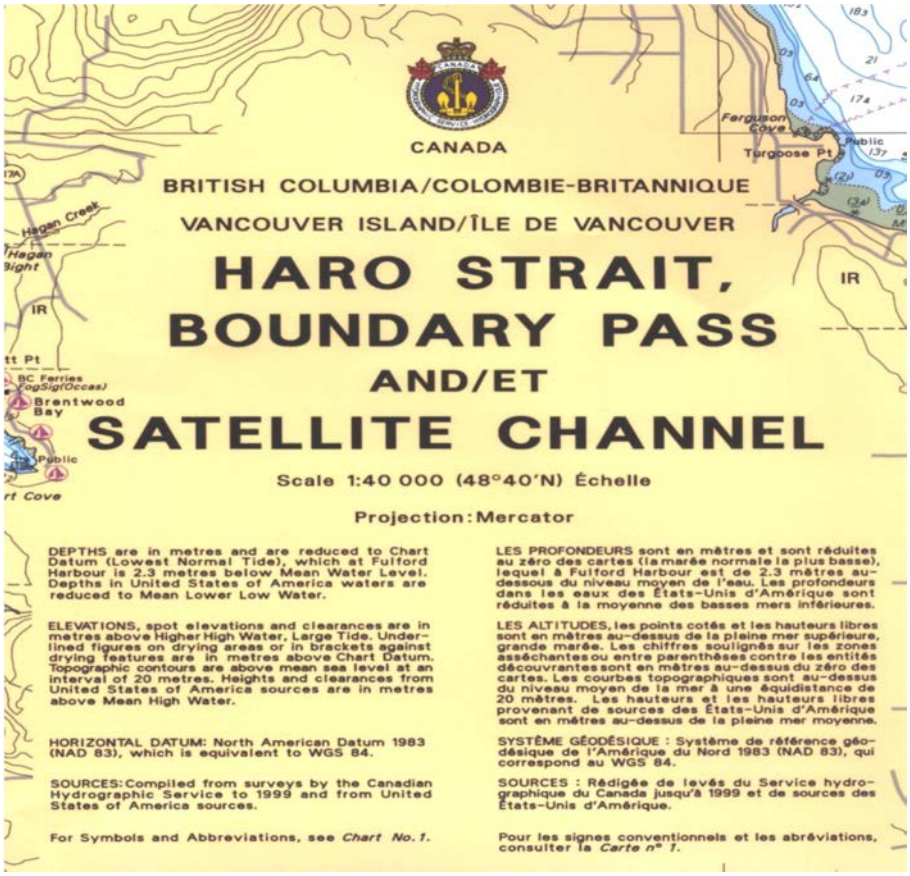
- **Sources.** A nautical chart is no more accurate than the survey on which it is based. Charting agencies make every effort to keep charts updated and accurate. Charts with older survey dates should be used with caution. Early surveys were often made under circumstances that did not permit accuracy and detail. Few surveys have been so thorough as to make certain that all dangers have been found. Everyday forces of wind and waves can change shorelines, channel directions or create uncharted shoals.

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

Example: *Chart 3441* is based on surveys made by CHS up to 1999 and sources from the United States of America (USA).

On August 7 1992, the passenger liner *Queen Elizabeth 2* (QE2), grounded on uncharted and previously unsurveyed rocks located to the south of Cuttyhunk Island, Massachusetts, USA. The most recent survey of this area prior to the grounding was 1939 for some of the area and 1888 for the rest.

The outdated survey data contributed to the Master of the QE2 plotting his course through an area which he would have avoided had he known the dangers existed. Further information can be found at: http://www.maib.gov.uk/cms_resources/queen_elizabeth_2_pub_1993.pdf



