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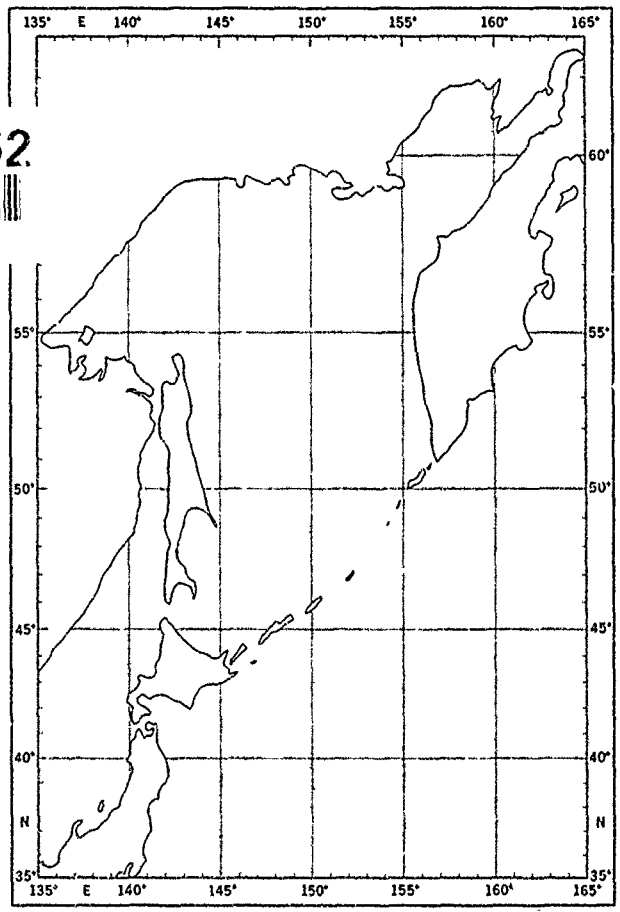
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U.S. NAVY REGIONAL CLIMATIC STUDY OF THE SEA OF OKHOTSK AND ADJACENT WATERS

SEPTEMBER, 1991

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PREPARED BY
NAVAL OCEANOGRAPHY COMMAND DETACHMENT
ASHEVILLE, NC

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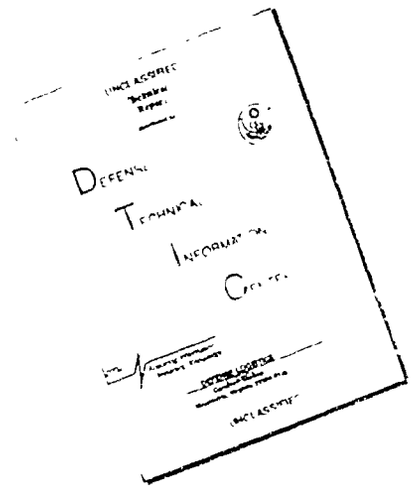
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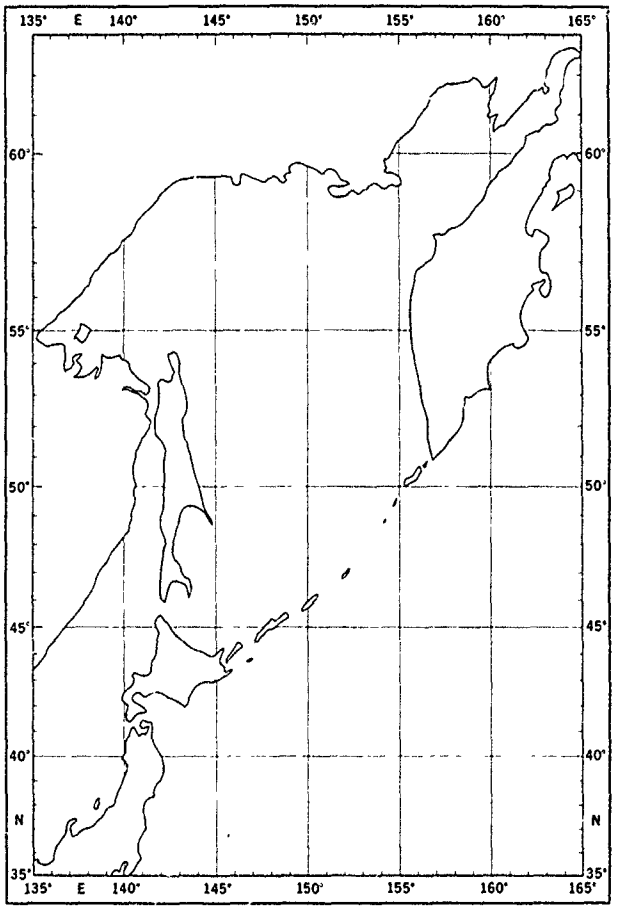
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SEPTEMBER, 1991



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13. ABSTRACT *(Maximum 200 words)*

This climatic study of marine environment consists of monthly charts and tables of (1) clouds, (2) precipitation, (3) visibility tables, (4) ceiling-visibility (mid-range/low range), (5) wind-visibility-cloudiness, (6) scalar mean wind speed, (7) wind speed less than 11 and greater or equal to 34 knots, (8) wind speed 11-21 and 22-33 knots, (9) surface wind roses, (10) air and sea temperature, (11) wave height-isopleths, (12) wave height-tables, (13 surface currents.

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TABLE OF CONTENTS

PAGE

Introduction iv

References xii

Element Index 1

Monthly Elements ..... 2 - 217

Station Climatic Summaries ..... 218 - 227

FIGURES:

Figure 1. Bathymetry and geographical coverage v

Figure 2. Topographic chart vi

Figure 3. Mean sea-level pressure for July and January vii

Figure 4. Prevailing surface currents for summer and winter viii

Figure 5. Monthly means of air temperature and precipitation ix

Figure 6. Annual 12 hourly movements of tropical cyclone centers with tropical storm intensity or greater x

U.S. Navy Regional Climatic Study of the Sea of Okhotsk and Adjacent Waters

The U.S. Navy Regional Climatic Study of the Sea of Okhotsk and Adjacent Waters was prepared by the Officer in Charge, Naval Oceanography Command Detachment, Asheville, North Carolina, under authority of Commander, Naval Oceanography Command. The work was performed at the National Climatic Data Center (NCDC). Specific acknowledgement of the NCDC staff is made to Mr. J.D. Elms, project leader; Messrs C.N. Williams, Jr., R.G. Baldwin and Ms. P.L. Franks for data processing and digital graphics; Mr. C.W. Thomason for quality control and data analysis; Mr. M.J. Changery for technical review; Messrs M.L. Nicodemus and W.O. Brown for processing the station climatic summaries and Messrs M.G. Burgin, S.J. Miller, and D.A. McKittrick for their drafting skills.

Geographical and Data Coverage

This marine study covers the Northwest Pacific from 35°N to 63°N; 135°E to 165°E encompassing the entire Sea of Okhotsk, the eastern Sea of Japan, and the Pacific waters just east of Northeastern Japan, the Kuril Islands and the Kamchatka Peninsula. The southwest geographical limits of this study area adjoin the northeastern corner of the U.S. Navy Regional Climatic Study of the Central East Asian Coast and Associated Waters (0°-45°N; 105°E-140°E).

The data came mostly from the observations collected by ships of opportunity of many different nations. Figure 1 outlines the summary area and provides some general bathymetry information.

Surface marine observation statistics are presented on monthly charts in the form of graphs, tables, and isopleth maps. The marine data were summarized and machine plotted by one-degree quadrangle for the isopleth analyses. The graphs and tables for the marine areas are also presented by two-degree quadrangle for visibility, wave heights, wind roses, and ocean currents. The geographical area for the roses and tables is divided into two regions, as outlined in Figure 1. These roses and tables represent the objective compilation of available ship data; the data were not adjusted for suspected biases (low observation count, heavy weighting of observations during relatively short time intervals, biases in coding, etc.), and differences may be found when comparing the graphical data with isopleth analyses. The total number of observations for a given two-degree quadrangle should always be considered when interpreting the data as there may be an insufficient number to permit representative statistics.

Approximately four and one-half million surface marine observations were used in computing the statistics. These data were collected by ships of various registry traveling in the area. Many of the ship's observations are presently transmitted over the Global Telecommunication System, captured and archived. However, many are digitized from ship log forms by various participating members of the World Meteorological Organization, and exchanged under international agreement among the various maritime nations of the world. Data for this study date from 1854 to 1988. Most of the observations have been collected in the past 40 years which is significant because recent observations contain more elements than pre-1948 reports. The density of observations is greatest along major shipping routes which, in this area, are along the east coast of Japan and the Kuril Islands. The heaviest traffic lies to the south of the study area along the major shipping routes between Japan and its trading partners.

The mean sea current charts were derived from available ship's "set and drift" measurements that had been forwarded to the Naval Oceanographic Office from ships of various registry. The data were summarized to give the primary and secondary current directions and mean speeds.

Physical Features

The study area is bordered in most directions by rugged terrain with a number of mountain ranges bordering the coastal regions. Elevations generally range between two and five thousand feet. Reference figure 2 for a generalized topographic view of the study area.

The Sikote Alin Range extends from just north of Vladivostok along the Sea of Japan to the northern end of the Tatar Strait which connects the Sea of Japan to the Gulf of Sakhalin in the Sea of Okhotsk. The Amur River reaches the sea near this junction and thus lower elevations are found in association with the river basin valley. Because of its orientation, winds are basically bi-directionally either north-northeast or south-southwest. However, without this physical channeling the wind direction would remain primarily the same because of the monsoonal effects.

Along the western edge of the Sea of Okhotsk lies the Dzhugdzhur Mountain Range which lies orthogonal to the Sutar Khayota Range along the northwest boundary of the Sea of Okhotsk. Parallelling the Shebikhov Gulf, at the extreme northern end of the Sea of

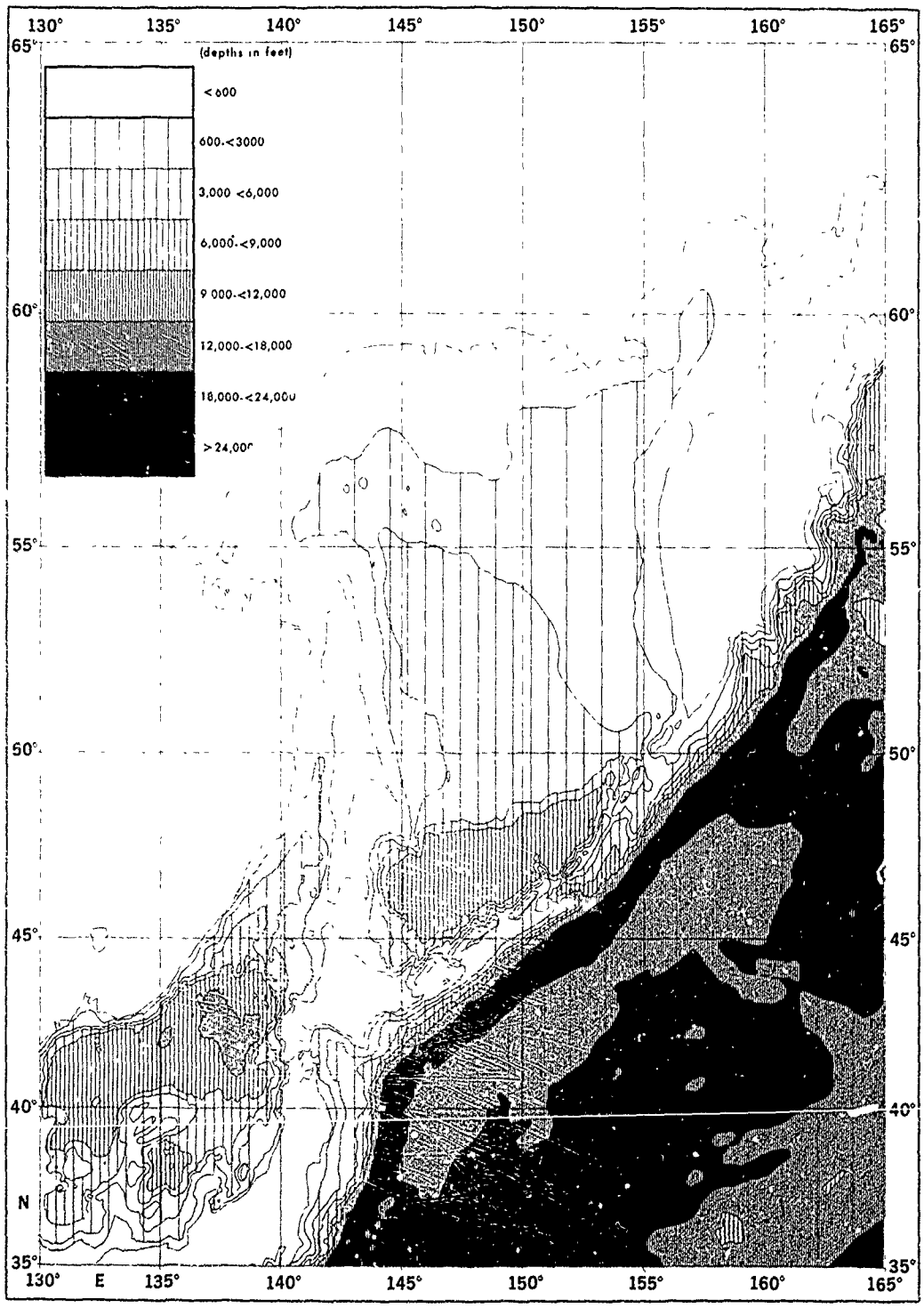


Figure 1. Bathymetry and geographical coverage.

Okhotsk, are the Iyma Mountain Range on the west and the Central Range on the east, which extends down most of the Kamchatka Peninsula. Lower ridge lines are also located at the northern end of the Shebikhov Gulf perpendicular to the Iyma and Central Mountains; thereby, somewhat blocking the entrance from the north to the Sea of Okhotsk.

The Japanese Islands located in the southwest section of the study area are also very mountainous. From northern Japan, the Kuril Islands extend northeastward to the Kamchatka Peninsula. Also, north of Japan lies Sakhlain Island which, along with the Asian mainland, forms the Tatar Strait.

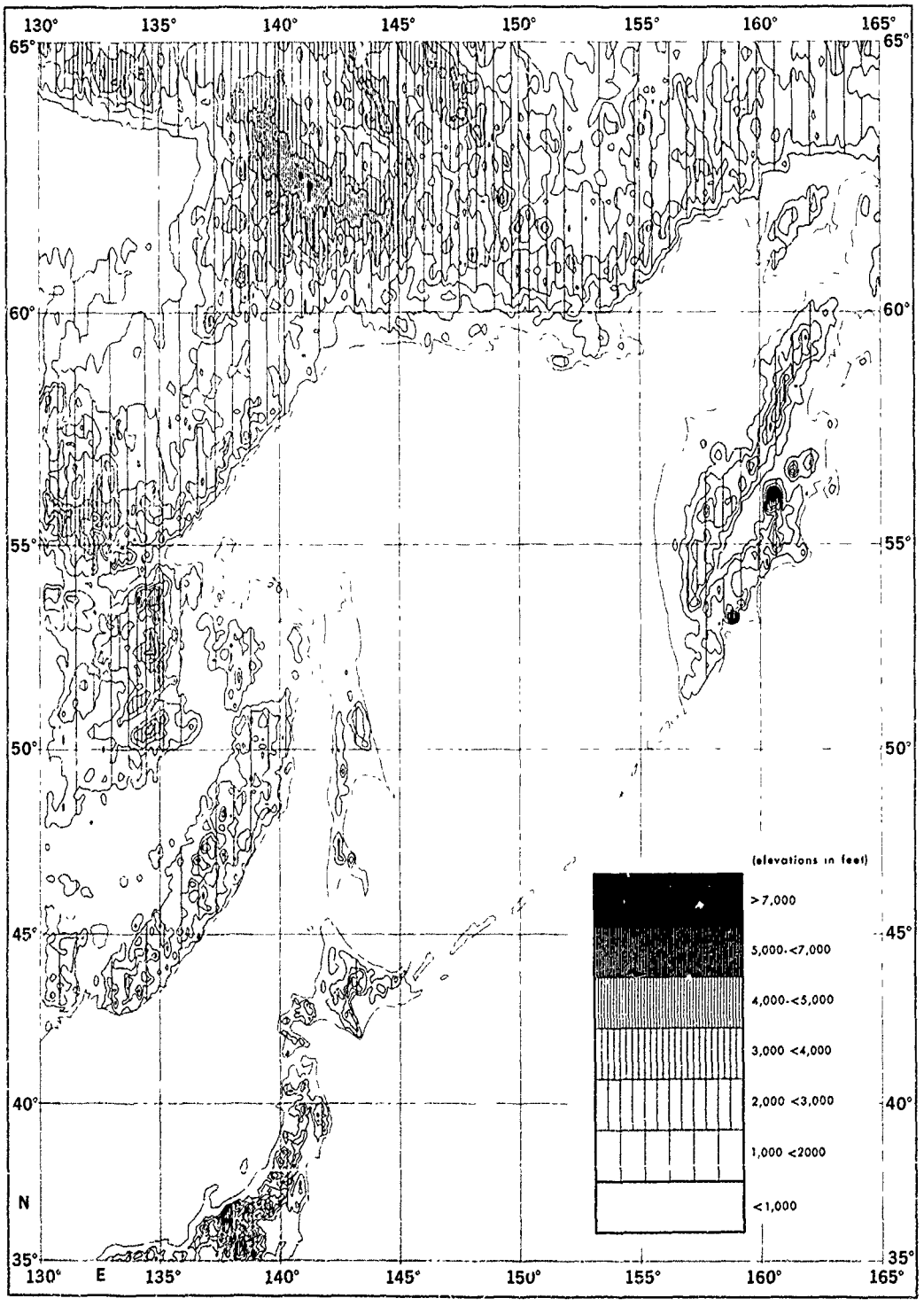


Figure 2. Topographic chart.

Based on recent geological history (the past 1000 years) numerous active volcanoes and earthquakes have occurred along the length of Japan, the Kuril Islands and the eastern Kamchatka Peninsula. West of this major fault line seismic activity within the study area is very rare.

The Kamchatka Peninsula and northern Siberia are basically tundra. Some tundra is also found along the Suntar Khayta Range with a narrow band extending as far west, but to the north of Lake Baykal. Most of the remaining region has a Gray-Brown Podzolic soil of medium fertility suitable for agriculture. However, the short growing season and the climate adversely affect agriculture efforts. Although the rainy season is in tandem with the growing season the heaviest precipitation occurs in late summer and fall at the peak of the harvest.

Climate

The climate is basically controlled by the Siberian High and the resulting monsoonal circulation. During winter, the Siberian High establishes an extremely strong pressure gradient over the study area bringing strong northerly winds. Resulting monthly mean wind speeds often exceed 20 knots.

This thermally induced high generally re-establishes itself by October reaching its peak strength during January and February. See Figure 3 for the mean pressure patterns for January and July over the region. The Siberian High remains the influencing factor until April or May, when the thermal low over southwest Asia develops and the prevailing winds over the study area shift from northerly to southerly. This transition is strongly reflected in the monthly wind roses presented in this study.

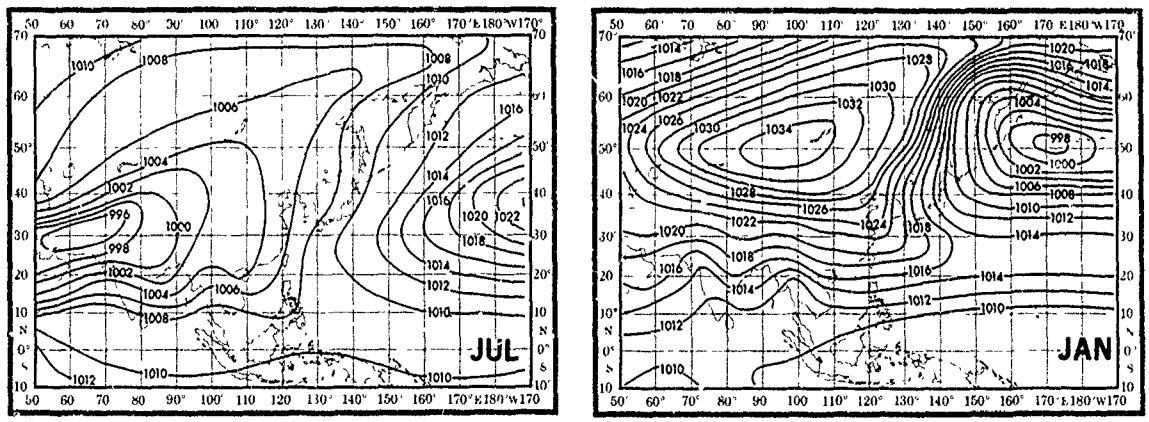


Figure 3. Mean sea-level pressure for July and January.

The prevailing surface current patterns are similar between winter and summer (see figure 4) even though significant shifts occur in the prevailing surface wind directions.

Even though a large portion of the Sea of Okhotsk is frozen over during the winter the air temperature remains considerably warmer over the sea than land, as some heat does manage to escape from the unfrozen water beneath the ice. This temperature difference produces an extremely strong temperature gradient all along the near coastal areas.

Transitory lows, during the winter season, primarily track across southern Japan and to the east of the Kamchatka Peninsula into the vicinity of the Aleutian Low. A principal area of cyclogenesis is also located just to the east of the largest Japanese island (Honshu).

Summer brings predominantly southerly winds with monthly average speeds of 10 to 12 knots. Precipitation amounts also increase from the wintertime minimums where many locations average only an inch or less per month. Higher monthly averages are found along the west coast of Japan and on the east side of the Kamchatka Peninsula. By June many areas are averaging 2 to 3 inches a month and from July through September many locations average 3 to 6 inches per month. For an example of annual temperature and precipitation cycles for a few select stations see figure 5.

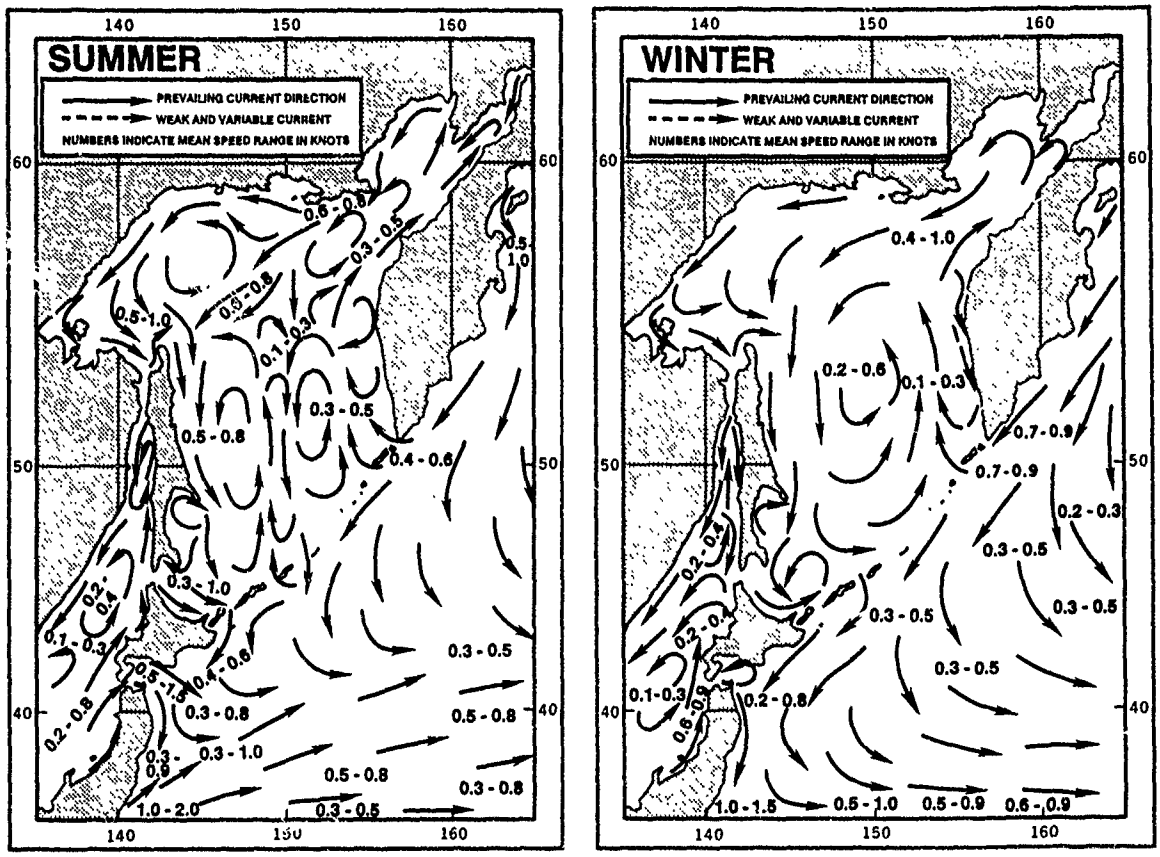


Figure 4. Prevailing surface currents for summer and winter.

Typically, ice covers most of the Sea of Okhotsk between February and April. In the coldest of years the ice limit extends as far south as Northern Japan and the Kuril Islands. In general, the ice has cleared by July and will not return until mid-December. The contours for the various elements were terminated at the mean ice limit as any analysis beyond this point would be based on ship reports collected during warmer than normal periods and thus biasing the averages towards these periods.

Tropical cyclones occur frequently across the western Pacific during the summer and fall. Although most of the activity lies to the south of the study area, a significant number do affect Japan, but nearly all recurve before reaching the southernmost fringes of the Sea of Okhotsk. Figure 6 presents the preferred 12 hourly movements of tropical cyclone centers with wind speeds of 34 knots or greater.

Marine Climatological Elements

Precipitation

Of the elements recorded in the marine data base, precipitation is the one most subject to error in both the way it is observed and the way it is interpreted. For example, it is often inferred in the literature that ships often try to avoid foul weather and thereby bias the data towards fair weather with fewer precipitation observations. Elms (1986) compared the Volunteer Observing Ship (VOS) observations to other sources of data such as Ocean Station Vessels (OSV) and buoys, finding little evidence that "fair weather bias" is a serious problem for most applications of marine climatic data. With the introduction in 1982 of a present weather indicator ('x) to the International Ship Synoptic Code FM13-VII, users have to be careful not to bias the data, especially that from between January 1982 and March 1985 when the indicator was inadvertently left out of the international data exchange format.

Assessing oceanic precipitation is always a major problem because transit ships are unable to take quantitative measurements. A number of studies have been conducted in an effort to predict precipitation amounts, or rates of fall based on estimates derived from the use of present weather observations from ships of opportunity (Goroch, et al., 1984) and readings from satellites (Rao, et al., 1976). For the monthly presentations

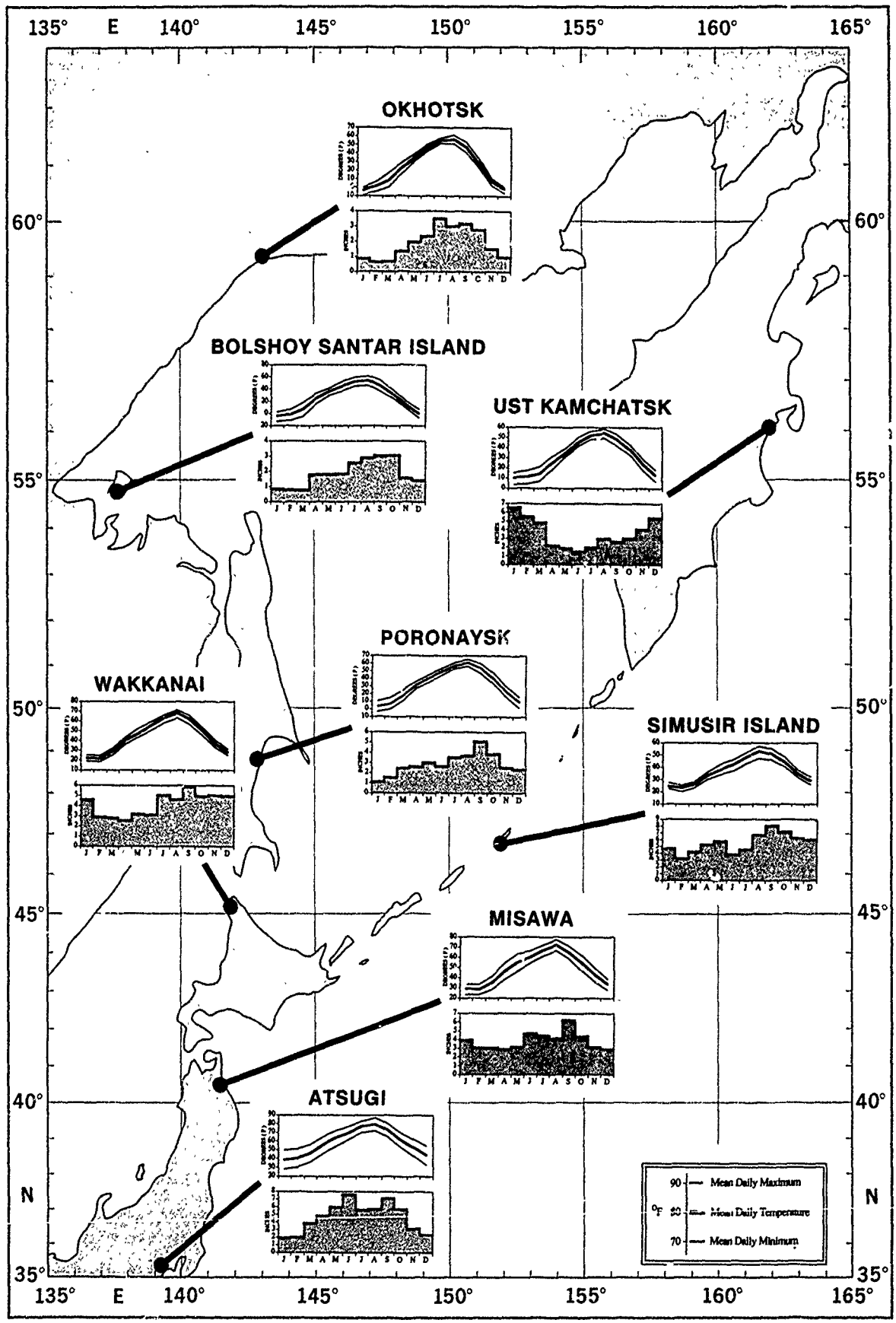


Figure 5. Monthly means of air temperature and precipitation.

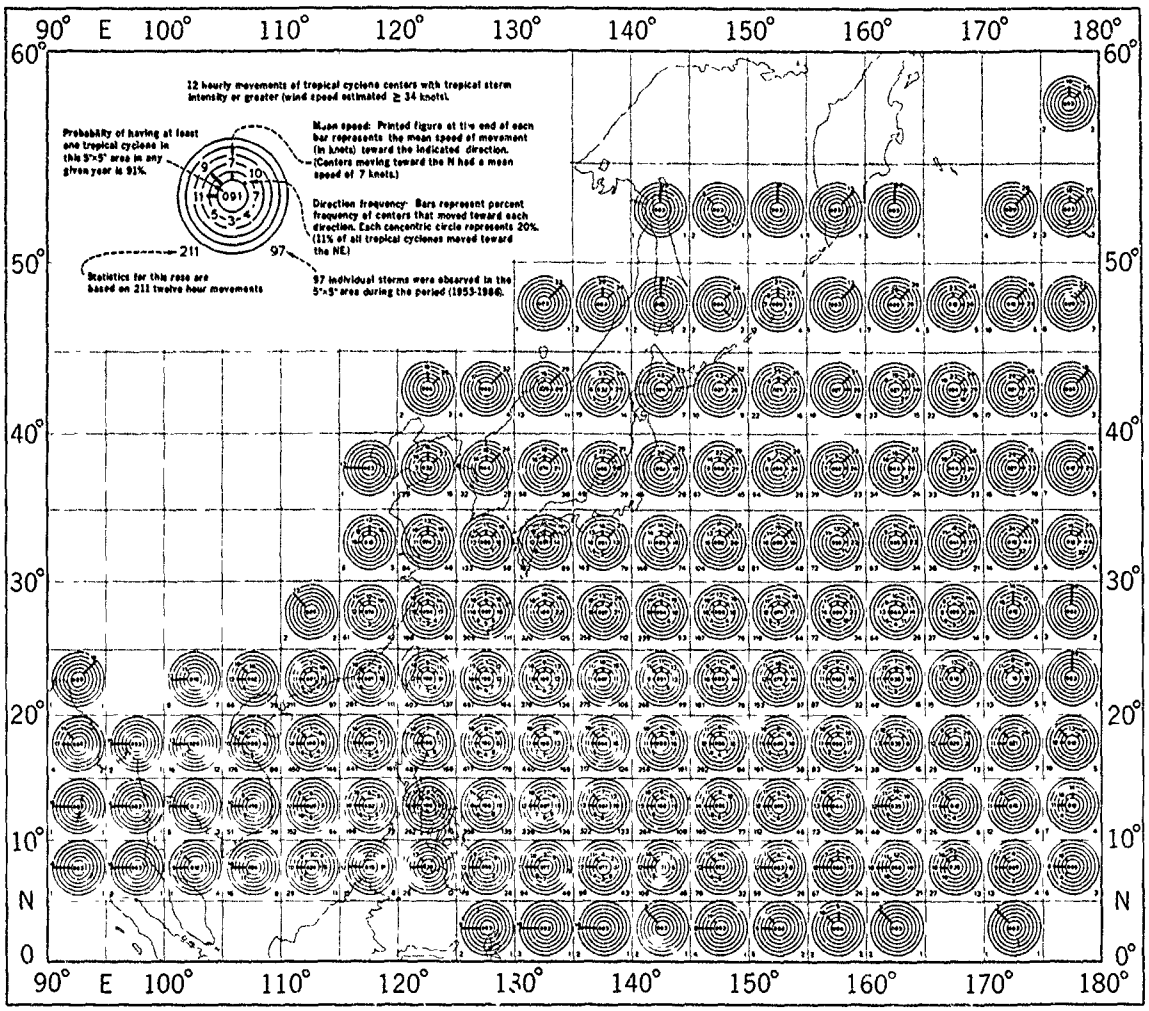


Figure 6. Annual 12 hourly movements of tropical cyclone centers with tropical storm intensity or greater.

of percent frequency of precipitation, the present weather codes 20-27 (precipitation within the past hour) were included with codes 50 through 99 to compute the percent frequency of precipitation in an effort to correct an apparent observational bias. This brings the frequencies more in line with results obtained from ocean weather station observations, the most reliable bench-mark for the open ocean.

Air Temperature

Air temperature is one of the elements most frequently observed by mariners. It should be noted that on many ships the heating effect of the ship's structure has a tendency to produce higher than actual ambient air temperature readings because of instrument exposure (Folland, et al., 1984; Wright, 1986). This is especially true under calm, sunny conditions. Therefore, some ship temperature observations have a warm bias; however, the aggregate is relatively representative after erroneous outliers have been eliminated and the numerous nighttime observations and unbiased daytime observations are included. Also, true extremes are rarely captured since continuous observations are not made at most ocean locations. It is highly unlikely that a ship-of-opportunity would be taking its synoptic weather observations at the exact time that an extreme was occurring.

Sea-Surface Temperature

Sea-surface temperatures are recorded with fairly high frequency in marine observations. The principle methods for sampling are the ship water-intake thermometers and by reading the temperature of sea water retrieved with buckets. Even though the two methods can produce slightly different results (Barnett, 1984; Bottomley et al., 1990), the data can be used with considerable confidence when examining the long-term means.

Surface Winds

Surface wind is one of the most commonly observed elements. Many of the observations from the NCDC data base are visual observations based on the roughness of the sea. In recent years, more ships acquired anemometers and reported measured winds. Prior to 1963, many observed wind speeds were recorded in the Beaufort scale; such estimates have proven to be quite reliable and can be used with a high degree of confidence. Five sets of wind speed isopleths are presented: the scalar mean speed and the percent frequency of winds less than 11 knots; from 11 to 21 knots; from 22 to 33 knots, and greater than or equal to 34 knots. Also given are wind roses for two-degree squares.

Visibility

Visibilities are difficult to measure at sea because of the lack of distance reference points. Climatically, many low visibility observations are probably missed because the observer is too busy with other duties (a contrasting form of fair weather bias). However, the coarseness of visibility (code) intervals helps to minimize the problem, thereby permitting the summarized data to be relatively consistent. Visibility tables by two-degree square show frequencies by 6 visibility categories for each month.

Clouds

A survey of the cloud data (total and low cloud amount) from the surface marine observation data base shows that the number of total cloud reports are significantly greater than that of low cloud amounts. This is because many of the early marine observations contain only total cloud amount. For the two presentations (total cloud amount $\leq$ 2/8, and low cloud amount $\geq$ 5/8), only those observations reporting both total and low cloud amounts were summarized. This helps eliminate problems introduced as a result of different size data sets (N-count). The use of satellite data helps to bolster confidence in the total cloud analyses because they show fairly close agreement with those observed on the surface (U.S. Department of Commerce and United States Air Force, 1971).

Ceiling and Visibility

Aircraft-type ceilings are not available from marine observations. The ceilings are estimated from the height of the lowest cloud when low clouds cover more than half the sky. When the sky is totally obscured by rain, fog, dust, or other phenomena, the total obscuration is considered a ceiling with a height of zero. Mid-range ceiling and visibility charts (ceiling less than 1000 feet and/or visibility less than 5 nautical miles; ceiling less than 8000 feet and/or visibility less than 10 nautical miles) and low-range ceiling and visibility charts (ceiling less than 300 feet and/or visibility less than 1 nautical mile; ceiling less than 600 feet and/or visibility less than 2 nautical miles) are presented.

Wave-Heights

Wave-heights have been reported in consistent quantitative code since the late 1940's. The reluctance of many observers to take wave observations in the earlier years and the difficulty in estimating waves, especially in confused seas, make wave observations one of the least commonly observed elements. The observations are also subject to biases. Generally, the heights are too low, the periods too short, and the sea-swell discrimination poor (Quayle, 1980). The data in this study have not been adjusted for the suspected biases, but were processed through a quality control procedure wherein an internal check was made between wind speed and sea height. The data were also matrix-arrayed and apparent erroneous outlier data values were deleted from both the sea and swell data. Wave-height presentations include isopleth maps showing percent frequencies of wave-heights $\geq$ 3 feet and $\geq$ 8 feet. In addition, wave-height tables by two-degree squares show frequencies by six wave-height categories. In these presentations, the higher of the sea or swell was selected for summarization. If heights were equal, the wave with the longer period was selected.

Ocean Currents

The ocean current charts were compiled from ship drift reports forwarded by the various merchant marines to the U.S. Naval Oceanographic Office. From those drift observations, the prevailing and secondary current directions, mean current speed, percent of total observations used to compute the primary and secondary directions, and the total observation count are presented by two-degree squares. This information is presented on monthly charts with the study area divided into two sections (pages) to ensure readability. The density of the observations is greatest along the major shipping

routes and the reliability of the current charts is best in those areas. The data are considered most useful when used collectively, such as in summaries where a large number of observations are available.

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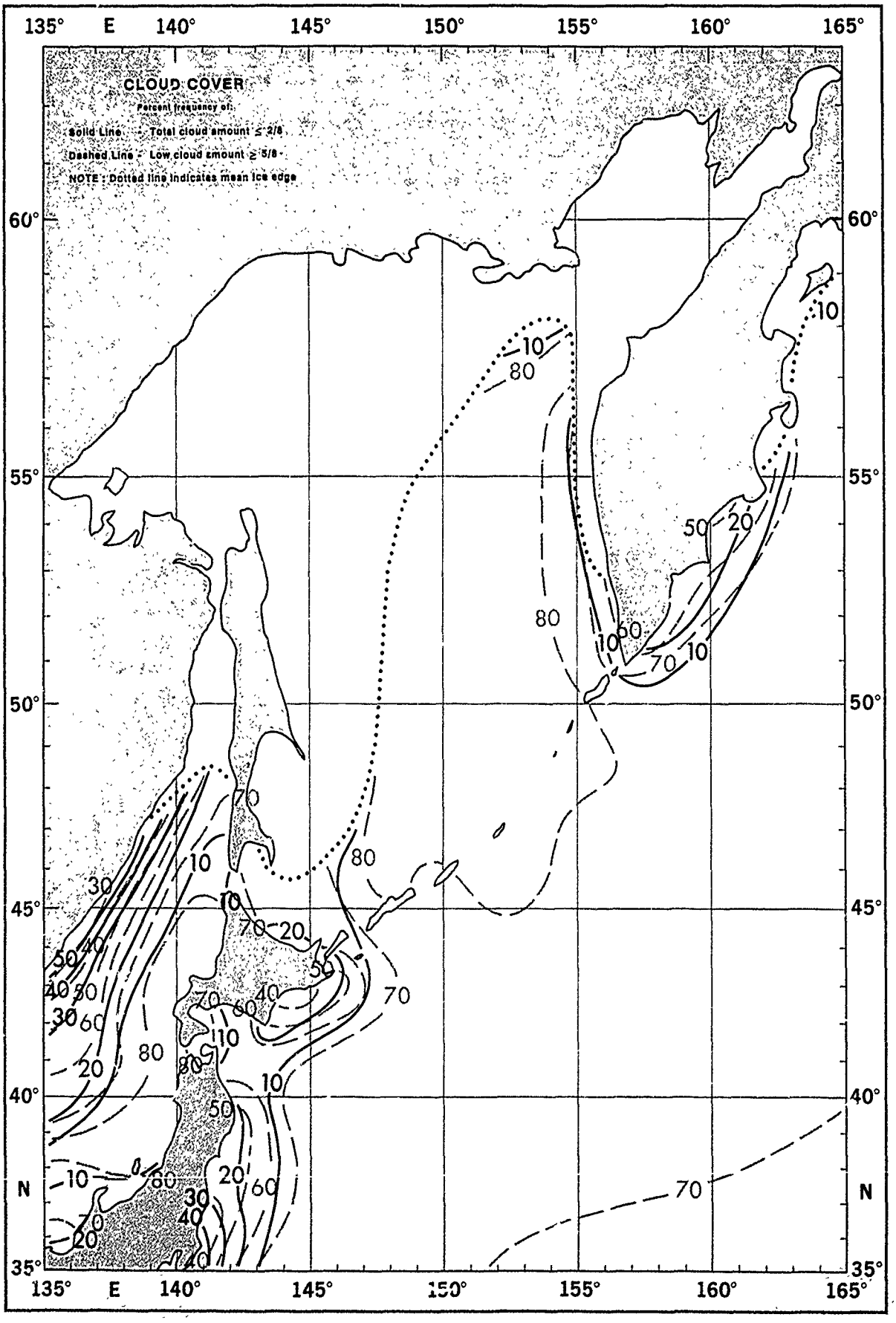
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PAGE INDEX

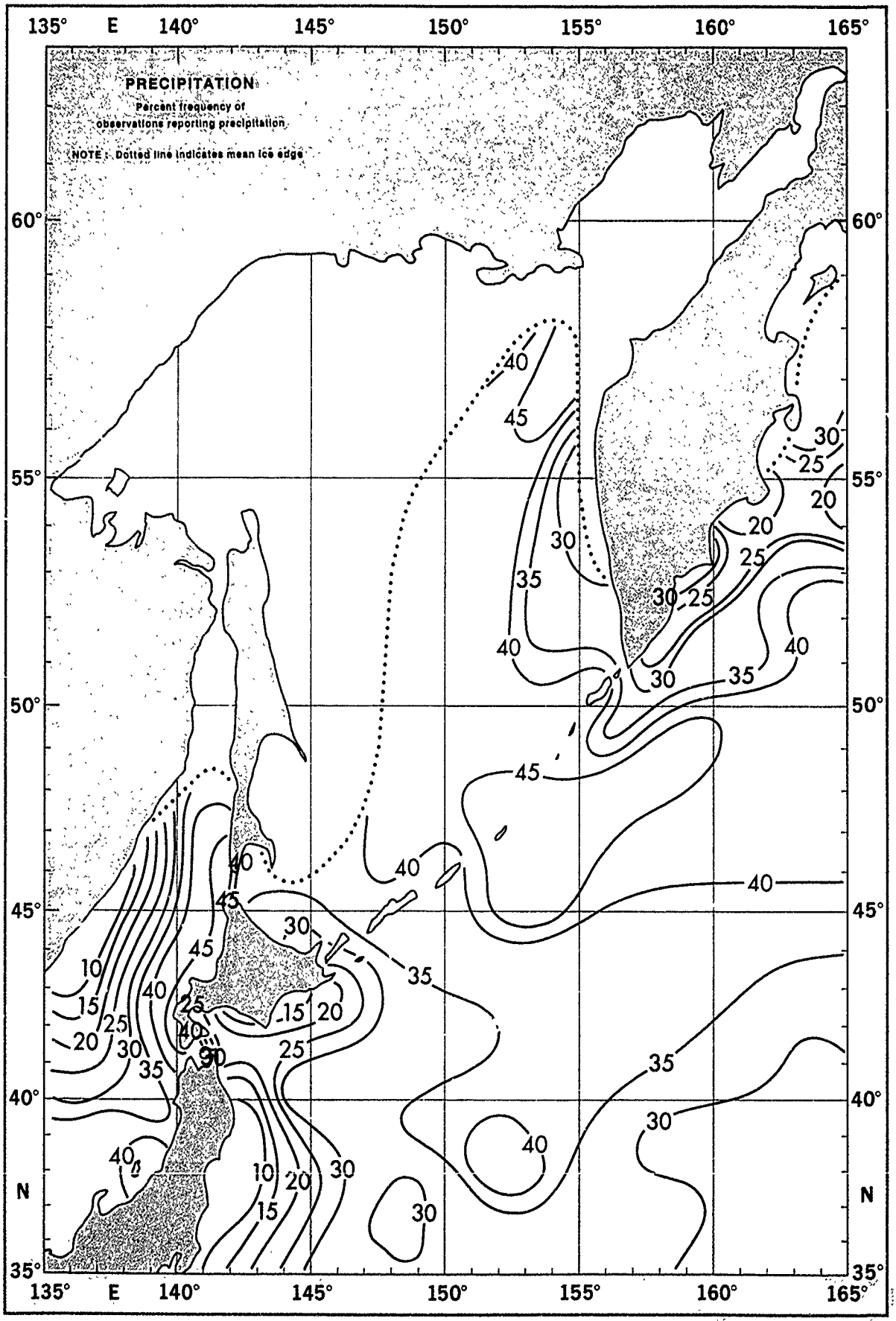
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Clouds	2	20	38	56	74	92	110	128	146	164	182	200
Precipitation	3	21	39	57	75	93	111	129	147	165	183	201
Visibility - Tables	4	22	40	58	76	94	112	130	148	166	184	202
Ceiling - Visibility (Mid Range)	6	24	42	60	78	96	114	132	150	168	186	204
Ceiling - Visibility (Low Range)	7	25	43	61	79	97	115	133	151	169	187	205
Wind - Visibility - Cloudiness	8	26	44	62	80	98	116	134	152	170	188	206
Mean Scalar Wind Speed	9	27	45	63	81	99	117	135	153	171	189	207
Wind Speed <11 and ≥ 34 Knots	10	28	46	64	82	100	118	136	154	172	190	208
Wind Speed 11-21 and 22-33 Knots	11	29	47	65	83	101	119	137	155	173	191	209
Surface Wind Roses	12	30	48	66	84	102	120	138	156	174	192	210
Mean Air & Sea Temperature	14	32	50	68	86	104	122	140	158	176	194	212
Wave Height Isopleths	15	33	51	69	87	105	123	141	159	177	195	213
Wave Height Tables	16	34	52	70	88	106	124	142	160	178	196	214
Surface Currents	18	36	54	72	90	108	126	144	162	180	198	216
Station Climatic Summaries	218 - 227											

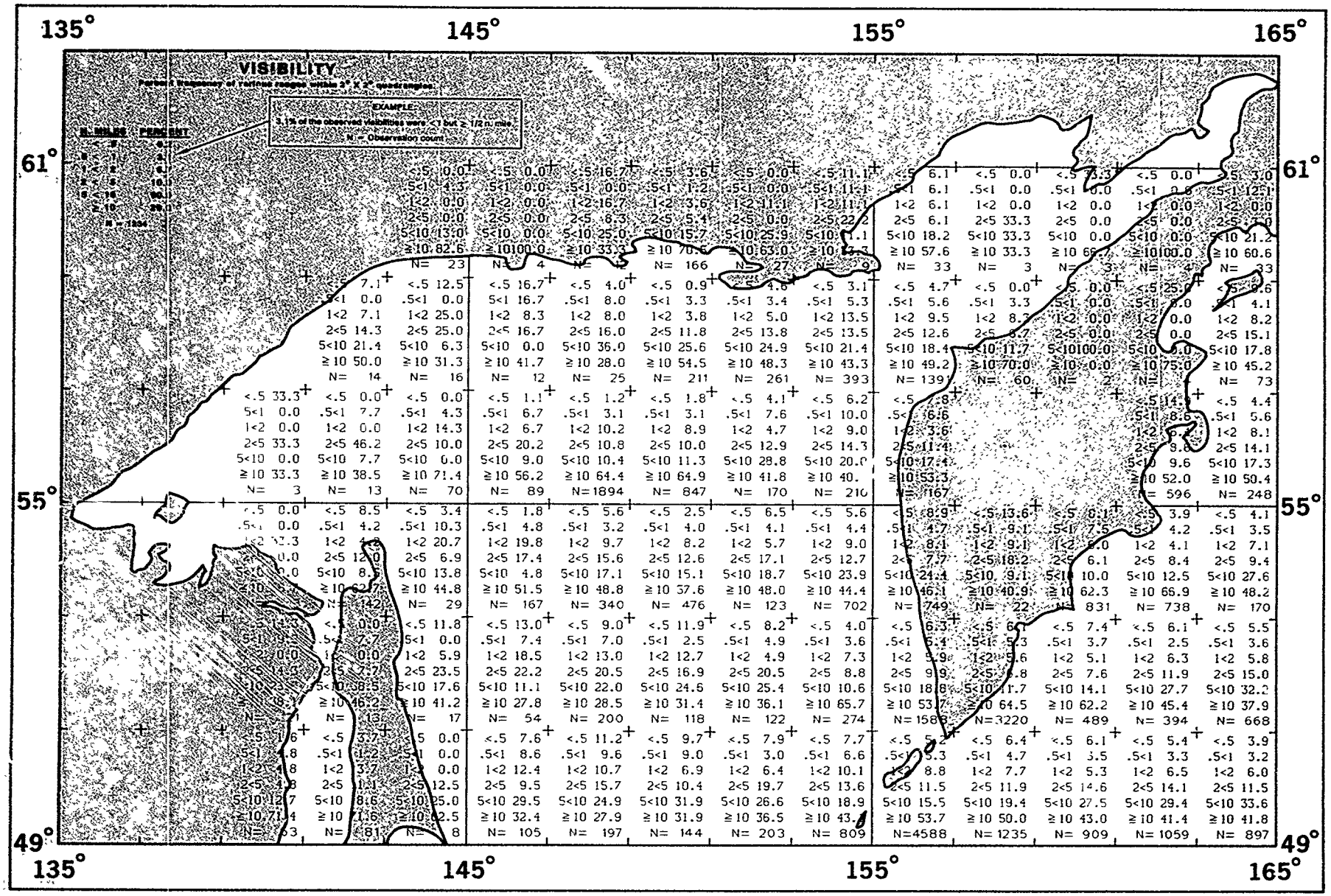
* Mean ice edge is shown on all isopleth maps

