

*Canadian Coast  
Guard  
Auxiliary*  
(Central & Arctic Region)



*Workbook  
2004*

Canadian Coast Guard Auxiliary  
Central & Arctic Region

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## Module 1

Indicate whether the following statements are **TRUE** or **FALSE**.

- |   |     |     |
|---|-----|-----|
| 1) Volunteer search and rescue units must respond to a tasking within 30 minutes. | (T) | (F) |
| 2) The SITREP format is used to advise JRCC that a unit is available for tasking. | (T) | (F) |
| 3) As a common practice, units may self task.                                     | (T) | (F) |
| 4) A 911 operator may NOT task an Auxiliary SRU.                                  | (T) | (F) |
| 5) The 911 Municipal address system is not compatible with marine coordinates.    | (T) | (F) |
| 6) Coast Guard Auxiliary exercises must be authorized.                            | (T) | (F) |
| 7) Mechanical Failure is the most common incident cause .                         | (T) | (F) |
| 8) Auxiliary units may charge vessel owners for towing services.                  | (T) | (F) |
| 9) The deck log should indicate when an SRU arrives on scene.                     | (T) | (F) |
| 10) Vessel collisions are a common occurrence.                                    | (T) | (F) |
- 

List the three (3) most common causes of marine incidents:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Module 2

Fill in the missing words in the following statements:

- 1) The position of a MOB is identified using \_\_\_\_\_ & \_\_\_\_\_.
  - 2) The \_\_\_\_\_ VHF radio call may be used to alert other boaters of a MOB incident.
  - 3) Hypothermia is the result of \_\_\_\_\_ immersion.
  - 4) The Anderson turn requires \_\_\_\_\_ to properly complete the turn.
  - 5) The advantage of the Williamson turn is that it puts the vessel on a \_\_\_\_\_ course.
  - 6) A vessel is following a course of  $065^{\circ}$ . The reciprocal heading is \_\_\_\_\_<sup>0</sup>.
  - 7) A vessel should approach a PIW by heading \_\_\_\_\_ the wind.
  - 8) The most dangerous position for a PIW is at the (bow - stern – side) of the recovery vessel.
  - 9) The recovery vessel should never \_\_\_\_\_ into the PIW.
  - 10) The helmsman should keep the PIW on the vessel's \_\_\_\_\_ side.
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11) In the space below, list three (3) re-boarding devices.

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_

12) In the space below, list three (3) symptoms of hypothermia.

- a) \_\_\_\_\_
- b) \_\_\_\_\_

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c) \_\_\_\_\_

13) When involved in PIW recovery situations, there are at least three (3) either **must do or must not do** steps / procedures: They are:

a) Do not \_\_\_\_\_

b) Never \_\_\_\_\_

c) Contact \_\_\_\_\_.

14) If using a dingy to recover a PIW, always \_\_\_\_\_ it to the SRU.

15) A swim platform can be dangerous because \_\_\_\_\_.

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### Module 3

1) List five (5) steps which should be immediately taken in the event of a FIRE on board the SRU:

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_

(2)

Itemize the three missing elements in the illustration at the right.



- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

3) The symbol at the right indicates:

- 1) a Class \_\_\_\_ fire
- 2) consisting of \_\_\_\_\_ combustibles.



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4) The symbol at the left indicates:



a) a Class \_\_\_\_ Fire

b) and the combustible material is \_\_\_\_\_

5) Briefly explain why you would not use water to try to extinguish a gasoline fueled fire.

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6) The common name for Potassium Bicarbonate is \_\_\_\_\_.

7) The most suitable small craft FX is the 5A – 40 BC. The letters and symbols mean:

a) \_\_\_\_\_

b) \_\_\_\_\_

8) A CO<sub>2</sub> FX is not suitable for use on a vessel. Why?

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9) Why should water not be used to try to extinguish alcohol stove fires?

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10) The second highest cause of fires on board vessels is:

\_\_\_\_\_.