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service

Figure 1 Chart Title Block Part One

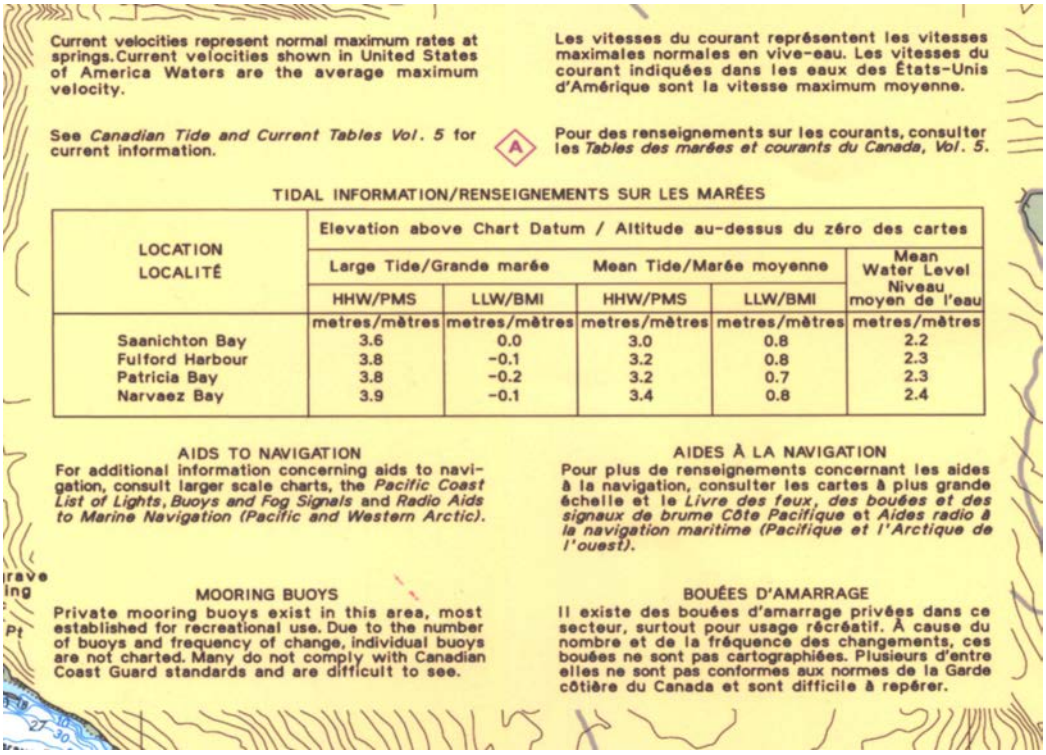
- **Cautionary notes.** These notes outline specific navigational hazards to the area and should be read before using the chart to plan any navigational passage.

The cautionary notes found on *Chart 3441*:

- explain the meaning of special abbreviations used on the chart. Chart 3441 refers to Chart No. 1, which refers to *Symbols Abbreviations Terms (Chart 1)*;
- show special tidal and current information for the area (as illustrated in Figure 4);
- give information on aids to navigation found on the chart. *Chart 3441* refers to *Pacific Coast List of Lights, Buoys and Fog Signals* and *Radio Aids to Marine Navigation (Pacific and Western Arctic)* (as illustrated in Figure 2); and

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

- refer to anchorage areas or special moorings found in the area. This chart refers to private mooring buoys that do not comply with Canadian Coast Guard Regulations and may be difficult to see (as illustrated in Figure 2).



Current velocities represent normal maximum rates at springs. Current velocities shown in United States of America Waters are the average maximum velocity.

Les vitesses du courant représentent les vitesses maximales normales en vive-eau. Les vitesses du courant indiquées dans les eaux des États-Unis d'Amérique sont la vitesse maximum moyenne.

See *Canadian Tide and Current Tables Vol. 5* for current information.

Pour des renseignements sur les courants, consulter les *Tables des marées et courants du Canada, Vol. 5.*

TIDAL INFORMATION/RENSEIGNEMENTS SUR LES MARÉES

LOCATION / LOCALITÉ	Elevation above Chart Datum / Altitude au-dessus du zéro des cartes				
	Large Tide/Grande marée		Mean Tide/Marée moyenne		Mean Water Level / Niveau moyen de l'eau
	HHW/PMS	LLW/BMI	HHW/PMS	LLW/BMI	
	metres/mètres	metres/mètres	metres/mètres	metres/mètres	metres/mètres
Saanichton Bay	3.6	0.0	3.0	0.8	2.2
Fulford Harbour	3.8	−0.1	3.2	0.8	2.3
Patricia Bay	3.8	−0.2	3.2	0.7	2.3
Narvaez Bay	3.9	−0.1	3.4	0.8	2.4

AIDS TO NAVIGATION

For additional information concerning aids to navigation, consult larger scale charts, the *Pacific Coast List of Lights, Buoys and Fog Signals* and *Radio Aids to Marine Navigation (Pacific and Western Arctic).*

AIDES À LA NAVIGATION

Pour plus de renseignements concernant les aides à la navigation, consulter les cartes à plus grande échelle et le *Livre des feux, des bouées et des signaux de brume Côte Pacifique* et *Aides radio à la navigation maritime (Pacifique et l'Arctique de l'ouest).*

MOORING BUOYS

Private mooring buoys exist in this area, most established for recreational use. Due to the number of buoys and frequency of change, individual buoys are not charted. Many do not comply with Canadian Coast Guard standards and are difficult to see.