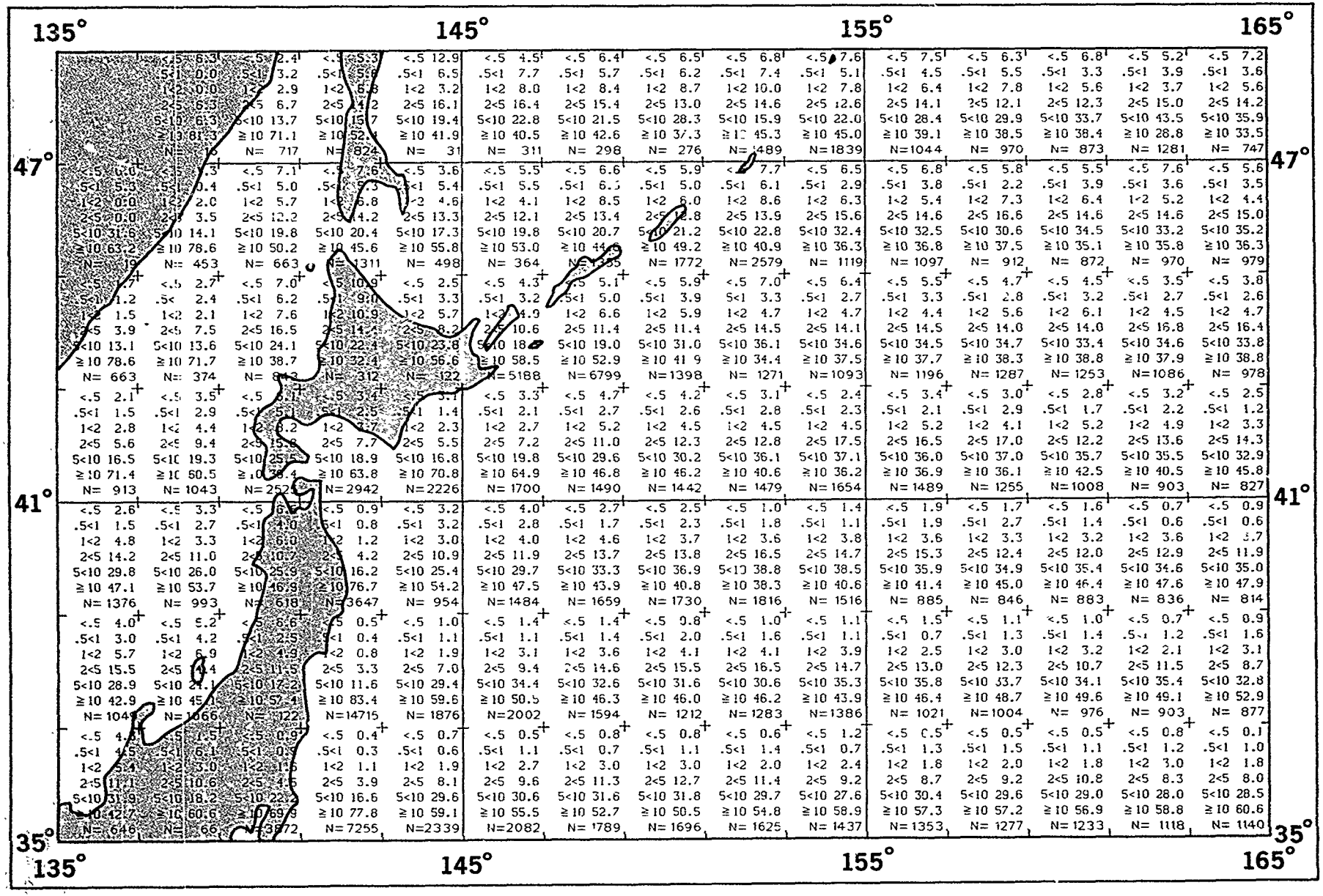

CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
NOTE: Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°

January

Precipitation

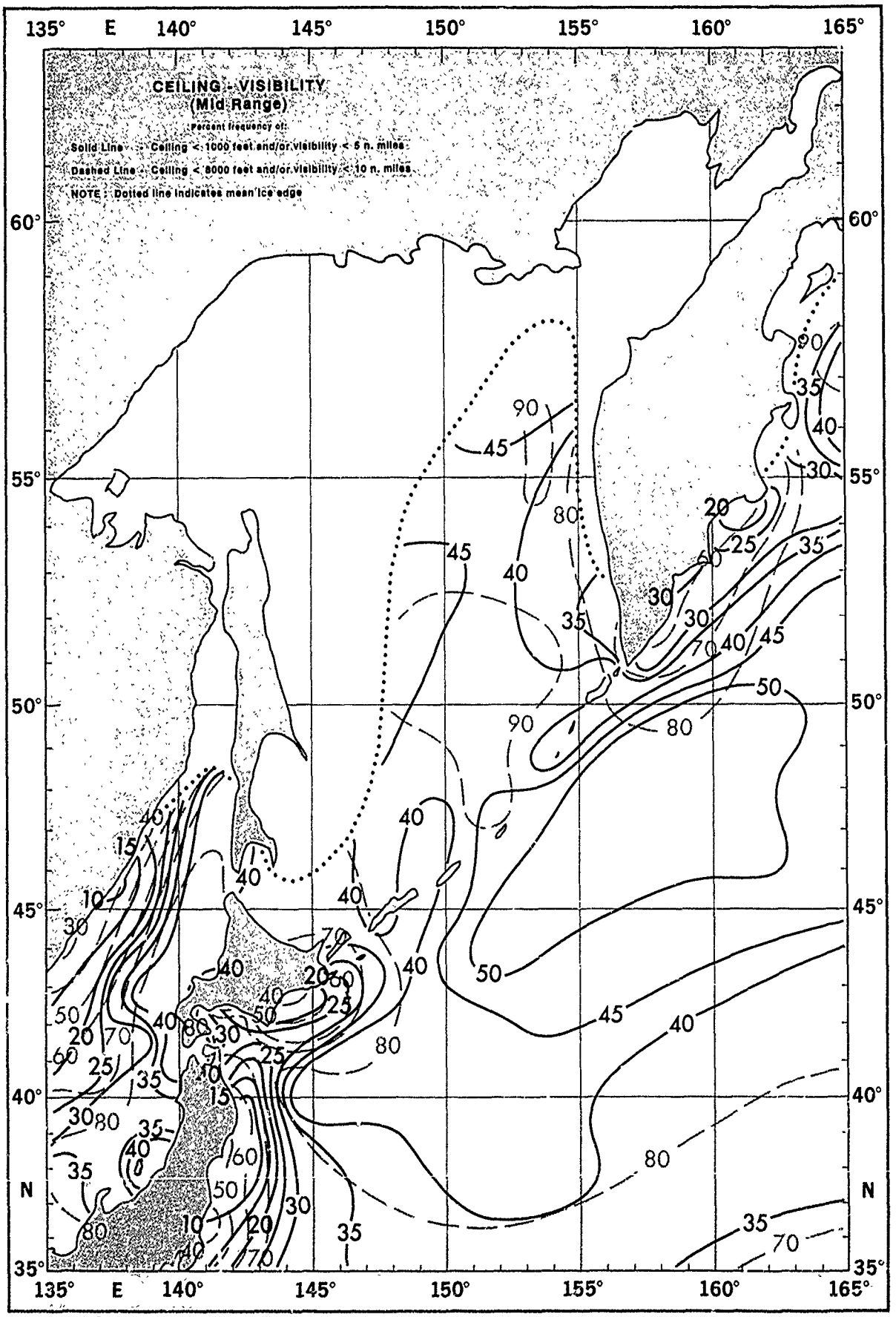



VISIBILITY
EXAMPLE:
N. MILES | PERCENT
N = Observation count
135°
145°
155°
165°
61°
55°
49°


January
Visibility
135°
145°
155°
165°
47°
41°
35°

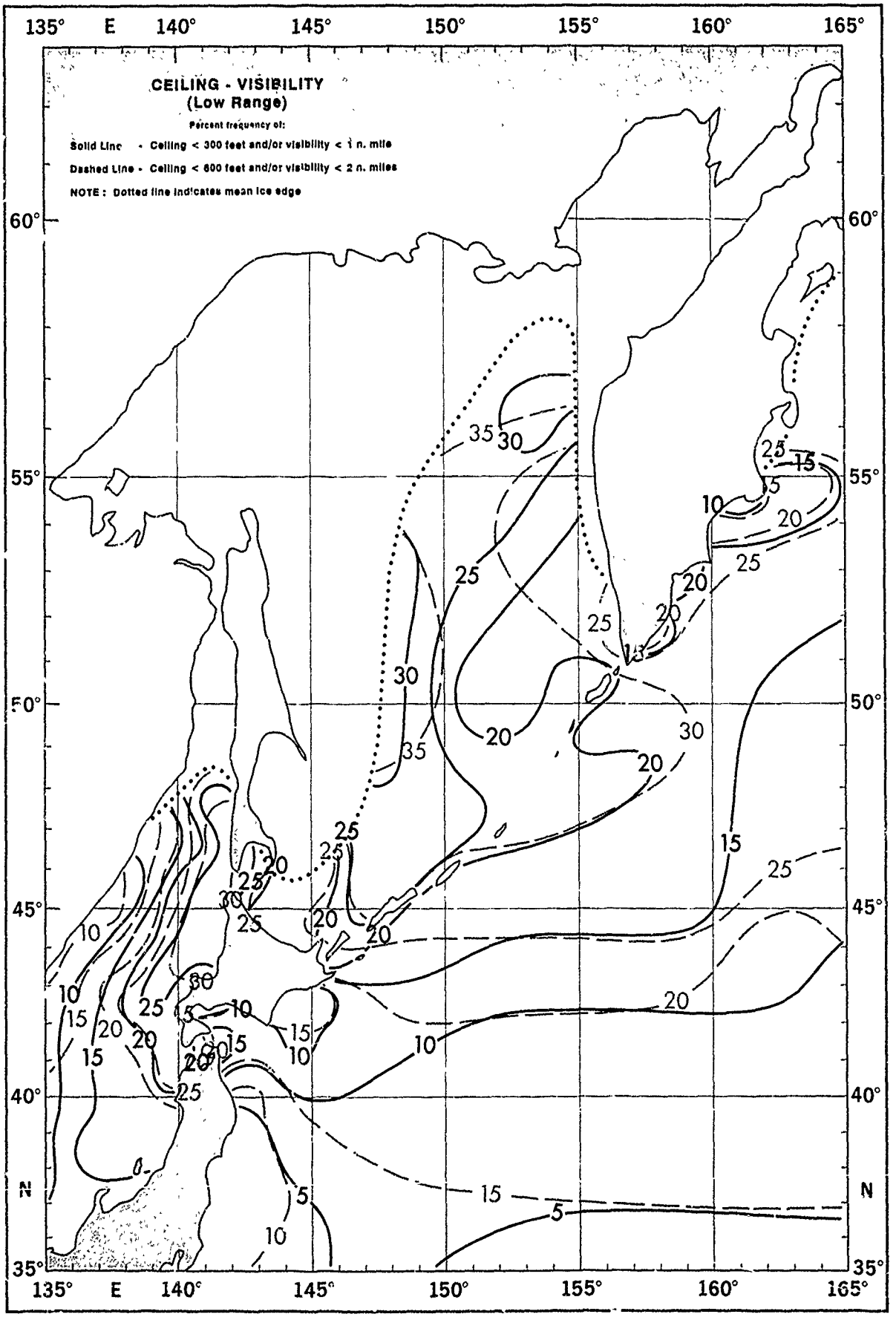
January

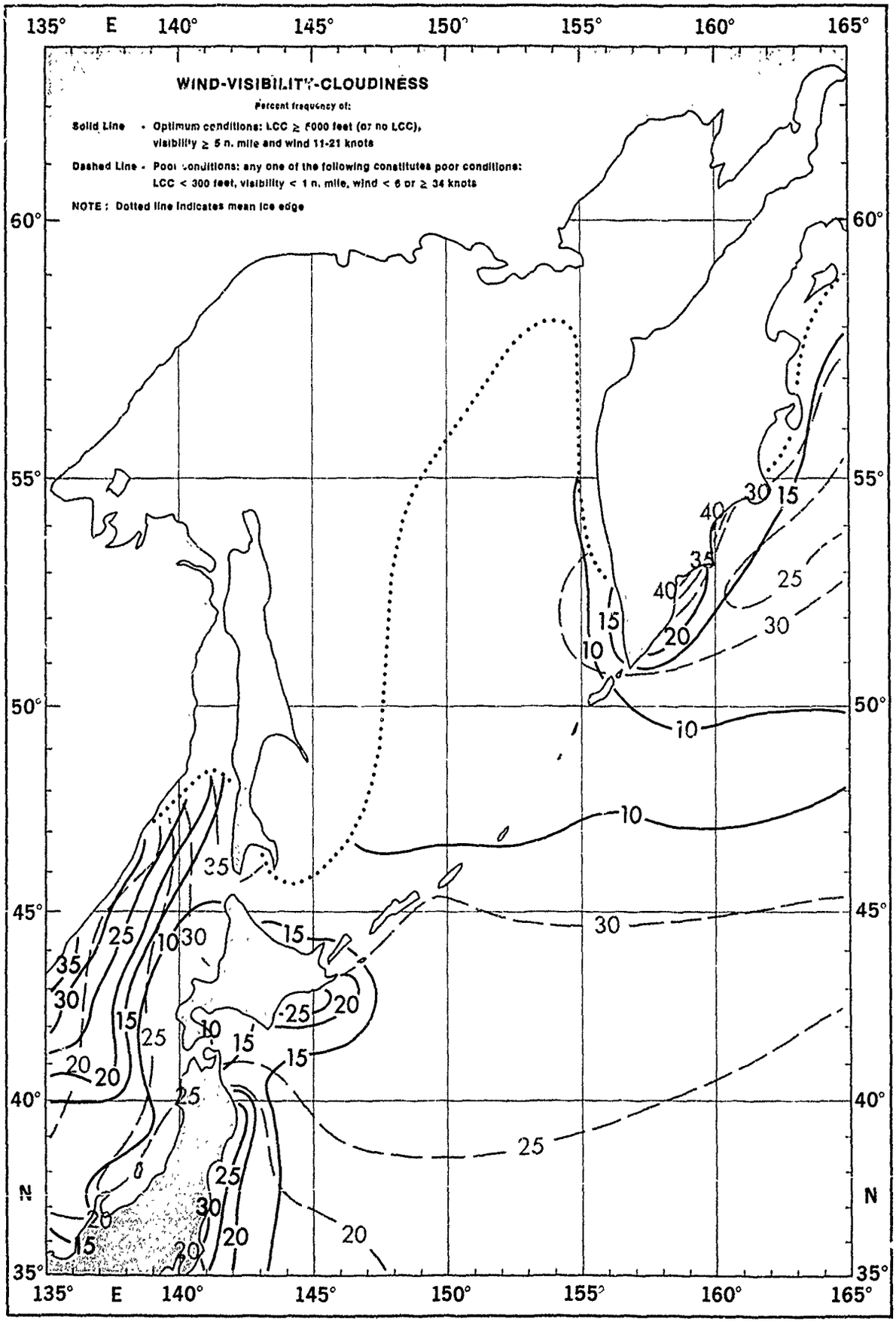
Ceiling-Visibility (Mid Range)



January

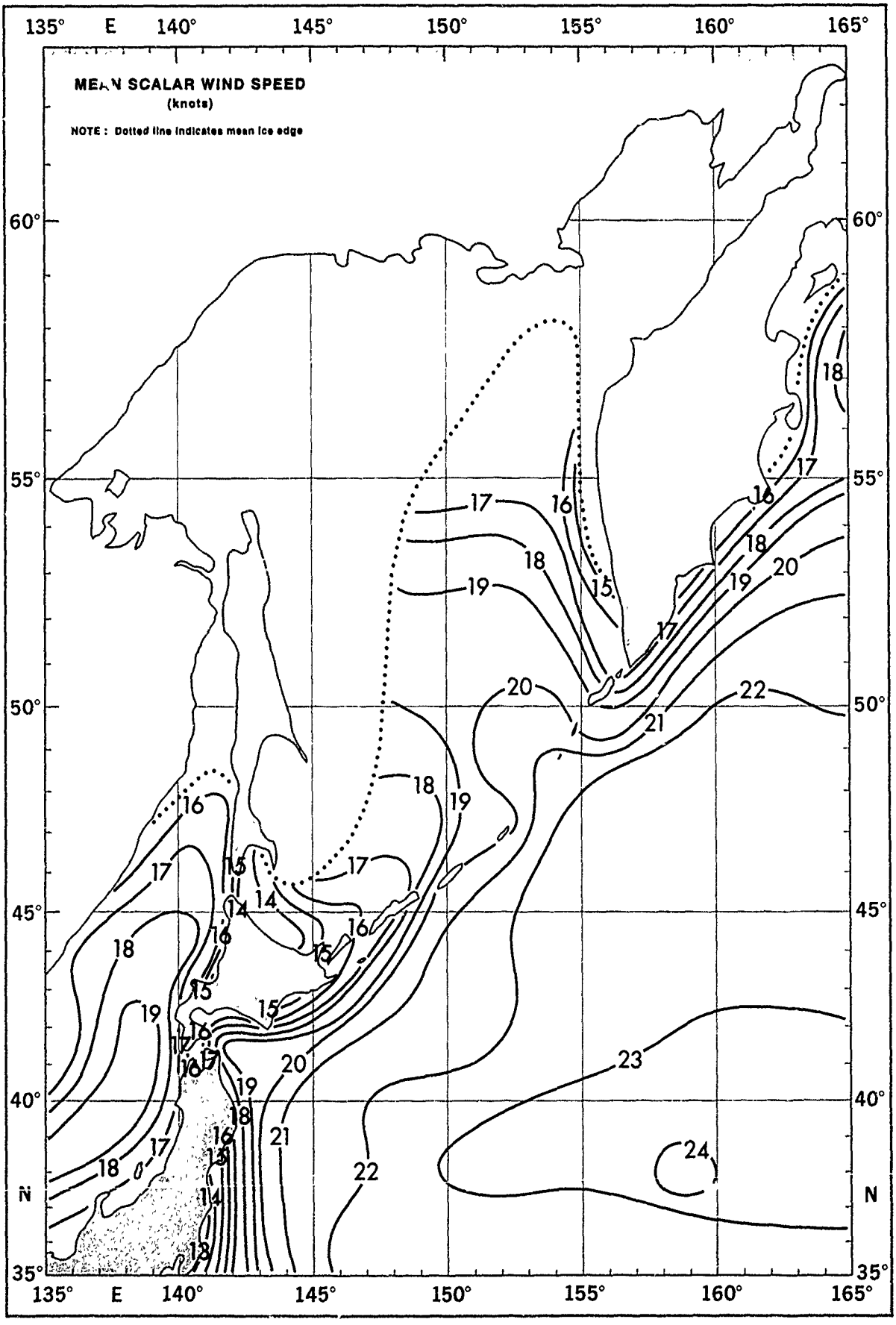
Ceiling-Visibility (Low Range)




WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
NOTE: Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°

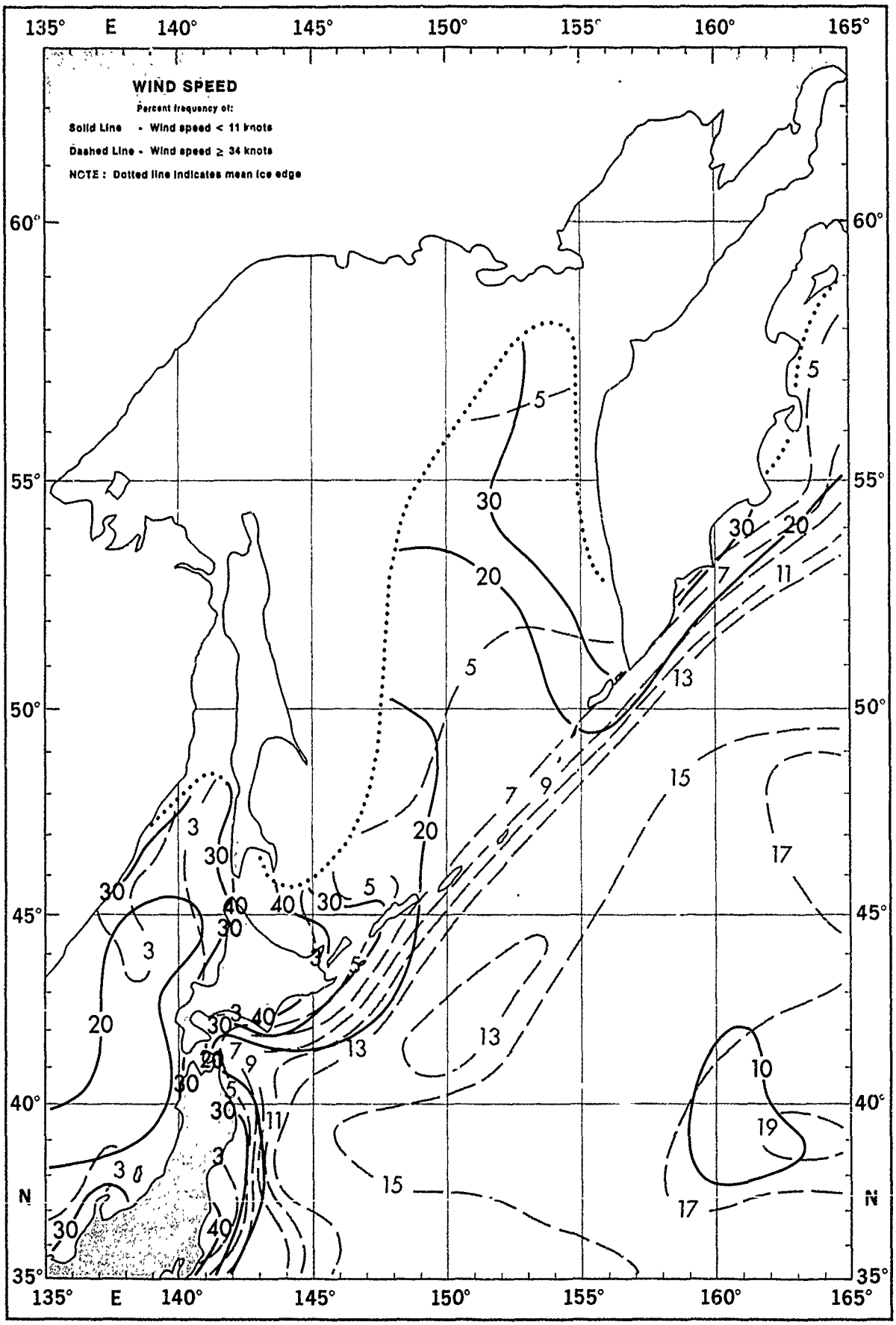
January

Mean Scalar Wind Speed



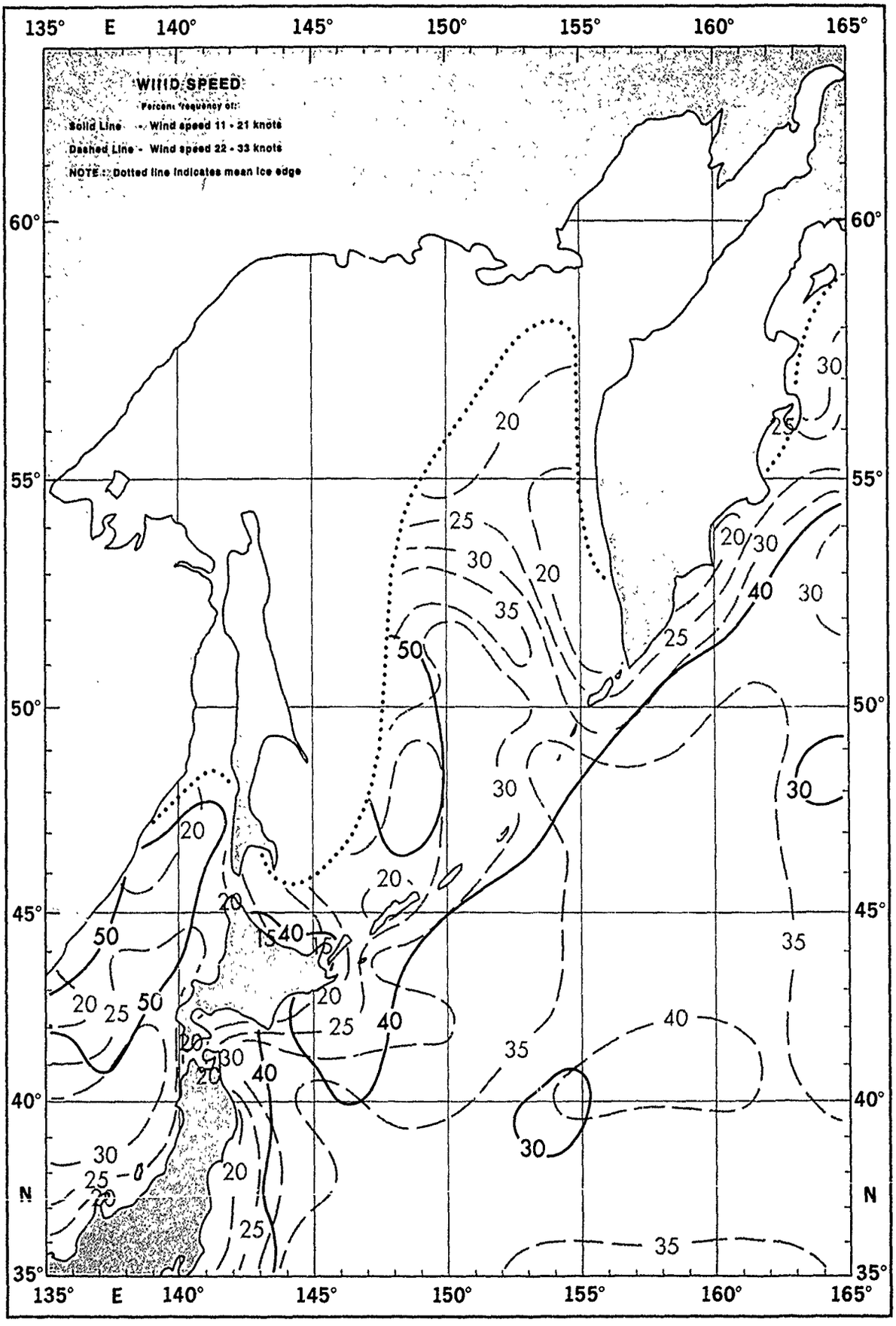
January

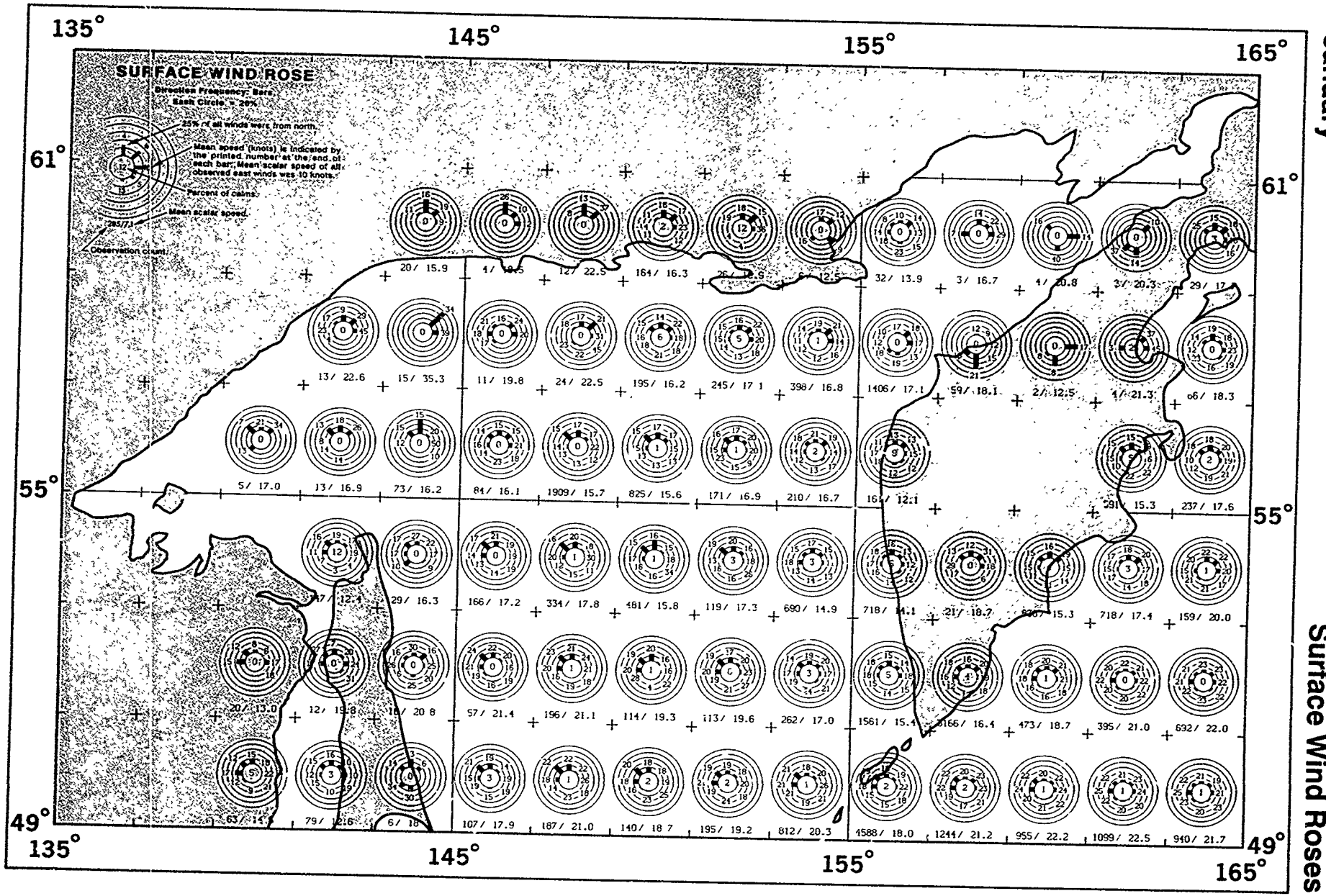
Wind Speed < 11 and ≥ 34 Knots



January

Wind Speed 11-21 and 22-33 Knots



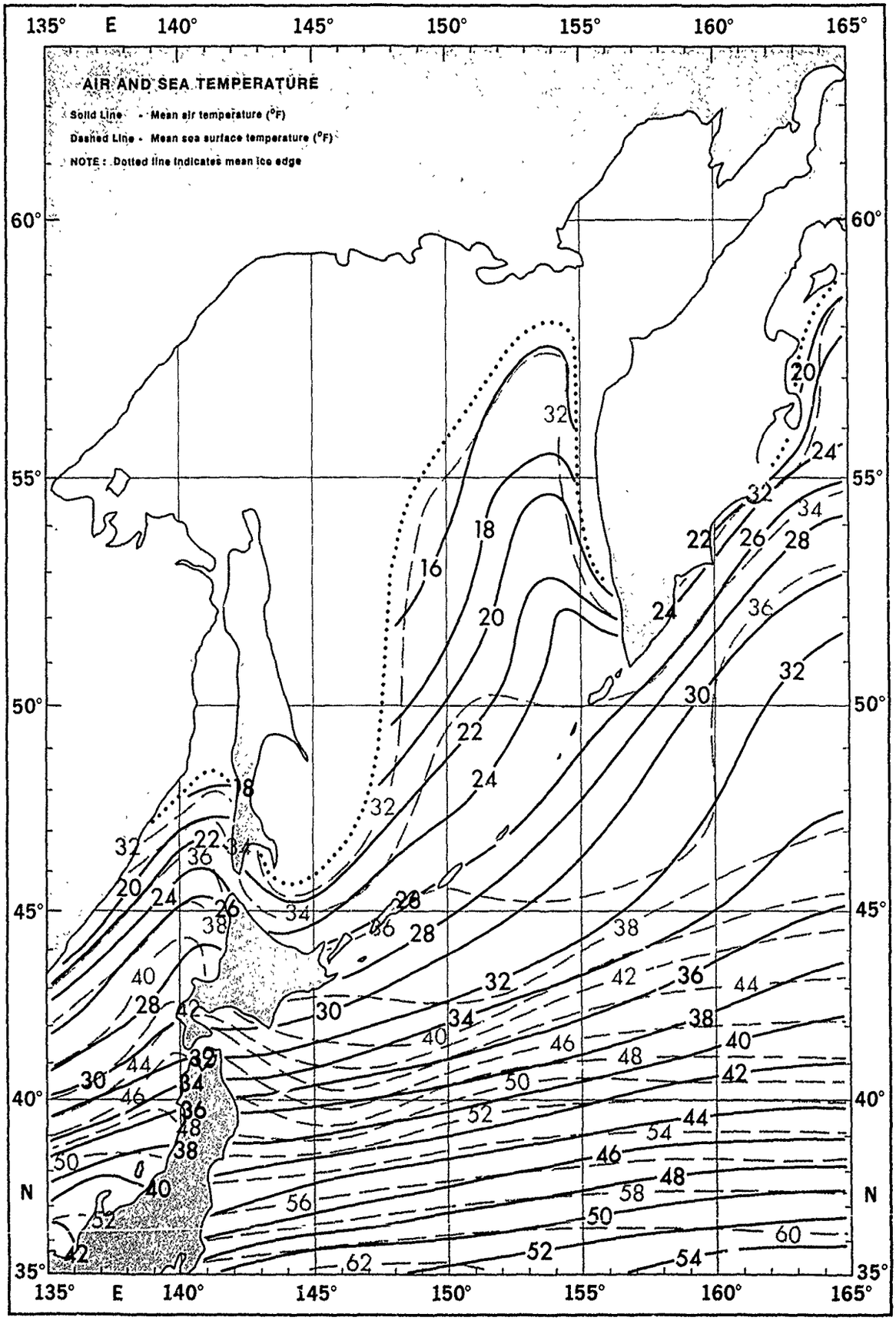

SURFACE WIND ROSE
Direction Frequency: Bars
Each Circle = 20%
25% of all winds were from north.
Mean speed (knots) is indicated by the printed number at the end of each bar; Mean scalar speed of all observed east winds was 10 knots.
Percent of calms.
Mean scalar speed.
Observation count.
135°
145°
155°
165°
61°
55°
49°
January
Surface Wind Roses

January

Surface Wind Roses

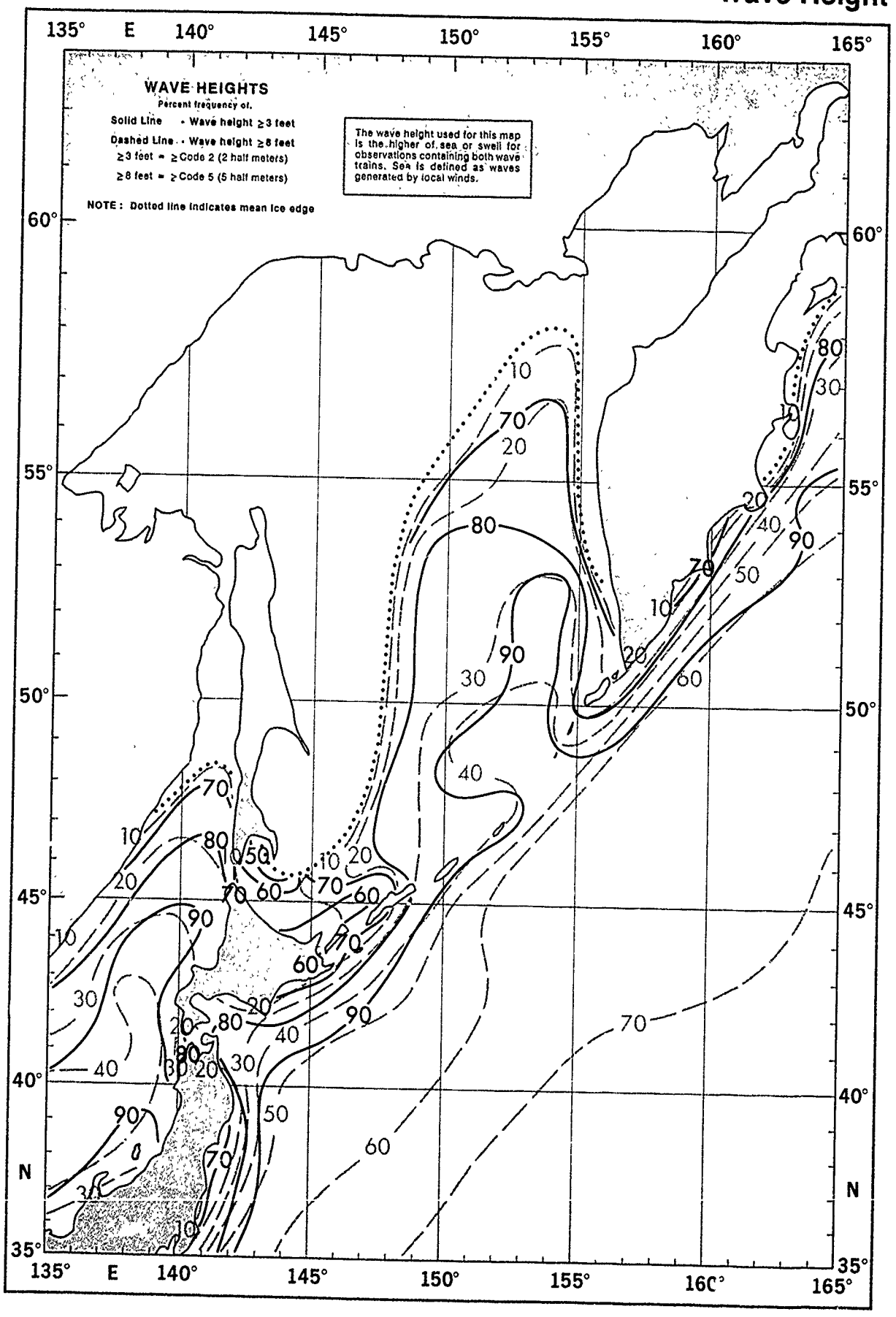
January

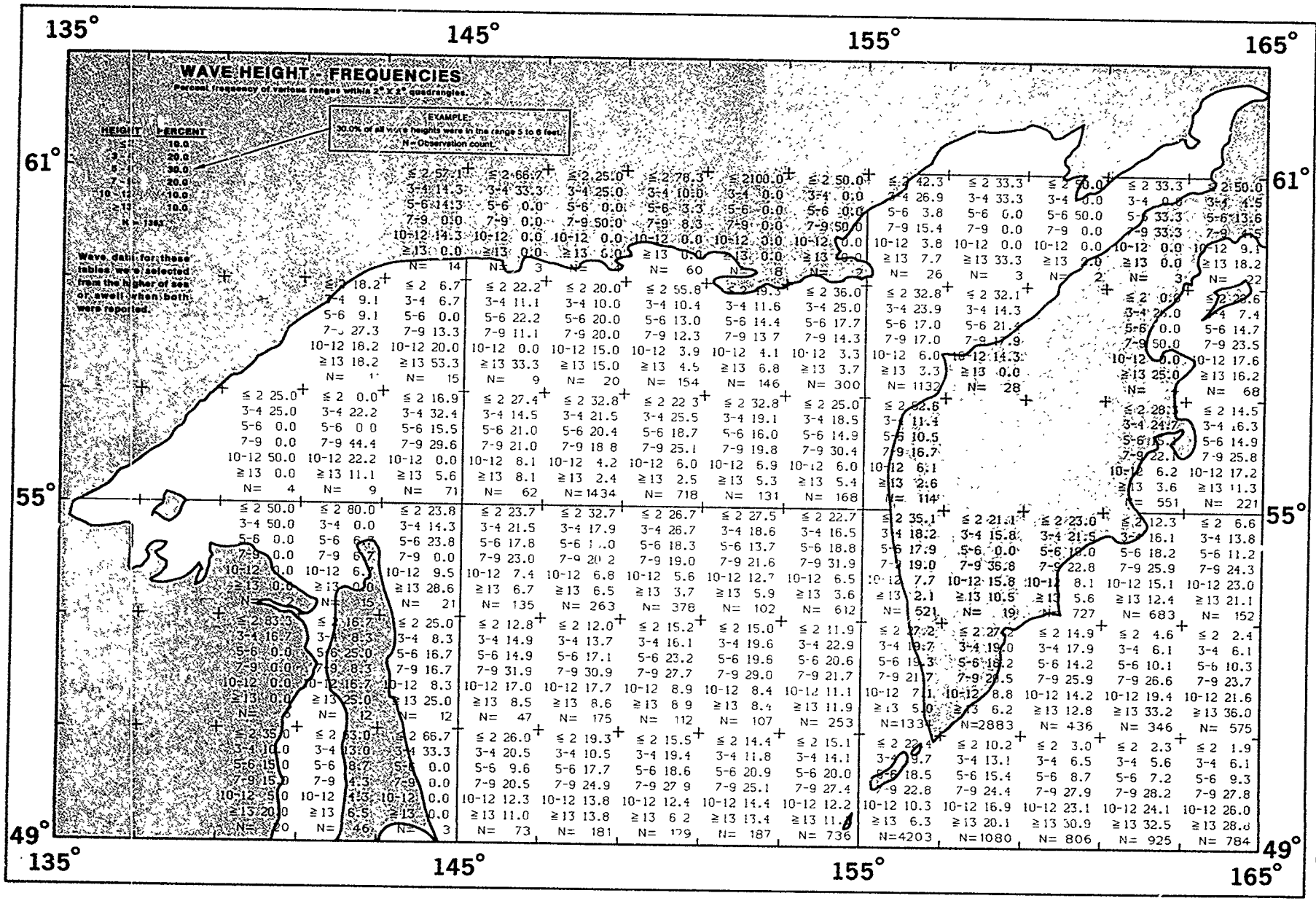
Mean Air and Sea Temperature

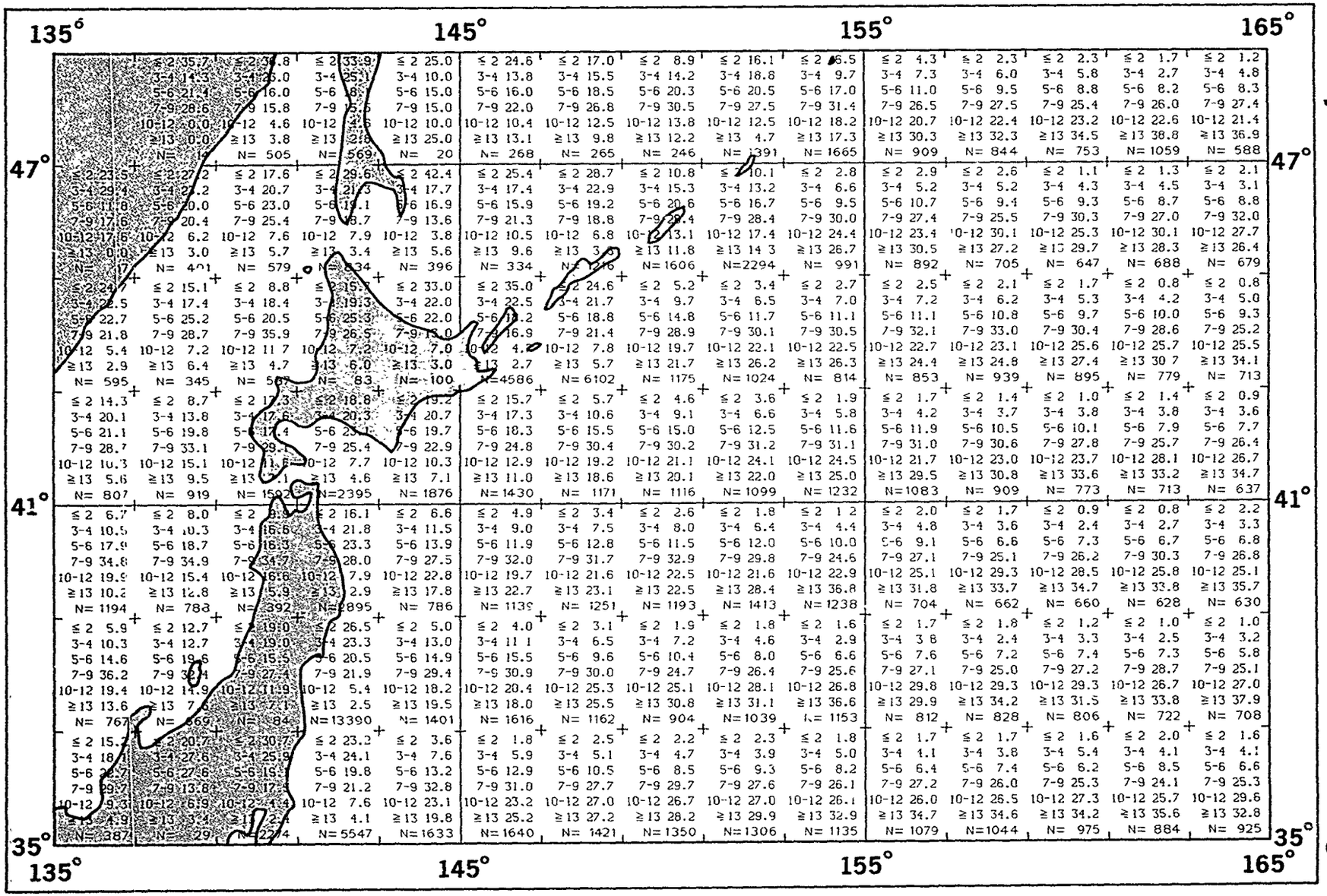


January

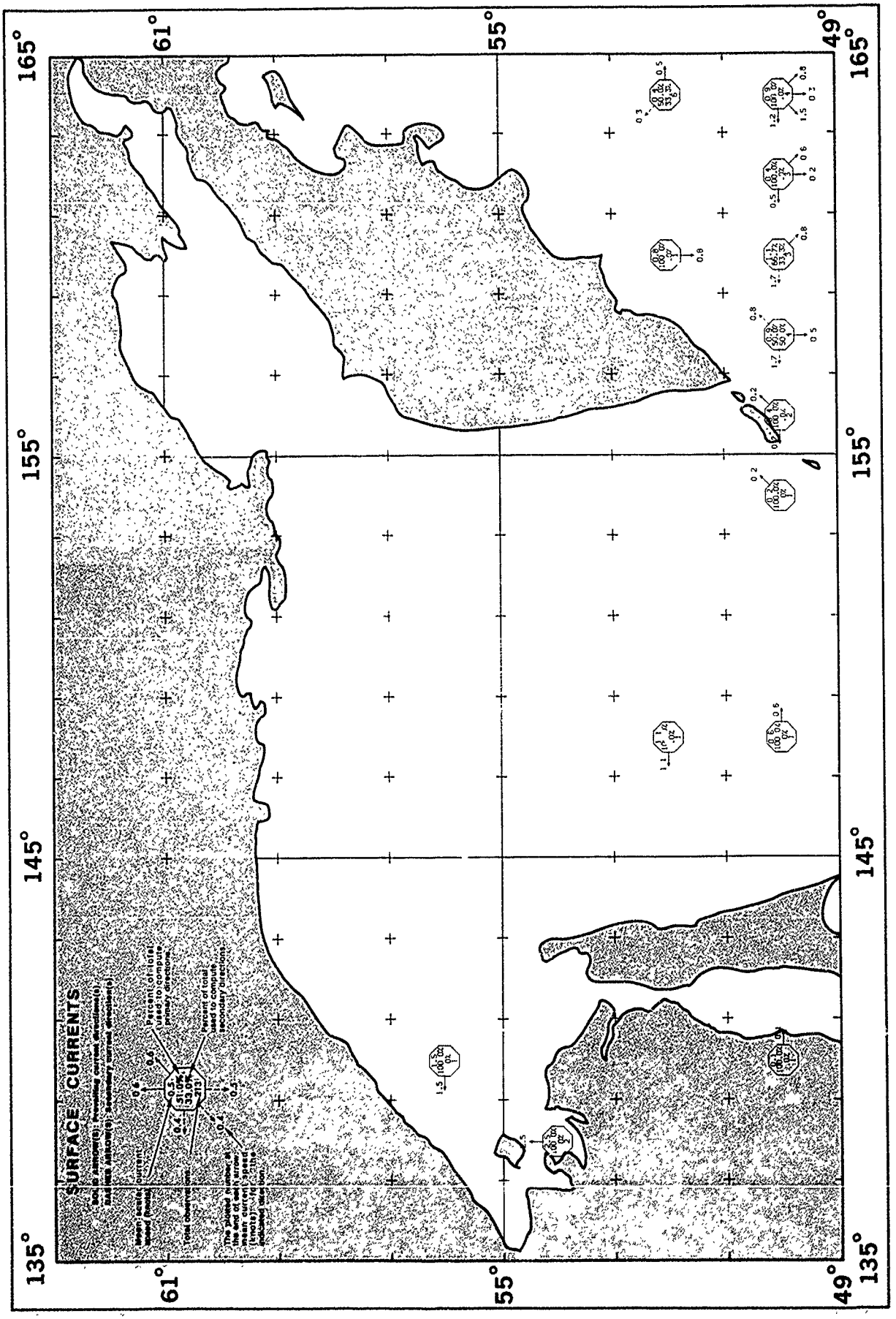
Wave Height

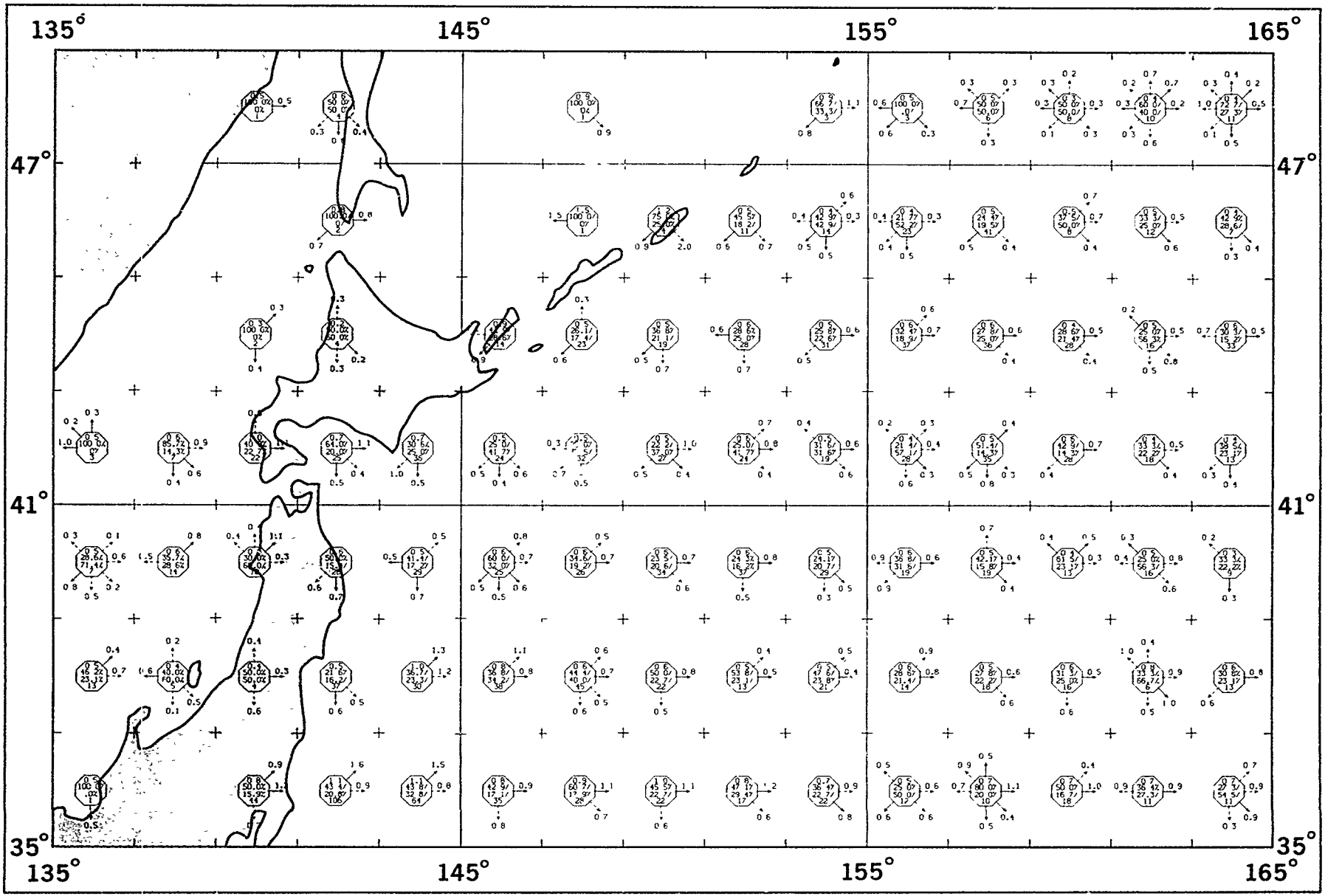


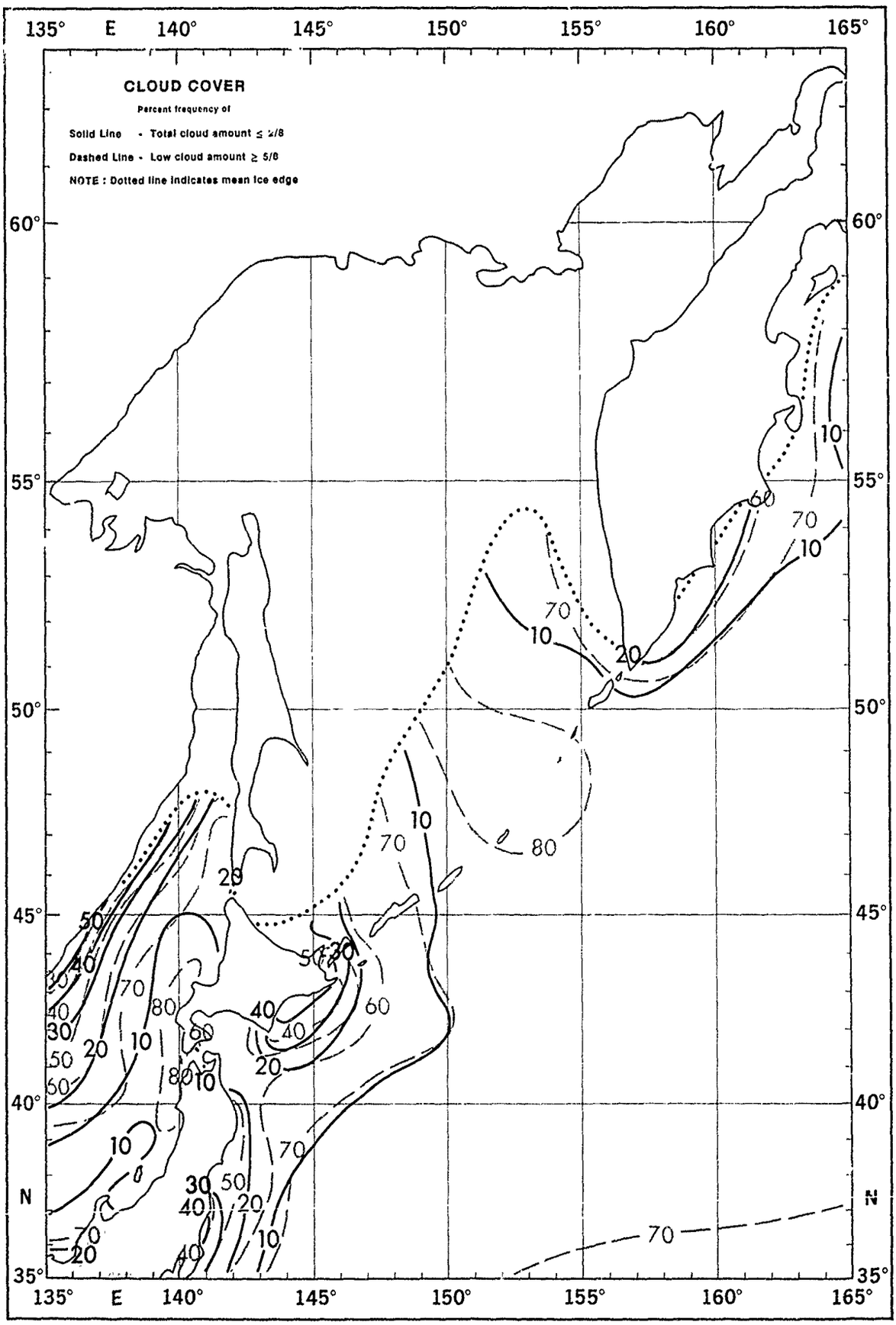

WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° x 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 6 feet.
N = Observation count.
HEIGHT PERCENT
1-3 10.0
3-5 20.0
5-7 30.0
7-10 20.0
10-13 10.0
≥13 10.0
N = 1363
Wave data for these tables were selected from the higher of sea or swell when both were reported.
135°
145°
155°
165°
61°
55°
49°
January
Wave Height