11) Initiate fire fighting on board if:

a) \_\_\_\_\_ and

b) \_\_\_\_\_.



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12) Only the coxswain can order a crew to \_\_\_\_\_ ship.

13) If you had a SAR crew vest with multiple pockets, itemize a half dozen safety items you would carry:

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14) Describe your approach to a vessel on fire at sea.

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15) Complete the following statement:

If there is no life at risk \_\_\_\_\_.

16) What is the main risk associated with towing a vessel on fire?

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17) If the valve on a leaking LPG cylinder cannot be closed, the cylinder should be:\_\_\_\_\_.

18) Why should a burning LPG valve be allowed to burn off?

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## Module 4

1) List three (3) hazards associated with transferring passengers from a distressed vessel to the SRU:

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_

2) If going alongside a disabled vessel, the approach, if possible, should be \_\_\_\_\_.

3) You should / should not tie off to a distressed vessel.

4) If you suspect that passengers from a foundered vessel may have drifted away, you should:

- a) \_\_\_\_\_
- b) start a \_\_\_\_\_ search.

5) Your first consideration when encountering a capsized vessel is to:

\_\_\_\_\_

6) If survivors are located inside a capsized vessel you should not \_\_\_\_\_

\_\_\_\_\_. However, you should \_\_\_\_\_  
\_\_\_\_\_.

7) If you take people off of a \_\_\_\_\_ vessel, making sure they are wearing \_\_\_\_\_.

8) A vessel taking on water may be assisted by: \_\_\_\_\_

9) In all distress situations make sure POB's are \_\_\_\_\_.

10) A faulty cooling hose may cause a vessel to \_\_\_\_\_.

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Indicate whether the following statements are **TRUE** or **FALSE**.

- 1) A canoe should be lifted onto the SRU with the bottom up. (T) (F)
- 2) Par buckling is a method specially developed to tow swamped vessels. (T) (F)
- 3) SAR crews may only enter the water to right small sail boats. (T) (F)
- 4) Swamped vessels may be towed at night if they are somehow lighted. (T) (F)
- 5) Lines and shrouds are a hazard when approaching a capsized sailboat. (T) (F)
- 6) An abandoned vessel may be the result of the operator falling overboard. (T) (F)
- 7) A vessel adrift with no one on board and no equipment / PFD's etc. visible would likely indicate there has been foul play. (T) (F)
- 8) The most suitable search pattern around an abandoned vessel would be the track crawl. (T) (F)
- 9) You should tie off to a ditched aircraft to prevent it from sinking. (T) (F)
- 10) When looking for an overdue vessel, the home marina need not be checked. (T) (F)
- 11) Obtaining an accurate description of an overdue vessel is a relatively simple matter. (T) (F)
- 12) A disoriented vessel should never be told to anchor. (T) (F)
- 13) A disoriented vessel may be told to maintain steerage. (T) (F)
- 14) The direction finding equipment used by the CGRS would not be effective in the case of a disoriented vessel. (T) (F)
- 15) A JRCC tasking is not required when looking for a lost vessel. (T) (F)

**Grounded vessels:-**

1) Briefly describe the difference between a minor and a major grounding.

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2) Before attempting to pull a vessel off in a grounding situation, you should:

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

3) Who is liable if you tow a vessel off of a shoal and the vessel sinks?