BOUÉES D'AMARRAGE

Il existe des bouées d'amarrage privées dans ce secteur, surtout pour usage récréatif. À cause du nombre et de la fréquence des changements, ces bouées ne sont pas cartographiées. Plusieurs d'entre elles ne sont pas conformes aux normes de la Garde côtière du Canada et sont difficile à repérer.

Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 2 Title Block Part Two

OTHER INFORMATION FOUND ON A CHART

It is important that all of the information printed on the chart is read prior to planning any navigation passages. Scan the chart for any information that has been printed on the margins, on large land areas or in different colours on the chart.

Information printed on *Chart 3441*, other than the information in the title block:

Number and edition of the chart. The chart number, edition information and the date the chart is corrected to are located in the margins of the chart.

Examples on *Chart 3441*:

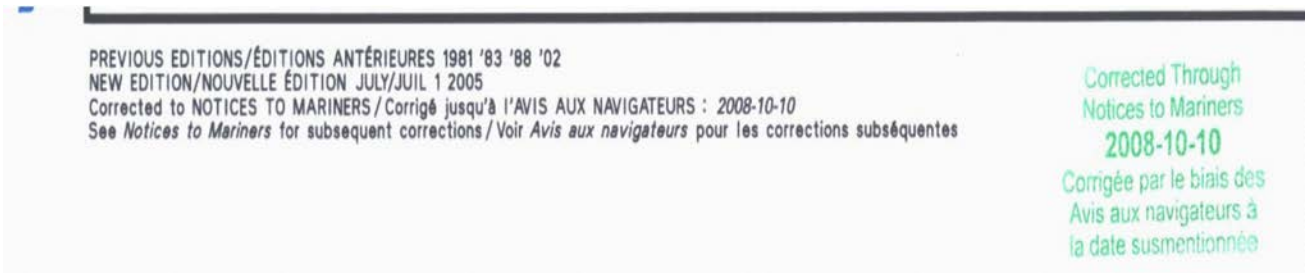
- **Chart number.** Located in the upper left and lower right-hand corners of the chart (as illustrated in Figure 3).
- **Chart edition.** Previous editions of this chart are listed as well as the date of the newest edition available. In this case, the newest edition is dated July 1, 2005 (as illustrated in Figure 4).
- **Correction dates.** This chart is corrected to Notice to Mariners dated October 10, 2008 (as illustrated in Figure 4).

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 3 Chart Number and Title



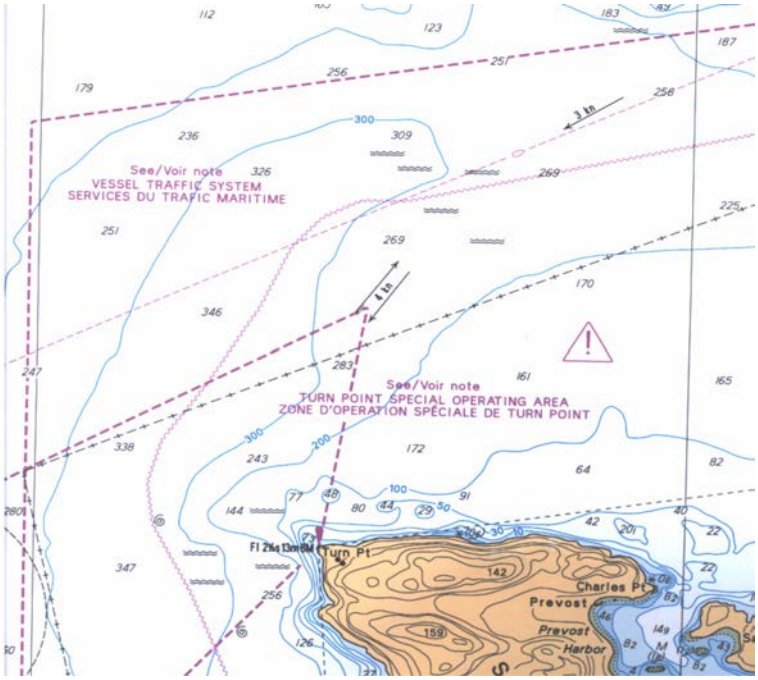
Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 4 Chart Edition and Correction Date

Important information and warnings. Important changes to charted information such as changes to traffic schemes and mooring areas may be printed in magenta-coloured ink. This ink is easily read under a red light (which is used on chart tables during night navigation). Important information found on *Chart 3441* is:

