ATLA

OF

SEA AND SWEL

SOUTH ATLAN

UNCLASSIFIED
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REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
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Sea and Swell
South Atlantic Ocean
Monthly Charts
Atlas

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

This atlas contains monthly charts compiled from observations made by cooperating observers of the Hydrographic Office to and including the year 1942 (majority made between 1932 and 1940). The Hy[illegible]graphic Office has included all information from its fil[illegible]

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ELL CHARTS

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E. UNITED STATES NAVY
ETARY OF THE NAVY

H. O. Pub. 799 B

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81

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHARTS

JANUARY

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

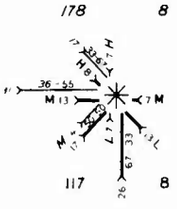
METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.

For example—The attached rose should be read as follows:



Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms; 14 percent were from the southwest and predominately medium; 31 percent were from the west, of which 55 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

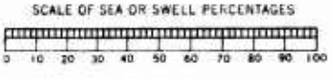
ISOKYMATIC LINES

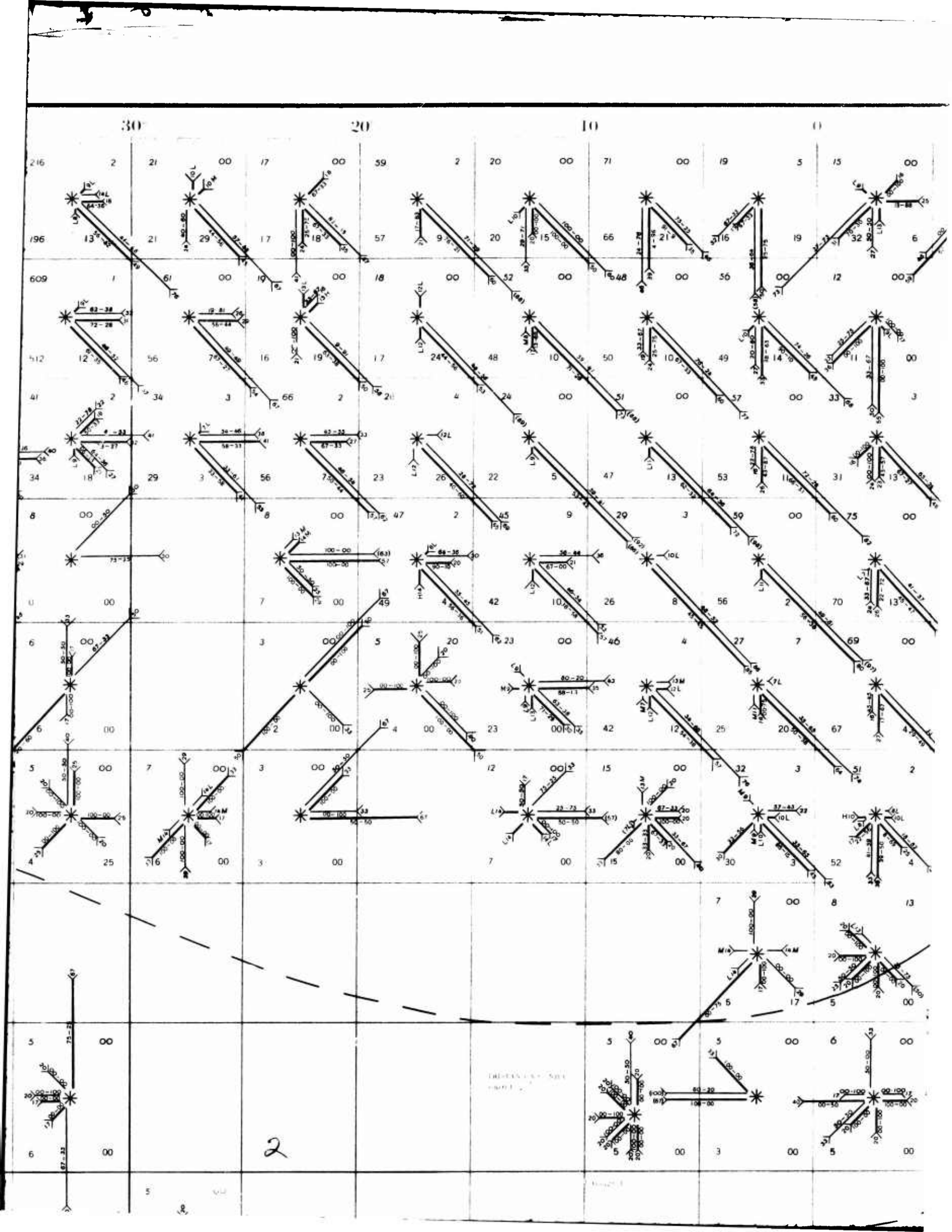
Isokymatic lines, (lines of equal percentage of high sea) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and, the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds

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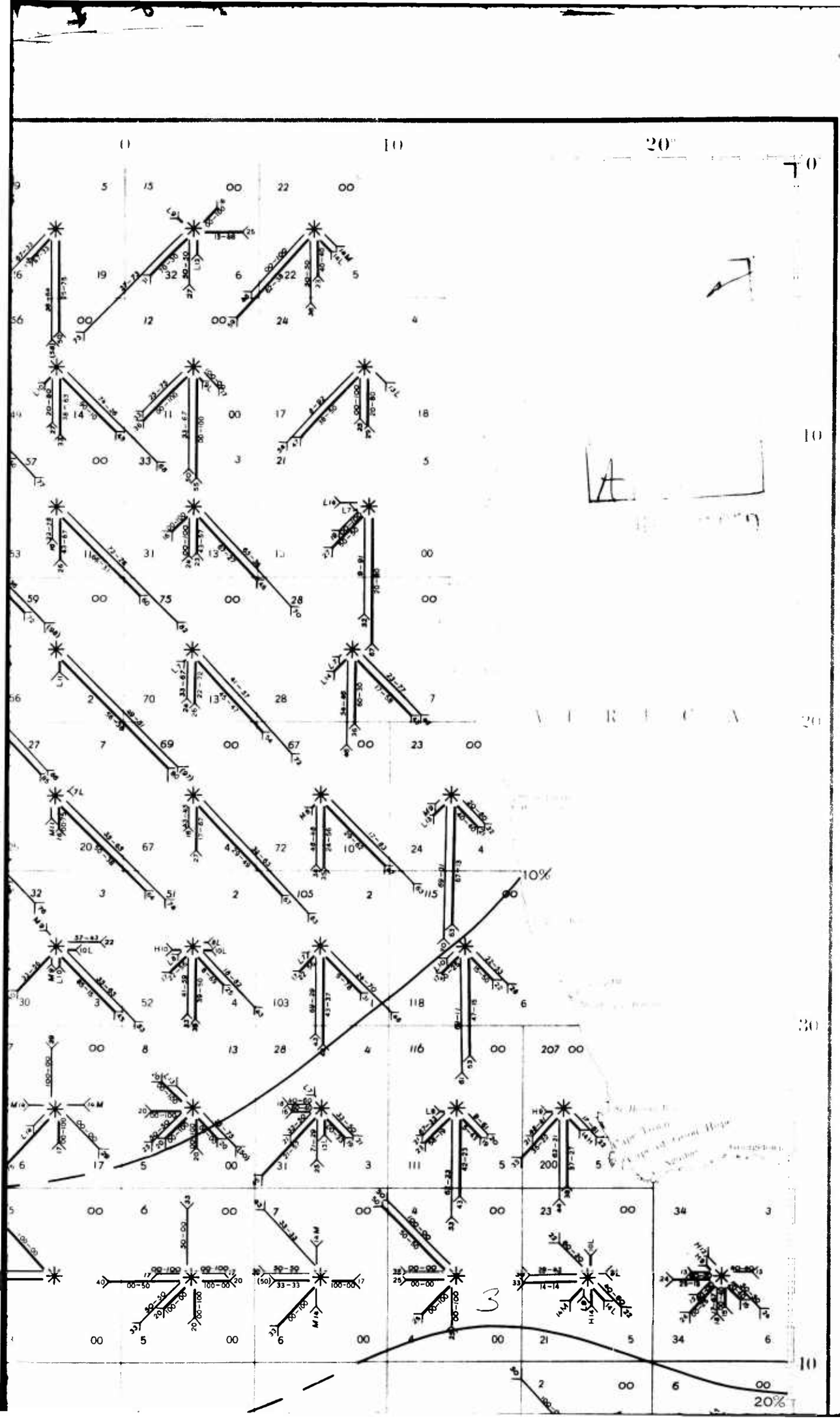
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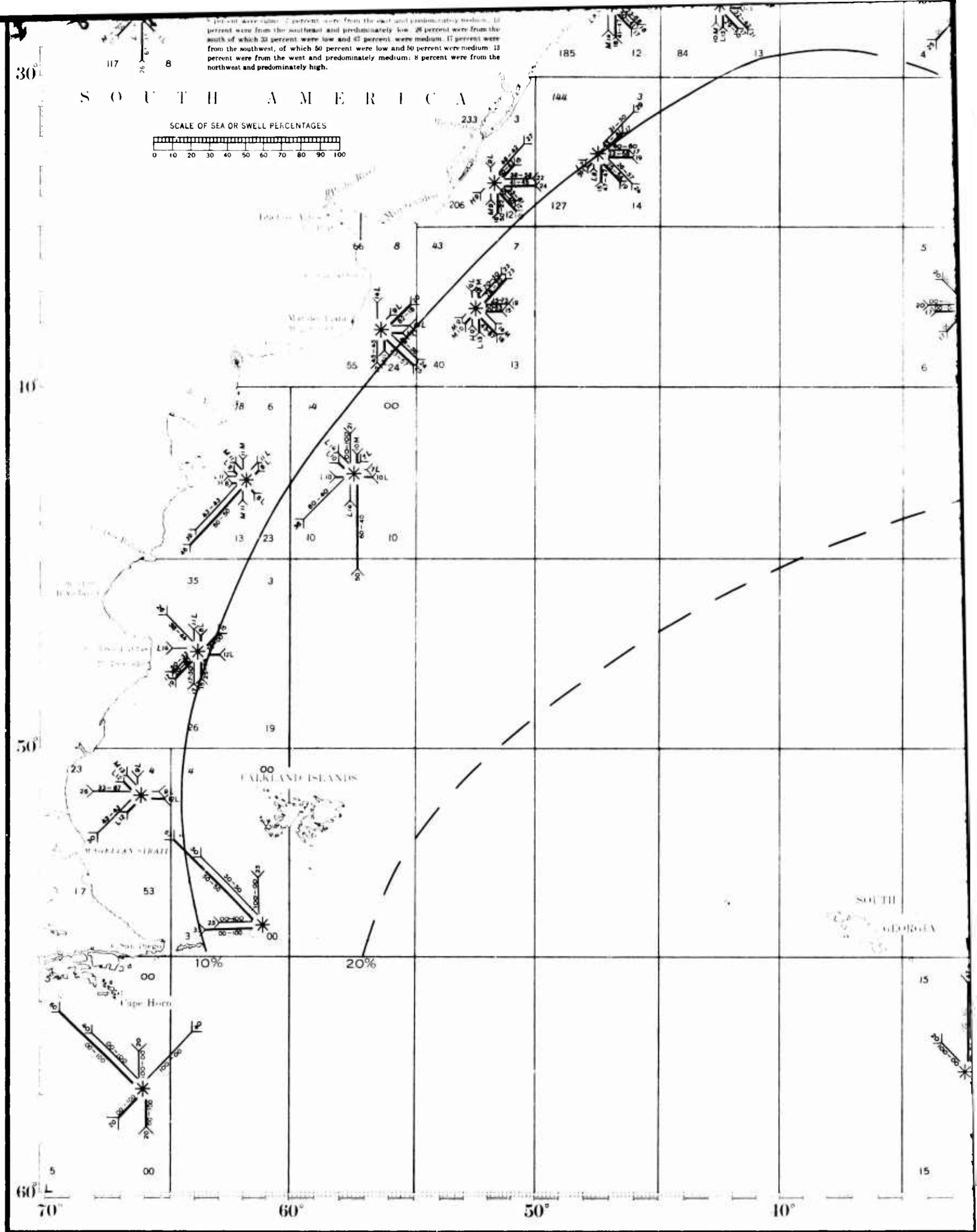
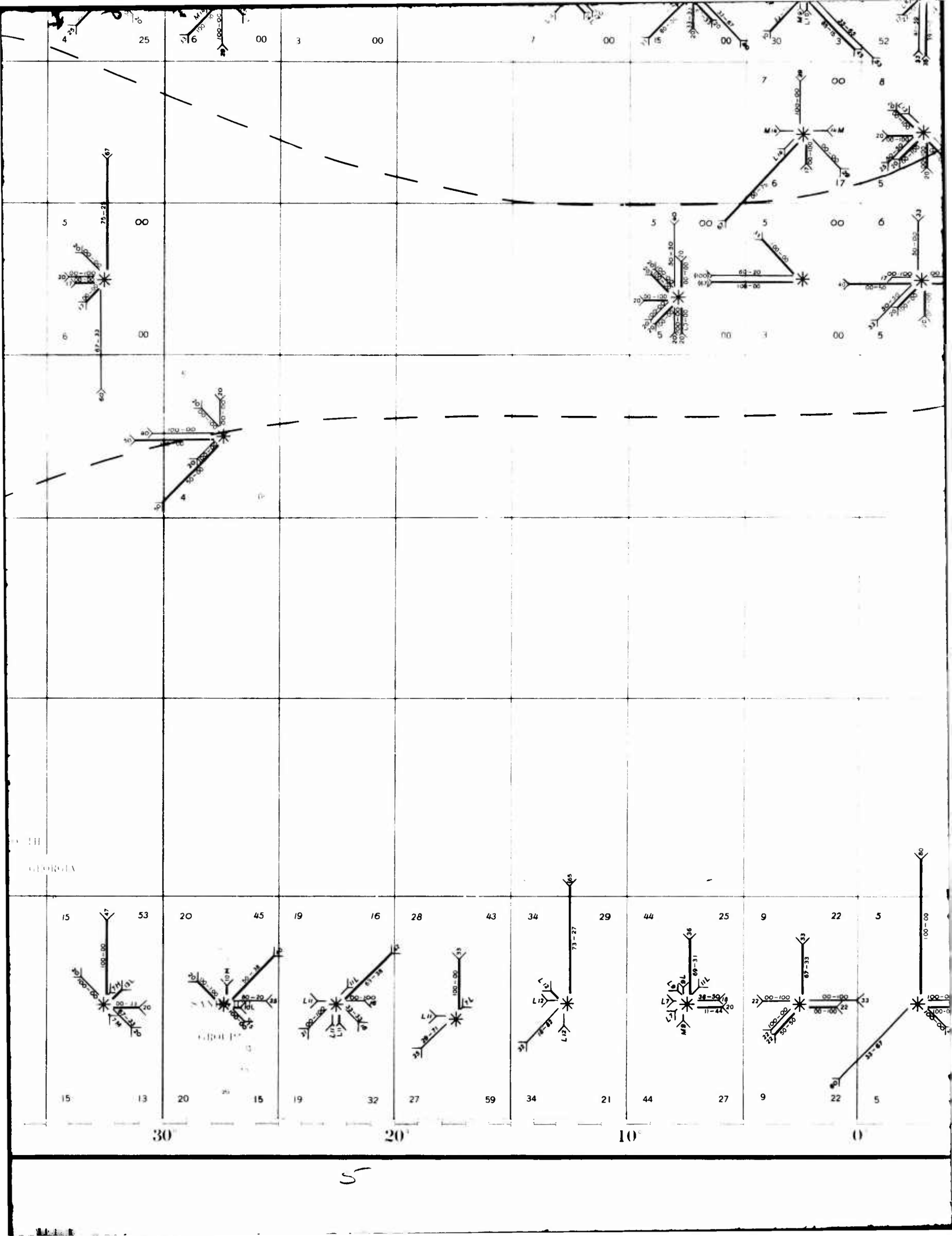
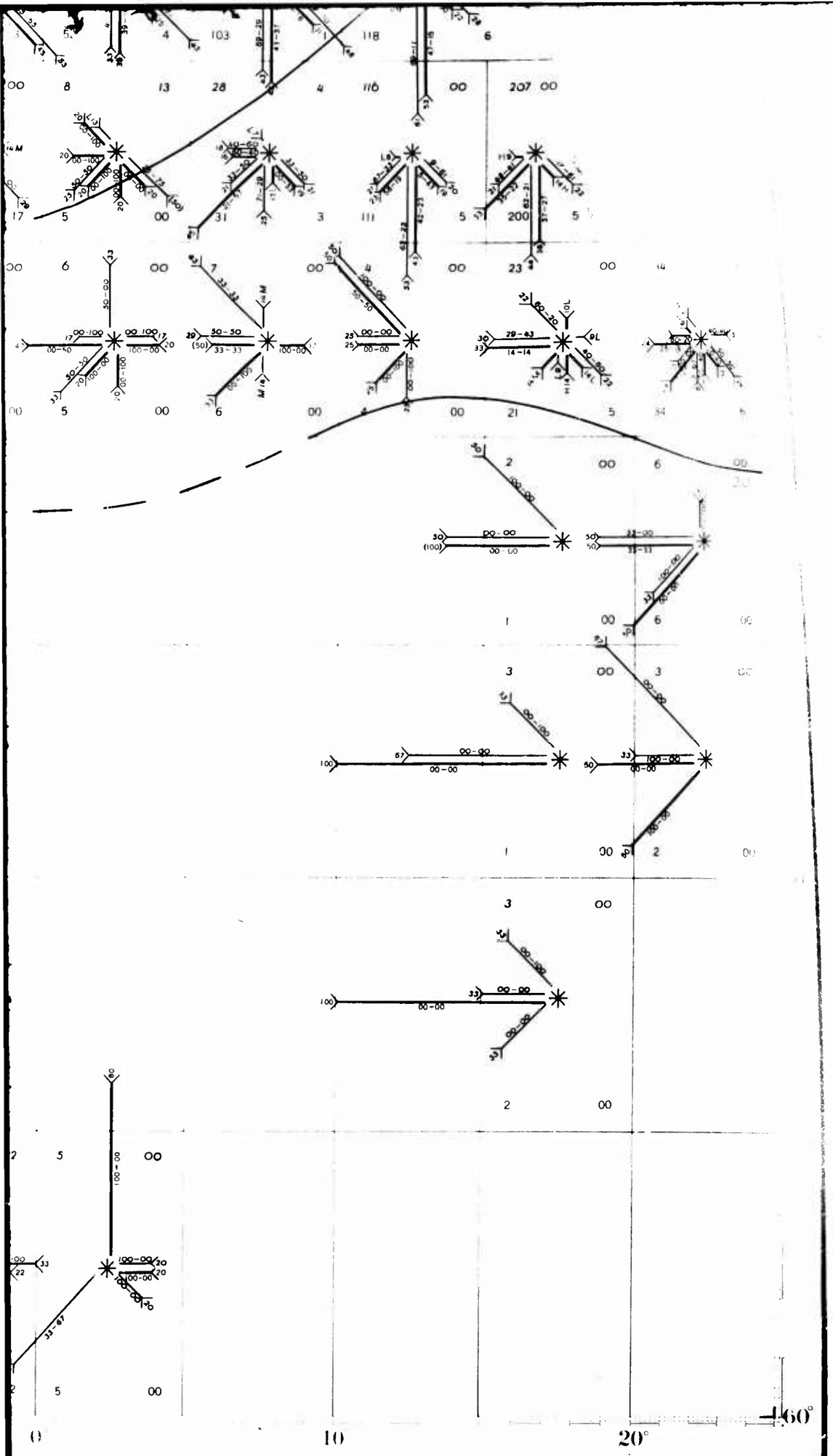
10
20
10%
20%



percent were calm; 2 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.


30
20
10
0



Sheet 1

60° 50° 10°

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

FEBRUARY

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

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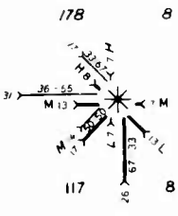
The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.

For example—The attached rose should be read as follows:



Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms; 14 percent were from the southwest and predominately medium: 31 percent were from the west, of which 55 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

SCALE OF SEA OR SWELL PERCENTAGES

0 10 20 30 40 50 60 70 80 90 100

ISOKYMATIC LINES

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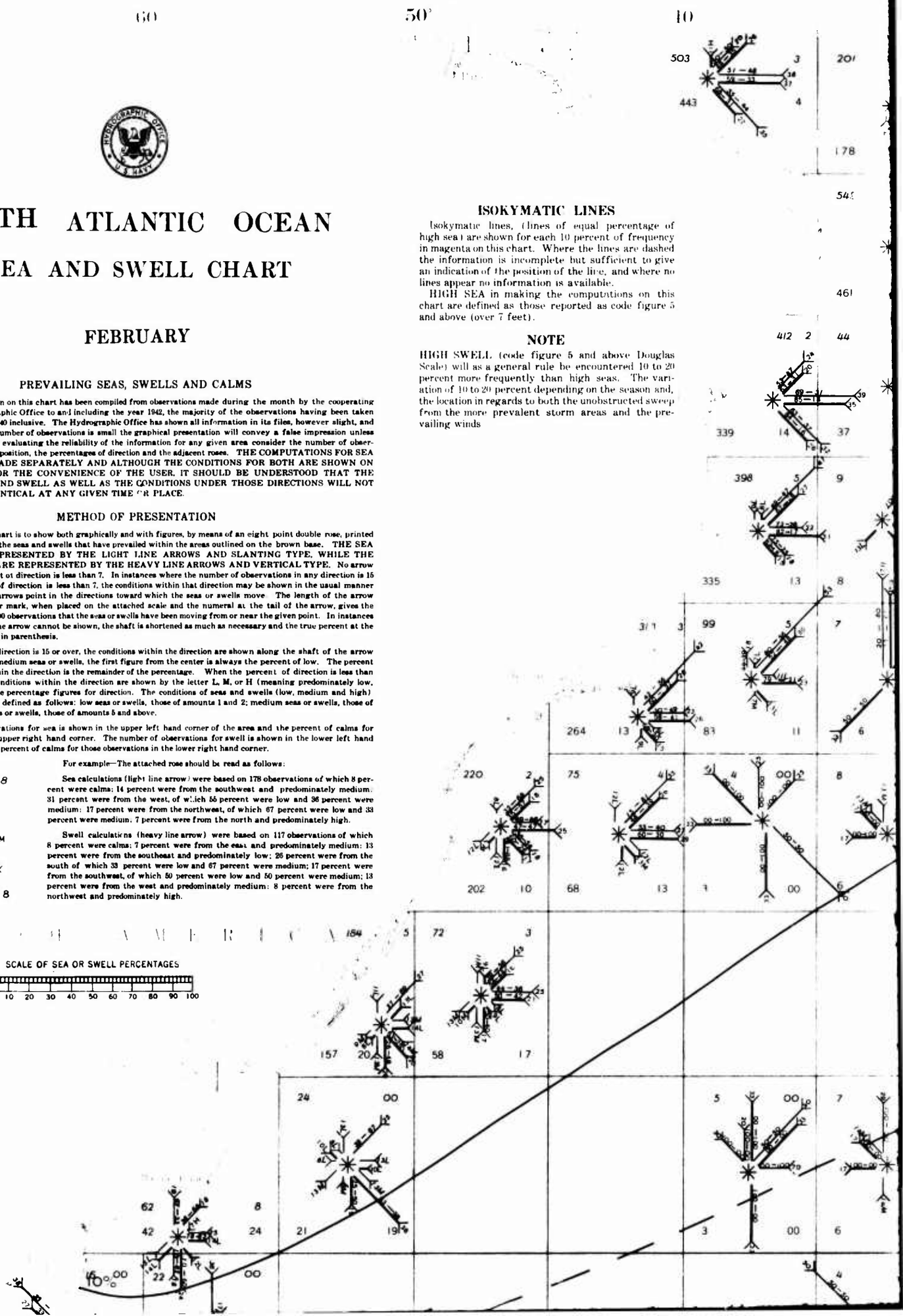
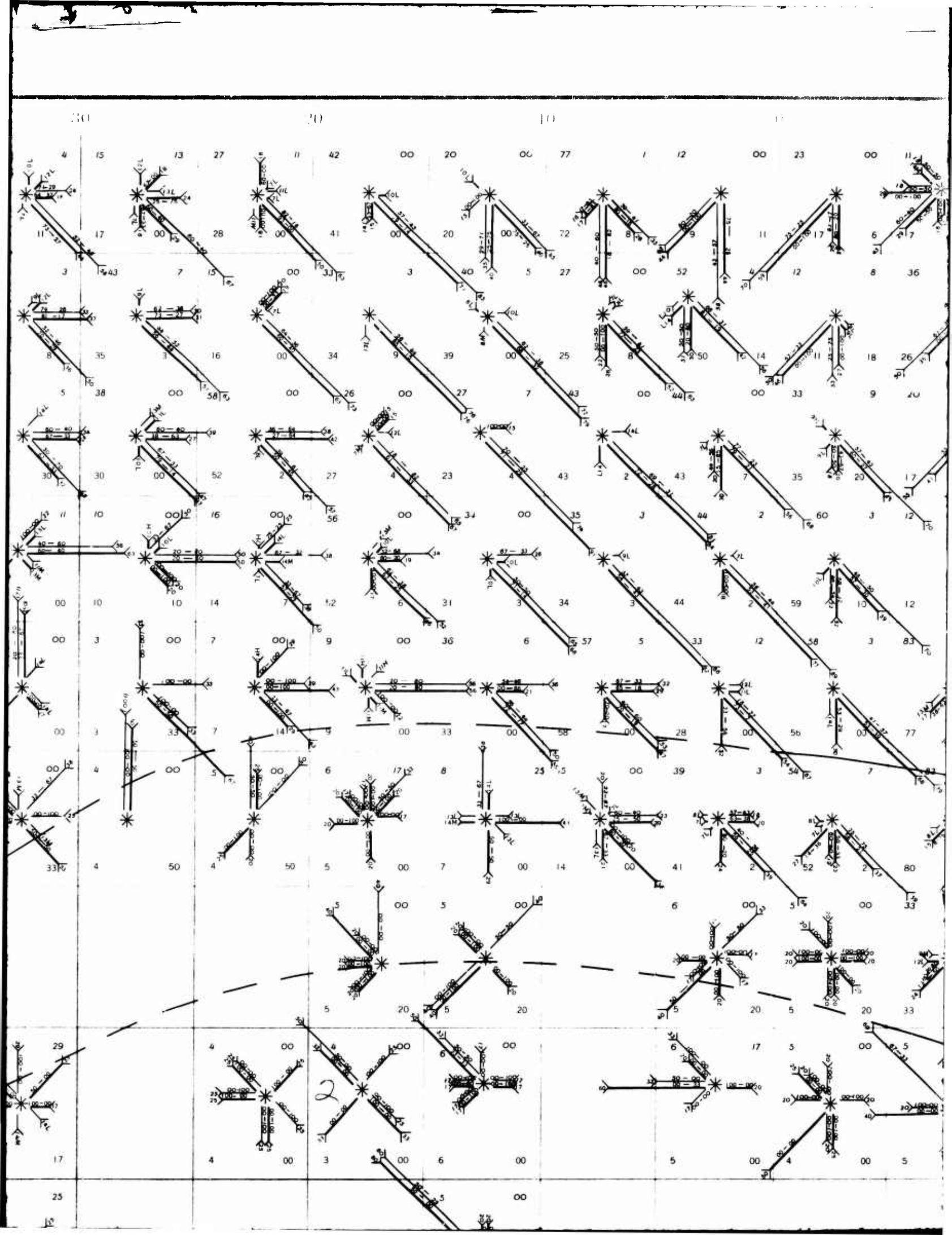
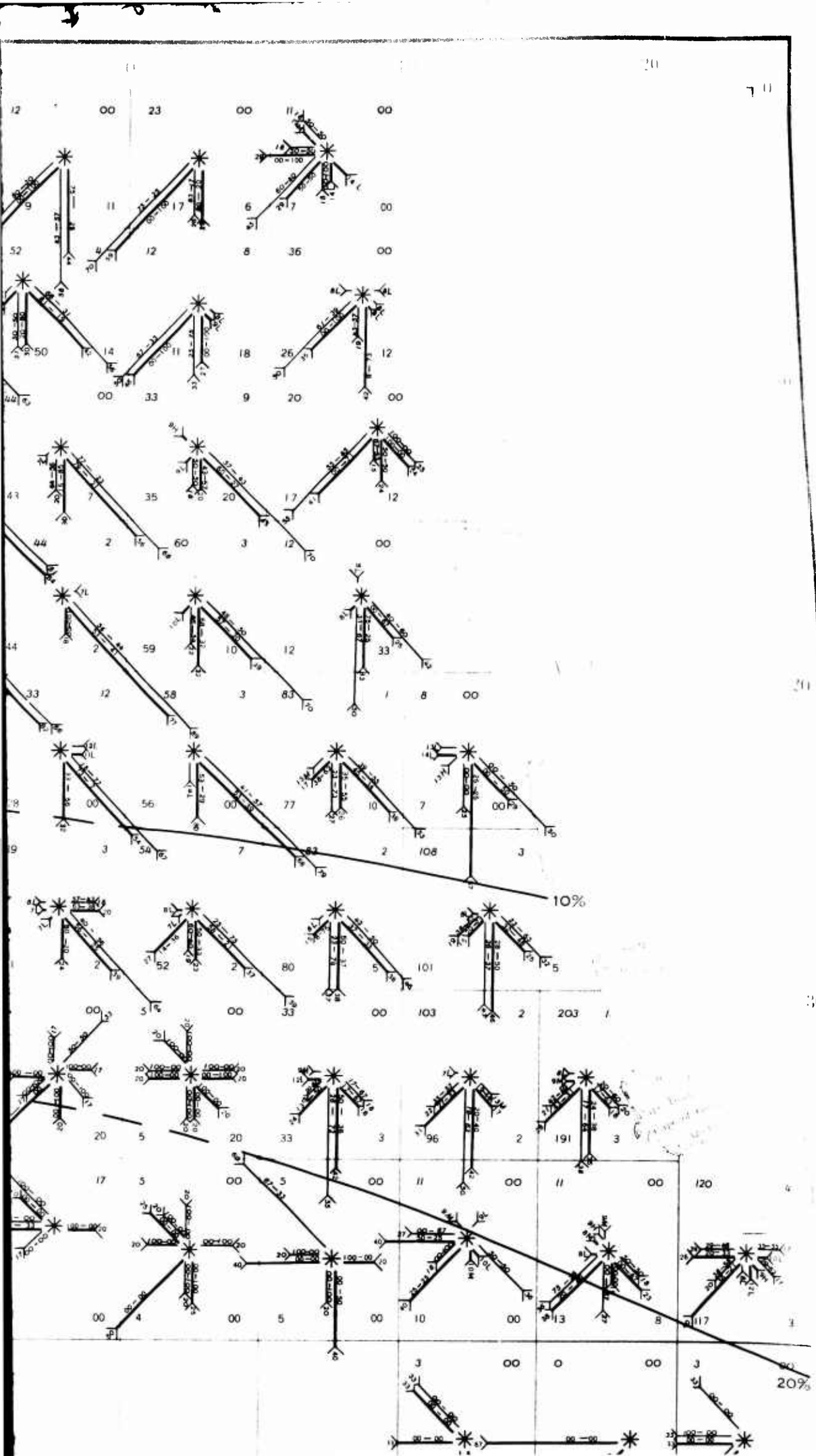





