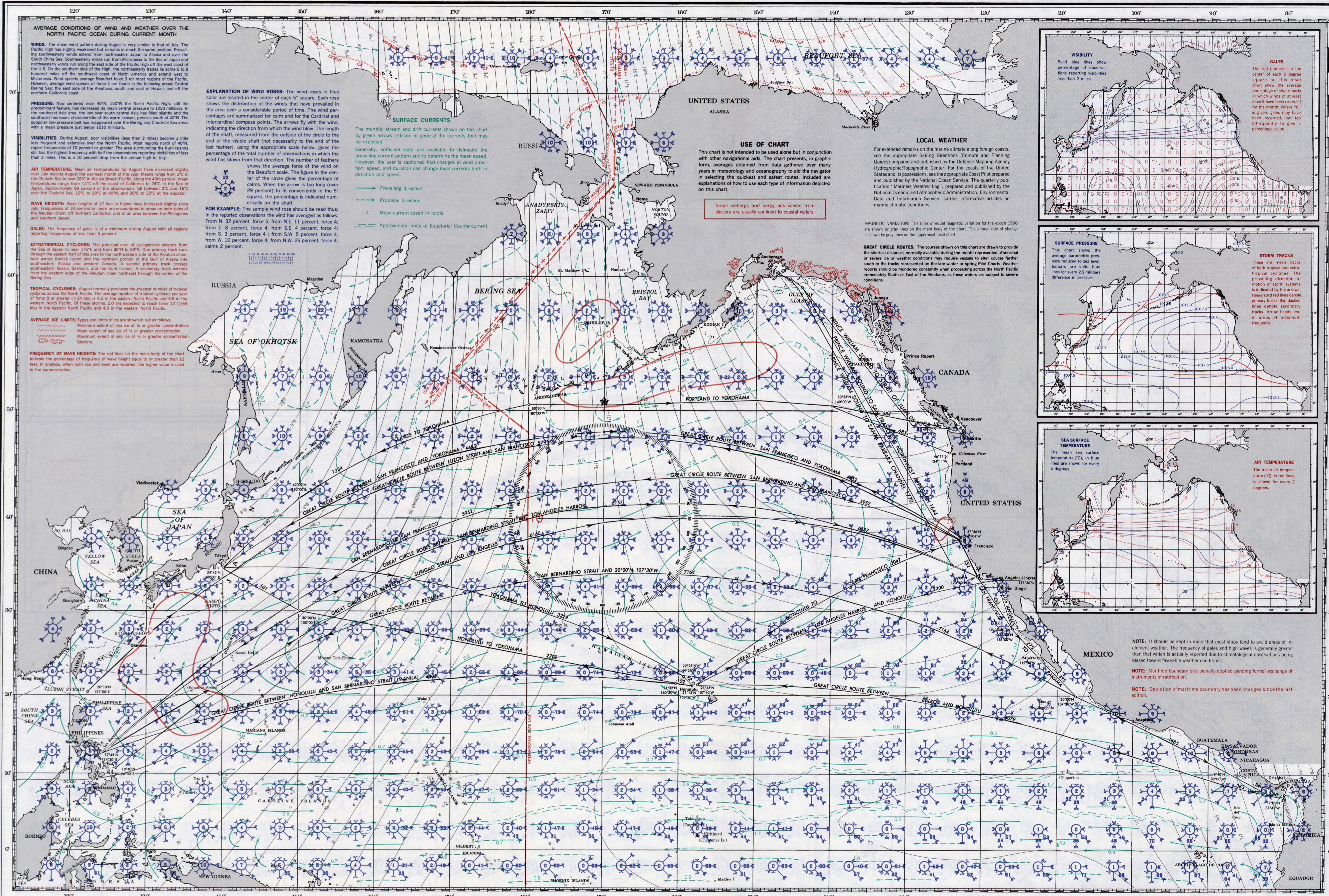




PILOT CHART OF THE NORTH PACIFIC OCEAN



AVERAGE CONDITIONS OF WIND AND WEATHER OVER THE NORTH PACIFIC OCEAN DURING CURRENT MONTH

WINDS: The mean wind pattern during August is very similar to that of July. The Pacific High has slightly weakened but remains in much the same position. Prevailing westerly winds extend from northern Japan to Alaska and over the South China Sea. Southeastern winds run from Micronesia to the Sea of Japan and northwesterly winds run along the east side of the Pacific High off the west coast of the U.S. On the southern side of the High, the northeasterly trades lie some 6 to 8 hundred miles off the southwest coast of North America and extend west to Micronesia. Wind speeds average Beaufort force 3 for most regions of the Pacific. However, average wind speeds of force 4 are found in the following areas: Central Bering Sea, the east side of the Aleutians, south and east of Hawaii, and off the northern California coast.

PRESSURE: Now centered near 40°N, 150°W the North Pacific High, still the predominant feature, has decreased its mean central pressure to 1023 millibars. In the southeast Asia area, the low over south central India has filled slightly and the southwest monsoon, characteristic of the warm season, persists south of 40°N. The subtropical low-pressure belt has reappeared over the Bering and Chukchi Sea areas with a mean pressure just below 1010 millibars.

