

USE OF CHART

This chart is not intended to be used alone but in conjunction with other navigational aids. The chart presents, in graphic form, averages obtained from data gathered over many years in meteorology and oceanography to aid the navigator in selecting the quickest and safest routes. Included are explanations of how to use each type of information depicted on this chart.

LOCAL WEATHER: For extended remarks on the marine climate along foreign coasts, see the appropriate Sailing Directions (Enroute and Planning Guides) prepared and published by the National Imagery and Mapping Agency. For the coasts of the United States and its possessions, see the appropriate Coast Pilot prepared and published by the National Ocean Survey. The bimonthly publication "Mariners Weather Log", prepared and published by the National Oceanic and Atmospheric Administration, Environmental Data and Information Service, carries information on marine climatic conditions.

EXPLANATION OF WIND ROSES: The wind roses in blue color are located in the center of each 5° square. Each rose shows the distribution of the winds that have prevailed in the area over a considerable period of time. The wind percentages are summarized for calm and the Cardinal and Inter-cardinal compass points. The arrows fly with the wind, indicating the direction from which the wind blew. The length of the shaft, measured from the outside of the circle to the end of the visible shaft (not necessarily to the end of the last feather), using the scale below, gives the percentage of the total number of observations in which the wind has blown from that direction. The number of feathers shows the average force of the wind on the Beaufort scale. The figure in the center of the circle gives the percentage of calms. When the arrow is too long (over 20 percent) it is fitted conveniently in the 5° square, the percentage is indicated numerically on the shaft.

FOR EXAMPLE: The sample wind rose should be read thus: In the reported observations the wind has averaged as follows: From N. 40 percent, force 7; from N.E. 10 percent, force 7; from E. 6 percent, force 5; from S.E. 5 percent, force 5; from S. 5 percent, force 5; from S.W. 9 percent, force 5; from W. 8 percent, force 5; from N.W. 5 percent, force 4; calms 3 percent.

WINDS: Over the middle latitudes of the North Atlantic (35°N to 60°N) the prevailing winds are from the southwest except for the Bay of Biscay and west coast of Portugal where they are more northerly. North of 60°N, the winds are northerly between Greenland and Norway but southerly between Greenland and Hudson Bay. Along the longitudinal band between 15°N and 30°N the winds are northerly over the eastern half and easterly or southeasterly over the western half. South of 15°N, winds prevail from the south while over the Mediterranean Sea they remain northerly with an average force 2 to 4. Average wind speeds over the North Atlantic maintain force 3 to 5 with a slight decrease over the Caribbean Sea from the previous month.

PRESSURE: Over the North Atlantic, the Azores High is still the predominant feature during August. Its southwest-northeast elongation has slightly decreased from the previous month; its center is still located near 35°N, 35°W with a slightly lower mean pressure of 1023 millibars. The Icelandic Low remains an ill-defined east-west trough with a central pressure of 1009 millibars.

VISIBILITIES: During August, fog becomes less frequent and extensive than earlier in the summer. Ten percent or more of the observations report visibilities less than 2 miles north of a line that runs from Long Island out past the Grand Banks where it circles north through Iceland and south along the outer coast of the British Isles before turning northeast through the Norwegian Sea. The highest frequency of poor visibility, 30 percent, occurs over the Bay of Fundy, the Grand Banks of Newfoundland, and the southwestern tip of Greenland. Areas along the coast of Greenland and from Cape Cod to Newfoundland report 20 percent or more of the observations with visibilities less than 2 miles.

MAGNETIC VARIATION: The lines of equal magnetic variation for the Epoch 2000 are shown by gray lines on the main body of the chart and the Mediterranean inset chart. The annual rate of change is shown by gray lines on the uppermost inset chart.

GREAT CIRCLE ROUTES: The courses shown on this chart are drawn to provide the shortest distances normally available during the month represented. Abnormal or severe ice or weather conditions may require vessels to alter course farther south to the tracks represented on the late winter or spring Pilot charts and the weather reports should be monitored constantly when proceeding south of Cap Race, as these waters are subject to irregular hazards.

WAVE HEIGHTS: The red lines on the main body of the chart indicate the percentage of frequency of wave heights equal to or greater than 12 feet. In analysis, when both sea and swell are reported, the higher value is used in the summarization. Wave heights of 12 feet or higher have increased slightly since July and are encountered more than 10 percent of the time over an area that lies north of 42°N and extends from the Labrador Sea to Iceland.

GALES: Winds of force 8 or greater, except in tropical storms, rarely occur south of 52°N. North of this latitude, gale frequencies of 10 percent occur southeast of Kap Farvel with a surrounding 5 percent area extending from Kap Farvel east to 25°W. Two smaller areas observing 5 percent frequencies of gales are located in the Davis Strait and off the west coast of Ireland.