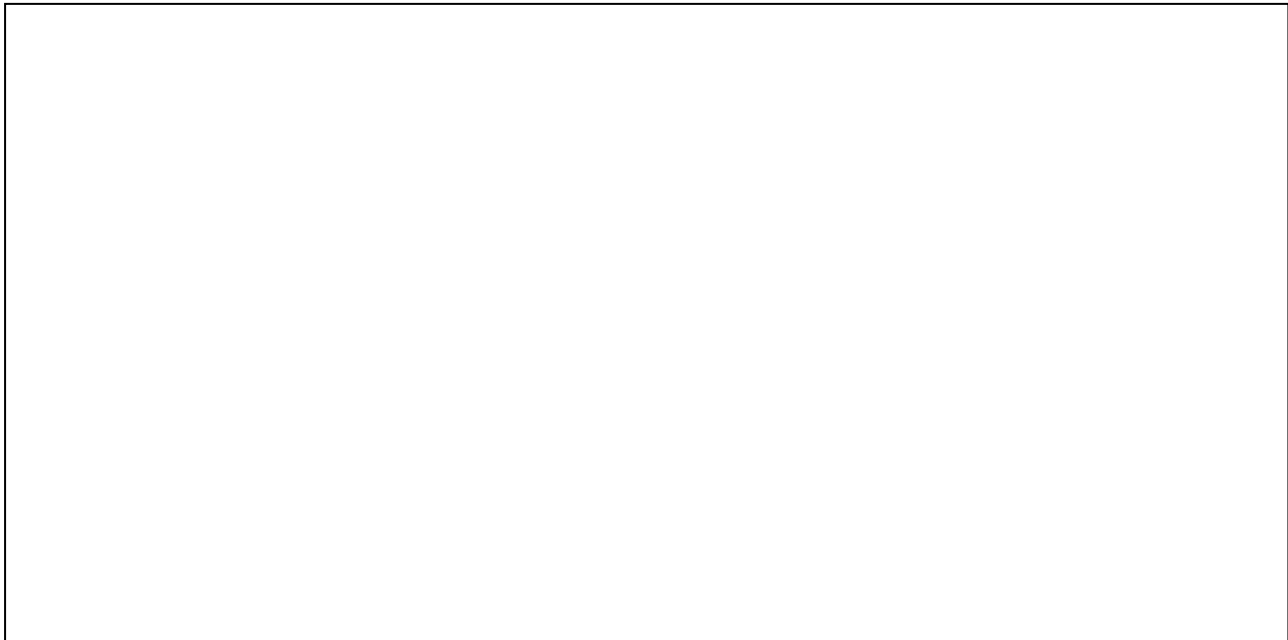
\_\_\_\_\_.

4) A beam recovery may affect a sailboat's keel. Suggest two (2) possibilities:

i) \_\_\_\_\_

ii) \_\_\_\_\_

5) In the space below, illustrate a beam recovery.



## Module 5

1) The CCG and subsequently the CCGA have a towing policy. There are three (3) parameters used to determine whether a tow may be undertaken. These are:

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

2) A MARB is issued on the authority of : \_\_\_\_\_

3) A MARB is used in \_\_\_\_\_ situations.

4) A MARB will not be issued in situations where the disabled vessel is not \_\_\_\_\_ equipped.

5) In all instances when an SRU comes alongside a disabled vessel, the SRU crew should:

a) \_\_\_\_\_

b) \_\_\_\_\_

6) When should a waiver be used?

\_\_\_\_\_  
\_\_\_\_\_.

7) What should you do if an owner refuses to sign a waiver?

\_\_\_\_\_

8) What is the advantage of a “kicker hook”?

\_\_\_\_\_

9) One of the strongest towing points on smaller and mid sized power and sail boats is the \_\_\_\_\_.

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10) Match the left column statement with the words (phrases) at the right. (see example at (c)).

- |   |                                 |
|---|---------------------------------|
| a) Towlines should be                   | with 1 long & 3 short blasts.   |
| b) The best towing arrangement is       | propeller damage.               |
| c) Nylon line is stronger than          | shallow waters.                 |
| d) Long bridle legs create less         | 1 long & 2 short blasts         |
| e) Pendulum effect is the               | a proper lookout.               |
| f) Squatting is a problem in            | swinging of the tug on the tow. |
| g) Squatting can result in              | tension on deck fittings.       |
| h) When towing, maintain                | polypropylene.                  |
| i) When towing in fog, the tow responds | made of a floating material.    |
| j) When towing in fog, the tug sounds   | the towing post.                |

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11) Why is it inadvisable to pull sideways on deck fittings?

\_\_\_\_\_.

12) Why are deck cleats not considered appropriate as a connection for towing?