10%
20%

south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

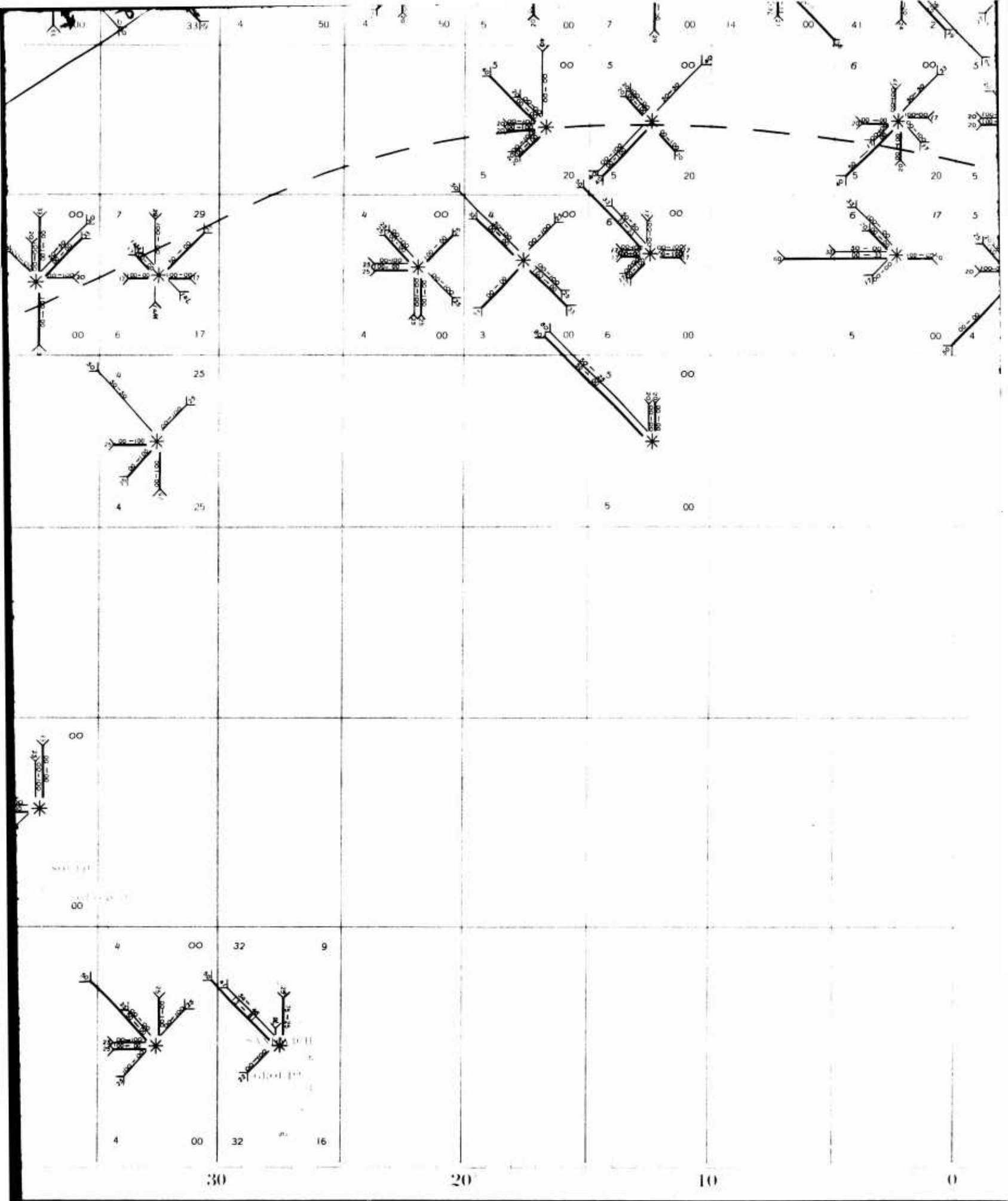
SCALE OF SEA OR SWELL PERCENTAGES

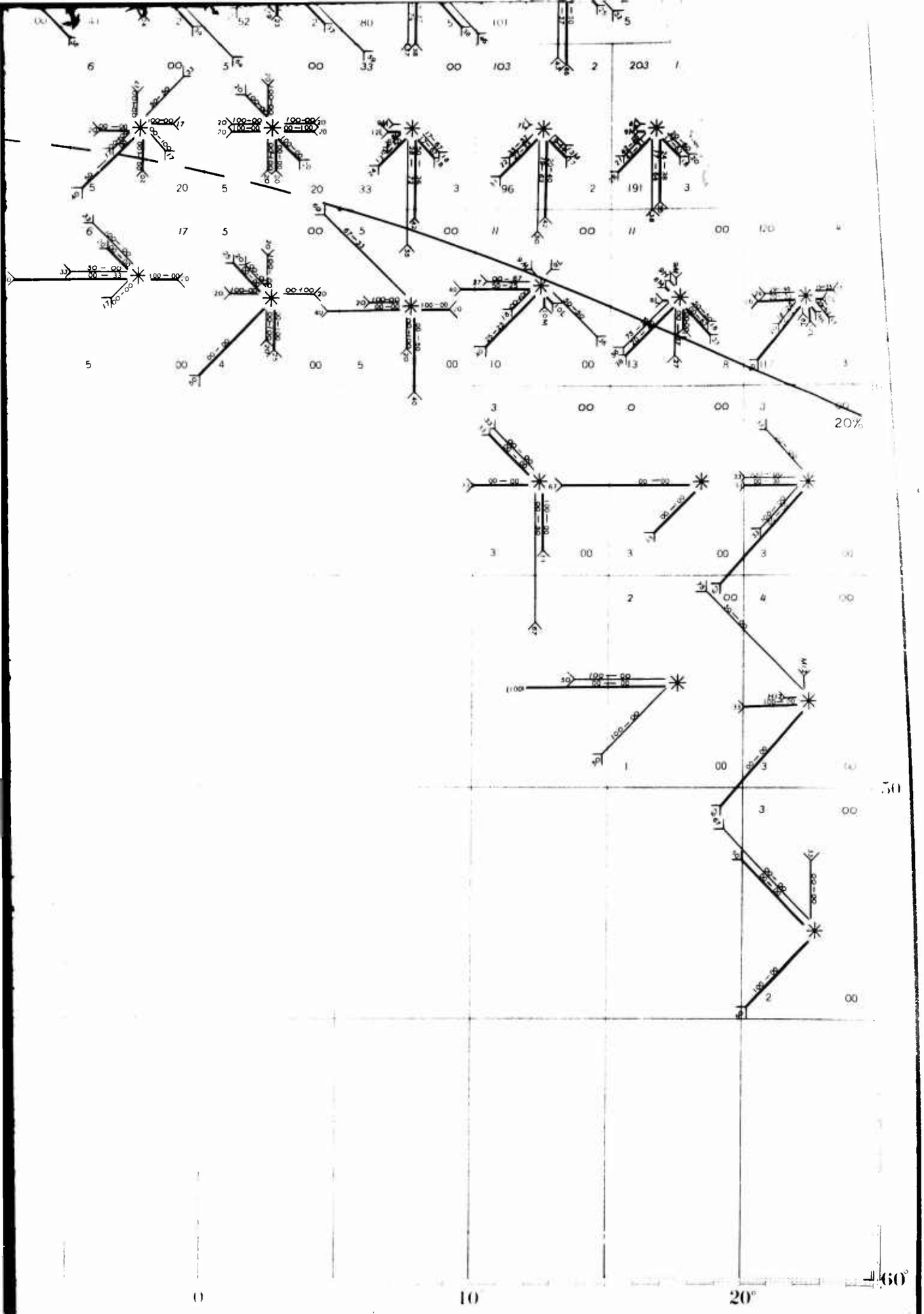
0 10 20 30 40 50 60 70 80 90 100

20%

60° 50° 10°

2 2 4


30
20
10
0



Sheet 2

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHARTS

MARCH

PREVAILING SEAS, SWELLS AND CALMS

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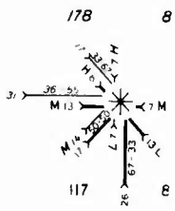
For example—The attached rose should be read as follows:



Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms; 14 percent were from the southwest and predominately medium: 31 percent were from the west, of which 55 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

ISOKYMATIC LINES

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NOTE

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SCALE OF SEA OR SWELL PERCENTAGES

0 10 20 30 40 50 60 70 80 90 100

70° 60° 50° 40°

0°

10°

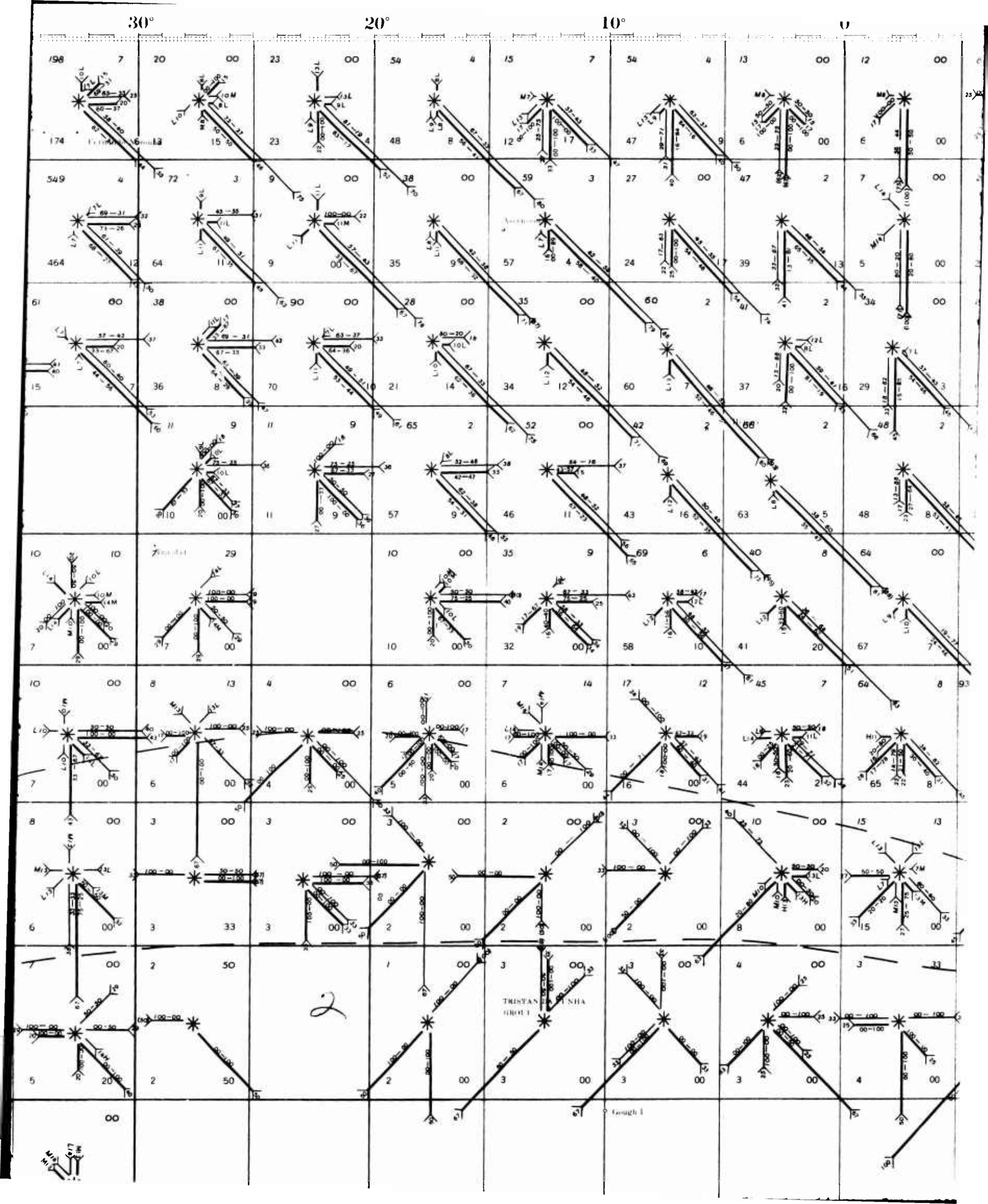
20°

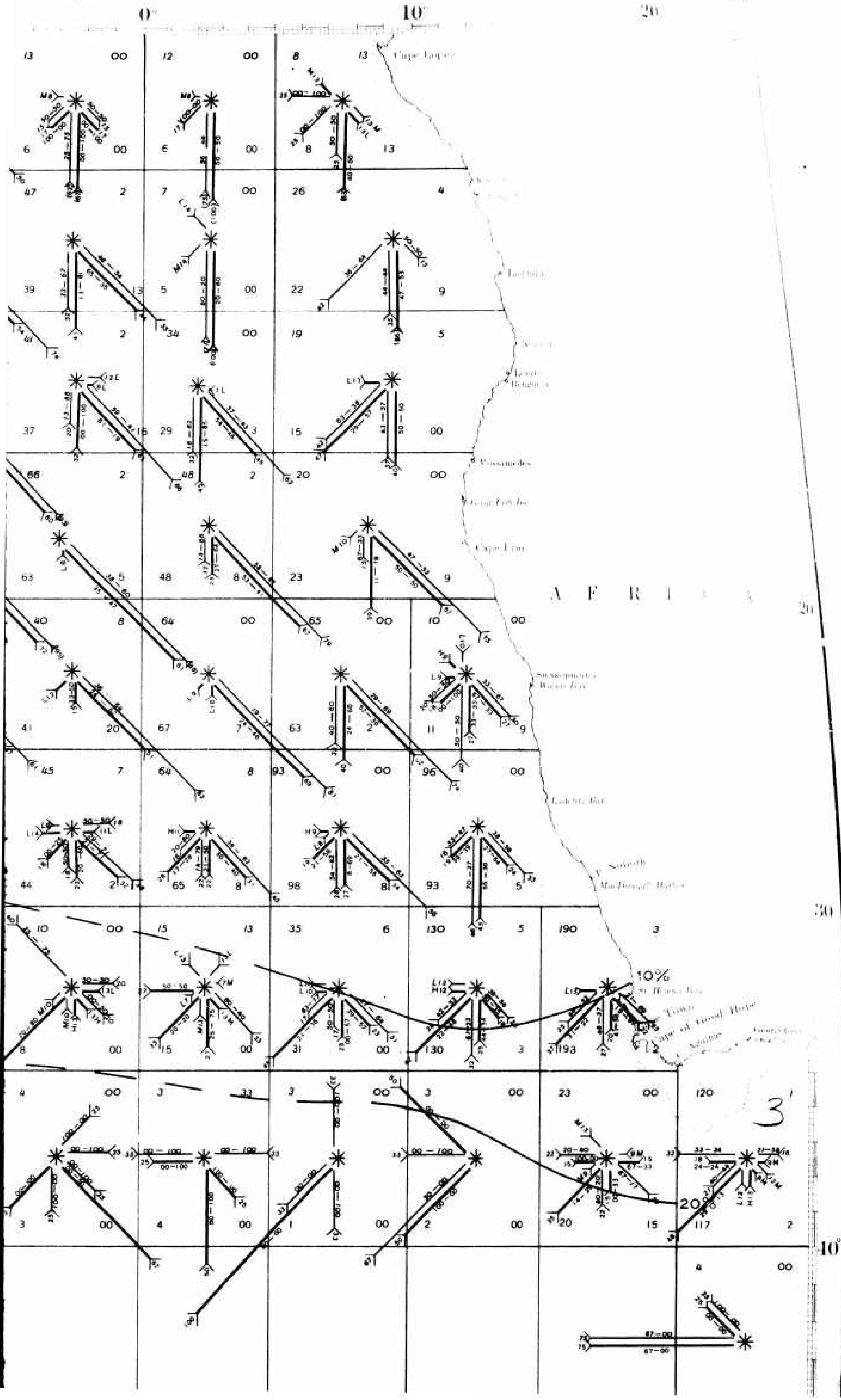
30°

40°

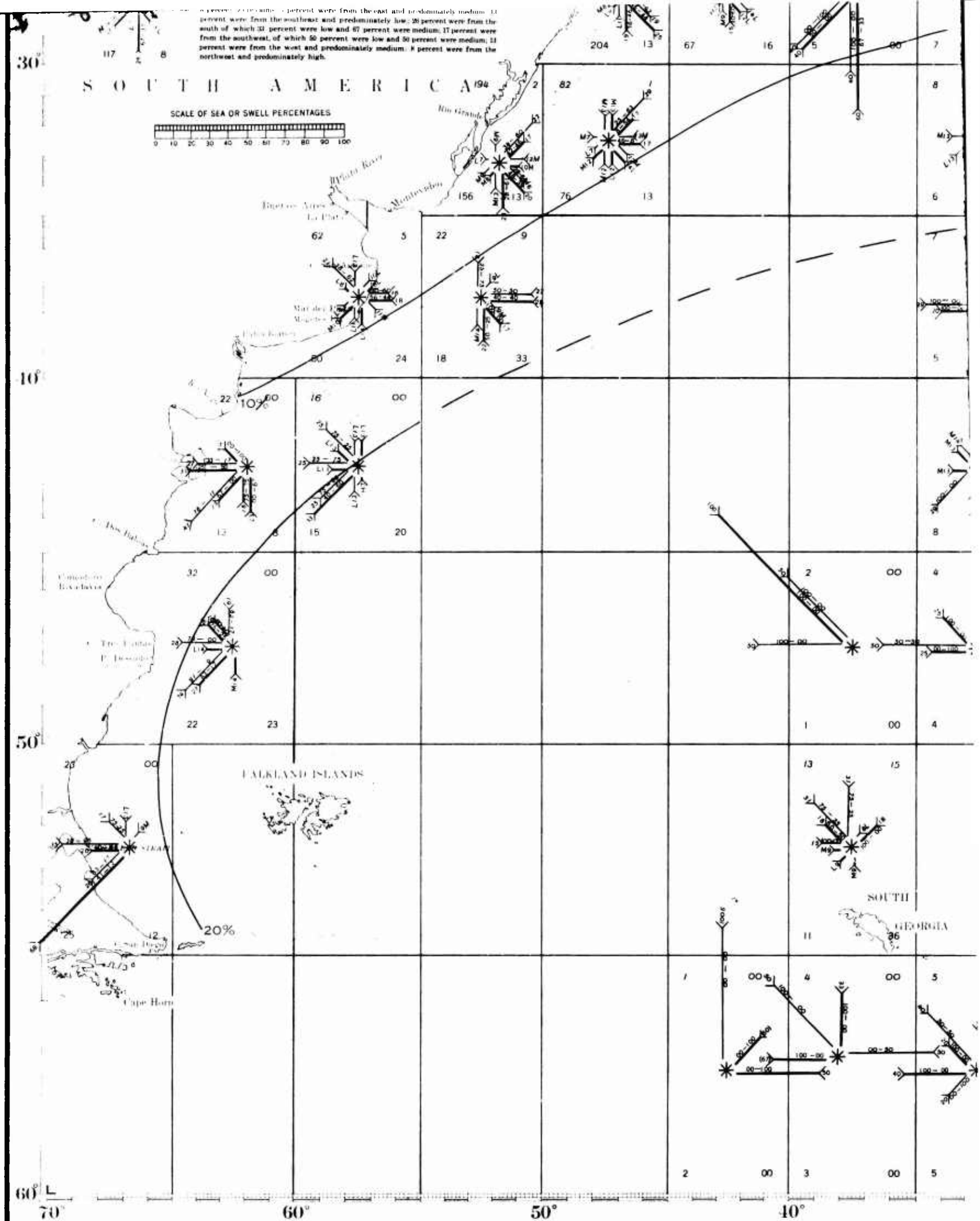
S O U T H A M E R I C A

Para
Maranhao
Ceara
Cabo St. Roque
Natal
Parahiba
Pernambuco
Maceio
Bahia
Cabo Frio
Rio de Janeiro
Santos
Montevideo
Buenos Aires
La Plata
Mar del Plata
Mogotes
Bahia Blanca
Rio Negro

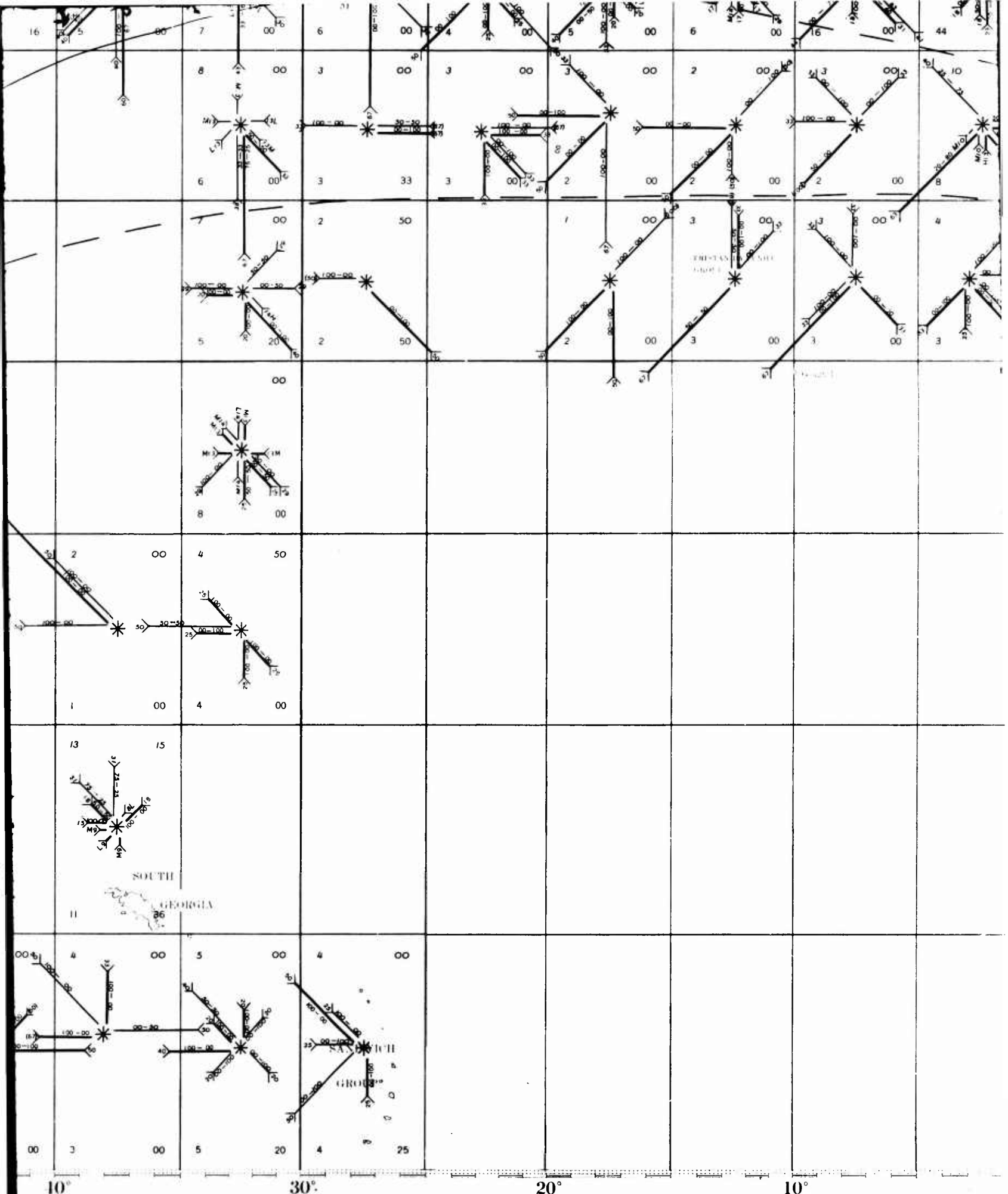

30°
20°
10°
0
TRISTAN DA CUNHA
GROUP

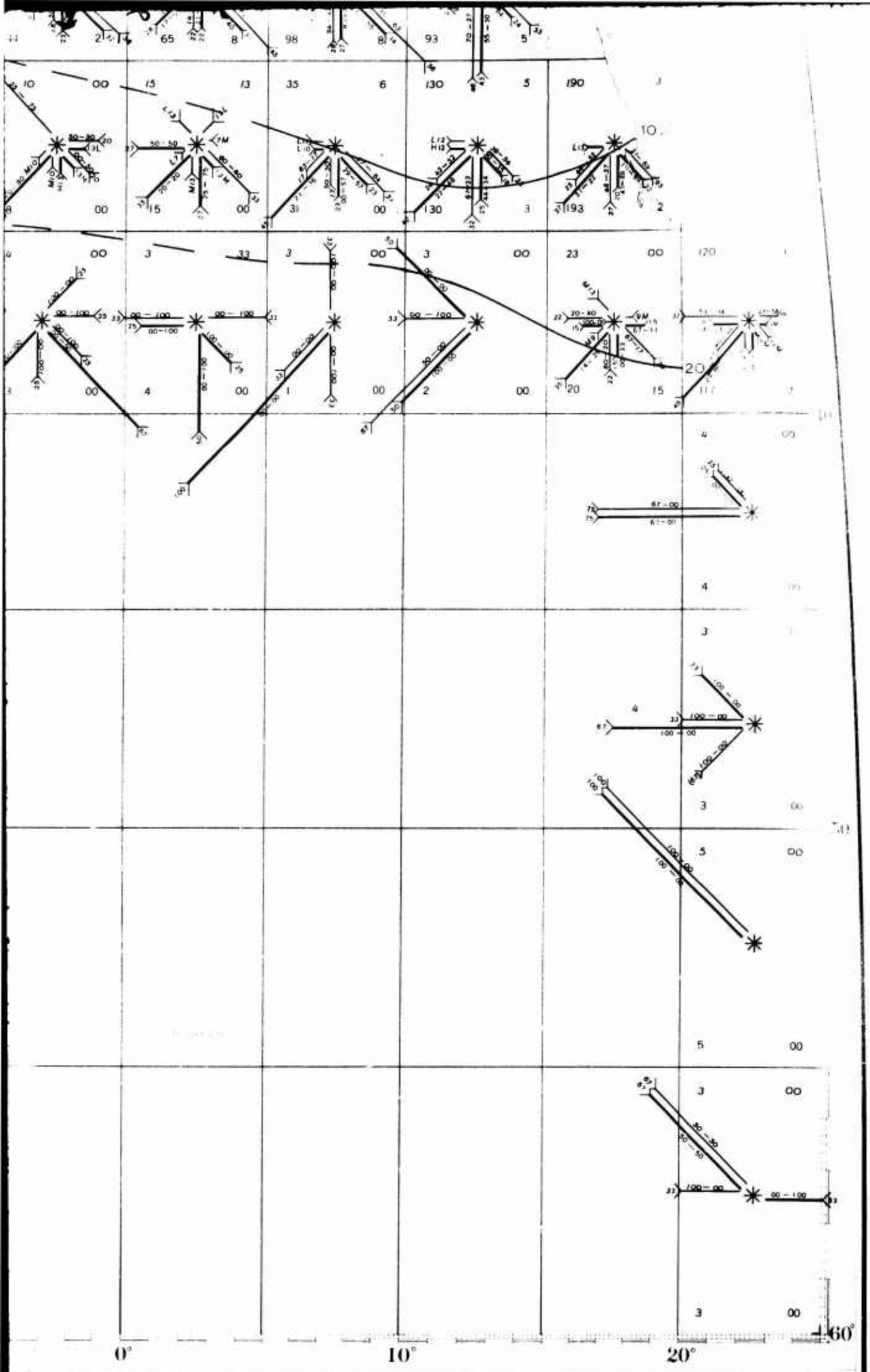


0°
10°
20
A F R I C A
20
30
40°
10%
20%



a percent were from the east and predominately medium; 11 percent were from the southeast and predominately low; 28 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 33 percent were from the west and predominately medium. 8 percent were from the northwest and predominately high.


SOUTH
GEORGIA
10°
30°
20°
10°



Sheet 3

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

APRIL

PREVAILING SEAS, SWELLS AND CALMS

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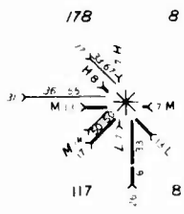
METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6 the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.

For example—The attached rose should be read as follows.



Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms; 14 percent were from the southwest and predominately medium; 31 percent were from the west, of which 56 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

ISOKYMATIC LINES

Isokymatic lines, (lines of equal percentage of high sea) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds.