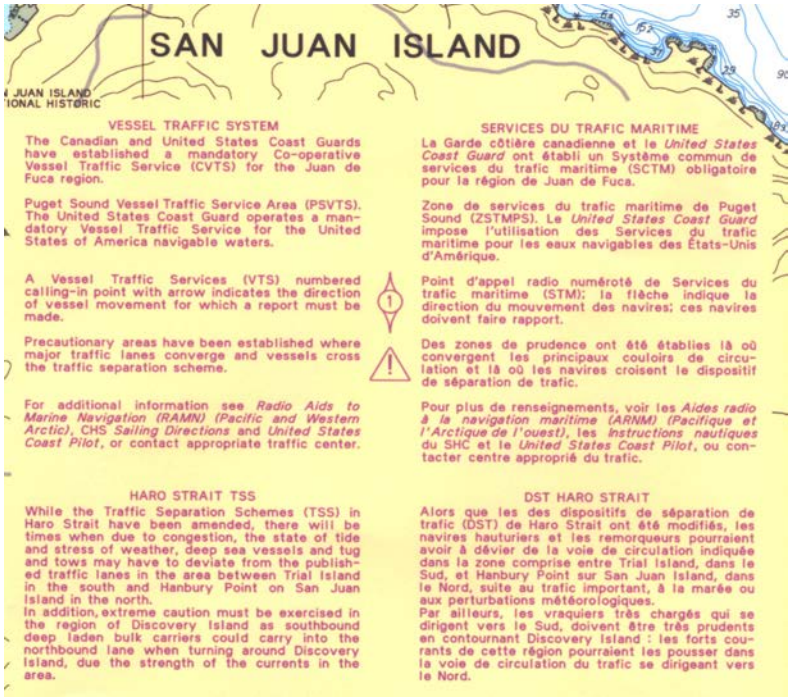
- **Vessel traffic system.** In July 2005, the vessel traffic system from Victoria to Vancouver was changed by the Canadian and United States Coast Guards. Information on the traffic system has been highlighted by symbols in Haro Strait (as illustrated in Figure 5) and further explained in magenta-coloured ink notes in the lower left corner of the chart (as illustrated in Figure 6).

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 5 Special Notes–Turn Point Special Operating Area

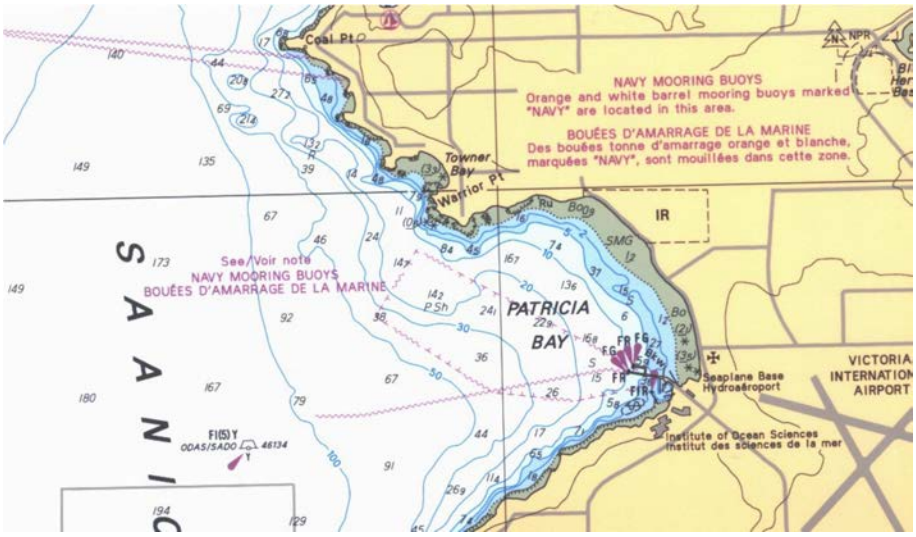


Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 6 Explanation of Special Notes