\_\_\_\_\_.

13) What is the significance of hull speed when towing?

\_\_\_\_\_.

14) What is a typical sailboat hull speed?

\_\_\_\_\_ Knots.

15) How can the pendulum effect be minimized?

\_\_\_\_\_.

## Module 6

### Marine Disaster Scene

Indicate whether the following statements are TRUE or FALSE.

- |  |   |   |
|--|---|---|
| 1) A disaster scene normally involves many casualties.   | T | F |
| 2) Coast Guard personnel would most likely have a lead role when a disaster scene occurs ashore.               | T | F |
| 3) One of the first steps an OSC should take is to determine whether the disaster scene is stable or unstable. | T | F |
| 4) The role of the Police Services at a disaster scene is to provide triage.                                   | T | F |
| 5) Rescue scene stability determines how casualty management will be carried out.                              | T | F |
| 6) The casualty collection area should be as far away from the disaster scene as possible.                     | T | F |
| 7) The evacuation point should be close to the casualty collection area.                                       | T | F |
| 8) A MAJAID may be declared if there are a large number of casualties.   | T | F |
| 9) Anyone with medical training may declare a person "dead".   | T | F |
| 10) Remove deceased persons before attending to living casualties.   | T | F |
| 11) The identification of bodies is the responsibility of the OSC.   | T | F |
| 12) Identification of bodies by relatives may be done at any time.   | T | F |
-

**Incident Command Structure**

1) The purpose of an Incident Command Structure is to

\_\_\_\_\_.

2) The simplest ICS would consist of:

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

3) Only a \_\_\_\_\_ SAR resource may be appointed as an OSC.

4) The OSC / CSS is the communication link between \_\_\_\_\_ and

\_\_\_\_\_.

5) The OSC / CSS is appointed by \_\_\_\_\_.

\_\_\_\_\_



**Disclaimer:** Every effort has been made to ensure that the following answers are correct. However, knowing how “picky” some students can be, only major, catastrophic and blatant errors will be acknowledged and corrected!

## **Module 1 Answers:**

True / False

1 = F      3 = F      5 = T      7 = T      9 = T  
2 = F      4 = T      6 = T      8 = F      10 = F

Three causes:

Mechanical failure; Unknown; Navigation Error; Mistaken belief

Weather.

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## **Module 2 Answers:**

- 1) Latitude & Longitude      6) 245<sup>0</sup>  
2) Pan Pan      7) into  
3) cold water      8) back  
4) twin engines      9) stern  
5) reciprocal      10) starboard
- 11-a) Ladder      -b) Swim platform      -c) Stirrups  
12 -a) Shivering      -b) Incoherent      -c) unconscious
- 13 -a) allow crew to enter the water  
-b) leave the scene until all survivors are accounted for.  
-c) JRCC
- 14) tether
- 15) may hit the PIW.
-

## **Module 3 Answers**

- 1) – a) Mayday call
  - b) Prepare to abandon ship
  - c) Identify fire location
  - d) Identify fire cause
  - e) Initiate fire fighting
- 2) - Heat / fuel / oxygen
- 3) – 1) Class A      2) Ordinary
- 4) - 1) Class B      2) Gas / Oil or flammable liquids.
- 5) - Water will spread fuel and fire.
- 6) - Baking soda
- 7) - a) letters represent type of combustible material  
b) Numbers refer to effectiveness – amount of chemical
- 8) – CO<sub>2</sub> requires an enclosed space to be effective – No wind / ventilation.
- 9) As in # 5 above.
- 10) Engine / Transmission overheating.
- 11) – a) fire is small and confined  
b) if you have a way out.
- 12) – abandon ship.
- 13) – items in a SAR vest could include: personal flares, signal mirror, portable radio, energy bar, telephone, whistle, flash light.
- 14) – Approach from upwind (that is, heading downwind) coming in bow to bow if possible – watch for PIW's.
- 15) – Don't risk yours!

