

**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.

## JUNE

**PRESSURE.**—Compared with January, the major pressure features have shifted considerably north by June. The center of the equatorial trough now lies north of the equator and the permanent high off South America is centered near 27°S, 98°W—its most northern position—with a mean central pressure of 1022 millibars. A second high is centered over the Spencer Gulf area of Australia, with a mean central pressure of 1020 millibars. South of the subtropical high, the pressure gradient is relatively zonal; pressure decreases to 990 millibars at 60°S.

**TEMPERATURE.**—Mean temperatures range from just under 2°C at 60°S to 29°C over the extreme northwest portion of the South Pacific. Approximately 98% of the observed temperatures at 60°S fall between -4°C and 4°C. Along the equator 98% fall between 19°C and 28°C off Ecuador to between 24°C and 33°C over the western half of the equator.

**WINDS.**—As in May, east to southeasterly winds prevail from central Chile to the Philippines. The region between 30°S and 40°S is a transition zone between the east-southeasterlies to the north and the westerlies to the south. North of 30°S, winds average force 3 to 4, whereas south of 30°S they average force 4 to 6.

**GALES.**—Gale force winds (force 8 or greater) are rare north of 30°S. Frequencies of 10% or more are generally observed south of 35°S east of New Zealand and south of 45°S west of New Zealand. Frequencies reach a high near 20% across most areas east of 165°W between 40°S and 60°S.

**TROPICAL CYCLONES.**—As temperatures continue to cool the frequency of tropical cyclones—observed only in the northwest quadrant of the South Pacific—continues to decrease. Past records indicate that only two tropical storms ( $\geq 34$  knots) can be expected to develop during June within an average 10-year period. Rarely will any of these storms reach hurricane strength ( $\geq 64$  knots).

**VISIBILITY.**—Poor visibilities (less than 2 miles) are observed less than 5% of the time north of 40°S. At 50°S, frequencies range from near 20% south of Australia to near 10% at 100°W. Frequencies at 60°S range from under 30% east of 110°W to over 40% west of 130°E.

**WAVE HEIGHTS.**—With the increase of winter cyclones the frequency of wave heights of 12 feet or higher also increases. Frequencies of 10% or more are mostly observed south of 25°S over the western half of the South Pacific and south of 10°S to 20°S over the eastern half. Frequencies increase to as high as 40% south of 45°S between 100°W and 175°W and as high as 50% south of 50°S west of 135°E.