SCALE OF SEA OR SWELL PERCENTAGES

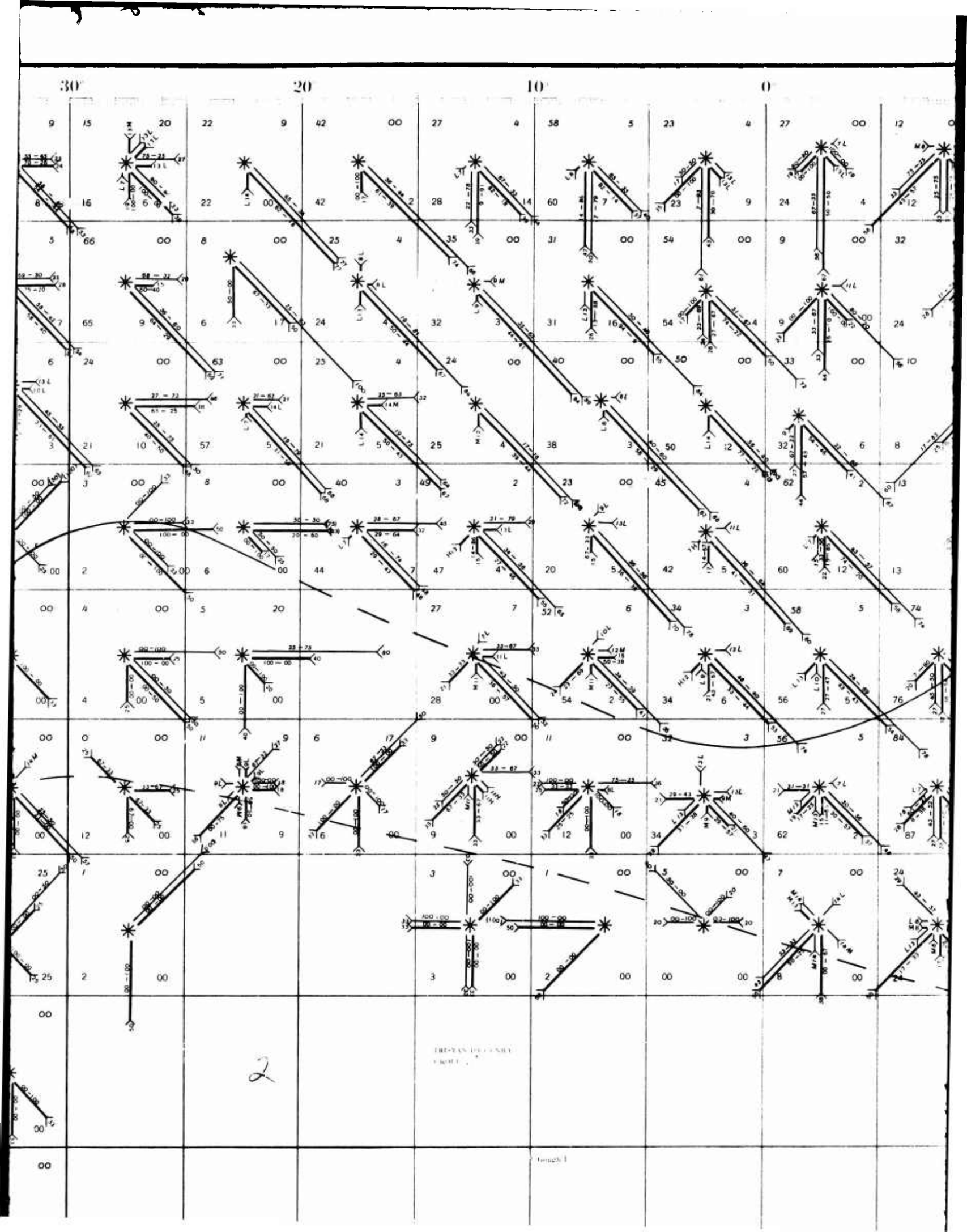
0 10 20 30 40 50 60 70 80 90 100

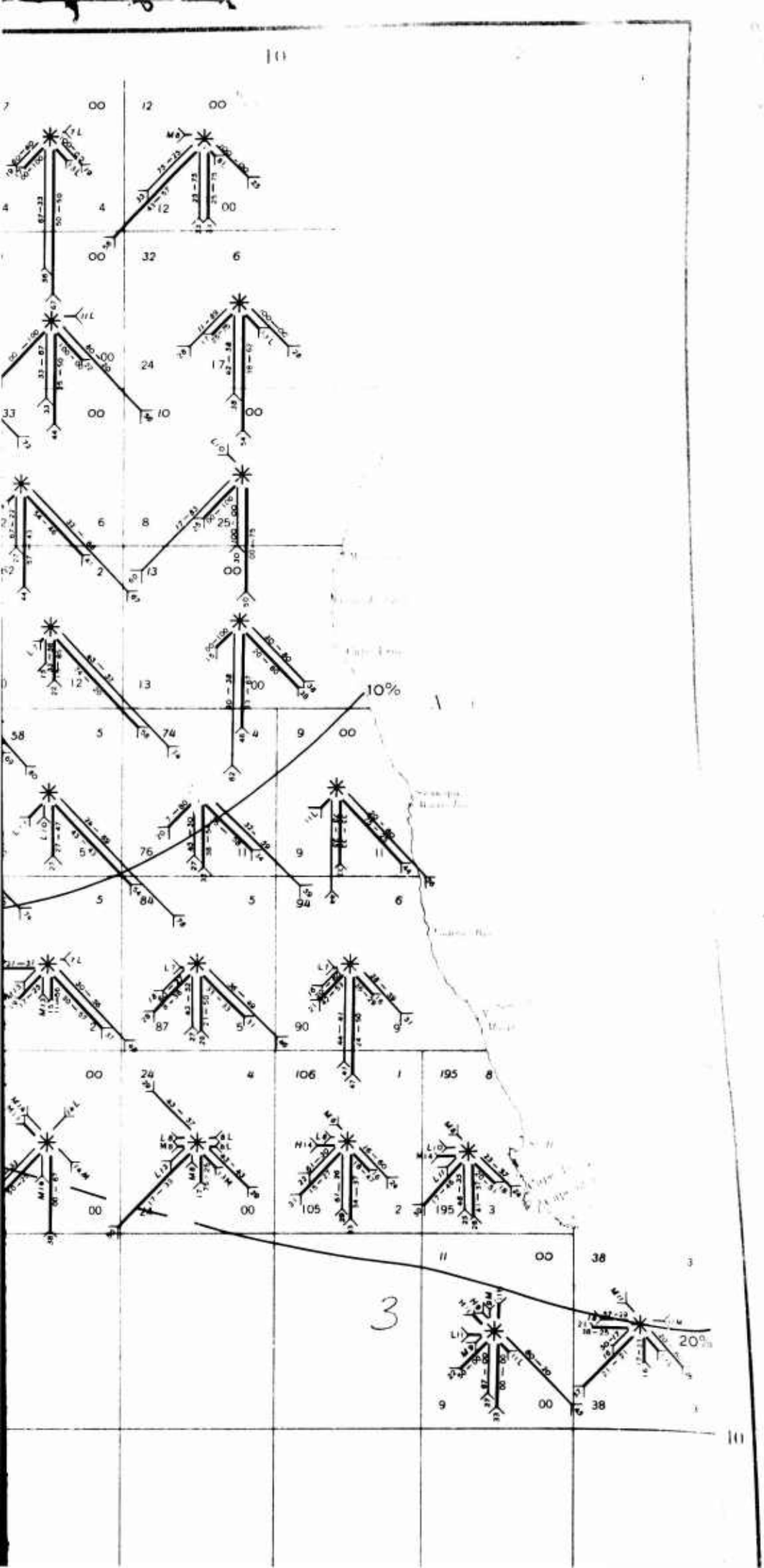
70° 60° 50° 40°

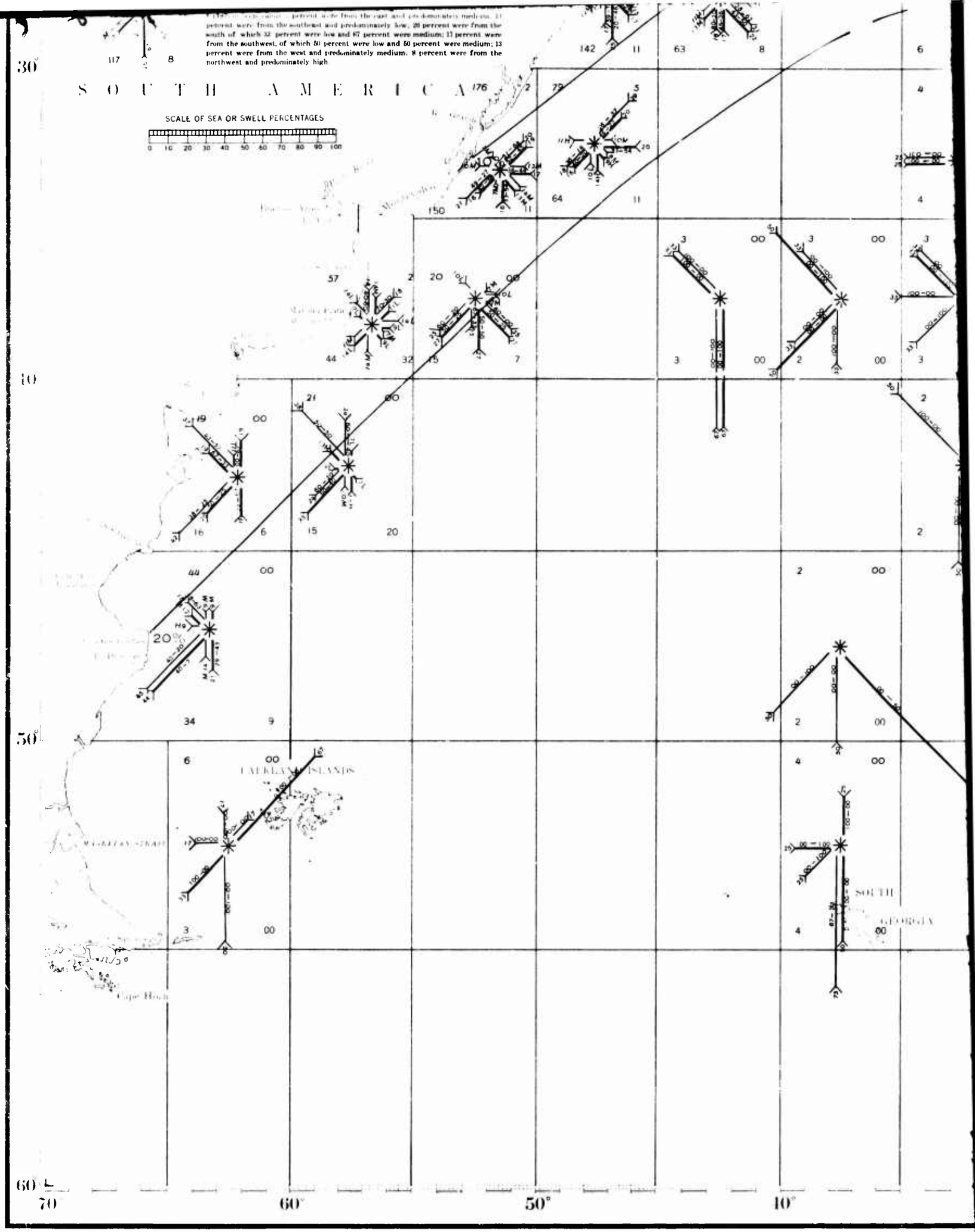
10° 20° 30° 40°

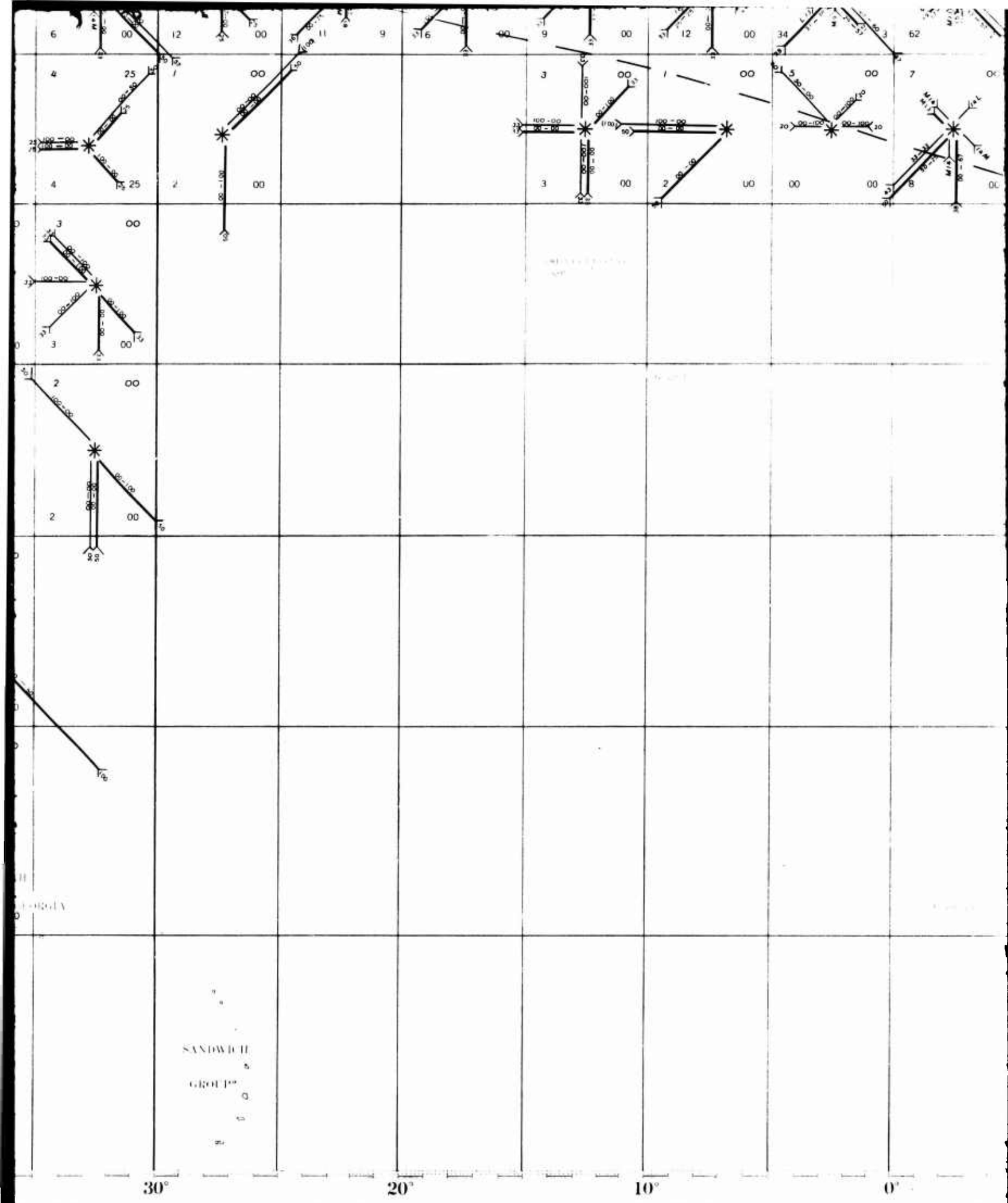
SOUTH AMERICA

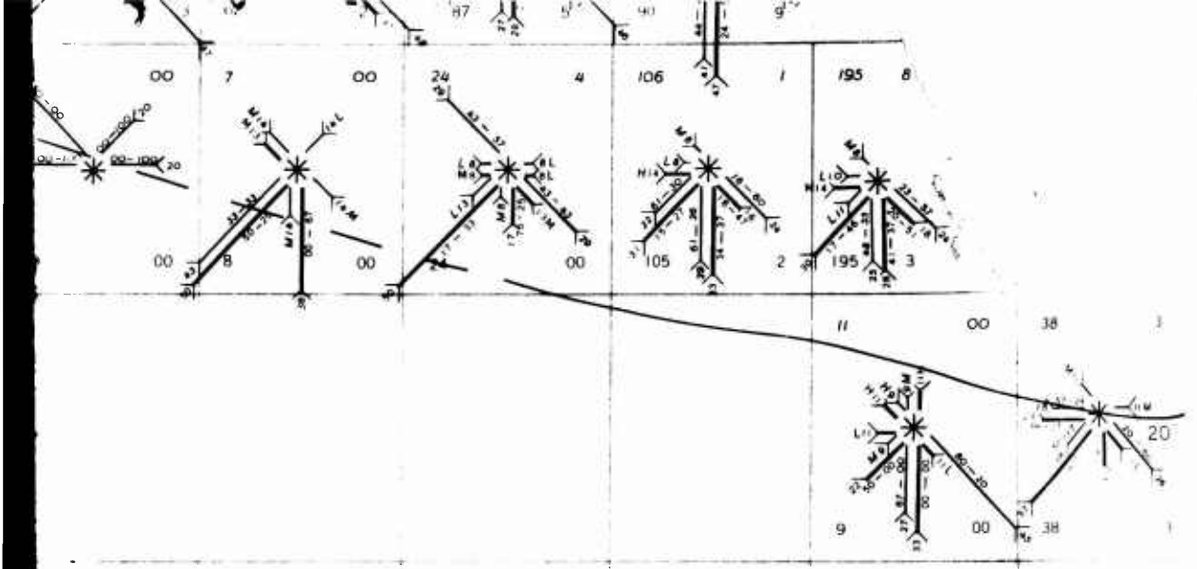
Para
Montevideo
Buenos Aires
La Plata
Bahia Blanca
Mar del Plata
Mogotes Pt
San Antonio
Rio Negro
Rio Grande
Rocha Reef


30
20
10
0


10%
20%
3


percent were from the east and predominately medium. 11 percent were from the southeast and predominately low; 26 percent were from the south of which 32 percent were low and 67 percent were medium; 11 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium. 8 percent were from the northwest and predominately high
SOUTH AMERICA
SCALE OF SEA OR SWELL PERCENTAGES
0 10 20 30 40 50 60 70 80 90 100
30°
10°
50°
60°
70°
60°
50°
10°
FALKLAND ISLANDS
SOUTH GEORGIA
Cape Horn


SANDWICH
GROUP
30°
20°
10°
0°



0° 10° 20° 60°

Sheet 4

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

MAY

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE

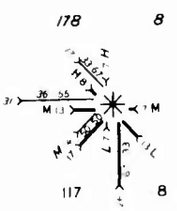
METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.

For example—The attached rose should be read as follows:



Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms: 14 percent were from the southwest and predominately medium: 31 percent were from the west, of which 55 percent were low and 36 pe.cent were medium: 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium: 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms: 7 percent were from the east and predominately medium: 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium: 8 percent were from the northwest and predominately high.

SCALE OF SEA OR SWELL PERCENTAGES

0 10 20 30 40 50 60 70 80 90 100

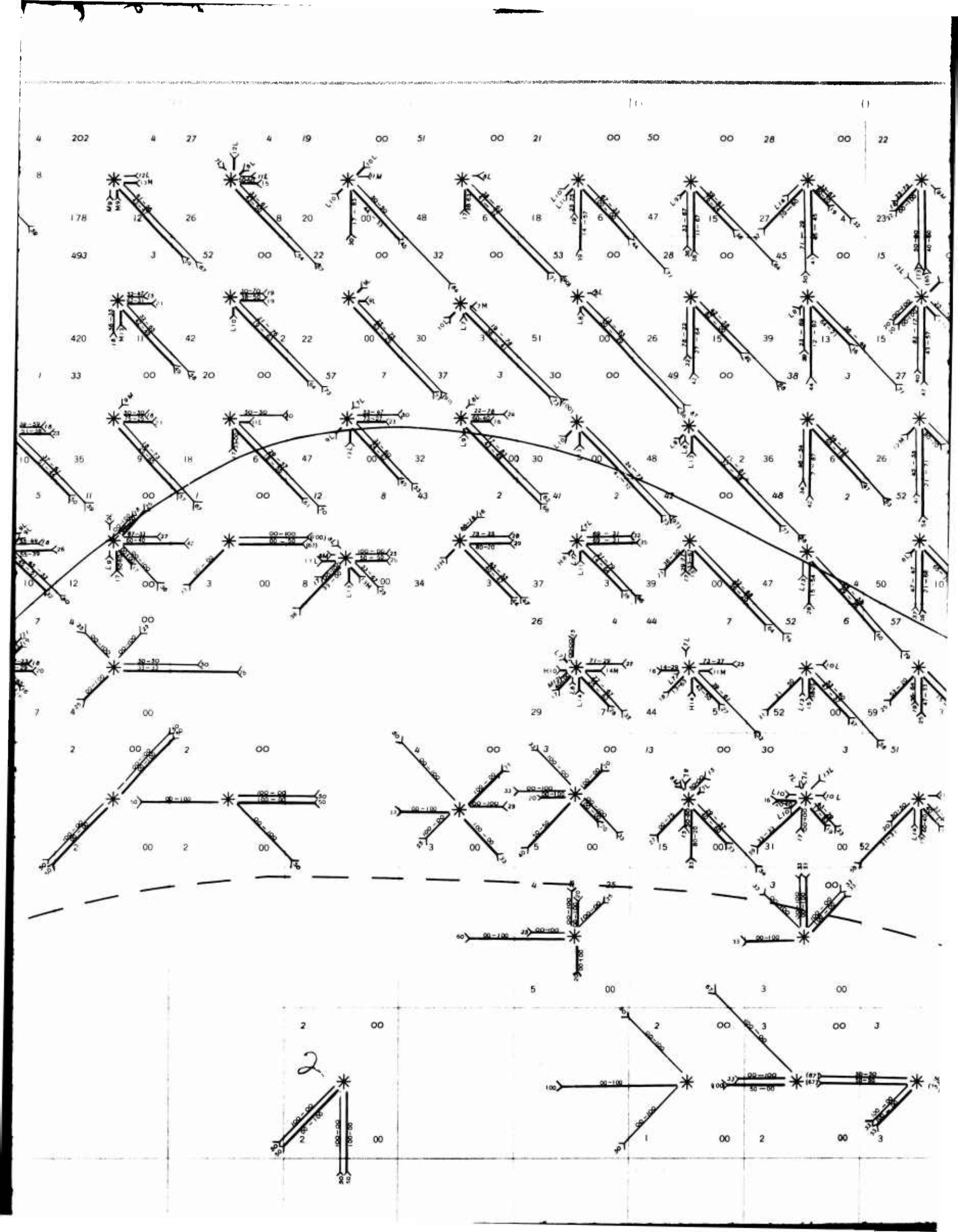
ISOKYMATIC LINES

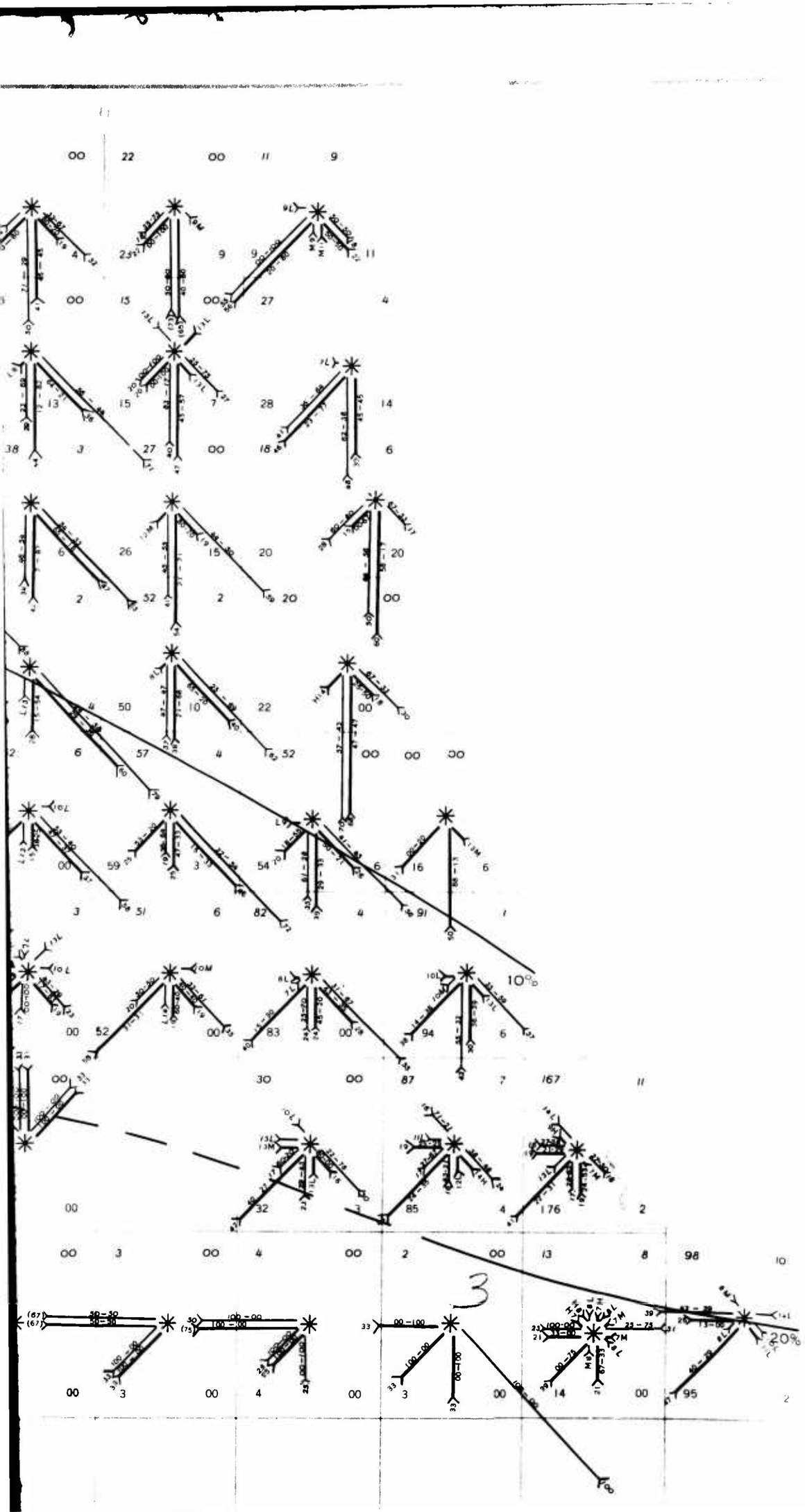
Isokymatic lines, (lines of equal percentage of high seas) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and, the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds.





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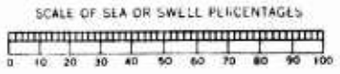
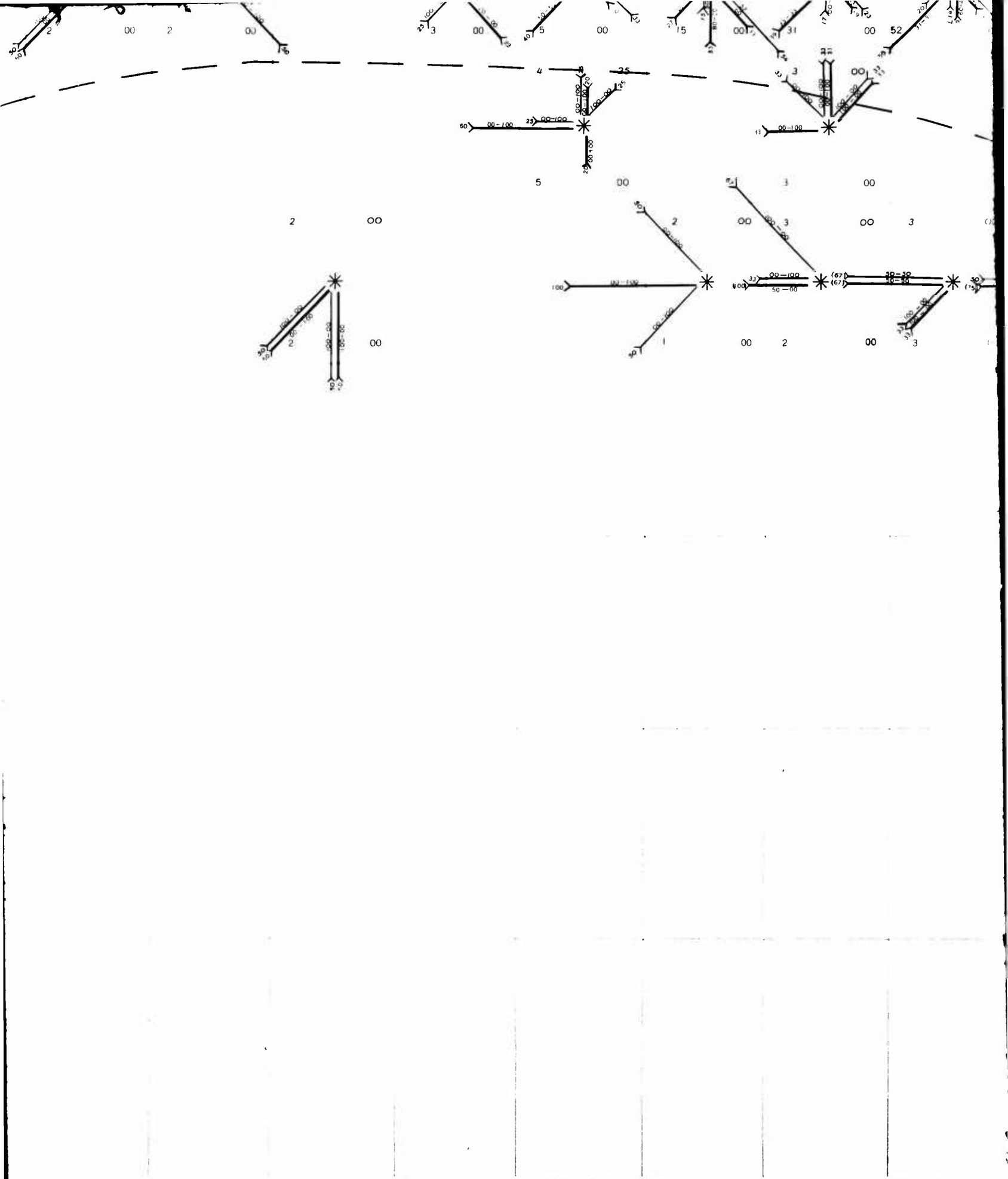
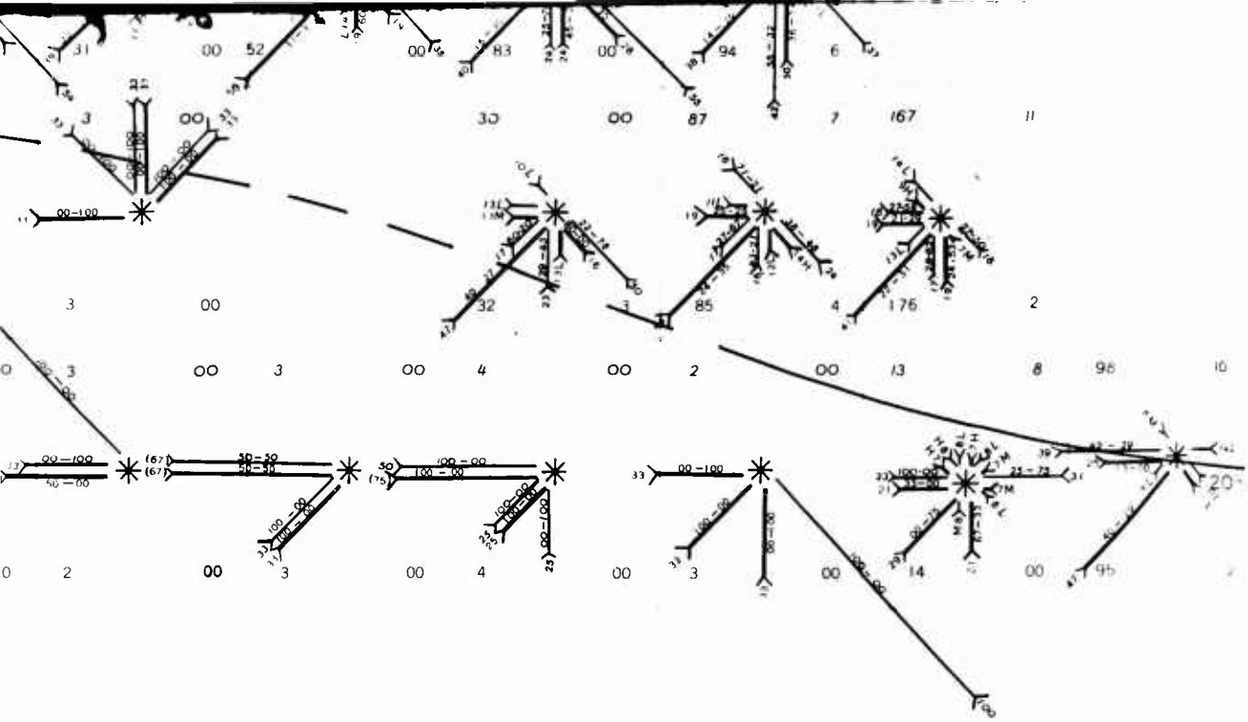
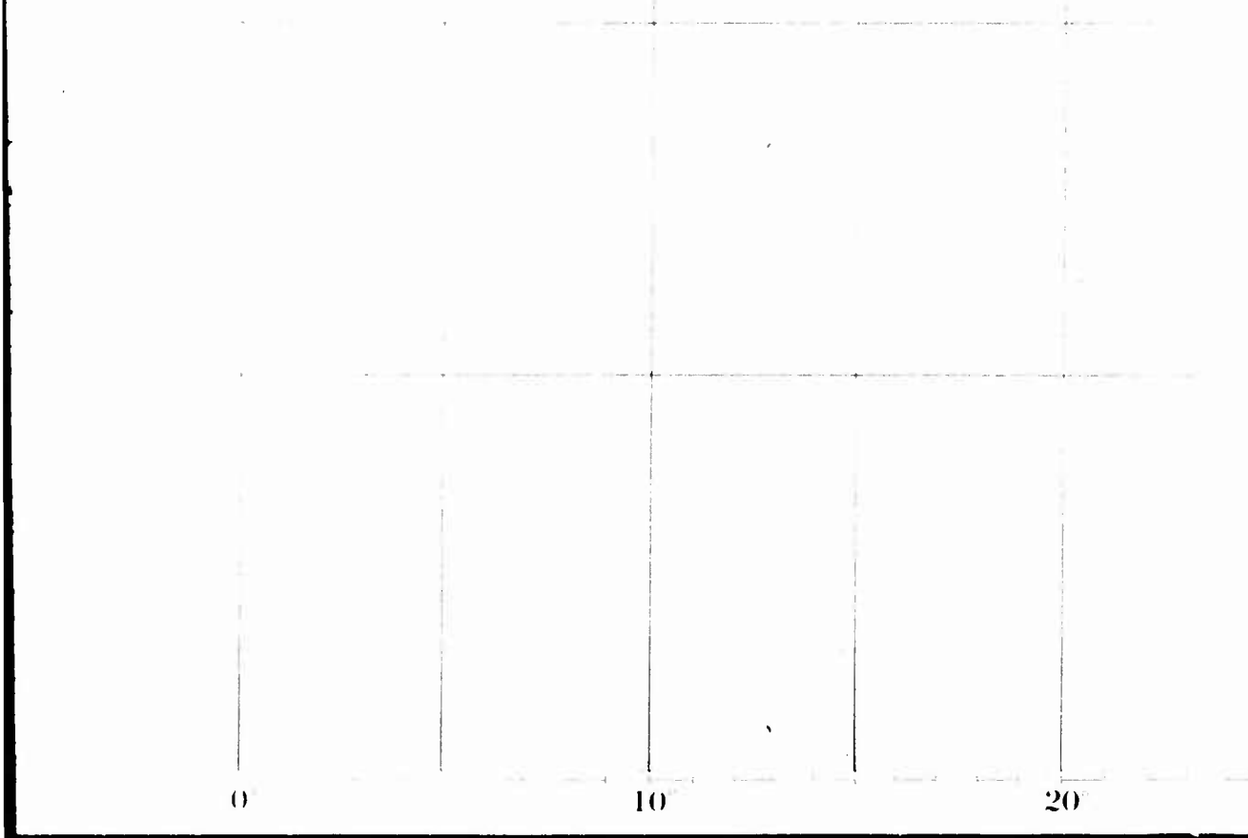


