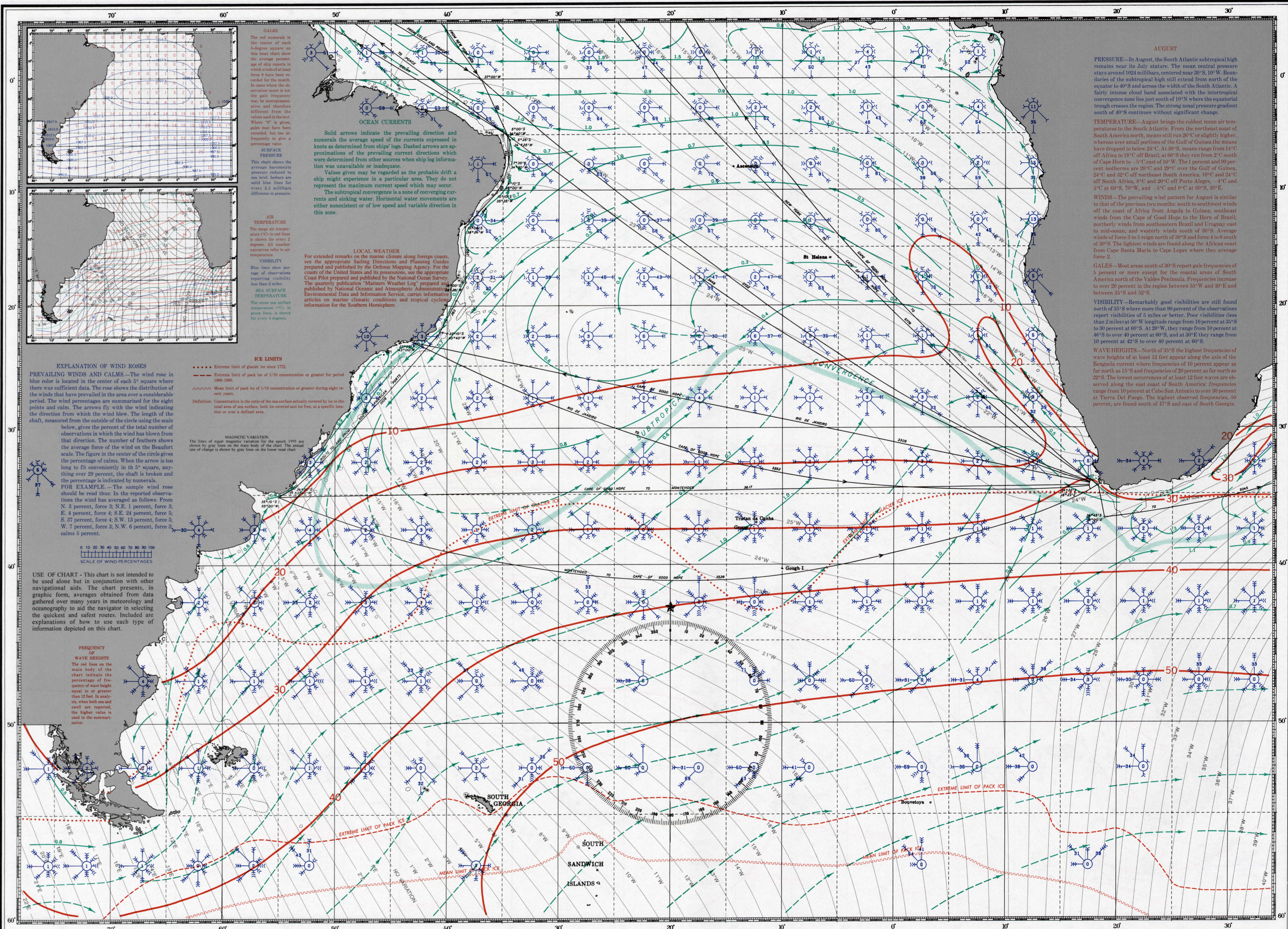


# PILOT CHART OF THE SOUTH ATLANTIC OCEAN



**GALES**  
The red numerals in the center of each 5-degree square on this 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 unrepresentative 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 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 in green lines is shown for every 1 degree.