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

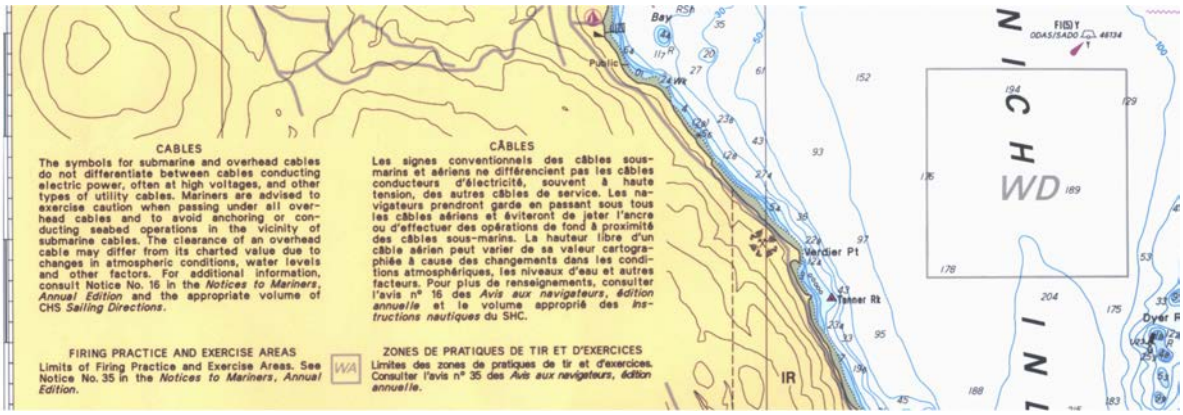
- **Navy mooring buoys.** Navy mooring buoys located in Patricia Bay are described with a note located on the Saanich Peninsula north of Patricia Bay (as illustrated in Figure 7).



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 7 Patricia Bay Mooring Buoys

- **Firing practice and exercise areas.** Areas reserved for military weapons practice and exercises will be outlined in light grey boxes (as illustrated in Figure 8). Further information on these areas is outlined in *Notice to Mariners: Annual Edition*. In this case, *Notice to Mariners number 35* of each year.

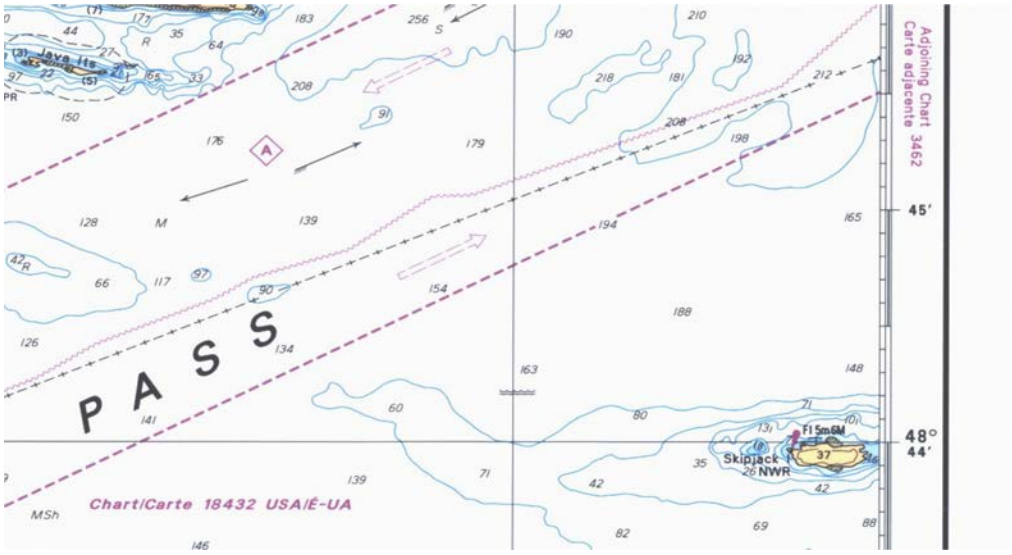


Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 8 Weapons Practice Area

Adjoining charts. Chart numbers for adjoining charts are placed around the margin. This will allow quick and easy chart changes as the navigation passage is executed. If the adjoining chart covers navigation areas of other nations, such as the US, the proper chart number of that country will also be printed in magenta-coloured ink inside the territorial boundary of that country (as illustrated in Figure 9).

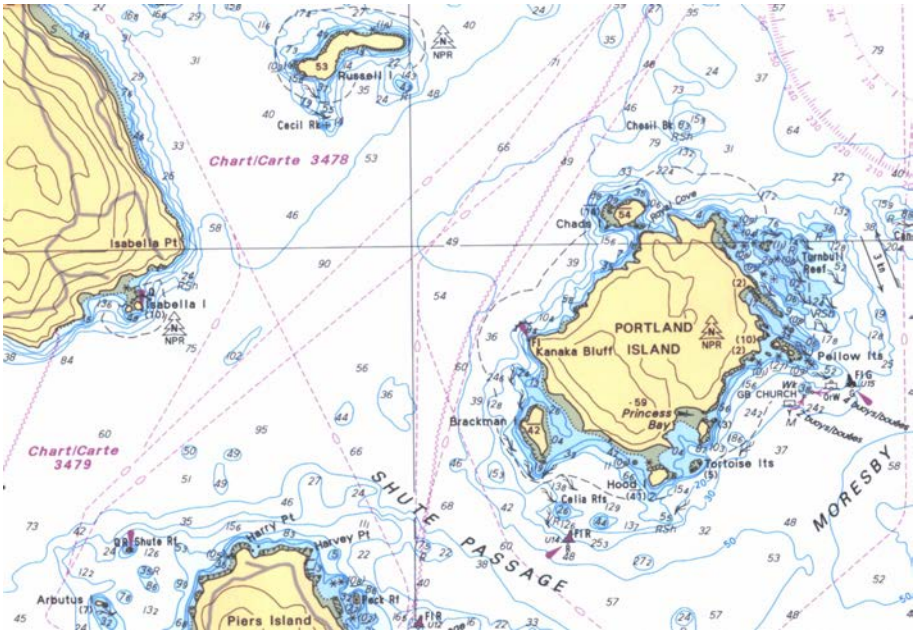
Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 9 Adjoining Chart Numbers