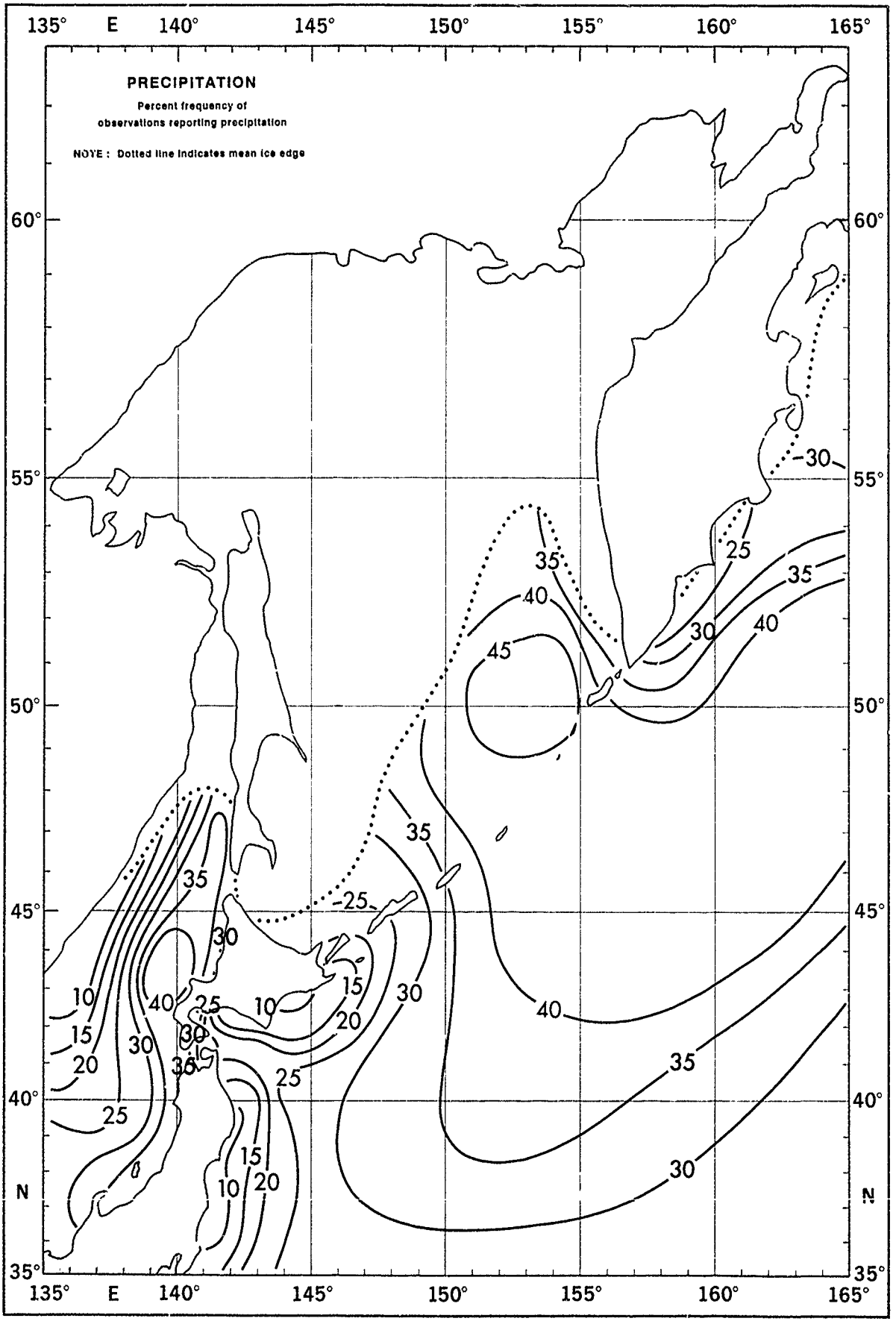


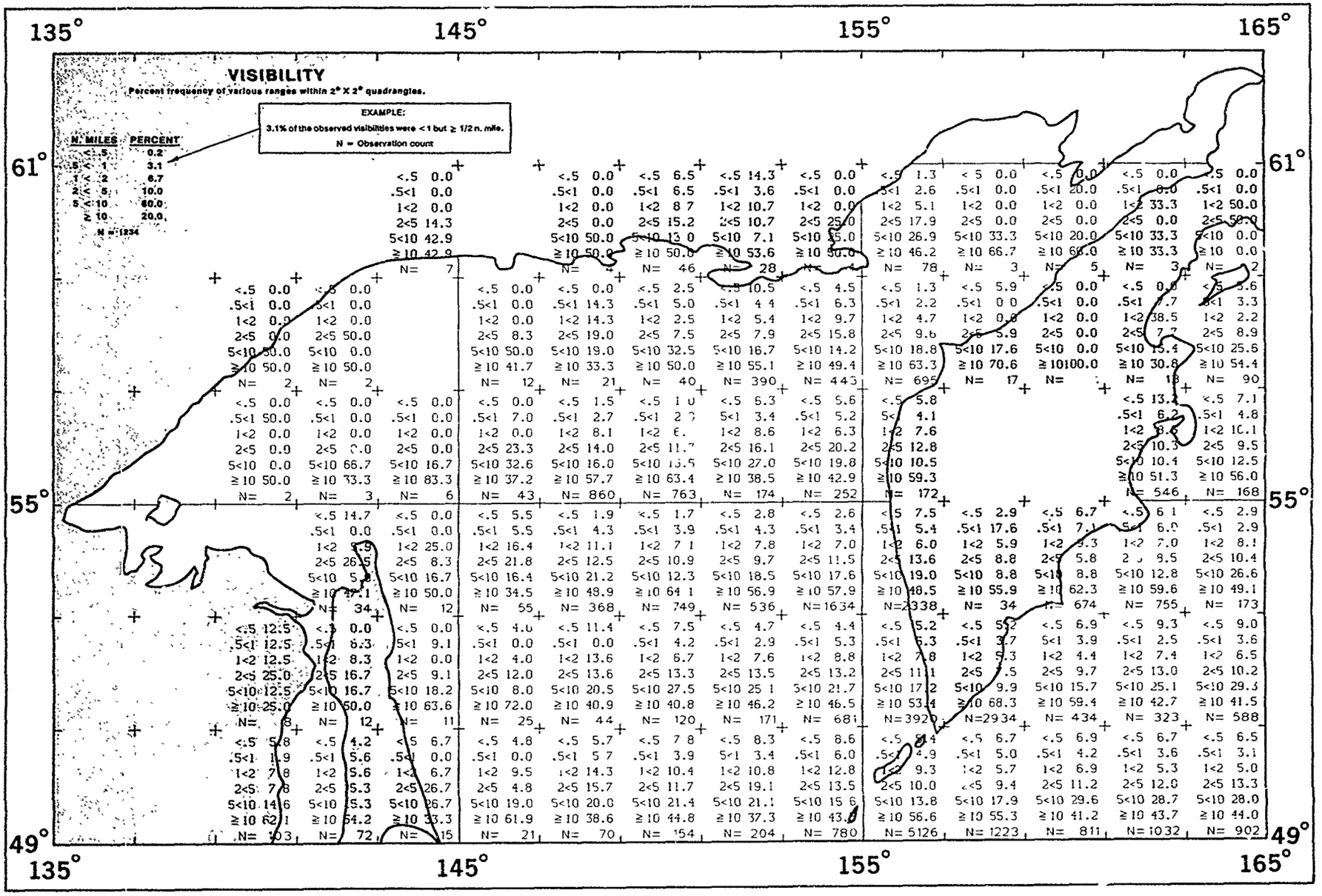
135°				145°				155°				165°
	≦2 35.7	≦2 36.8	≦2 33.9	≦2 25.0	≦2 24.6	≦2 17.0	≦2 8.9	≦2 16.1	≦2 16.5	≦2 4.3	≦2 2.3	≦2 2.3	≦2 1.7	≦2 1.2
	3-4 14.3	3-4 16.0	3-4 25.1	3-4 10.0	3-4 13.8	3-4 15.5	3-4 14.2	3-4 18.8	3-4 9.7	3-4 7.3	3-4 6.0	3-4 5.8	3-4 2.7	3-4 4.8
	5-6 21.4	5-6 16.0	5-6 18.[illegible]	5-6 15.0	5-6 16.0	5-6 18.5	5-6 20.3	5-6 20.5	5-6 17.0	5-6 11.0	5-6 9.5	5-6 8.8	5-6 8.2	5-6 8.3
	7-9 28.6	7-9 15.8	7-9 15.5	7-9 15.0	7-9 22.0	7-9 26.8	7-9 30.5	7-9 27.5	7-9 31.4	7-9 26.5	7-9 27.5	7-9 25.4	7-9 26.0	7-9 27.4
	10-12 0.0	10-12 4.6	10-12 [illegible]	10-12 10.0	10-12 10.4	10-12 12.5	10-12 13.8	10-12 12.5	10-12 18.2	10-12 20.7	10-12 22.4	10-12 23.2	10-12 22.6	10-12 21.4
	≧13 0.0	≧13 3.8	≧13 [illegible]	≧13 25.0	≧13 13.1	≧13 9.8	≧13 12.2	≧13 4.7	≧13 17.3	≧13 30.3	≧13 32.3	≧13 34.5	≧13 38.8	≧13 36.9
	N= 19	N= 505	N= 569	N= 20	N= 268	N= 265	N= 246	N= 1391	N= 1665	N= 909	N= 844	N= 753	N= 1059	N= 588
≦2 23.5	≦2 27.2	≦2 17.6	≦2 29.6	≦2 42.4	≦2 25.4	≦2 28.7	≦2 10.8	≦2 10.1	≦2 2.8	≦2 2.9	≦2 2.6	≦2 1.1	≦2 1.3	≦2 2.1
3-4 29.4	3-4 21.2	3-4 20.7	3-4 21.3	3-4 17.7	3-4 17.4	3-4 22.9	3-4 15.3	3-4 13.2	3-4 6.6	3-4 5.2	3-4 5.2	3-4 4.3	3-4 4.5	3-4 3.1
5-6 [illegible]	5-6 20.0	5-6 23.0	5-6 [illegible]	5-6 16.9	5-6 15.9	5-6 19.2	5-6 20.6	5-6 16.7	5-6 9.5	5-6 10.7	5-6 9.4	5-6 9.3	5-6 8.7	5-6 8.8
7-9 17.6	7-9 20.4	7-9 25.4	7-9 [illegible]	7-9 13.6	7-9 21.3	7-9 18.8	7-9 [illegible]	7-9 28.4	7-9 30.0	7-9 27.4	7-9 25.5	7-9 30.3	7-9 27.0	7-9 32.0
10-12 17.6	10-12 6.2	10-12 7.6	10-12 7.9	10-12 3.8	10-12 10.5	10-12 6.8	10-12 13.1	10-12 17.4	10-12 24.4	10-12 23.4	10-12 30.1	10-12 25.3	10-12 30.1	10-12 27.7
≧13 0.0	≧13 3.0	≧13 5.7	≧13 3.4	≧13 5.6	≧13 9.6	≧13 3.[illegible]	≧13 11.8	≧13 14.3	≧13 26.7	≧13 30.5	≧13 27.2	≧13 29.7	≧13 28.3	≧13 26.4
N= 17	N= 401	N= 579	N= [illegible]34	N= 396	N= 334	N= [illegible]16	N=1606	N=2294	N= 991	N= 892	N= 705	N= 647	N= 688	N= 679
≦2 24.7	≦2 15.1	≦2 8.8	≦2 [illegible]5.[illegible]	≦2 33.0	≦2 35.0	≦2 24.6	≦2 5.2	≦2 3.4	≦2 2.7	≦2 2.5	≦2 2.1	≦2 1.7	≦2 0.8	≦2 0.8
3-4 22.5	3-4 17.4	3-4 18.4	3-4 [illegible]9.[illegible]	3-4 22.0	3-4 22.5	3-4 21.7	3-4 9.7	3-4 6.5	3-4 7.0	3-4 7.2	3-4 6.2	3-4 5.3	3-4 4.2	3-4 5.0
5-6 22.7	5-6 25.2	5-6 20.5	5-6 [illegible]5.[illegible]	5-6 22.0	5-6 [illegible].2	5-6 18.8	5-6 14.8	5-6 11.7	5-6 11.1	5-6 11.1	5-6 10.8	5-6 9.7	5-6 10.0	5-6 9.3
7-9 21.8	7-9 28.7	7-9 35.9	7-9 [illegible]6.[illegible]	7-9 [illegible].0	7-9 [illegible]6.9	7-9 21.4	7-9 28.9	7-9 30.1	7-9 30.5	7-9 32.1	7-9 33.0	7-9 30.4	7-9 28.6	7-9 25.2
10-12 5.4	10-12 7.2	10-12 11.7	10-12 [illegible].2	10-12 7.0	10-12 4.[illegible]	10-12 7.8	10-12 19.7	10-12 22.1	10-12 22.5	10-12 22.7	10-12 23.1	10-12 25.6	10-12 25.7	10-12 25.5
≧13 2.9	≧13 6.4	≧13 4.7	≧13 [illegible].0	≧13 3.0	≧13 2.7	≧13 5.7	≧13 21.7	≧13 26.2	≧13 26.3	≧13 24.4	≧13 24.8	≧13 27.4	≧13 30.7	≧13 34.1
N= 595	N= 345	N= 56[illegible]	N= 83	N= 100	N=4586	N= 6102	N= 1175	N= 1024	N= 814	N= 853	N= 939	N= 895	N= 779	N= 713
≦2 14.3	≦2 8.7	≦2 [illegible].3	≦2 [illegible].8	≦2 [illegible].2	≦2 15.7	≦2 5.7	≦2 4.6	≦2 3.6	≦2 1.9	≦2 1.7	≦2 1.4	≦2 1.0	≦2 1.4	≦2 0.9
3-4 20.1	3-4 13.8	3-4 [illegible].6	3-4 [illegible].3	3-4 20.7	3-4 17.3	3-4 10.6	3-4 9.1	3-4 6.6	3-4 5.8	3-4 4.2	3-4 3.7	3-4 3.8	3-4 3.8	3-4 3.6
5-6 21.1	5-6 19.8	5-6 [illegible].4	5-6 [illegible]	5-6 19.7	5-6 18.3	5-6 15.5	5-6 15.0	5-6 12.5	5-6 11.6	5-6 11.9	5-6 10.5	5-6 10.1	5-6 7.9	5-6 7.7
7-9 28.7	7-9 33.1	7-9 [illegible].1	7-9 25.4	7-9 22.9	7-9 24.8	7-9 30.4	7-9 30.2	7-9 31.2	7-9 31.1	7-9 31.0	7-9 30.6	7-9 27.8	7-9 25.7	7-9 26.4
10-12 10.3	10-12 15.1	10-12 [illegible].6	10-12 7.7	10-12 10.3	10-12 12.9	10-12 19.2	10-12 21.1	10-12 24.1	10-12 24.5	10-12 21.7	10-12 23.0	10-12 23.7	10-12 28.1	10-12 26.7
≧13 5.6	≧13 9.5	≧13 [illegible].1	≧13 4.6	≧13 7.1	≧13 11.0	≧13 18.6	≧13 20.1	≧13 22.0	≧13 25.0	≧13 29.5	≧13 30.8	≧13 33.6	≧13 33.2	≧13 34.7
N= 807	N= 919	N= 1502	N=2395	N= 1876	N=1430	N= 1171	N= 1116	N=1099	N=1232	N=1083	N= 909	N= 773	N= 713	N= 637
≦2 6.7	≦2 8.0	≦2 [illegible].[illegible]	≦2 16.1	≦2 6.6	≦2 4.9	≦2 3.4	≦2 2.6	≦2 1.8	≦2 1.2	≦2 2.0	≦2 1.7	≦2 0.9	≦2 0.8	≦2 2.2
3-4 10.5	3-4 10.3	3-4 [illegible].6	3-4 21.8	3-4 11.5	3-4 9.0	3-4 7.5	3-4 8.0	3-4 6.4	3-4 4.4	3-4 4.8	3-4 3.6	3-4 2.4	3-4 2.7	3-4 3.3
5-6 17.9	5-6 18.7	5-6 [illegible].3	5-6 23.3	5-6 13.9	5-6 11.9	5-6 12.8	5-6 11.5	5-6 12.0	5-6 10.0	5-6 9.1	5-6 6.6	5-6 7.3	5-6 6.7	5-6 6.8
7-9 34.8	7-9 34.9	7-9 [illegible].7	7-9 28.0	7-9 27.5	7-9 32.0	7-9 31.7	7-9 32.9	7-9 29.8	7-9 24.6	7-9 27.1	7-9 25.1	7-9 26.2	7-9 30.3	7-9 26.8
10-12 19.9	10-12 15.4	10-12 [illegible].6	10-12 7.9	10-12 22.8	10-12 19.7	10-12 21.6	10-12 22.5	10-12 21.6	10-12 22.9	10-12 25.1	10-12 29.3	10-12 28.5	10-12 25.8	10-12 25.1
≧13 10.2	≧13 12.8	≧13 [illegible].9	≧13 2.9	≧13 17.8	≧13 22.7	≧13 23.1	≧13 22.5	≧13 28.4	≧13 36.8	≧13 31.8	≧13 33.7	≧13 34.7	≧13 33.8	≧13 35.7
N= 1194	N= 788	N= 392	N=2895	N= 786	N= 1139	N= 1251	N= 1193	N= 1413	N= 1238	N= 704	N= 662	N= 660	N= 628	N= 630
≦2 5.9	≦2 12.7	≦2 [illegible].0	≦2 26.5	≦2 5.0	≦2 4.0	≦2 3.1	≦2 1.9	≦2 1.8	≦2 1.6	≦2 1.7	≦2 1.8	≦2 1.2	≦2 1.0	≦2 1.0
3-4 10.3	3-4 12.7	3-4 [illegible].0	3-4 23.3	3-4 13.0	3-4 11.1	3-4 6.5	3-4 7.2	3-4 4.6	3-4 2.9	3-4 3.8	3-4 2.4	3-4 3.3	3-4 2.5	3-4 3.2
5-6 14.6	5-6 [illegible].6	5-6 [illegible].5	5-6 20.5	5-6 14.9	5-6 15.5	5-6 9.6	5-6 10.4	5-6 8.0	5-6 6.6	5-6 7.6	5-6 7.2	5-6 7.4	5-6 7.3	5-6 5.8
7-9 36.2	7-9 [illegible].4	7-9 [illegible].4	7-9 21.9	7-9 29.4	7-9 30.9	7-9 30.0	7-9 24.7	7-9 26.4	7-9 25.6	7-9 27.1	7-9 25.0	7-9 27.2	7-9 28.7	7-9 25.1
10-12 19.4	10-12 [illegible].9	10-12 [illegible].9	10-12 5.4	10-12 18.2	10-12 20.4	10-12 25.3	10-12 25.1	10-12 28.1	10-12 26.8	10-12 29.8	10-12 29.3	10-12 29.3	10-12 26.7	10-12 27.0
≧13 13.6	≧13 [illegible].6	≧13 [illegible].1	≧13 2.5	≧13 19.5	≧13 18.0	≧13 25.5	≧13 30.8	≧13 31.1	≧13 36.6	≧13 29.9	≧13 34.2	≧13 31.5	≧13 33.8	≧13 37.9
N= 767	N= [illegible]69	N= [illegible]84	N=13390	N= 1401	N= 1616	N= 1162	N= 904	N=1039	N= 1153	N= 812	N= 828	N= 806	N= 722	N= 708
≦2 15.[illegible]	≦2 20.7	≦2 [illegible].7	≦2 23.2	≦2 3.6	≦2 1.8	≦2 2.5	≦2 2.2	≦2 2.3	≦2 1.8	≦2 1.7	≦2 1.7	≦2 1.6	≦2 2.0	≦2 1.6
3-4 18.[illegible]	3-4 [illegible].6	3-4 [illegible].9	3-4 24.1	3-4 7.6	3-4 5.9	3-4 5.1	3-4 4.7	3-4 3.9	3-4 5.0	3-4 4.1	3-4 3.8	3-4 5.4	3-4 4.1	3-4 4.1
5-6 [illegible].7	5-6 [illegible].6	5-6 [illegible].9	5-6 19.8	5-6 13.2	5-6 12.9	5-6 10.5	5-6 8.5	5-6 9.3	5-6 8.2	5-6 6.4	5-6 7.4	5-6 6.2	5-6 8.5	5-6 6.6
7-9 [illegible].7	7-9 [illegible].8	7-9 [illegible].[illegible]	7-9 21.2	7-9 32.8	7-9 31.0	7-9 27.7	7-9 29.7	7-9 27.6	7-9 26.1	7-9 27.2	7-9 26.0	7-9 25.3	7-9 24.1	7-9 25.3
10-12 [illegible].3	10-12 [illegible].9	10-12 [illegible].4	10-12 7.6	10-12 23.1	10-12 23.2	10-12 27.0	10-12 26.7	10-12 27.0	10-12 26.[illegible]	10-12 26.0	10-12 26.5	10-12 27.3	10-12 25.7	10-12 29.6
≧13 [illegible].9	≧13 [illegible].4	≧13 [illegible].4	≧13 4.1	≧13 19.8	≧13 25.2	≧13 27.2	≧13 28.2	≧13 29.9	≧13 32.9	≧13 34.7	≧13 34.6	≧13 34.2	≧13 35.6	≧13 32.8
N= 387	N= 29	N= [illegible]74	N=5547	N=1633	N=1640	N= 1421	N=1350	N=1306	N= 1135	N= 1079	N=1044	N= 975	N= 884	N= 925
135°				145°				155°				165°

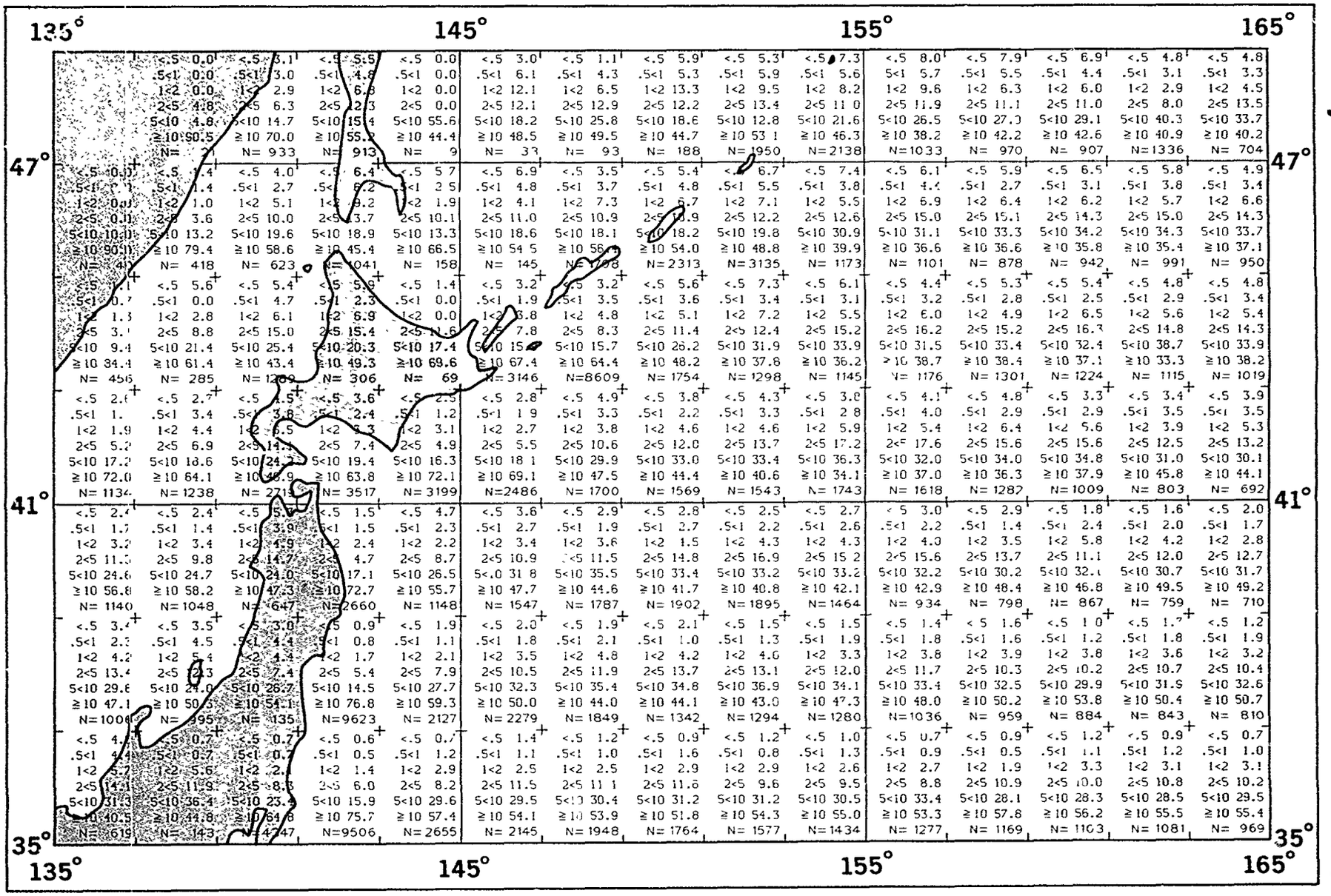

SURFACE CURRENTS
165°
155°
145°
135°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°
January
Surface Currents


CLOUD COVER
Percent frequency of
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°

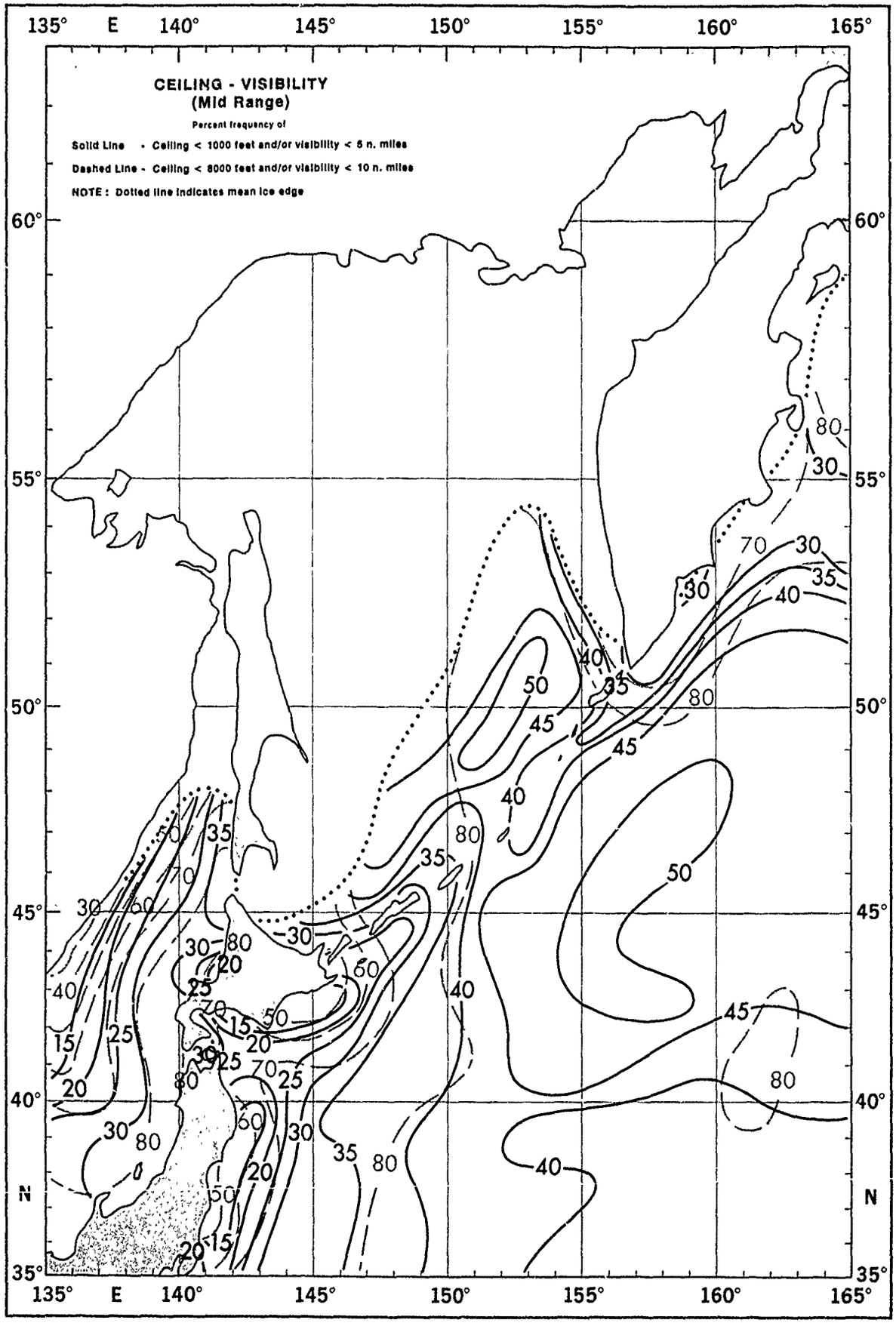

PRECIPITATION
Percent frequency of
observations reporting precipitation
NOYE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
35°
N


VISIBILITY
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N = Observation count
N. MILES PERCENT
<.5 0.2
.5 < 1 3.1
1 < 2 6.7
2 < 5 10.0
5 < 10 60.0
≥ 10 20.0
N = 1834
135°
145°
155°
165°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°
<.5 0.0 <.5 3.1 <.5 5.5 <.5 0.0 <.5 3.0 <.5 1.1 <.5 5.9 <.5 5.3 <.5 7.3 <.5 8.0 <.5 7.9 <.5 6.9 <.5 4.8 <.5 4.8
.5<1 0.0 .5<1 3.0 .5<1 4.8 .5<1 0.0 .5<1 6.1 .5<1 4.3 .5<1 5.3 .5<1 5.9 .5<1 5.6 5<1 5.7 .5<1 5.5 .5<1 4.4 .5<1 3.1 .5<1 3.3
1<2 0.0 1<2 2.9 1<2 6.8 1<2 0.0 1<2 12.1 1<2 6.5 1<2 13.3 1<2 9.5 1<2 8.2 1<2 9.6 1<2 6.3 1<2 6.0 1<2 2.9 1<2 4.5
2<5 4.8 2<5 6.3 2<5 2.3 2<5 0.0 2<5 12.1 2<5 12.9 2<5 12.2 2<5 13.4 2<5 11 0 2<5 11.9 2<5 11.1 2<5 11.0 2<5 8.0 2<5 13.5
5<10 4.8 5<10 14.7 5<10 15.4 5<10 55.6 5<10 18.2 5<10 25.8 5<10 18.6 5<10 12.8 5<10 21.6 5<10 26.5 5<10 27.3 5<10 29.1 5<10 40.3 5<10 33.7
≥10 90.5 ≥10 70.0 ≥10 55.2 ≥10 44.4 ≥10 48.5 ≥10 49.5 ≥10 44.7 ≥10 53 1 ≥10 46.3 ≥10 38.2 ≥10 42.2 ≥10 42.6 ≥10 40.9 ≥10 40.2
N= 21 N= 933 N= 913 N= 9 N= 33 N= 93 N= 188 N=1950 N=2138 N=1033 N= 970 N= 907 N=1336 N= 704
<.5 0.0 <.5 1.4 <.5 4.0 <.5 6.4 <.5 5 7 <.5 6.9 <.5 3.5 <.5 5.4 <.5 6.7 <.5 7.4 <.5 6.1 <.5 5.9 <.5 6.5 <.5 5.8 <.5 4.9
.5<1 0.1 .5<1 1.4 .5<1 2.7 .5<1 6.2 .5<1 2 5 .5<1 4.8 .5<1 3.7 .5<1 4.8 .5<1 5.5 .5<1 3.8 .5<1 4.4 .5<1 2.7 .5<1 3.1 .5<1 3.8 .5<1 3.4
1<2 0.0 1<2 1.0 1<2 5.1 1<2 9.2 1<2 1.9 1<2 4.1 1<2 7.3 1<2 5.7 1<2 7.1 1<2 5.5 1<2 6.9 1<2 6.4 1<2 6.2 1<2 5.7 1<2 6.6
2<5 0.0 2<5 3.6 2<5 10.0 2<5 13.7 2<5 10.1 2<5 11.0 2<5 10.9 2<5 10.9 2<5 12.2 2<5 12.6 2<5 15.0 2<5 15.1 2<5 14.3 2<5 15.0 2<5 14.3
5<10 10.0 5<10 13.2 5<10 19.6 5<10 18.9 5<10 13.3 5<10 18.6 5<10 18.1 5<10 18.2 5<10 19.8 5<10 30.9 5<10 31.1 5<10 33.3 5<10 34.2 5<10 34.3 5<10 33.7
≥10 90.0 ≥10 79.4 ≥10 58.6 ≥10 45.4 ≥10 66.5 ≥10 54 5 ≥10 56.4 ≥10 54.0 ≥10 48.8 ≥10 39.9 ≥10 36.6 ≥10 36.6 ≥10 35.8 ≥10 35.4 ≥10 37.1
N= 41 N= 418 N= 623 N=1041 N= 158 N= 145 N=1708 N=2313 N=3135 N= 1173 N= 1101 N= 878 N= 942 N= 991 N= 950
<.5 0.1 <.5 5.6 <.5 5.4 <.5 5.9 <.5 1.4 <.5 3.2 <.5 3.2 <.5 5.6 <.5 7.3 <.5 6.1 <.5 4.4 <.5 5.3 <.5 5.4 <.5 4.8 <.5 4.8
.5<1 0.7 .5<1 0.0 .5<1 4.7 .5<1 2.3 .5<1 0.0 .5<1 1.9 .5<1 3.5 .5<1 3.6 .5<1 3.4 .5<1 3.1 .5<1 3.2 .5<1 2.8 .5<1 2.5 .5<1 2.9 .5<1 3.4
1<2 1.3 1<2 2.8 1<2 6.1 1<2 6.9 1<2 0.0 1<2 3.8 1<2 4.8 1<2 5.1 1<2 7.2 1<2 5.5 1<2 6.0 1<2 4.9 1<2 6.5 1<2 5.6 1<2 5.4
2<5 3.1 2<5 8.8 2<5 15.0 2<5 15.4 2<5 11.6 2<5 7.8 2<5 8.3 2<5 11.4 2<5 12.4 2<5 15.2 2<5 16.2 2<5 15.2 2<5 16.7 2<5 14.8 2<5 14.3
5<10 9.4 5<10 21.4 5<10 25.4 5<10 20.3 5<10 17.4 5<10 15 5<10 15.7 5<10 26.2 5<10 31.9 5<10 33.9 5<10 31.5 5<10 33.4 5<10 32.4 5<10 38.7 5<10 33.9
≥10 84.4 ≥10 61.4 ≥10 43.4 ≥10 49.3 ≥10 69.6 ≥10 67.4 ≥10 64.4 ≥10 48.2 ≥10 37.8 ≥10 36.2 ≥10 38.7 ≥10 38.4 ≥10 37.1 ≥10 33.3 ≥10 38.2
N= 456 N= 285 N=1209 N= 306 N= 69 N=3146 N=8609 N= 1754 N= 1298 N= 1145 N= 1176 N= 1301 N= 1224 N= 1115 N= 1019
<.5 2.6 <.5 2.7 <.5 4.5 <.5 3.6 <.5 2.5 <.5 2.8 <.5 4.9 <.5 3.8 <.5 4.3 <.5 3.0 <.5 4.1 <.5 4.8 <.5 3.3 <.5 3.4 <.5 3.9
.5<1 1. .5<1 3.4 .5<1 3.8 .5<1 2.4 .5<1 1.2 .5<1 1 9 .5<1 3.3 .5<1 2.2 .5<1 3.3 .5<1 2 8 .5<1 4.0 .5<1 2.9 .5<1 2.9 .5<1 3.5 .5<1 3.5
1<2 1.9 1<2 4.4 1<2 6.5 1<2 3.3 1<2 3.1 1<2 2.7 1<2 3.8 1<2 4.6 1<2 4.6 1<2 5.9 1<2 5.4 1<2 6.4 1<2 5.6 1<2 3.9 1<2 5.3
2<5 5.2 2<5 6.9 2<5 14.5 2<5 7.4 2<5 4.9 2<5 5.5 2<5 10.6 2<5 12.0 2<5 13.7 2<5 17.2 2<5 17.6 2<5 15.6 2<5 15.6 2<5 12.5 2<5 13.2
5<10 17.2 5<10 18.6 5<10 24.7 5<10 19.4 5<10 16.3 5<10 18 1 5<10 29.9 5<10 33.0 5<10 33.4 5<10 36.3 5<10 32.0 5<10 34.0 5<10 34.8 5<10 31.0 5<10 30.1
≥10 72.0 ≥10 64.1 ≥10 48.9 ≥10 63.8 ≥10 72.1 ≥10 69.1 ≥10 47.5 ≥10 44.4 ≥10 40.6 ≥10 34.1 ≥10 37.0 ≥10 36.3 ≥10 37.9 ≥10 45.8 ≥10 44.1
N=1134 N=1238 N= 2715 N= 3517 N= 3199 N=2486 N= 1700 N= 1569 N= 1543 N= 1743 N= 1618 N= 1282 N=1009 N= 803 N= 692
<.5 2.4 <.5 2.4 <.5 5.0 <.5 1.5 <.5 4.7 <.5 3.6 <.5 2.9 <.5 2.8 <.5 2.5 <.5 2.7 <.5 3.0 <.5 2.9 <.5 1.8 <.5 1.6 <.5 2.0
.5<1 1.7 .5<1 1.4 .5<1 3.9 .5<1 1.5 .5<1 2.3 .5<1 2.7 .5<1 1.9 .5<1 2.7 .5<1 2.2 .5<1 2.6 .5<1 2.2 .5<1 1.4 .5<1 2.4 .5<1 2.0 .5<1 1.7
1<2 3.2 1<2 3.4 1<2 4.9 1<2 2.4 1<2 2.2 1<2 3.4 1<2 3.6 1<2 1.5 1<2 4.3 1<2 4.3 1<2 4.0 1<2 3.5 1<2 5.8 1<2 4.2 1<2 2.8
2<5 11.5 2<5 9.8 2<5 14.7 2<5 4.7 2<5 8.7 2<5 10.9 2<5 11.5 2<5 14.8 2<5 16.9 2<5 15 2 2<5 15.6 2<5 13.7 2<5 11.1 2<5 12.0 2<5 12.7
5<10 24.6 5<10 24.7 5<10 24.0 5<10 17.1 5<10 26.5 5<0 31 8 5<10 35.5 5<10 33.4 5<10 33.2 5<10 33.2 5<10 32.2 5<10 30.2 5<10 32.1 5<10 30.7 5<10 31.7
≥10 56.8 ≥10 58.2 ≥10 47.3 ≥10 72.7 ≥10 55.7 ≥10 47.7 ≥10 44.6 ≥10 41.7 ≥10 40.8 ≥10 42.1 ≥10 42.9 ≥10 48.4 ≥10 46.8 ≥10 49.5 ≥10 49.2
N=1140 N=1048 N= 647 N=2660 N=1148 N=1547 N=1787 N=1902 N=1895 N=1464 N= 934 N= 798 N= 867 N= 759 N= 710
<.5 3.4 <.5 3.5 <.5 3.0 <.5 0.9 <.5 1.9 <.5 2.0 <.5 1.9 <.5 2.1 <.5 1.5 <.5 1.5 <.5 1.4 <.5 1.6 <.5 1 0 <.5 1.7 <.5 1.2
.5<1 2.3 .5<1 4.5 .5<1 4.4 .5<1 0.8 .5<1 1.1 .5<1 1.8 .5<1 2.1 .5<1 1.0 .5<1 1.3 .5<1 1.9 .5<1 1.8 .5<1 1.6 .5<1 1.2 .5<1 1.8 .5<1 1.9
1<2 4.2 1<2 5.4 1<2 4.4 1<2 1.7 1<2 2.1 1<2 3.5 1<2 4.8 1<2 4.2 1<2 4.6 1<2 3.3 1<2 3.8 1<2 3.9 1<2 3.8 1<2 3.6 1<2 3.2
2<5 13.4 2<5 12.3 2<5 7.4 2<5 5.4 2<5 7.9 2<5 10.5 2<5 11.9 2<5 13.7 2<5 13.1 2<5 12.0 2<5 11.7 2<5 10.3 2<5 10.2 2<5 10.7 2<5 10.4
5<10 29.8 5<10 24.0 5<10 26.7 5<10 14.5 5<10 27.7 5<10 32.3 5<10 35.4 5<10 34.8 5<10 36.9 5<10 34.1 5<10 33.4 5<10 32.5 5<10 29.9 5<10 31.9 5<10 32.6
≥10 47.1 ≥10 50.5 ≥10 54.1 ≥10 76.8 ≥10 59.3 ≥10 50.0 ≥10 44.0 ≥10 44.1 ≥10 43.0 ≥10 47.3 ≥10 48.0 ≥10 50.2 ≥10 53.8 ≥10 50.4 ≥10 50.7
N=1006 N= 995 N= 135 N=9623 N= 2127 N= 2279 N= 1849 N= 1342 N= 1294 N= 1280 N=1036 N= 959 N= 884 N= 843 N= 810
<.5 4.2 <.5 0.7 <.5 0.7 <.5 0.6 <.5 0.7 <.5 1.4 <.5 1.2 <.5 0.9 <.5 1.2 <.5 1.0 <.5 0.7 <.5 0.9 <.5 1.2 <.5 0.9 <.5 0.7
.5<1 4.4 .5<1 0.7 .5<1 0.7 .5<1 0.5 .5<1 1.2 .5<1 1.1 .5<1 1.0 .5<1 1.6 .5<1 0.8 .5<1 1.3 .5<1 0.9 .5<1 0.5 .5<1 1.1 .5<1 1.2 .5<1 1.0
1<2 5.2 1<2 5.6 1<2 2.1 1<2 1.4 1<2 2.9 1<2 2.5 1<2 2.5 1<2 2.9 1<2 2.9 1<2 2.6 1<2 2.7 1<2 1.9 1<2 3.3 1<2 3.1 1<2 3.1
2<5 14.1 2<5 11.9 2<5 8.3 2<5 6.0 2<5 8.2 2<5 11.5 2<5 11 1 2<5 11.6 2<5 9.6 2<5 9.5 2<5 8.8 2<5 10.9 2<5 10.0 2<5 10.8 2<5 10.2
5<10 31.3 5<10 36.4 5<10 23.4 5<10 15.9 5<10 29.6 5<10 29.5 5<10 30.4 5<10 31.2 5<10 31.2 5<10 30.5 5<10 33.4 5<10 28.1 5<10 28.3 5<10 28.5 5<10 29.5
≥10 40.5 ≥10 44.8 ≥10 64.8 ≥10 75.7 ≥10 57.4 ≥10 54.1 ≥10 53.9 ≥10 51.8 ≥10 54.3 ≥10 55.0 ≥10 53.3 ≥10 57.8 ≥10 56.2 ≥10 55.5 ≥10 55.4
N= 619 N= 143 N=4747 N=9506 N=2655 N= 2145 N= 1948 N= 1764 N= 1577 N=1434 N= 1277 N= 1169 N=1103 N= 1081 N= 969

