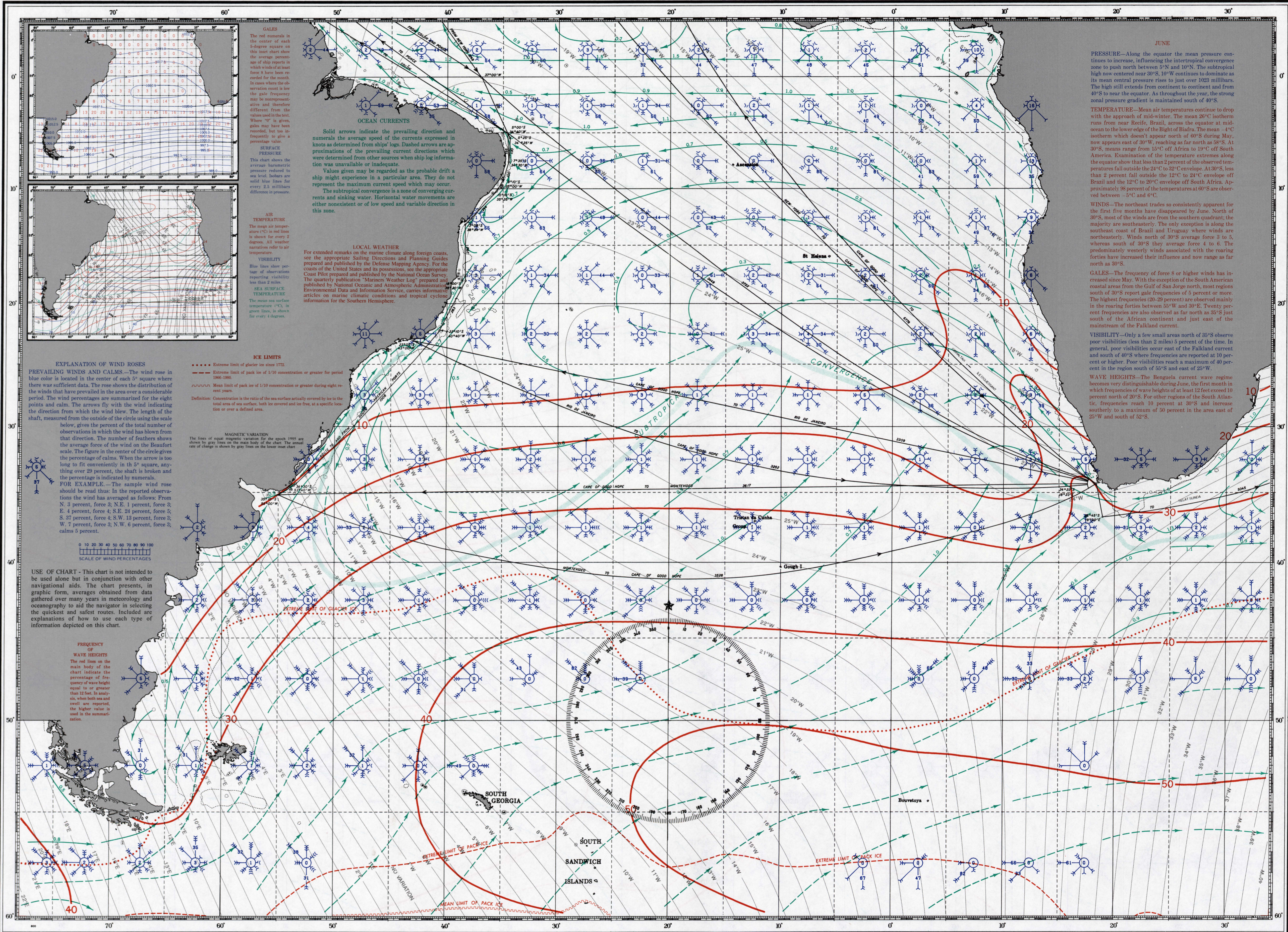


PILOT CHART OF THE SOUTH ATLANTIC OCEAN



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.

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.