Large scale chart numbers. Are printed on the chart for areas where, in order to navigate safely, greater detail is required. Harbour charts, small passages and smaller waterways will have large-scale charts identified on the small-scale chart (as illustrated in Figure 10).

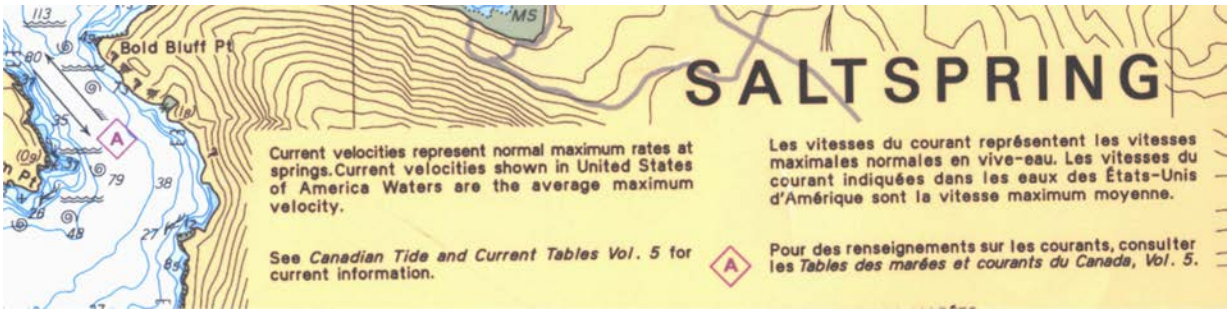


Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 10 Large Scale Chart Numbers

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

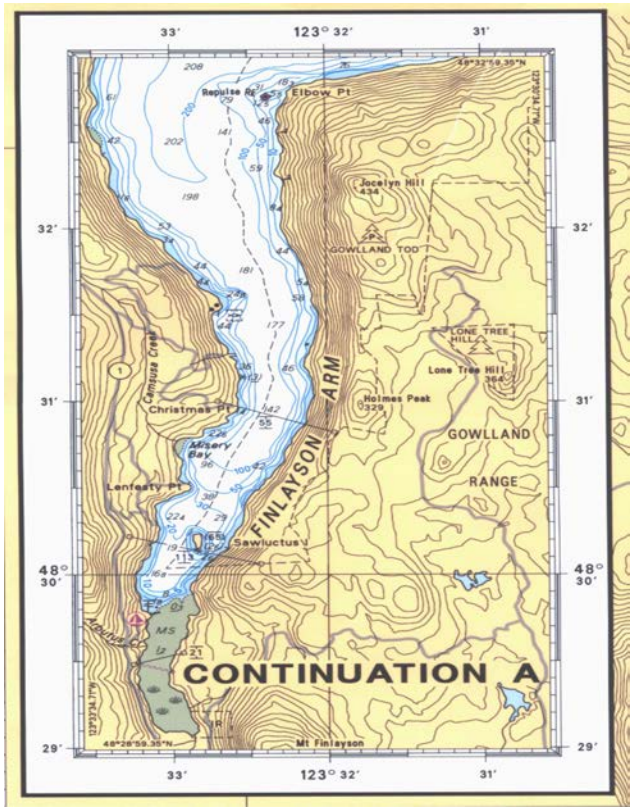
Tidal diamonds. The information which relates to this diamond is found elsewhere on the chart or may be referenced to another publication such as *Canadian Tide and Current Tables Vol. 5*. This publication will give the rates and direction of the currents in this area (as illustrated in Figure 11).