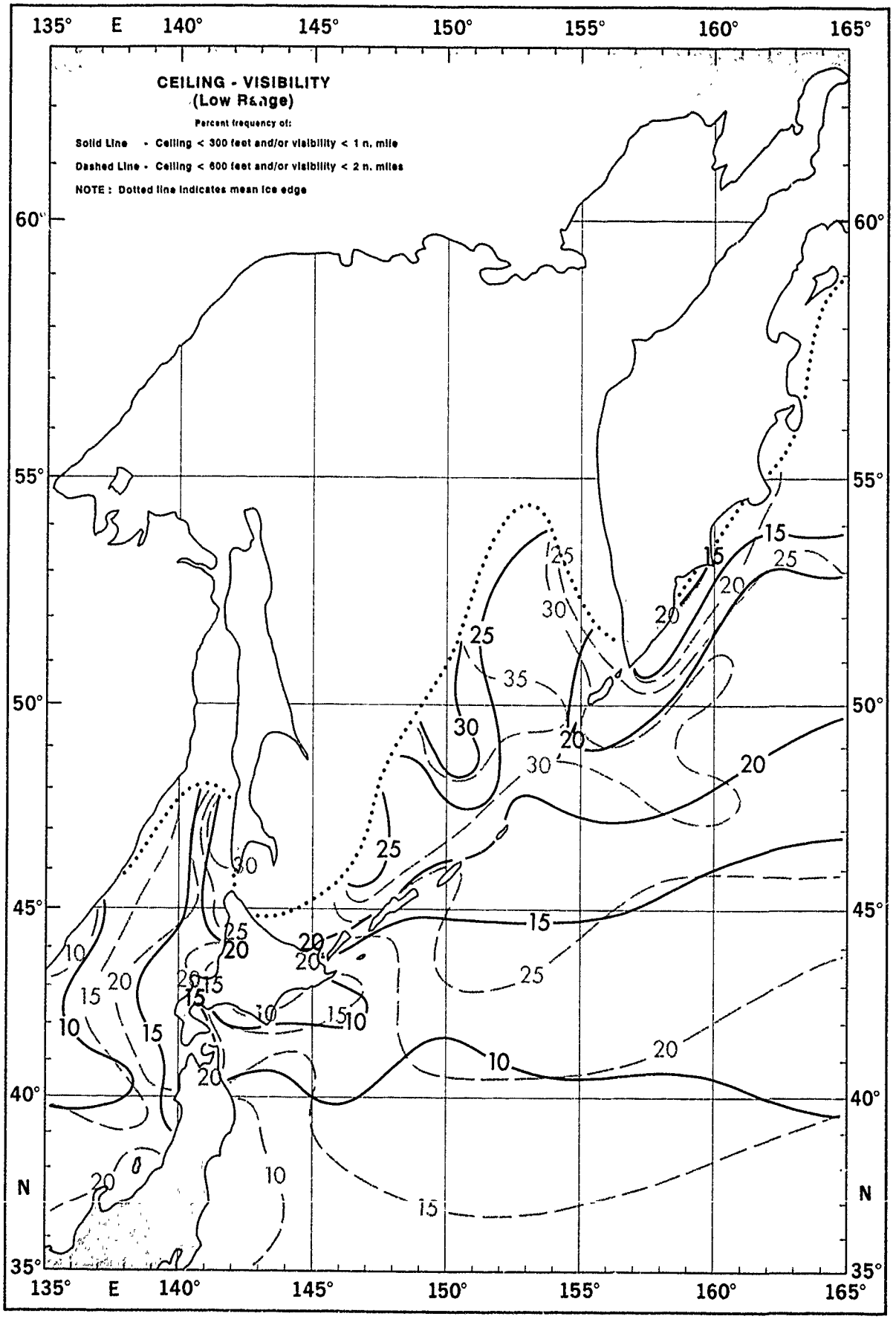
February

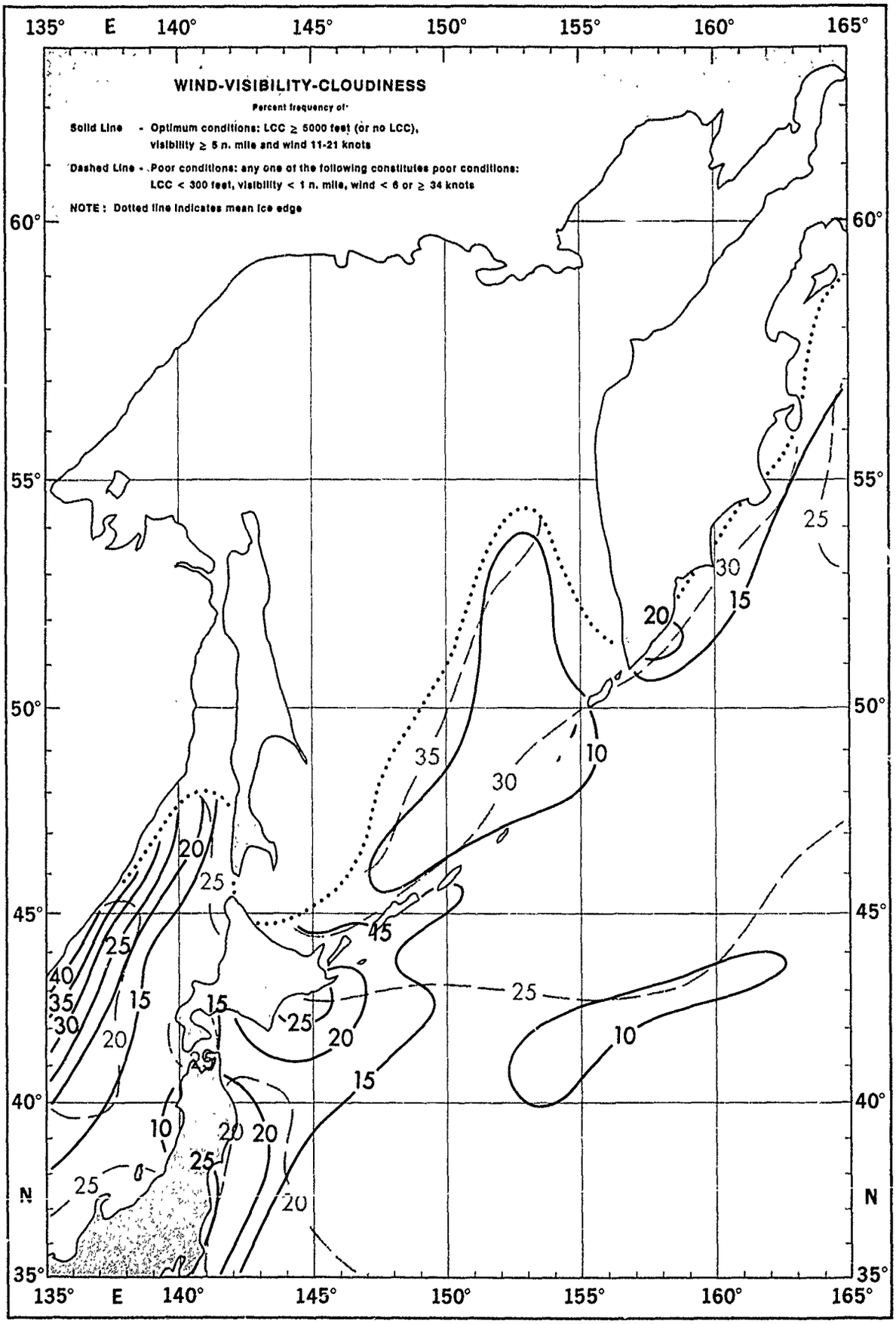
Ceiling-Visibility (Mid Range)



February

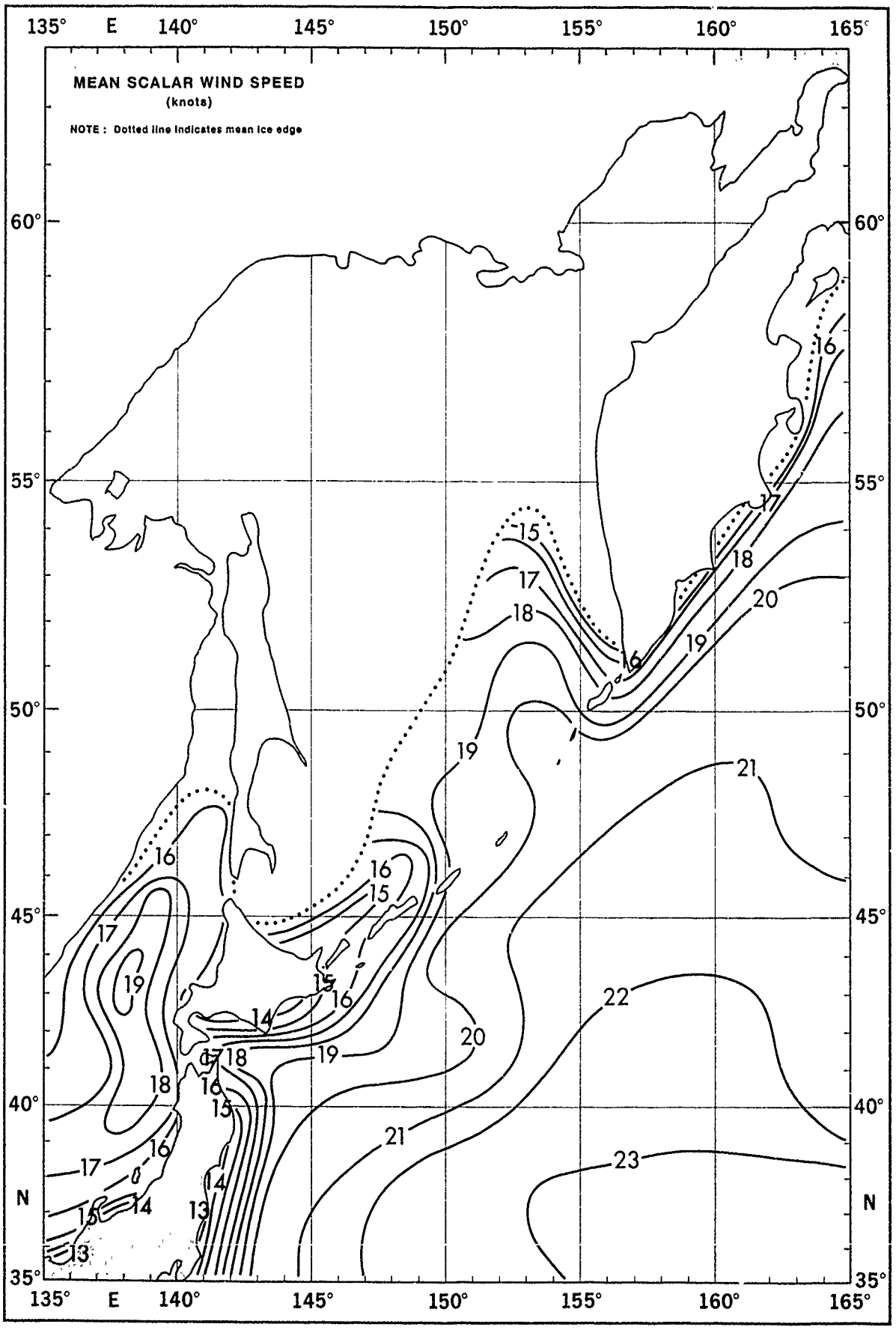
Ceiling-Visibility (Low Range)




WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 6 n. mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
NOTE: Dotted line indicates mean ice edge
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
35°
N

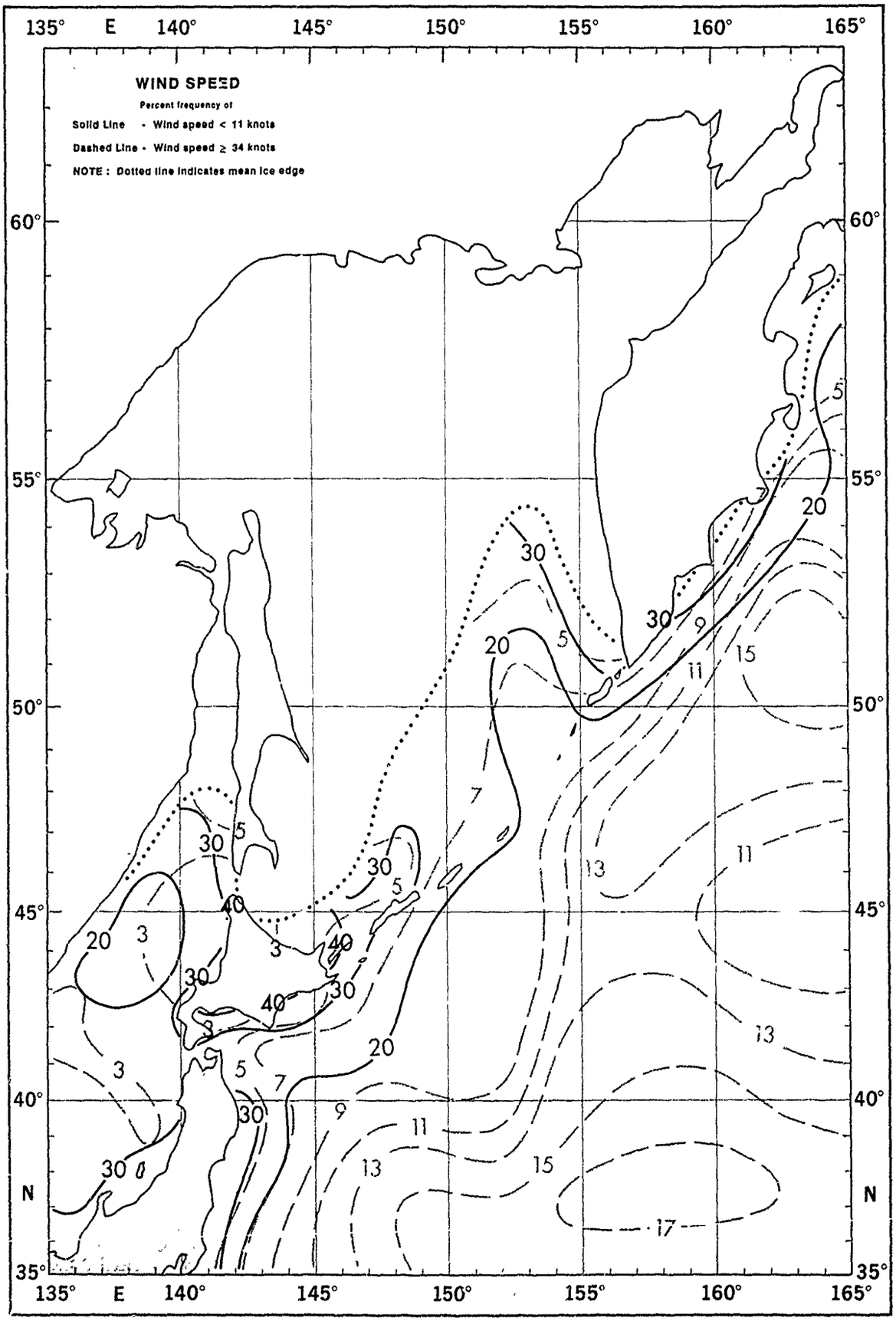
February

Mean Scalar Wind Speed



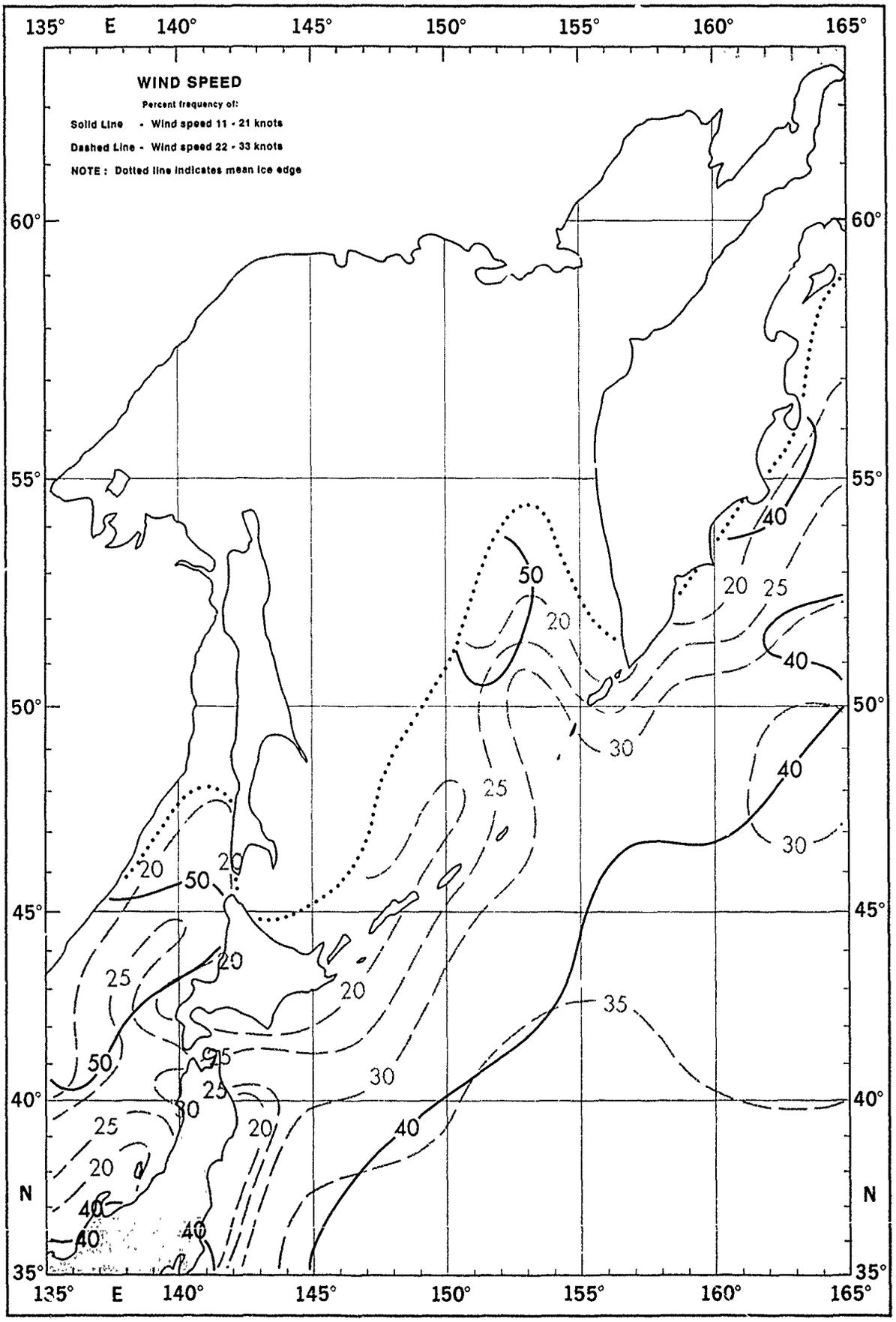
February

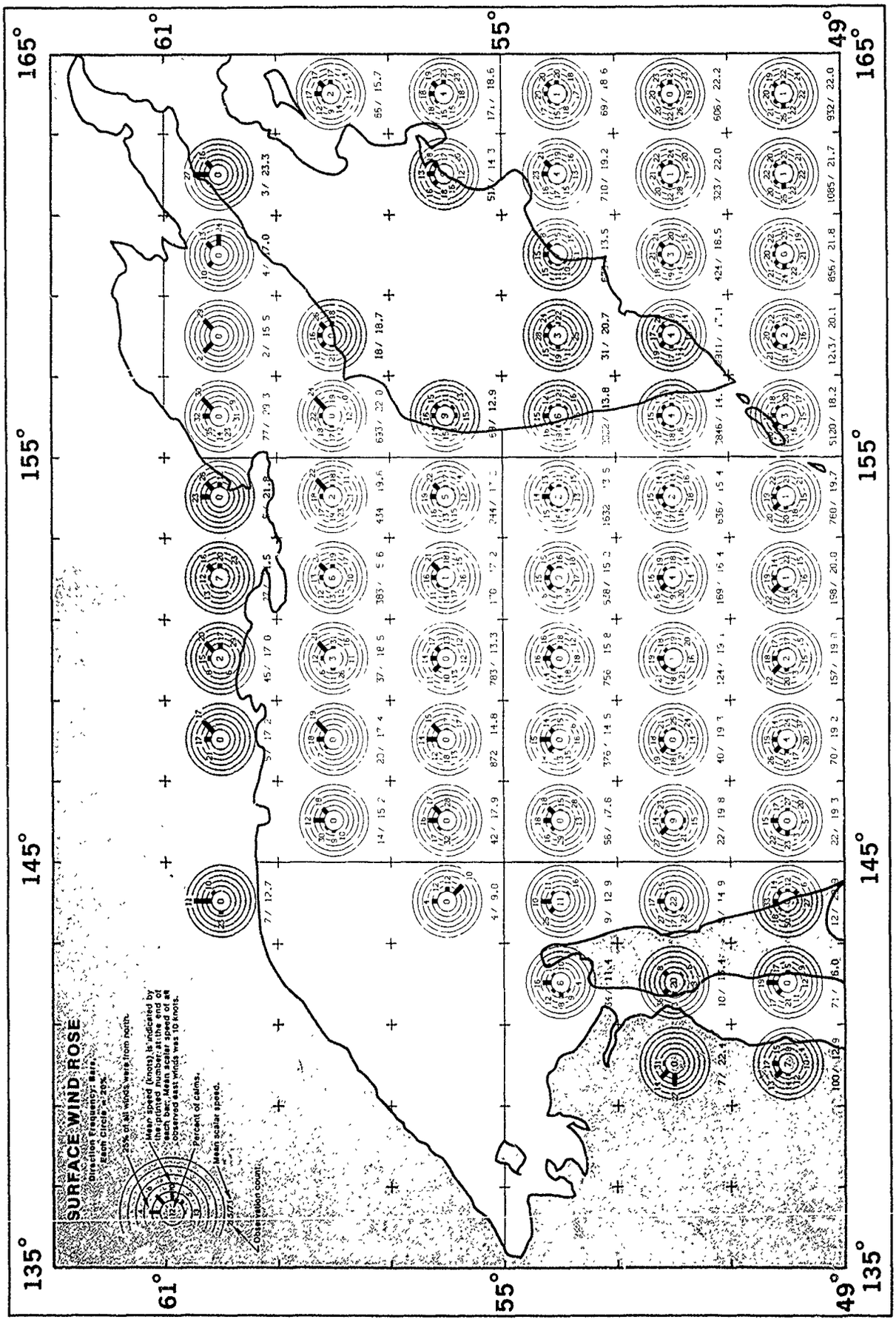
Wind Speed <11 and ≥ 34 Knots

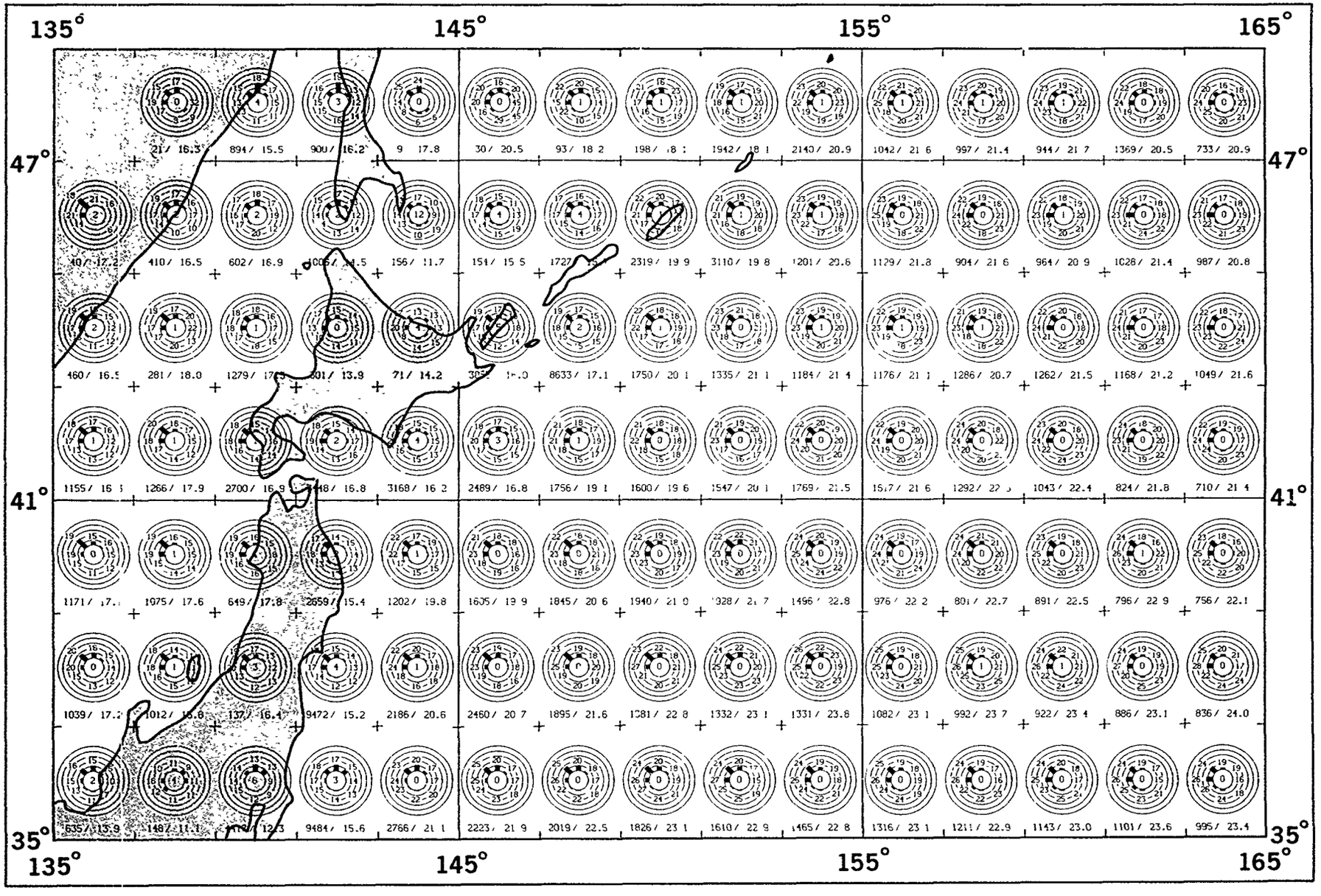


February

Wind Speed 11-21 and 22-33 Knots




SURFACE WIND ROSE
Direction Frequency: Bars.
Each Circle = 20%
20% of all winds were from north.
Mean speed (knots) is indicated by the figure at the end of each bar. Mean scalar speed of all observed east winds was 10 knots.
Percent of calms.
Mean scalar speed.
Observation count.
165°
155°
145°
135°
61°
55°
49°

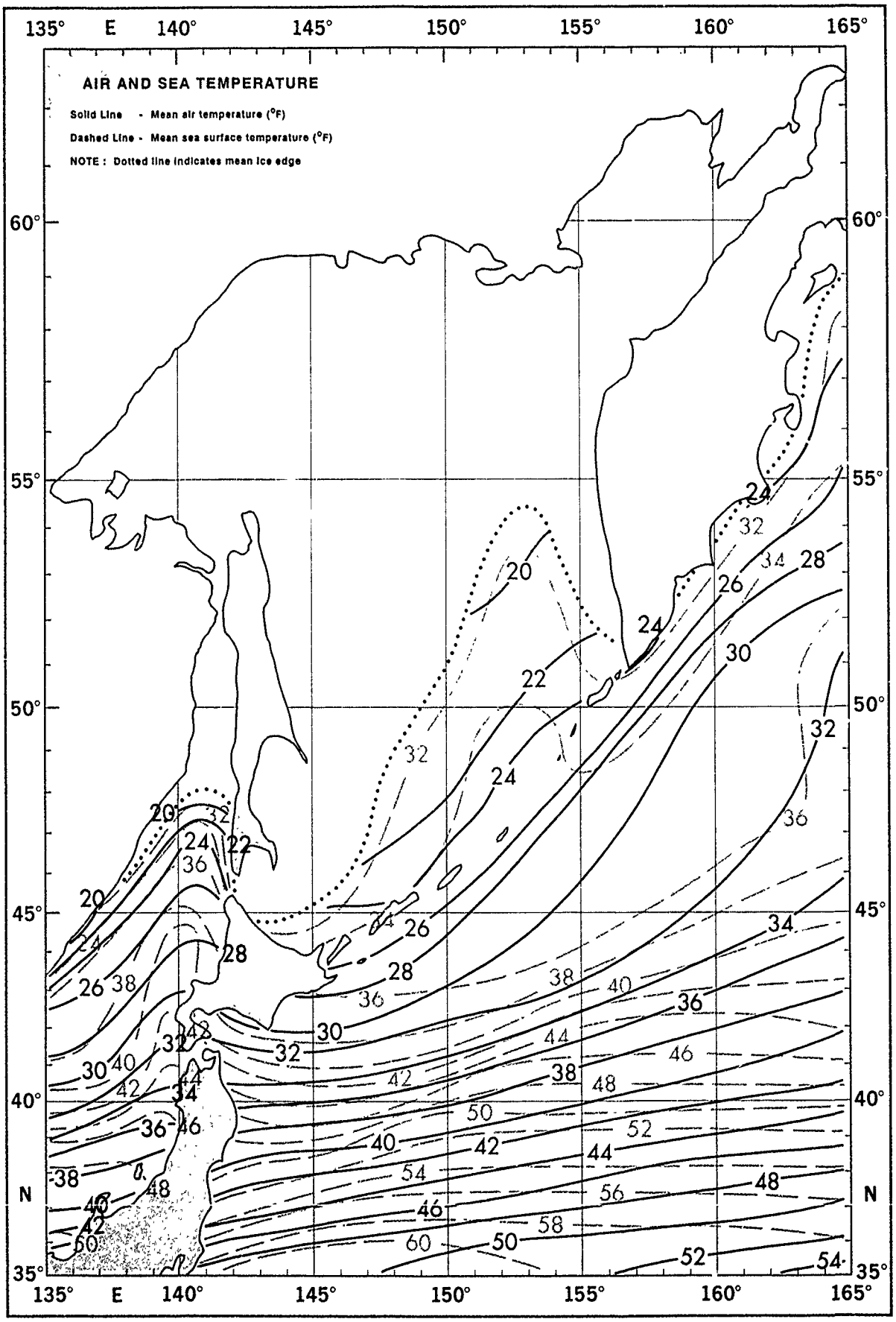


February

Surface Wind Roses

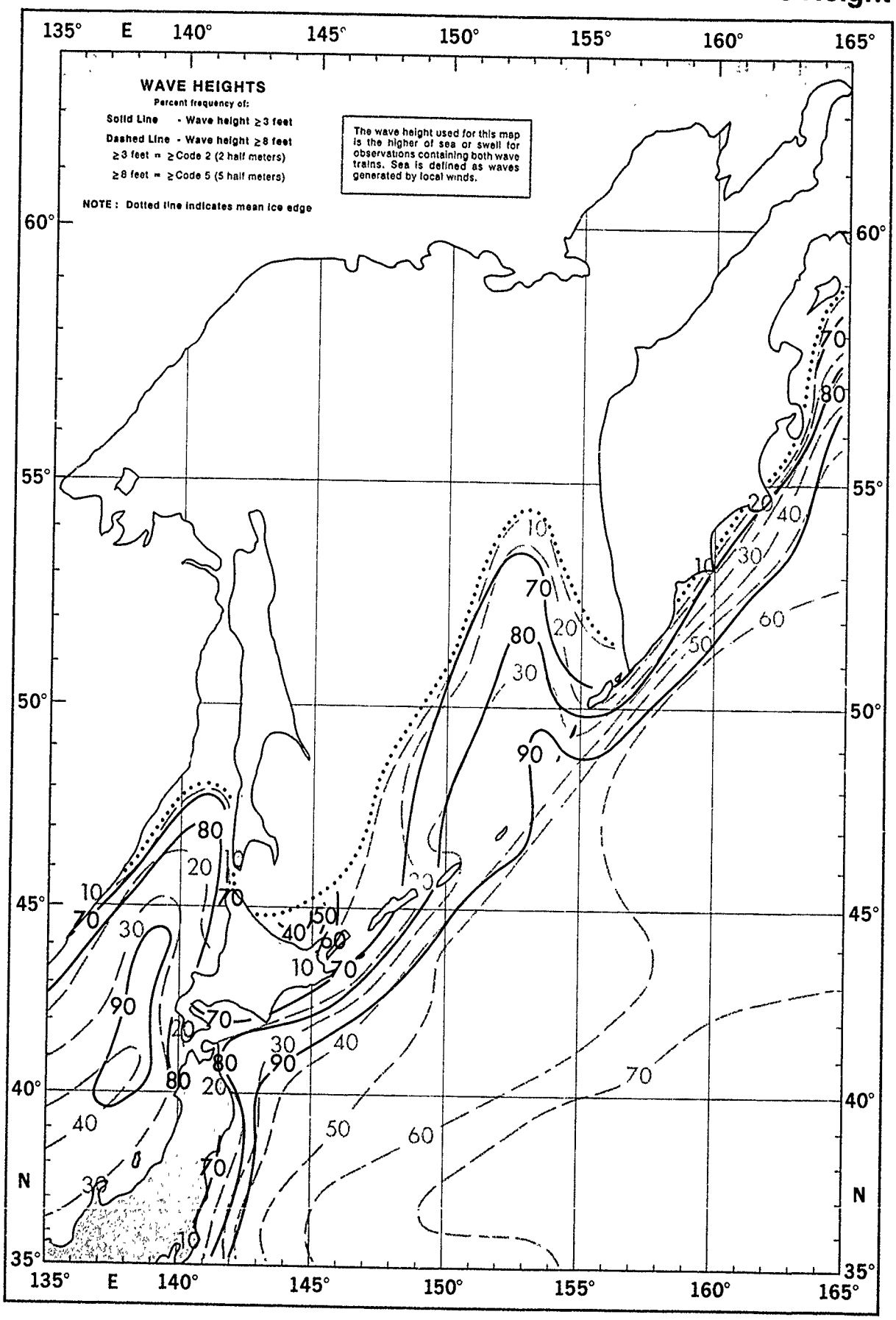
February

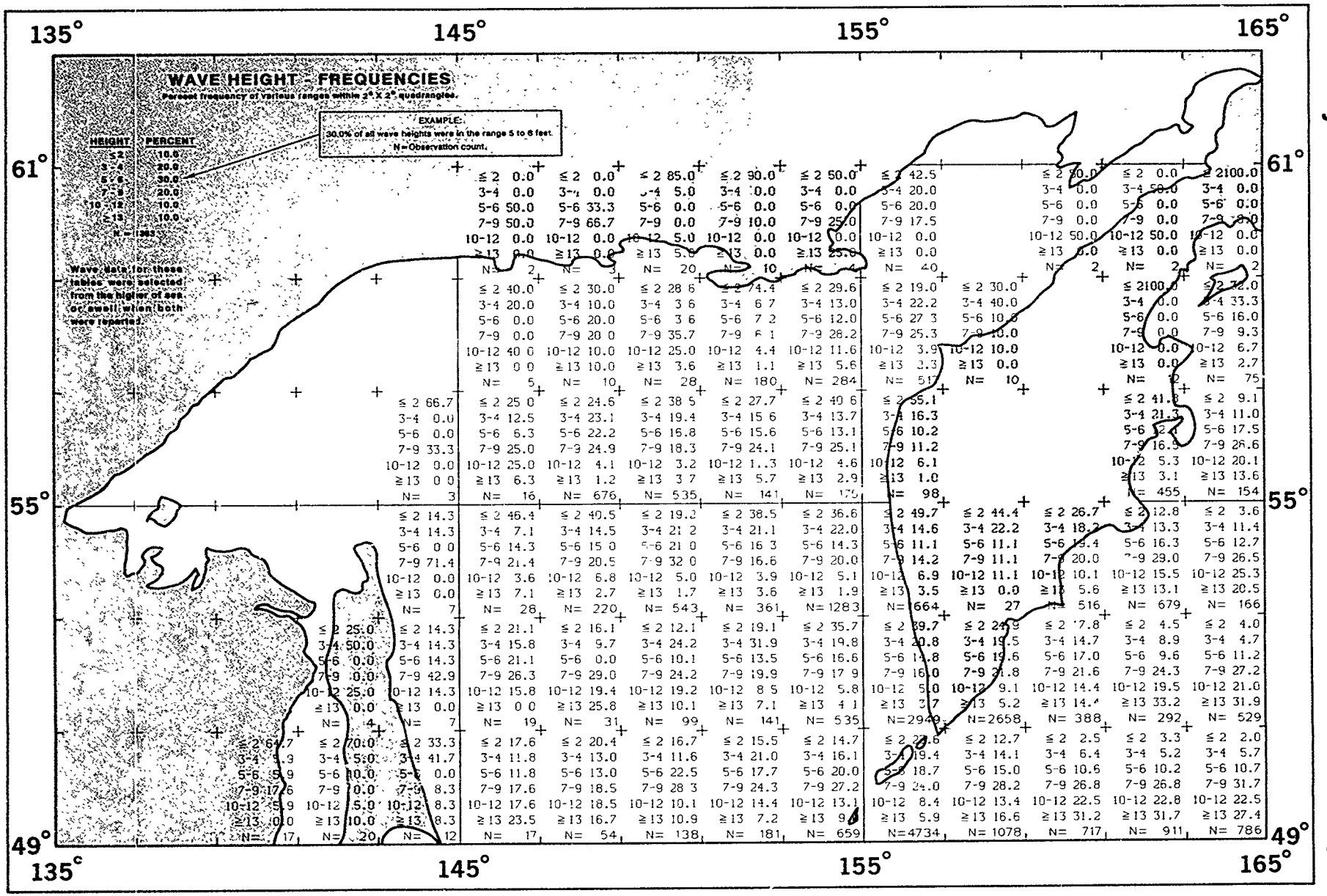
Mean Air and Sea Temperature

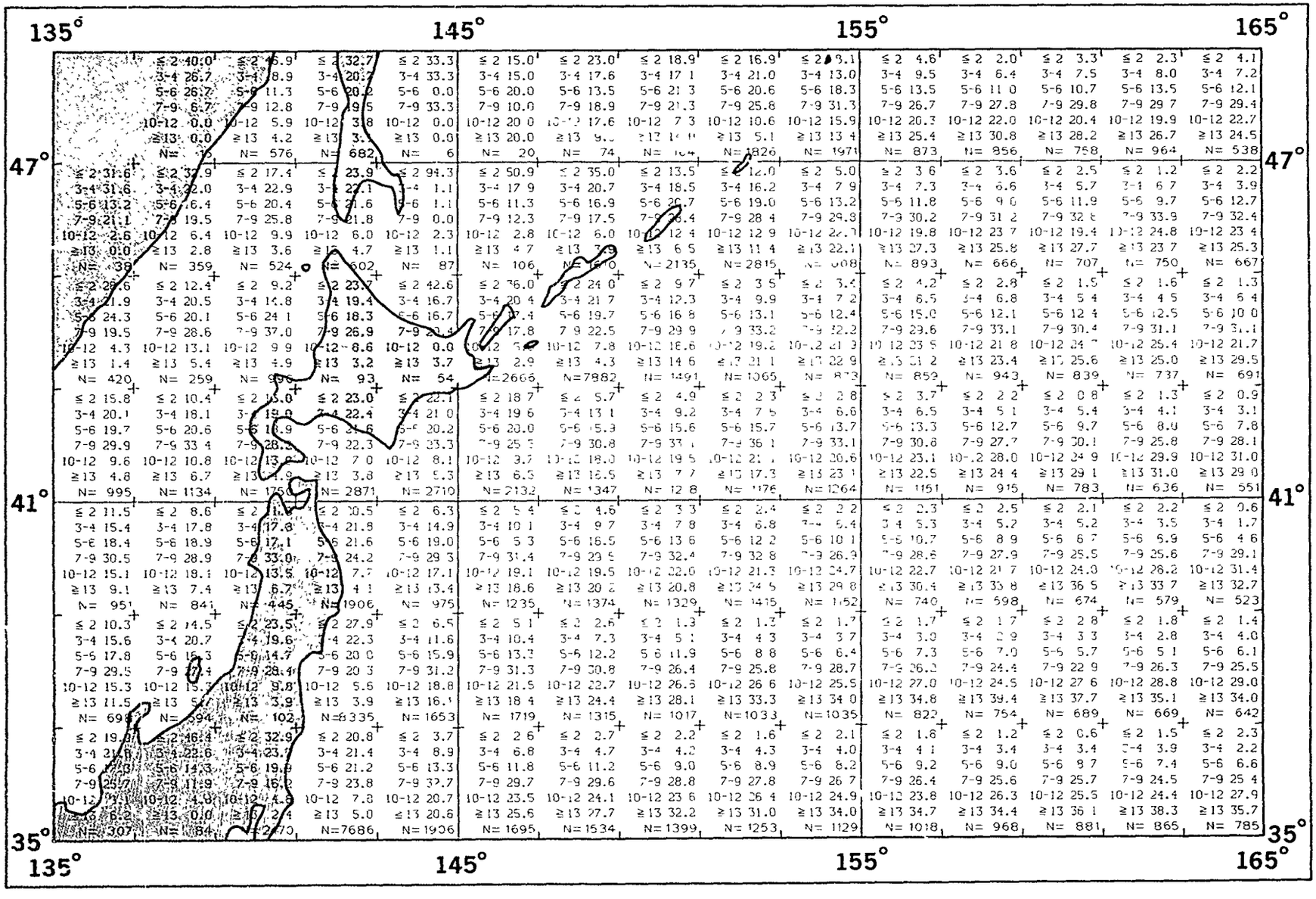


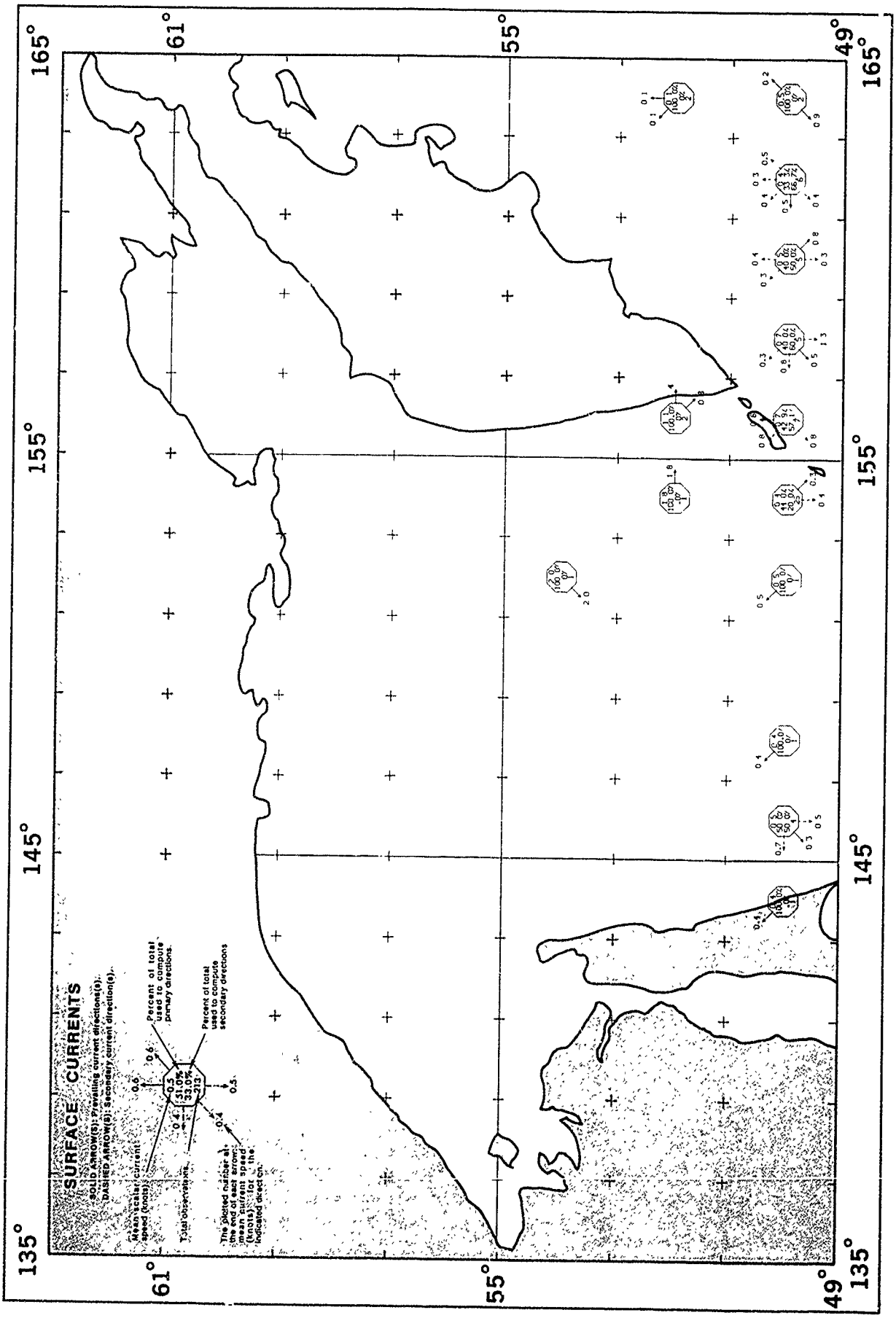
February

Wave Height

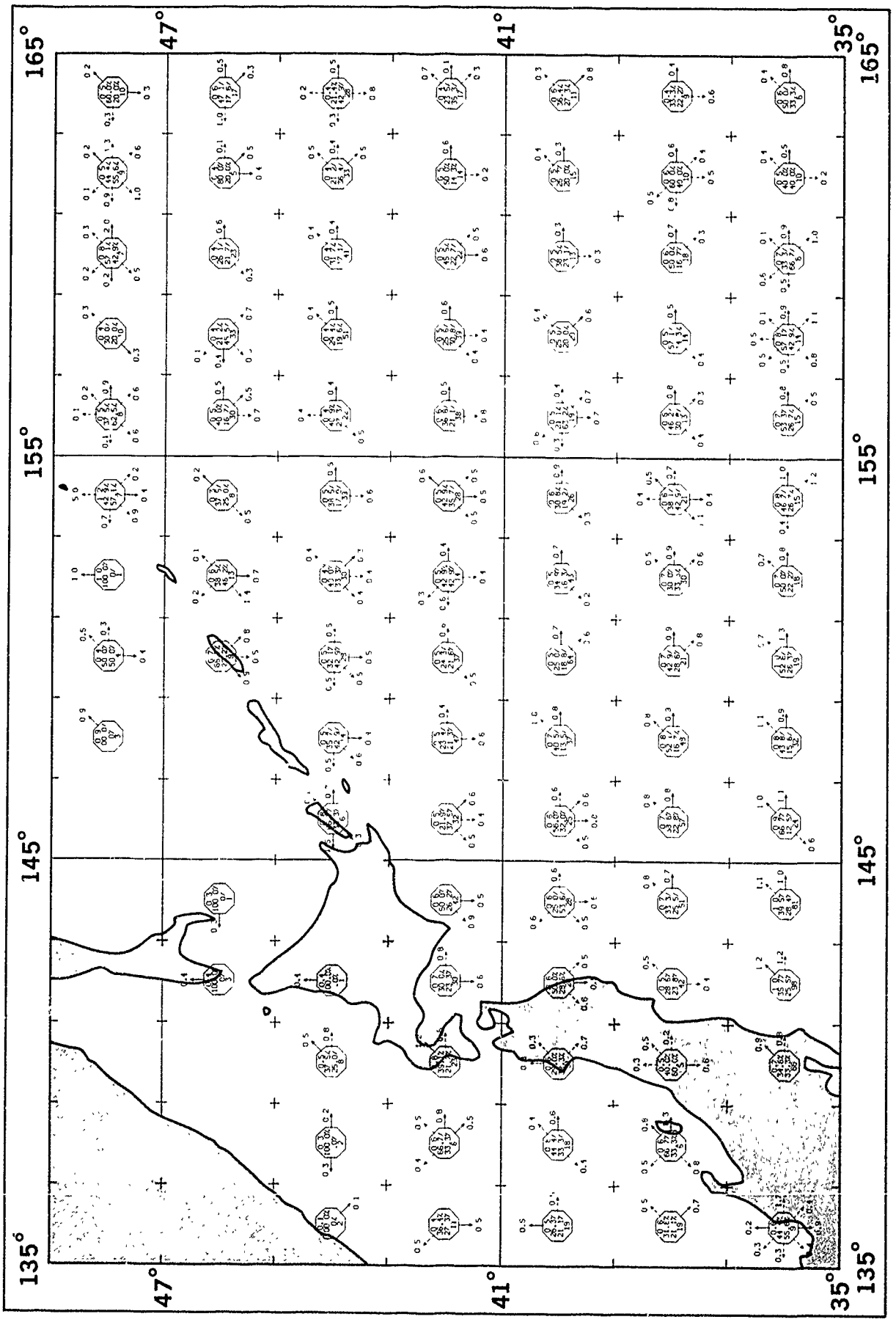


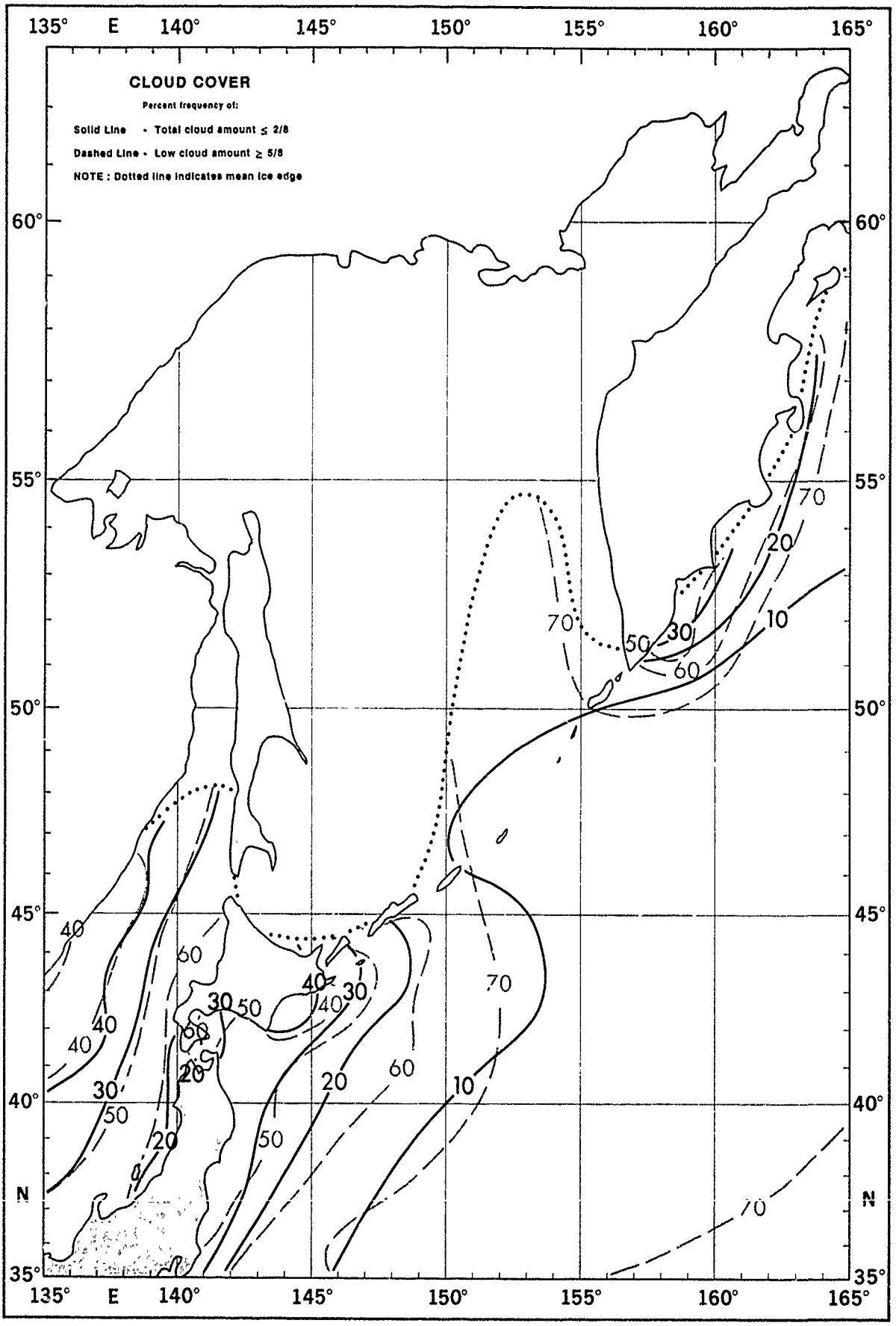

135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 6 feet.
N=Observation count.
HEIGHT
PERCENT
≤2 10.0
3-4 20.0
5-6 30.0
7-9 20.0
10-12 10.0
≥13 10.0
N=1363
Wave data for these tables were selected from the higher of sea or swell when both were reported.
≤2 0.0 ≤2 0.0 ≤2 85.0 ≤2 90.0 ≤2 50.0
3-4 0.0 3-4 0.0 3-4 5.0 3-4 0.0 3-4 0.0
5-6 50.0 5-6 33.3 5-6 0.0 5-6 0.0 5-6 0.0
7-9 50.0 7-9 66.7 7-9 0.0 7-9 10.0 7-9 25.0
10-12 0.0 10-12 0.0 10-12 5.0 10-12 0.0 10-12 0.0
≥13 0.0 ≥13 0.0 ≥13 5.0 ≥13 0.0 ≥13 25.0
N= 2 N= 3 N= 20 N= 10 N= 4
≤2 40.0 ≤2 30.0 ≤2 28.6 ≤2 74.4 ≤2 29.6
3-4 20.0 3-4 10.0 3-4 3.6 3-4 6.7 3-4 13.0
5-6 0.0 5-6 20.0 5-6 3.6 5-6 7.2 5-6 12.0
7-9 0.0 7-9 20.0 7-9 35.7 7-9 6.1 7-9 28.2
10-12 40.0 10-12 10.0 10-12 25.0 10-12 4.4 10-12 11.6
≥13 0.0 ≥13 10.0 ≥13 3.6 ≥13 1.1 ≥13 5.6
N= 5 N= 10 N= 28 N= 180 N= 284
≤2 66.7 ≤2 25.0 ≤2 24.6 ≤2 38.5 ≤2 27.7 ≤2 40.6
3-4 0.0 3-4 12.5 3-4 23.1 3-4 19.4 3-4 15.6 3-4 13.7
5-6 0.0 5-6 6.3 5-6 22.2 5-6 16.8 5-6 15.6 5-6 13.1
7-9 33.3 7-9 25.0 7-9 24.9 7-9 18.3 7-9 24.1 7-9 25.1
10-12 0.0 10-12 25.0 10-12 4.1 10-12 3.2 10-12 1.3 10-12 4.6
≥13 0.0 ≥13 6.3 ≥13 1.2 ≥13 3.7 ≥13 5.7 ≥13 2.9
N= 3 N= 16 N= 676 N= 535 N= 141 N= 179
≤2 14.3 ≤2 46.4 ≤2 40.5 ≤2 19.2 ≤2 38.5 ≤2 36.6
3-4 14.3 3-4 7.1 3-4 14.5 3-4 21.2 3-4 21.1 3-4 22.0
5-6 0.0 5-6 14.3 5-6 15.0 5-6 21.0 5-6 16.3 5-6 14.3
7-9 71.4 7-9 21.4 7-9 20.5 7-9 32.0 7-9 16.6 7-9 20.0
10-12 0.0 10-12 3.6 10-12 6.8 10-12 5.0 10-12 3.9 10-12 5.1
≥13 0.0 ≥13 7.1 ≥13 2.7 ≥13 1.7 ≥13 3.6 ≥13 1.9
N= 7 N= 28 N= 220 N= 543 N= 361 N=1283
≤2 25.0 ≤2 14.3 ≤2 21.1 ≤2 16.1 ≤2 12.1 ≤2 19.1 ≤2 35.7
3-4 50.0 3-4 14.3 3-4 15.8 3-4 9.7 3-4 24.2 3-4 31.9 3-4 19.8
5-6 0.0 5-6 14.3 5-6 21.1 5-6 0.0 5-6 10.1 5-6 13.5 5-6 16.6
7-9 0.0 7-9 42.9 7-9 26.3 7-9 29.0 7-9 24.2 7-9 19.9 7-9 17.9
10-12 25.0 10-12 14.3 10-12 15.8 10-12 19.4 10-12 19.2 10-12 8.5 10-12 5.8
≥13 0.0 ≥13 0.0 ≥13 0.0 ≥13 25.8 ≥13 10.1 ≥13 7.1 ≥13 4.1
N= 4 N= 7 N= 19 N= 31 N= 99 N= 141 N= 535
≤2 64.7 ≤2 70.0 ≤2 33.3 ≤2 17.6 ≤2 20.4 ≤2 16.7 ≤2 15.5 ≤2 14.7
3-4 5.9 3-4 5.0 3-4 41.7 3-4 11.8 3-4 13.0 3-4 11.6 3-4 21.0 3-4 16.1
5-6 5.9 5-6 10.0 5-6 0.0 5-6 11.8 5-6 13.0 5-6 22.5 5-6 17.7 5-6 20.0
7-9 17.6 7-9 0.0 7-9 8.3 7-9 17.6 7-9 18.5 7-9 28.3 7-9 24.3 7-9 27.2
10-12 5.9 10-12 5.0 10-12 8.3 10-12 17.6 10-12 18.5 10-12 10.1 10-12 14.4 10-12 13.1
≥13 0.0 ≥13 10.0 ≥13 8.3 ≥13 23.5 ≥13 16.7 ≥13 10.9 ≥13 7.2 ≥13 9.8
N= 17 N= 20 N= 12 N= 17 N= 54 N= 138 N= 181 N= 659
≤2 42.5 ≤2 30.0 ≤2 0.0 ≥2100.0
3-4 20.0 3-4 0.0 3-4 50.0 3-4 0.0
5-6 20.0 5-6 0.0 5-6 0.0 5-6 0.0
7-9 17.5 7-9 0.0 7-9 0.0 7-9 0.0
10-12 0.0 10-12 50.0 10-12 50.0 10-12 0.0
≥13 0.0 ≥13 0.0 ≥13 0.0 ≥13 0.0
N= 40 N= 2 N= 2 N= 2
≤2 19.0 ≤2 30.0 ≤2 2100.0 ≤2 72.0
3-4 22.2 3-4 40.0 3-4 0.0 3-4 33.3
5-6 27.3 5-6 10.0 5-6 0.0 5-6 16.0
7-9 25.3 7-9 10.0 7-9 0.0 7-9 9.3
10-12 3.9 10-12 10.0 10-12 0.0 10-12 6.7
≥13 3.3 ≥13 0.0 ≥13 0.0 ≥13 2.7
N= 51 N= 10 N= 12 N= 75
≤2 35.1 ≤2 41.8 ≤2 9.1
3-4 16.3 3-4 21.3 3-4 11.0
5-6 10.2 5-6 17.5
7-9 11.2 7-9 16.9 7-9 26.6
10-12 6.1 10-12 5.3 10-12 20.1
≥13 1.0 ≥13 3.1 ≥13 13.6
N= 98 N= 455 N= 154
≤2 49.7 ≤2 44.4 ≤2 26.7 ≤2 12.8 ≤2 3.6
3-4 14.6 3-4 22.2 3-4 18.2 3-4 13.3 3-4 11.4
5-6 11.1 5-6 11.1 5-6 19.4 5-6 16.3 5-6 12.7
7-9 14.2 7-9 11.1 7-9 20.0 7-9 29.0 7-9 26.5
10-12 6.9 10-12 11.1 10-12 10.1 10-12 15.5 10-12 25.3
≥13 3.5 ≥13 0.0 ≥13 5.6 ≥13 13.1 ≥13 20.5
N=1664 N= 27 N= 516 N= 679 N= 166
≤2 39.7 ≤2 24.9 ≤2 7.8 ≤2 4.5 ≤2 4.0
3-4 20.8 3-4 19.5 3-4 14.7 3-4 8.9 3-4 4.7
5-6 14.8 5-6 19.6 5-6 17.0 5-6 9.6 5-6 11.2
7-9 16.0 7-9 21.8 7-9 21.6 7-9 24.3 7-9 27.2
10-12 5.0 10-12 9.1 10-12 14.4 10-12 19.5 10-12 21.0
≥13 3.7 ≥13 5.2 ≥13 14.4 ≥13 33.2 ≥13 31.9
N=2949 N=2658 N= 388 N= 292 N= 529
≤2 22.6 ≤2 12.7 ≤2 2.5 ≤2 3.3 ≤2 2.0
3-4 19.4 3-4 14.1 3-4 6.4 3-4 5.2 3-4 5.7
5-6 18.7 5-6 15.0 5-6 10.6 5-6 10.2 5-6 10.7
7-9 24.0 7-9 28.2 7-9 26.8 7-9 26.8 7-9 31.7
10-12 8.4 10-12 13.4 10-12 22.5 10-12 22.8 10-12 22.5
≥13 5.9 ≥13 16.6 ≥13 31.2 ≥13 31.7 ≥13 27.4
N=4734 N=1078 N= 717 N= 911 N= 786