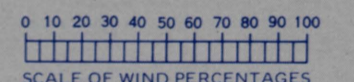
**OCEAN CURRENTS**  
Solid arrows indicate the prevailing direction and numerals the average speed of the currents expressed in knots as determined from ships' logs. Dashed arrows are approximations of the prevailing current directions which were determined from other sources when ship log information was unavailable or inadequate and are 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 cyclone information for the Southern Hemisphere.

**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.  
Definition: Concentration is the ratio of the sea surface actually covered by ice to the total area of sea surface, both ice covered and ice free, at a specific location or over a defined area.

**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 most 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 blow. The length of the shaft, measured from the outside of the circle using the scale shaft, 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 20 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 5; W. 7 percent, force 3; N.W. 6 percent, force 3; calms 5 percent.



**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.

**AUGUST**  
**PRESSURE**—In August, the South Atlantic subtropical high remains near its July status. The mean central pressure stays around 1024 millibars, centered near 30°S, 10°W. Boundaries of the subtropical high still extend from north of the equator to 40°S and across the width of the South Atlantic. A fairly intense cloud band associated with the intertropical convergence zone lies just south of 10°N where the equatorial trough crosses the region. The strong zonal pressure gradient south of 40°S continues without significant change.

**TEMPERATURE**—August brings the coldest mean air temperatures to the South Atlantic. From the northeast coast of South America north, means still run 26°C or slightly higher, whereas over small portions of the Gulf of Guinea the means have dropped to below 24°C. At 30°S, means range from 14°C off Africa to 18°C off Brazil; at 60°S they run from 2°C south of Cape Horn to -5°C east of 10°W. The 1 percent and 99 percent isotherms are 20°C and 29°C over the Gulf of Guinea, 24°C and 32°C off northeast South America, 10°C and 24°C off South Africa, 8°C and 20°C off Porto Alegre, -1°C and 5°C at 60°S, 70°W, and -5°C and 0°C at 60°S, 30°E.

**WINDS**—The prevailing wind pattern for August is similar to that of the previous two months: south to southwest winds off the coast of Africa from Angola to Guinea; southeast winds from the Cape of Good Hope to the Horn of Brazil; northerly winds from southeastern Brazil and Uruguay east to mid-ocean; and westerly winds south of 30°S. Average winds of force 3 to 5 reign north of 30°S and force 4 to 6 south of 30°S. The lightest winds are found along the African coast from Cape Santa Maria to Cape Lopez where they average force 2.

**GALES**—Most areas south of 30°S report gale frequencies of 5 percent or more except for the coastal areas of South America north of the Valles Peninsula. Frequencies increase to over 20 percent in the region between 55°W and 30°E and between 35°S and 32°S.

**VISIBILITY**—Remarkably good visibilities are still found north of 35°S where more than 90 percent of the observations report visibilities of 5 miles or better. Poor visibilities (less than 2 miles) at 50°W longitude range from 10 percent at 35°S to 20 percent at 60°S. At 20°W, they range from 10 percent at 46°S to over 40 percent at 60°S, and at 30°E they range from 10 percent at 42°S to over 40 percent at 60°S.

**WAVE HEIGHTS**—North of 35°S the highest frequencies of wave heights of at least 12 feet appear along the axis of the Benguela current where frequencies of 10 percent appear as far north as 15°S and frequencies of 20 percent as far north as 22°S. The lowest occurrences of at least 12 foot waves are observed along the east coast of South America. Frequencies range from 10 percent at Cape San Antonio to over 30 percent at Tierra Del Fuogo. The highest observed frequencies, 50 percent, are found south of 47°S and east of South Georgia.