### 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 degree.

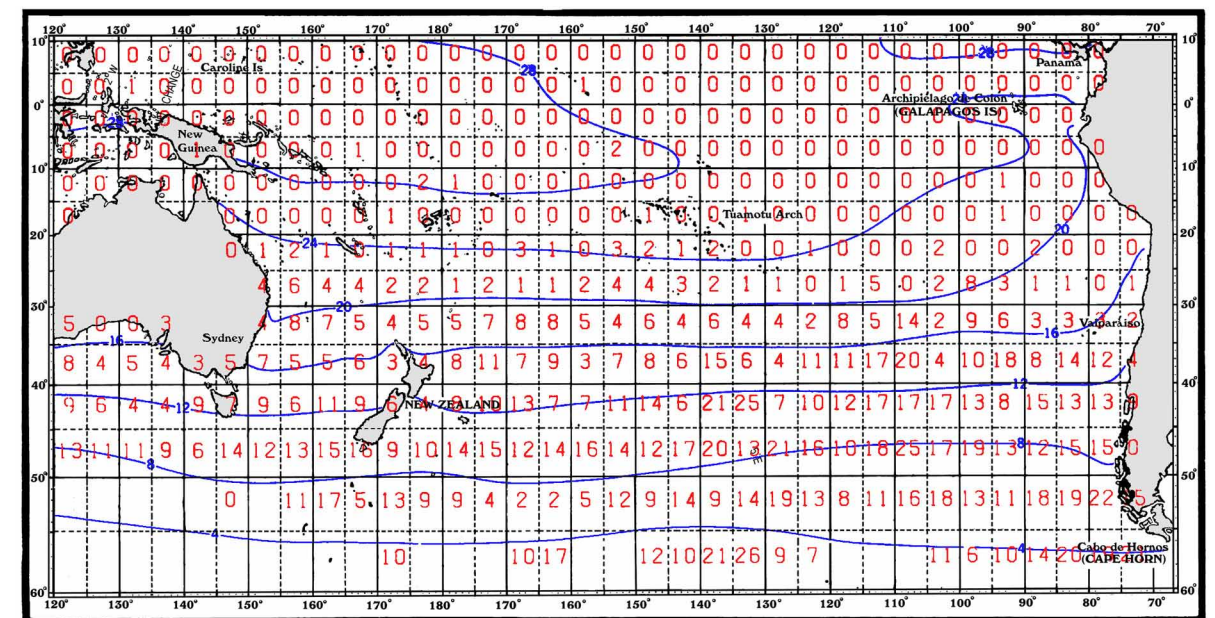
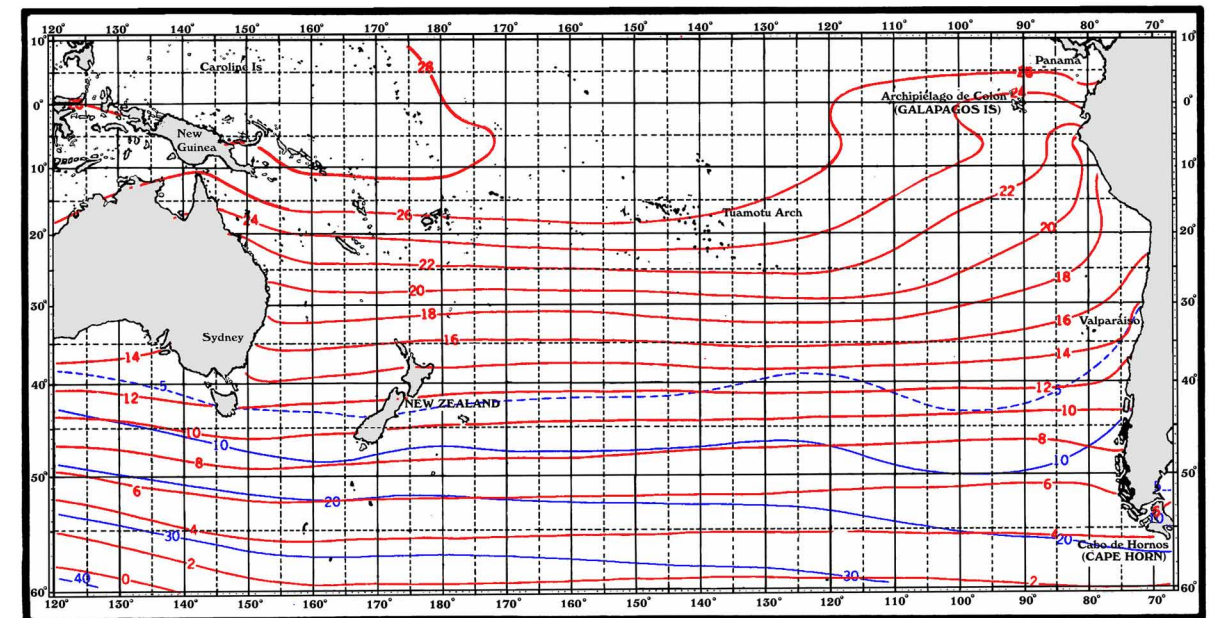
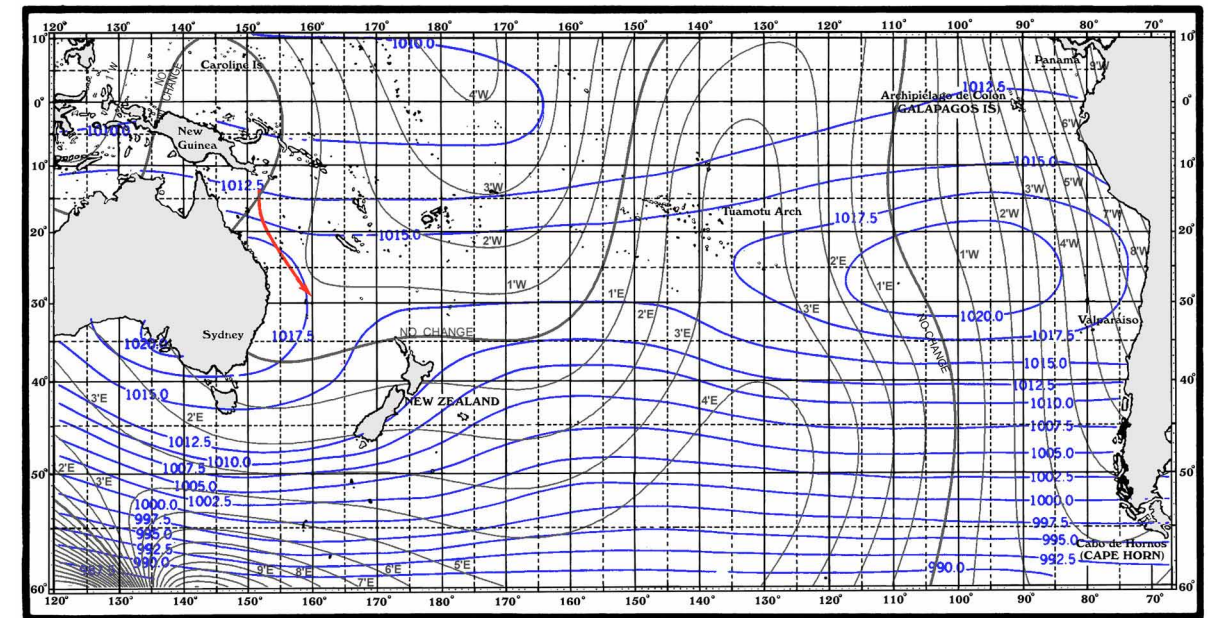
### EXPLANATION OF WIND ROSES