135°
145°
155°
165°
47°
41°
35°
≤2 40.0 ≤2 16.9 ≤2 32.7 ≤2 33.3
3-4 26.7 3-4 18.9 3-4 20.2 3-4 33.3
5-6 26.7 5-6 11.3 5-6 20.2 5-6 0.0
7-9 6.7 7-9 12.8 7-9 19.5 7-9 33.3
10-12 0.0 10-12 5.9 10-12 3.8 10-12 0.0
≥13 0.0 ≥13 4.2 ≥13 3.4 ≥13 0.0
N= 15 N= 576 N= 682 N= 6
≤2 15.0 ≤2 23.0 ≤2 18.9 ≤2 16.9 ≤2 9.1
3-4 15.0 3-4 17.6 3-4 17.1 3-4 21.0 3-4 13.0
5-6 20.0 5-6 13.5 5-6 21.3 5-6 20.6 5-6 18.3
7-9 10.0 7-9 18.9 7-9 21.3 7-9 25.8 7-9 31.3
10-12 20.0 10-12 17.6 10-12 7.3 10-12 10.6 10-12 15.9
≥13 20.0 ≥13 9.1 ≥13 14.8 ≥13 5.1 ≥13 13.4
N= 20 N= 74 N= 164 N=1826 N= 1971
≤2 4.6 ≤2 2.0 ≤2 3.3 ≤2 2.3 ≤2 4.1
3-4 9.5 3-4 6.4 3-4 7.5 3-4 8.0 3-4 7.2
5-6 13.5 5-6 11.0 5-6 10.7 5-6 13.5 5-6 12.1
7-9 26.7 7-9 27.8 7-9 29.8 7-9 29.7 7-9 29.4
10-12 20.3 10-12 22.0 10-12 20.4 10-12 19.9 10-12 22.7
≥13 25.4 ≥13 30.8 ≥13 28.2 ≥13 26.7 ≥13 24.5
N= 873 N= 856 N= 758 N= 964 N= 538
≤2 31.6 ≤2 32.9 ≤2 17.4 ≤2 23.9 ≤2 94.3
3-4 31.6 3-4 22.0 3-4 22.9 3-4 22.1 3-4 1.1
5-6 13.2 5-6 16.4 5-6 20.4 5-6 21.6 5-6 1.1
7-9 21.1 7-9 19.5 7-9 25.8 7-9 21.8 7-9 0.0
10-12 2.6 10-12 6.4 10-12 9.9 10-12 6.0 10-12 2.3
≥13 0.0 ≥13 2.8 ≥13 3.6 ≥13 4.7 ≥13 1.1
N= 39 N= 359 N= 524 N= 602 N= 87
≤2 50.9 ≤2 35.0 ≤2 13.5 ≤2 12.0 ≤2 5.0
3-4 17.9 3-4 20.7 3-4 18.5 3-4 16.2 3-4 7.9
5-6 11.3 5-6 16.9 5-6 20.7 5-6 19.0 5-6 13.2
7-9 12.3 7-9 17.5 7-9 20.4 7-9 28.4 7-9 30.2
10-12 2.8 10-12 6.0 10-12 12.4 10-12 12.9 10-12 22.7
≥13 4.7 ≥13 7.9 ≥13 6.5 ≥13 11.4 ≥13 22.1
N= 106 N= 1500 N=2135 N=2815 N= 3008
≤2 3.6 ≤2 3.6 ≤2 2.5 ≤2 1.2 ≤2 2.2
3-4 7.3 3-4 6.6 3-4 5.7 3-4 6.7 3-4 3.9
5-6 11.8 5-6 9.6 5-6 11.9 5-6 9.7 5-6 12.7
7-9 30.2 7-9 31.2 7-9 32.8 7-9 33.9 7-9 32.4
10-12 19.8 10-12 23.7 10-12 19.4 10-12 24.8 10-12 23.4
≥13 27.3 ≥13 25.8 ≥13 27.7 ≥13 23.7 ≥13 25.3
N= 893 N= 666 N= 707 N= 750 N= 667
≤2 26.6 ≤2 12.4 ≤2 9.2 ≤2 23.7 ≤2 42.6
3-4 21.9 3-4 20.5 3-4 14.8 3-4 19.4 3-4 16.7
5-6 24.3 5-6 20.1 5-6 24.1 5-6 18.3 5-6 16.7
7-9 19.5 7-9 28.6 7-9 37.0 7-9 26.9 7-9 20.4
10-12 4.3 10-12 13.1 10-12 9.9 10-12 8.6 10-12 0.0
≥13 1.4 ≥13 5.4 ≥13 4.9 ≥13 3.2 ≥13 3.7
N= 420 N= 259 N= 906 N= 93 N= 54
≤2 42.0 ≤2 9.7 ≤2 4.9 ≤2 3.5 ≤2 3.4
3-4 12.3 3-4 9.9 3-4 7.2 3-4 6.5 3-4 6.4
5-6 13.2 5-6 13.1 5-6 15.7 5-6 13.7 5-6 10.0
7-9 33.2 7-9 32.2 7-9 29.6 7-9 28.2 7-9 31.1
10-12 19.2 10-12 21.9 10-12 23.5 10-12 21.7
≥13 17.3 ≥13 22.9 ≥13 21.2 ≥13 23.4 ≥13 25.6 ≥13 25.0 ≥13 29.5
N=2135 N=2815 N= 3008 N= 893 N= 666 N= 707 N= 750 N= 667
≤2 15.8 ≤2 10.4 ≤2 15.0 ≤2 23.0 ≤2 22.1
3-4 20.1 3-4 18.1 3-4 19.8 3-4 22.4 3-4 21.0
5-6 19.7 5-6 20.6 5-6 16.9 5-6 24.6 5-6 20.2
7-9 29.9 7-9 33.4 7-9 28.5 7-9 22.3 7-9 33.3
10-12 9.6 10-12 10.8 10-12 13.6 10-12 7.0 10-12 8.1
≥13 4.8 ≥13 6.7 ≥13 4.9 ≥13 3.8 ≥13 5.3
N= 995 N= 1134 N= 1706 N= 2871 N= 2710
≤2 18.7 ≤2 5.7 ≤2 4.9 ≤2 2.3 ≤2 2.8
3-4 19.6 3-4 13.1 3-4 9.2 3-4 7.6 3-4 6.6
5-6 20.0 5-6 15.3 5-6 15.6 5-6 15.7 5-6 13.7
7-9 25.5 7-9 30.8 7-9 33.1 7-9 36.1 7-9 33.1
10-12 3.7 10-12 18.0 10-12 19.5 10-12 21.1 10-12 20.6
≥13 6.3 ≥13 16.5 ≥13 7.7 ≥13 17.3 ≥13 23.1
N=2132 N=1347 N= 1218 N= 1176 N= 1264
≤2 3.7 ≤2 2.2 ≤2 0.8 ≤2 1.3 ≤2 0.9
3-4 6.5 3-4 5.1 3-4 5.4 3-4 4.1 3-4 3.1
5-6 13.3 5-6 12.7 5-6 9.7 5-6 8.0 5-6 7.8
7-9 30.6 7-9 27.7 7-9 30.1 7-9 25.8 7-9 28.1
10-12 23.1 10-12 28.0 10-12 24.9 10-12 29.9 10-12 31.0
≥13 22.5 ≥13 24.4 ≥13 29.1 ≥13 31.0 ≥13 29.0
N= 1151 N= 915 N= 783 N= 636 N= 551
≤2 11.5 ≤2 8.6 ≤2 11.6 ≤2 20.5 ≤2 6.3
3-4 15.4 3-4 17.8 3-4 17.8 3-4 21.8 3-4 14.9
5-6 18.4 5-6 18.9 5-6 17.1 5-6 21.6 5-6 19.0
7-9 30.5 7-9 28.9 7-9 33.0 7-9 24.2 7-9 28.3
10-12 15.1 10-12 18.1 10-12 13.5 10-12 7.7 10-12 17.1
≥13 9.1 ≥13 7.4 ≥13 6.7 ≥13 4.1 ≥13 13.4
N= 951 N= 841 N= 445 N= 1906 N= 975
≤2 5.1 ≤2 2.6 ≤2 1.3 ≤2 1.3 ≤2 1.7
3-4 10.1 3-4 9.7 3-4 7.8 3-4 6.8 3-4 5.4
5-6 5.3 5-6 16.5 5-6 13.6 5-6 12.2 5-6 10.1
7-9 31.4 7-9 29.5 7-9 32.4 7-9 32.8 7-9 26.9
10-12 19.1 10-12 19.5 10-12 22.6 10-12 21.3 10-12 24.7
≥13 18.6 ≥13 20.2 ≥13 20.8 ≥13 24.5 ≥13 29.8
N= 1235 N= 1374 N= 1329 N= 1415 N= 1152
≤2 10.3 ≤2 14.5 ≤2 23.5 ≤2 27.9 ≤2 6.5
3-4 15.6 3-4 20.7 3-4 19.6 3-4 22.3 3-4 11.6
5-6 17.8 5-6 15.3 5-6 14.7 5-6 20.0 5-6 15.9
7-9 29.5 7-9 27.4 7-9 28.4 7-9 20.3 7-9 31.2
10-12 15.3 10-12 15.7 10-12 9.8 10-12 5.6 10-12 18.8
≥13 11.5 ≥13 5.7 ≥13 3.9 ≥13 3.9 ≥13 16.1
N= 695 N= 394 N= 102 N=8335 N= 1653
≤2 2.6 ≤2 2.7 ≤2 2.2 ≤2 1.6 ≤2 2.1
3-4 6.8 3-4 4.7 3-4 4.2 3-4 4.3 3-4 4.0
5-6 11.8 5-6 11.2 5-6 9.0 5-6 8.9 5-6 8.2
7-9 29.7 7-9 29.6 7-9 28.8 7-9 27.8 7-9 26.7
10-12 23.5 10-12 24.1 10-12 23.6 10-12 26.4 10-12 24.9
≥13 25.6 ≥13 27.7 ≥13 32.2 ≥13 31.0 ≥13 34.0
N= 1695 N= 1534 N= 1399 N= 1253 N= 1129
≤2 1.8 ≤2 1.2 ≤2 0.6 ≤2 1.5 ≤2 2.3
3-4 4.1 3-4 3.4 3-4 3.4 3-4 3.9 3-4 2.2
5-6 9.2 5-6 9.0 5-6 8.7 5-6 7.4 5-6 6.6
7-9 26.4 7-9 25.6 7-9 25.7 7-9 24.5 7-9 25.4
10-12 23.8 10-12 26.3 10-12 25.5 10-12 24.4 10-12 27.9
≥13 34.7 ≥13 34.4 ≥13 36.1 ≥13 38.3 ≥13 35.7
N= 1018 N= 968 N= 881 N= 865 N= 785


SURFACE CURRENTS
SOLID ARROW(S): Prevailing current direction(s).
DASHED ARROW(S): Secondary current direction(s).
Mean scalar current speed (knots).
Total observations.
Percent of total used to compute primary directions.
Percent of total used to compute secondary directions
The plotted number at the end of each arrow is the mean current speed (knots) for the indicated direction.
165°
155°
145°
135°
61°
55°
49°

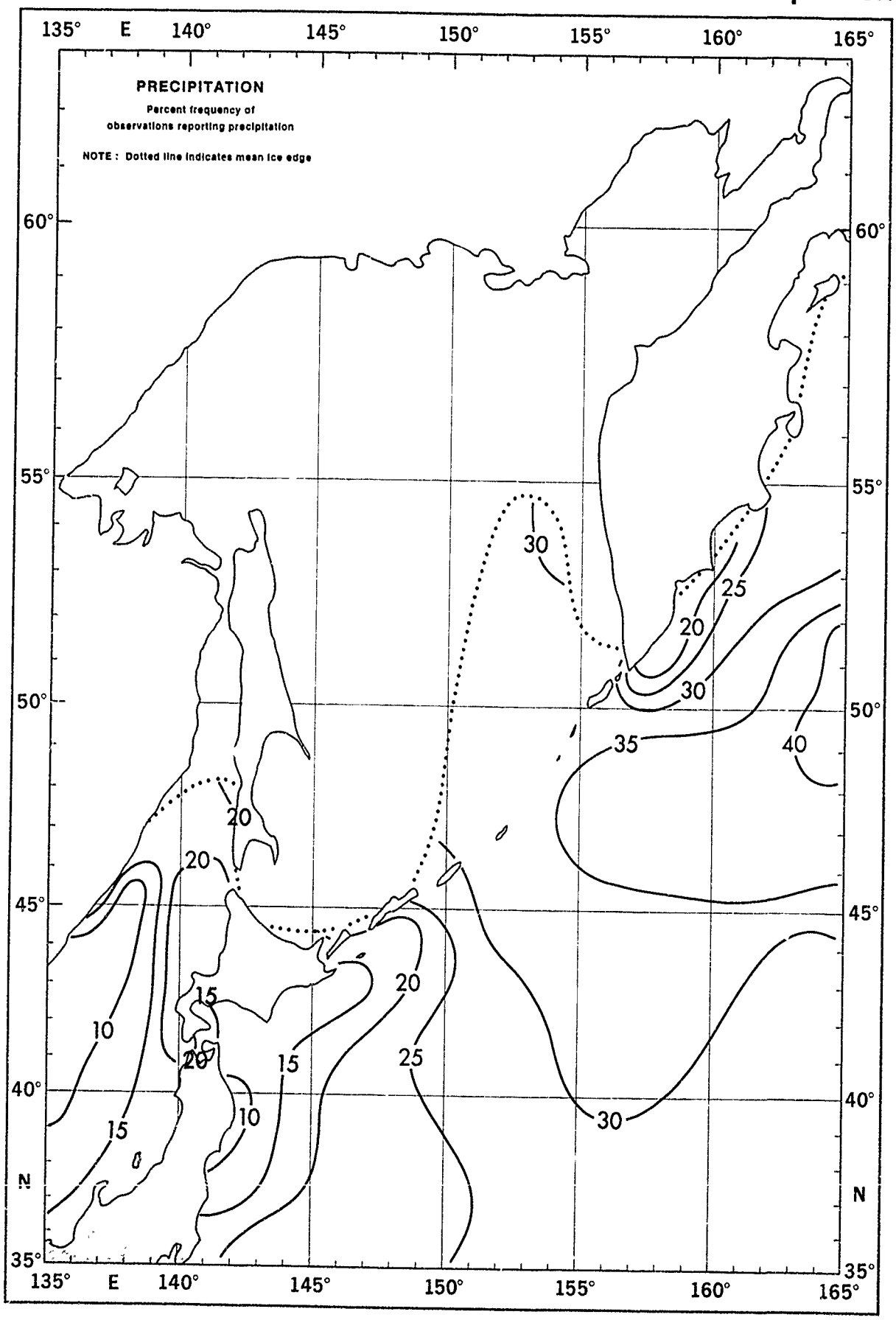
Surface Currents

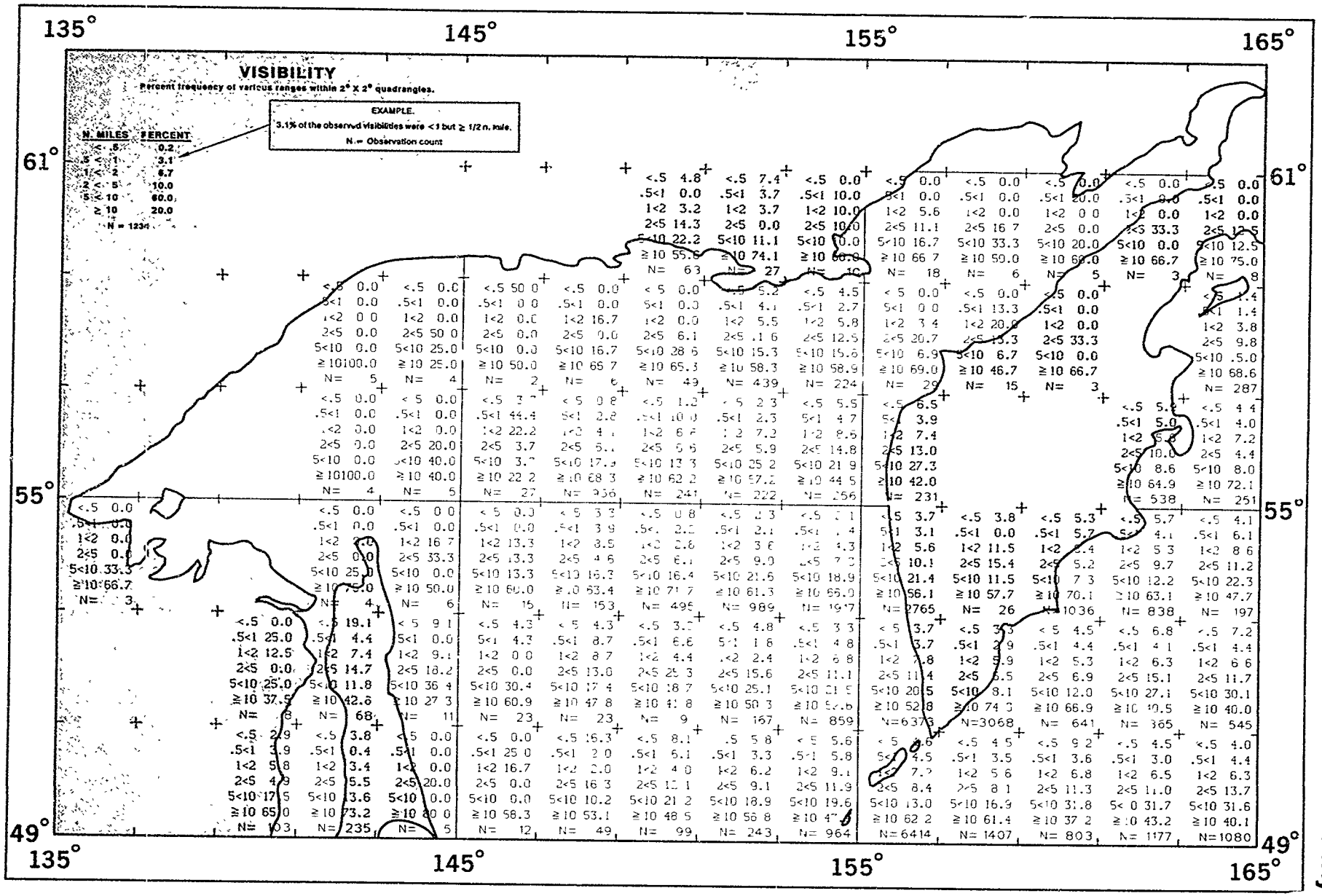


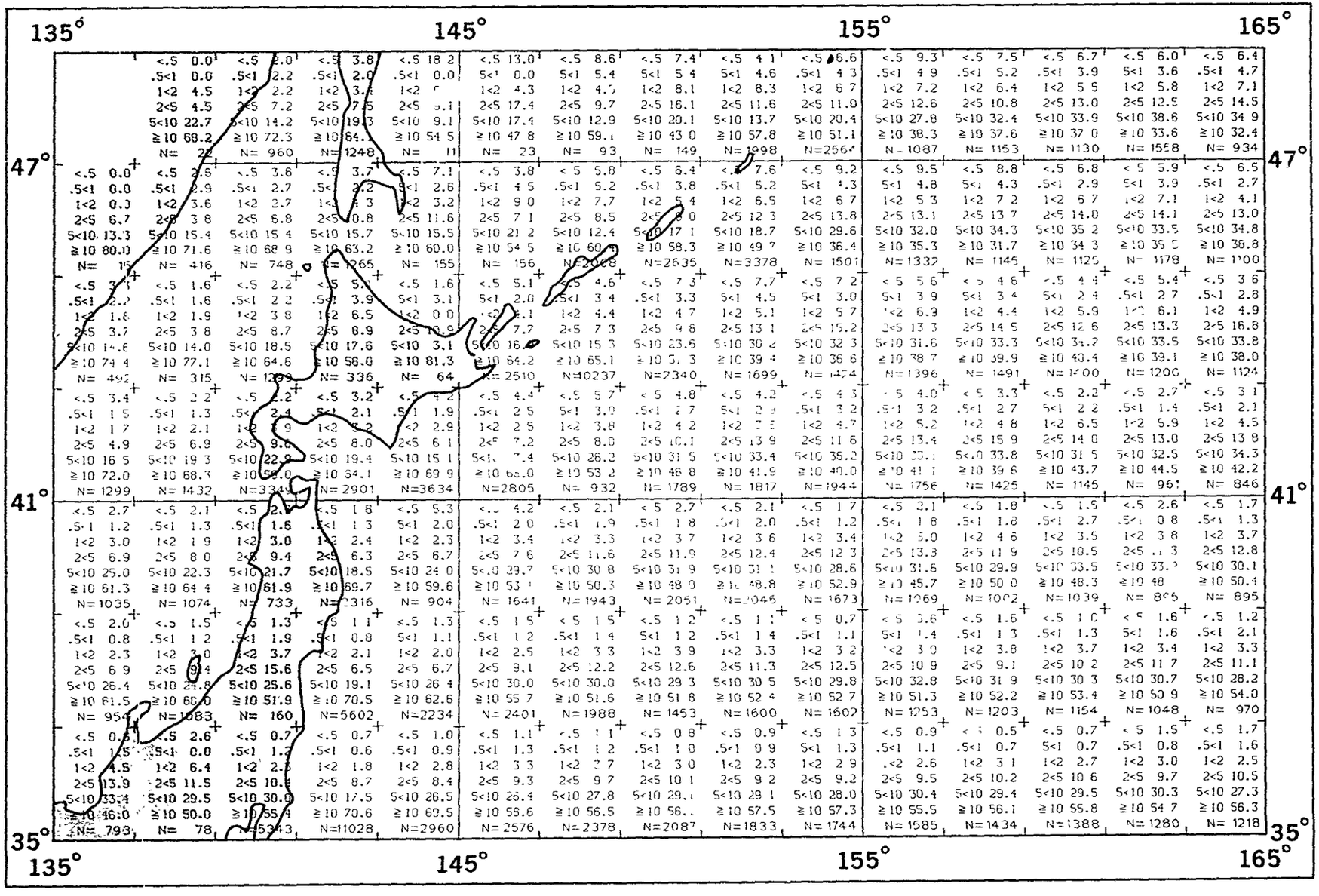

CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
35°
N

March

Precipitation

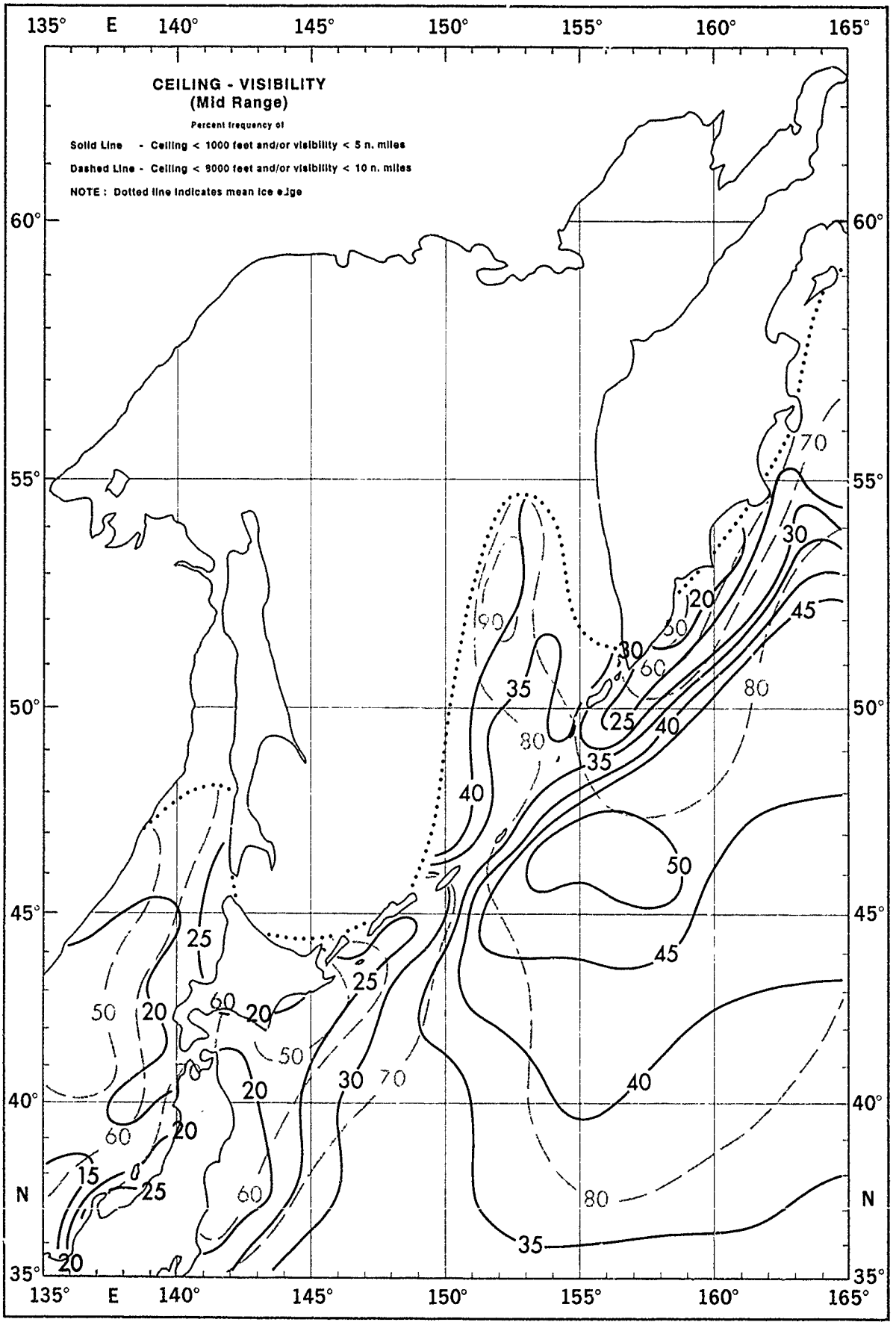



VISIBILITY
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE.
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N.= Observation count
N. MILES PERCENT
<.5 0.2
.5 < 1 3.1
1< 2 6.7
2 < 5 10.0
5< 10 60.0
≥ 10 20.0
N = 1234
135°
145°
155°
165°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°
<.5 0.0
.5<1 0.0
1<2 0.3
2<5 6.7
5<10 13.3
≥10 80.0
N= 15
<.5 2.6
.5<1 2.9
1<2 3.6
2<5 3.8
5<10 15.4
≥10 71.6
N= 416
<.5 3.6
.5<1 2.7
1<2 3.7
2<5 6.8
5<10 15.4
≥10 68.9
N= 748
<.5 3.7
.5<1 2.2
1<2 3.3
2<5 10.8
5<10 15.7
≥10 63.2
N= 1265
<.5 7.1
.5<1 2.6
1<2 3.2
2<5 11.6
5<10 15.5
≥10 60.0
N= 155
<.5 3.8
.5<1 4.5
1<2 9.0
2<5 7.1
5<10 21.2
≥10 54.5
N= 156
<.5 5.8
.5<1 5.2
1<2 7.7
2<5 8.5
5<10 12.4
≥10 60.4
N=2068
<.5 6.4
.5<1 3.8
1<2 5.4
2<5 8.0
5<10 17.1
≥10 58.3
N=2635
<.5 7.6
.5<1 5.2
1<2 6.5
2<5 12.3
5<10 18.7
≥10 49.7
N=3378
<.5 9.2
.5<1 4.3
1<2 6.7
2<5 13.8
5<10 29.6
≥10 36.4
N= 1501
<.5 9.5
5<1 4.8
1<2 5.3
2<5 13.1
5<10 32.0
≥10 35.3
N=1332
<.5 8.8
5<1 4.3
1<2 7.2
2<5 13.7
5<10 34.3
≥10 31.7
N= 1145
<.5 6.8
.5<1 2.9
1<2 5.7
2<5 14.0
5<10 35.2
≥10 34.3
N= 1120
<.5 5.9
5<1 3.9
1<2 7.1
2<5 14.1
5<10 33.5
≥10 35.5
N= 1178
<.5 6.5
.5<1 2.7
1<2 4.1
2<5 13.0
5<10 34.8
≥10 38.8
N= 1100
<.5 3.6
.5<1 2.8
1<2 4.9
2<5 16.8
5<10 33.8
≥10 38.0
N= 1124
<.5 3.4
.5<1 1.5
1<2 1.7
2<5 4.9
5<10 16.5
≥10 72.0
N= 1299
<.5 2.2
.5<1 1.3
1<2 2.1
2<5 6.9
5<10 19.3
≥10 68.3
N= 1432
<.5 2.2
.5<1 2.4
1<2 3.9
2<5 9.6
5<10 22.9
≥10 60.9
N=3349
<.5 3.2
.5<1 2.1
1<2 3.2
2<5 8.0
5<10 19.4
≥10 64.1
N= 2901
<.5 4.2
.5<1 1.9
1<2 2.9
2<5 6.1
5<10 15.1
≥10 69.9
N=3634
<.5 4.4
.5<1 2.5
1<2 2.5
2<5 7.2
5<10 17.4
≥10 65.0
N=2805
<.5 5.7
5<1 3.0
1<2 3.8
2<5 8.0
5<10 26.2
≥10 53.2
N= 932
<.5 4.8
.5<1 2.7
1<2 4.2
2<5 10.1
5<10 31.5
≥10 46.8
N= 1789
<.5 4.2
5<1 2.9
1<2 3.5
2<5 13.9
5<10 33.4
≥10 41.9
N= 1817
<.5 4.3
.5<1 3.2
1<2 4.7
2<5 11.6
5<10 36.2
≥10 40.0
N=1944
<.5 4.0
.5<1 3.2
1<2 5.2
2<5 13.4
5<10 33.0
≥10 41.1
N= 1756
<.5 3.3
.5<1 2.7
1<2 4.8
2<5 15.9
5<10 33.8
≥10 39.6
N= 1425
<.5 2.2
5<1 2.2
1<2 6.5
2<5 14.0
5<10 31.5
≥10 43.7
N= 1145
<.5 2.7
.5<1 1.4
1<2 5.9
2<5 13.3
5<10 32.5
≥10 44.5
N= 961
<.5 3.1
.5<1 2.1
1<2 4.5
2<5 13.8
5<10 34.3
≥10 42.2
N= 846
<.5 2.7
.5<1 1.2
1<2 3.0
2<5 6.9
5<10 25.0
≥10 61.3
N=1035
<.5 2.1
.5<1 1.3
1<2 1.9
2<5 8.0
5<10 22.3
≥10 64.4
N= 1074
<.5 2.6
.5<1 1.6
1<2 3.0
2<5 9.4
5<10 21.7
≥10 61.9
N= 733
<.5 1.8
.5<1 1.3
1<2 2.4
2<5 6.3
5<10 18.5
≥10 69.7
N=2316
<.5 5.3
.5<1 2.0
1<2 2.3
2<5 6.7
5<10 24.0
≥10 59.6
N= 904
<.5 4.2
.5<1 2.0
1<2 3.4
2<5 7.6
5<10 29.7
≥10 53.1
N= 1641
<.5 2.1
.5<1 1.9
1<2 3.3
2<5 11.6
5<10 30.8
≥10 50.3
N= 1943
<.5 2.7
.5<1 1.8
1<2 3.7
2<5 11.9
5<10 31.9
≥10 48.0
N= 2051
<.5 2.1
.5<1 2.0
1<2 3.6
2<5 12.4
5<10 31.1
≥10 48.8
N=2046
<.5 1.7
.5<1 1.2
1<2 3.4
2<5 12.3
5<10 28.6
≥10 52.9
N= 1673
<.5 2.1
.5<1 1.8
1<2 5.0
2<5 13.3
5<10 31.6
≥10 45.7
N= 1069
<.5 1.8
.5<1 1.8
1<2 4.6
2<5 11.9
5<10 29.9
≥10 50.0
N= 1002
<.5 1.5
.5<1 2.7
1<2 3.5
2<5 10.5
5<10 33.5
≥10 48.3
N=1039
<.5 2.6
.5<1 0.8
1<2 3.8
2<5 11.3
5<10 33.9
≥10 48
N= 865
<.5 1.7
.5<1 1.3
1<2 3.7
2<5 12.8
5<10 30.1
≥10 50.4
N= 895
<.5 2.0
.5<1 0.8
1<2 2.3
2<5 6.9
5<10 26.4
≥10 61.5
N= 954
<.5 1.5
.5<1 1.2
1<2 3.0
2<5 9.4
5<10 24.8
≥10 60.0
N=1083
<.5 1.3
.5<1 1.9
1<2 3.7
2<5 15.6
5<10 25.6
≥10 51.9
N= 160
<.5 1.1
.5<1 0.8
1<2 2.1
2<5 6.5
5<10 19.1
≥10 70.5
N=5602
<.5 1.3
5<1 1.1
1<2 2.0
2<5 6.7
5<10 26.4
≥10 62.6
N=2234
<.5 1.5
.5<1 1.2
1<2 2.5
2<5 9.1
5<10 30.0
≥10 55.7
N= 2401
<.5 1.5
.5<1 1.4
1<2 3.3
2<5 12.2
5<10 30.0
≥10 51.6
N= 1988
<.5 1.2
5<1 1.2
1<2 3.9
2<5 12.6
5<10 29.3
≥10 51.8
N= 1453
<.5 1.1
.5<1 1.4
1<2 3.3
2<5 11.3
5<10 30.5
≥10 52.4
N=1600
<.5 0.7
.5<1 1.1
1<2 3.2
2<5 12.5
5<10 29.8
≥10 52.7
N= 1602
<.5 0.6
<.5 1.6
1<2 3.8
2<5 10.9
5<10 32.8
≥10 51.3
N= 1253
<.5 1.6
.5<1 1.3
1<2 3.7
2<5 9.1
5<10 31.9
≥10 52.2
N=1203
<.5 1.6
.5<1 1.6
1<2 3.4
2<5 10.2
5<10 30.3
≥10 53.4
N= 1154
<.5 1.2
.5<1 1.6
1<2 3.3
2<5 11.7
5<10 30.7
≥10 50.9
N=1048
<.5 1.7
.5<1 1.6
1<2 2.5
2<5 10.5
5<10 27.3
≥10 56.3
N= 970
<.5 0.6
.5<1 1.5
1<2 4.5
2<5 13.9
5<10 33.4
≥10 46.0
N= 793
<.5 2.6
<.5 0.0
.5<1 1.2
1<2 6.4
2<5 11.5
5<10 29.5
≥10 50.0
N= 78
<.5 0.7
.5<1 0.6
1<2 2.8
2<5 10.8
5<10 30.0
≥10 55.4
N=5343
<.5 0.7
.5<1 0.9
1<2 1.8
2<5 8.7
5<10 17.5
≥10 70.6
N=11028
<.5 1.0
.5<1 0.9
1<2 2.8
2<5 8.4
5<10 26.5
≥10 62.5
N=2960
<.5 1.1
.5<1 1.3
1<2 3.3
2<5 9.3
5<10 26.4
≥10 58.6
N= 2576
<.5 1.1
.5<1 1.2
1<2 2.7
2<5 9.7
5<10 27.8
≥10 56.5
N= 2378
<.5 0.8
.5<1 1.0
1<2 3.0
2<5 10.1
5<10 29.1
≥10 56.1
N=2087
<.5 0.9
.5<1 0.9
1<2 2.3
2<5 9.2
5<10 29.1
≥10 57.5
N=1833
<.5 1.3
5<1 1.3
1<2 2.9
2<5 9.2
5<10 28.0
≥10 57.3
N= 1744
<.5 0.9
.5<1 1.1
1<2 2.6
2<5 9.5
5<10 30.4
≥10 55.5
N= 1585
<.5 0.5
.5<1 0.7
1<2 3.1
2<5 10.2
5<10 29.4
≥10 56.1
N=1434
<.5 0.7
5<1 0.7
1<2 2.7
2<5 10.6
5<10 29.5
≥10 55.8
N=1388
<.5 1.5
.5<1 0.8
1<2 3.0
2<5 9.7
5<10 30.3
≥10 54.7
N= 1280
<.5 1.7
.5<1 1.6
1<2 2.5
2<5 10.5
5<10 27.3
≥10 56.3
N= 1218

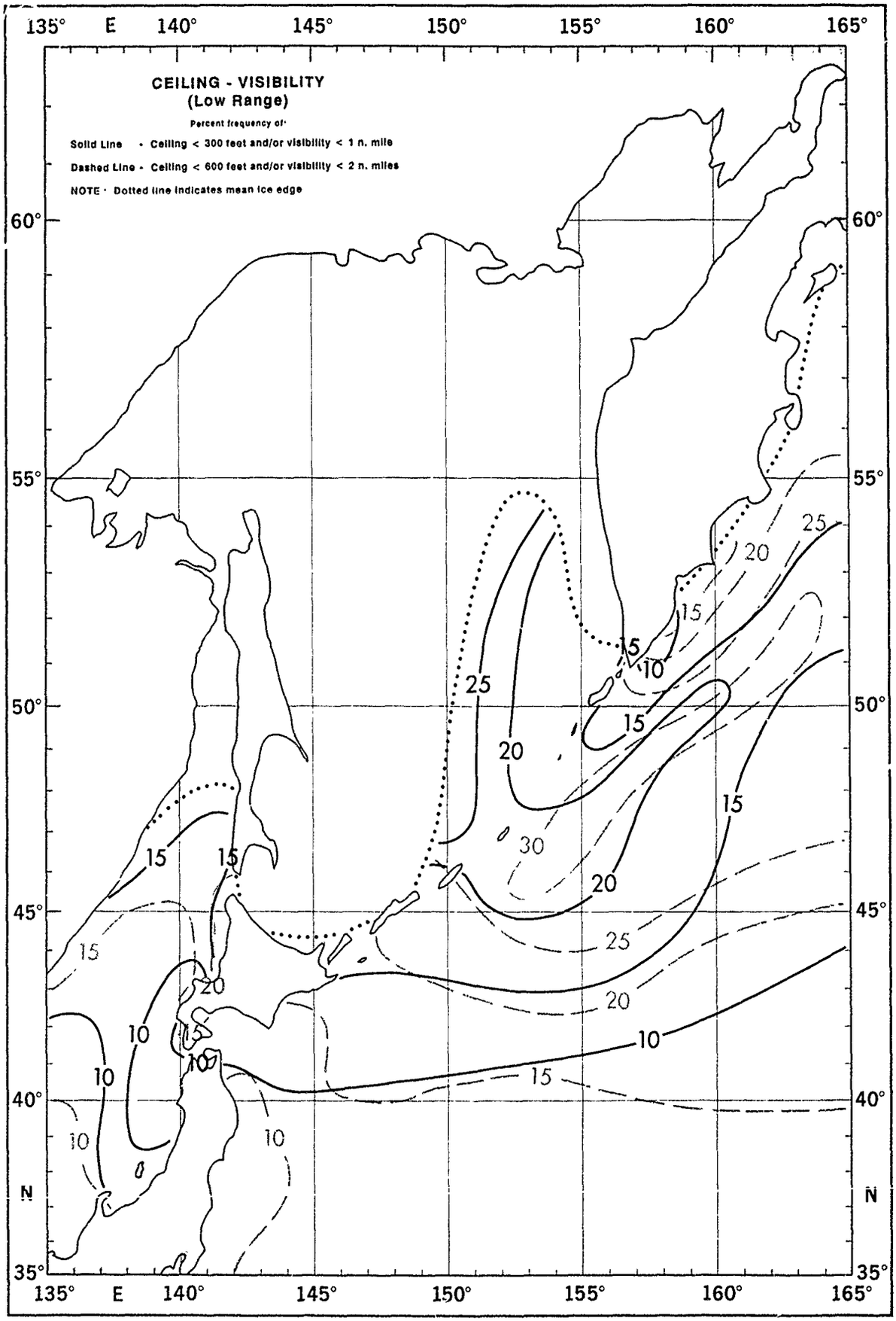
March

Ceiling-Visibility (Mid Range)



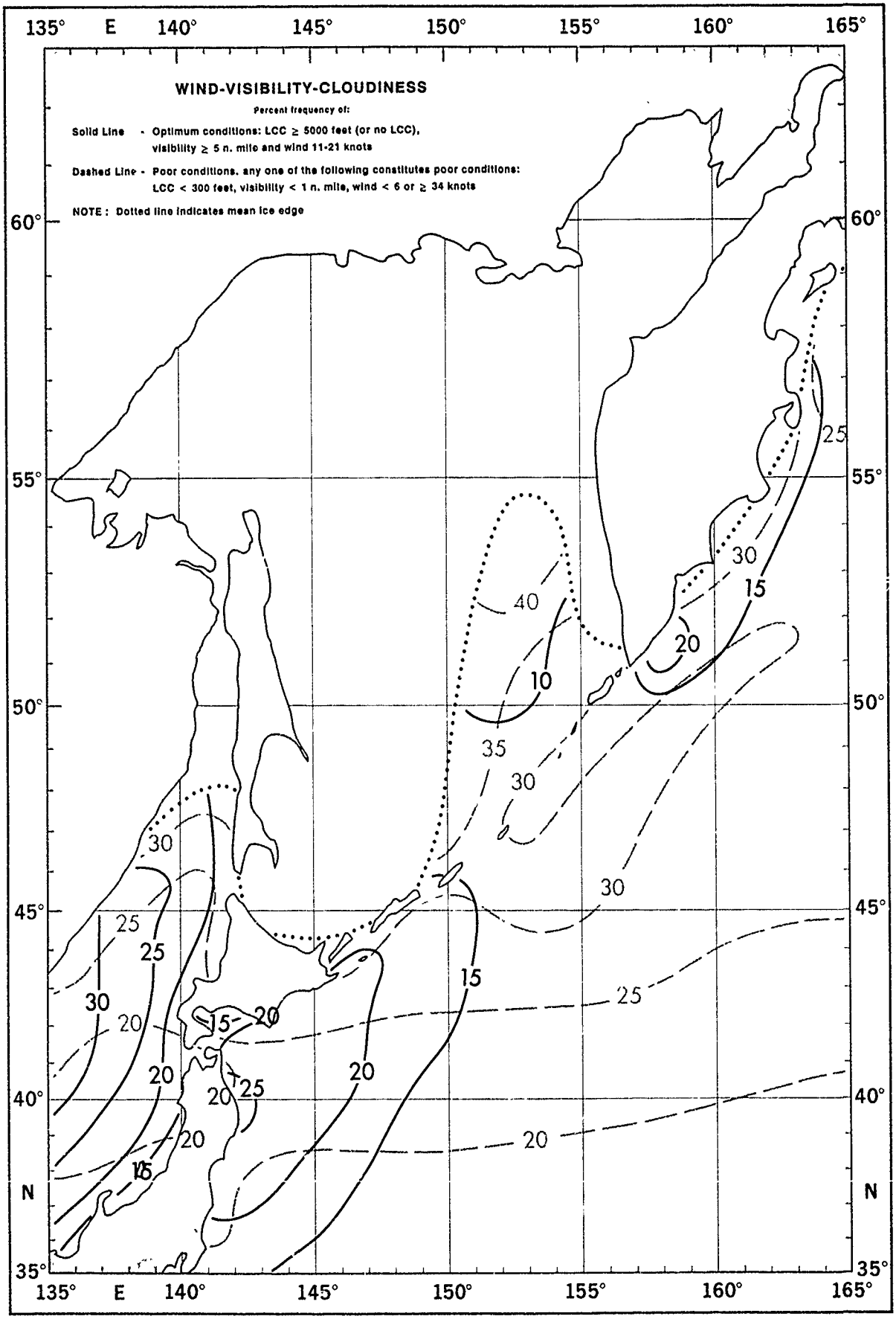
March

Ceiling-Visibility (Low Range)



