Major lighted aids to navigation may display a main light and may be equipped with a fog signal and/or RACON.

The colour and character of the light are advertised on the nautical chart and in the "List of Lights, Buoys and Fog Signals" publication. The colour of the structure may not have lateral significance. The focal height of the light above water level, in metres (m) or feet (ft), and nominal range, in nautical miles (M), may be indicated on nautical charts. When the colour of the light is not specified for any marine aid to navigation light, it is

Fog signal characteristics are advertised on charts and in the "List of Lights, Buoys and Fog Signals".

A RACON (radar beacon) transmits a Morse code pulse that can be seen on a radar display distinguishing it from surrounding radar targets. Information concerning RACONS can be found in "Radio Aids to Marine Navigation".

DESCRIPTION

An AIS AtoN is an electronic (digital) aid to navigation that is broadcast by an authorized service provider using the AIS Message 21 (Aids-to-navigation report) and may be displayed on properly configured shipborne and shore-based navigation equipment. There are two types of AIS AtoN being used in Canada: Physical and Virtual, AIS AtoN provide a positive and

all-weather means of identification to mariners. For more information, please go to CCG Virtual AIS AtoN · +

This is a fictitious EXAMPLE of a mariner's view from vessel's electronic equipment



GREEN OR BLACK PORT HAND STARBOARD HAND SECONDARY LANDFALL

FIXED AIDS

MINOR LIGHTED AIDS/

SECONDARY LANDFALL AIDS

A minor lighted aid may display

characteristics of lateral significance.

Consult the "List of Lights" for physical

DIRECTIONAL SYMBOLS DESCRIPTION

A range consists of two or more fixed navigation marks situated some distance apart and at different elevations. May or may not be lighted. The shapes and colours of the daymarks and the colours and characters of lights are advertised in the "List of **USER'S GUIDE** A range provides a leading line for navigators. When both marks are in line the observer is on the Consult the nautical charts for the portion of channel serviced by the range.

FIXED AIDS

RANGES

ON RANGE LINE

USER'S GUIDE Do not anchor within the zone indicated on the chart. Area may contain submerged pipelines, power cables, etc

FIXED AIDS

DESCRIPTION

background.

Black anchor symbol centre on a

fluorescent diagonal (top left to

bottom right) superimposed over

the black anchor and white

USER'S GUIDE

the north.

the south.

A west cardinal aid indicates

A north cardinal aid indicates that the safest water exists to

An east cardinal aid indicates

that the safest water exists to

A south cardinal aid indicates

that the safest water exists to

that the safest water exists to

white background, with a red

FIXED AIDS

SECTOR LIGHTS

DESCRIPTION A sector light's beam is divided into sectors of different

USER'S GUIDE The different coloured sectors provide a warning or a leading line to mariners. Sector colours and boundaries are indicated in the "List of Lights", and on marine charts.

centre on a white background with a green retroreflective border. It may display an odd number made of white retroreflective material.

PORT HAND

USER'S GUIDE When proceeding upstream, must be kept on the vessel's port (left)

STANDARD DAYBEACONS CHARACTERISTICS

PORT BLACK OR GREEN BIFURCATION

a white diamond with a red

Marks a point where the channel

divides and may be passed on

either side. If the preferred

the vessel's port (left) side.

channel is desired (right), the

daybeacon should be kept on

fluorescent border.

USER'S GUIDE

FIXED AIDS

BIFURCATION

STARBOARD

Red retroreflective triangle on a

white diamond with a red fluorescent border. USER'S GUIDE

Marks a point where the channel divides and may be passed on either side. If the preferred channel

USER'S GUIDE When proceeding upstream, must be kept on the vessel's starboard is desired (left), the daybeacon should be kept on the vessel's starboard (right) side.

STARBOARD HAND

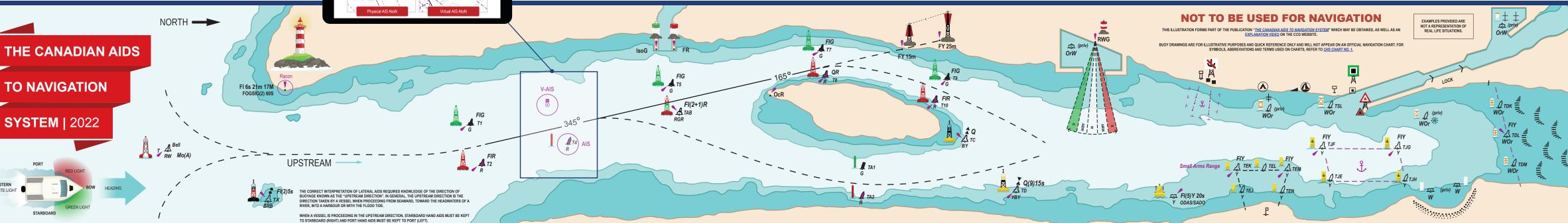
Red fluorescent triangle centre on

a white background and with a red

display an even number made of

retroreflective border. It may

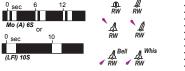
white retroreflective material.