5 5 4


30
20
10
0°





Sheet 5

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

JUNE

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

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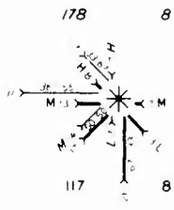
For example—The attached rose should be read as follows:



Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms: 14 percent were from the southwest and predominately medium; 31 percent were from the west, of which 55 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

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ISOKYMATIC LINES

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HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

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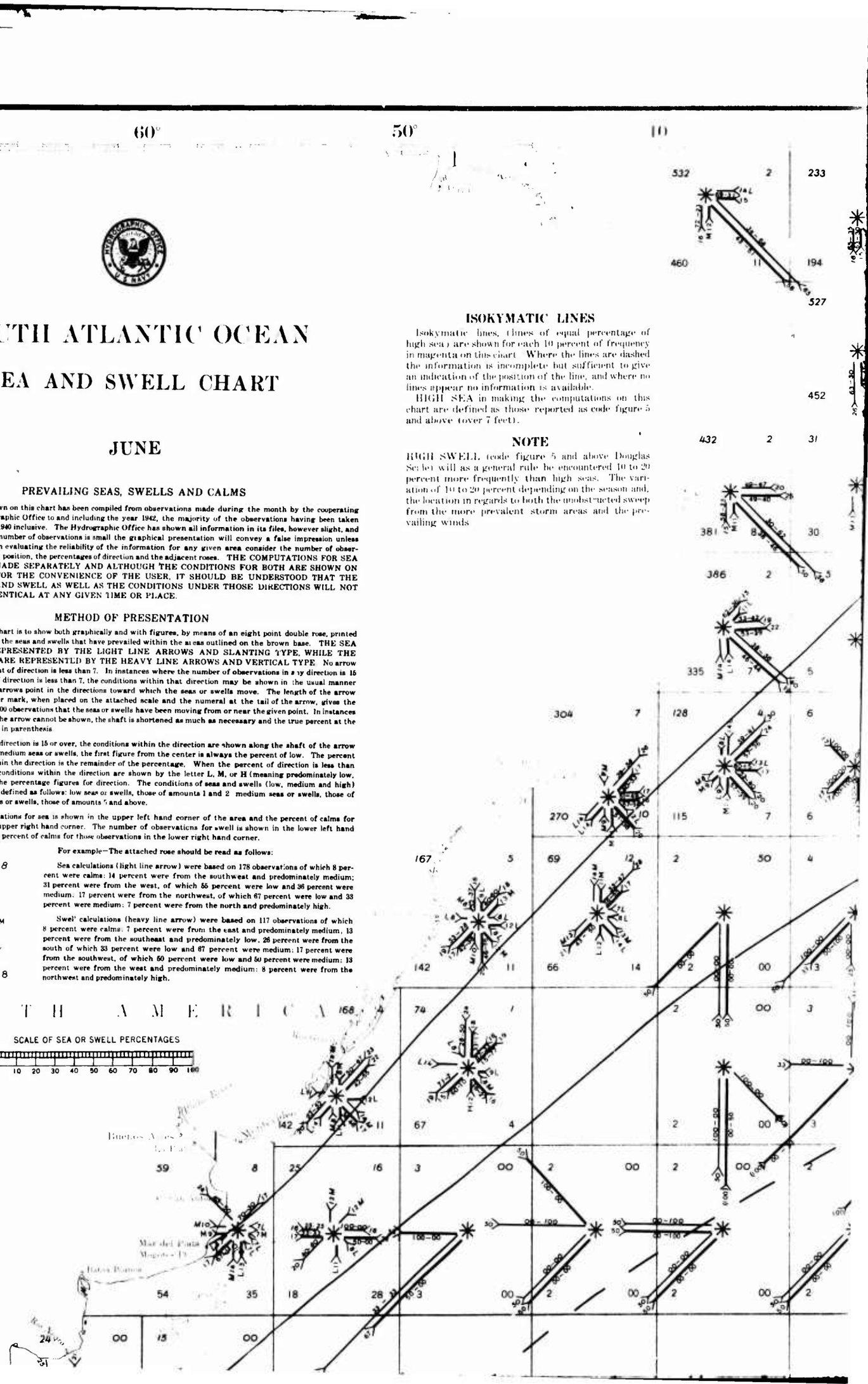
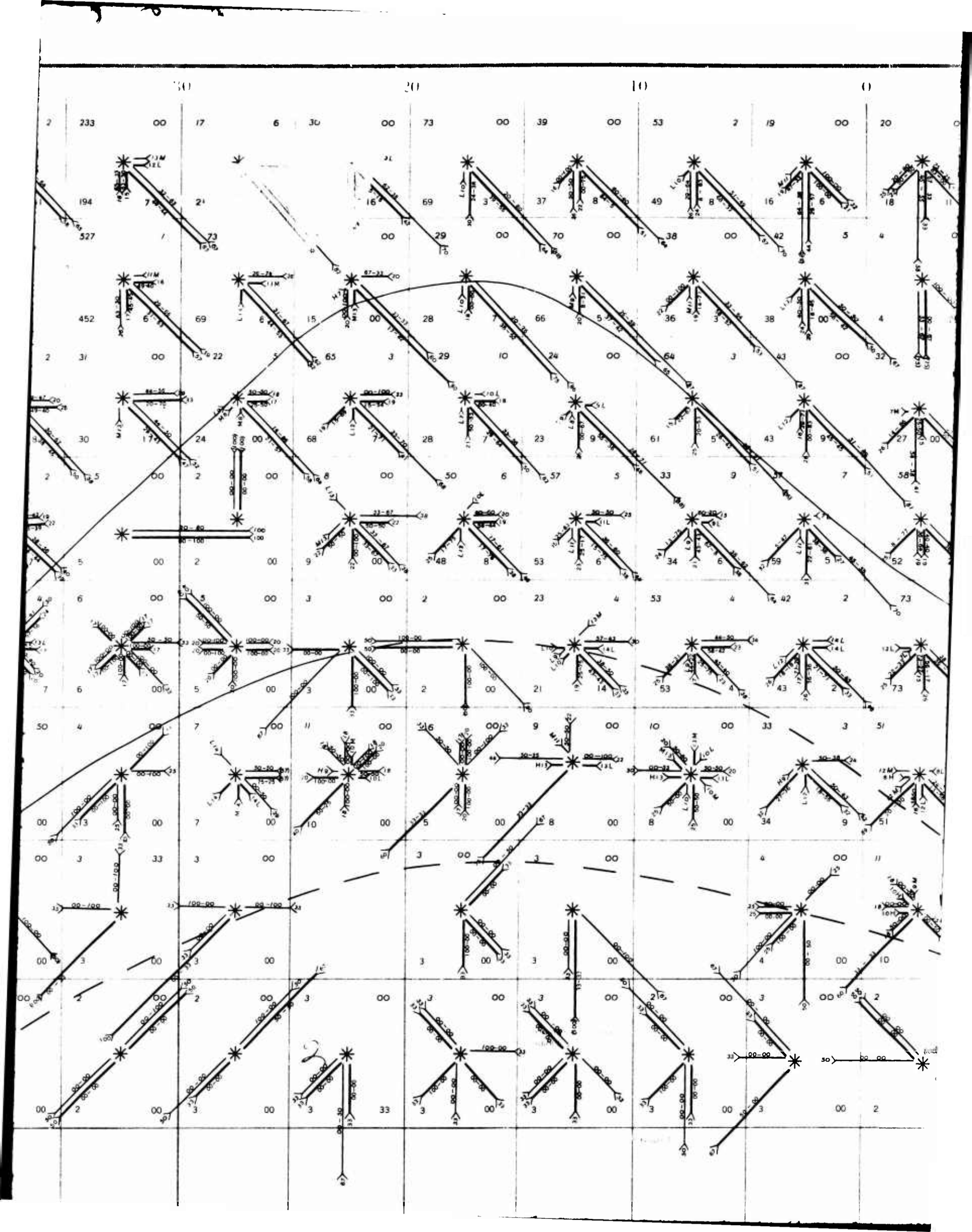
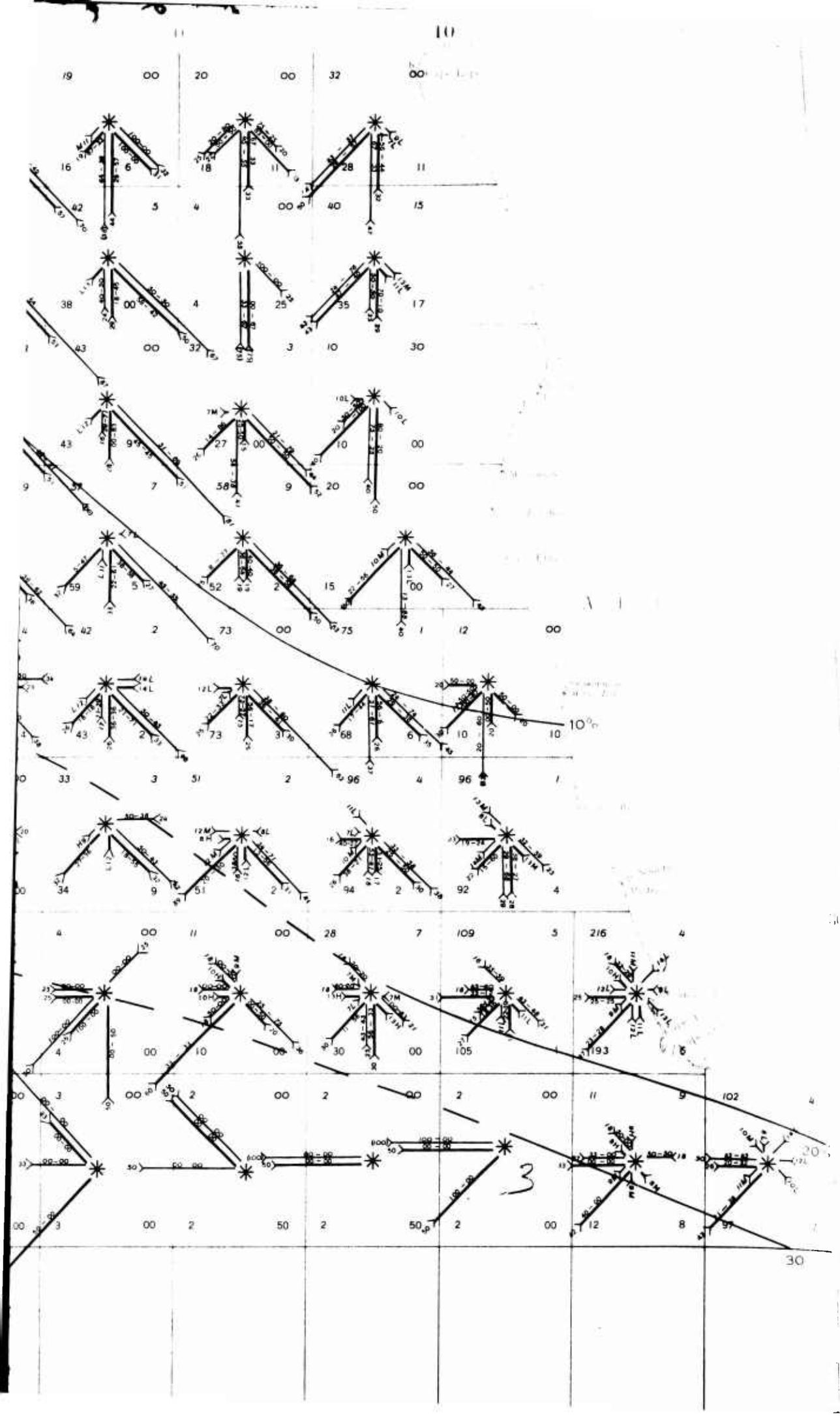
SCALE OF SEA OR SWELL PERCENTAGES

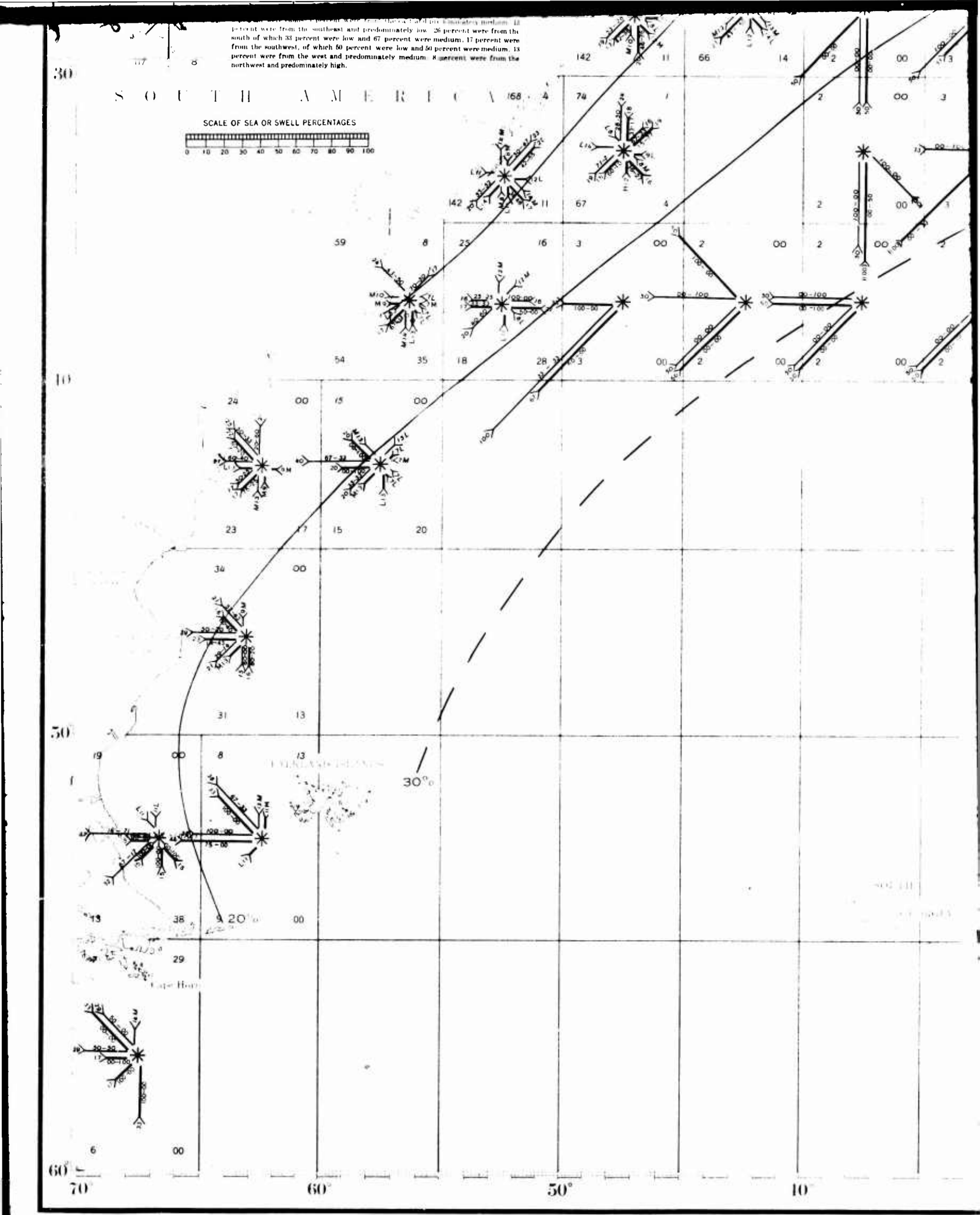
0 10 20 30 40 50 60 70 80 90 100

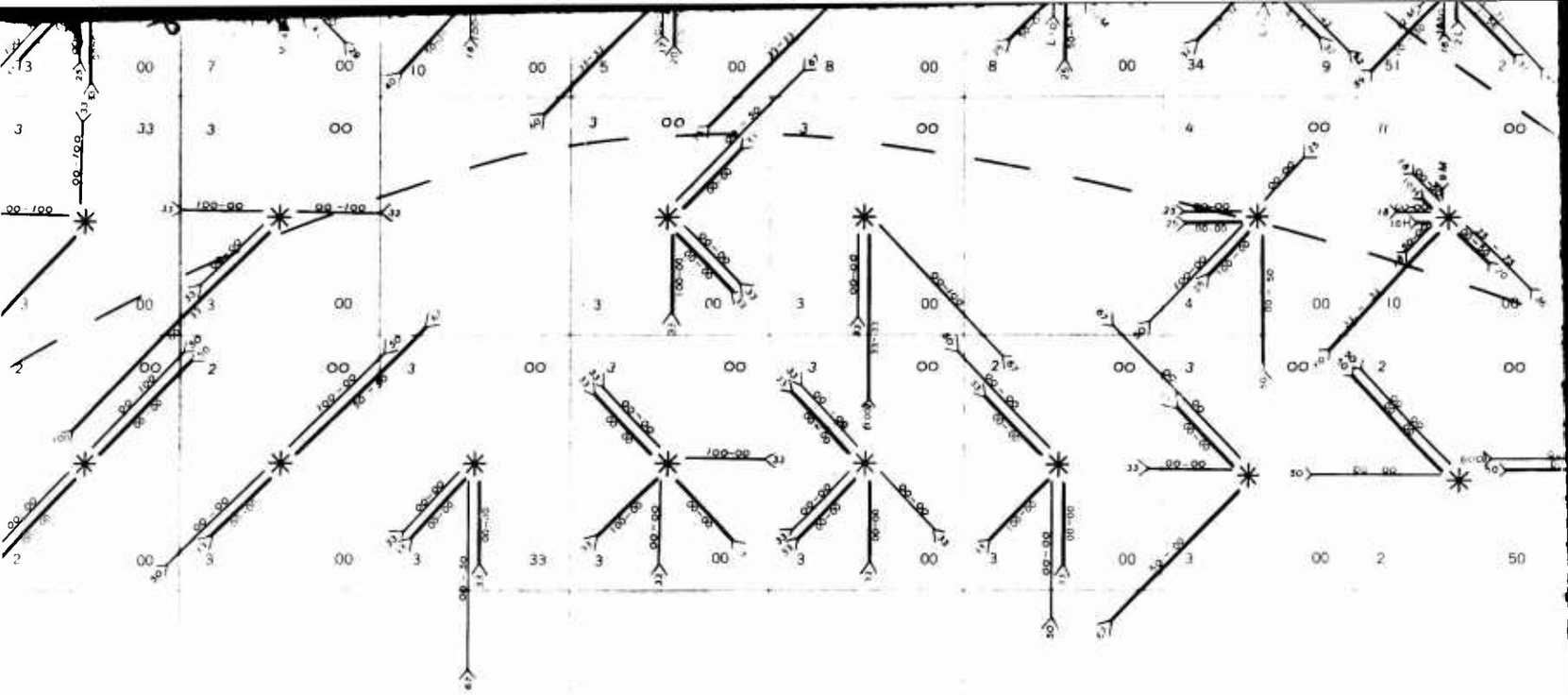




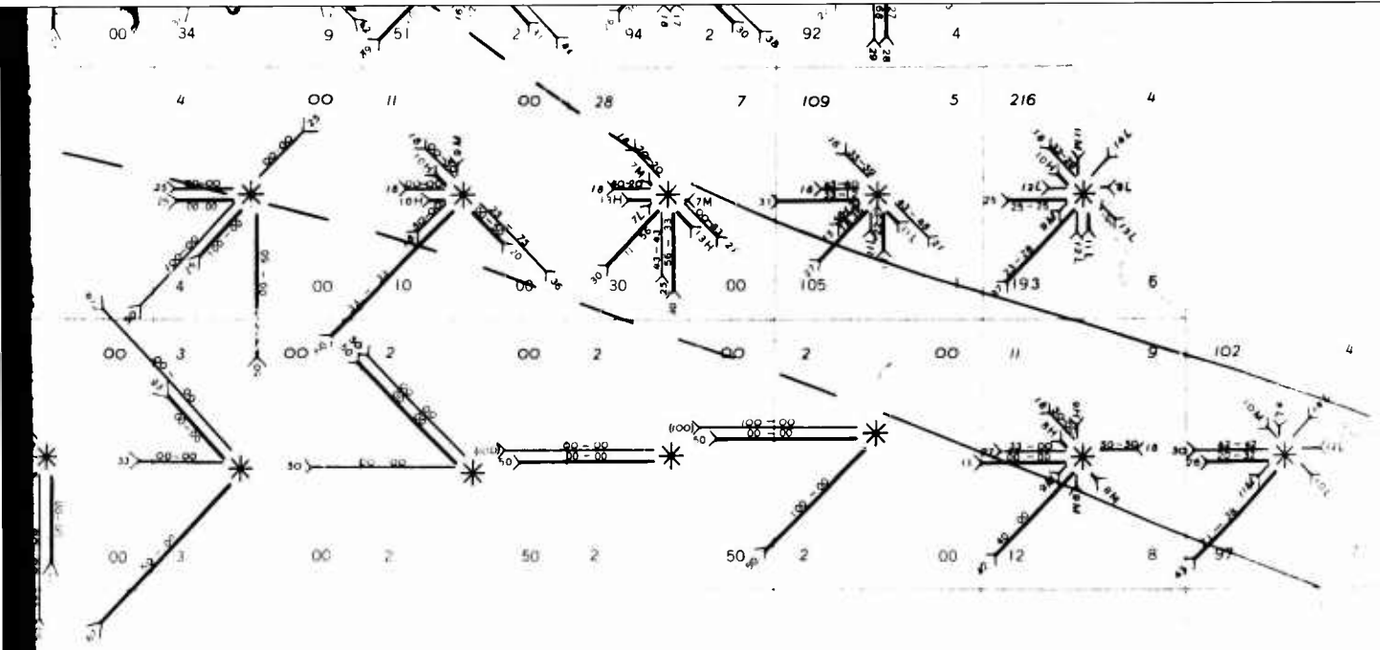


south of which 33 percent were low and 67 percent were medium. 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium. 13 percent were from the west and predominately medium. 8 percent were from the northwest and predominately high.





30 20° 10° 0°



0 10 20 60°

6

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

JULY

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. **THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.**

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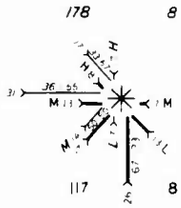

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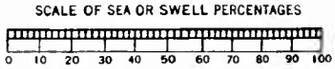
Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms: 7 percent were from the east and predominately medium: 13 percent were from the southeast and predominately low: 26 percent were from the south of which 33 percent were low and 67 percent were medium: 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium: 13 percent were from the west and predominately medium: 8 percent were from the northwest and predominately high.