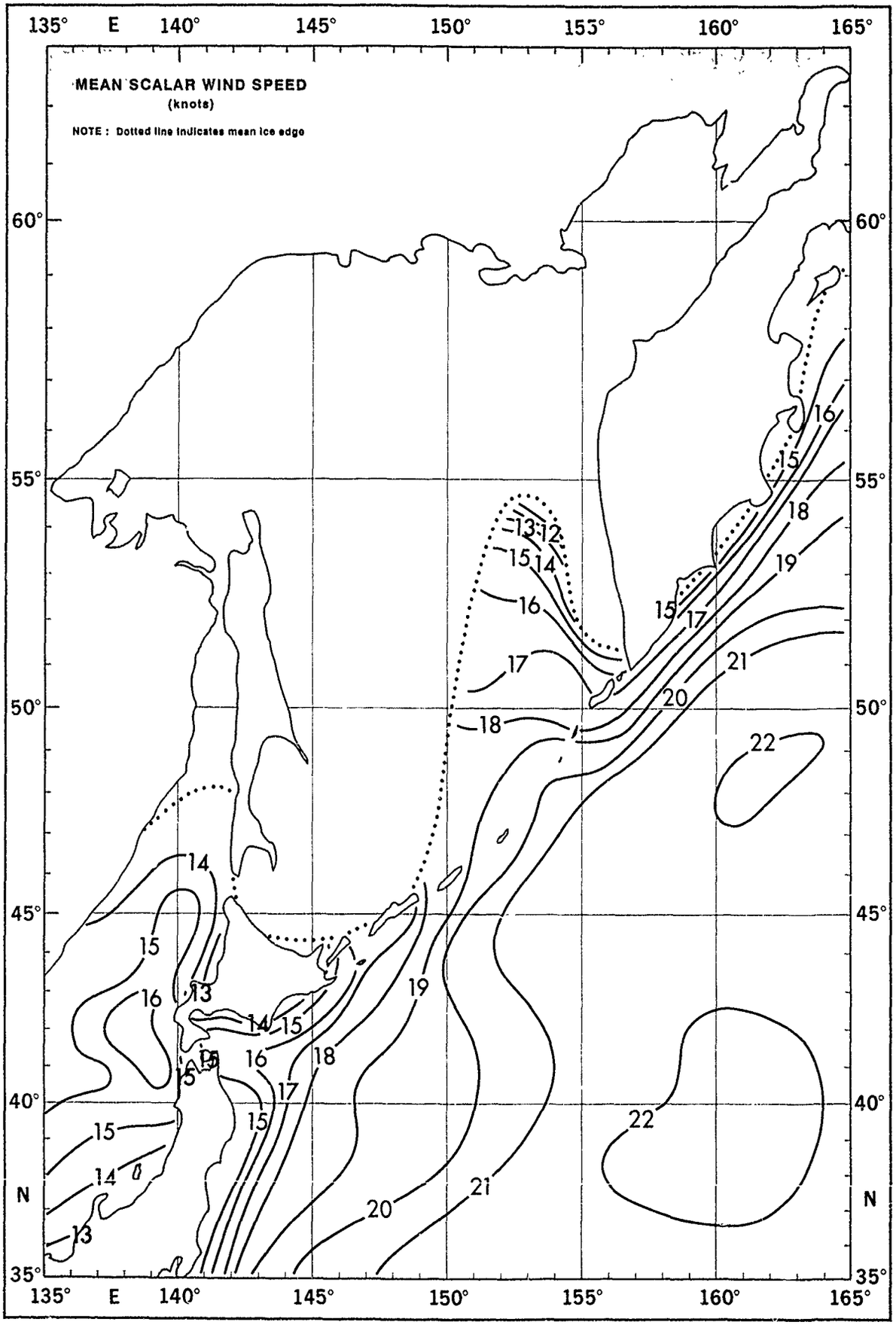
March

Wind-Visibility-Cloudiness



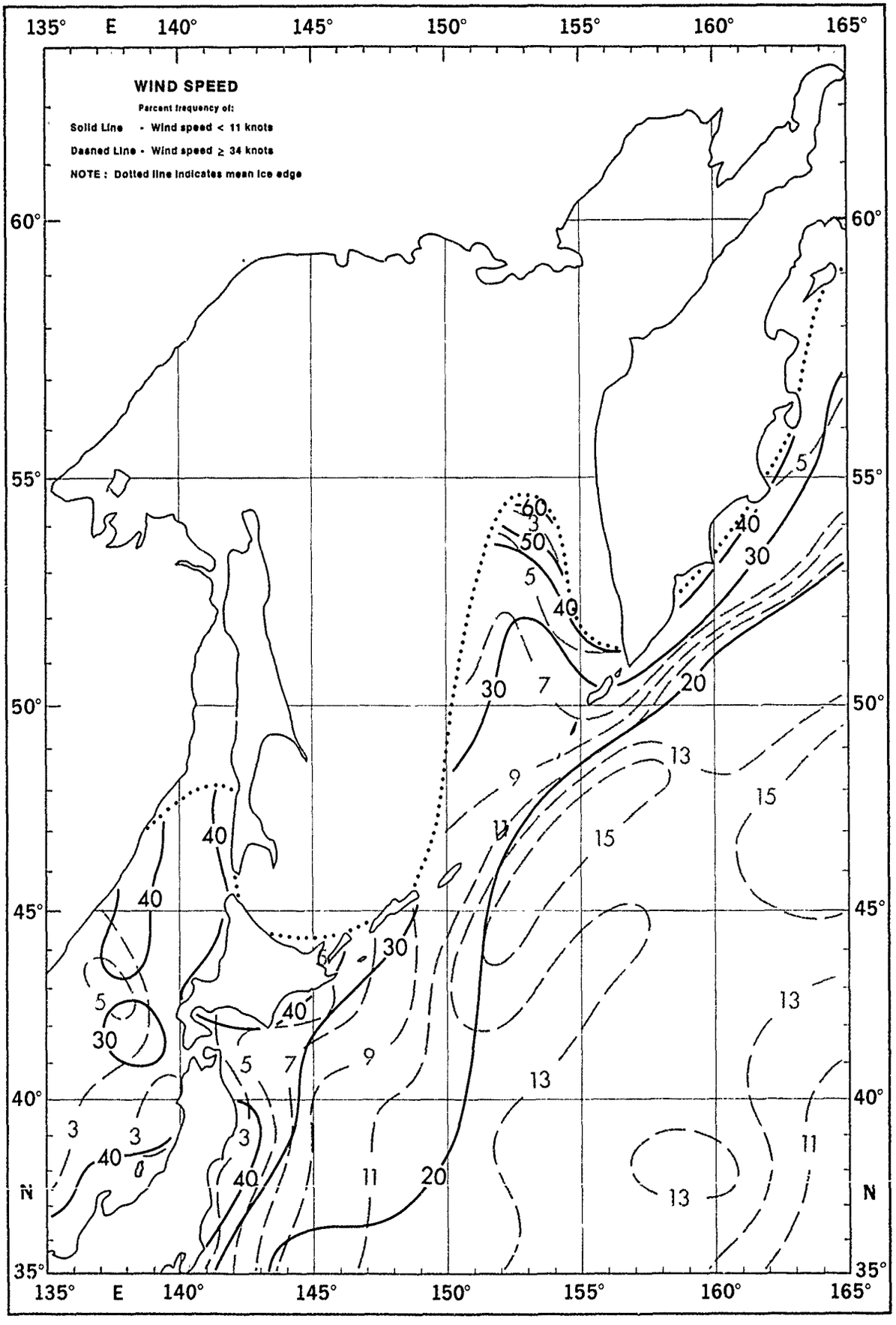
March

Mean Scalar Wind Speed



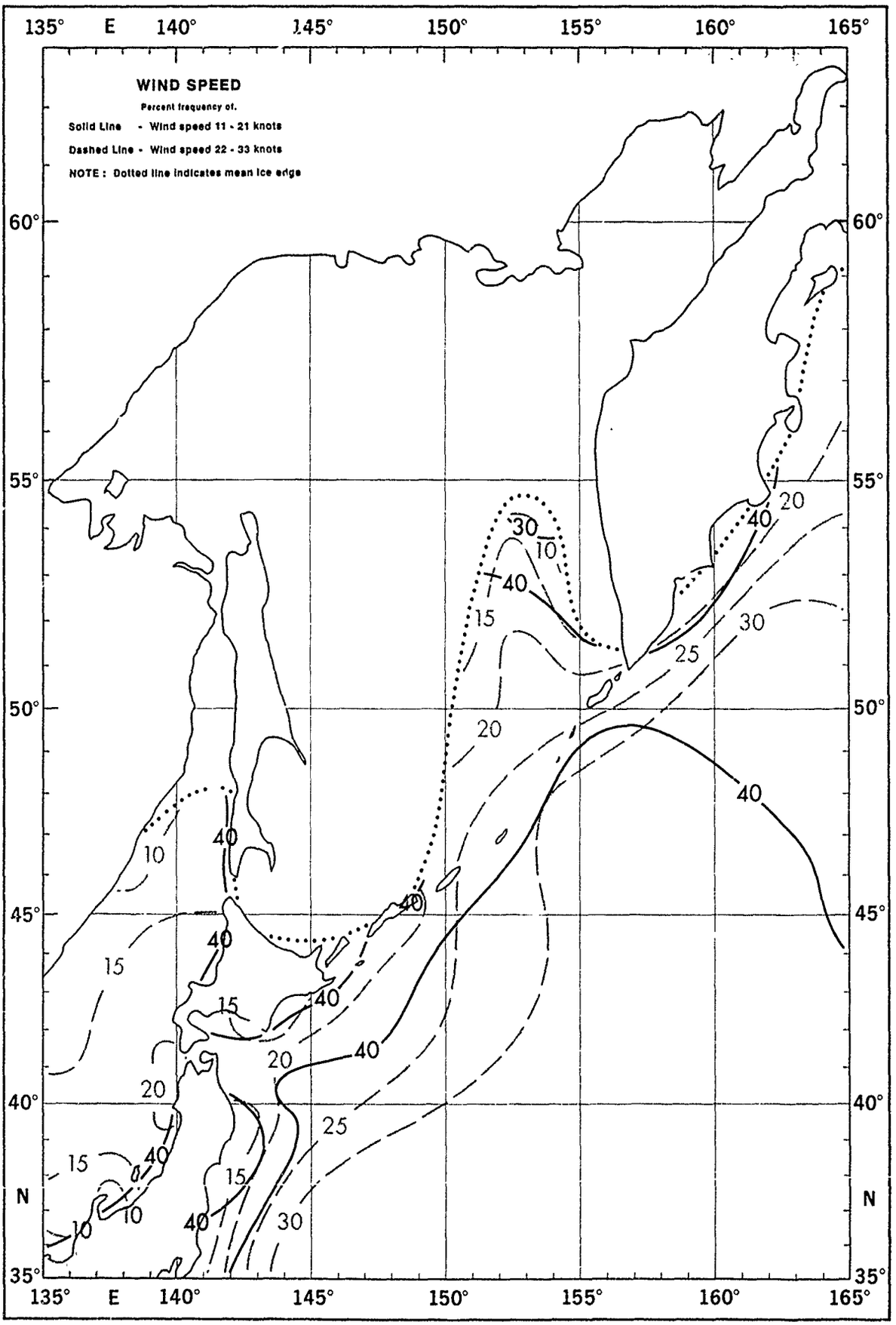
March

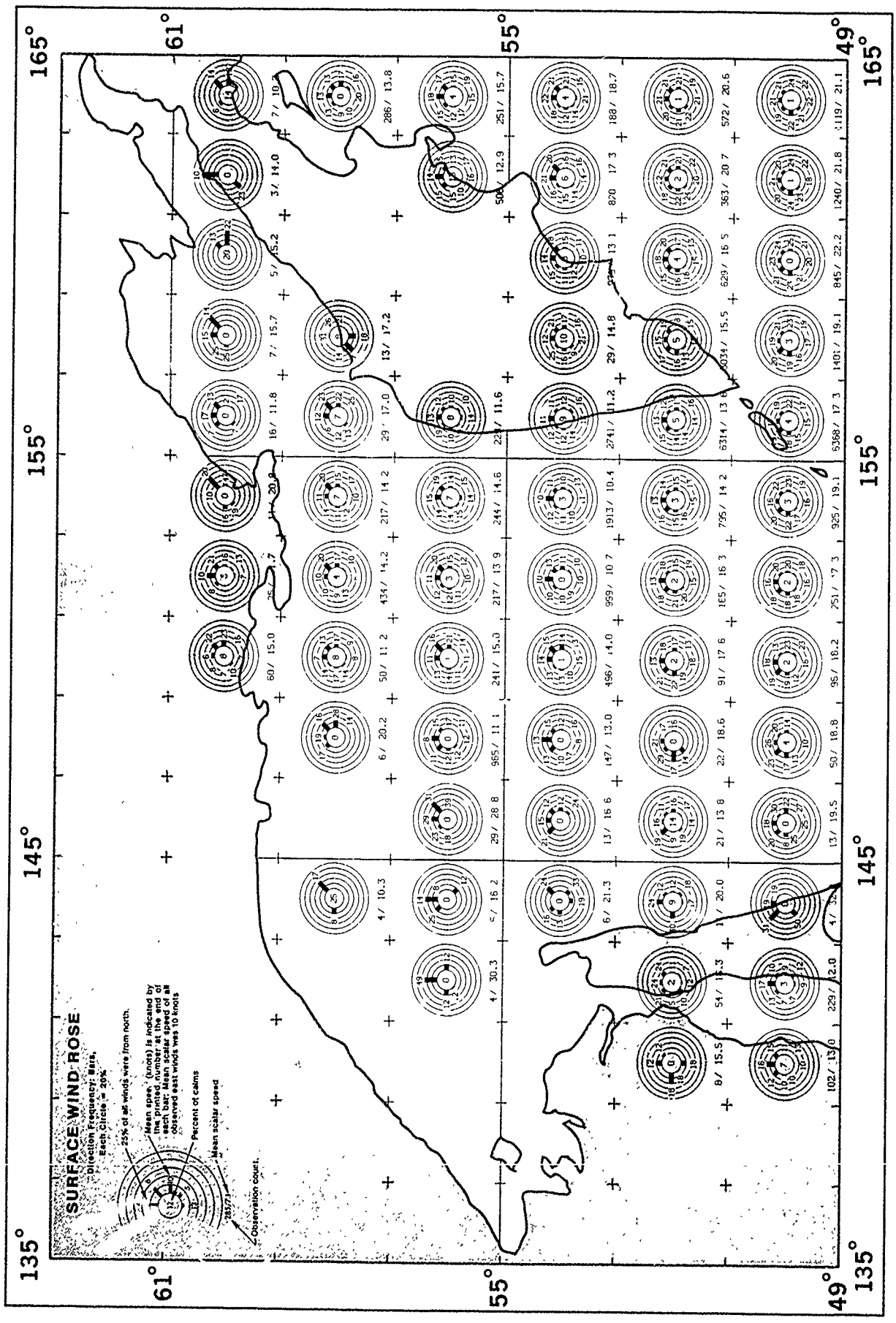
Wind Speed <11 and ≥34 Knots

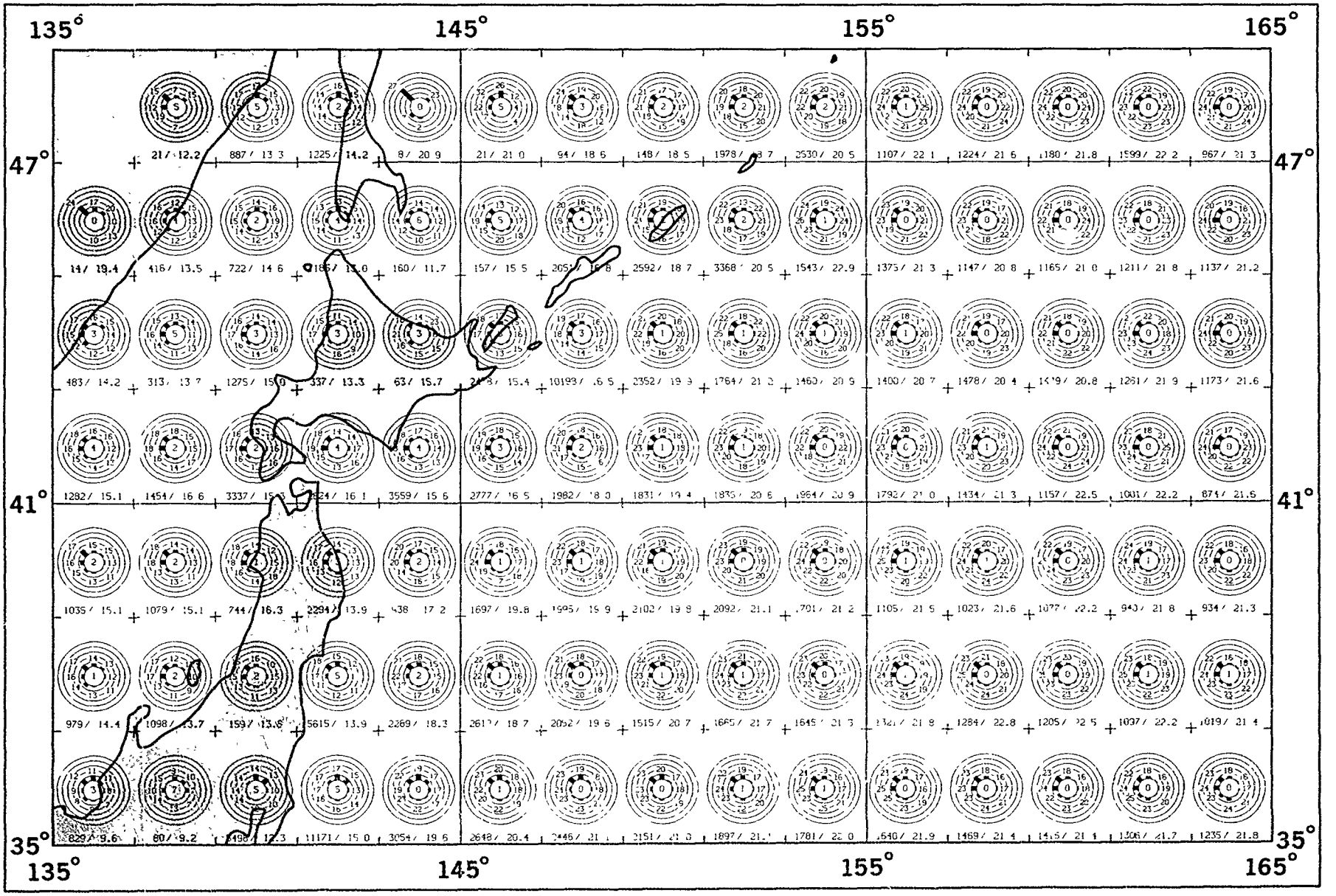


March

Wind Speed 11-21 and 22-33 Knots




SURFACE WIND ROSE
Direction Frequency: Bars,
Each Circle = 20%
25% of all winds were from north.
Mean speed, (knots) is indicated by the printed number at the end of each bar. Mean scalar speed of all observed east winds was 10 knots
Percent of calms
Mean scalar speed
Observation count
135°
145°
155°
165°
61°
55°
49°

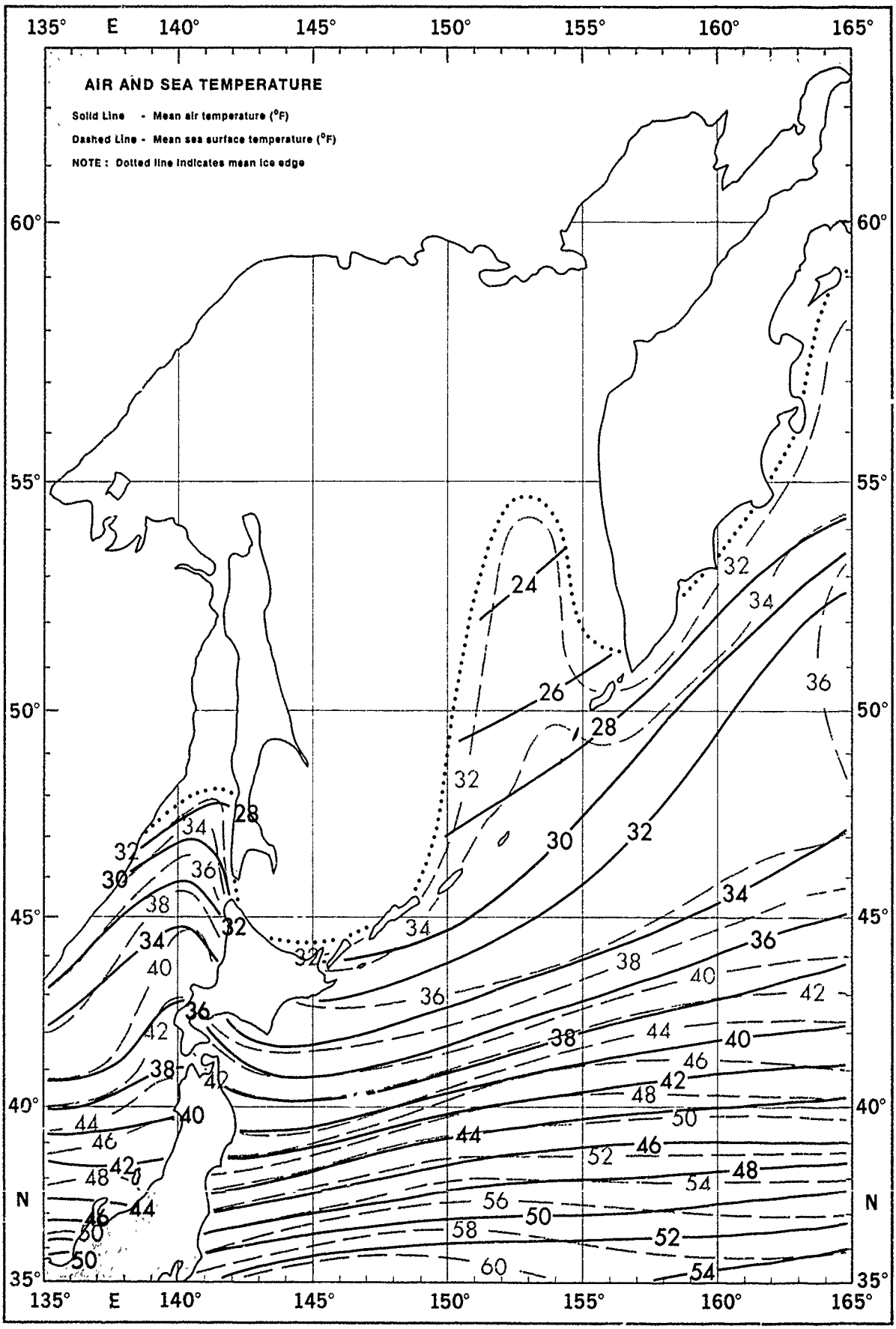


March

Surface Wind Roses

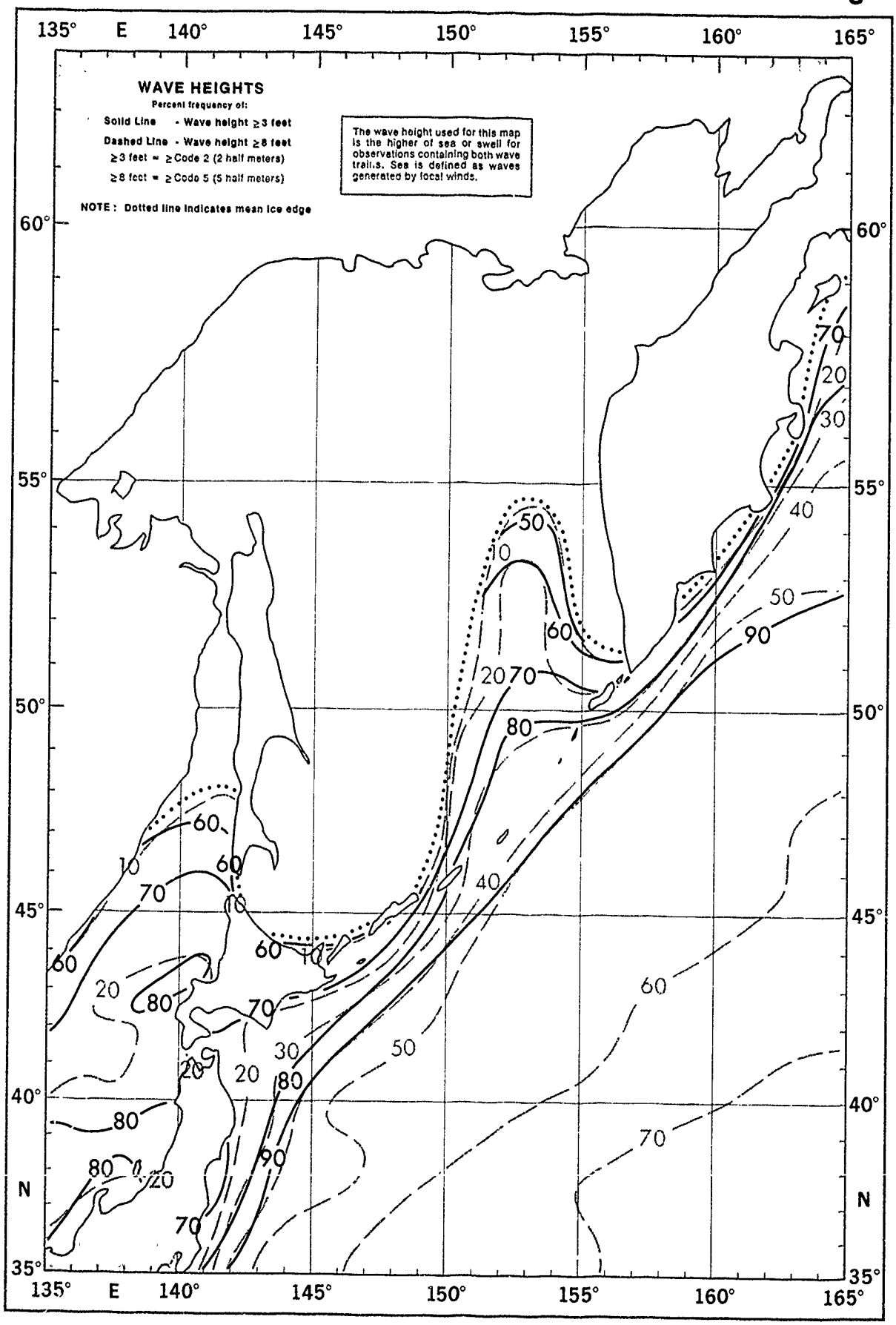
March

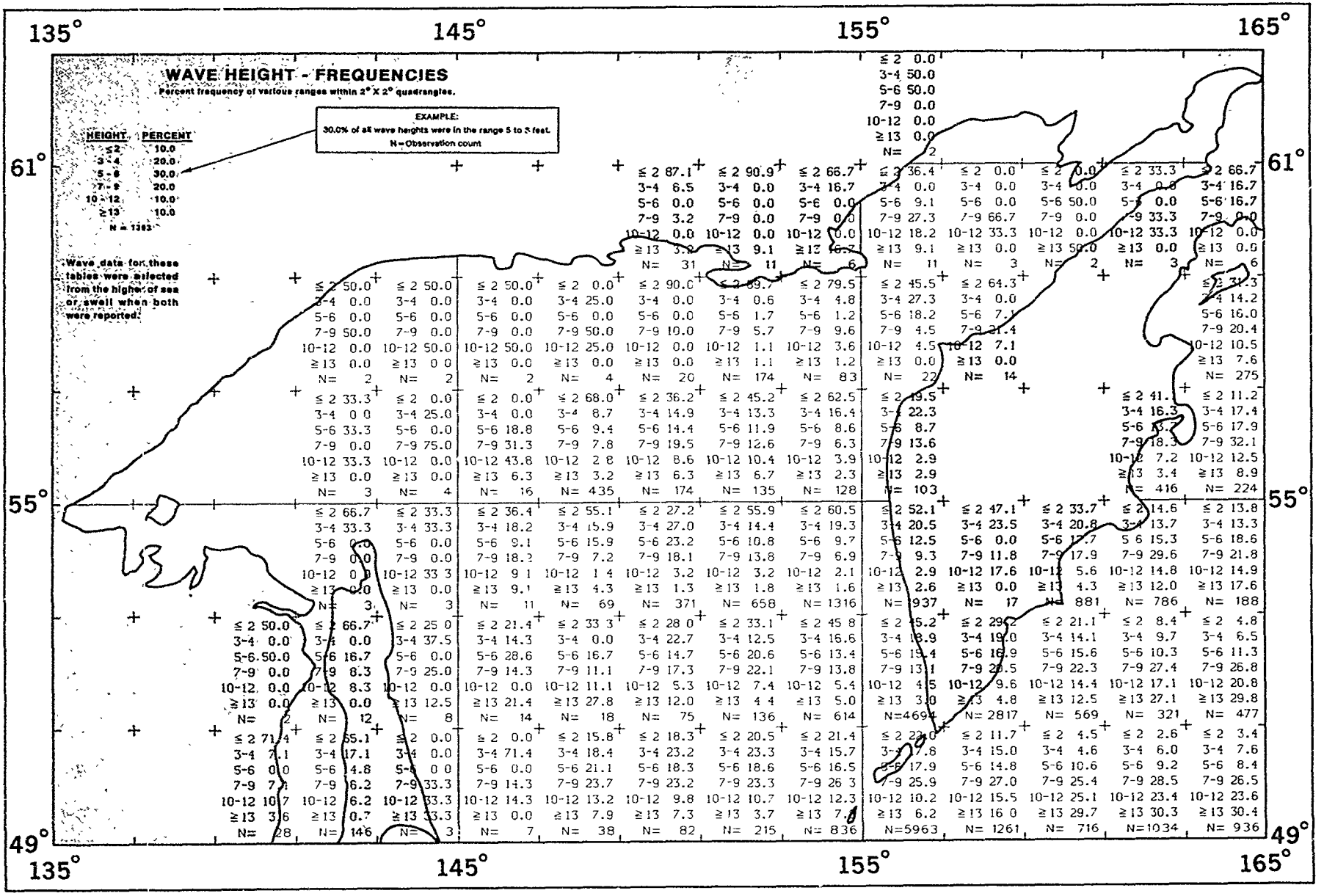
Mean Air and Sea Temperature

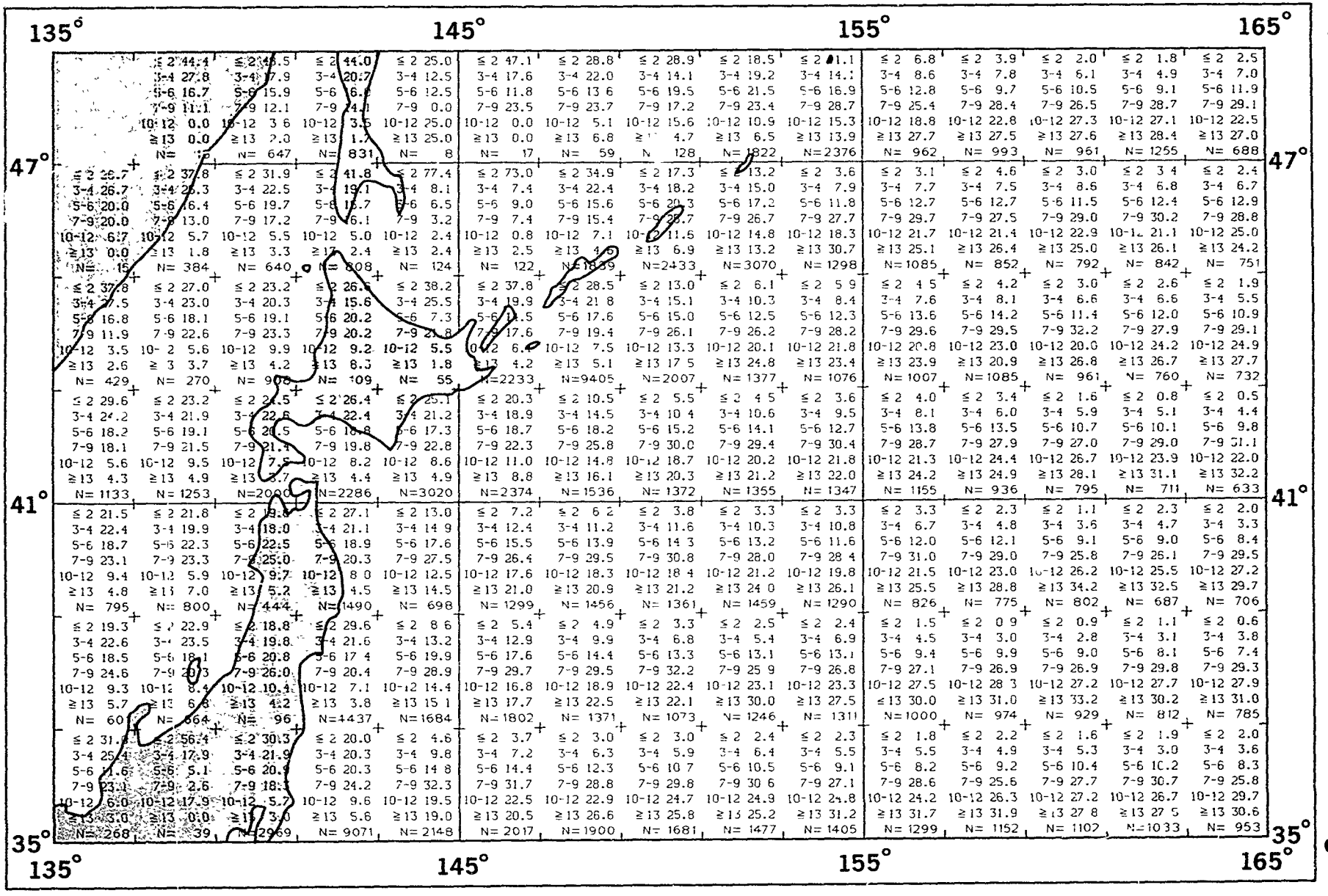


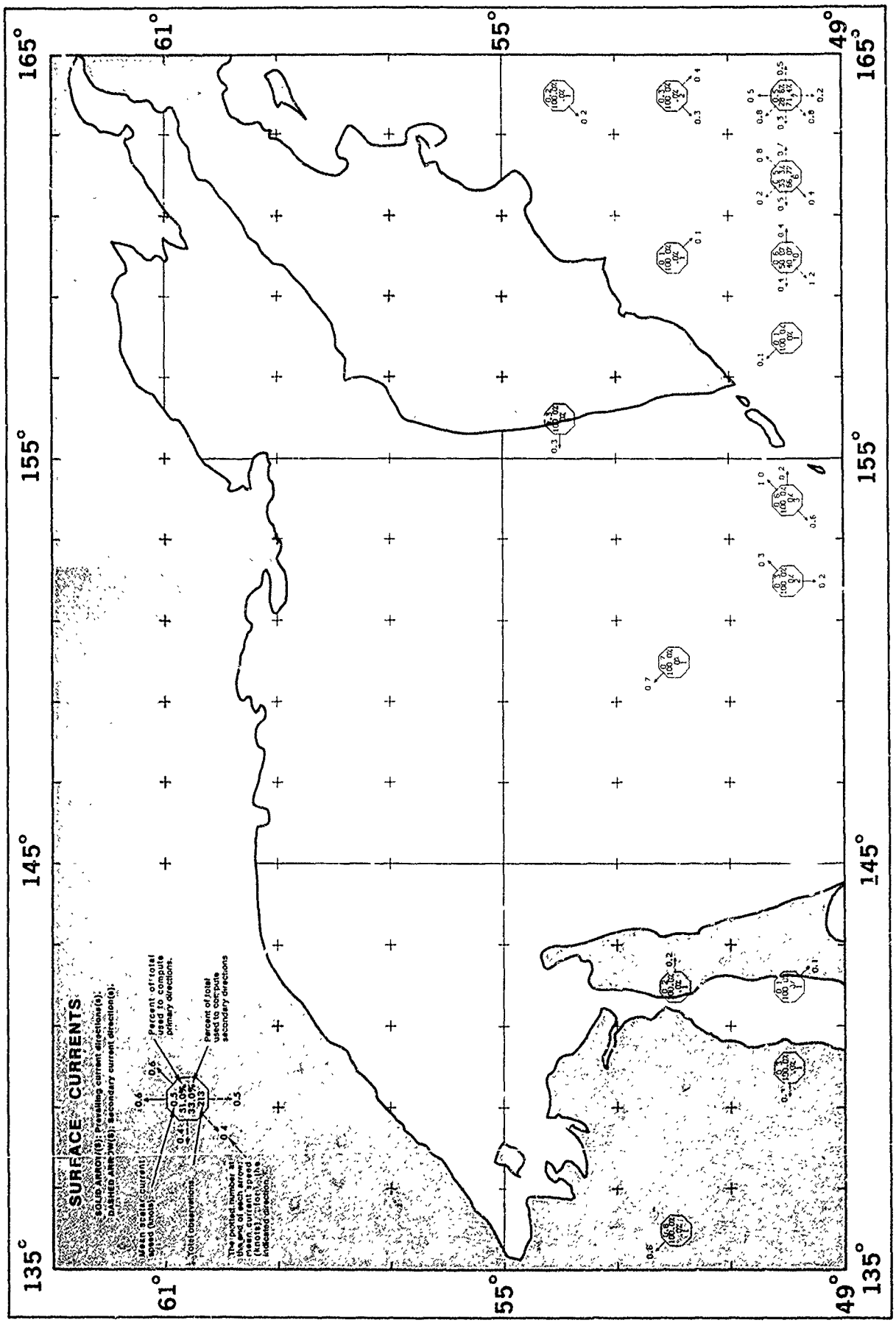
March

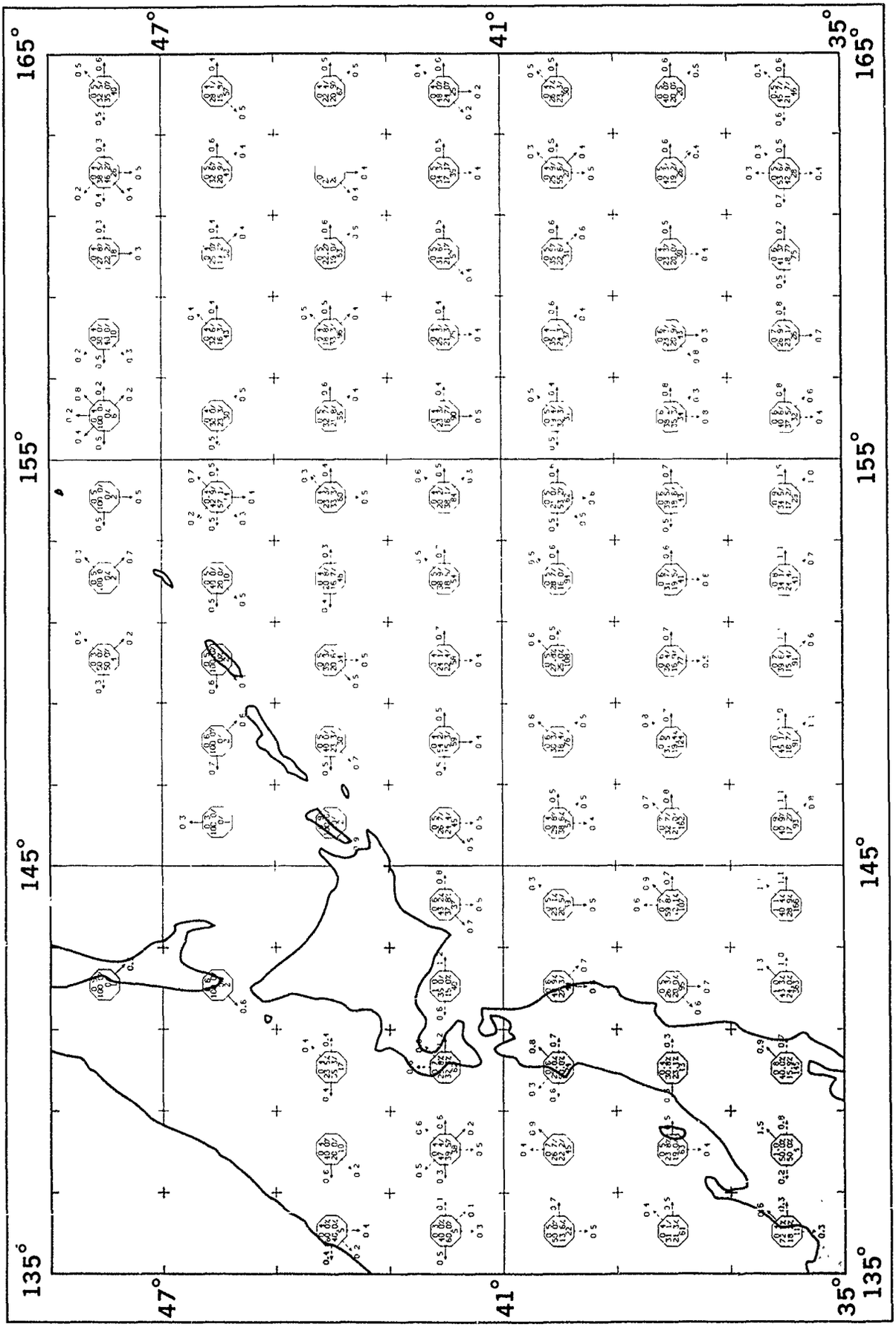
Wave Height

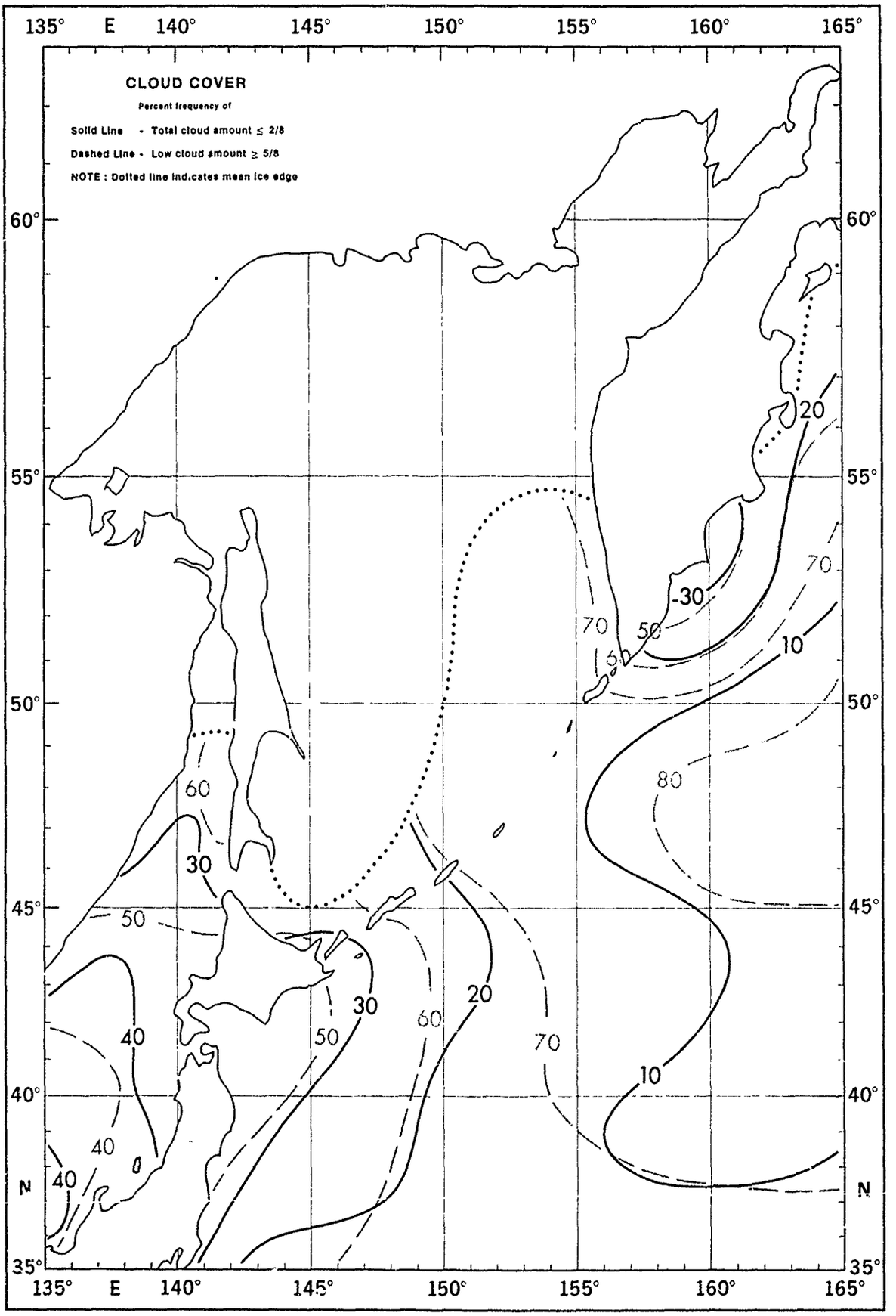


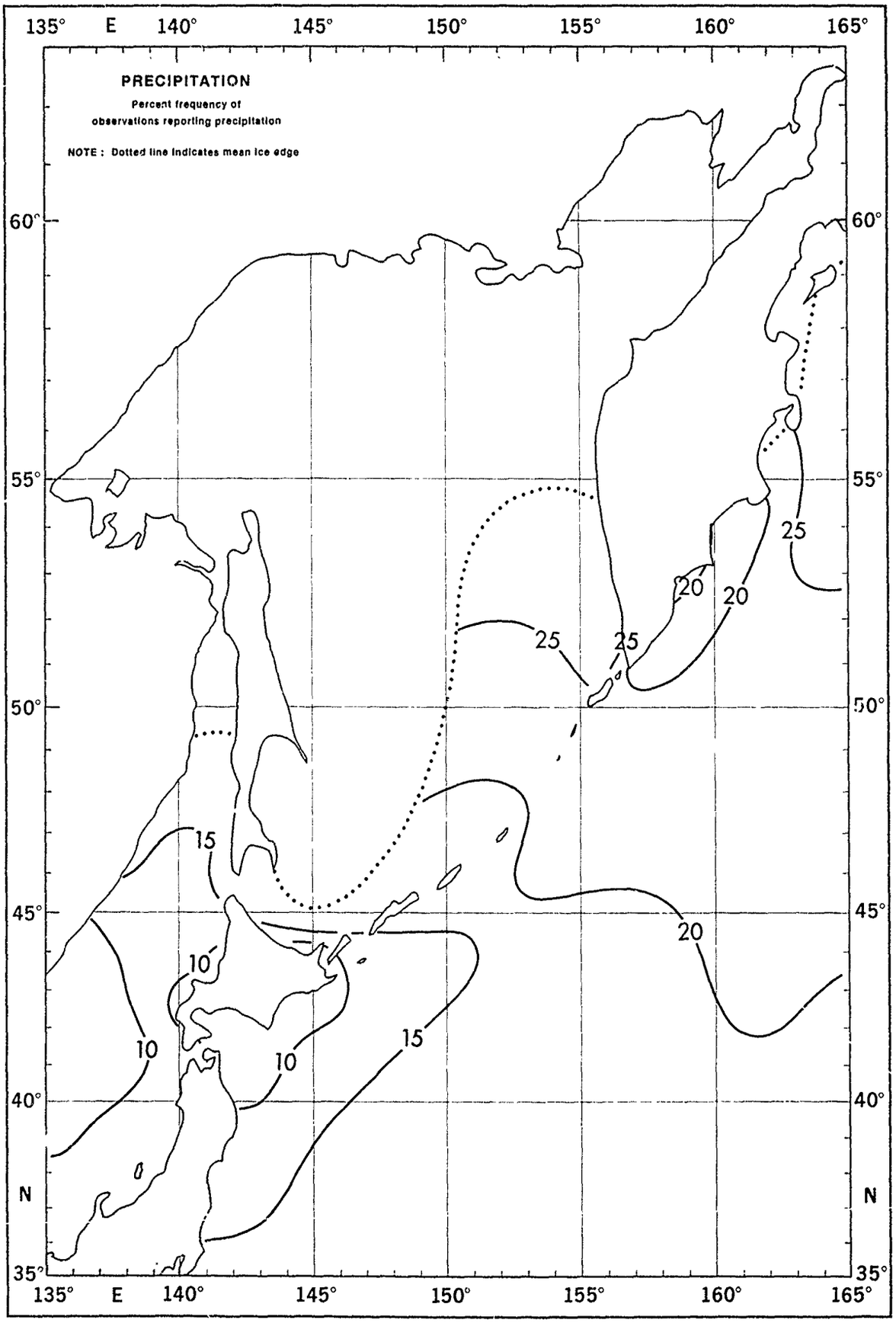

WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 7 feet.
N = Observation count
HEIGHT PERCENT
≤2 10.0
3-4 20.0
5-6 30.0
7-9 20.0
10-12 10.0
≥13 10.0
N = 1383
Wave data for these tables were selected from the higher of sea or swell when both were reported.
135°
145°
155°
165°
61°
55°
49°

