A Guide to Interpreting Environment Canada's West Coast Marine Forecasts

Source: www.weatheroffice.gc.ca

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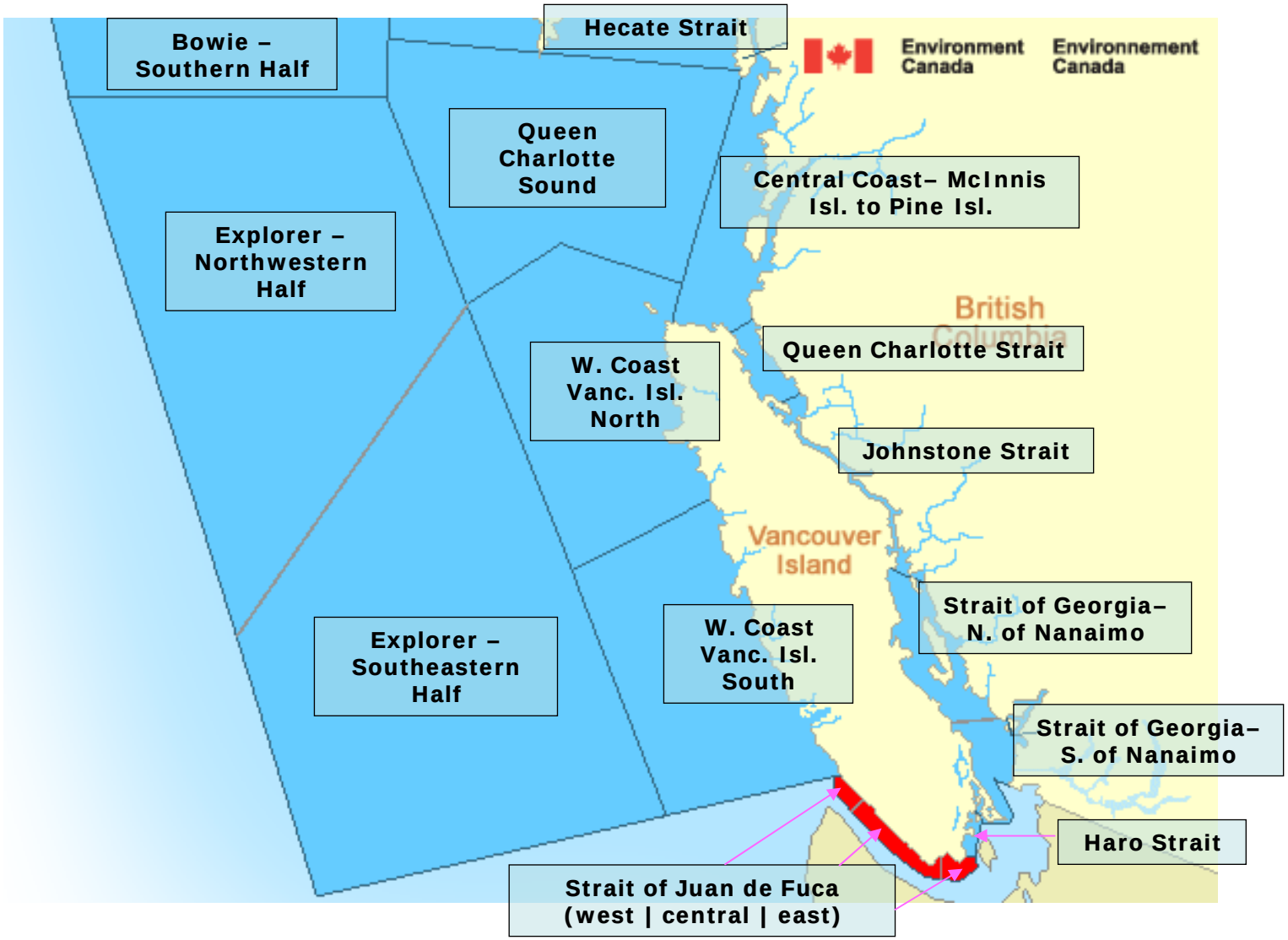
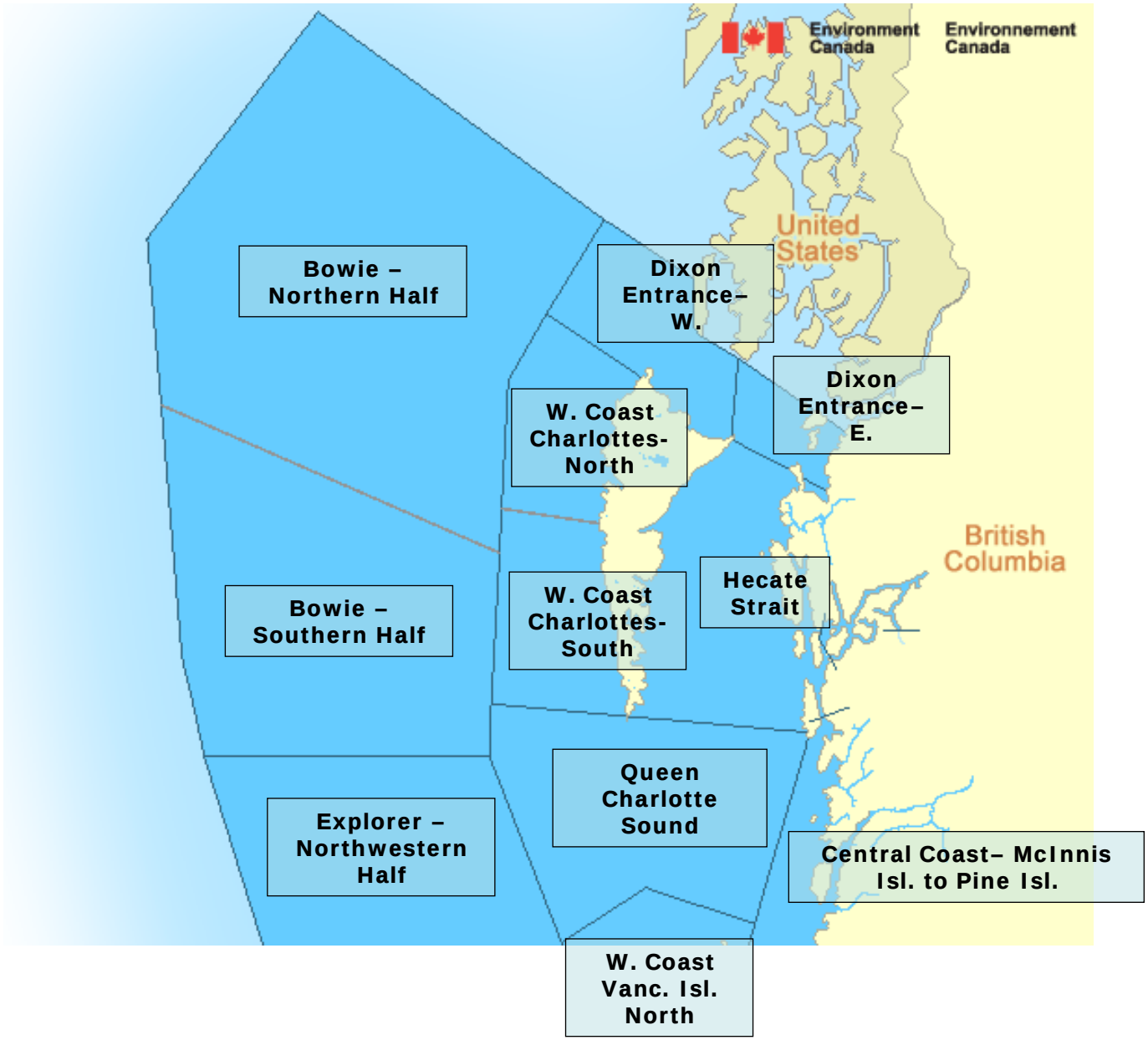
Forecast Regions - South Coast