LATERAL BUOYS

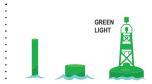
DESCRIPTION

- Red & white vertical stripes
- White light Mo(A) 6s or (LFI) 10s (if equipped). . If unlighted, it has a spherical top
- Red spherical topmark (if equipped).
- Lettered no numbers.
- White retroreflective material.



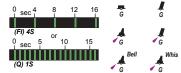
This buoy indicates safe water. Used to mark landfalls, channel entrances or channel centers. It may be passed on either side but should be kept on the vessel's port(left) side when proceeding in either direction.

LATERAL BUOYS



DESCRIPTION

- Green light (FI) 4s or (Q) 1s (if equipped).
- If unlighted, it has a flat top.
- Topmark is a single green cylinder (if equipped). Letter and odd number(s).
- Green retroreflective material.



USER'S GUIDE

A port hand buoy marks the port (left) side of a channel or the location of a danger which must be kept on the vessel's port (left) side when proceeding in the upstream direction

LATERAL BUOYS

DESCRIPTION

- Red light (FI) 4s or (Q) 1s (if equipped).
- If unlighted, it has a pointed (conical) top.
- Topmark is a single red cone, point upward (if equipped).
- Letter and even number(s). · Red retroreflective material
-) sec 5 or 10 15

USER'S GUIDE

A starboard hand buoy marks the starboard (right) side of a channel or the location of a danger which must be kept on the vessel's starboard (right) side when proceeding in the upstream direction.

PORT BIFURCATION LATERAL BUOYS

DESCRIPTION

- Green with one red horizontal band. • Green light, composite group FI(2+1) 6s or FI(2+1) 10s (if equipped).
- If unlighted, it has a flat top.
- Topmark is a single green cylinder (if equipped) • Lettered – no numbers.
- Green retroreflective material.

USER'S GUIDE

A port bifurcation buoy marks the point where a channel divides when proceeding in the upstream direction. When the preferred (main) channel is desired, the buoy should be kept on the vessel's port (left) side.

STARBOARD BIFURCATION LATERAL BUOYS

DESCRIPTION

- Red with one green horizontal band • Red light, composite group FI(2+1) 6s or FI(2+1) 10s (if equipped).
- If unlighted, it has a pointed (conical) top. • Topmark is a single red cone, point upward (if equipped). • Lettered - no numbers.
- Red retroreflective material

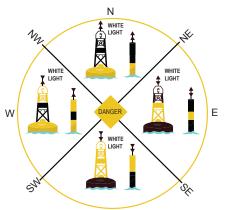
USER'S GUIDE

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

Yellow and black.

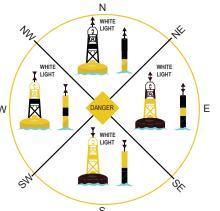
CARDINAL AIDS

- White lights flash characters indicated below (if equipped)
- Lettered no numbers. White retroreflective material.



DESCRIPTION

- Black topmark cones point to the black portion(s) of the buoy.
- Two conical topmarks. Direction of points have significance.



Note: may be available in the form of buoys or fixed aids.

ISOLATED DANGER AIDS





DESCRIPTION Black with one red horizontal band

- White light, group FI(2) 5s or group FI(2)10s (if equipped) Two black spherical topmarks.
- Lettered no numbers. White retroreflective material



USER'S GUIDE

An isolated danger aid is moored on, near or installed above an isolated danger which has navigable water all around it. Consult the chart for information concerning the danger (dimensions, depth, etc.). May be used to mark natural dangers such as small shoals or obstructions such as wrecks.

SPECIAL BUOYS

through channel exists.

within the orange square.

SCIENTIFIC (ODAS/SADO)

Cautionary buoys mark dangers such as firing ranges, underwater

pipelines, race courses, seaplane bases and areas where no

Information buovs display information such as

locality, marina, campsite, etc. Mariners are

encouraged to follow the information illustrated

Ocean data acquisition system buoy (ODAS) collect

meteorological and other scientific data.

DESCRIPTION Shapes have no significance. May be lettered – no numbers. Yellow retroreflective material.

 Yellow lights – flash characters indicated below (if equipped). Cautionary, scientific and anchorage buoys may display a yellow "x" topmark.

the chart for water depth.

Diving buoys mark an area where scuba or other such

diving activity is in progress. Not normally charted.

Hazard buovs mark random hazards such as



Anchorage buoys mark the perimeter of Mooring buoys are used for mooring or securing designated anchorage areas. Please consult may be secured to such a buoy.





Keen-out huov marks areas in shoals and rocks. Information concerning the restrictions, etc. Mariners are urged to follow which boats are prohibited.

Control buoys indicate speed limits, wash hazard is illustrated within the orange diamond. the restriction illustrated within the orange



Swimming buoys mark the perimeter of a

swimming area. May not be charted.