

LOCAL WEATHER.—For extended remarks on the marine climate along foreign coasts, see the appropriate Sailing Directions 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 Service. The trimester publication “Mariners Weather Log” prepared and published by the National Oceanic and Atmospheric Administration, National Weather Service, carries informative articles on marine climate conditions and tropical cyclone information.

MAY

PRESSURE.—In May the permanent anticyclone off the South American coast is centered near 30°S, 85°W with a mean central pressure of 1021 millibars. Located over southeastern Australia is a second high pressure center with a mean central pressure of 1018 millibars. Pressures diminish slightly to the north and considerably to the south of the subtropical high; mean pressures are as low as 1008 millibars over the western half of the equatorial trough and 990 millibars at 60°S.

TEMPERATURE.—Along the equator mean air temperatures range from 23°C off South America to 29°C west of the international date line. At this latitude approximately 98% of the observations fall between 19°C and 29°C over the Peruvian current and between 25°C and 33°C over Malanesia. Means vary little at 60°S—most are found to be near 2°C to 3°C. Of the observations at 60°S, 98% fall between □–4°C and 5°C.

WINDS.—East to southeasterly winds prevail north of 30°S from South America to the Philippines; scalar winds average force 3 to 4. South of 30°S, prevailing winds are westerly except for southerly winds between Australia and New Zealand. Scalar winds average force 4 to 6 south of 30°S.

GALES.—With the decline of tropical storm activity over the western half of the South Pacific, the occurrence of force 8 winds is rarely reported north of 30°S. Frequencies begin to increase south of 30°S, reaching 10% south of 40°S over the eastern half and south of 45°S over the western half. Most regions east of 160°W between 45°S and 60°S report frequencies of 20% or more; a high of 30% is reported off the southwest coast of Chile.

TROPICAL CYCLONES.—With May's cooler temperatures, the occurrences of tropical storms (> 34 knots) have decreased significantly. Historical records show that only three storms can be expected to reach 34 knots or greater within an average 10-year period and that less than one storm will reach 64 knots or greater (hurricane strength) within an average 20-year period. Such storms have been observed only in the northwest quadrant of the South Pacific.

VISIBILITY.—As in previous months, shipping routes north of 40°S have little problem with poor visibilities (less than 2 miles). At 130°E longitude, poor visibilities increase from 10% at 43°S to over 40% at 60°S; at 90°W they increase from 10% at 48°S to over 20% at 60°S.

WAVE HEIGHTS.—Wave heights of at least 12 feet are generally observed 10% or more of the time south of 20°S except for some coastal areas of Australia, New Zealand, and Chile. Frequencies continue to increase southerly, reaching over 40% in a large portion of the region south of 45°S and west of 90°W. Along the Chile coast frequencies reach 10% near 45°S and increase to over 30% south of Cape Horn.

CHART #1

TROPICAL CYCLONES

The mean tracks of tropical storms and hurricanes are shown in red. These tracks represent averages, and movements of individual systems may vary widely.

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.

CHART #2

AIR TEMPERATURE

The mean air temperature (°C) in red lines is shown for every 2 degrees. All weather narratives refer to air temperature.

VISIBILITY

Blue lines show percentages of observations reporting visibilities less than 2 miles.

CHART #3

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. In cases where the observation count is low the gale frequency may be nonrepresentative and therefore different from the values used in the text. Where “0” is given, gales may have been recorded, but too infrequently to give a percentage value.