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 11 Tidal Diamond

Inserts / continuations. Chart inserts are placed on the chart to show greater detail of a harbour or small area that would be too small to have its own chart. On *Chart 3441*, Continuation A is shown to give greater detail to Finlayson Arm (as illustrated in Figure 12). This area is too small to create its own separate chart.



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

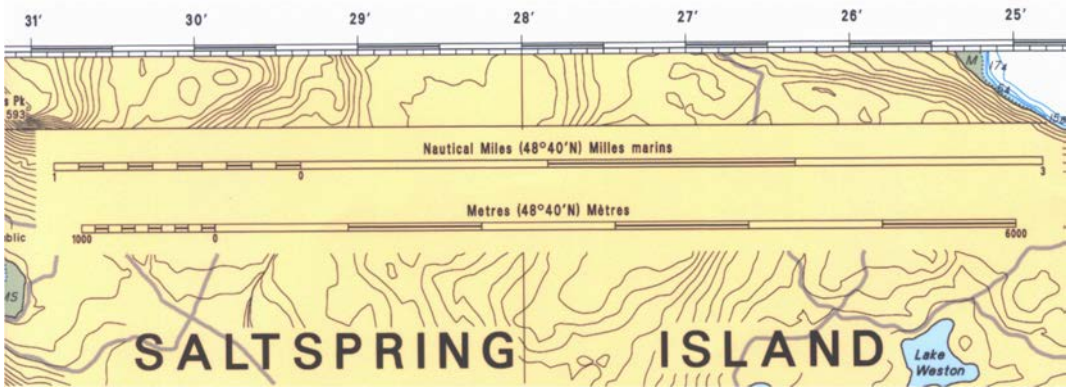
Figure 12 Continuation A

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

Distance scales. Scales for measuring distances are provided in convenient locations on the chart. These scales can be used to measure distances in nautical miles (M) or in metres (m) (as illustrated in Figure 13).



Measuring distances will be covered in greater detail in EO M423.03 (Describe Latitude and Longitude).



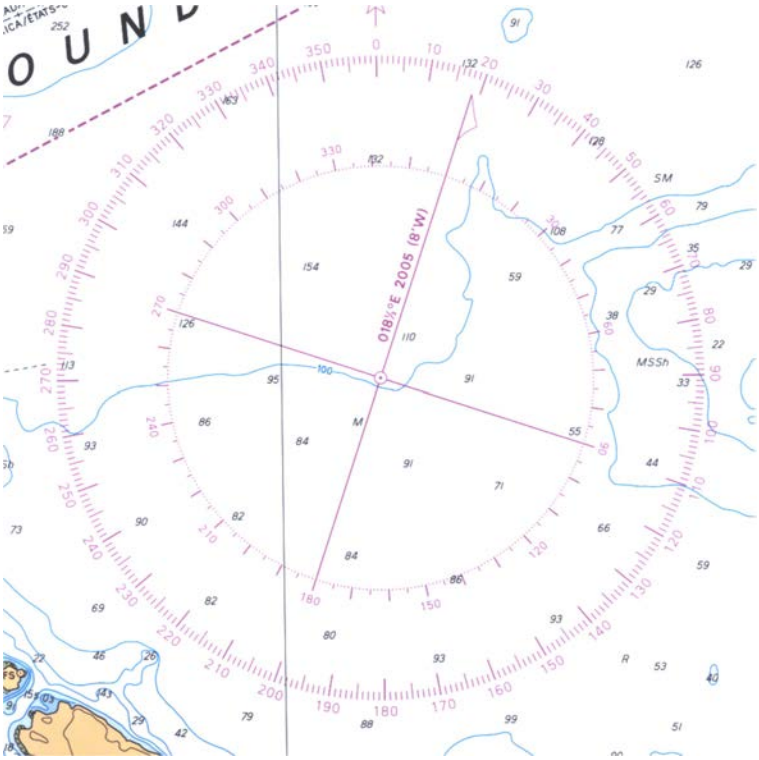
Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 13 Distance Scales

Compass rose. Every chart has at least one compass rose. Every compass rose has two circles. The outer circle is aligned to true north and the inner circle is aligned to magnetic north (as illustrated in Figure 14). When plotting bearings or courses on a chart, the outer (True) circle is used. The important information to remember about a compass rose is:

- True directions are printed around the outer circle of the compass rose.
- Magnetic directions are printed around the inner circle of the compass rose. The inner scale is oriented toward magnetic north.
- True north and magnetic north point to different directions.

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.



Note. From Chart 3441, Haro Strait, Boundary Pass and / et Satellite Channel, 2005, Ottawa, ON: Canadian Hydrographic Service.

