

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.

NOVEMBER

PRESSURE.—November's mean pressure pattern is little changed from October's. The permanent high off South America, centered near 33°S , 92°W , has a mean central pressure of 1026 millibars. This ties with October for the highest monthly mean pressure. South of 45°S the relatively strong mean zonal pressure gradient continues. Mean pressures decrease poleward by 2 to 3 millibars per degree latitude between 45°S and 60°S . The equatorial trough is centered over the equator west of 150°W and just south of 10°N east of 150°W .

TEMPERATURE.—Mean air temperatures along the equator begin to increase over its eastern half. Little variation is noted over its western half, even on an annual basis. Means along the equator range from 23°C off South America to 29°C west of the Gilbert Islands. Along the equator 98% of the observations at 80°W fall between 20°C and 28°C and at 160°E , between 25°C and 33°C . At 60°S , temperatures average near 3°C , with 98% falling between -2°C and 5°C .

WINDS.—Southeasterly trade winds extend from the South American coast, near 40°S , to northern Australia. Westerly winds (northwest through southwest) prevail from Australia to the Drake Passage. Average winds of force 3 to 4 occur across most areas north of 40°S , whereas south of 40°S the average force is 4 to 5 (slightly less than in October).

GALES.—In general, most areas observe fewer gale force winds (force 8 or greater) than in October. Less than 5% of the observations north of 40°S report gales; most areas south of 45°S report frequencies of 10% or more. Frequencies reach a maximum of over 20% off the southwest coast of Chile and through the Drake Passage.

TROPICAL CYCLONES.—By November, temperatures have increased enough across the northwest quadrant of the South Pacific to spawn some tropical cyclone activity. Based on an average 10-year period, seven storms can be expected to attain force 8 strength (\geq 34 knots) during November. Of these storms, three should reach hurricane strength ($>$ 64 knots).

VISIBILITY.—Ocean areas north of 40°S are infrequently affected with visibilities less than 2 miles. Between 40°S and 50°S, frequencies range from under 5% to just over 20%. Frequencies between 50°S and 60°S range from over 10% to 40%.

WAVE HEIGHTS.—The region between Australia and New Zealand experiences wave heights of at least 12 feet 10% or more of the time south of 25°S and 40%, south of 53°S. Between New Zealand and South America, wave heights of this magnitude range from 10% near 25°S to over 40% south of 55°S. Frequencies around New Zealand range from under 10% along the north and east coasts to near 20% along the southwest coast.

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 ($^{\circ}\text{C}$) in red lines is shown for every 2 degrees. All weather narratives refer to air tempera-

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 ($^{\circ}\text{C}$), in blue lines, is shown for every degree.

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.