Key Land Stations & Buoys – South Coast

Key: Red text with red circle = Buoy, Black text w/ green square = Land Station

Forecast Regions – North Coast



Key Land Stations & Buoys – North Coast

Key: Red text with red circle = Buoy, Black text w/ green square = Land Station

Definitions of Select Weather Terms Used in the Canadian Marine Forecasts

- **Backing Wind-** Counter-clockwise change of wind direction, in either hemisphere.
- **Celsius / Fahrenheit conversion formula:** °F = °C x 9/5 + 32
- **Front-** The interface or transition zone between air masses of different densities (temperature and humidity).
- **Ridge-** Region of the atmosphere in which the pressure is high relative to the surrounding region at the same level.
- **Sea Breeze-** Wind in coastal regions, blowing by day from a large water surface towards the land as a result of diurnal heating of the land surface.
- **Strong Wind Warning-** an alert issued to advise mariners that marine wind speeds between 20 and 33 knots inclusive are occurring, or are expected to occur. The terminology for this alert replaces the "Small Craft Warning" which was previously issued for the same wind speed criteria.
- **Trough-** An elongated area of relatively low atmospheric pressure.
- **Veering-** Clockwise change of wind direction, in either hemisphere
- **Wind direction**- In meteorology, the wind is always given with the direction it is blowing *from*, using geographic (true) cardinal points.
- **Wind speeds (for Marine forecast only)**
  - Light (less than 12 knots)
  - Moderate (12-19 knots)
  - Strong (20-33 knots)
  - Gales (34-47 knots)
  - Storm force (48-63 knots)

Beaufort Wind Scale

Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
0	Less than 1	Less than 1	Calm	Sea surface like a mirror, but not necessarily flat.	Smoke rises vertically.
1	1 - 5	1 - 5	Light Air	Ripples with the appearance of scales are formed, but without foam crests.	Direction of wind shown by smoke drift but not wind vanes.
2	6 - 11	4 - 6	Light Breeze	Small wavelets, still short but more pronounced. Crests do not break. When visibility good, horizon line always very clear.	Wind felt on face. Leaves rustle. Ordinary vane moved by wind.
3	12 - 19	7 - 10	Gentle Breeze	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered whitecaps.	Leaves and small twigs in constant motion. Wind extends light flag.
4	20 - 28	11 - 16	Moderate Breeze	Small waves, becoming longer. Fairly frequent whitecaps.	Raises dust and loose paper. Small branches are moved.
5	29 - 38	17 - 21	Fresh Breeze	Moderate waves, taking a more pronounced long form. Many whitecaps are formed. Chance of some spray.	Small trees in leaf begin to sway. Crested wavelets form on inland waters.
6	39 - 49	22 - 27	Strong Breeze	Large waves begin to form. The white foam crests are more extensive everywhere. Probably some spray.	Large branches in motion. Whistling heard in telephone wires. Umbrellas used with difficulty.
7	50 - 61	28 - 33	Near Gale	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	Whole trees in motion. Inconvenience felt in walking against wind.
8	62 - 74	34 - 40	Gale	Moderately high waves of greater length. Edges of crests begin to break into the spindrift. The foam is blown in well-marked streaks along the direction of the wind.	Breaks twigs off trees. Generally impedes progress. Walking into wind almost impossible.
9	75 - 88	41 - 47	Strong Gale	High waves. Dense streaks of foam along the direction of the wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.	Slight structural damage occurs, eg. roofing shingles.

Note: Force 10 and above not shown for brevity

North and South Coast Regions Together