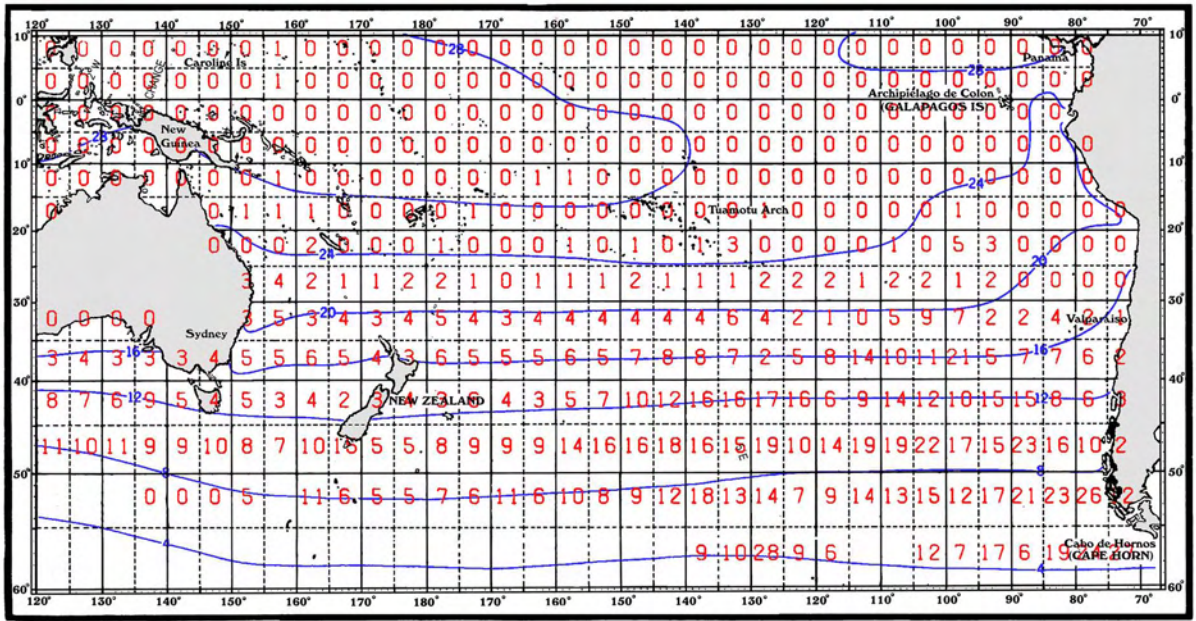
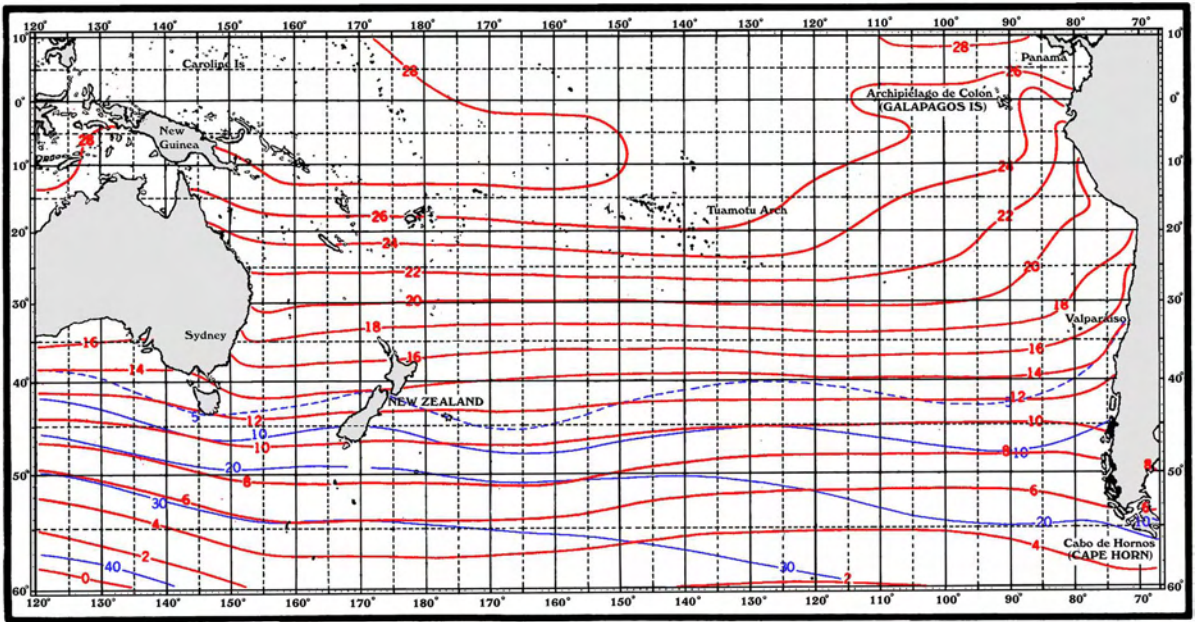
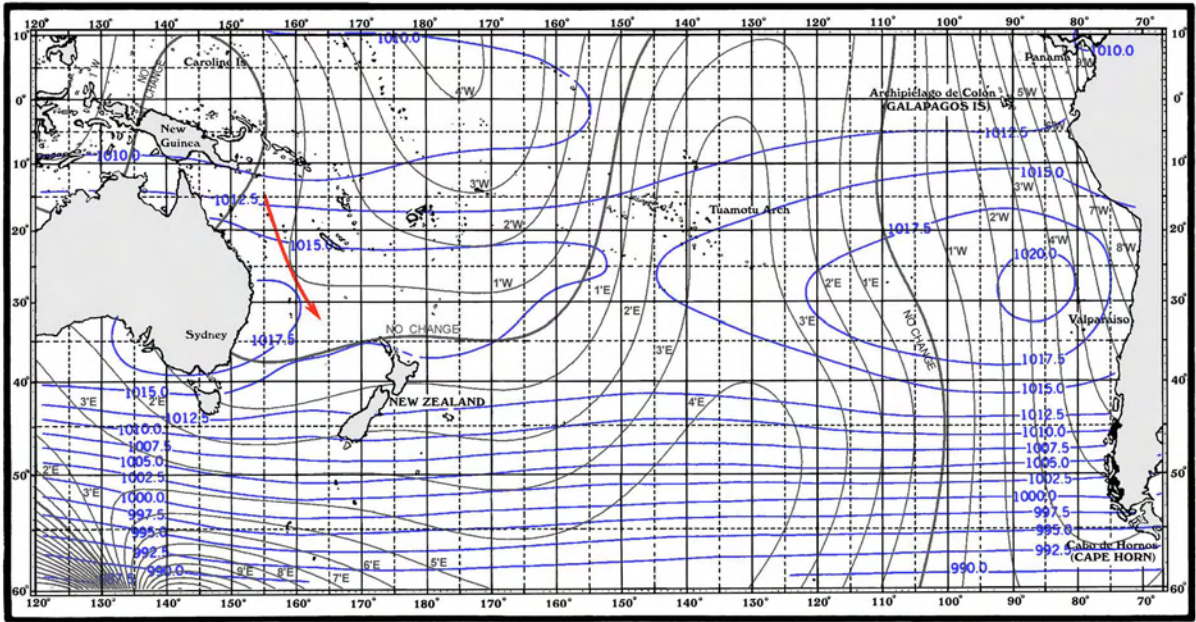
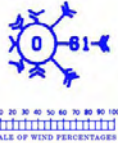
SEA SURFACE TEMPERATURE