SCALE OF SEA OR SWELL PERCENTAGES



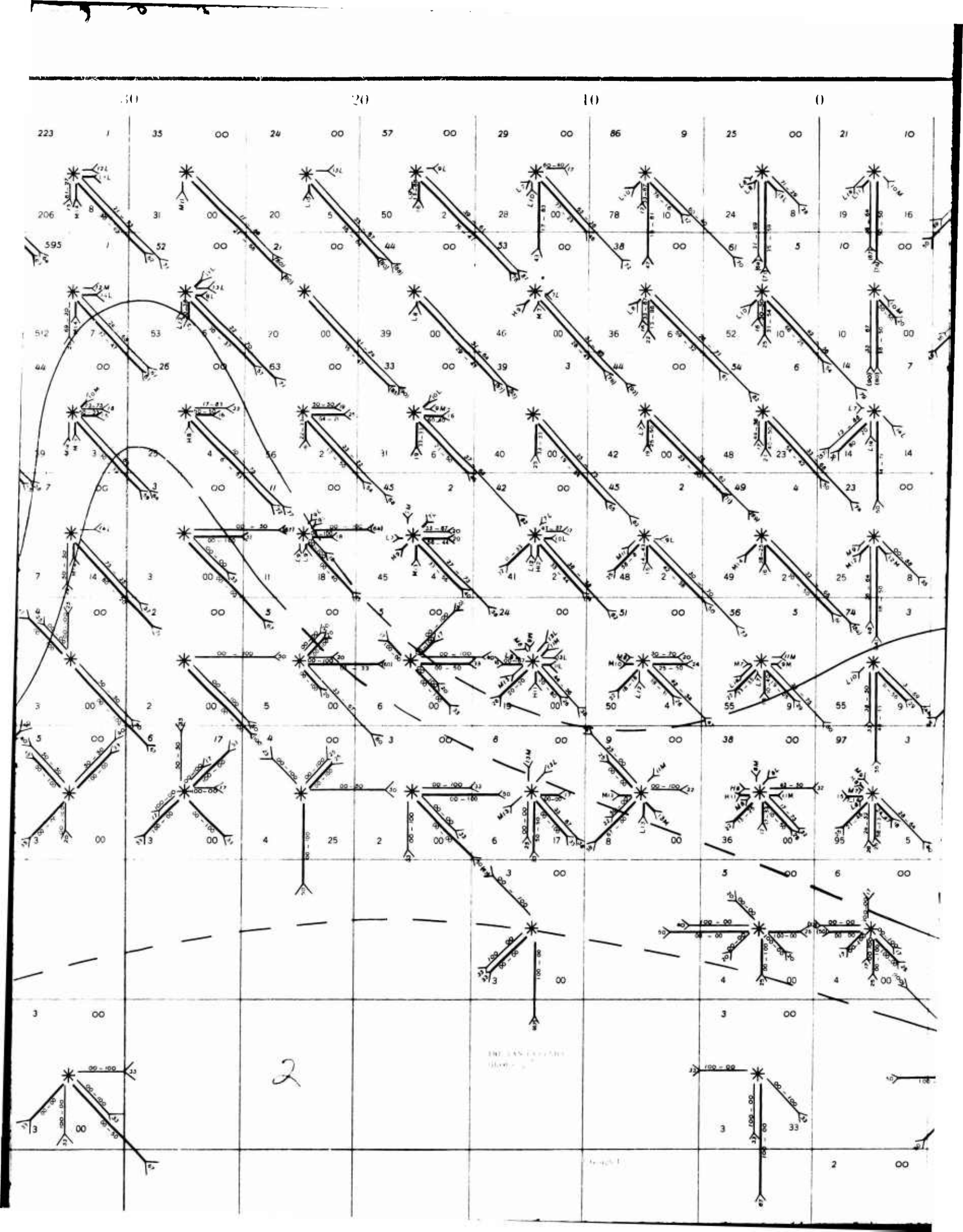
ISOKYMATIC LINES

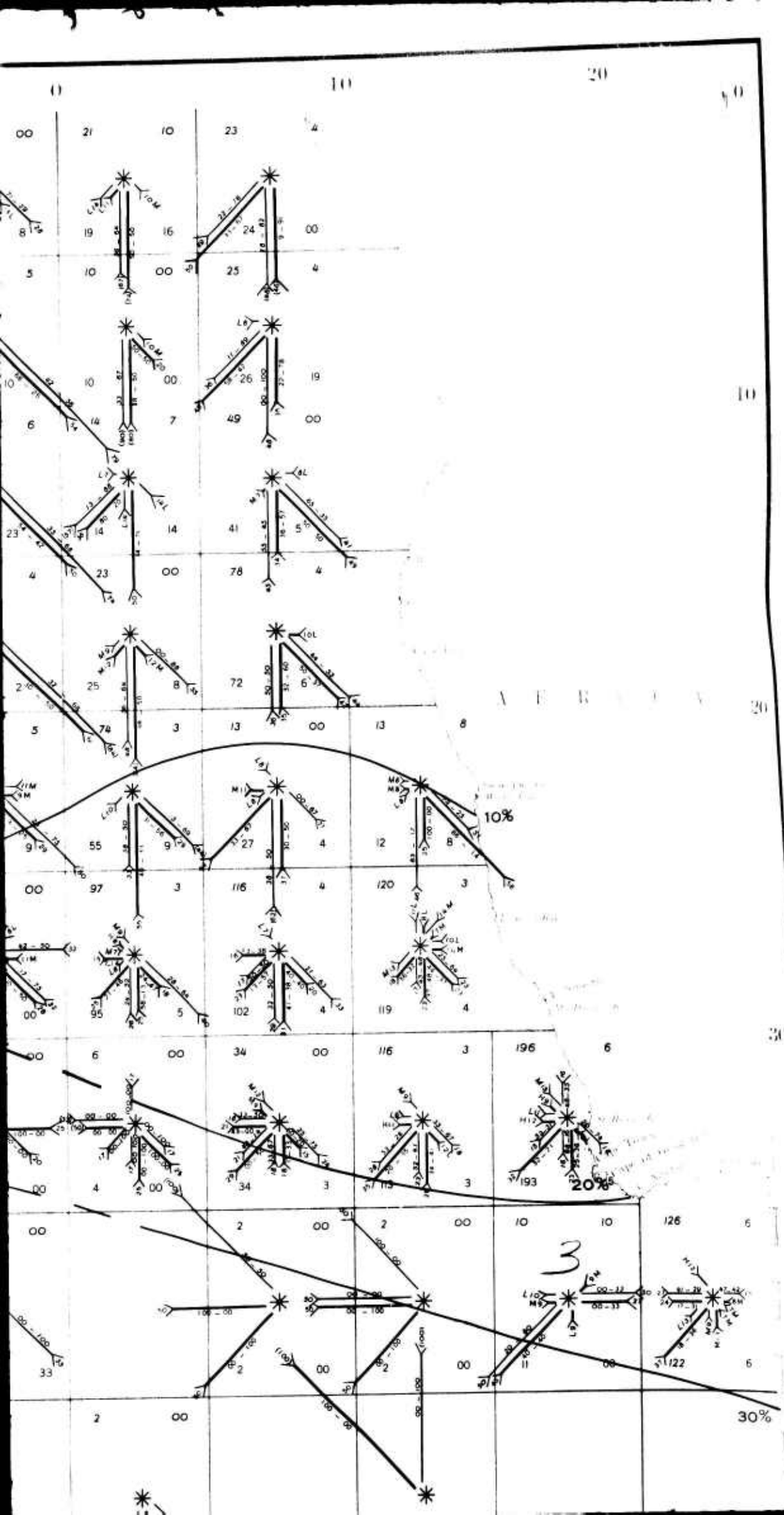
Isokymatic lines, (lines of equal percentage of high seas) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

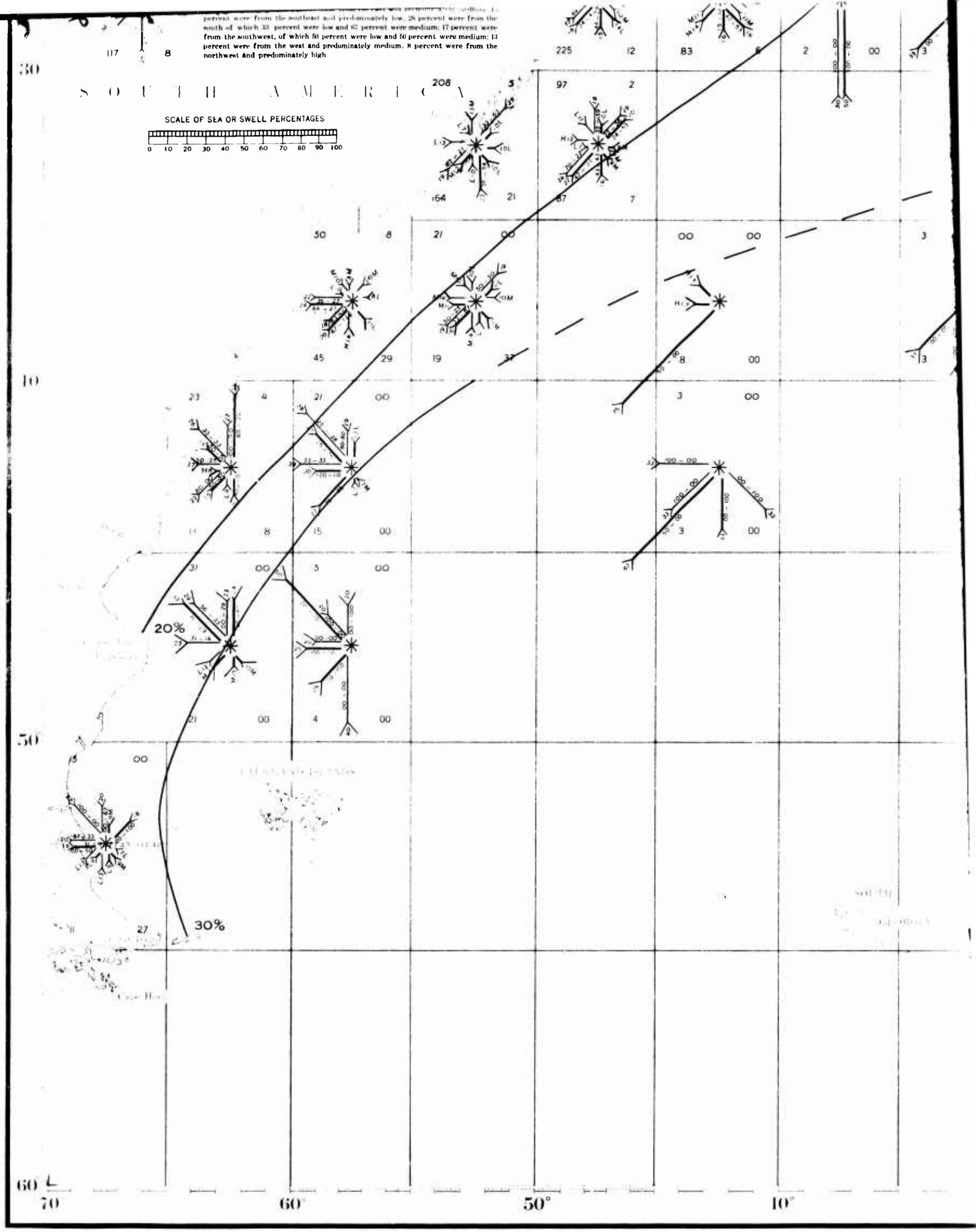
HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

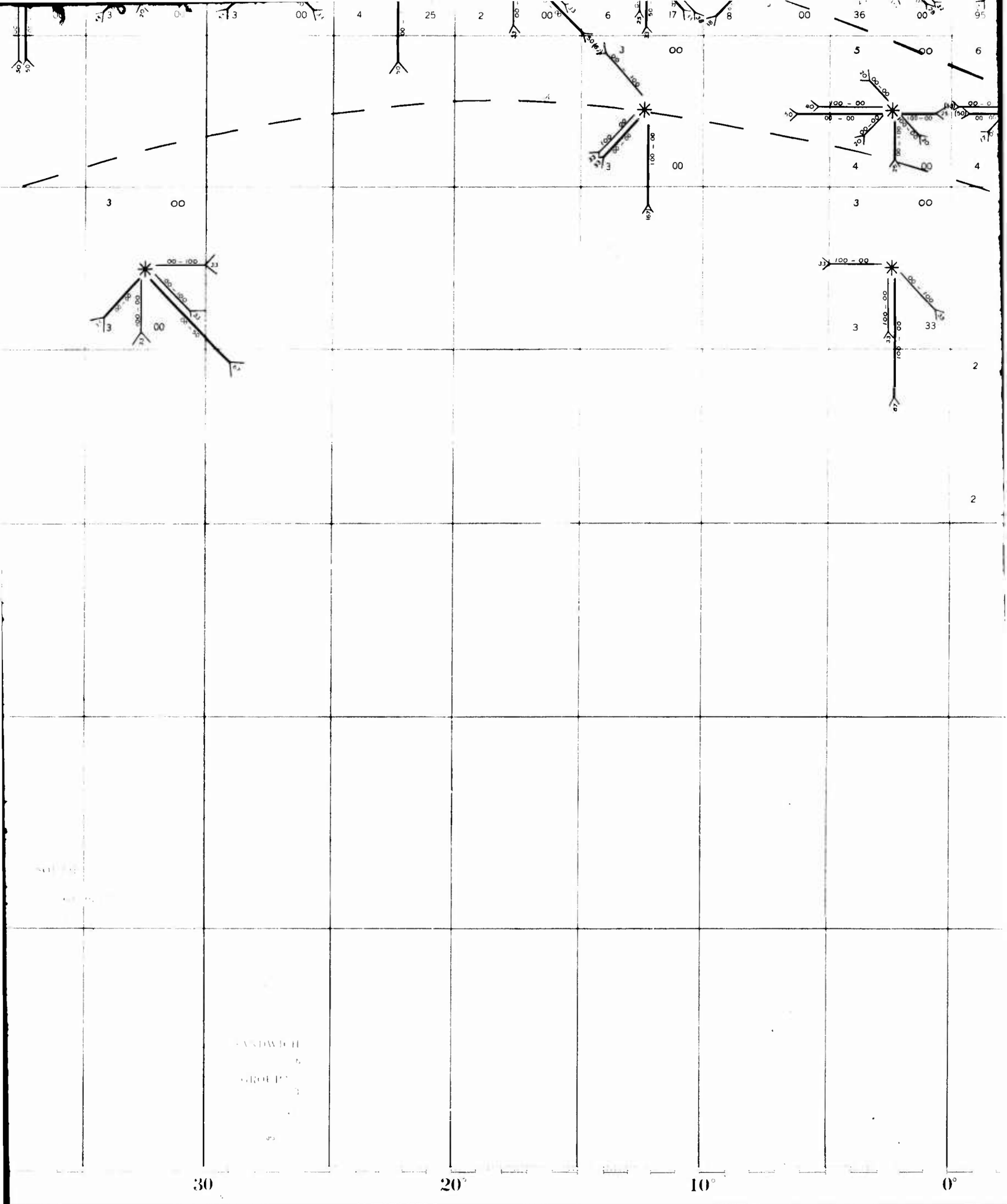
HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds.

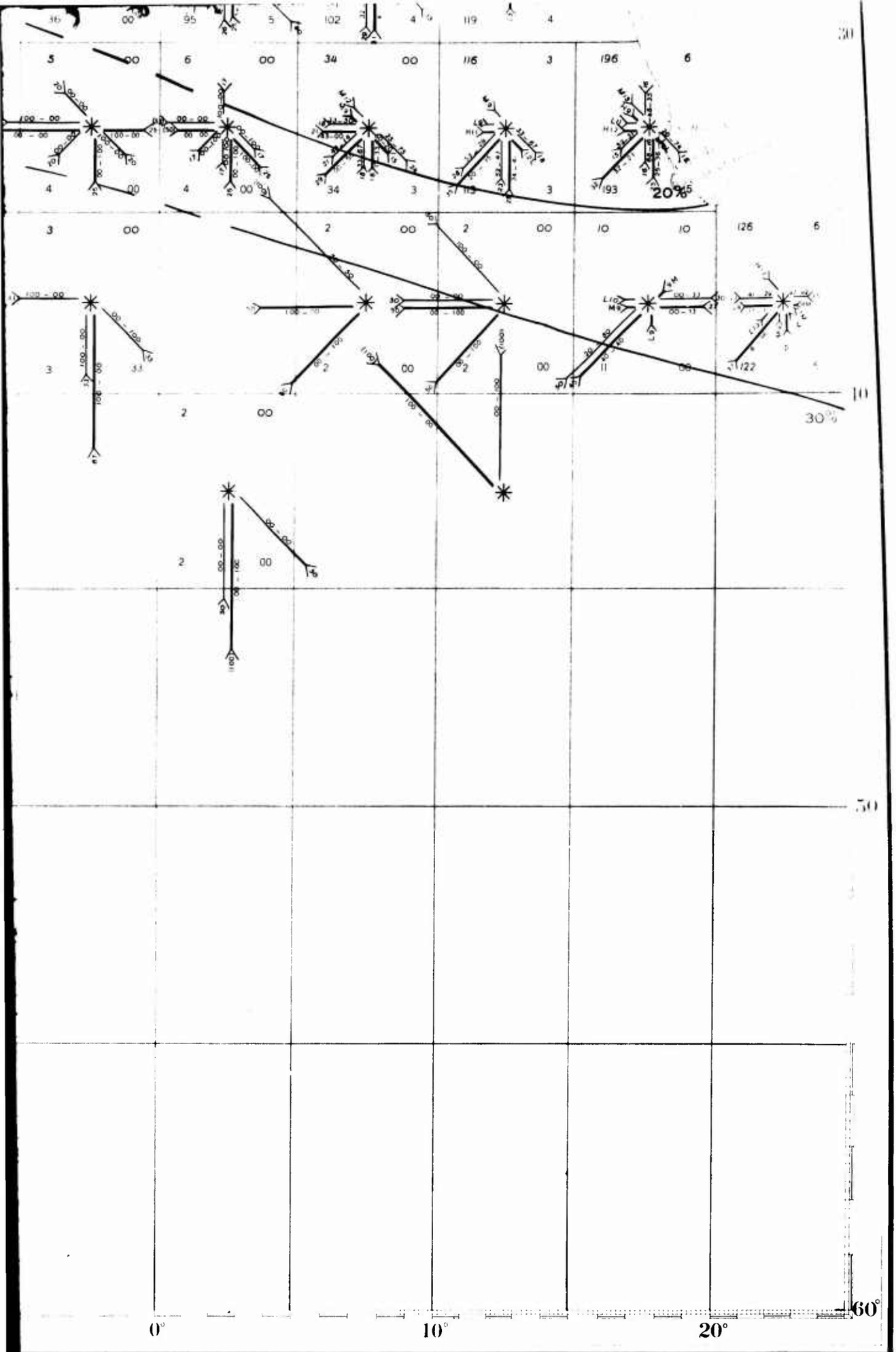

30
20
10
0


0
10
20
30
10%
20%
30%



percent were from the southeast and predominately low, 28 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 60 percent were low and 40 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high


30
20°
10°
0°



Sheet 7

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

AUGUST

PREVAILING SEAS, SWELLS AND CALMS

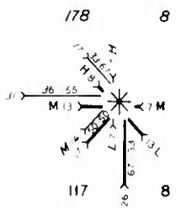
The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.



For example—The attached rose should be read as follows:

Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms: 14 percent were from the southwest and predominately medium; 31 percent were from the west, of which 55 percent were low and 36 percent were medium: 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

ISOKYMATIC LINES

Isokymatic lines, (lines of equal percentage of high seas) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and, the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds

SCALE OF SEA OR SWELL PERCENTAGES

0 10 20 30 40 50 60 70 80 90 100

70° 60° 50° 10°

0° 10° 20° 30° 40°

SOUTH AMERICA

Pará

Maranhão

Rio de Janeiro

Buenos Aires

La Plata

Mar del Plata

Bahia Blanca

Rio Negro

Rio Grande

Montevideo

Pernambuco

678 00 232

553 203

554

483

471 1 42

414 6 39

465 5

399 7

365 8 152 3 5

293 11 132 11 4

206 7

183 8 69 4 2 00 3

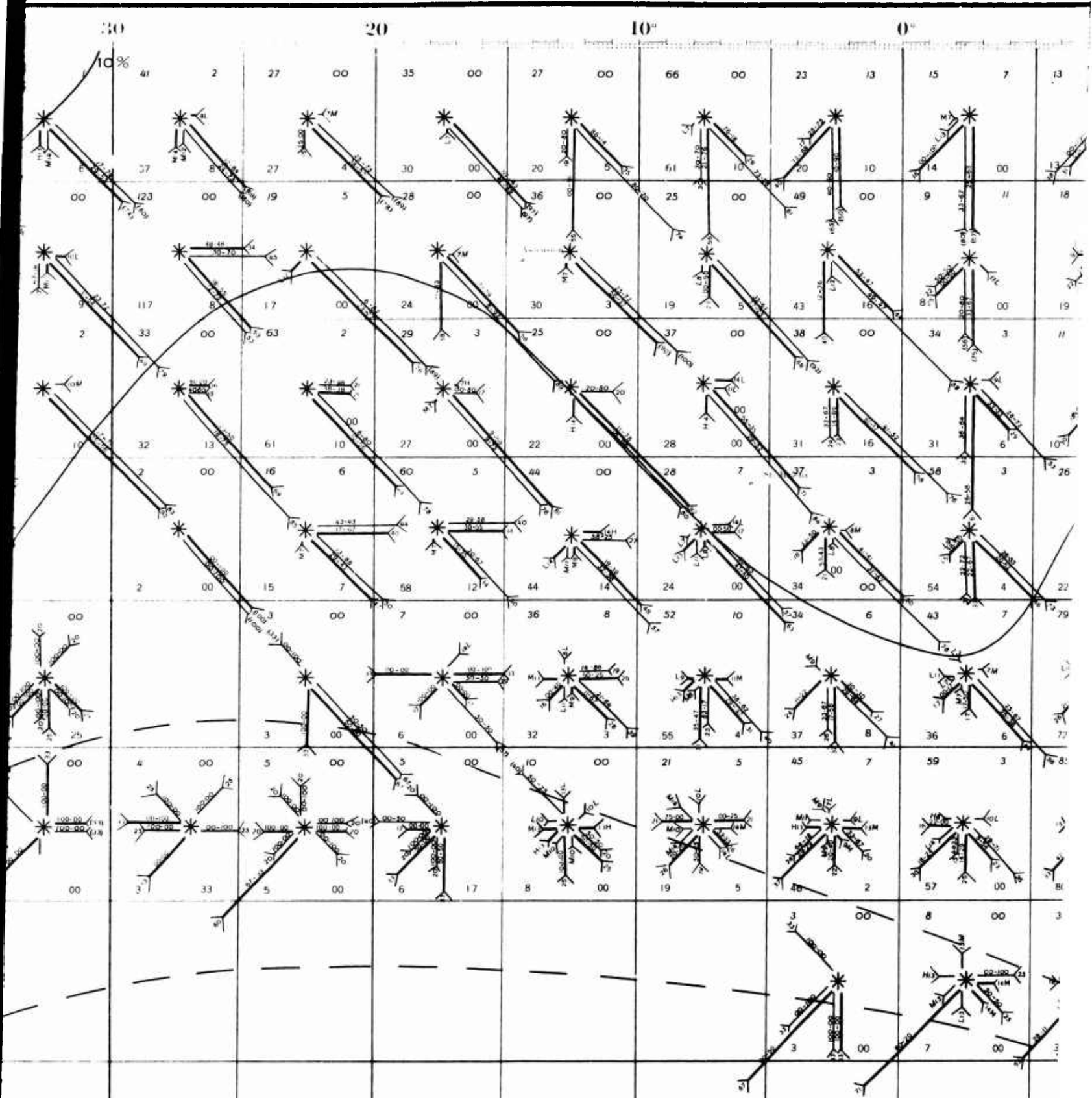
97 4

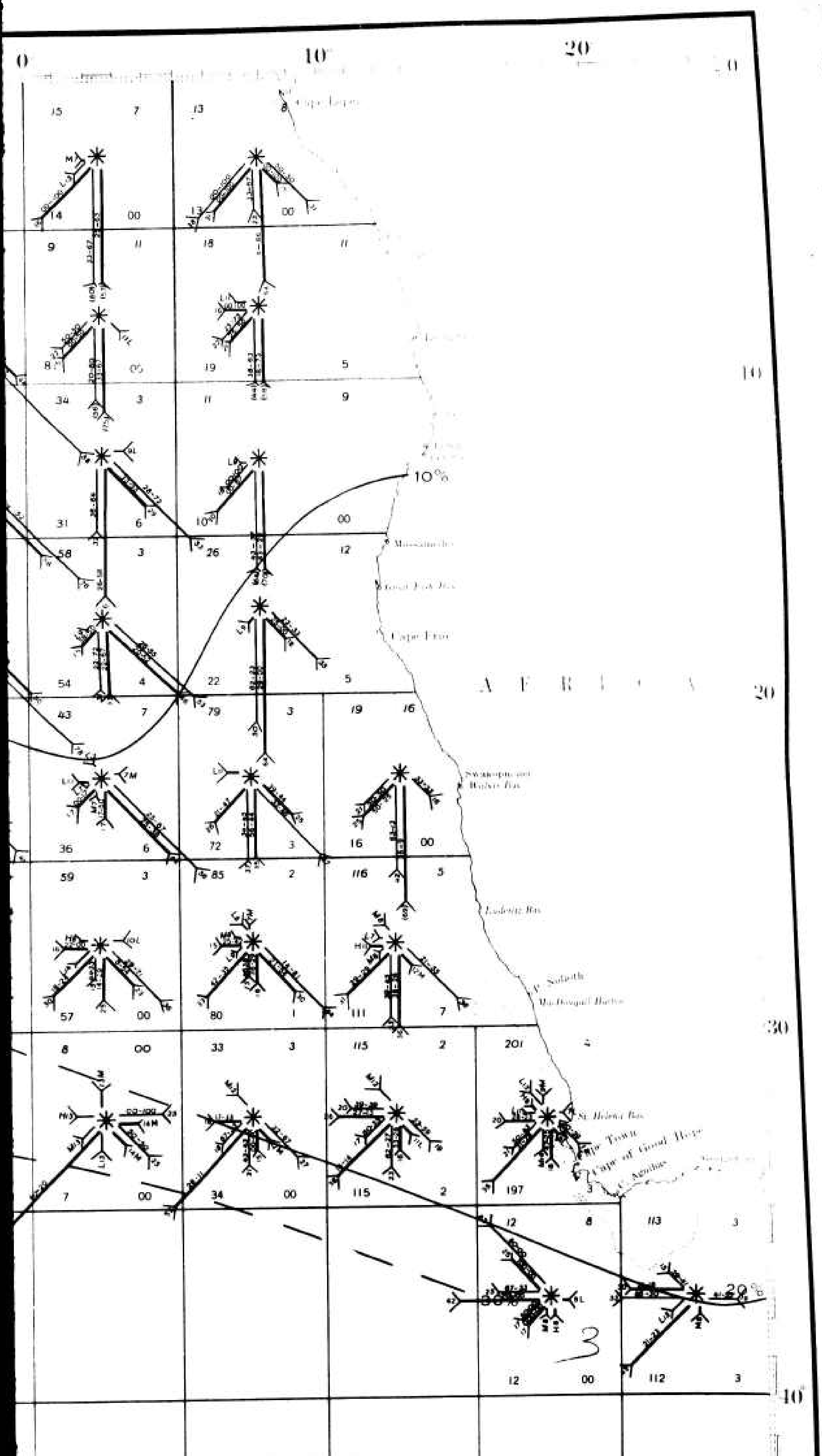
180 14 80 8

51 10 20 10 2 00

38 15 13 38 2 00

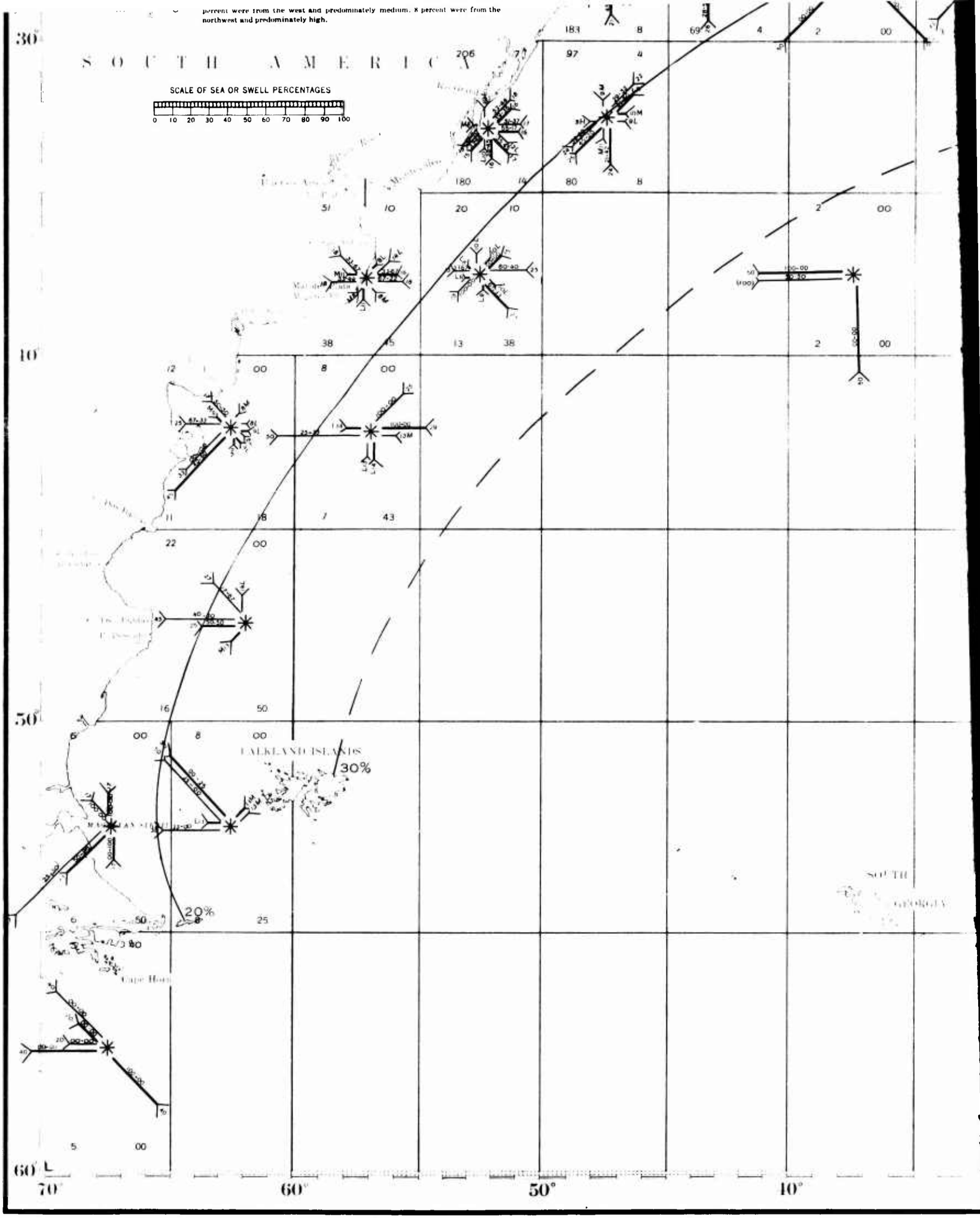
12 00 8 00


30
20
10°
0°
10%
TRISTAN DA CUNHA
GROUP
2
Gough I.