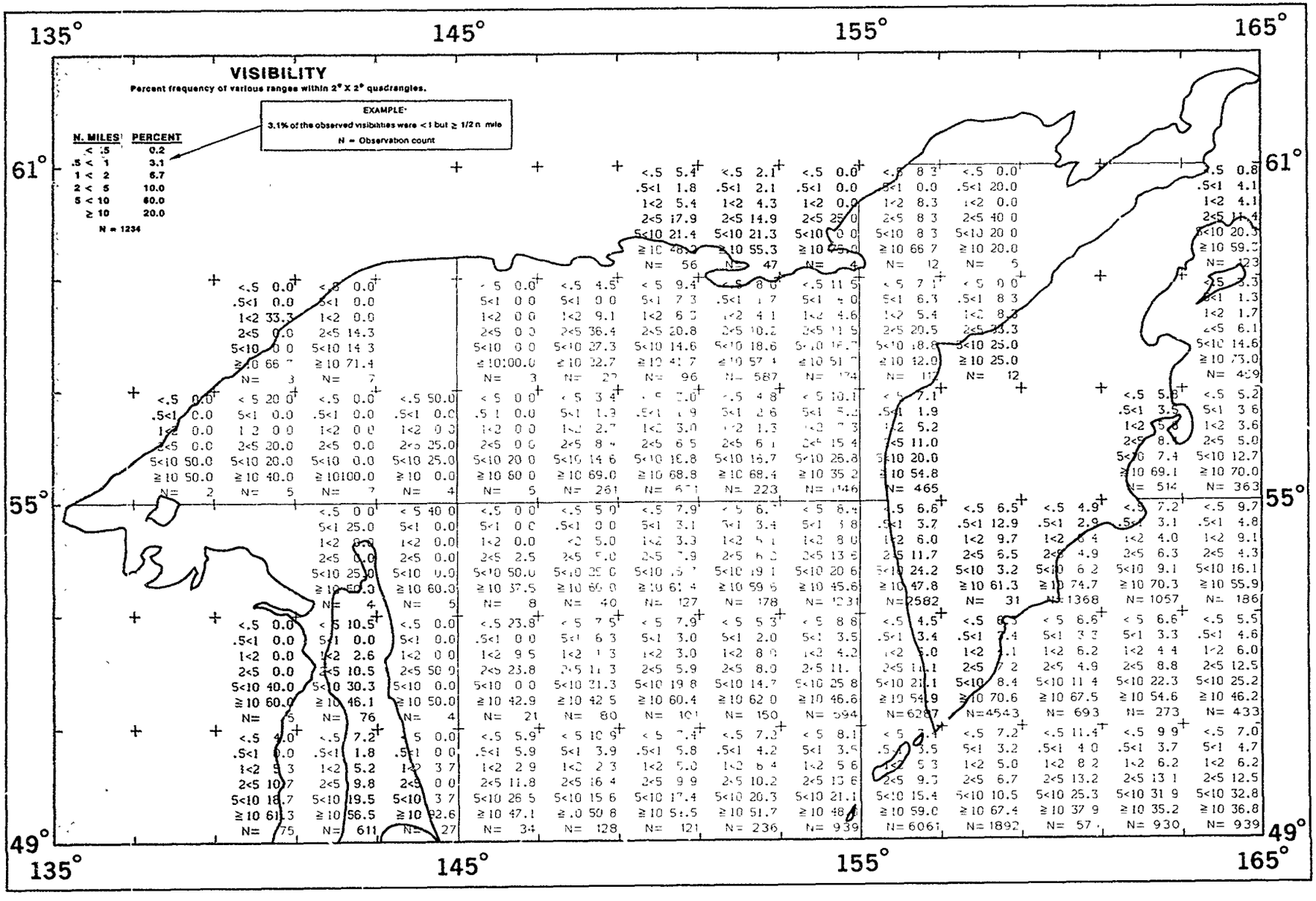

135°
145°
155°
165°
47°
41°
35°
≤ 2 44.4 ≤ 2 46.5 ≤ 2 44.0 ≤ 2 25.0
3-4 27.8 3-4 27.9 3-4 20.7 3-4 12.5
5-6 16.7 5-6 15.9 5-6 16.0 5-6 12.5
7-9 11.1 7-9 12.1 7-9 24.1 7-9 0.0
10-12 0.0 10-12 3.6 10-12 3.5 10-12 25.0
≥13 0.0 ≥13 2.0 ≥13 1.7 ≥13 25.0
N= 15 N= 647 N= 831 N= 8
≤ 2 47.1 ≤ 2 28.8 ≤ 2 28.9 ≤ 2 18.5 ≤ 2 21.1
3-4 17.6 3-4 22.0 3-4 14.1 3-4 19.2 3-4 14.1
5-6 11.8 5-6 13.6 5-6 19.5 5-6 21.5 5-6 16.9
7-9 23.5 7-9 23.7 7-9 17.2 7-9 23.4 7-9 28.7
10-12 0.0 10-12 5.1 10-12 15.6 10-12 10.9 10-12 15.3
≥13 0.0 ≥13 6.8 ≥13 4.7 ≥13 6.5 ≥13 13.9
N= 17 N= 59 N= 128 N=1822 N=2376
≤ 2 6.8 ≤ 2 3.9 ≤ 2 2.0 ≤ 2 1.8 ≤ 2 2.5
3-4 8.6 3-4 7.8 3-4 6.1 3-4 4.9 3-4 7.0
5-6 12.8 5-6 9.7 5-6 10.5 5-6 9.1 5-6 11.9
7-9 25.4 7-9 28.4 7-9 26.5 7-9 28.7 7-9 29.1
10-12 18.8 10-12 22.8 10-12 27.3 10-12 27.1 10-12 22.5
≥13 27.7 ≥13 27.5 ≥13 27.6 ≥13 28.4 ≥13 27.0
N= 962 N= 993 N= 961 N= 1255 N= 688
≤ 2 26.7 ≤ 2 37.8 ≤ 2 31.9 ≤ 2 41.8 ≤ 2 77.4
3-4 26.7 3-4 26.3 3-4 22.5 3-4 19.1 3-4 8.1
5-6 20.0 5-6 16.4 5-6 19.7 5-6 15.7 5-6 6.5
7-9 20.0 7-9 13.0 7-9 17.2 7-9 16.1 7-9 3.2
10-12 6.7 10-12 5.7 10-12 5.5 10-12 5.0 10-12 2.4
≥13 0.0 ≥13 1.8 ≥13 3.3 ≥13 2.4 ≥13 2.4
N= 15 N= 384 N= 640 N= 808 N= 124
≤ 2 73.0 ≤ 2 34.9 ≤ 2 17.3 ≤ 2 13.2 ≤ 2 3.6
3-4 7.4 3-4 22.4 3-4 18.2 3-4 15.0 3-4 7.9
5-6 9.0 5-6 15.6 5-6 20.3 5-6 17.2 5-6 11.8
7-9 7.4 7-9 15.4 7-9 26.7 7-9 26.7 7-9 27.7
10-12 0.8 10-12 7.1 10-12 11.6 10-12 14.8 10-12 18.3
≥13 2.5 ≥13 4.0 ≥13 6.9 ≥13 13.2 ≥13 30.7
N= 122 N=1839 N=2433 N=3070 N= 1298
≥13 25.1 ≥13 26.4 ≥13 25.0 ≥13 26.1 ≥13 24.2
N=1085 N= 852 N= 792 N= 842 N= 751
≤ 2 37.8 ≤ 2 27.0 ≤ 2 23.2 ≤ 2 26.5 ≤ 2 38.2
3-4 27.5 3-4 23.0 3-4 20.3 3-4 15.6 3-4 25.5
5-6 16.8 5-6 18.1 5-6 19.1 5-6 20.2 5-6 7.3
7-9 11.9 7-9 22.6 7-9 23.3 7-9 20.2 7-9 21.8
10-12 3.5 10-12 5.6 10-12 9.9 10-12 9.2 10-12 5.5
≥13 2.6 ≥13 3.7 ≥13 4.2 ≥13 8.3 ≥13 1.8
N= 429 N= 270 N= 908 N= 109 N= 55
≤ 2 37.8 ≤ 2 28.5 ≤ 2 13.0 ≤ 2 6.1 ≤ 2 5.9
3-4 19.9 3-4 21.8 3-4 15.1 3-4 10.3 3-4 8.4
5-6 11.5 5-6 17.6 5-6 15.0 5-6 12.5 5-6 12.3
7-9 17.6 7-9 19.4 7-9 26.1 7-9 26.2 7-9 28.2
10-12 6.4 10-12 7.5 10-12 13.3 10-12 20.1 10-12 21.8
≥13 4.2 ≥13 5.1 ≥13 17.5 ≥13 24.8 ≥13 23.4
N=2233 N=9405 N=2007 N= 1377 N= 1076
≥13 23.9 ≥13 20.9 ≥13 26.8 ≥13 26.7 ≥13 27.7
N=1007 N=1085 N= 961 N= 760 N= 732
≤ 2 29.6 ≤ 2 23.2 ≤ 2 21.5 ≤ 2 26.4 ≤ 2 25.1
3-4 24.2 3-4 21.9 3-4 22.6 3-4 22.4 3-4 21.2
5-6 18.2 5-6 19.1 5-6 20.5 5-6 18.8 5-6 17.3
7-9 18.1 7-9 21.5 7-9 21.4 7-9 19.8 7-9 22.8
10-12 5.6 10-12 9.5 10-12 7.5 10-12 8.2 10-12 8.6
≥13 4.3 ≥13 4.9 ≥13 6.7 ≥13 4.4 ≥13 4.9
N= 1133 N= 1253 N=2000 N=2286 N=3020
≤ 2 20.3 ≤ 2 10.5 ≤ 2 5.5 ≤ 2 4.5 ≤ 2 3.6
3-4 18.9 3-4 14.5 3-4 10.4 3-4 10.6 3-4 9.5
5-6 18.7 5-6 18.2 5-6 15.2 5-6 14.1 5-6 12.7
7-9 22.3 7-9 25.8 7-9 30.0 7-9 29.4 7-9 30.4
10-12 11.0 10-12 14.8 10-12 18.7 10-12 20.2 10-12 21.8
≥13 8.8 ≥13 16.1 ≥13 20.3 ≥13 21.2 ≥13 22.0
N=2374 N=1536 N= 1372 N= 1355 N= 1347
≥13 24.2 ≥13 24.9 ≥13 28.1 ≥13 31.1 ≥13 32.2
N= 1155 N= 936 N= 795 N= 711 N= 633
≤ 2 21.5 ≤ 2 21.8 ≤ 2 19.8 ≤ 2 27.1 ≤ 2 13.0
3-4 22.4 3-4 19.9 3-4 18.0 3-4 21.1 3-4 14.9
5-6 18.7 5-6 22.3 5-6 22.5 5-6 18.9 5-6 17.6
7-9 23.1 7-9 23.3 7-9 25.0 7-9 20.3 7-9 27.5
10-12 9.4 10-12 5.9 10-12 9.7 10-12 8.0 10-12 12.5
≥13 4.8 ≥13 7.0 ≥13 5.2 ≥13 4.5 ≥13 14.5
N= 795 N= 800 N= 444 N=1490 N= 698
≤ 2 7.2 ≤ 2 6.2 ≤ 2 3.8 ≤ 2 3.3 ≤ 2 3.3
3-4 12.4 3-4 11.2 3-4 11.6 3-4 10.3 3-4 10.8
5-6 15.5 5-6 13.9 5-6 14.3 5-6 13.2 5-6 11.6
7-9 26.4 7-9 29.5 7-9 30.8 7-9 28.0 7-9 28.4
10-12 17.6 10-12 18.3 10-12 18.4 10-12 21.2 10-12 19.8
≥13 21.0 ≥13 20.9 ≥13 21.2 ≥13 24.0 ≥13 26.1
N= 1299 N= 1456 N= 1361 N= 1459 N= 1290
≥13 25.5 ≥13 28.8 ≥13 34.2 ≥13 32.5 ≥13 29.7
N= 826 N= 775 N= 802 N= 687 N= 706
≤ 2 19.3 ≤ 2 22.9 ≤ 2 18.8 ≤ 2 29.6 ≤ 2 8.6
3-4 22.6 3-4 23.5 3-4 19.8 3-4 21.6 3-4 13.2
5-6 18.5 5-6 18.1 5-6 20.8 5-6 17.4 5-6 19.9
7-9 24.6 7-9 20.3 7-9 26.0 7-9 20.4 7-9 28.9
10-12 9.3 10-12 8.4 10-12 10.4 10-12 7.1 10-12 14.4
≥13 5.7 ≥13 6.8 ≥13 4.2 ≥13 3.8 ≥13 15.1
N= 60 N= 664 N= 96 N=4437 N=1684
≤ 2 5.4 ≤ 2 4.9 ≤ 2 3.3 ≤ 2 2.5 ≤ 2 2.4
3-4 12.9 3-4 9.9 3-4 6.8 3-4 5.4 3-4 6.9
5-6 17.6 5-6 14.4 5-6 13.3 5-6 13.1 5-6 13.1
7-9 29.7 7-9 29.5 7-9 32.2 7-9 25.9 7-9 26.8
10-12 16.8 10-12 18.9 10-12 22.4 10-12 23.1 10-12 23.3
≥13 17.7 ≥13 22.5 ≥13 22.1 ≥13 30.0 ≥13 27.5
N=1802 N= 1371 N= 1073 N= 1246 N= 1311
≥13 30.0 ≥13 31.0 ≥13 33.2 ≥13 30.2 ≥13 31.0
N=1000 N= 974 N= 929 N= 812 N= 785
≤ 2 31.8 ≤ 2 56.4 ≤ 2 30.3 ≤ 2 20.0 ≤ 2 4.6
3-4 25.4 3-4 17.9 3-4 21.9 3-4 20.3 3-4 9.8
5-6 11.6 5-6 5.1 5-6 20.9 5-6 20.3 5-6 14.8
7-9 23.1 7-9 2.6 7-9 18.3 7-9 24.2 7-9 32.3
10-12 6.0 10-12 17.9 10-12 5.7 10-12 9.6 10-12 19.5
≥13 3.0 ≥13 0.0 ≥13 3.0 ≥13 5.6 ≥13 19.0
N= 268 N= 39 N=2969 N= 9071 N= 2148
≤ 2 3.7 ≤ 2 3.0 ≤ 2 3.0 ≤ 2 2.4 ≤ 2 2.3
3-4 7.2 3-4 6.3 3-4 5.9 3-4 6.4 3-4 5.5
5-6 14.4 5-6 12.3 5-6 10.7 5-6 10.5 5-6 9.1
7-9 31.7 7-9 28.8 7-9 29.8 7-9 30.6 7-9 27.1
10-12 22.5 10-12 22.9 10-12 24.7 10-12 24.9 10-12 24.8
≥13 20.5 ≥13 26.6 ≥13 25.8 ≥13 25.2 ≥13 31.2
N= 2017 N=1900 N= 1681 N= 1477 N= 1405
≤ 2 1.8 ≤ 2 2.2 ≤ 2 1.6 ≤ 2 1.9 ≤ 2 2.0
3-4 5.5 3-4 4.9 3-4 5.3 3-4 3.0 3-4 3.6
5-6 8.2 5-6 9.2 5-6 10.4 5-6 10.2 5-6 8.3
7-9 28.6 7-9 25.6 7-9 27.7 7-9 30.7 7-9 25.8
10-12 24.2 10-12 26.3 10-12 27.2 10-12 26.7 10-12 29.7
≥13 31.7 ≥13 31.9 ≥13 27.8 ≥13 27.5 ≥13 30.6
N= 1299 N= 1152 N= 1102 N=1033 N= 953

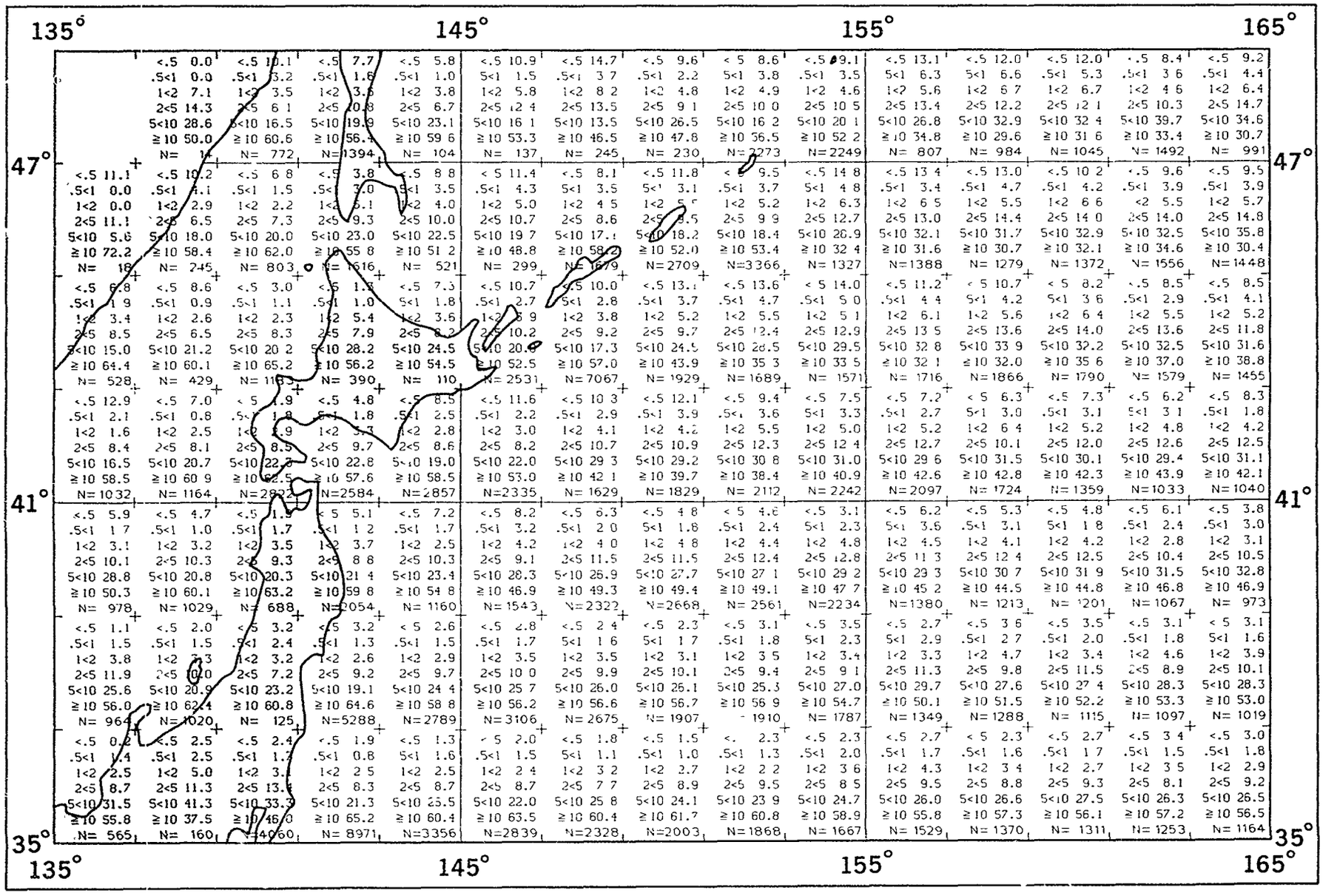

SURFACE CURRENTS
SOLID ARROW(S): Prevailing current direction(s).
DASHED ARROW(S): Secondary current direction(s).
Mean scalar current speed (knots).
Percent of total used to compute primary directions.
Percent of total used to compute secondary directions
Total observations.
The plotted number at the end of each arrow is the mean current speed (knots) along the indicated direction.
165°
155°
145°
135°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°


CLOUD COVER
Percent frequency of
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N
20
70
50
-30
10
60
30
50
40
40
0
60
70
80

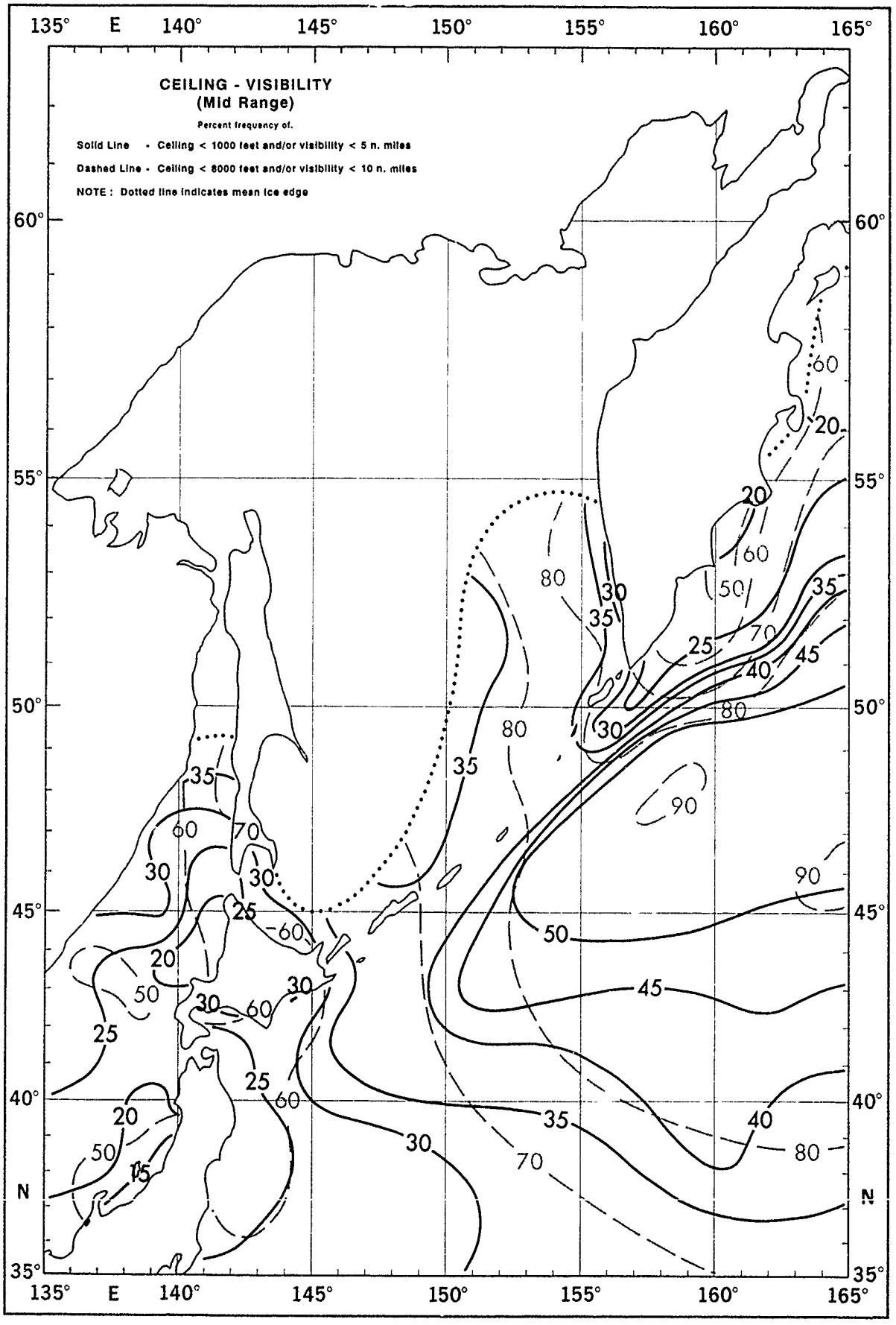

PRECIPITATION
Percent frequency of
observations reporting precipitation
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
10
15
20
25


VISIBILITY
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
3.1% of the observed visibilities were < 1 but ≥ 1/2 n. mile
N = Observation count
N. MILES | PERCENT
< .5 | 0.2
.5 < 1 | 3.1
1 < 2 | 6.7
2 < 5 | 10.0
5 < 10 | 60.0
≥ 10 | 20.0
N = 1234
135°
145°
155°
165°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°
<.5 0.0 <.5 10.1 <.5 7.7 <.5 5.8 <.5 10.9 <.5 14.7 <.5 9.6 <.5 8.6 <.5 9.1 <.5 13.1 <.5 12.0 <.5 12.0 <.5 8.4 <.5 9.2
.5<1 0.0 .5<1 3.2 .5<1 1.6 .5<1 1.0 5<1 1.5 .5<1 3.7 .5<1 2.2 5<1 3.8 .5<1 3.5 5<1 6.3 5<1 6.6 .5<1 5.3 .5<1 3.6 .5<1 4.4
1<2 7.1 1<2 3.5 1<2 3.6 1<2 3.8 1<2 5.8 1<2 8.2 1<2 4.8 1<2 4.9 1<2 4.6 1<2 5.6 1<2 6.7 1<2 6.7 1<2 4.6 1<2 6.4
2<5 14.3 2<5 6.1 2<5 10.8 2<5 6.7 2<5 12.4 2<5 13.5 2<5 9.1 2<5 10.0 2<5 10.5 2<5 13.4 2<5 12.2 2<5 12.1 2<5 10.3 2<5 14.7
5<10 28.6 5<10 16.5 5<10 19.9 5<10 23.1 5<10 16.1 5<10 13.5 5<10 26.5 5<10 16.2 5<10 20.1 5<10 26.8 5<10 32.9 5<10 32.4 5<10 39.7 5<10 34.6
≥10 50.0 ≥10 60.6 ≥10 56.4 ≥10 59.6 ≥10 53.3 ≥10 46.5 ≥10 47.8 ≥10 56.5 ≥10 52.2 ≥10 34.8 ≥10 29.6 ≥10 31.6 ≥10 33.4 ≥10 30.7
N= 14 N= 772 N=1394 N= 104 N= 137 N= 245 N= 230 N=2273 N=2249 N= 807 N= 984 N=1045 N=1492 N= 991
<.5 11.1 <.5 10.2 <.5 6.8 <.5 3.8 <.5 8.8 <.5 11.4 <.5 8.1 <.5 11.8 <.5 9.5 <.5 14.8 <.5 13.4 <.5 13.0 <.5 10.2 <.5 9.6 <.5 9.5
.5<1 0.0 .5<1 4.1 .5<1 1.5 .5<1 3.0 .5<1 3.5 .5<1 4.3 5<1 3.5 5<1 3.1 .5<1 3.7 5<1 4.8 .5<1 3.4 .5<1 4.7 .5<1 4.2 .5<1 3.9 .5<1 3.9
1<2 0.0 1<2 2.9 1<2 2.2 1<2 5.1 1<2 4.0 1<2 5.0 1<2 4.5 1<2 5.5 1<2 5.2 1<2 6.3 1<2 6.5 1<2 5.5 1<2 6.6 <2 5.5 1<2 5.7
2<5 11.1 2<5 6.5 2<5 7.3 2<5 9.3 2<5 10.0 2<5 10.7 2<5 8.6 2<5 8.5 2<5 9.9 2<5 12.7 2<5 13.0 2<5 14.4 2<5 14.0 2<5 14.0 2<5 14.8
5<10 5.6 5<10 18.0 5<10 20.0 5<10 23.0 5<10 22.5 5<10 19.7 5<10 17.4 5<10 18.2 5<10 18.4 5<10 26.9 5<10 32.1 5<10 31.7 5<10 32.9 5<10 32.5 5<10 35.8
≥10 72.2 ≥10 58.4 ≥10 62.0 ≥10 55.8 ≥10 51.2 ≥10 48.8 ≥10 58.2 ≥10 52.0 ≥10 53.4 ≥10 32.4 ≥10 31.6 ≥10 30.7 ≥10 32.1 ≥10 34.6 ≥10 30.4
N= 18 N= 245 N= 803 N= 1616 N= 521 N= 299 N= 1679 N=2709 N=3366 N=1327 N=1388 N=1279 N=1372 N=1556 N=1448
<.5 6.8 <.5 8.6 <.5 3.0 <.5 1.3 <.5 7.3 <.5 10.7 <.5 10.0 <.5 13.1 <.5 13.6 <.5 14.0 <.5 11.2 <.5 10.7 <.5 8.2 <.5 8.5 <.5 8.5
.5<1 1.9 .5<1 0.9 .5<1 1.1 .5<1 1.0 5<1 1.8 .5<1 2.7 5<1 2.8 .5<1 3.7 .5<1 4.7 .5<1 5.0 .5<1 4.4 5<1 4.2 5<1 3.6 .5<1 2.9 .5<1 4.1
1<2 3.4 1<2 2.6 1<2 2.3 1<2 5.4 1<2 3.6 1<2 3.9 1<2 3.8 1<2 5.2 1<2 5.5 1<2 5.1 1<2 6.1 1<2 5.6 1<2 6.4 1<2 5.5 1<2 5.2
2<5 8.5 2<5 6.5 2<5 8.3 2<5 7.9 2<5 8.2 2<5 10.2 2<5 9.2 2<5 9.7 2<5 12.4 2<5 12.9 2<5 13.5 2<5 13.6 2<5 14.0 2<5 13.6 2<5 11.8
5<10 15.0 5<10 21.2 5<10 20.2 5<10 28.2 5<10 24.5 5<10 20.6 5<10 17.3 5<10 24.5 5<10 28.5 5<10 29.5 5<10 32.8 5<10 33.9 5<10 32.2 5<10 32.5 5<10 31.6
≥10 64.4 ≥10 60.1 ≥10 65.2 ≥10 56.2 ≥10 54.5 ≥10 52.5 ≥10 57.0 ≥10 43.9 ≥10 35.3 ≥10 33.5 ≥10 32.1 ≥10 32.0 ≥10 35.6 ≥10 37.0 ≥10 38.8
N= 528 N= 429 N=1185 N= 390 N= 110 N=2531 N=7067 N=1929 N=1689 N=1571 N=1716 N=1866 N=1790 N=1579 N=1455
<.5 12.9 <.5 7.0 <.5 4.9 <.5 4.8 <.5 8.5 <.5 11.6 <.5 10.3 <.5 12.1 <.5 9.4 <.5 7.5 <.5 7.2 <.5 6.3 <.5 7.3 <.5 6.2 <.5 8.3
.5<1 2.1 .5<1 0.8 .5<1 1.8 .5<1 1.8 .5<1 2.5 .5<1 2.2 .5<1 2.9 .5<1 3.9 .5<1 3.6 5<1 3.3 .5<1 2.7 5<1 3.0 .5<1 3.1 5<1 3.1 .5<1 1.8
1<2 1.6 1<2 2.5 1<2 2.9 1<2 3.3 1<2 2.8 1<2 3.0 1<2 4.1 1<2 4.2 1<2 5.5 1<2 5.0 1<2 5.2 1<2 6.4 1<2 5.2 1<2 4.8 1<2 4.2
2<5 8.4 2<5 8.1 2<5 8.5 2<5 9.7 2<5 8.6 2<5 8.2 2<5 10.7 2<5 10.9 2<5 12.3 2<5 12.4 2<5 12.7 2<5 10.1 2<5 12.0 2<5 12.6 2<5 12.5
5<10 16.5 5<10 20.7 5<10 22.3 5<10 22.8 5<10 19.0 5<10 22.0 5<10 29.3 5<10 29.2 5<10 30.8 5<10 31.0 5<10 29.6 5<10 31.5 5<10 30.1 5<10 29.4 5<10 31.1
≥10 58.5 ≥10 60.9 ≥10 62.5 ≥10 57.6 ≥10 58.5 ≥10 53.0 ≥10 42.1 ≥10 39.7 ≥10 38.4 ≥10 40.9 ≥10 42.6 ≥10 42.8 ≥10 42.3 ≥10 43.9 ≥10 42.1
N=1032 N=1164 N=2822 N=2584 N=2857 N=2335 N=1629 N=1829 N=2112 N=2242 N=2097 N=1724 N=1359 N=1033 N=1040
<.5 5.9 <.5 4.7 <.5 1.9 <.5 5.1 <.5 7.2 <.5 8.2 <.5 6.3 <.5 4.8 <.5 4.8 <.5 3.1 <.5 6.2 <.5 5.3 <.5 4.8 <.5 6.1 <.5 3.8
.5<1 1.7 .5<1 1.0 .5<1 1.7 .5<1 1.2 .5<1 1.7 .5<1 3.2 .5<1 2.0 5<1 1.8 .5<1 2.4 5<1 2.3 5<1 3.6 .5<1 3.1 5<1 1.8 .5<1 2.4 .5<1 3.0
1<2 3.1 1<2 3.2 1<2 3.5 1<2 3.7 1<2 2.5 1<2 4.2 1<2 4.0 1<2 4.8 1<2 4.4 1<2 4.8 1<2 4.5 1<2 4.1 1<2 4.2 1<2 2.8 1<2 3.1
2<5 10.1 2<5 10.3 2<5 9.3 2<5 8.8 2<5 10.3 2<5 9.1 2<5 11.5 2<5 11.5 2<5 12.4 2<5 12.8 2<5 11.3 2<5 12.4 2<5 12.5 2<5 10.4 2<5 10.5
5<10 28.8 5<10 20.8 5<10 20.3 5<10 21.4 5<10 23.4 5<10 28.3 5<10 26.9 5<10 27.7 5<10 27.1 5<10 29.2 5<10 29.3 5<10 30.7 5<10 31.9 5<10 31.5 5<10 32.8
≥10 50.3 ≥10 60.1 ≥10 63.2 ≥10 59.8 ≥10 54.8 ≥10 46.9 ≥10 49.3 ≥10 49.4 ≥10 49.1 ≥10 47.7 ≥10 45.2 ≥10 44.5 ≥10 44.8 ≥10 46.8 ≥10 46.9
N= 978 N= 1029 N= 688 N=2054 N=1160 N=1543 N=2322 N=2668 N=2561 N=2234 N=1380 N=1213 N=1201 N=1067 N= 973
<.5 1.1 <.5 2.0 <.5 3.2 <.5 3.2 <.5 2.6 <.5 2.8 <.5 2.4 <.5 2.3 <.5 3.1 <.5 3.5 <.5 2.7 <.5 3.6 <.5 3.5 <.5 3.1 <.5 3.1
.5<1 1.5 .5<1 1.5 .5<1 2.4 .5<1 1.3 .5<1 1.5 .5<1 1.7 5<1 1.6 5<1 1.7 .5<1 1.8 5<1 2.3 5<1 2.9 .5<1 2.7 .5<1 2.0 .5<1 1.8 5<1 1.6
1<2 3.8 1<2 3.3 1<2 3.2 1<2 2.6 1<2 2.9 1<2 3.5 1<2 3.5 1<2 3.1 1<2 3.5 1<2 3.4 1<2 3.3 1<2 4.7 1<2 3.4 1<2 4.6 1<2 3.9
2<5 11.9 2<5 10.0 2<5 7.2 2<5 9.2 2<5 9.7 2<5 10.0 2<5 9.9 2<5 10.1 2<5 9.4 2<5 9.1 2<5 11.3 2<5 9.8 2<5 11.5 2<5 8.9 2<5 10.1
5<10 25.6 5<10 20.9 5<10 23.2 5<10 19.1 5<10 24.4 5<10 25.7 5<10 26.0 5<10 26.1 5<10 25.3 5<10 27.0 5<10 29.7 5<10 27.6 5<10 27.4 5<10 28.3 5<10 28.3
≥10 56.0 ≥10 62.4 ≥10 60.8 ≥10 64.6 ≥10 58.8 ≥10 56.2 ≥10 56.6 ≥10 56.7 ≥10 56.9 ≥10 54.7 ≥10 50.1 ≥10 51.5 ≥10 52.2 ≥10 53.3 ≥10 53.0
N= 964 N=1020 N= 125 N=5288 N=2789 N=3106 N=2675 N=1907 N=1910 N=1787 N=1349 N=1288 N=1115 N=1097 N=1019
<.5 0.2 <.5 2.5 <.5 2.4 <.5 1.9 <.5 1.3 <.5 2.0 <.5 1.8 <.5 1.5 <.5 2.3 <.5 2.3 <.5 2.7 <.5 2.3 <.5 2.7 <.5 3.4 <.5 3.0
.5<1 1.4 .5<1 2.5 .5<1 1.7 .5<1 0.8 5<1 1.6 .5<1 1.5 5<1 1.1 .5<1 1.0 .5<1 1.3 .5<1 2.0 .5<1 1.7 .5<1 1.6 .5<1 1.7 .5<1 1.5 .5<1 1.8
1<2 2.5 1<2 5.0 1<2 3.1 1<2 2.5 1<2 2.5 1<2 2.4 1<2 3.2 1<2 2.7 1<2 2.2 1<2 3.6 1<2 4.3 1<2 3.4 1<2 2.7 1<2 3.5 1<2 2.9
2<5 8.7 2<5 11.3 2<5 13.6 2<5 8.3 2<5 8.7 2<5 8.7 2<5 7.7 2<5 8.9 2<5 9.5 2<5 8.5 2<5 9.5 2<5 8.8 2<5 9.3 2<5 8.1 2<5 9.2
5<10 31.5 5<10 41.3 5<10 33.3 5<10 21.3 5<10 25.5 5<10 22.0 5<10 25.8 5<10 24.1 5<10 23.9 5<10 24.7 5<10 26.0 5<10 26.6 5<10 27.5 5<10 26.3 5<10 26.5
≥10 55.8 ≥10 37.5 ≥10 46.0 ≥10 65.2 ≥10 60.4 ≥10 63.5 ≥10 60.4 ≥10 61.7 ≥10 60.8 ≥10 58.9 ≥10 55.8 ≥10 57.3 ≥10 56.1 ≥10 57.2 ≥10 56.5
N= 565 N= 160 N=4060 N= 8971 N=3356 N=2839 N=2328 N=2003 N=1868 N=1667 N=1529 N=1370 N=1311 N=1253 N=1164

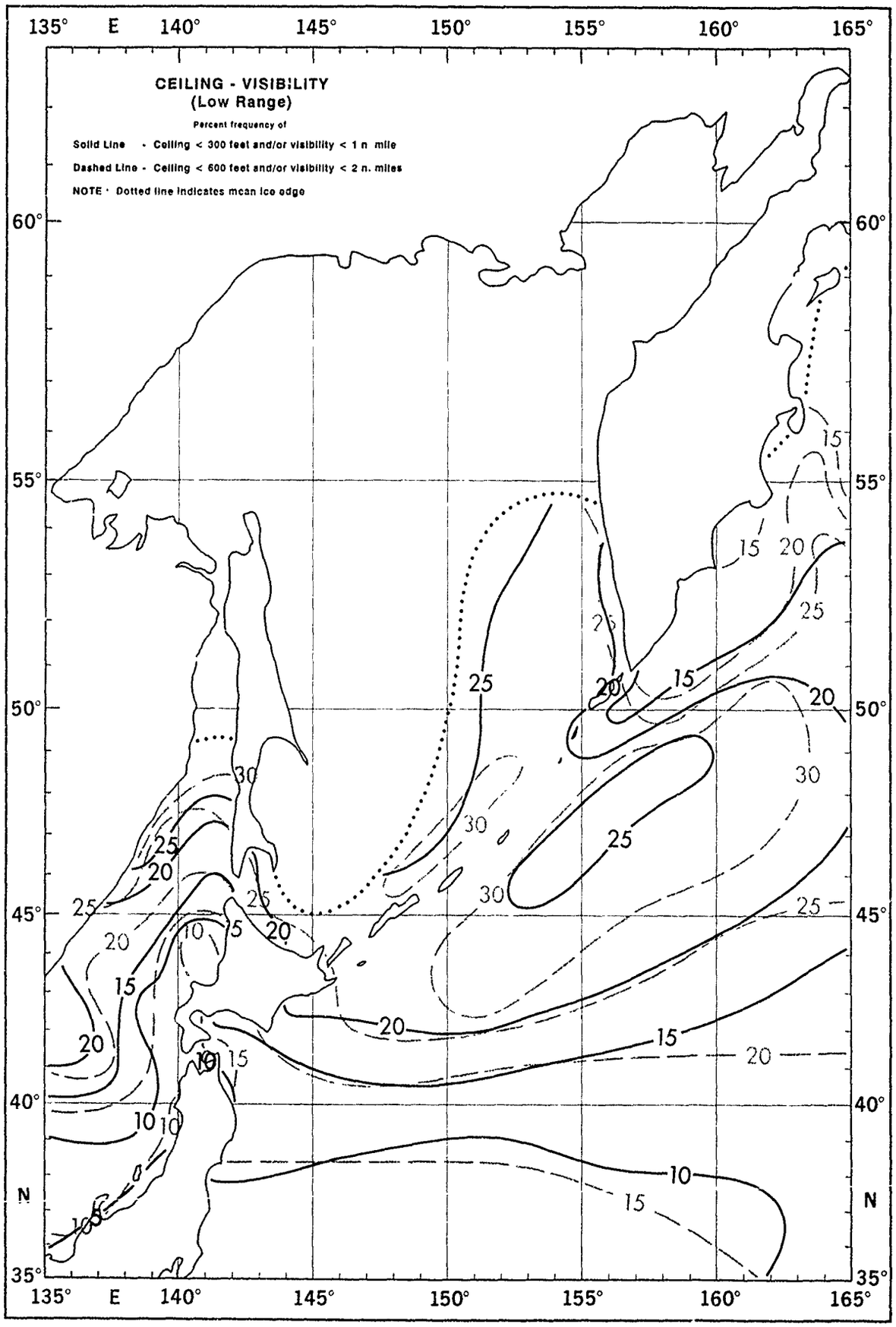
April

Ceiling-Visibility (Mid Range)



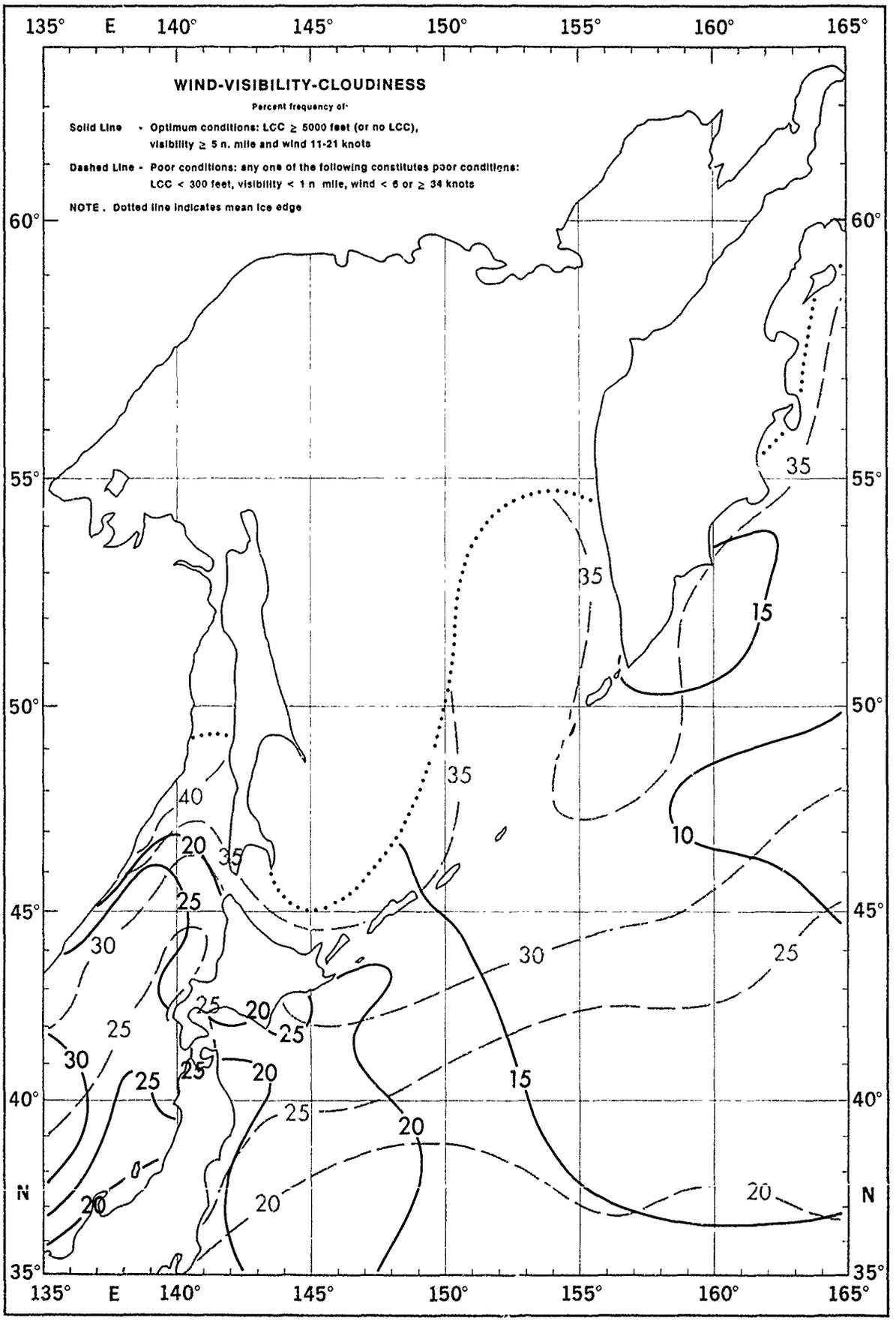
April

Ceiling-Visibility (Low Range)



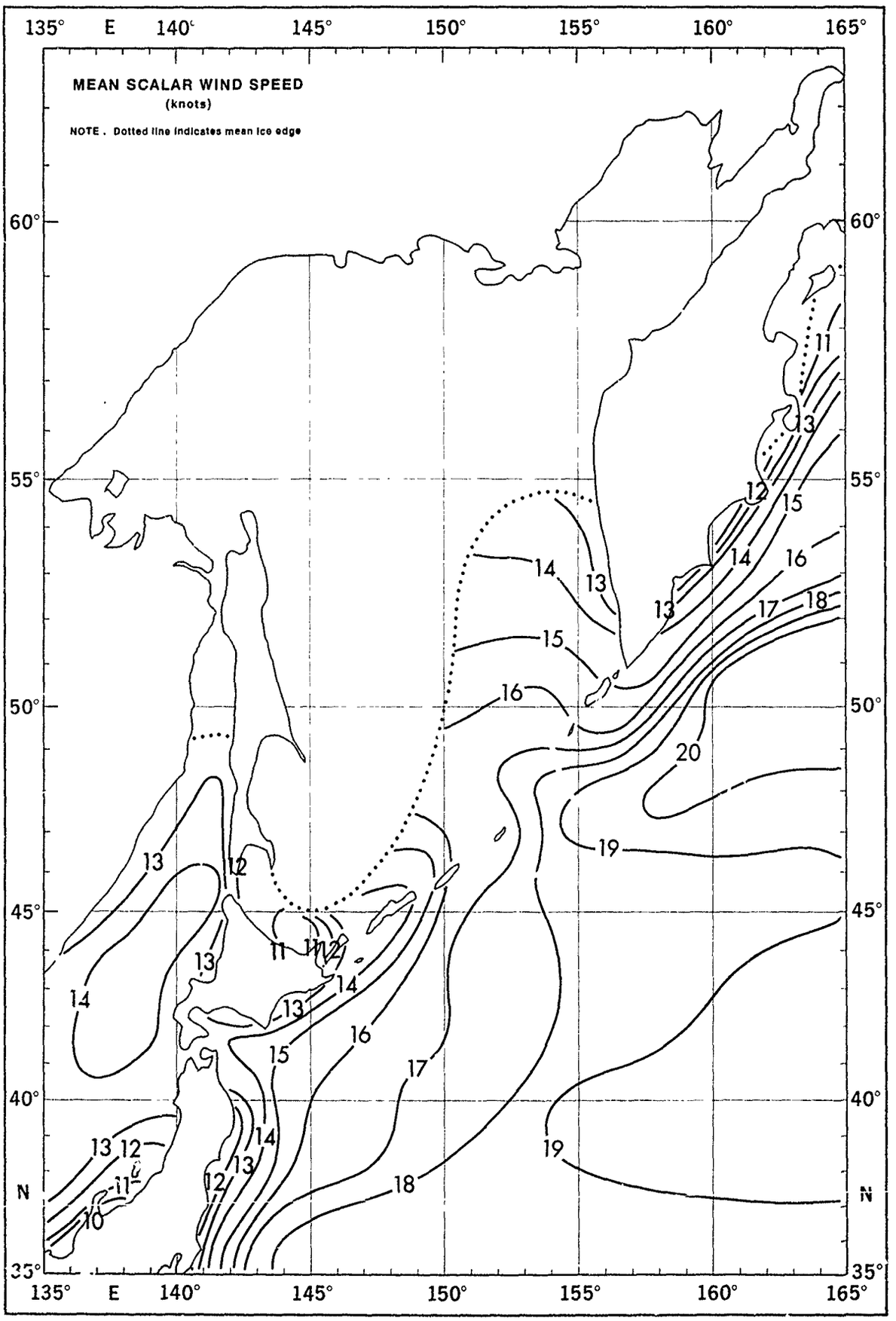
April

Wind-Visibility-Cloudiness



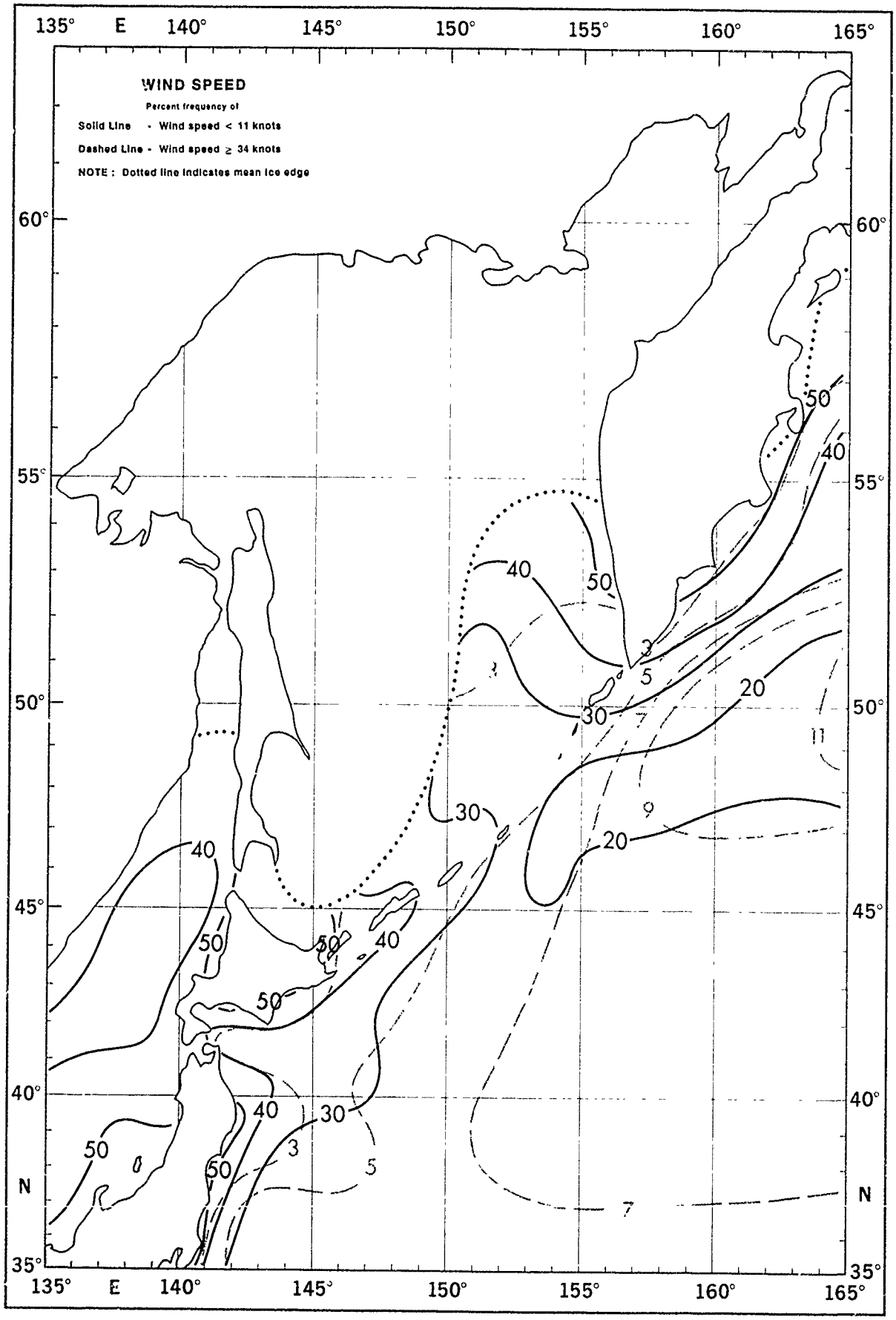
April

Mean Scalar Wind Speed



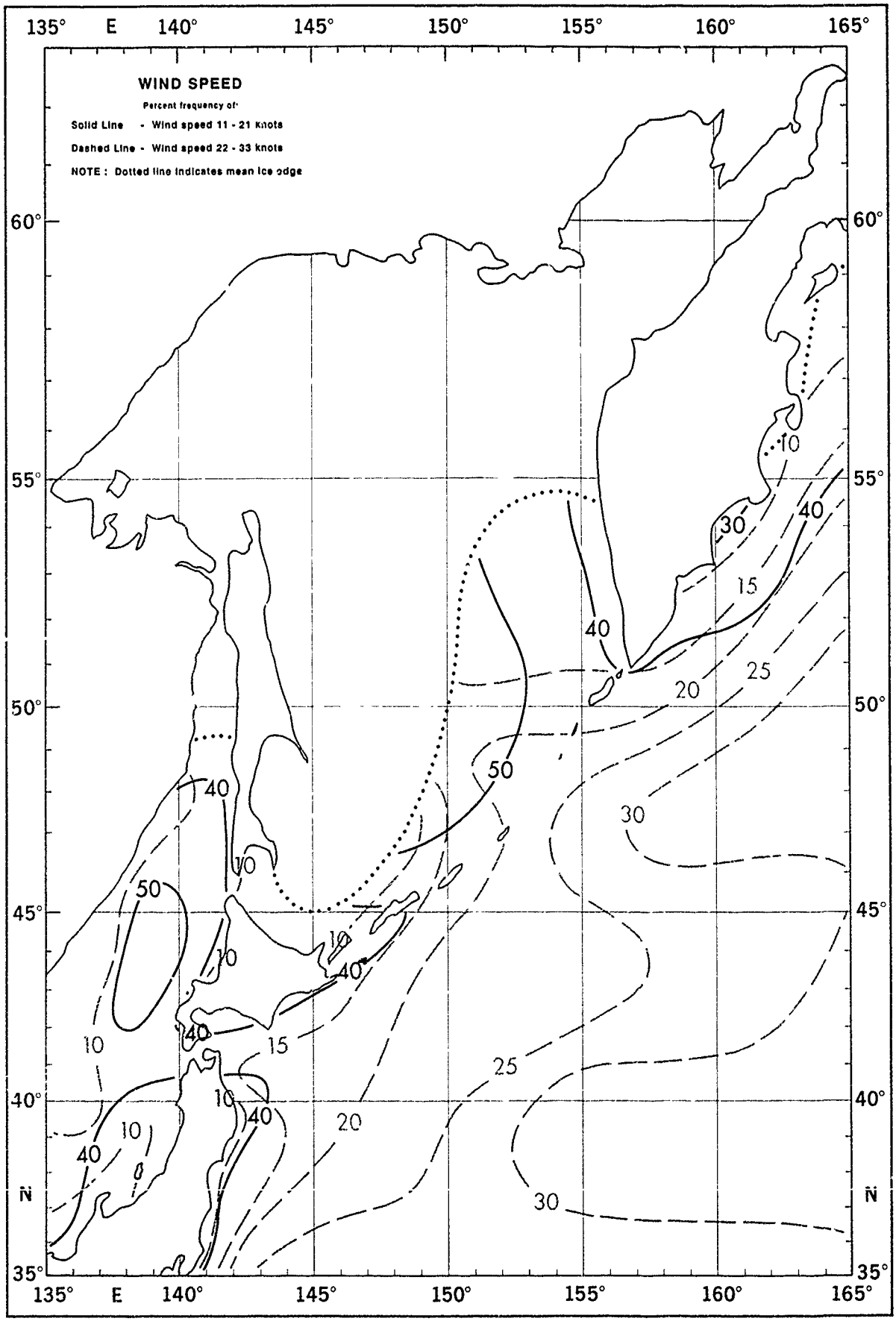
April

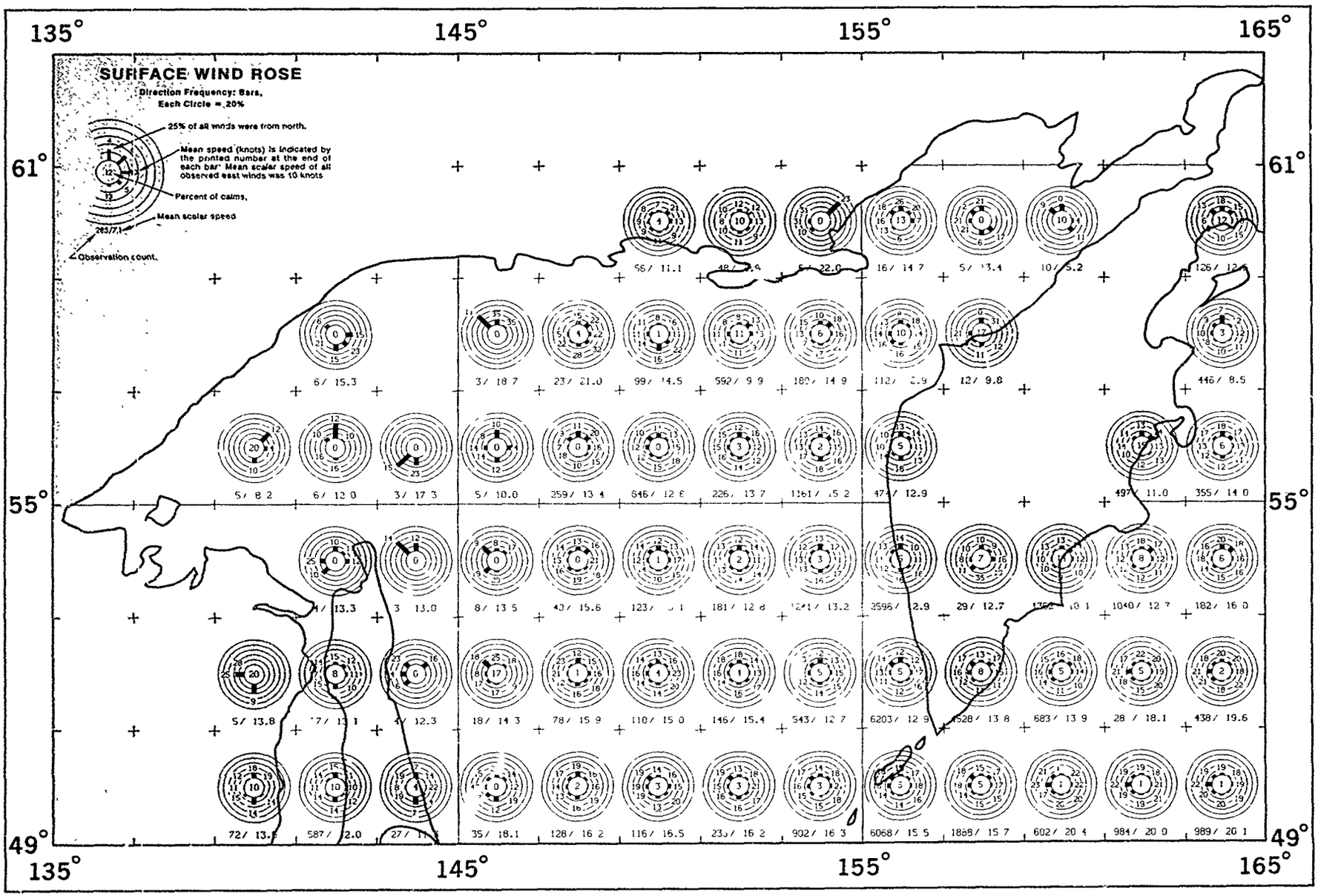
Wind Speed < 11 and ≥ 34 Knots

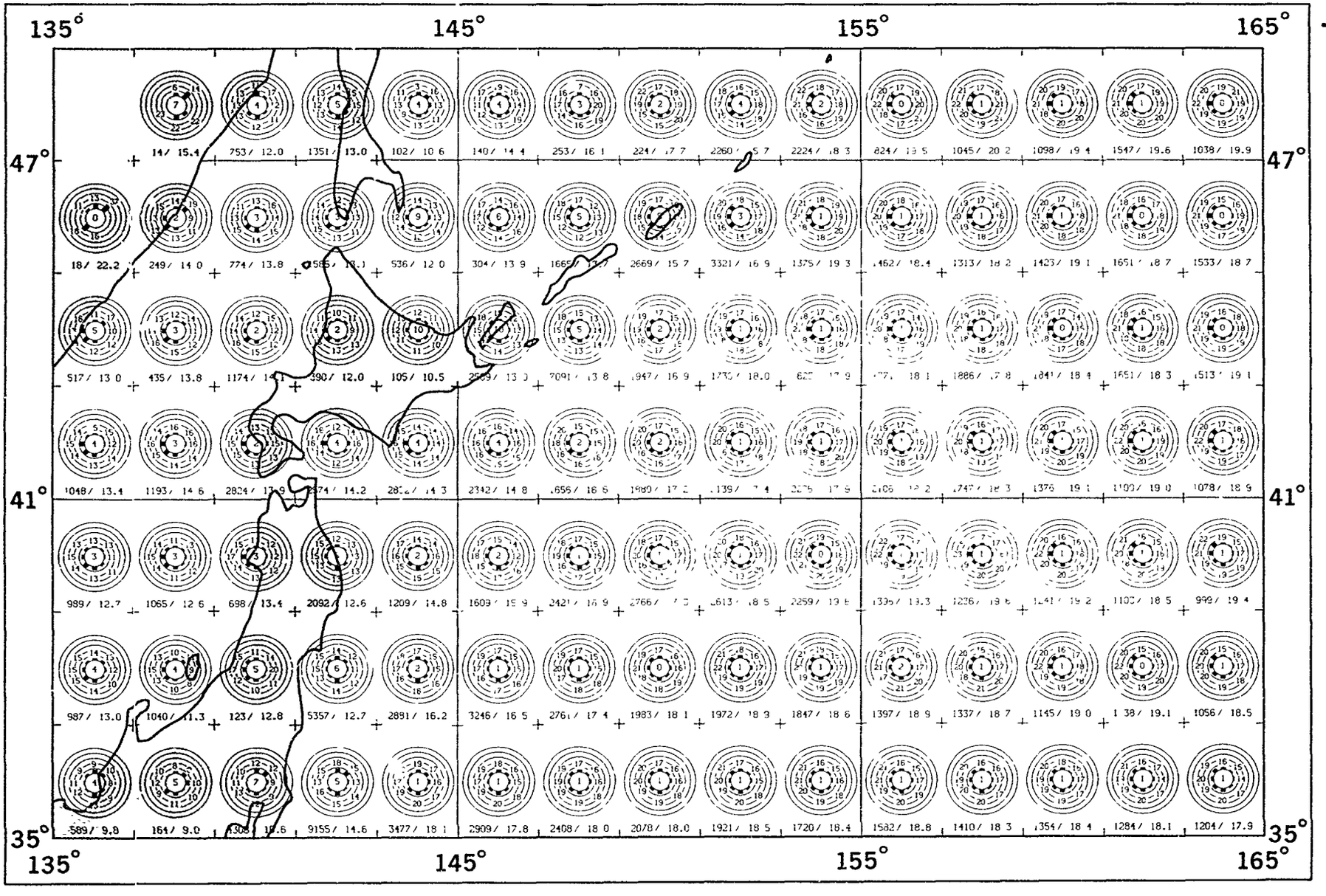


April

Wind Speed 11-21 and 22-33 Knots




SURFACE WIND ROSE
Direction Frequency: Bars,
Each Circle = 20%
25% of all winds were from north.
Mean speed (knots) is indicated by the printed number at the end of each bar. Mean scalar speed of all observed east winds was 10 knots
Percent of calms.
Mean scalar speed
285/7.1
Observation count.
135°
145°
155°
165°
61°
55°
49°