EXTRATROPICAL CYCLONES: During August, principal areas of cyclogenesis extend from the Carolinas to the Gulf of St. Lawrence, from Newfoundland to southern Greenland, and over an elliptical area centered near 50°N, 23°W. Extratropical storm tracks have moved even farther north than in July. Primary tracks lead from Lake Winnipeg to the Davis Strait and from the Great Lakes into northern latitudes, extending from the Labrador Sea to the Norwegian Sea. A secondary storm track for lows crosses Great Britain and Denmark.

AIR TEMPERATURE: The mean air temperature increases slightly over July with a range from 41° over the Davis Strait to 22°C over the Gulf of Mexico. The extreme temperatures for August are close to those of July with 98 percent of the observations along the coastal waters of Greenland reporting temperatures between 0°C and 12°C while over the Caribbean Sea and Gulf of Mexico 98 percent appear between 24°C and 32°C. Along the 40°N parallel, the air temperatures are still warmer off the east coast of the U.S. than the west coast of Portugal. The mean temperatures at this latitude range from just under 20°C off the Azores to a little over 24°C between 40°W and 60°W.

TROPICAL CYCLONES: The likelihood of tropical cyclones increases as August advances. For an average 10-year period, 25 tropical cyclones, with winds of 34 knots or greater, will take up residence in the North Atlantic with 15 of these reaching hurricane strength (64 knots or greater). The primary track of most tropical cyclones is either west of Florida heading towards the south coast of Texas or recurving east of Florida heading northeast paralleling the Atlantic Coast States.

OCEAN CURRENTS: The green arrows on the chart indicate the prevailing direction, and the numerals show the mean current speed in knots. The broken arrows indicate the probable surface current flow where data are sparse, but more importantly, they indicate directional variability such as in the Sargasso Sea, in regions of entrainment between currents setting in opposing directions, in nearshore tidal regions, and in the northern seas where currents are generally weak and easily influenced by winds.

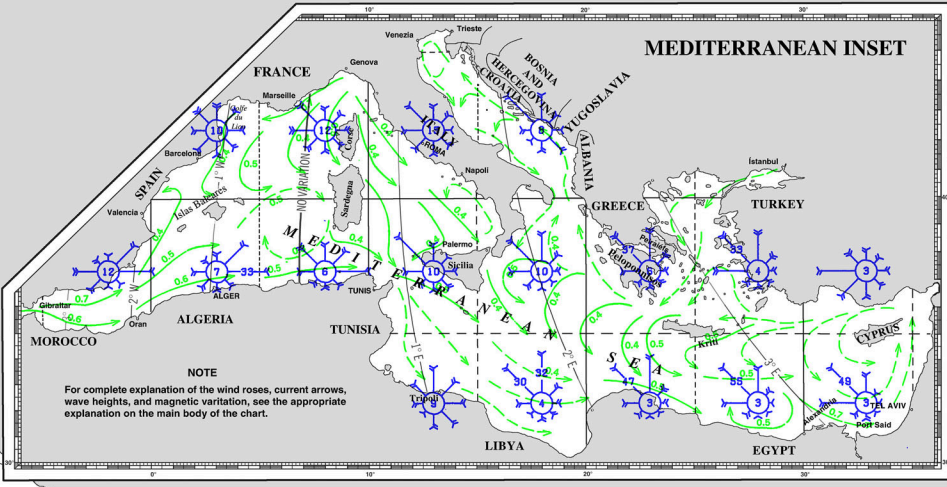
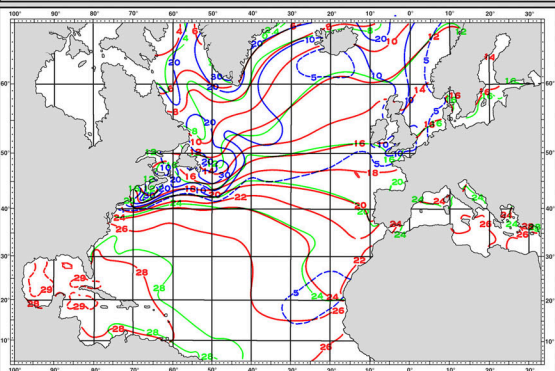
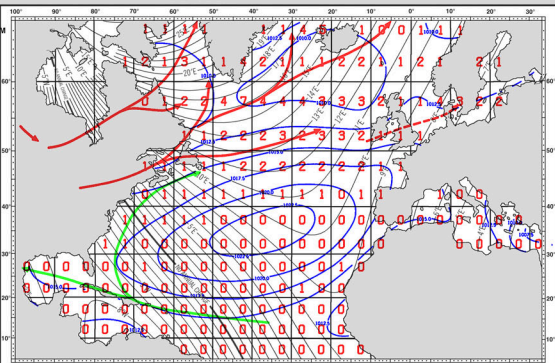
NOTE: It should be kept in mind that most ships tend to avoid areas of inclement weather. The frequency of gales and high waves is generally greater than that which is actually reported due to climatological observations being biased toward favorable weather conditions.