Figure 14 Compass Rose



Distribute the Chart Information Worksheet located at Attachment A.

The cadets have 10 minutes to complete the worksheet (cadets may work in pairs to complete). Once the worksheet is completed, have the cadets exchange their sheets for correction.

Review Chart Information Answer Sheet located at Attachment B with the cadets.

CONFIRMATION OF TEACHING POINT 2

The cadets' completion of the Chart Information Worksheet will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' completion of the Chart Information Worksheet and return of scrubbed charts will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-604/PG-001, *Phase Four Qualification Standard and Plan*, Chapter 3, Annex B, 423 PC.

CLOSING STATEMENT

Recognizing the importance of chart maintenance and information found on a chart will lead to prolonged use of the chart and the proper selection of charts for passage planning.

INSTRUCTOR NOTES / REMARKS

Nil.

REFERENCES

C1-165 ISBN 1-57409-052-6 Larkin, F. (1998). *Basic coastal navigation*. Dobbs Ferry, NY: Sheridan House Inc.

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

CHART INFORMATION WORKSHEET

Answer the following questions using *Chart 3441 Haro Strait, Boundary Pass and / et Satellite Channel*.

Q1. What is the scale? What does it mean?

A1. _____

_____

Q2. How are soundings measured on this chart?

A2. _____

_____

Q3. What is the date of the newest edition of this chart?

A3. _____

_____

Q4. Which Notice to Mariners outlines information on the Firing Practice and Exercise Areas that are shown on this chart?

A4. _____

_____

Q5. The revised Traffic Separation Scheme from Victoria to Vancouver came into effect on which date?

A5. _____

_____

Q6. Describe the Navy mooring buoys in Patricia Bay.

A6. _____

_____

Q7. Identify the large scale or adjoining chart numbers for the following areas:

a. Cowichan Bay: _____

b. Bazan Bay: _____

c. Spieden Channel: _____

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

d. Areas east of Jones Island: _____

e. North end of Plumper Sound: _____

f. Areas north of Octopus Pt.: _____

Q8. What is the charted height of the following:

a. Highest point on Portland Island: _____

b. Tortoise Islets: _____

c. Christmas Pt. Power Cable: _____

d. Highest rock in Patricia Bay: _____

Q9. What area is shown in Continuation A?

A9. _____

_____

Q10. What units of measurement are used for the two distance scales on the chart?

A10. _____

_____

Q11. What is the latest survey used to make this chart?

A11. _____

_____

Q12. Who published this chart?

A12. _____

_____

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

CHART INFORMATION ANSWER SHEET

Answer the following questions using Chart 3441 *Haro Strait, Boundary Pass and Satellite Channel*.

Q1. What is the scale? What does it mean?

A1. **The scale is 1 : 40 000. This means that every inch on the chart represents 40 000 inches on the earth's surface.**

Q2. How are soundings measured on this chart?

A2. **Soundings are measured in metres and are reduced to Chart Datum.**

Q3. What is the date of the newest edition of this chart?

A3. **July 1, 2005.**

Q4. Which Notice to Mariners outlines information on the Firing Practice and Exercise Areas that are shown on this chart?

A4. **Annual Notice to Mariners number 35.**

Q5. The revised Traffic Separation Scheme from Victoria to Vancouver came into effect on which date?

A5. **July 1, 2005.**

Q6. Describe the Navy mooring buoys in Patricia Bay.

A6. **They are orange and white barrel mooring buoys.**

Q7. Identify the large scale or adjoining chart numbers for the following areas:

a. Cowichan Bay: **Chart 3478.**
b. Bazan Bay: **Chart 3479.**
c. Spieden Channel: **Chart 18433 USA.**
d. Areas east of Jones Island: **Chart 18421 USA.**
e. North end of Plumper Sound: **Chart 3477.**
f. Areas north of Octopus Pt.: **Chart 3478.**

Q8. What is the charted height of the following:

a. Highest point on Portland Island: **57 m.**
b. Tortoise Islets: **5 m.**
c. Christmas Pt. Power Cable: **55 m.**
d. Highest rock in Patricia Bay: **3.5 m.**

Q9. What area is shown in Continuation A?

A9. **Finlayson Arm (Southern Portion).**

Q10. What units of measurement are used for the two distance scales on the chart?

A10. **Nautical miles and metres.**

Q11. What is the latest survey used to make this chart?

A11. **1999.**

Q12. Who published this chart?

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.

A12. **Canadian Hydrographic Service.**

Unofficial convenience copy of A-CR-CCP-604/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-604-PF-001/A-CR-CCP-604-PF-001.pdf.
Verify against the official publication.