



## STANDARD DAYBEACONS

 **Port Hand**  
(May display an odd number.)  
When proceeding upstream, the port hand daybeacon must be kept on the vessel's port (left) side.


 **Port Bifurcation/Junction**  
Marks a point where the channel divides and may be passed on either side. If the preferred channel is desired (right), the daybeacon should be kept on the vessel's port (left) side.

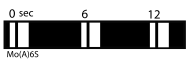
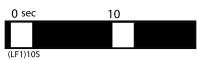
 **Starboard Hand**  
When proceeding upstream, must be kept on the vessel's starboard (right) side.

 **Starboard Bifurcation/Junction**  
Marks a point where the channel divides and may be passed on either side. If the preferred channel is desired (left), the daybeacon should be kept to the vessel's starboard (right) side.






## FAIRWAY

 Indicates safe water used to mark landfalls, channel entrances, or channel centres. May be passed on either side but should be kept to the port (left) when proceeding in either direction.



 or 


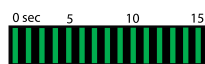
## ISOLATED DANGER

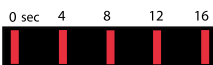
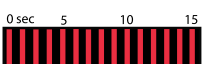
 Moored on or above an isolated danger that has navigable water all around it. Consult the chart for information concerning the danger (submersions, depth, etc.). May be used to mark natural dangers such as small shoals or destructions such as wrecks.

 or 

## LATERAL BUOYS

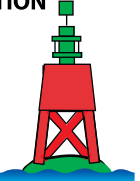

**PORT HAND**  **STARBOARD HAND** 



 or 

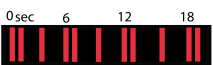
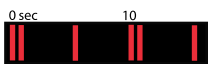
 or 

Marks the port (left) side of a channel or the locations of a danger that must be kept on the vessel's port (left) side when proceeding upstream.

Marks the starboard (right) side of a channel or the location of a danger that must be kept on the vessel's starboard (right) side when proceeding upstream.

**PORT BIFURCATION**  **STARBOARD BIFURCATION** 

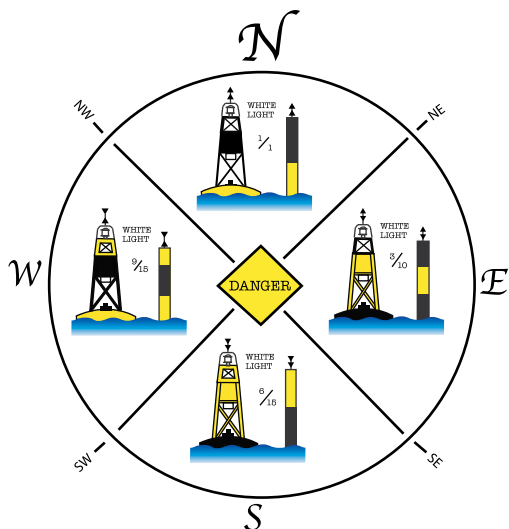
 or 

 or 

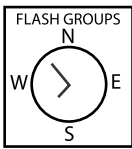
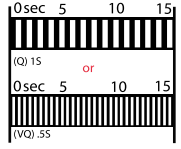
Marks the point where a channel divides when proceeding upstream. When the preferred (main) channel is desired, keep the buoy on the vessel's port (left) side.

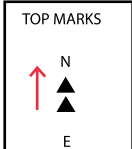
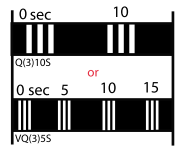
Marks the point where a channel divides when proceeding upstream. When the preferred (main) channel is desired, the buoy should be kept on the vessel's starboard (right) side.

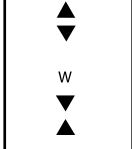
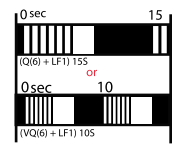
## CARDINAL BUOYS

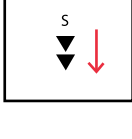
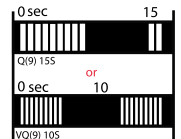


**FLASH GROUPS**

**NORTH**:   Indicates that the safest water exists to the north.

**EAST**:   Indicates that the safest water exists to the east.

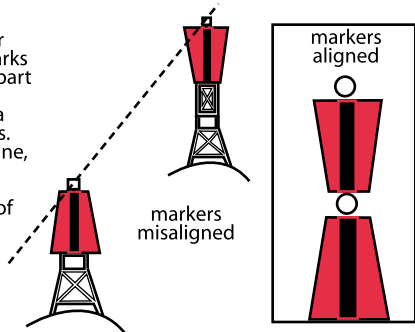
**SOUTH**:   Indicates that the safest water exists to the south.

**WEST**:   Indicates that the safest water exists to the west.

Note: "Upstream" in practice means proceeding in a northwesterly direction along the BC coast or with the flow of the flood tide into a bay or inlet.

# RANGES

A range consists of two or more fixed navigation marks situated some distance apart at different elevations (sometimes lit). Provides a leading line for navigators. When both marks are in line, the navigator is on the recommended track. (See the chart for the portion of channel serviced by the range.)



# SECTOR LIGHTS

A sector light consists of a single light whose total luminous beam is normally divided into sectors of different colours to provide a warning or a leading line to mariners.

When proceeding upstream, a sector light with a combination of red, white and green sectors is interpreted as follows: the red sector indicates the starboard hand limit, the white sector indicates the recommended course, and the green sector indicates the port hand limit. When proceeding downstream, the positions of the red and green sectors are reversed.