EXCEPTIONAL ICE SIGHTINGS

△ Berg (year sighted)
○ Growler (year sighted)

TROPICAL CYCLONES: The mean tracks of tropical storms and hurricanes are shown in green. They appear only during the season of maximum frequency (May-November). These tracks represent averages. Movements of individual systems may vary widely.

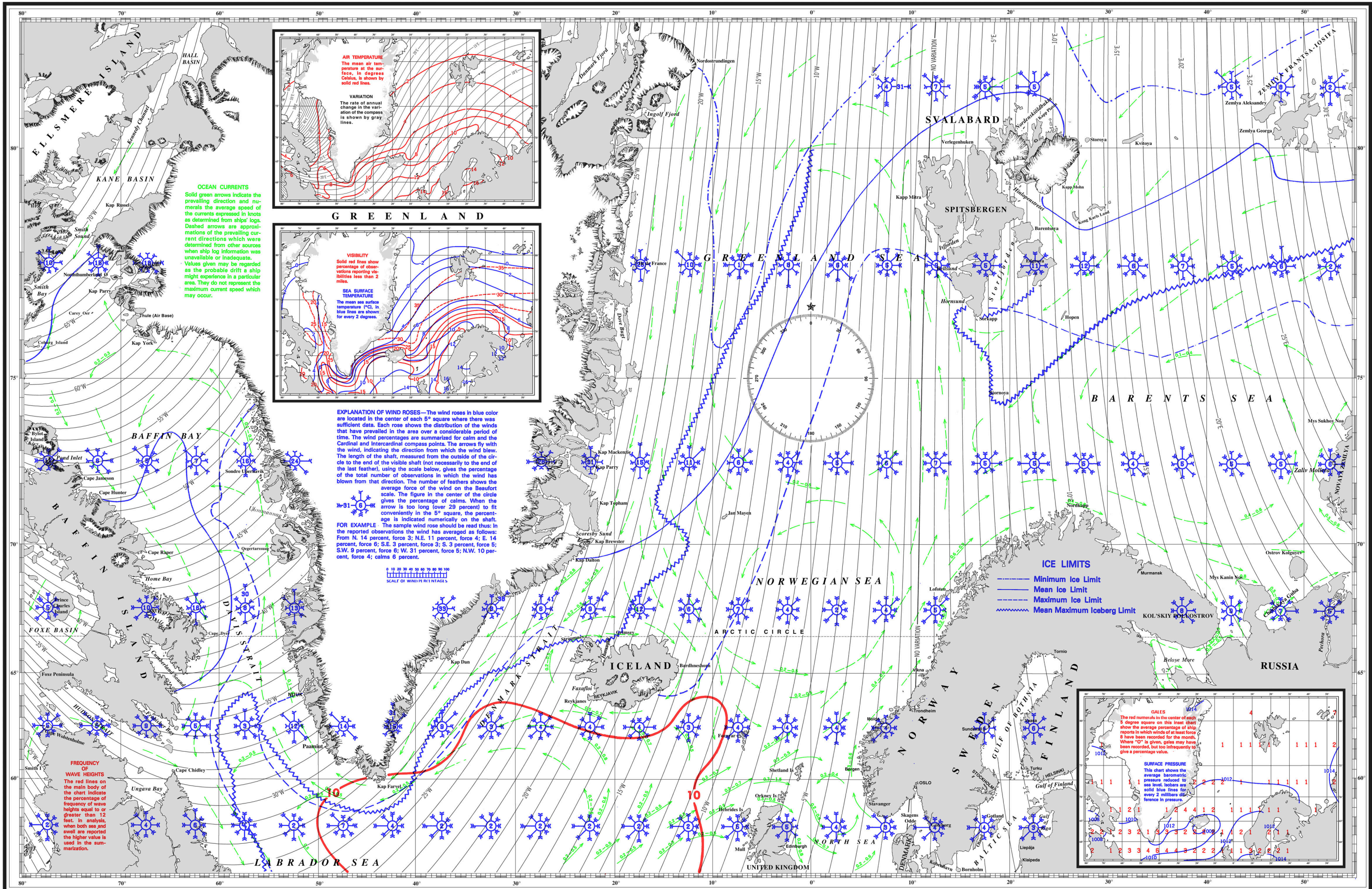
GALES: The red numerals in the center of each 5-degree square on this chart show the average percentage of ship reports in which winds of at least force 8 have been recorded for the month. Where "0" is given, gales may have been recorded, but too infrequently to give a percentage value.