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 percentage of observations reporting visibility less than 2 miles.

SEA SURFACE TEMPERATURE
The mean sea surface temperature (°C) in green lines is shown for every 4 degrees.

ICE LIMITS
..... Extreme limit of glacier ice since 1772.
- - - - - Extreme limit of pack ice of 1/10 concentration or greater for period 1966-1980.
..... Mean limit of pack ice of 1/10 concentration or greater during eight recent years.

MAGNETIC VARIATION
The lines of equal magnetic variation for the epoch 1995 are shown by gray lines on the main body of the chart. The annual rate of change is shown by gray lines on the lower inset chart.

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 be read thus: In the reported observations the wind has averaged as follows: From N, 3 percent, force 3; N.E., 1 percent, force 3; E, 4 percent, force 4; S.E., 24 percent, force 5; S, 37 percent, force 4; S.W., 13 percent, force 3; W, 7 percent, force 3; N.W., 6 percent, force 3; calms 5 percent.

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

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.

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.

OCEAN CURRENTS

Solid 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.

The subtropical convergence is a zone of converging currents and sinking water. Horizontal water movements are either nonexistent or of low speed and variable direction in this zone.

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 Defense 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 quarterly publication "Mariners Weather Log" prepared and published by National Oceanic and Atmospheric Administration, Environmental Data and Information Service, carries informative articles on marine climatic conditions and tropical cyclones information for the Southern Hemisphere.

JUNE
PRESSURE—Along the equator the mean pressure continues to increase, influencing the intertropical convergence zone to push north between 5°N and 10°N. The subtropical high now centered near 30°S, 10°W continues to dominate as its mean central pressure rises to just over 1023 millibars. The high still extends from continent to continent and from 40°S to near the equator. As throughout the year, the strong zonal pressure gradient is maintained south of 40°S.

TEMPERATURE—Mean air temperatures continue to drop with the approach of mid-winter. The mean 28°C isotherm runs from near Recife, Brazil, across the equator at mid-ocean to the lower edge of the Bay of Biafra. The mean -4°C isotherm which doesn't appear north of 60°S during May, now appears east of 30°W, reaching as far north as 58°S. At 30°S, means range from 15°C off Africa to 19°C off South America. Examination of the temperature extremes along the equator show that less than 2 percent of the observed temperatures fall outside the 24°C to 32°C envelope. At 30°S, less than 2 percent fall outside the 12°C to 24°C envelope off Brazil and the 12°C to 20°C envelope off South Africa. Approximately 98 percent of the temperatures at 60°S are observed between -5°C and 6°C.

WINDS—The northeast trades so consistently apparent for the first five months have disappeared by June. North of 30°S, most of the winds are from the southern quadrant; the majority are southeasterly. The only exception is along the southeast coast of Brazil and Uruguay where winds are northeasterly. Winds north of 30°S average force 2 to 5, whereas south of 30°S they average force 4 to 6. The predominately westerly winds associated with the roaring forties have increased their influence and now range as far north as 30°S.

GALES—The frequency of force 8 or higher winds has increased since May. With the exception of the South American coastal areas from the Gulf of San Jorge north, most regions south of 30°S report gale frequencies of 5 percent or more. The highest frequencies (20-29 percent) are observed mainly in the roaring forties between 55°W and 30°E. Twenty percent frequencies are also observed as far north as 35°S just south of the African continent and just east of the mainstream of the Falkland current.

VISIBILITY—Only a few small areas north of 35°S observe poor visibilities (less than 2 miles) 5 percent of the time. In general, poor visibilities occur east of the Falkland current and south of 40°S where frequencies are reported at 10 percent or higher. Poor visibilities reach a maximum of 40 percent in the region south of 55°S and east of 25°W.

WAVE HEIGHTS—The Benguela current wave regime becomes very distinguishable during June, the first month in which frequencies of wave heights of at least 12 feet exceed 10 percent north of 20°S. For other regions of the South Atlantic, frequencies reach 10 percent at 30°S and increase southerly to a maximum of 50 percent in the area east of 25°W and south of 52°S.