VISIBILITIES: During August, poor visibilities (less than 2 miles) become a little less frequent and extensive over the North Pacific. Most regions north of 40°N, report frequencies of 10 percent or greater. The area surrounding the Kuril Islands still has the highest frequency with half the observations reporting visibilities of less than 2 miles. This is a 10 percent drop from the annual high in July.

AIR TEMPERATURE: Mean air temperatures for August have increased slightly over July making August the warmest month of the year. Means range from 32° in the Chukchi Sea to over 28°C in the southwest Pacific. Along the 40th parallel, mean temperatures range from 14°C off the coast of California to 24°C in the Sea of Japan. Approximately 98 percent of the observations fall between 0°C and 18°C over the Chukchi Sea, 12°C to 28°C at 40°N, and 20°C to 32°C at the equator.

WAVE HEIGHTS: Wave heights of 12 feet or higher have increased slightly since July. Frequencies of 10 percent or more are encountered in areas on both sides of the Aleutian chain, off northern California, and in an area between the Philippines and southern Japan.

GALES: The frequency of gales is at a minimum during August with all regions reporting frequencies of less than 5 percent.

EXTRATROPICAL CYCLONES: The principal area of cyclogenesis extends from the Sea of Japan to near 175°E and from 30°N to 50°N. One primary track runs through the eastern half of this area to the northwestern side of the Aleutian chain, west across Kodiak Island and the northern portion of the Gulf of Alaska into southeastern Alaska and western Canada. A second primary track crosses southeastern Russia, Sakhalin, and the Kuril Islands. A secondary track extends from the western edge of the Aleutian chain northeast through the center of the Bering Sea.

TROPICAL CYCLONES: August normally produces the greatest number of tropical cyclones across the North Pacific. The average number of tropical cyclones per year of force 8 or greater (23 kt) is 4.5 in the eastern North Pacific and 5.8 in the western North Pacific. Of these storms, 2.0 are expected to reach force 12 (24 kt) in the eastern North Pacific and 4.0 in the western North Pacific.

AVERAGE ICE LIMITS: Types and limits of ice are shown in red as follows:
 Minimum extent of sea ice of 1/4 or greater concentration.
 Mean extent of sea ice of 1/4 or greater concentration.
 Maximum extent of sea ice of 1/4 or greater concentration.
 Glaciers.

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

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 for 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 (not necessarily to the end of the last feather), using the appropriate 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. 32 percent, force 5; from N.E. 11 percent, force 4; from E. 8 percent, force 4; from S.E. 4 percent, force 4; from S. 3 percent, force 4; from S.W. 5 percent, force 4; from W. 10 percent, force 4; from N.W. 25 percent, force 4; calms 2 percent.

— Prevailing direction
 - - - Probable direction
 — Mean current speed in knots.
 - - - Approximate limits of Equatorial Counter-current.

SURFACE CURRENTS

The monthly stream and drift currents shown on this chart by green arrows indicate in general the currents that may be expected. Generally, sufficient data are available to delineate the prevailing current pattern and to determine the mean speed. However, the user is cautioned that changes in wind direction, speed, and duration can change local currents both in direction and speed.

— Prevailing direction
 - - - Probable direction
 — Mean current speed in knots.
 - - - Approximate limits of Equatorial Counter-current.

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.

Small icebergs and bergs bits calved from glaciers are usually confined to coastal waters.

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 Defense Mapping Agency Hydrographic/Topographic Center. For the coasts of the United States and its possessions, see the appropriate Coast Pilot prepared and published by the National Ocean Service. The quarterly publication "Mariners Weather Log", prepared and published by the National Oceanic and Atmospheric Administration, Environmental Data and Information Service, carries informative articles on marine climatic conditions.

MAGNETIC VARIATION

The lines of equal magnetic variation for the epoch 1990 are shown by gray lines on the main body of the 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 sea or weather conditions may require vessels to alter course farther south to the tracks represented on the late winter or spring Pilot Charts. Weather reports should be monitored constantly when proceeding across the North Pacific immediately South or East of the Aleutians, as these waters are subject to severe conditions.

VISIBILITY

Solid blue lines show percentage of observations reporting visibilities less than 2 miles.

GALES

The red numerals in the center of each 5 degree square on this inset 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.

SURFACE PRESSURE

This chart shows the average barometric pressure reduced to sea level. Isobars are solid blue lines for every 2.5 millibars difference in pressure.

STORM TRACKS

These are mean tracks of both tropical and extratropical cyclones. The prevailing direction of motion of storm systems is indicated by the arrows. Heavy solid red lines denote primary tracks; thin dashed lines denote secondary tracks. Arrow heads end in areas of maximum frequency.

SEA SURFACE TEMPERATURE

The mean sea surface temperature (°C), in blue lines are shown for every 4 degrees.

AIR TEMPERATURE

The mean air temperature (°C), in red lines, is shown for every 2 degrees.

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.

NOTE: Maritime boundary provisionally applied pending formal exchange of instruments of ratification.

NOTE: Depiction of maritime boundary has been changed since the last edition.