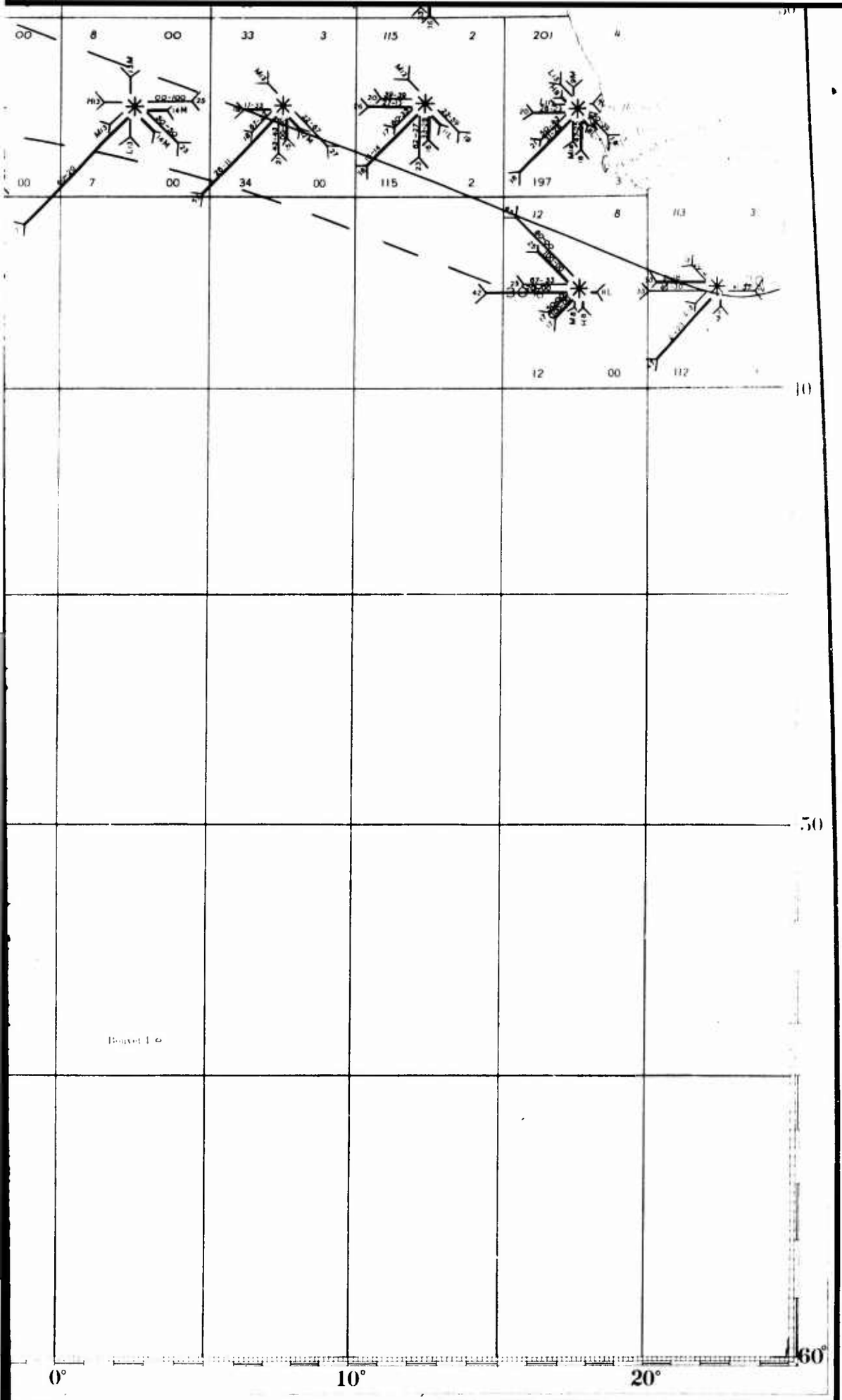


10°
20
10%
20
30
20%
10°

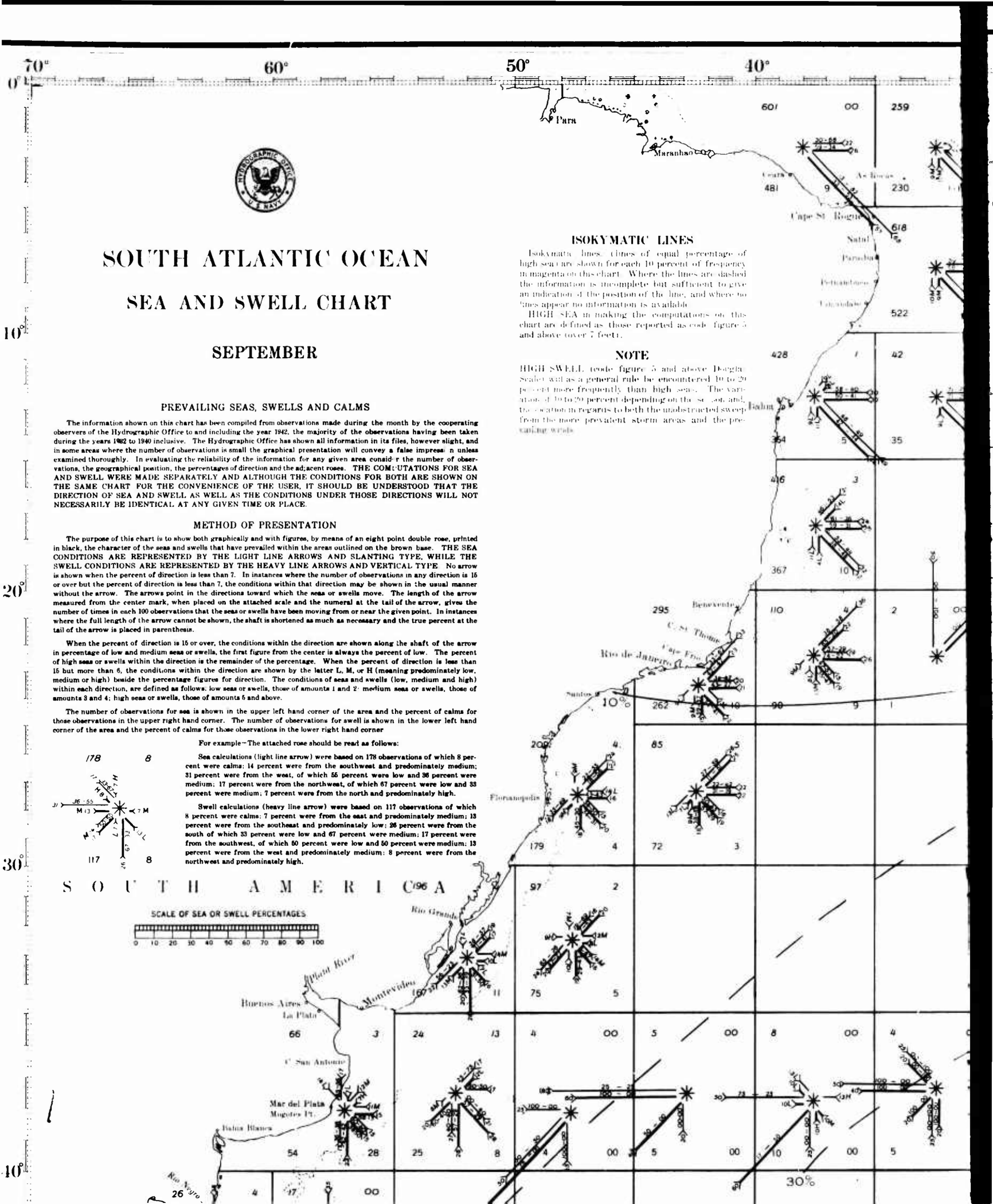
percent were from the west and predominately medium. 8 percent were from the northwest and predominately high.



30° 20° 10° 0°


00
8
00
33
3
115
2
201
4
00
7
00
34
00
115
2
197
3
12
8
113
3
12
00
112
10
50
60°
0°
10°
20°

Sheet 8



SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

SEPTEMBER

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.

For example—The attached rose should be read as follows:

Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms; 14 percent were from the southwest and predominately medium; 31 percent were from the west, of which 55 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

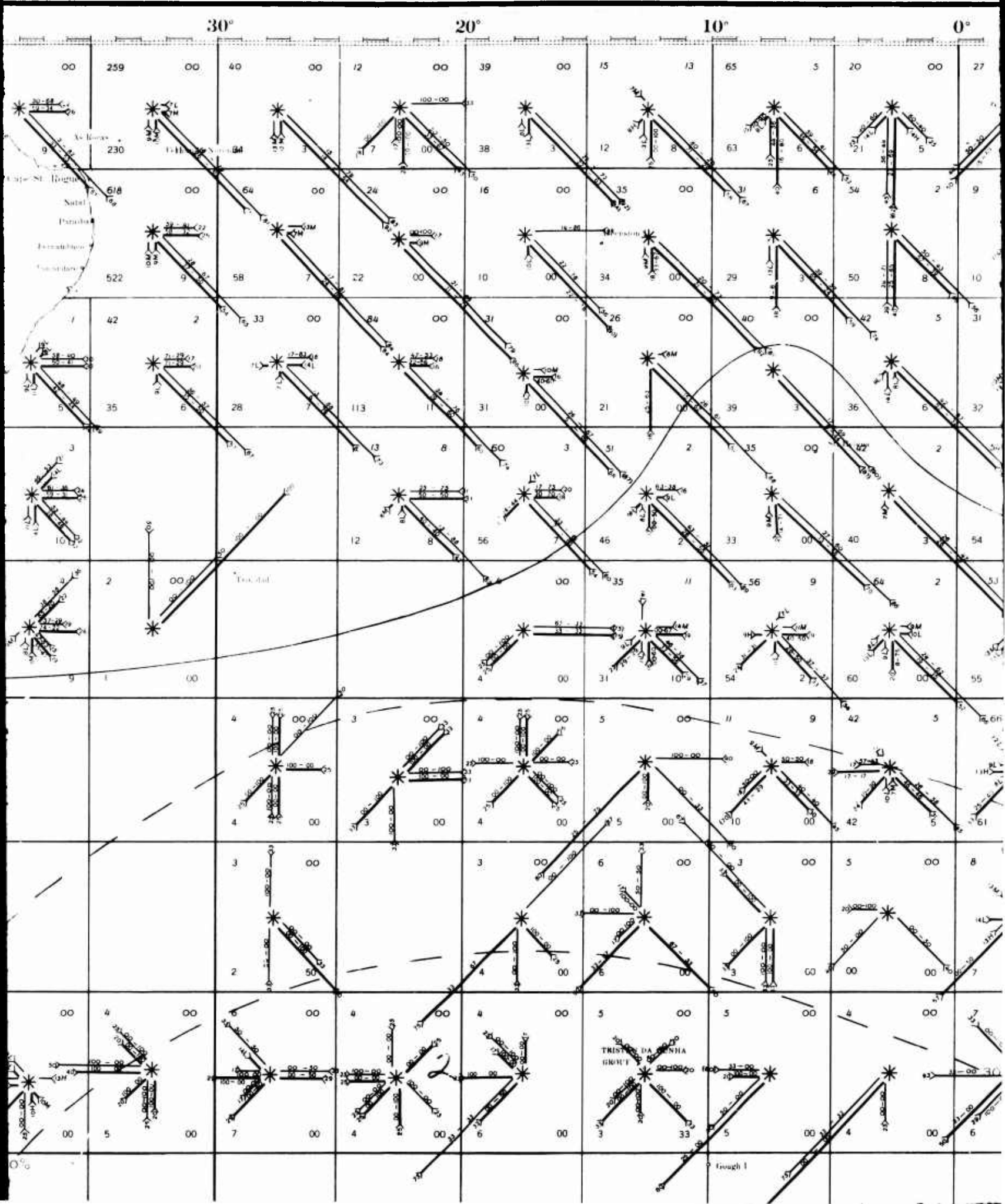
ISOKYMATIC LINES

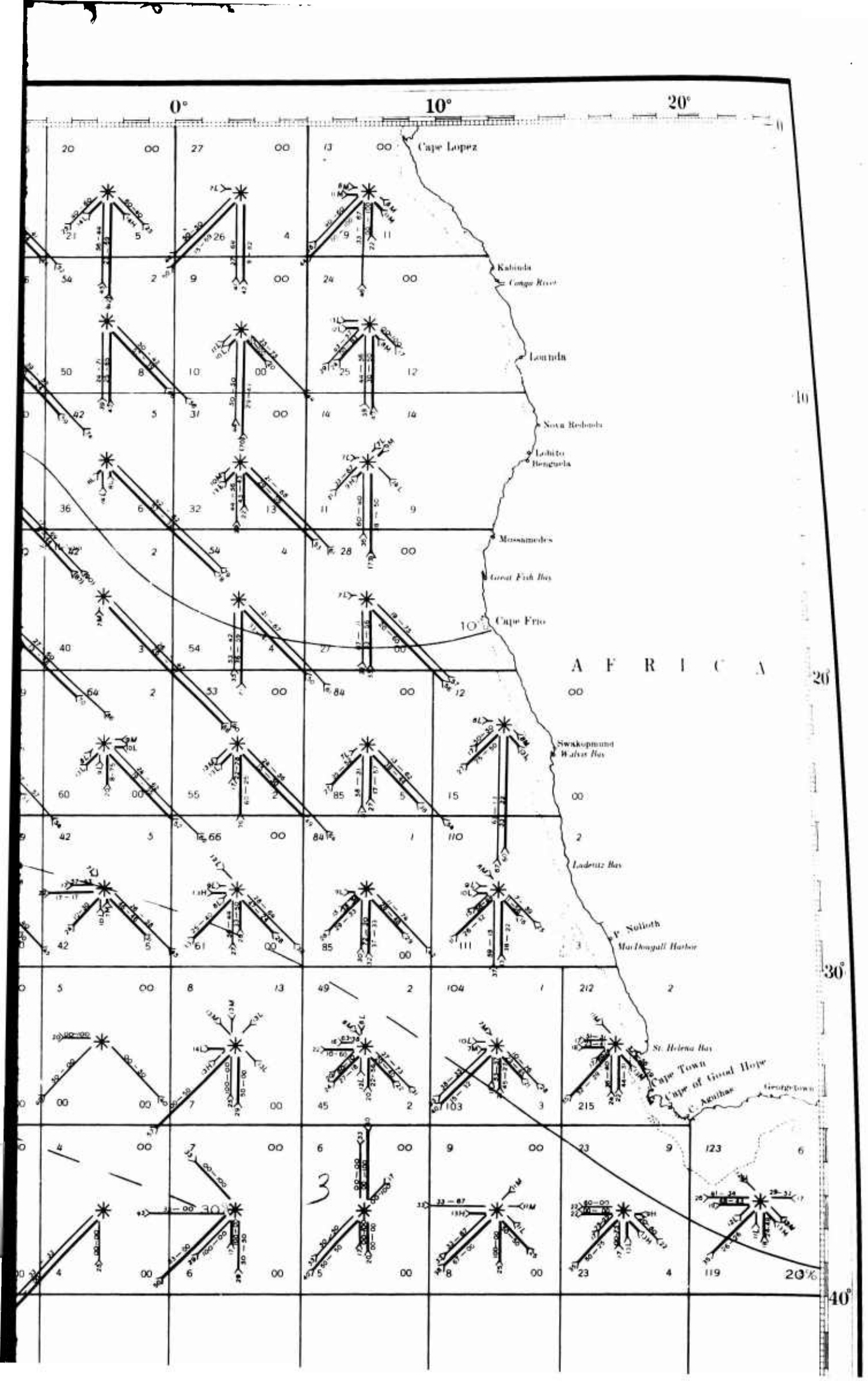
Isokymatic lines (lines of equal percentage of high seas) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

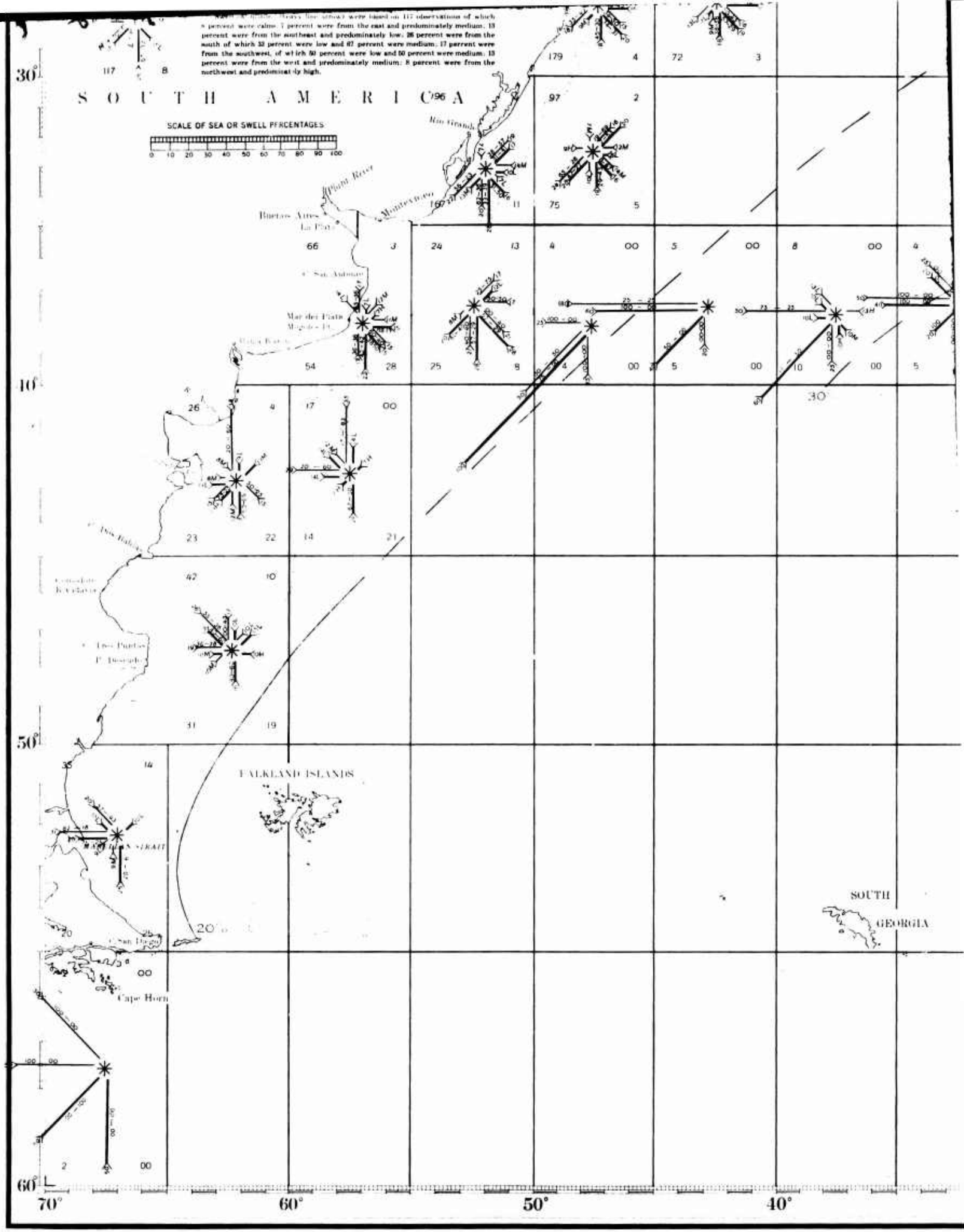
HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

NOTE

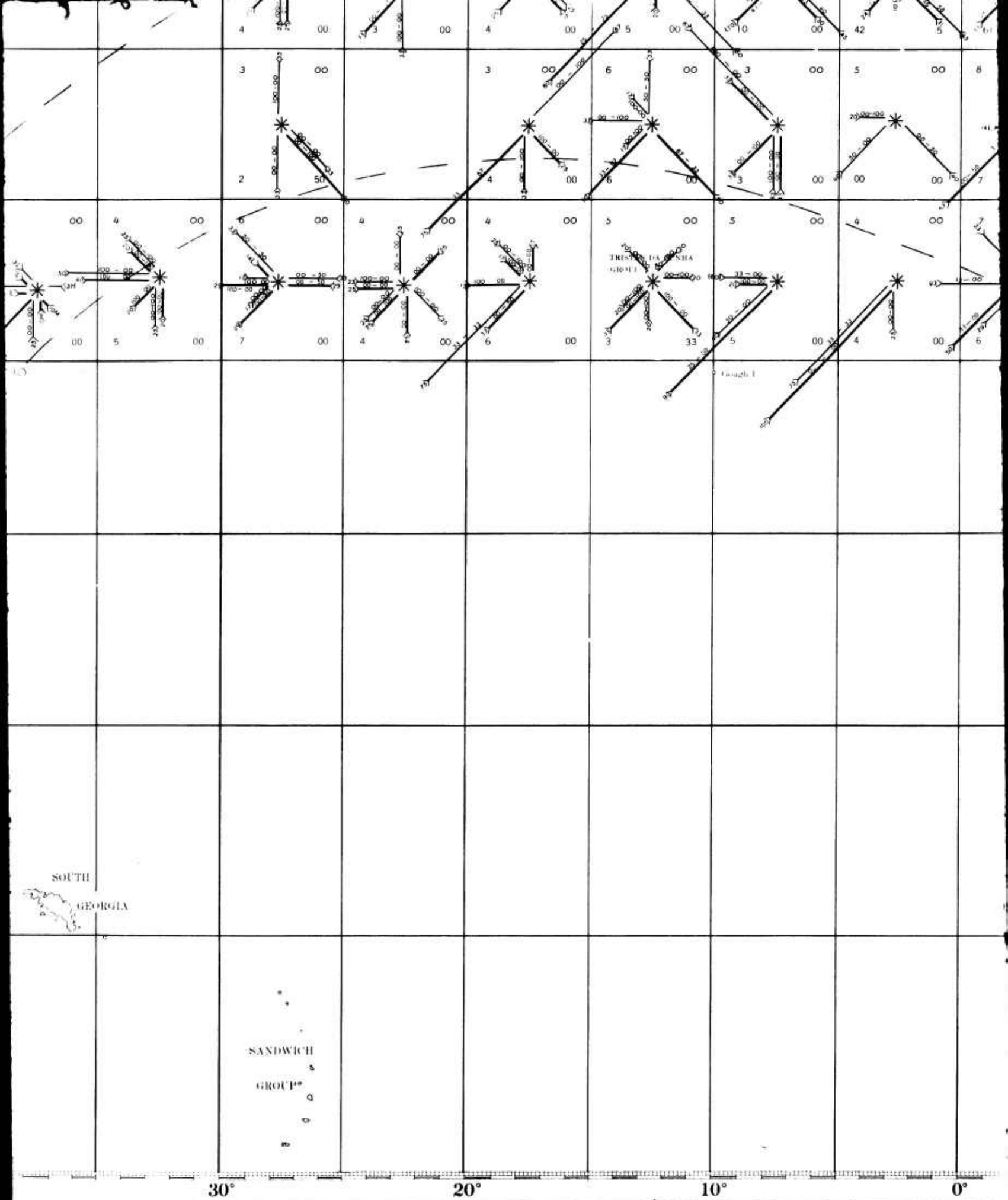
HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds.

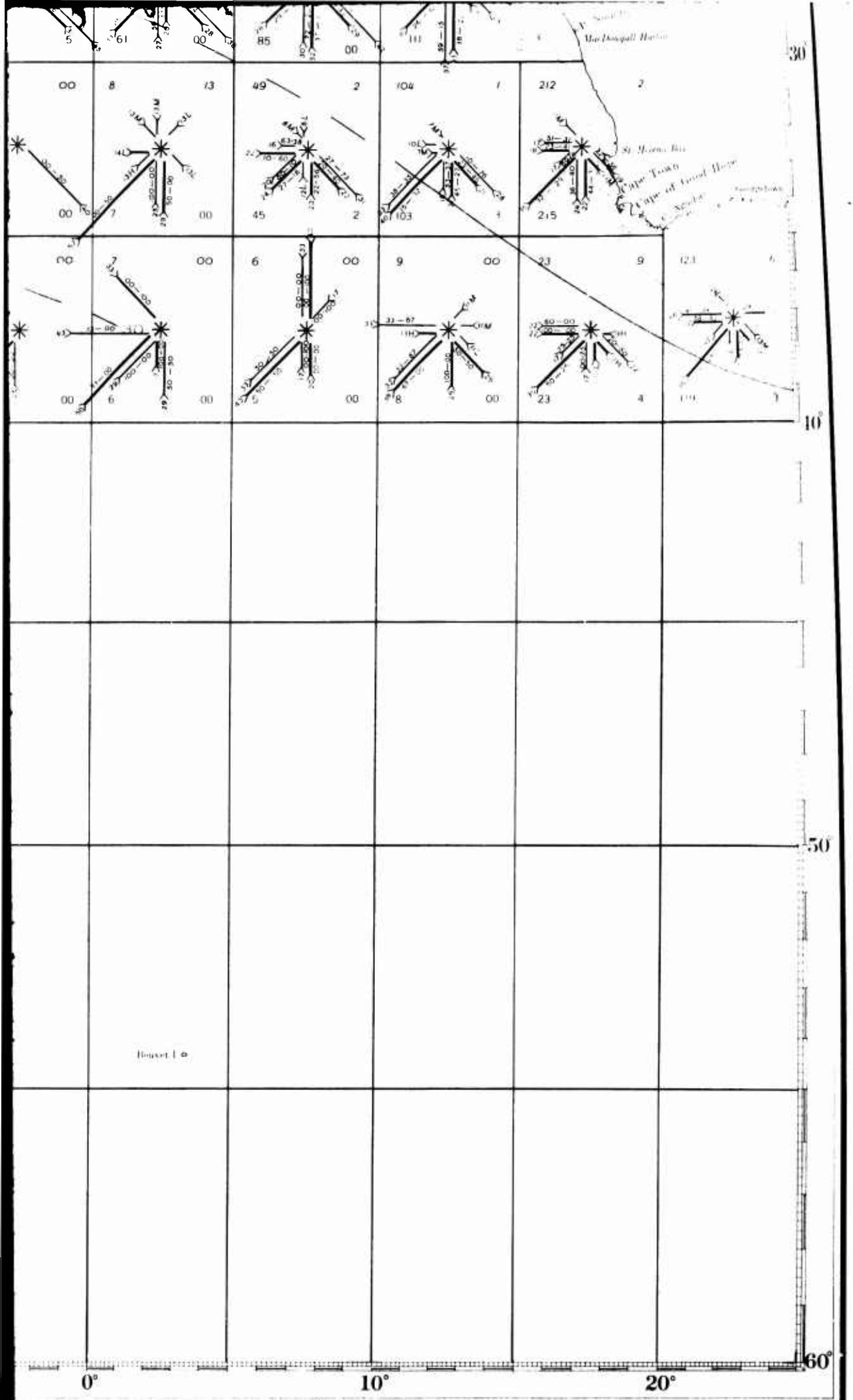

30°
20°
10°
0°
Ascension
Cape St. Roque
Natal
Pernambuco
Tristan da Cunha
Gough I.


0°
10°
20°
0
10
20
30°
40°
Cape Lopez
Kabinda
Congo River
Luanda
Nova Redondo
Lobito
Benguela
Mossamedes
Great Fish Bay
Cape Frio
A F R I C A
Swakopmund
Walvis Bay
Laderitz Bay
F. Nolloth
MacDougall Harbor
St. Helena Bay
Cape Town
Cape of Good Hope
C. Agulhas
George Town


SOUTH AMERICA
SCALE OF SEA OR SWELL PERCENTAGES
0 10 20 30 40 50 60 70 80 90 100
Rio Grande
Plata River
Montevideo
Buenos Aires
La Plata
Mar del Plata
Bahia Blanca
Golfo San Jorge
Cabo Dos Bahias
Cabo Blanco
Cabo Dos Puntas
Puerto Deseado
Strait of Magellan
FALKLAND ISLANDS
SOUTH GEORGIA
San Diego
Cape Horn
30°
40°
50°
60°
70°

9 9 4


SOUTH
GEORGIA
SANDWICH
GROUP*
30°
20°
10°
0°



Sheet 9

6

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

OCTOBER

PREVAILING SEAS, SWELLS AND CALMS

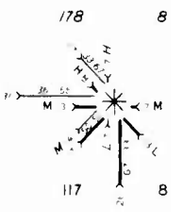
The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.



For example—The attached rose should be read as follows.

Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms: 14 percent were from the southwest and predominately medium: 31 percent were from the west, of which 55 percent were low and 36 percent were medium: 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium: 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms, 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium: 8 percent were from the northwest and predominately high.

ISOKYMATIC LINES

Isokymatic lines, lines of equal percentage of high seas are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

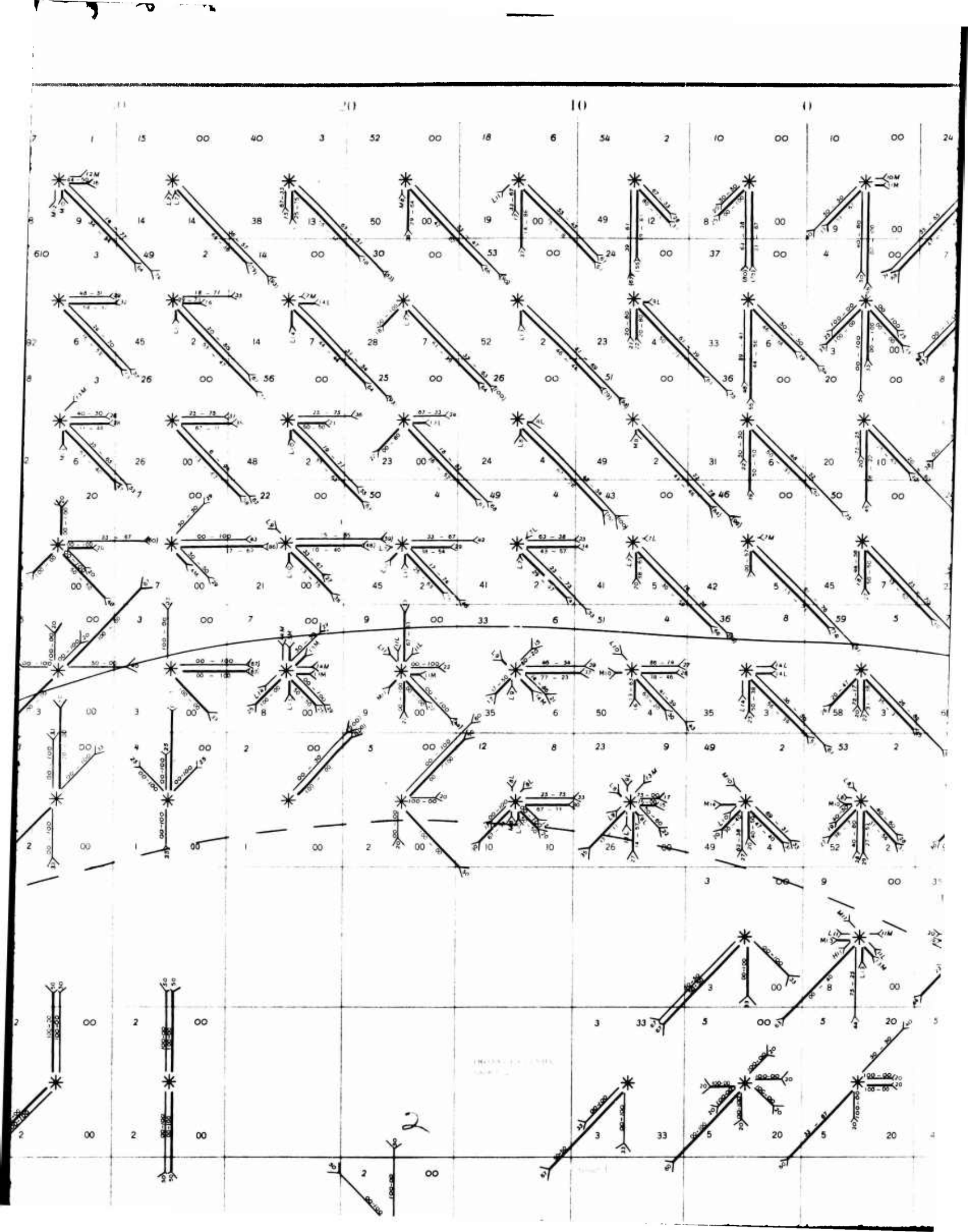
NOTE

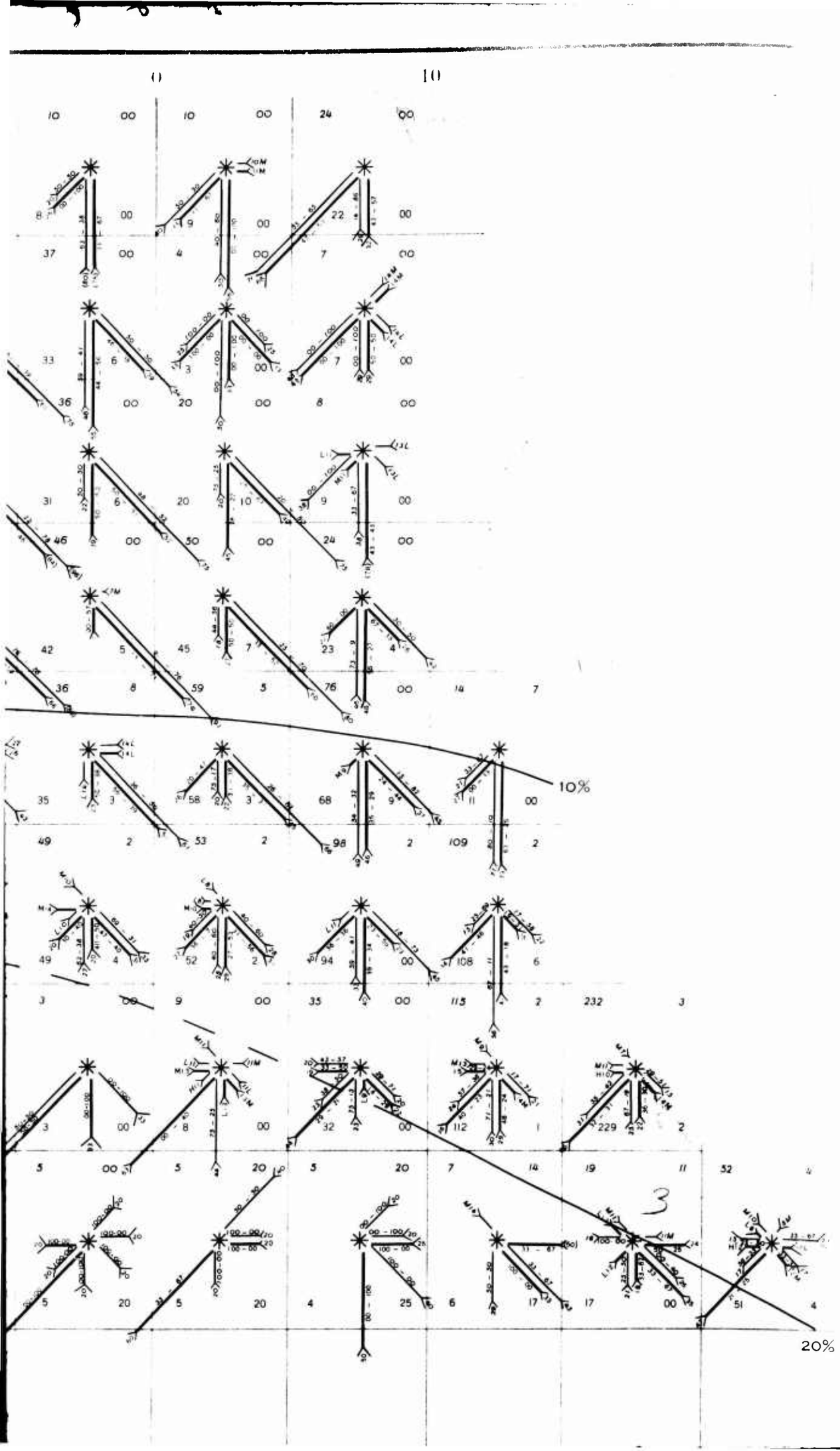
HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and, the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds

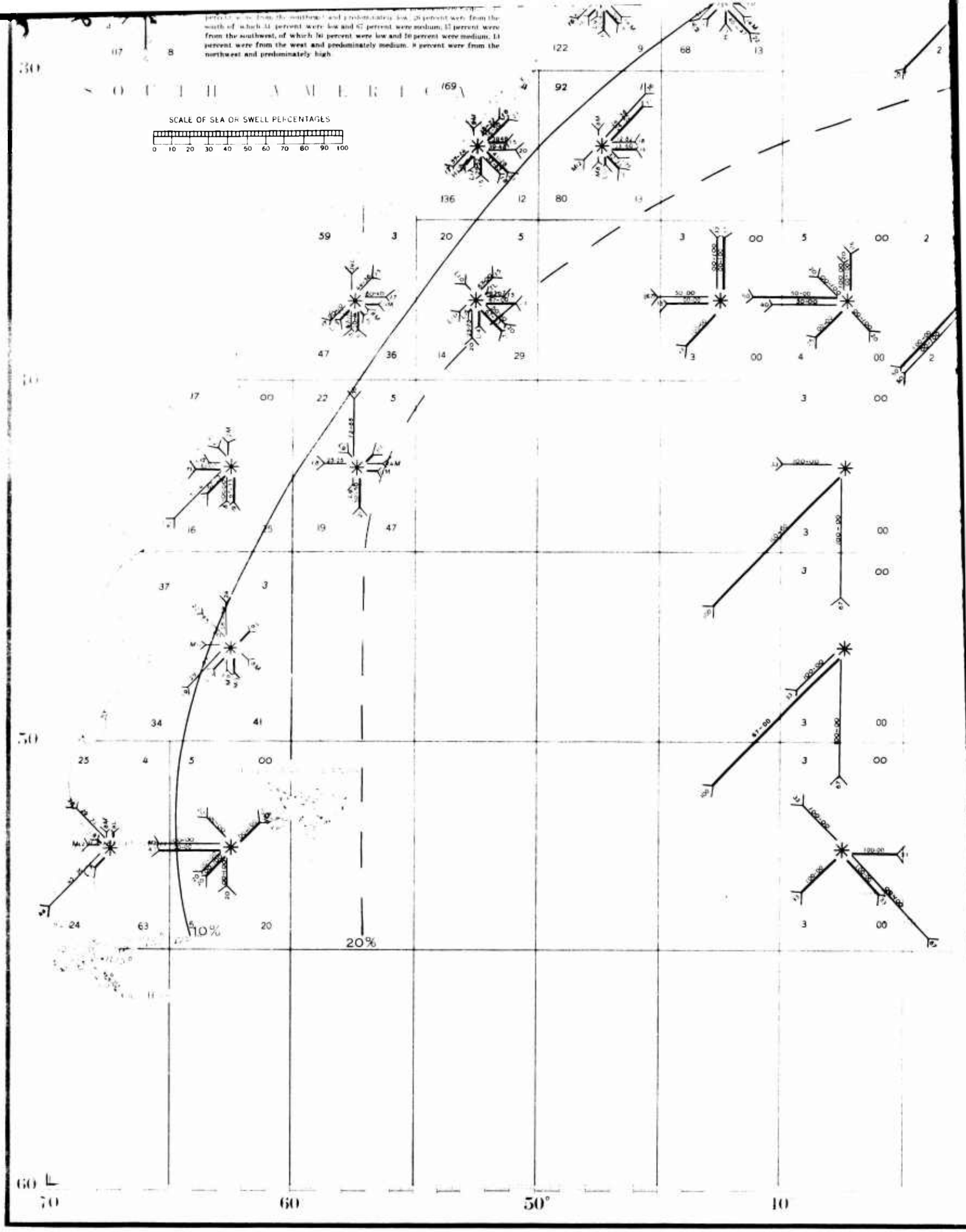
SCALE OF SEA OR SWELL PERCENTAGES

0 10 20 30 40 50 60 70 80 90 100

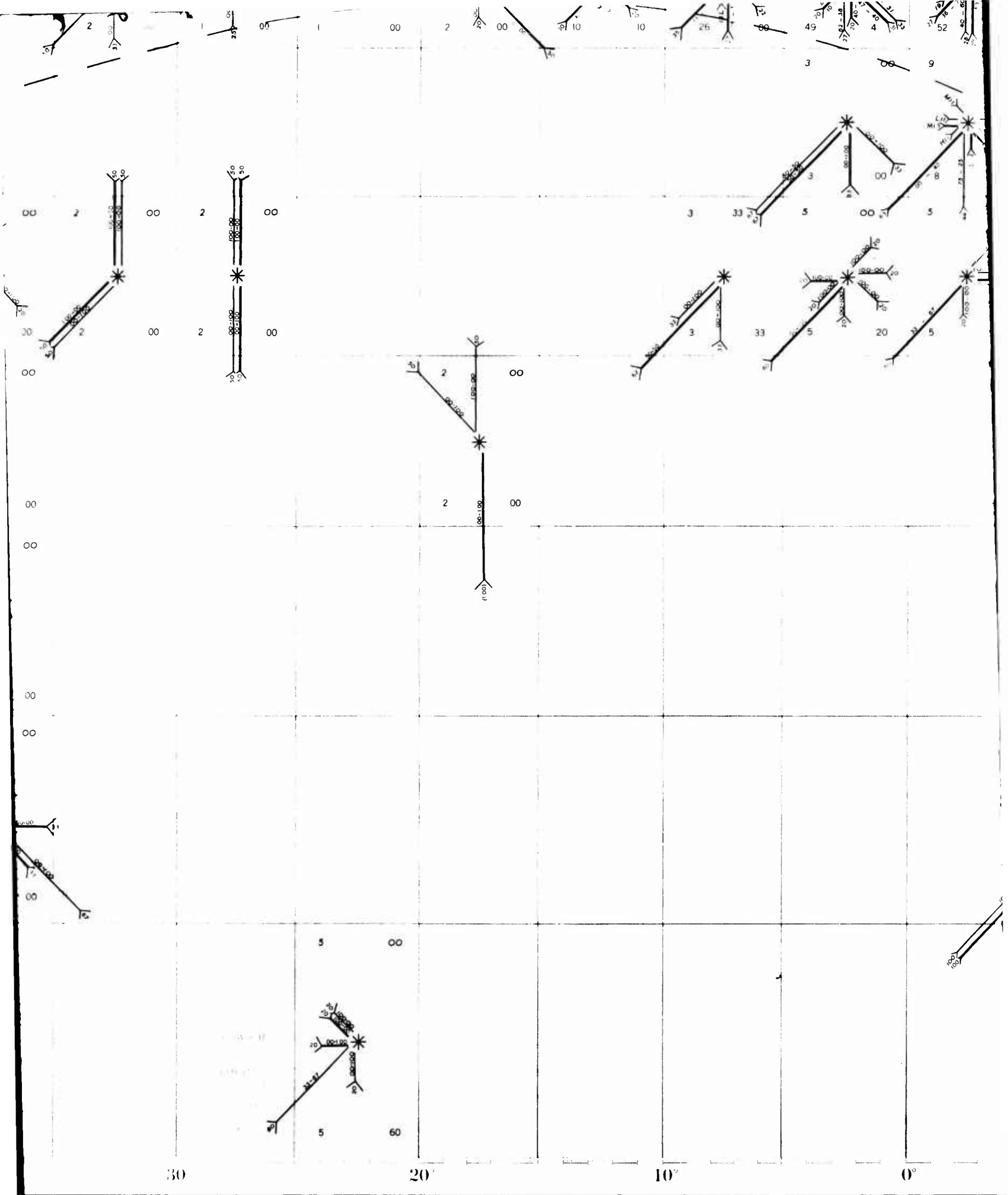
70 60 50 10 40 30 20

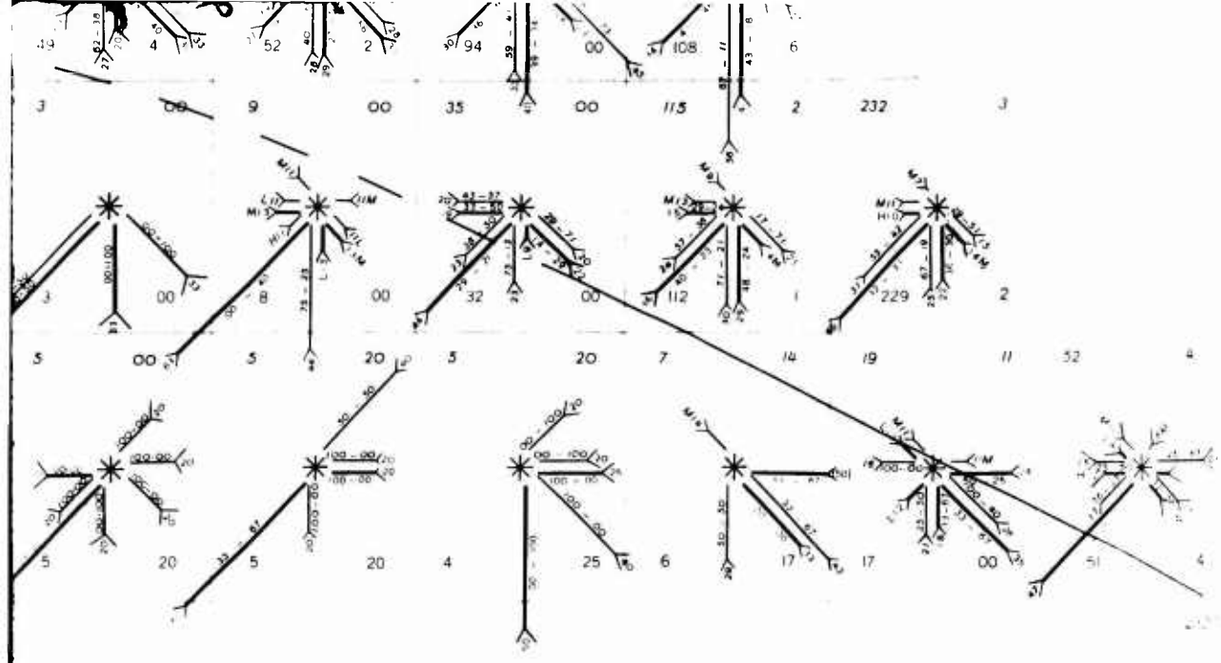


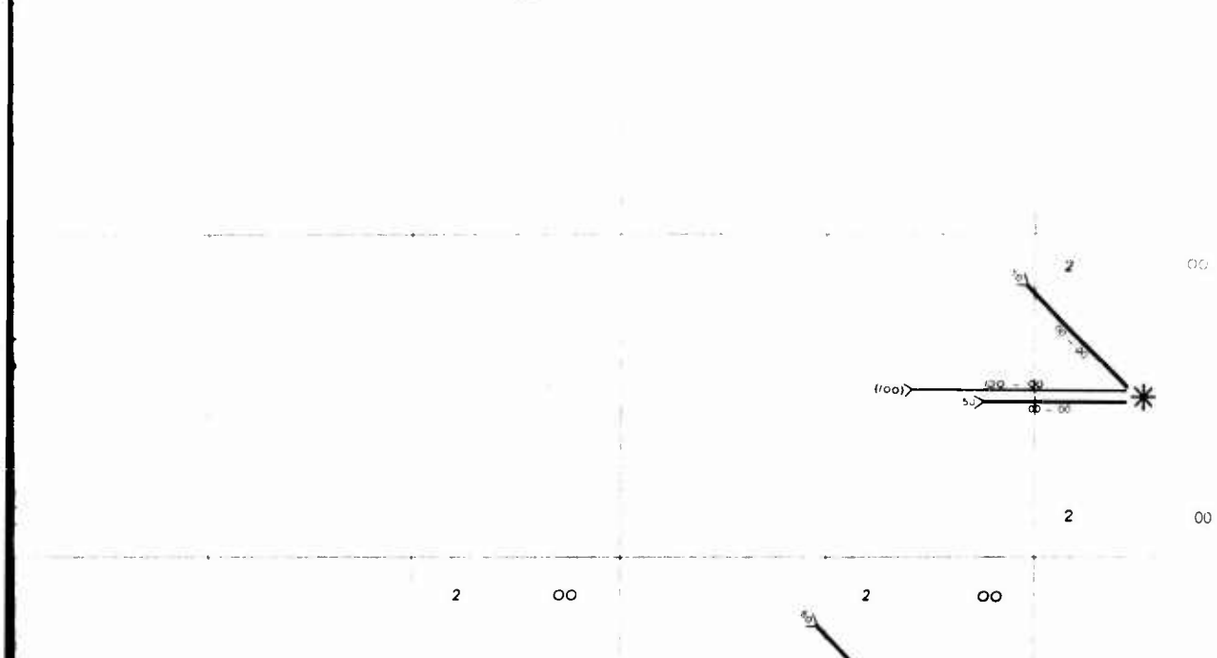

0
10
10%
20%

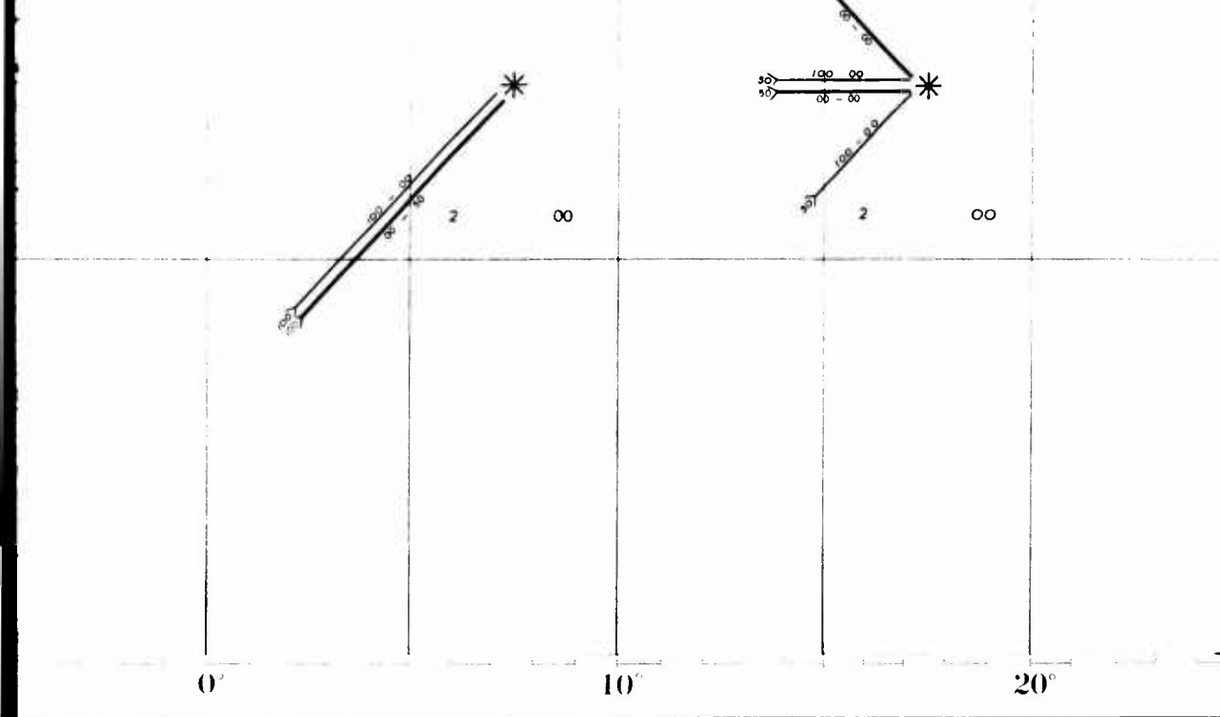

SCALE OF SEA OR SWELL PERCENTAGES
0 10 20 30 40 50 60 70 80 90 100
10%
20%
30
50
60
70
60
50°
10

10 10 4


30
20°
10°
0°






0°
10°
20°
60°

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

NOVEMBER

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE.

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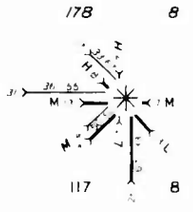
The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

The number of observations for sea is shown in the upper left hand corner of the area and the percent of calms for those observations in the upper right hand corner. The number of observations for swell is shown in the lower left hand corner of the area and the percent of calms for those observations in the lower right hand corner.



For example—The attached rose should be read as follows:

Sea calculations (light line arrow) were based on 178 observations of which 8 percent were calms. 14 percent were from the southwest and predominately medium. 31 percent were from the west, of which 55 percent were low and 36 percent were medium; 17 percent were from the northwest, of which 67 percent were low and 33 percent were medium; 7 percent were from the north and predominately high.

Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium. 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

ISOKYMATIC LINES

Isokymatic lines, (lines of equal percentage of high sea) are shown for each 10 percent of frequency in magenta on this chart. Where the lines are dashed the information is incomplete but sufficient to give an indication of the position of the line, and where no lines appear no information is available.

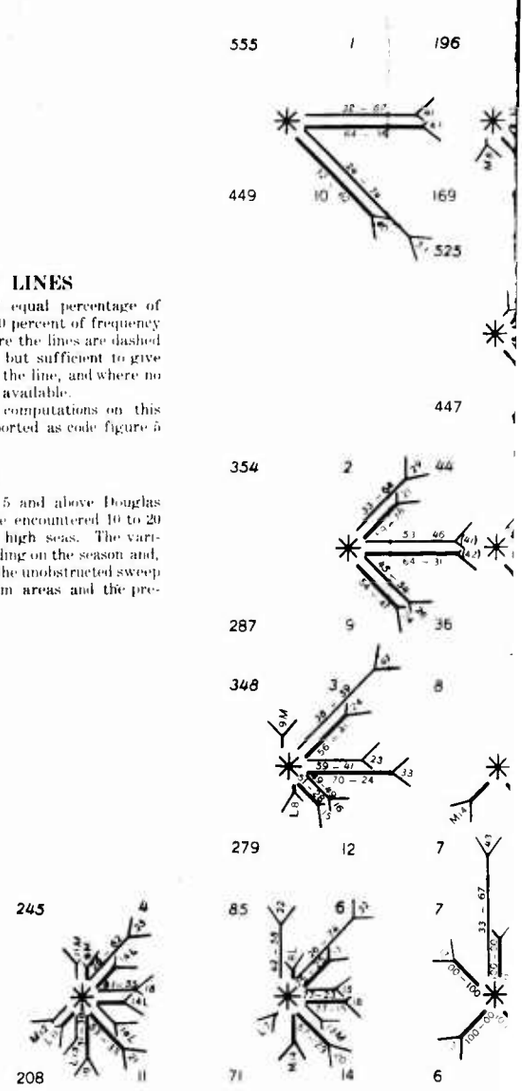
HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

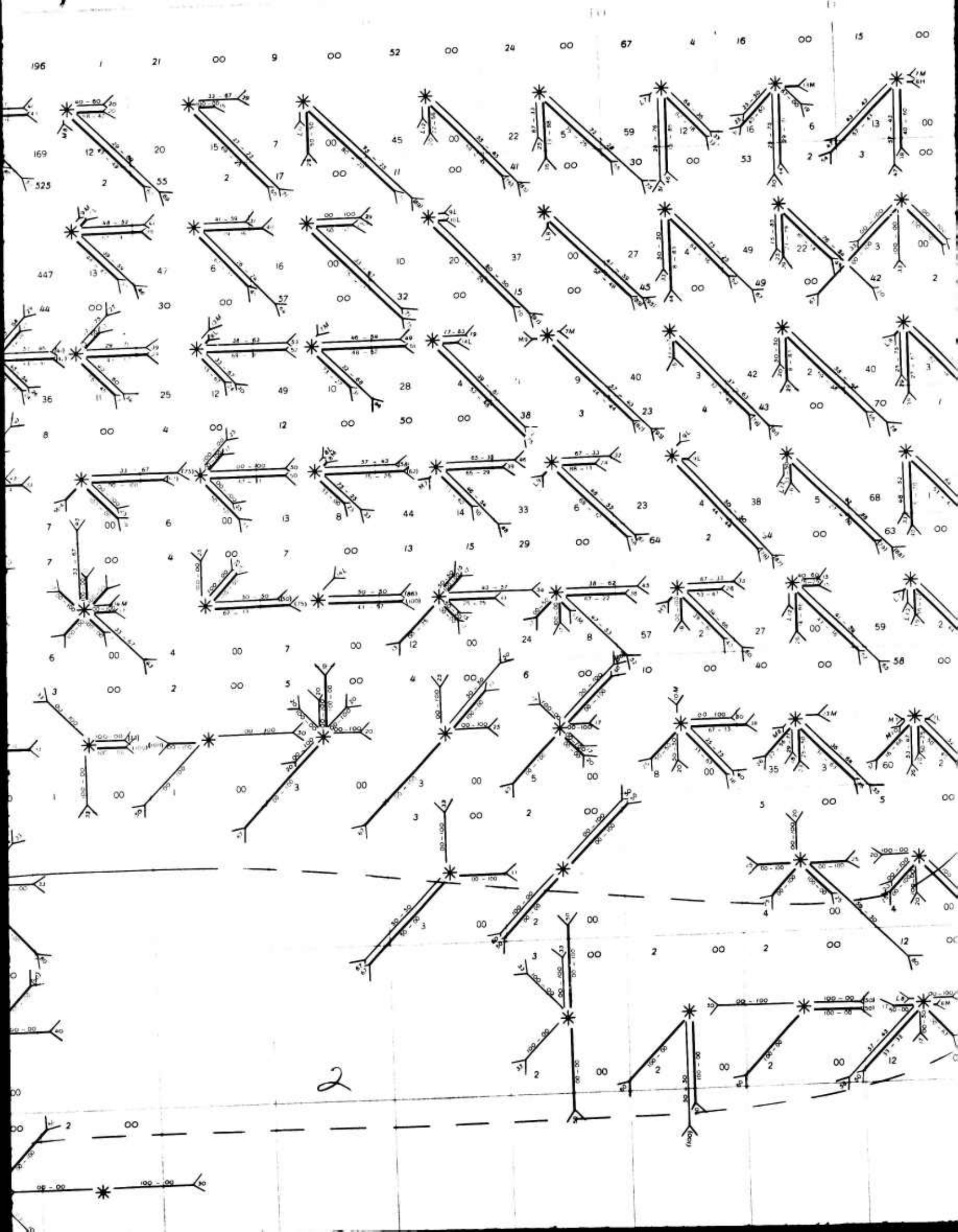
NOTE

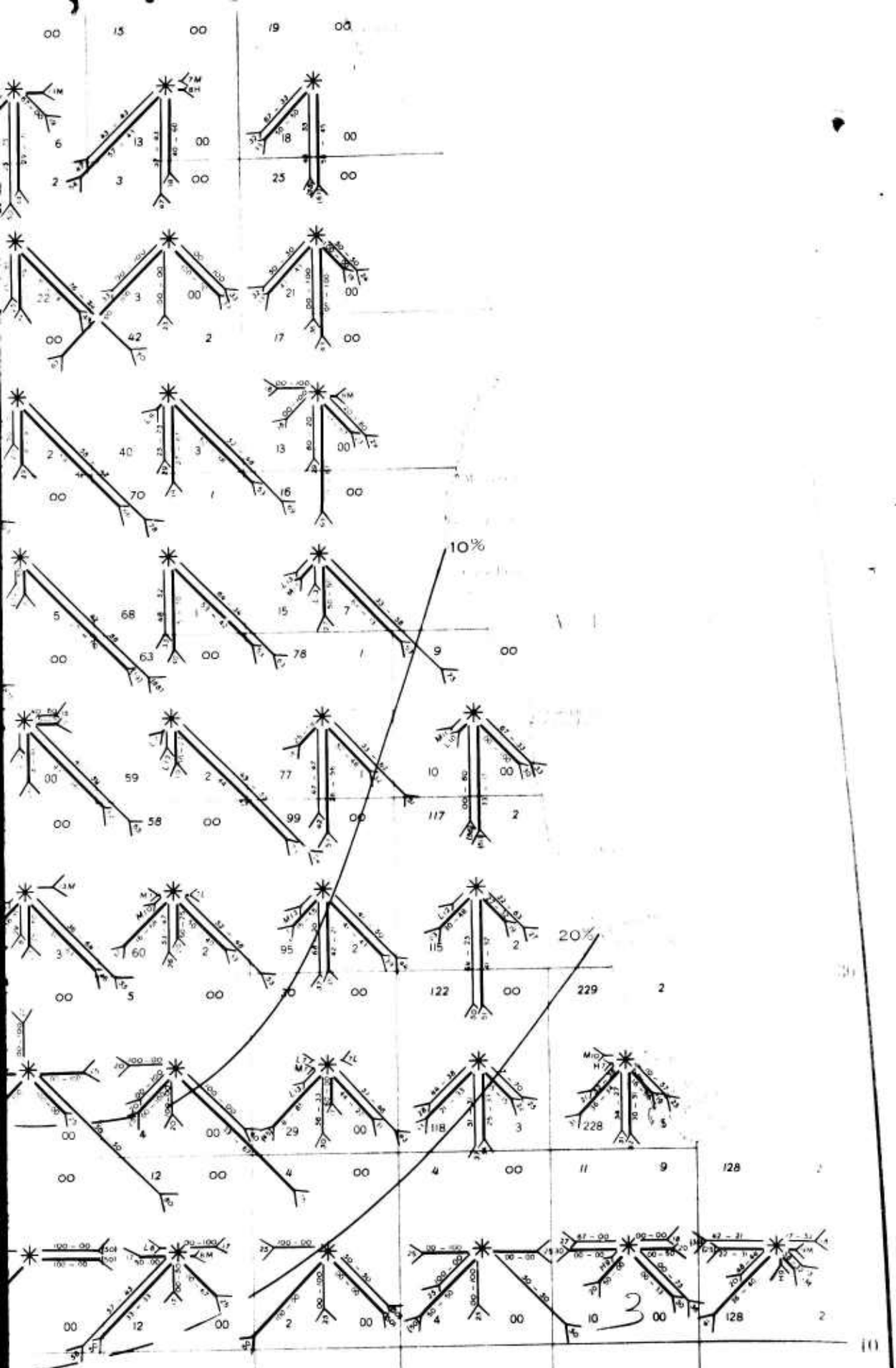
HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and, the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds.