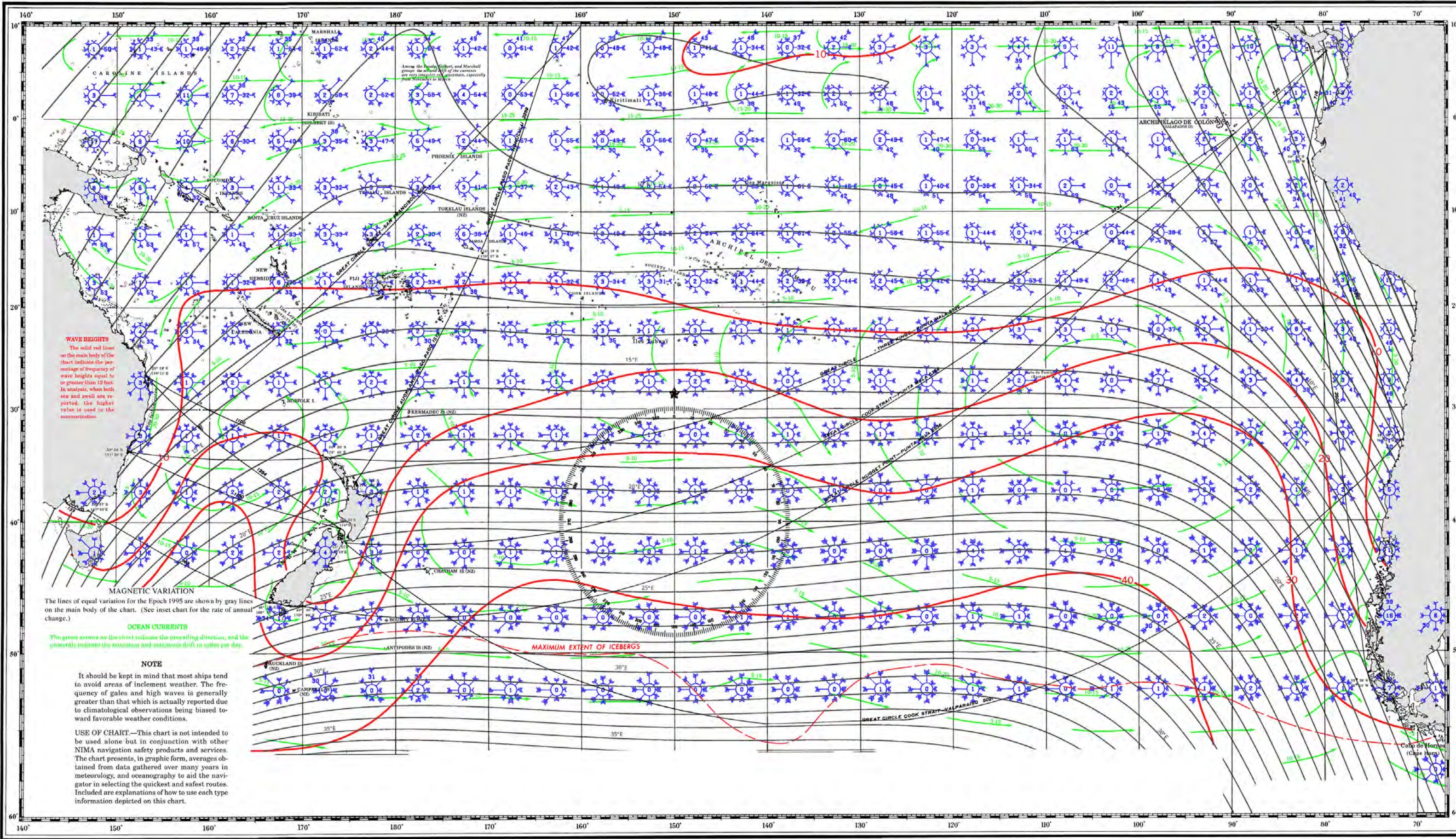
The mean sea surface temperature (°C), in blue lines, is shown for every degrees.