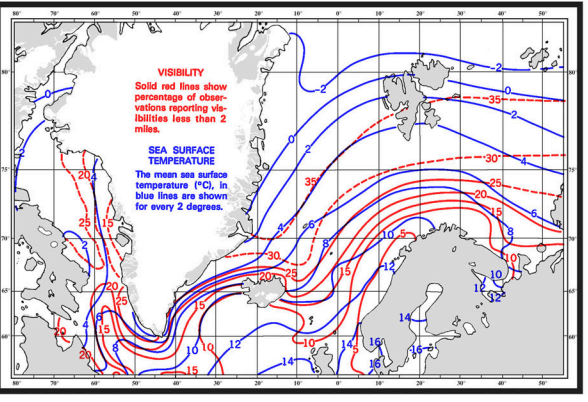
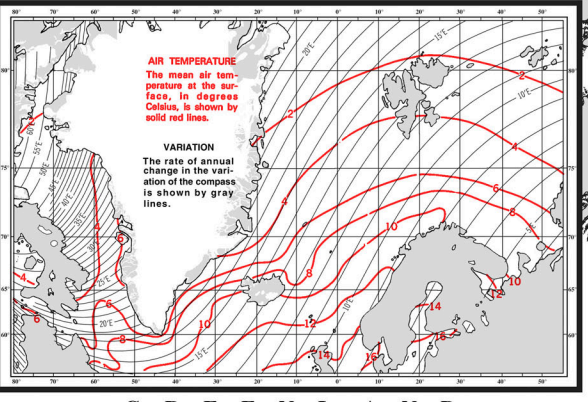
NOTE: For complete explanation of the wind roses, current arrows, wave heights, and magnetic variation, see the appropriate explanation on the main body of the chart.

PILOT CHART OF THE NORTHERN NORTH ATLANTIC OCEAN

(THIS CHART SHOULD NOT BE USED FOR NAVIGATIONAL PURPOSES)



OCEAN CURRENTS
 Solid green arrows indicate the prevailing direction and numerals the average speed of the currents expressed in knots as determined from ships' logs. Dashed arrows are approximations of the prevailing current directions which were determined from other sources when ship log information was unavailable or inadequate. Values given may be regarded as the probable drift a ship might experience in a particular area. They do not represent the maximum current speed which may occur.



EXPLANATION OF WIND ROSES—The wind roses in blue color are located in the center of each 5° square where there was sufficient data. Each rose shows the distribution of the winds that have prevailed in the area over a considerable period of time. The wind percentages are summarized for calm and the Cardinal and Inter-cardinal compass points. The arrows fly with the wind, indicating the direction from which the wind blew. The length of the shaft, measured from the outside of the circle to the end of the visible shaft (not necessarily to the end of the last feather), using the scale below, gives the percentage of the total number of observations in which the wind has blown from that direction. The number of feathers shows the average force of the wind on the Beaufort scale. The figure in the center of the circle gives the percentage of calms. When the arrow is too long (over 29 percent) to fit conveniently in the 5° square, the percentage is indicated numerically on the shaft.

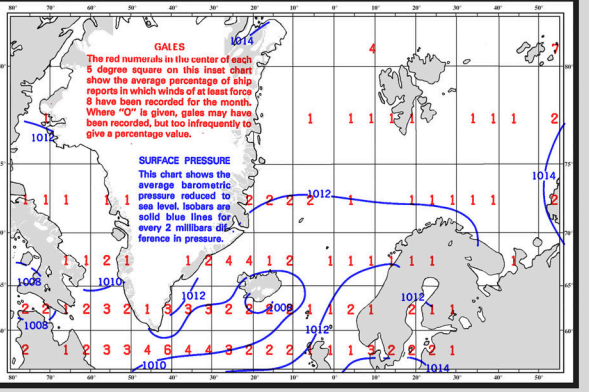
FOR EXAMPLE The sample wind rose should be read thus: In the reported observations the wind has averaged as follows: From N, 14 percent, force 3; N.E, 11 percent, force 4; E, 14 percent, force 6; S.E, 3 percent, force 3; S, 3 percent, force 5; S.W, 9 percent, force 6; W, 31 percent, force 5; N.W, 10 percent, force 4; calms 6 percent.



FREQUENCY OF WAVE HEIGHTS
 The red numerals on the main body of the chart indicate the percentage of frequency of wave heights equal to or greater than 12 feet. In analysis, when both sea and swell are reported the higher value is used in the summarization.

ICE LIMITS

- Minimum Ice Limit
- Mean Ice Limit
- Maximum Ice Limit
- Mean Maximum Iceberg Limit



PILOT CHART OF CARIBBEAN SEA AND GULF OF MEXICO