**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.

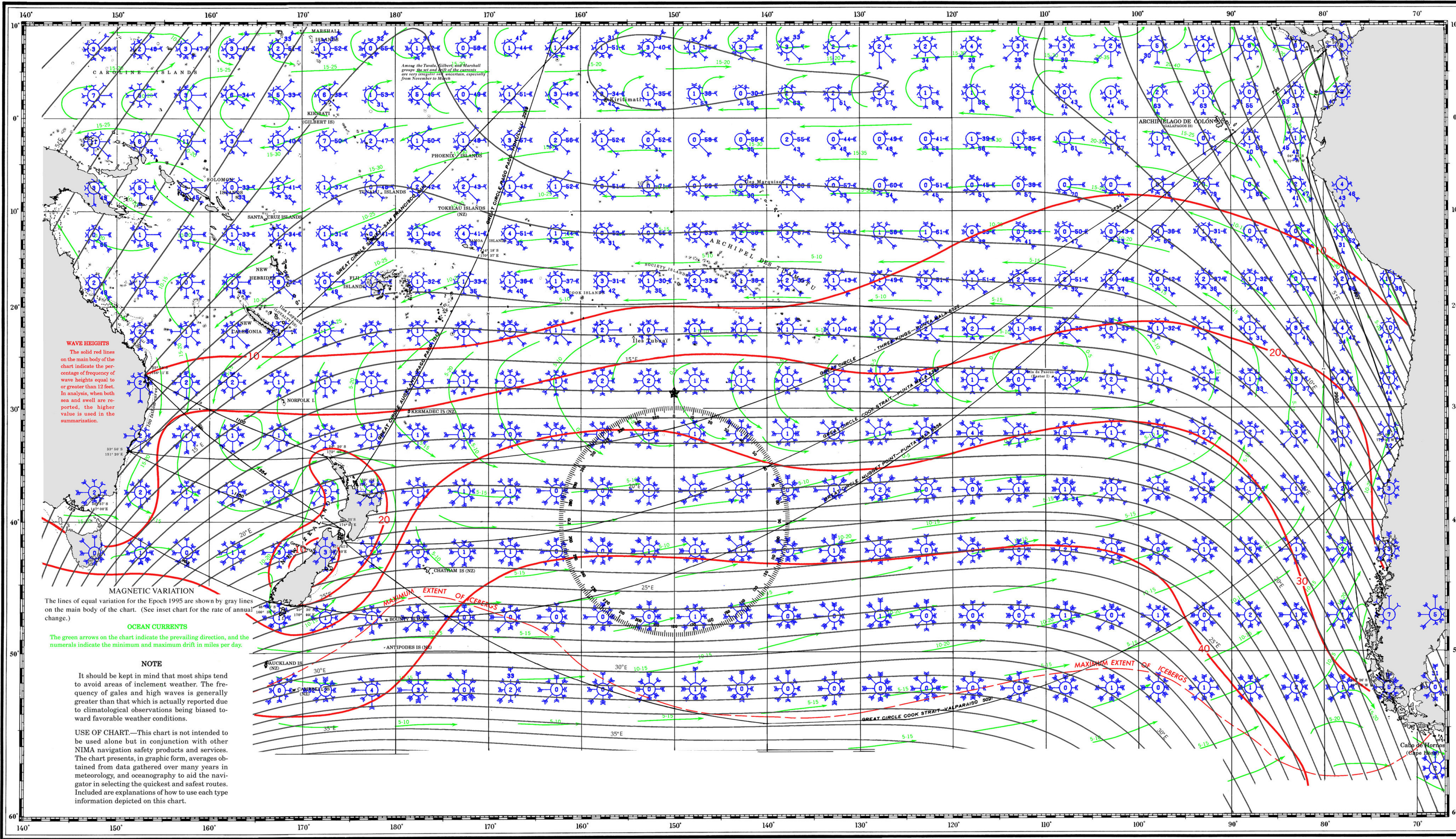
**FOR EXAMPLE.**—The sample wind rose should read thus: In the reported observations the wind has averaged as follows: From N. 3 percent, force 3; N.E. 16 percent, force 4; E. 61 percent, force 4; S.E. 17 percent, force 5; S. 1 percent, force 4; S.W. less than 1 percent, force 3; W. 1 percent force 2;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



0 10 20 30 40 50 60 70 80 90 100  
SCALE OF WIND PERCENTAGES







**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 numerals 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.

Among the Tuvalu, Gilbert and Marshall groups the set and drift of the currents are very irregular and uncertain, especially from November to March.

MAXIMUM EXTENT OF ICEBERGS

MAXIMUM EXTENT OF ICEBERGS

Cabo de Hornos  
 (Cape Horn)