EXPLANATION OF WIND ROSES

PREVAILING WINDS AND CALMS.—The wind rose in blue color is located in the center of each 5° square where there was sufficient data. The rose shows the distribution of the winds that have prevailed in the area over a considerable period. The wind percentages are summarized for the eight points and calm. 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 using the scale below, gives the percent 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 to fit conveniently in the 5° square, anything over 29 percent, the shaft is broken and the percentage is indicated by numerals.

FOR EXAMPLE.—The sample wind rose should read thus: In the reported observations the wind has averaged as follows: From N. 3 percent, force 3; N.E. 16 percent, force 4; E. 61 percent, force 4; S.E. 17 percent, force 5; S. 1 percent, force 4; S.W. less than 1 percent, force 3; W. 1 percent force 2; N.W. 1 percent, force 4; calms 0 percent.





WAVE HEIGHTS
The solid 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.

MAGNETIC VARIATION
The lines of equal variation for the Epoch 1995 are shown by gray lines on the main body of the chart. (See inset chart for the rate of annual change.)

OCEAN CURRENTS
The green arrows on the chart indicate the prevailing direction, and the numbers indicate the minimum and maximum drift in miles per day.

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.

USE OF CHART.—This chart is not intended to be used alone but in conjunction with other NIMA navigation safety products and services. 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 information depicted on this chart.