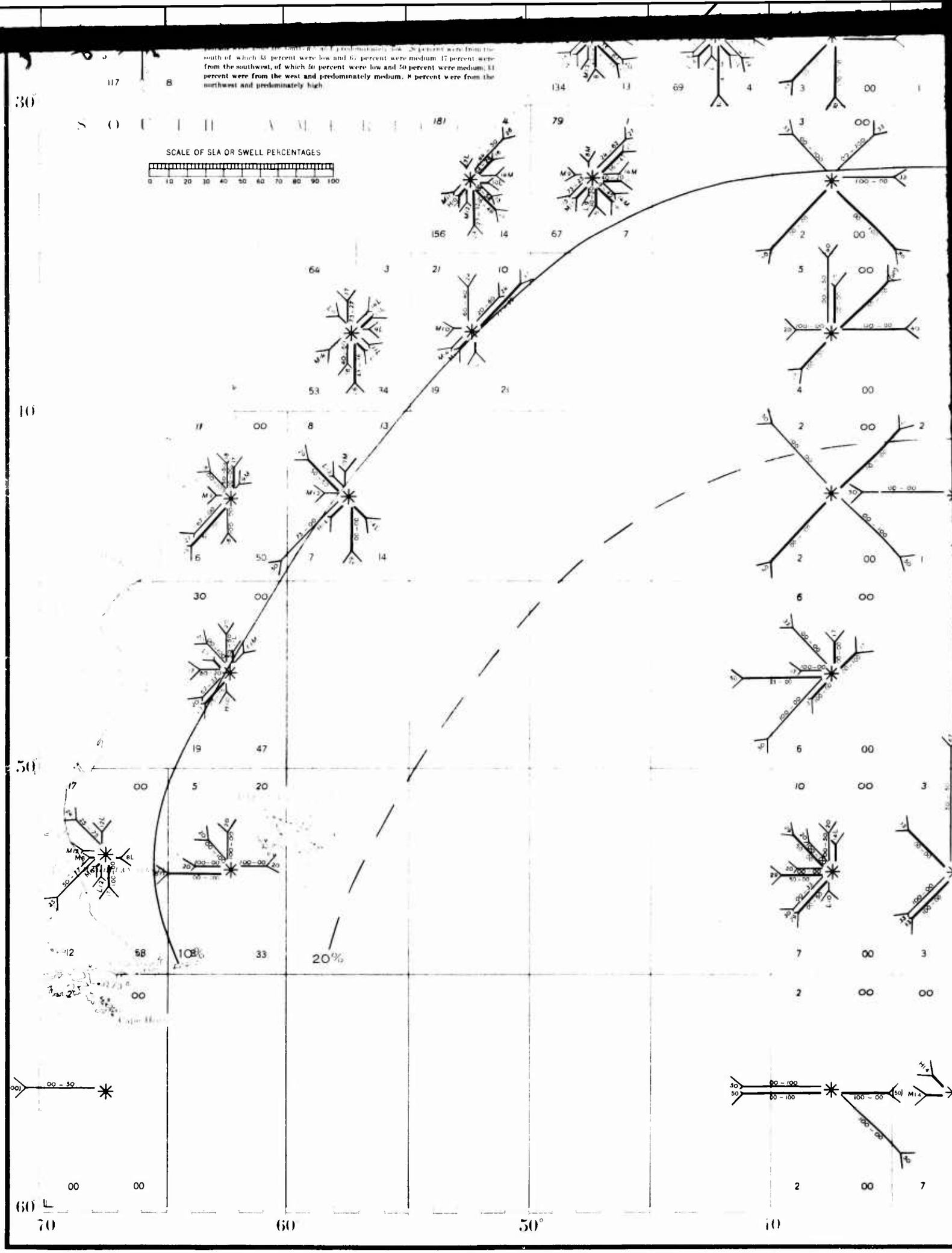
SCALE OF SEA OR SWELL PERCENTAGES

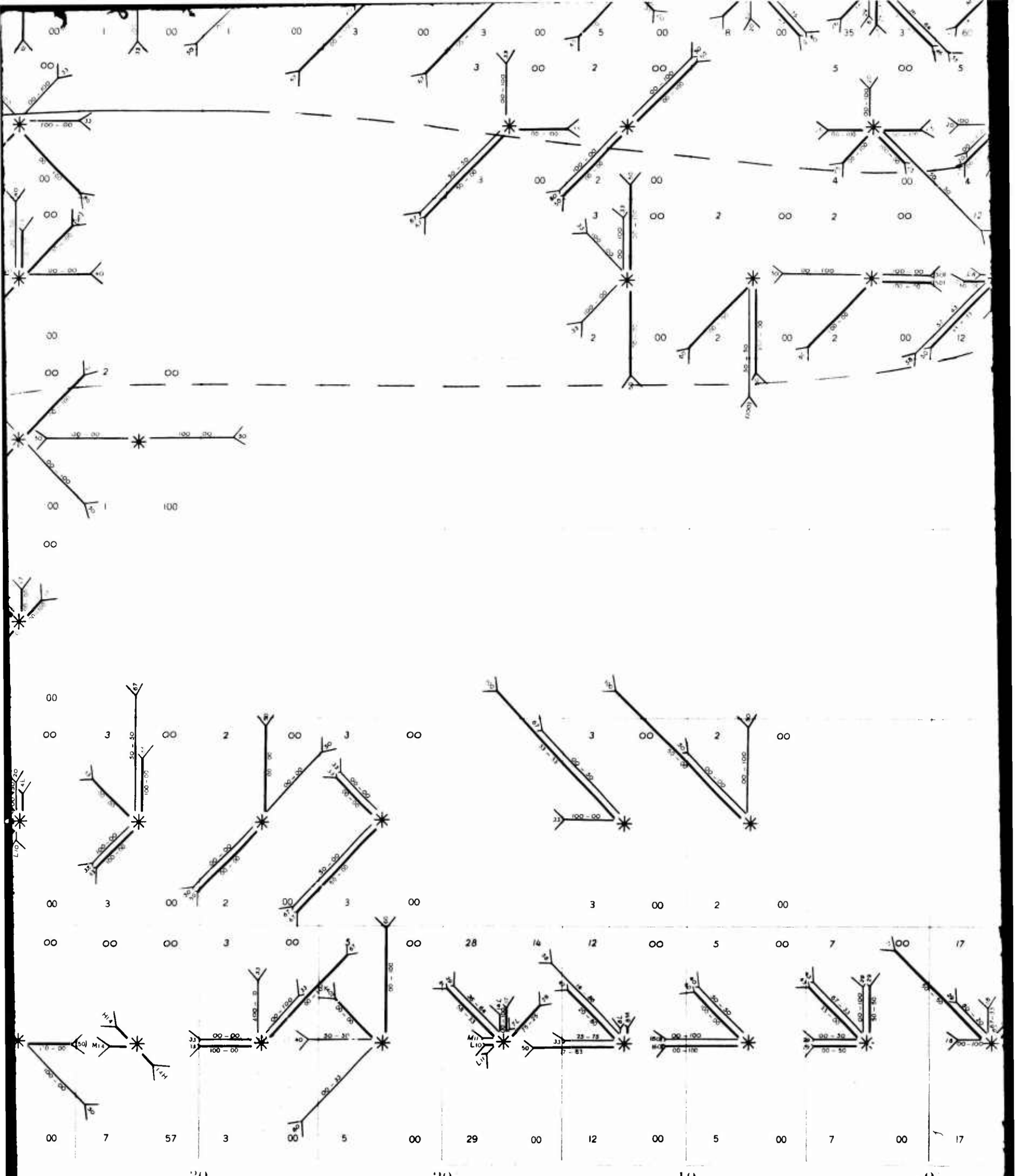
0 10 20 30 40 50 60 70 80 90 100



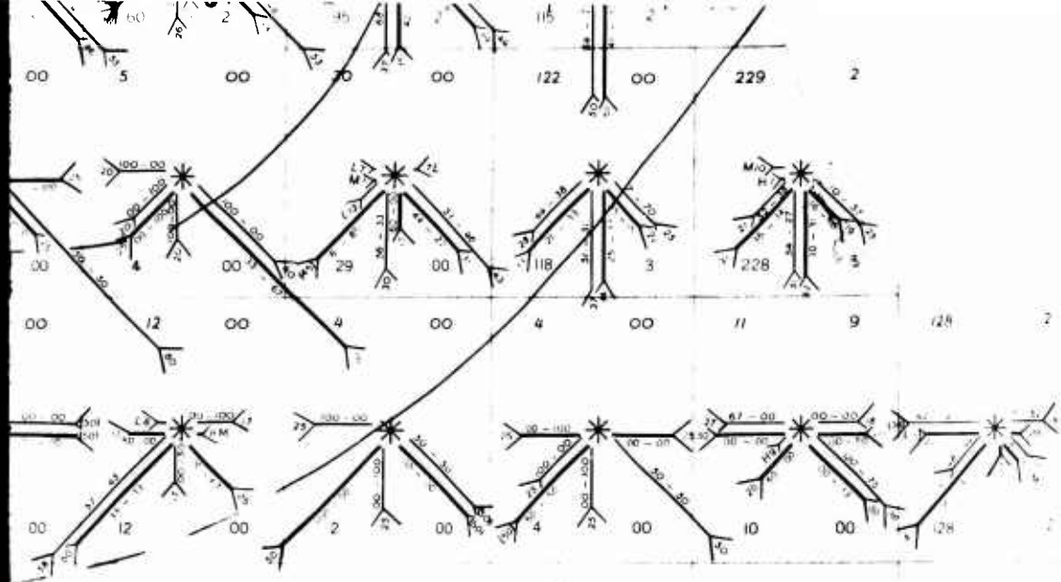


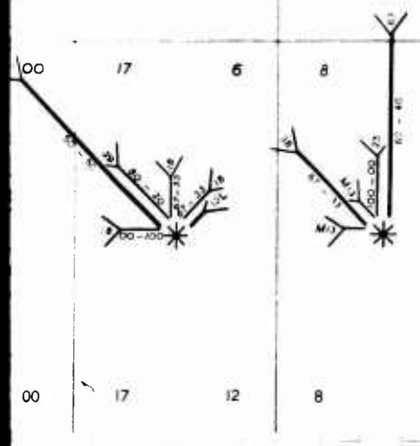

10%
20%


SCALE OF SEA OR SWELL PERCENTAGES
0 10 20 30 40 50 60 70 80 90 100
30
10
50
60 E
70
60
50°
40
20%



30 20 10 0





0 10° 20° 60°

Sheet 11

6

SOUTH ATLANTIC OCEAN

SEA AND SWELL CHART

DECEMBER

PREVAILING SEAS, SWELLS AND CALMS

The information shown on this chart has been compiled from observations made during the month by the cooperating observers of the Hydrographic Office to and including the year 1942, the majority of the observations having been taken during the years 1932 to 1940 inclusive. The Hydrographic Office has shown all information in its files, however slight, and in some areas where the number of observations is small the graphical presentation will convey a false impression unless examined thoroughly. In evaluating the reliability of the information for any given area consider the number of observations, the geographical position, the percentages of direction and the adjacent roses. THE COMPUTATIONS FOR SEA AND SWELL WERE MADE SEPARATELY AND ALTHOUGH THE CONDITIONS FOR BOTH ARE SHOWN ON THE SAME CHART FOR THE CONVENIENCE OF THE USER, IT SHOULD BE UNDERSTOOD THAT THE DIRECTION OF SEA AND SWELL AS WELL AS THE CONDITIONS UNDER THOSE DIRECTIONS WILL NOT NECESSARILY BE IDENTICAL AT ANY GIVEN TIME OR PLACE

METHOD OF PRESENTATION

The purpose of this chart is to show both graphically and with figures, by means of an eight point double rose, printed in black, the character of the seas and swells that have prevailed within the areas outlined on the brown base. THE SEA CONDITIONS ARE REPRESENTED BY THE LIGHT LINE ARROWS AND SLANTING TYPE, WHILE THE SWELL CONDITIONS ARE REPRESENTED BY THE HEAVY LINE ARROWS AND VERTICAL TYPE. No arrow is shown when the percent of direction is less than 7. In instances where the number of observations in any direction is 15 or over but the percent of direction is less than 7, the conditions within that direction may be shown in the usual manner without the arrow. The arrows point in the directions toward which the seas or swells move. The length of the arrow measured from the center mark, when placed on the attached scale and the numeral at the tail of the arrow, gives the number of times in each 100 observations that the seas or swells have been moving from or near the given point. In instances where the full length of the arrow cannot be shown, the shaft is shortened as much as necessary and the true percent at the tail of the arrow is placed in parenthesis.

When the percent of direction is 15 or over, the conditions within the direction are shown along the shaft of the arrow in percentage of low and medium seas or swells, the first figure from the center is always the percent of low. The percent of high seas or swells within the direction is the remainder of the percentage. When the percent of direction is less than 15 but more than 6, the conditions within the direction are shown by the letter L, M, or H (meaning predominately low, medium or high) beside the percentage figures for direction. The conditions of seas and swells (low, medium and high) within each direction, are defined as follows: low seas or swells, those of amounts 1 and 2; medium seas or swells, those of amounts 3 and 4; high seas or swells, those of amounts 5 and above.

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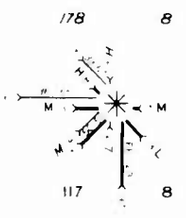

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Swell calculations (heavy line arrow) were based on 117 observations of which 8 percent were calms; 7 percent were from the east and predominately medium; 13 percent were from the southeast and predominately low; 26 percent were from the south of which 33 percent were low and 67 percent were medium; 17 percent were from the southwest, of which 50 percent were low and 50 percent were medium; 13 percent were from the west and predominately medium; 8 percent were from the northwest and predominately high.

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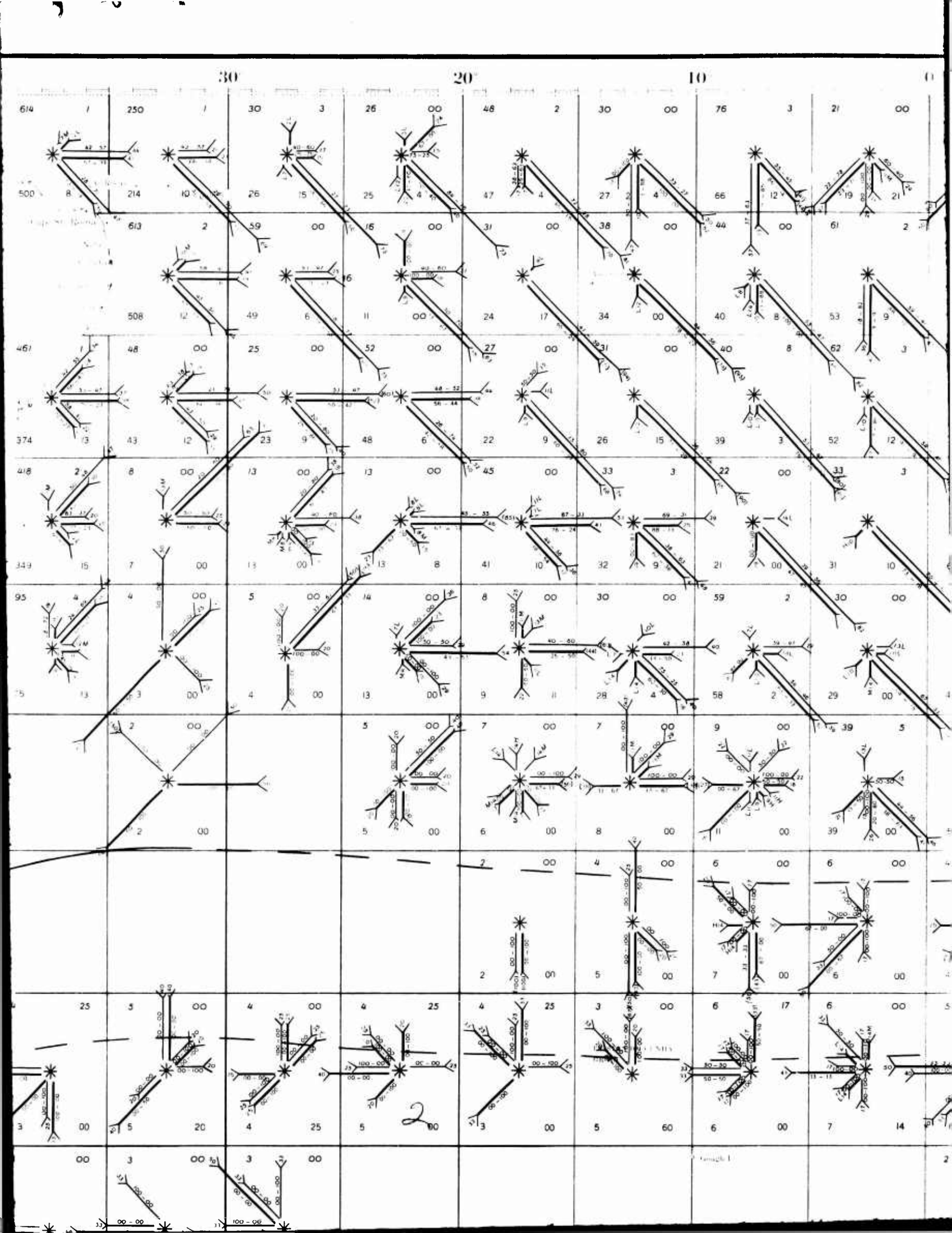
HIGH SEA in making the computations on this chart are defined as those reported as code figure 5 and above (over 7 feet).

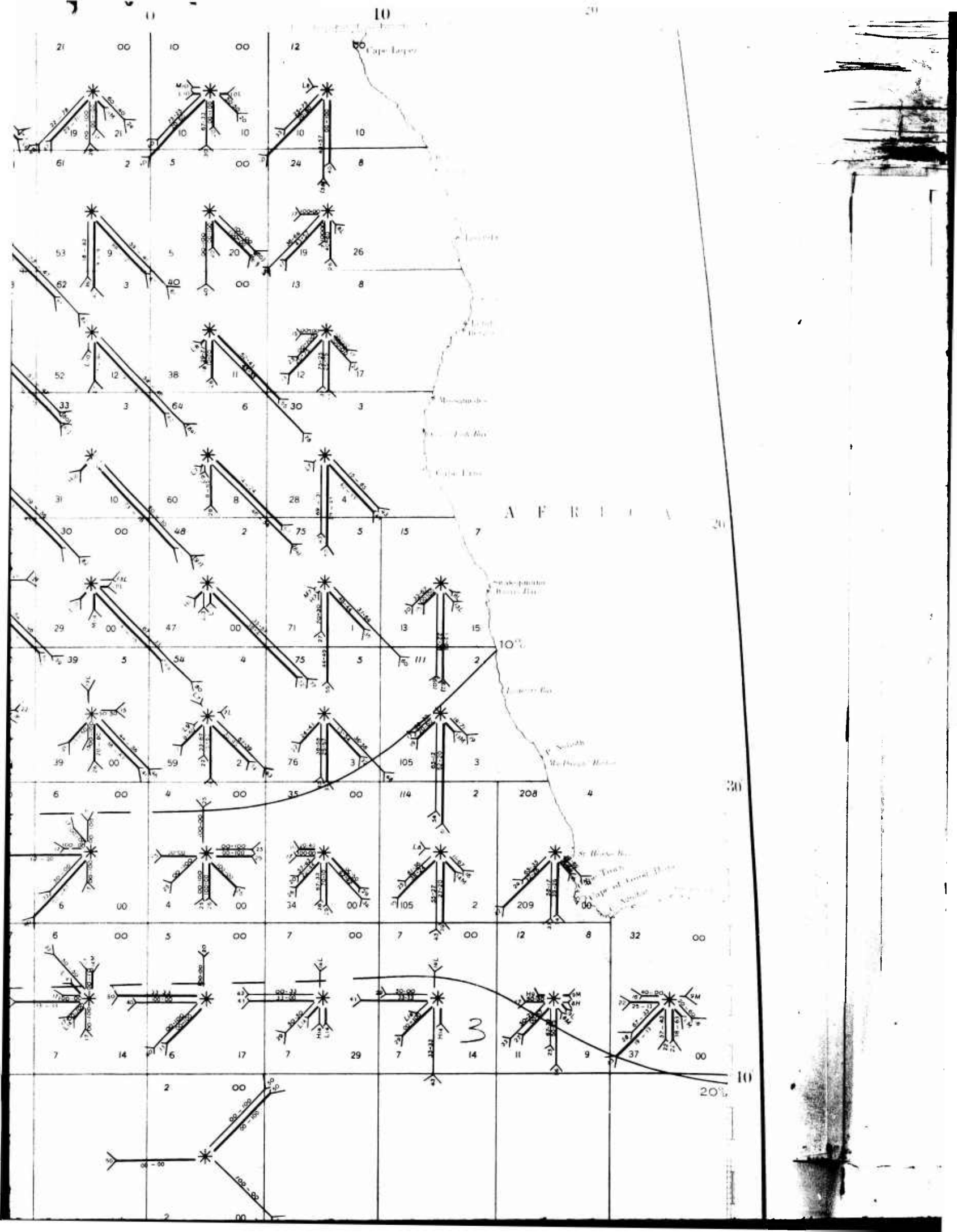
NOTE

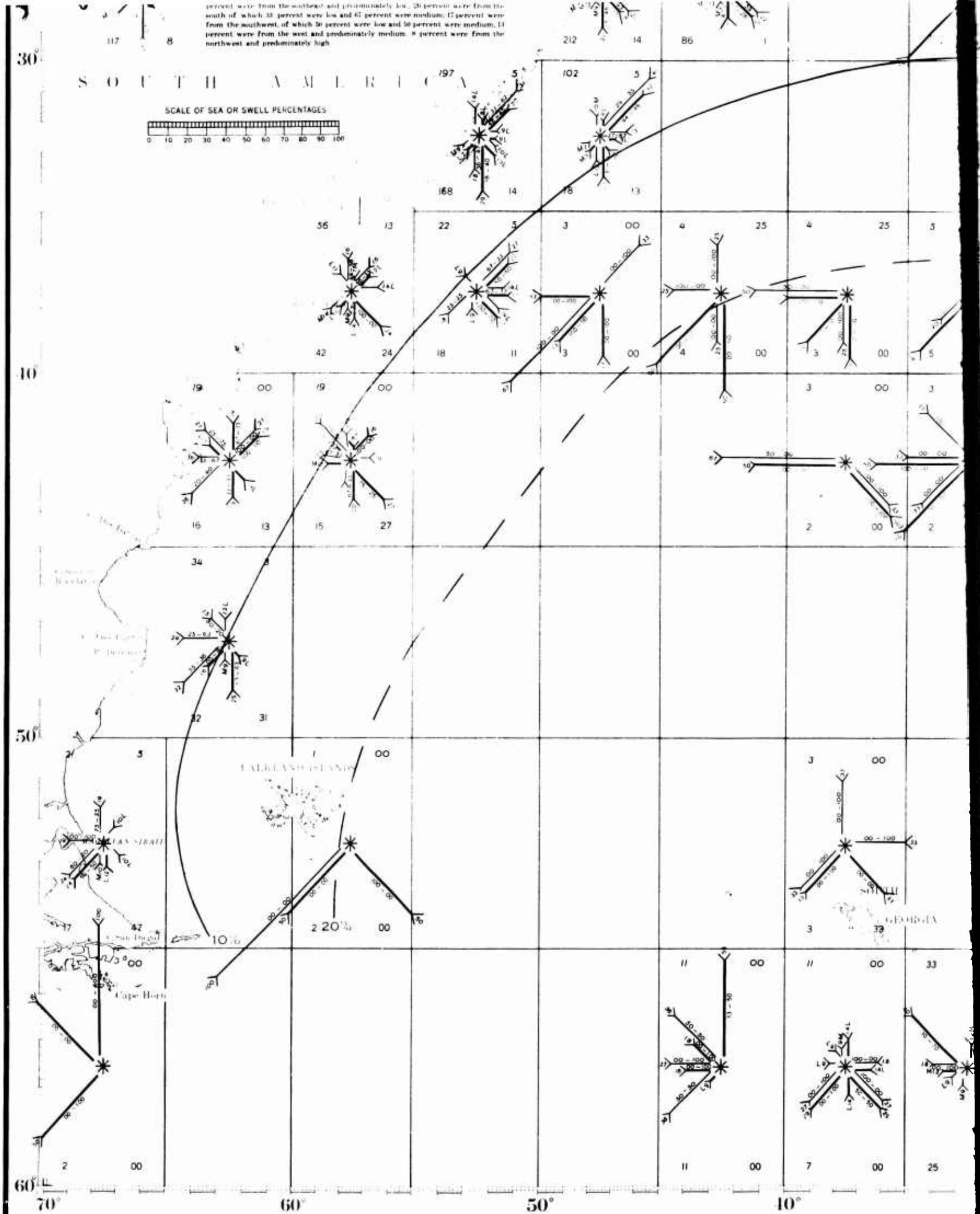
HIGH SWELL (code figure 5 and above Douglas Scale) will as a general rule be encountered 10 to 20 percent more frequently than high seas. The variation of 10 to 20 percent depending on the season and the location in regards to both the unobstructed sweep from the more prevalent storm areas and the prevailing winds.

SCALE OF SEA OR SWELL PERCENTAGES

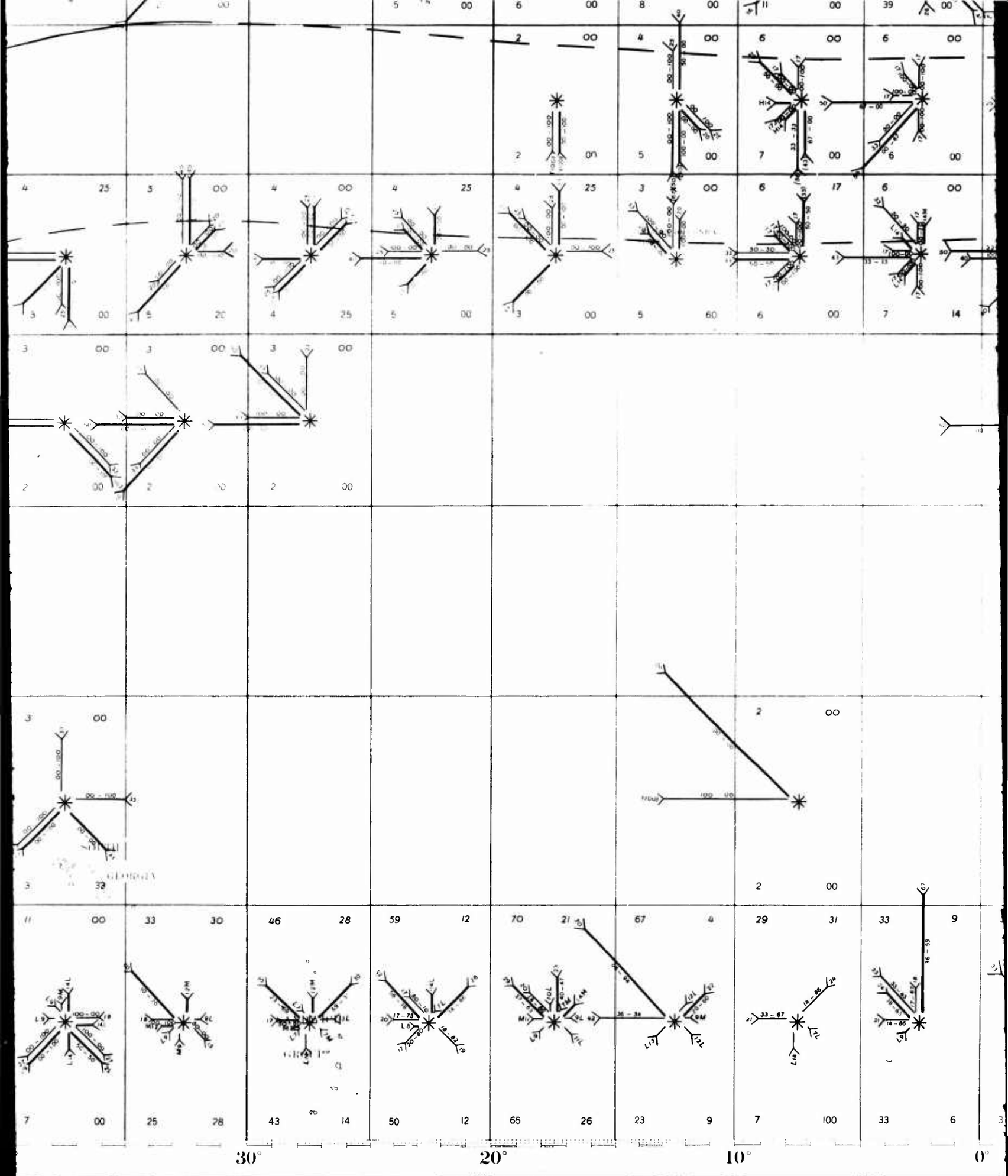
0 10 20 30 40 50 60 70 80 90 100

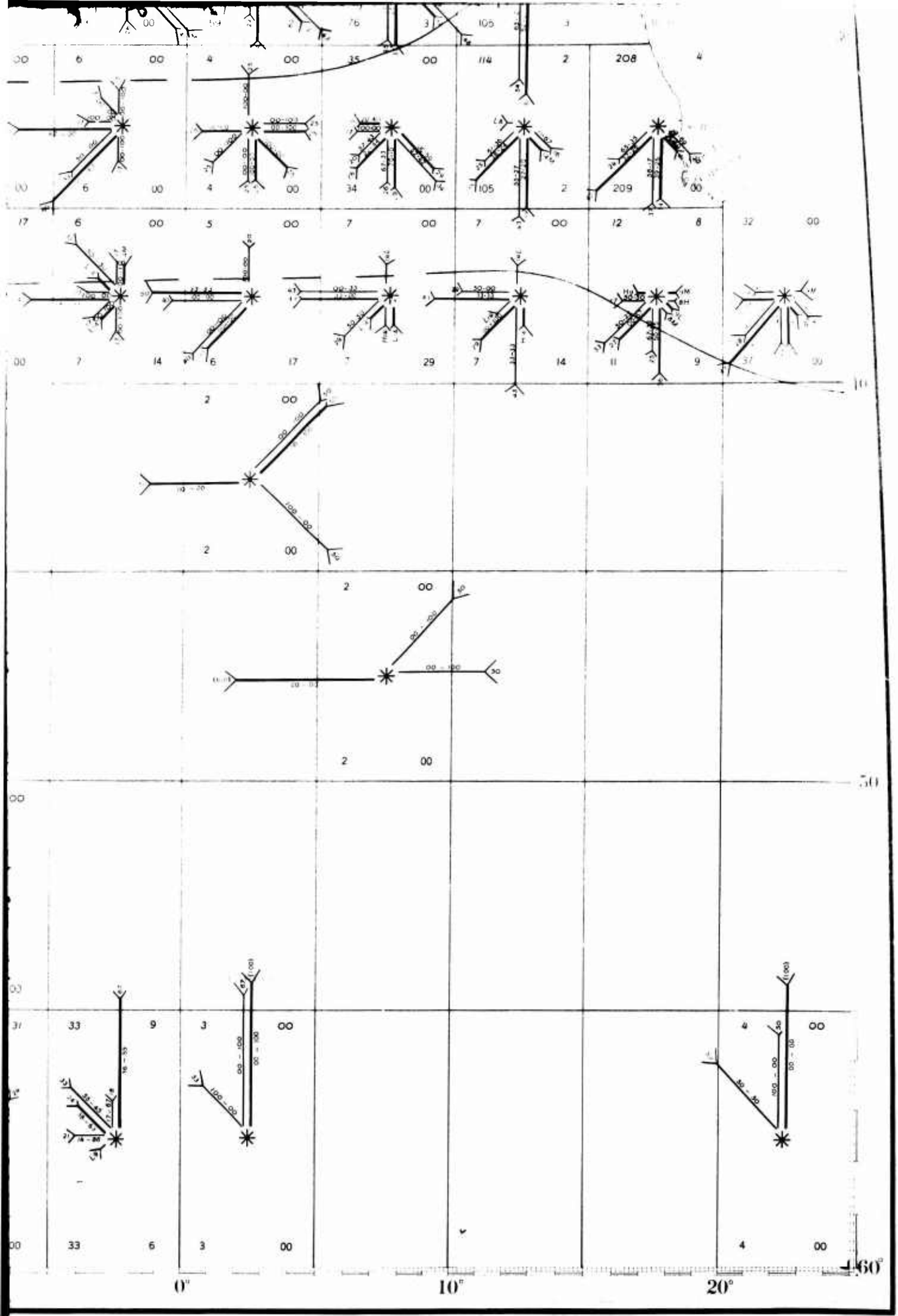

30
20
10
0


10
20
Cape Lopez
A F R I C A
10°
20°
30
3


SOUTH AMERICA
SCALE OF SEA OR SWELL PERCENTAGES
0 10 20 30 40 50 60 70 80 90 100
30°
40°
50°
60°
70°
60°
50°
40°
Cape Horn
GEORGIA

12 12 4


30°
20°
10°
0°



Sheet 12

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