For sector colours and boundaries, see "List of Lights" on marine charts.

# CALLING FOR HELP

(e.g., Marine VHF Radio)

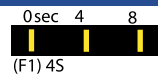
## Mayday, Mayday, Mayday

Immediate danger for persons or ship (e.g., boat taking on water & danger of sinking or capsizing)

**Pan-Pan, Pan-Pan, Pan-Pan** - Urgent message concerning safety of a person or ship (e.g., motor quit and unable to get back to shore)

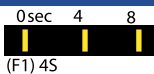
- Give vessel name and call sign
- State position of vessel
- Describe nature of emergency/problem and type of assistance needed
- Include description of vessel and number of people on board
- Repeat message until you receive an answer

# SPECIAL BUOYS



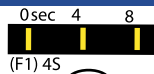
Marks dangers such as firing ranges, underwater pipelines, race courses, seaplane bases, and areas where no through channel exists.

CAUTIONARY



Marks random hazards such as shoals and rocks. (See information displayed in orange diamond.)

HAZARD



Marks perimeter of swimming areas. (May not be charted.)

SWIMMING



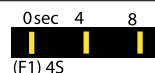
Marks perimeter of designated anchorage areas (see chart for water depth).

ANCHORAGE



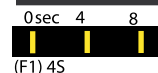
Marks areas in which boats are prohibited.

KEEP-OUT



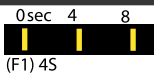
Marks area where SCUBA or other such diving activity is in progress (not normally charted).

DIVING



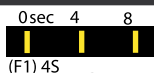
Displays information such as locality, marina, campsite, etc. (See information displayed in orange square.)

INFORMATION



Indicates speed limits, wash restrictions, etc. (Obey the restrictions illustrated in orange circle.)

CONTROL



Used for mooring or securing vessels. (Be aware: A vessel may be secured to a mooring buoy.)

MOORING

# FLASHING LIGHTS

Colour	# Flashes / "X" seconds	Type of Buoy
Red	1/4 2 + 1/6	Stbd hand Stbd Bifurcation
Green	1/4 2 + 1/6	Port hand Port bifurcation
White	1/1 2/5 1S+1L / 6 3/10 6+1L / 15 9/15	North Cardinal Isolated Danger Fairway East Cardinal South Cardinal West Cardinal
Yellow	1/4	Specials



Collects meteorological and other scientific data.

SCIENTIFIC (ODAS)

# HYPOTHERMIA

These patients require urgent medical aid - call for help

- Occurs in most survivors extracted from cold water (below 68°F). Can be fatal.
- When in doubt, treat for hypothermia.
- Get help. Use radio MAYDAY!
- Ignore protests like "I'm OK."

## 1 Symptoms

- Shivering, but may stop in advanced cases
- Confusion, slurred speech, or clumsiness
- Muscular rigidity
- Semiconscious to unconscious

## 2 In water

- Keep head and neck out of water
- Use Help or Huddle positions
- When in doubt about reaching safety, remain still don't swim!



## 3 Out of water

- Gently remove wet clothing and wrap in warm blankets
- Ensure an open airway, breathing, and pulse (see CPR)
- Move patient (handle gently) to a warm environment (turn up heat)
- Nothing to eat or drink - provide oxygen if available
- No direct heat, hot packs, or massage to limbs (no warm baths or hot showers)
- Reassess airway, breathing, and pulse frequently

# CPR

Place patient face up on a hard surface

1. Determine unresponsiveness
2. Call for help
3. Open airway using head-tilt/chin-lift or jaw-thrust manoeuvre
4. Check for breathing; look, listen and feel for breathing for 10 seconds
5. If no breathing, use a pocket mask and give two slow rescue breaths (2 seconds per breath)
6. Check pulse for 10 seconds & for visible signs of circulation
7. If no pulse, begin CPR
  - a. Landmark on the lower part of the sternum above the notch where the ribs join
  - b. Push straight down 1.5 to 2 inches (compression)
  - c. Perform 15 compressions at a rate of 100 per minute (15 compressions in 9 seconds) followed by 2 slow rescue breaths (2 seconds per breath)
  - d. 15 compressions followed by 2 breaths equals one cycle of CPR
  - e. Recheck for pulse and breathing after approximately one minute (4 cycles)
  - f. If no pulse, continue until help arrives

# MARINE WEATHER

**Light Winds:** Less than 12 knots

**Moderate Winds:** 12 – 19 knots (small craft warning)

**Strong Winds:** 20 – 33 knots (small craft warning)

**Gale Warning:** 34 – 47 knots

**Storm Warning:** 48 – 63 knots

## Marine Weather Forecasts

(604) 666-3655 or (250) 363-6492  
[http://weatheroffice.ec.gc.ca/marine/region\\_03\\_e.html](http://weatheroffice.ec.gc.ca/marine/region_03_e.html)  
<http://iwin2.nws.noaa.gov/iwin/bc/cmfbcoen.html>

## Tide tables

[www.lau.chs-shc.dfo-mpo.gc.ca/english/Canada.shtml](http://www.lau.chs-shc.dfo-mpo.gc.ca/english/Canada.shtml)

*on the water:*  
**Worksafe  
 Boatsafe  
 Fishsafe  
 Be Safe**

**WORK SAFE BC**

WORKING TO MAKE A DIFFERENCE