- 16) – Vessel of fire could act as torch, spreading the fire.
- 17) Move cylinder into open air and away from ignition sources.
- 18) It is safer to burn off the gas and gas cannot collect in low areas (bilge).

### **Module 4 Answers**

- 1) a) fall overboard  
b) limbs jammed between vessels  
c) damage to SRU
- 2) On starboard side of SRU – helmsman has better visibility.
- 3) Should not!
- 4) a) declare an Urgency (Pan Pan)  
b) Sector
- 5) Determine if there are survivors.
- 6) Should not *attempt to cut through the hull.*  
  
*Reassure victims – call for help – stabilize vessel*
- 7) sinking vessel : wearing PFD's
- 8) Dewatering Pump
- 9) Safe & wearing PFD's
- 10) Take on water.

### **TRUE / FALSE QUESTIONS**

- 1 – T      2 – F      3 – F      4 – F      5 – T      6 – T
- 7 – F      8 – F      9 – F      10 – F      11 – F      12 – F
- 13 – T      14 – F      15 – F

### **GROUNDING VESSELS:**

- 1) (i) Usually involves a larger vessel  
(ii) Vessel is usually hard aground – not partially afloat  
(iii) Often on a lee shore – high winds / waves
- 2) a) Have authorization of owner / JRCC  
b) Ensure hull integrity  
c) lighten vessel when possible
- 3) The tug / towing vessel.
- 4) Keel may be stuck in sand / mud / rocks.  
If wing keel, may drag on bottom causing lateral strain.
- 5) Many variations possible. Main concept is to show vessel being heeled over.

### **Module 5 Answers:**

- 1) a) Distress or potential Distress  
b) Medical problems  
c) No commercial assistance available
- 2) JRCC
- 3) Non – Distress situations
- 4) VHF radio equipped.
- 5) a) Ensure POB are OK  
b) and POB are wearing PFD's
- 6) Whenever a tow is undertaken or,  
a vessel is hauled off a grounding situation
- 7) Advise JRCC and Stand-by.
- 8) Allows crew to hook up tow safely.

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- 9) "D" ring at bow.
- 10) Match the left column statement with the words (phrases) at the right.
- |   |                                 |
|---|---------------------------------|
| a) Towlines should be                   | made of a floating material.    |
| b) The best towing arrangement is       | the towing post.                |
| c) Nylon line is stronger than          | polypropylene.                  |
| d) Long bridle legs create less         | tension on deck fittings.       |
| e) Pendulum effect is the               | swinging of the tug on the tow. |
| f) Squatting is a problem in            | shallow waters.                 |
| g) Squatting can result in              | propeller damage.               |
| h) When towing, maintain                | a proper lookout.               |
| i) When towing in fog, the tow responds | with 1 long & 3 short blasts.   |
| j) When towing in fog, the tug sounds   | 1 long & 2 short blasts         |
- 11) No strength in that direction.
- 12) Most deck fixtures have limited (if any) backing. The towing forces will very often break the fixture away from the deck.
- 13) Displacement hulls (Sailboats – trawlers etc) have a max. speed based on hull design. Generally this is in the range of 6 – 10 knots. From a practical point of view, no amount of power can force the vessel beyond its hull speed. Attempting to do so only creates an unstable tow.
- 14) - about 6 – 8 knots – some sophisticated hull designs may go a little higher.
- 15) Use ground tackle attached to the bow.

**Module 6 Answers**

- |        |        |        |         |         |         |
|--------|--------|--------|---------|---------|---------|
| 1) – T | 2) – F | 3) – T | 4) – F  | 5) – T  | 6) – F  |
| 7) – T | 8) – T | 9) – F | 10) – F | 11) – F | 12) – F |

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Incident Command Structure:

- 1) To control the execution of operations during an incident.
  - 2)
    - a) JRCC Marine coordinator
    - b) CGRS (MCTS)
    - c) SRU coxswain & crew
  - 3) Primary
  - 4) Between the SAR Units and JRCC.
  - 5) By JRCC.
-