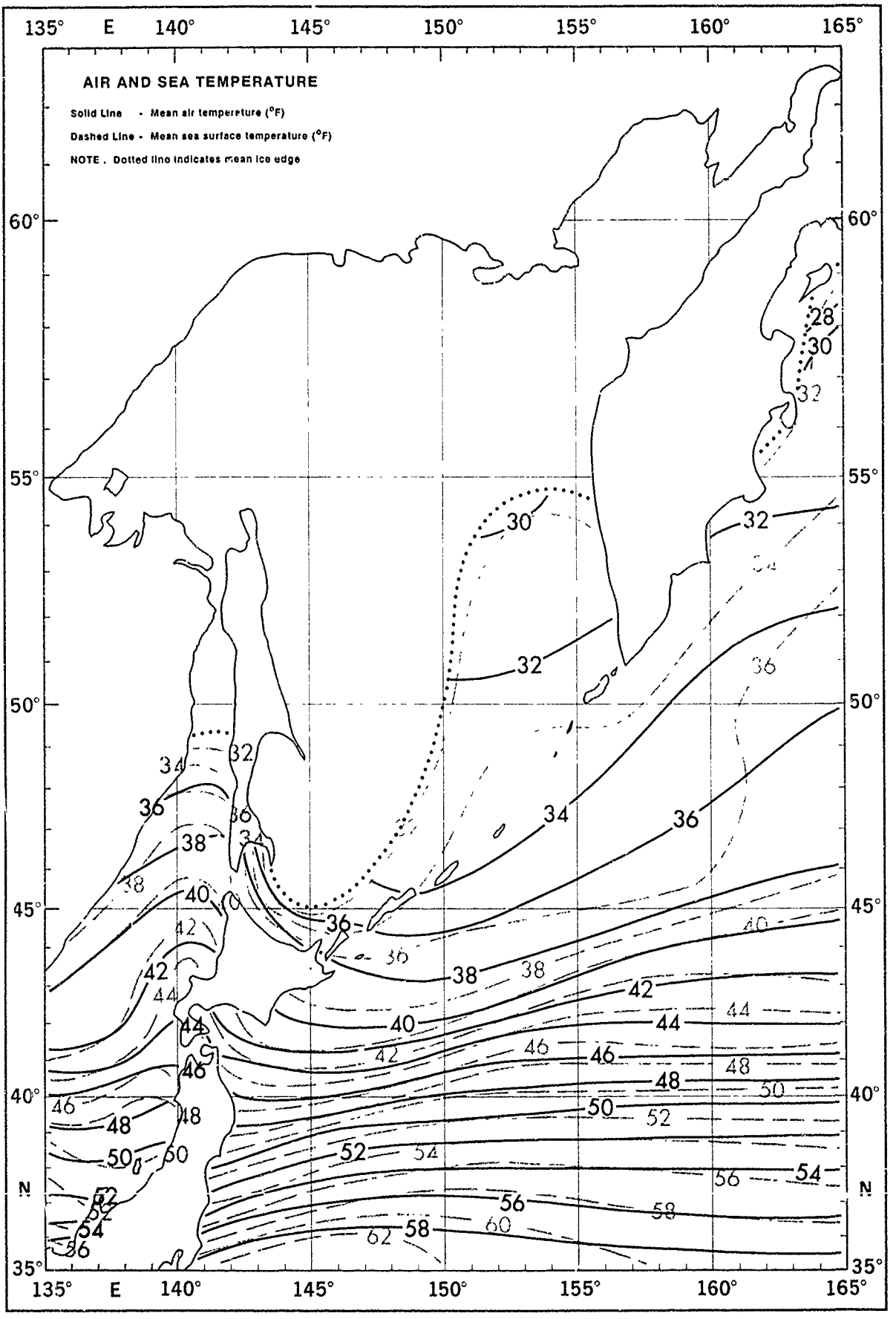


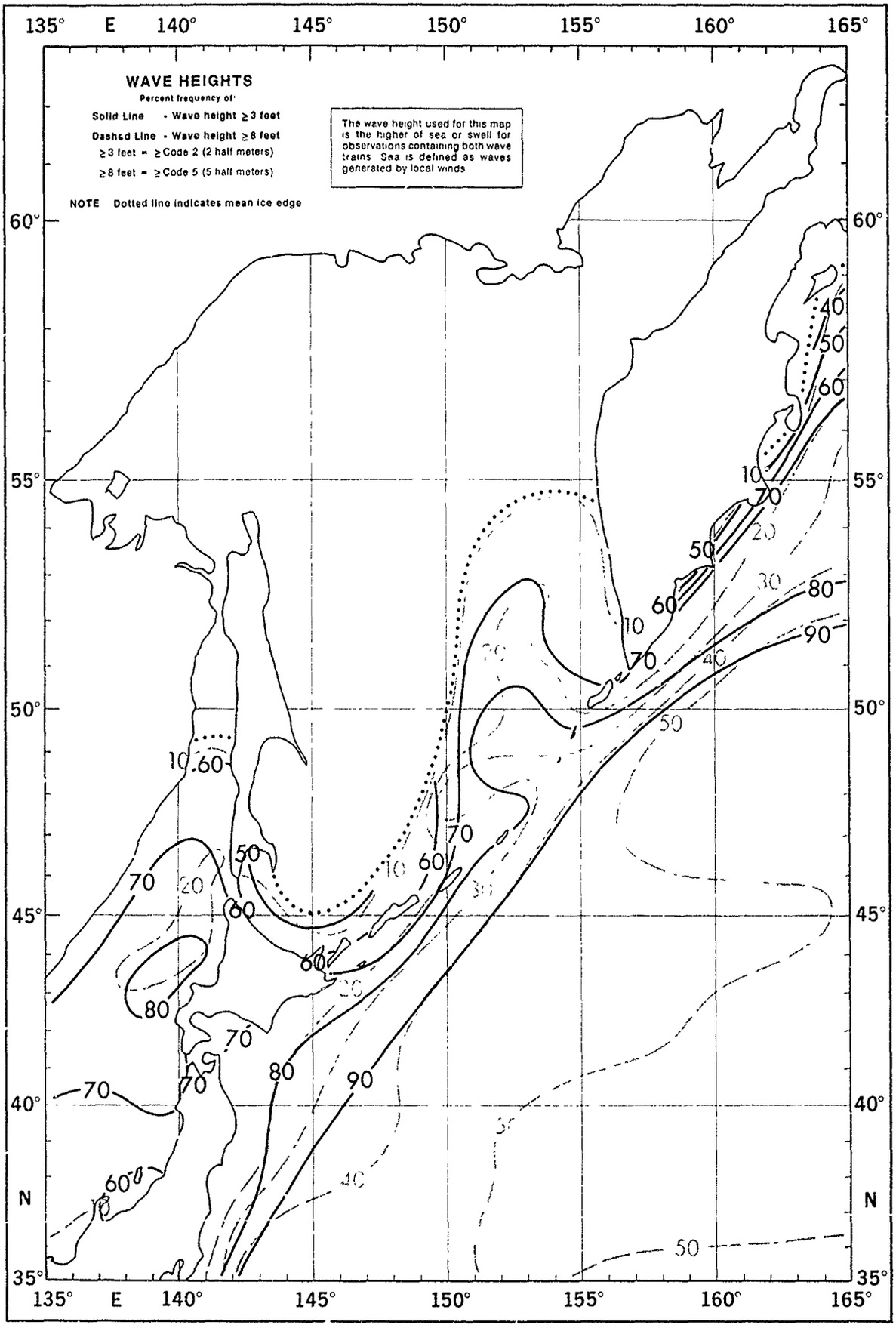
April

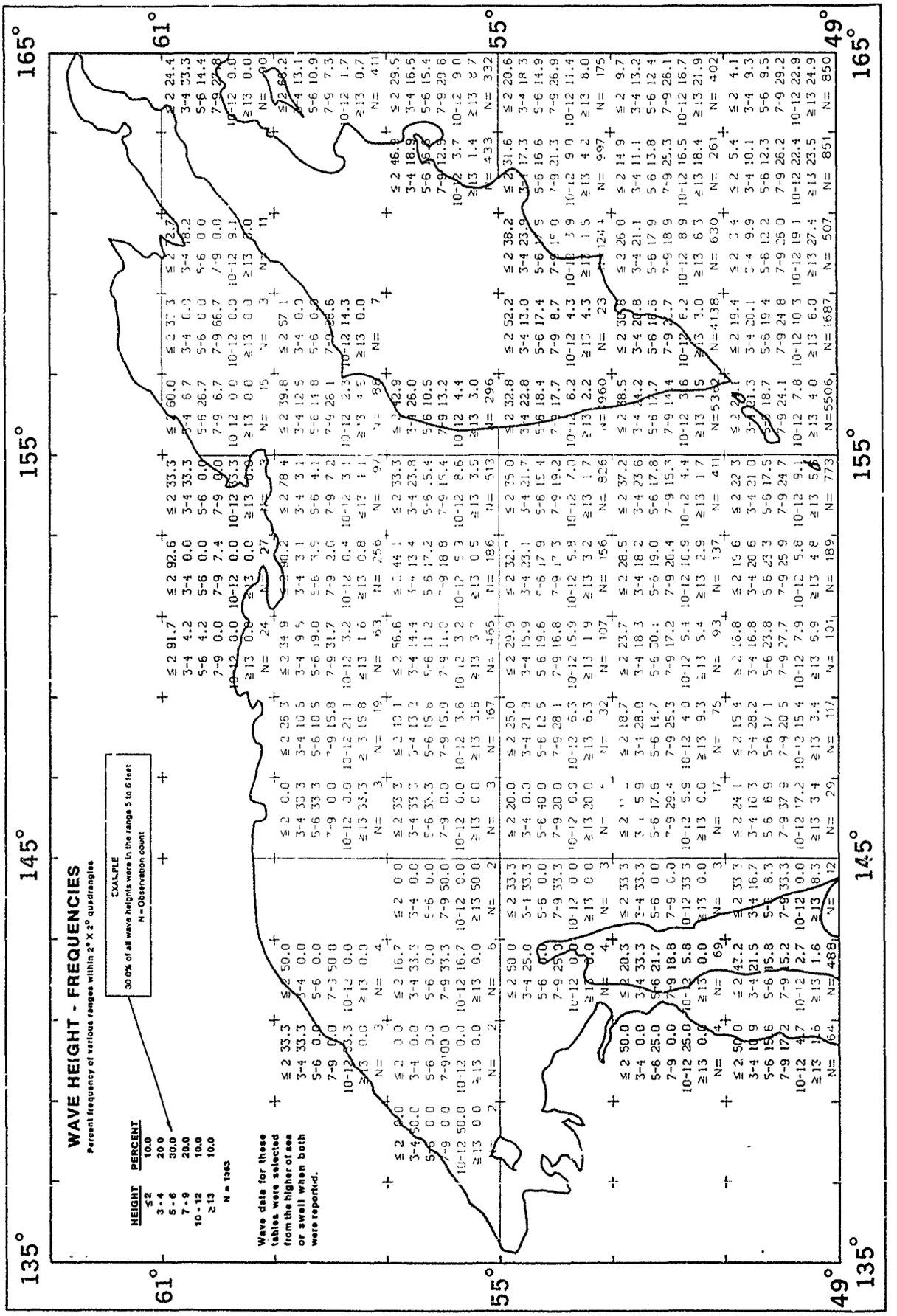
Surface Wind Roses

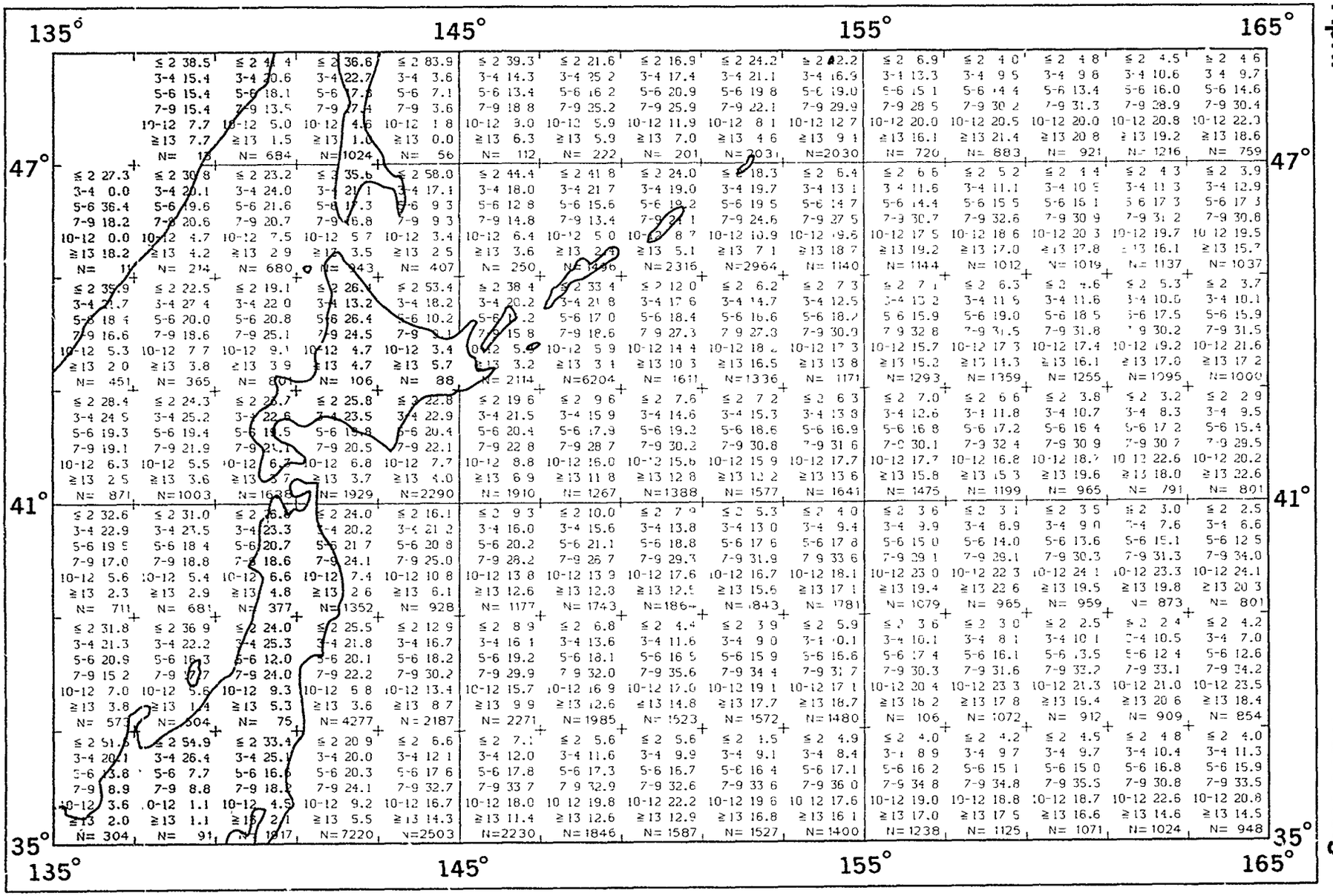
April

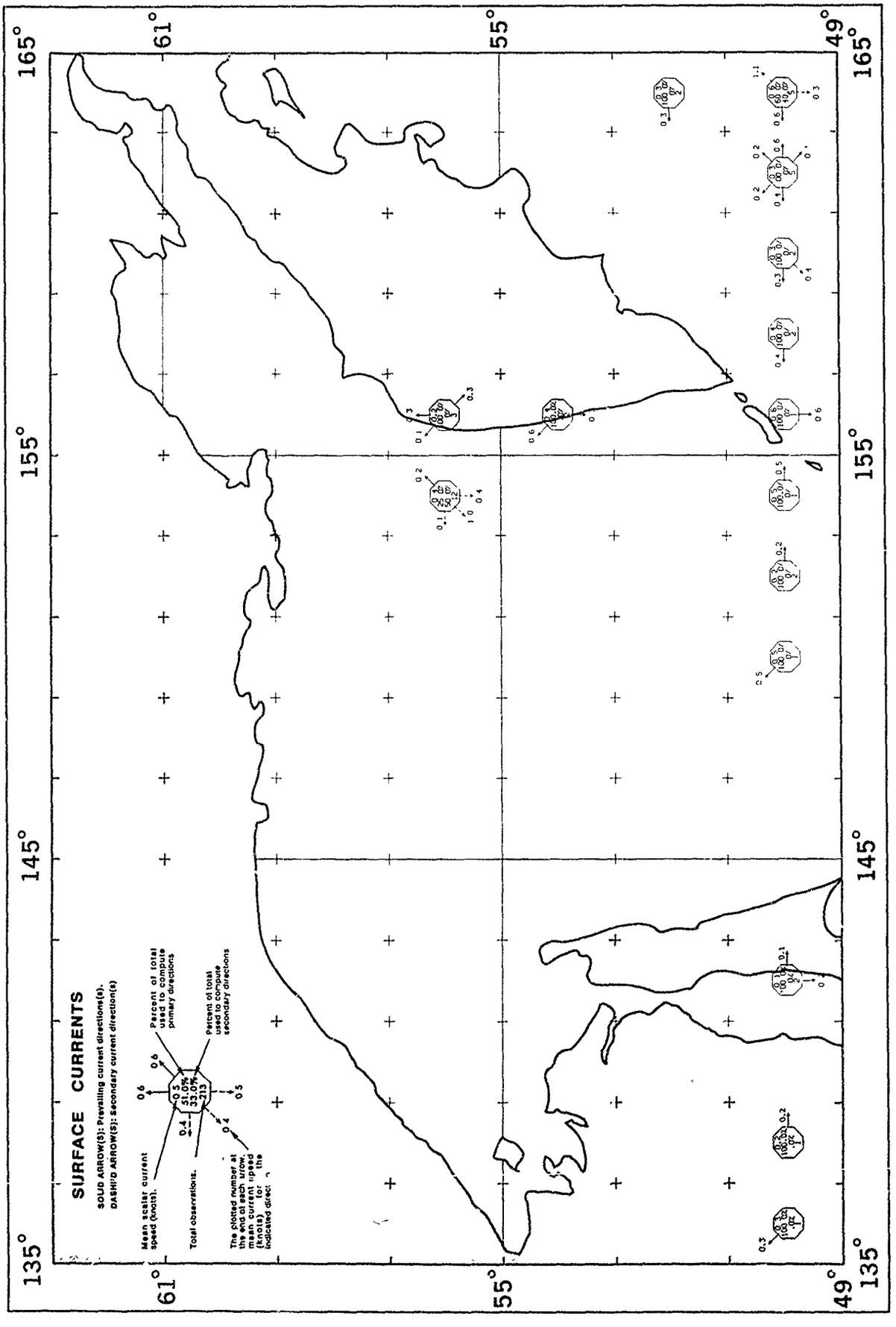
Mean Air and Sea Temperature



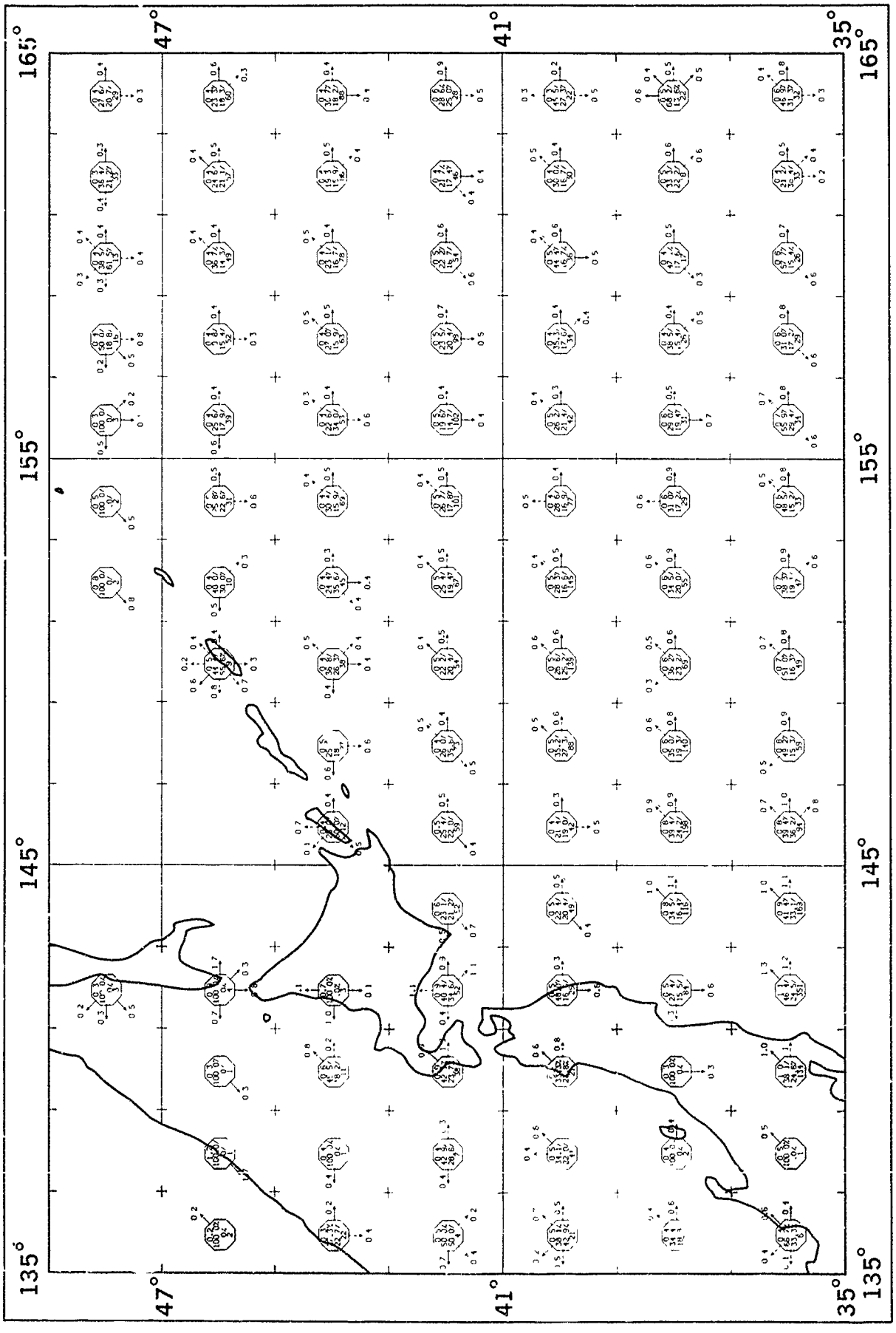

WAVE HEIGHTS
Percent frequency of
Solid Line - Wave height ≥3 feet
Dashed Line - Wave height ≥8 feet
≥3 feet = ≥Code 2 (2 half meters)
≥8 feet = ≥Code 5 (5 half meters)
NOTE Dotted line indicates mean ice edge
The wave height used for this map is the higher of sea or swell for observations containing both wave trains Sea is defined as waves generated by local winds
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°

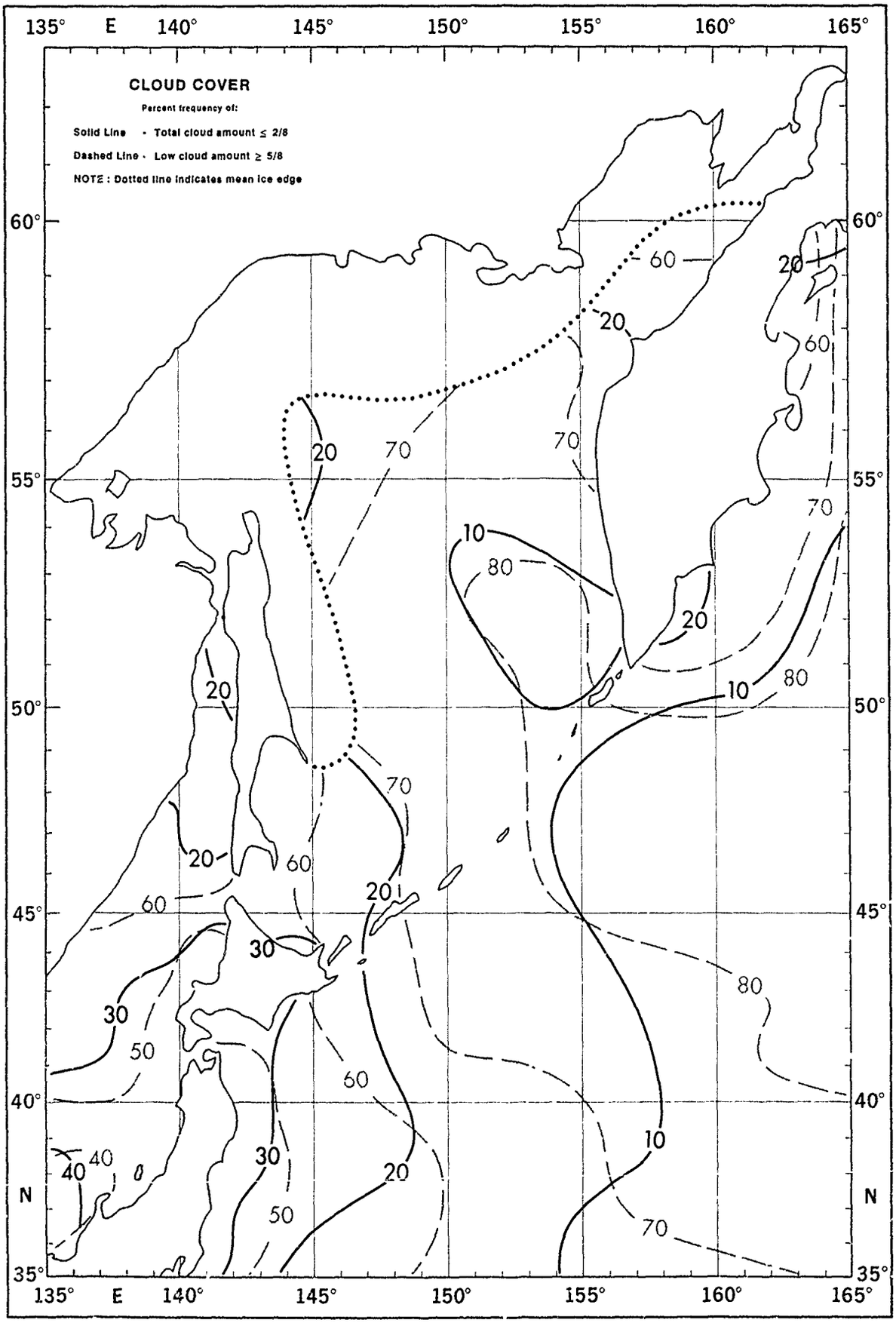

WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° x 2° quadrangles
EXAMPLE
30.0% of all wave heights were in the range 5 to 6 feet
N = Observation count
HEIGHT PERCENT
≤2 10.0
3-4 20.0
5-6 30.0
7-9 20.0
10-12 10.0
≥13 10.0
N = 1365
Wave data for these tables were selected from the higher of sea or swell when both were reported.
135°
145°
155°
165°
61°
55°
49°

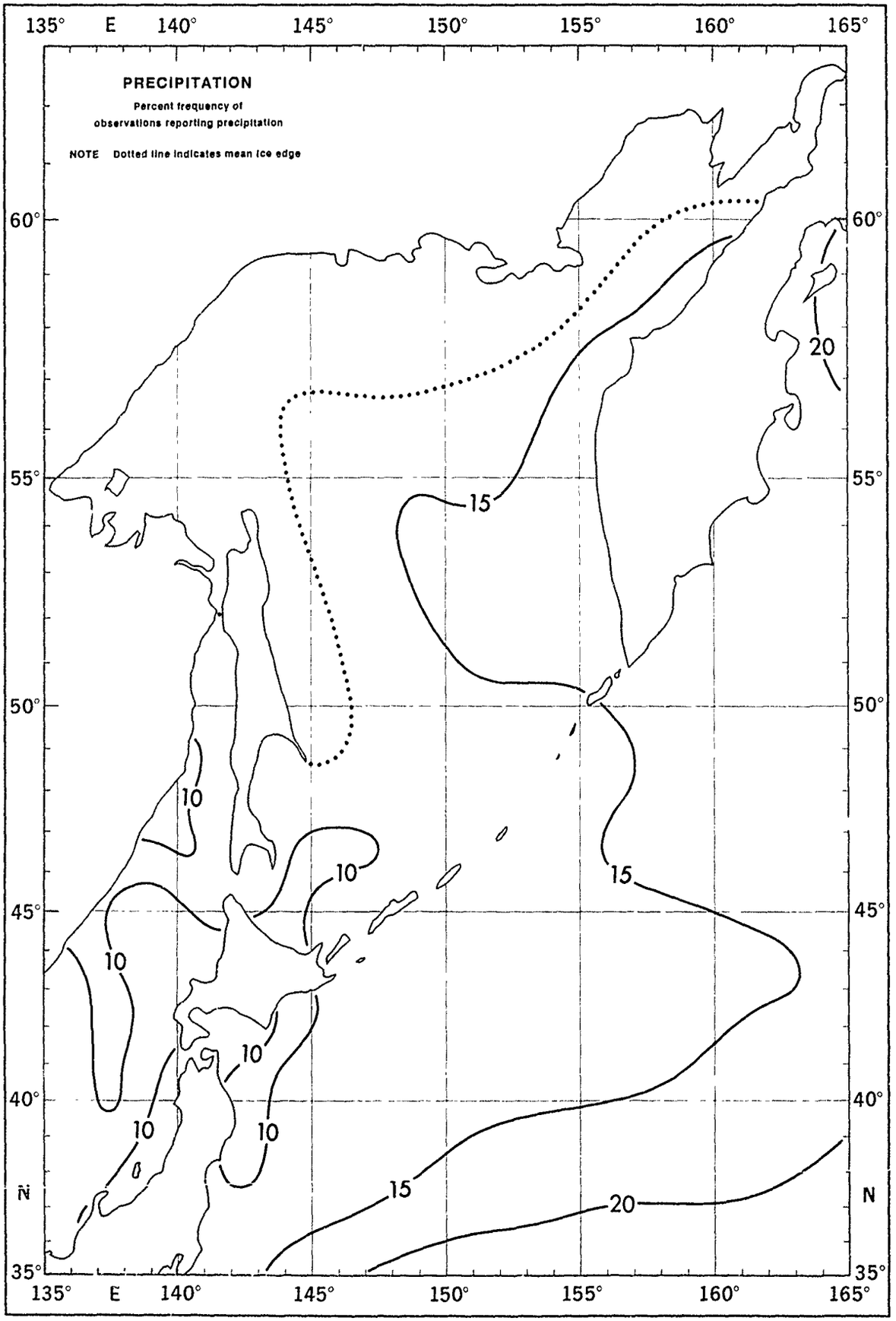

135°
145°
155°
165°
47°
41°
35°
≦2 38.5 ≦2 44.4 ≦2 36.6 ≦2 83.9 ≦2 39.3 ≦2 21.6 ≦2 16.9 ≦2 24.2 ≧2 42.2 ≦2 6.9 ≦2 4.0 ≦2 4.8 ≦2 4.5 ≧2 4.6
3-4 15.4 3-4 20.6 3-4 22.7 3-4 3.6 3-4 14.3 3-4 25.2 3-4 17.4 3-4 21.1 3-4 16.9 3-4 13.3 3-4 9.5 3-4 9.6 3-4 10.6 3-4 9.7
5-6 15.4 5-6 18.1 5-6 17.8 5-6 7.1 5-6 13.4 5-6 16.2 5-6 20.9 5-6 19.8 5-6 19.0 5-6 15.1 5-6 14.4 5-6 13.4 5-6 16.0 5-6 14.6
7-9 15.4 7-9 13.5 7-9 17.4 7-9 3.6 7-9 18.8 7-9 25.2 7-9 25.9 7-9 22.1 7-9 29.9 7-9 28.5 7-9 30.2 7-9 31.3 7-9 28.9 7-9 30.4
10-12 7.7 10-12 5.0 10-12 4.6 10-12 1.8 10-12 3.0 10-12 5.9 10-12 11.9 10-12 8.1 10-12 12.7 10-12 20.0 10-12 20.5 10-12 20.0 10-12 20.8 10-12 22.3
≧13 7.7 ≧13 1.5 ≧13 1.0 ≧13 0.0 ≧13 6.3 ≧13 5.9 ≧13 7.0 ≧13 4.6 ≧13 9.1 ≧13 16.1 ≧13 21.4 ≧13 20.8 ≧13 19.2 ≧13 18.6
N= 13 N= 684 N=1024 N= 56 N= 112 N= 222 N= 201 N=2031 N=2030 N= 720 N= 883 N= 921 N=1216 N= 759
≦2 27.3 ≦2 30.8 ≦2 23.2 ≦2 35.6 ≦2 58.0 ≦2 44.4 ≦2 41.8 ≦2 24.0 ≦2 18.3 ≦2 6.4 ≦2 6.6 ≦2 5.2 ≦2 4.4 ≦2 4.3 ≦2 3.9
3-4 0.0 3-4 20.1 3-4 24.0 3-4 21.1 3-4 17.1 3-4 18.0 3-4 21.7 3-4 19.0 3-4 19.7 3-4 13.1 3-4 11.6 3-4 11.1 3-4 10.5 3-4 11.3 3-4 12.9
5-6 36.4 5-6 19.6 5-6 21.6 5-6 17.3 5-6 9.3 5-6 12.8 5-6 15.6 5-6 19.2 5-6 19.5 5-6 14.7 5-6 14.4 5-6 15.5 5-6 15.1 5-6 17.3 5-6 17.3
7-9 18.2 7-9 20.6 7-9 20.7 7-9 16.8 7-9 9.3 7-9 14.8 7-9 13.4 7-9 24.1 7-9 24.6 7-9 27.5 7-9 30.7 7-9 32.6 7-9 30.9 7-9 31.2 7-9 30.8
10-12 0.0 10-12 4.7 10-12 7.5 10-12 5.7 10-12 3.4 10-12 6.4 10-12 5.0 10-12 8.7 10-12 10.9 10-12 19.5 10-12 17.5 10-12 18.6 10-12 20.3 10-12 19.7 10-12 19.5
≧13 18.2 ≧13 4.2 ≧13 2.9 ≧13 3.5 ≧13 2.5 ≧13 3.6 ≧13 2.3 ≧13 5.1 ≧13 7.1 ≧13 18.7 ≧13 19.2 ≧13 17.0 ≧13 17.8 ≧13 16.1 ≧13 15.7
N= 11 N= 214 N= 680 N= 943 N= 407 N= 250 N=1496 N=2316 N=2964 N=1140 N=1144 N=1012 N=1019 N=1137 N=1037
≦2 35.9 ≦2 22.5 ≦2 19.1 ≦2 26.1 ≦2 53.4 ≦2 38.4 ≦2 33.4 ≦2 12.0 ≦2 6.2 ≦2 7.3 ≦2 7.1 ≦2 6.3 ≦2 4.6 ≦2 5.3 ≦2 3.7
3-4 21.7 3-4 27.4 3-4 22.0 3-4 13.2 3-4 18.2 3-4 20.2 3-4 21.8 3-4 17.6 3-4 14.7 3-4 12.5 3-4 13.2 3-4 11.5 3-4 11.6 3-4 10.6 3-4 10.1
5-6 18.4 5-6 20.0 5-6 20.8 5-6 26.4 5-6 10.2 5-6 16.2 5-6 17.0 5-6 18.4 5-6 16.6 5-6 18.2 5-6 15.9 5-6 19.0 5-6 18.5 5-6 17.5 5-6 15.9
7-9 16.6 7-9 18.6 7-9 25.1 7-9 24.5 7-9 9.1 7-9 15.8 7-9 18.6 7-9 27.3 7-9 27.3 7-9 30.9 7-9 32.8 7-9 31.5 7-9 31.8 7-9 30.2 7-9 31.5
10-12 5.3 10-12 7.7 10-12 9.1 10-12 4.7 10-12 3.4 10-12 5.4 10-12 5.9 10-12 14.4 10-12 18.2 10-12 17.3 10-12 15.7 10-12 17.3 10-12 17.4 10-12 19.2 10-12 21.6
≧13 2.0 ≧13 3.8 ≧13 3.9 ≧13 4.7 ≧13 5.7 ≧13 3.2 ≧13 3.1 ≧13 10.3 ≧13 16.5 ≧13 13.8 ≧13 15.2 ≧13 14.3 ≧13 16.1 ≧13 17.0 ≧13 17.2
N= 451 N= 365 N= 801 N= 106 N= 88 N= 2114 N=6204 N= 1611 N=1336 N= 1171 N=1293 N=1359 N=1255 N=1095 N=1009
≦2 28.4 ≦2 24.3 ≦2 26.7 ≦2 25.8 ≦2 22.8 ≦2 19.6 ≦2 9.6 ≦2 7.6 ≦2 7.2 ≦2 6.3 ≦2 7.0 ≦2 6.6 ≦2 3.8 ≦2 3.2 ≦2 2.9
3-4 24.5 3-4 25.2 3-4 22.6 3-4 23.5 3-4 22.9 3-4 21.5 3-4 15.9 3-4 14.6 3-4 15.3 3-4 13.8 3-4 12.6 3-4 11.8 3-4 10.7 3-4 8.3 3-4 9.5
5-6 19.3 5-6 19.4 5-6 18.5 5-6 19.8 5-6 20.4 5-6 20.4 5-6 17.9 5-6 19.2 5-6 18.6 5-6 16.9 5-6 16.8 5-6 17.2 5-6 16.4 5-6 17.2 5-6 15.4
7-9 19.1 7-9 21.9 7-9 21.1 7-9 20.5 7-9 22.1 7-9 22.8 7-9 28.7 7-9 30.2 7-9 30.8 7-9 31.6 7-9 30.1 7-9 32.4 7-9 30.9 7-9 30.7 7-9 29.5
10-12 6.3 10-12 5.5 10-12 6.7 10-12 6.8 10-12 7.7 10-12 8.8 10-12 16.0 10-12 15.6 10-12 15.9 10-12 17.7 10-12 17.7 10-12 16.8 10-12 18.7 10-12 22.6 10-12 20.2
≧13 2.5 ≧13 3.6 ≧13 3.7 ≧13 3.7 ≧13 4.0 ≧13 6.9 ≧13 11.8 ≧13 12.8 ≧13 12.2 ≧13 13.6 ≧13 15.8 ≧13 15.3 ≧13 19.6 ≧13 18.0 ≧13 22.6
N= 871 N=1003 N=1628 N=1929 N=2290 N=1910 N=1267 N=1388 N=1577 N=1641 N=1475 N=1199 N=965 N=791 N=801
≦2 32.6 ≦2 31.0 ≦2 26.8 ≦2 24.0 ≦2 16.1 ≦2 9.3 ≦2 10.0 ≦2 7.9 ≦2 5.3 ≦2 4.0 ≦2 3.6 ≦2 3.1 ≦2 3.5 ≦2 3.0 ≦2 2.5
3-4 22.9 3-4 23.5 3-4 23.3 3-4 20.2 3-4 21.2 3-4 16.0 3-4 15.6 3-4 13.8 3-4 13.0 3-4 9.4 3-4 8.9 3-4 8.9 3-4 9.0 3-4 7.6 3-4 6.6
5-6 19.5 5-6 18.4 5-6 20.7 5-6 21.7 5-6 20.8 5-6 20.2 5-6 21.1 5-6 18.8 5-6 17.6 5-6 17.8 5-6 15.0 5-6 14.0 5-6 13.6 5-6 15.1 5-6 12.5
7-9 17.0 7-9 18.8 7-9 18.6 7-9 24.1 7-9 25.0 7-9 28.2 7-9 26.7 7-9 29.3 7-9 31.9 7-9 33.6 7-9 29.1 7-9 29.1 7-9 30.3 7-9 31.3 7-9 34.0
10-12 5.6 10-12 5.4 10-12 6.6 10-12 7.4 10-12 10.8 10-12 13.8 10-12 13.9 10-12 17.6 10-12 16.7 10-12 18.1 10-12 23.0 10-12 22.3 10-12 24.1 10-12 23.3 10-12 24.1
≧13 2.3 ≧13 2.9 ≧13 4.8 ≧13 2.6 ≧13 6.1 ≧13 12.6 ≧13 12.8 ≧13 12.5 ≧13 15.6 ≧13 17.1 ≧13 19.4 ≧13 22.6 ≧13 19.5 ≧13 19.8 ≧13 20.3
N= 711 N= 681 N= 377 N=1352 N= 928 N=1177 N=1743 N=1864 N=1843 N=1781 N=1079 N= 965 N= 959 N= 873 N= 801
≦2 31.8 ≦2 36.9 ≦2 24.0 ≦2 25.5 ≦2 12.9 ≦2 8.9 ≦2 6.8 ≦2 4.4 ≦2 3.9 ≦2 5.9 ≦2 3.6 ≦2 3.0 ≦2 2.5 ≦2 2.4 ≦2 4.2
3-4 21.3 3-4 22.2 3-4 25.3 3-4 21.8 3-4 16.7 3-4 16.1 3-4 13.6 3-4 11.6 3-4 9.0 3-4 10.1 3-4 10.1 3-4 8.1 3-4 10.1 3-4 10.5 3-4 7.0
5-6 20.9 5-6 16.3 5-6 12.0 5-6 20.1 5-6 18.2 5-6 19.2 5-6 18.1 5-6 16.5 5-6 15.9 5-6 16.6 5-6 17.4 5-6 16.1 5-6 13.5 5-6 12.4 5-6 12.6
7-9 15.2 7-9 17.7 7-9 24.0 7-9 22.2 7-9 30.2 7-9 29.9 7-9 32.0 7-9 35.6 7-9 34.4 7-9 31.7 7-9 30.3 7-9 31.6 7-9 33.2 7-9 33.1 7-9 34.2
10-12 7.0 10-12 5.6 10-12 9.3 10-12 5.8 10-12 13.4 10-12 15.7 10-12 16.9 10-12 17.0 10-12 19.1 10-12 17.1 10-12 20.4 10-12 23.3 10-12 21.3 10-12 21.0 10-12 23.5
≧13 3.8 ≧13 1.4 ≧13 5.3 ≧13 3.6 ≧13 8.7 ≧13 9.9 ≧13 12.6 ≧13 14.8 ≧13 17.7 ≧13 18.7 ≧13 16.2 ≧13 17.8 ≧13 19.4 ≧13 20.6 ≧13 18.4
N= 577 N= 304 N= 75 N=4277 N=2187 N=2271 N=1985 N=1523 N=1572 N=1480 N= 106 N=1072 N= 912 N= 909 N= 854
≦2 51.6 ≦2 54.9 ≦2 33.4 ≦2 20.9 ≦2 6.6 ≦2 7.1 ≦2 5.6 ≦2 5.6 ≦2 4.5 ≦2 4.9 ≦2 4.0 ≦2 4.2 ≦2 4.5 ≦2 4.8 ≦2 4.0
3-4 20.1 3-4 26.4 3-4 25.1 3-4 20.0 3-4 12.1 3-4 12.0 3-4 11.6 3-4 9.9 3-4 9.1 3-4 8.4 3-4 8.9 3-4 9.7 3-4 9.7 3-4 10.4 3-4 11.3
5-6 13.8 5-6 7.7 5-6 16.6 5-6 20.3 5-6 17.6 5-6 17.8 5-6 17.3 5-6 16.7 5-6 16.4 5-6 17.1 5-6 16.2 5-6 15.1 5-6 15.0 5-6 16.8 5-6 15.9
7-9 8.9 7-9 8.8 7-9 18.5 7-9 24.1 7-9 32.7 7-9 33.7 7-9 32.9 7-9 32.6 7-9 33.6 7-9 36.0 7-9 34.8 7-9 34.8 7-9 35.5 7-9 30.8 7-9 33.5
10-12 3.6 10-12 1.1 10-12 4.5 10-12 9.2 10-12 16.7 10-12 18.0 10-12 19.8 10-12 22.2 10-12 19.6 10-12 17.6 10-12 19.0 10-12 18.8 10-12 18.7 10-12 22.6 10-12 20.8
≧13 2.0 ≧13 1.1 ≧13 2.1 ≧13 5.5 ≧13 14.3 ≧13 11.4 ≧13 12.6 ≧13 12.9 ≧13 16.8 ≧13 16.1 ≧13 17.0 ≧13 17.5 ≧13 16.6 ≧13 14.6 ≧13 14.5
N= 304 N= 91 N= 1917 N=7220 N=2503 N=2230 N=1846 N=1587 N=1527 N=1400 N=1238 N=1125 N=1071 N=1024 N= 948

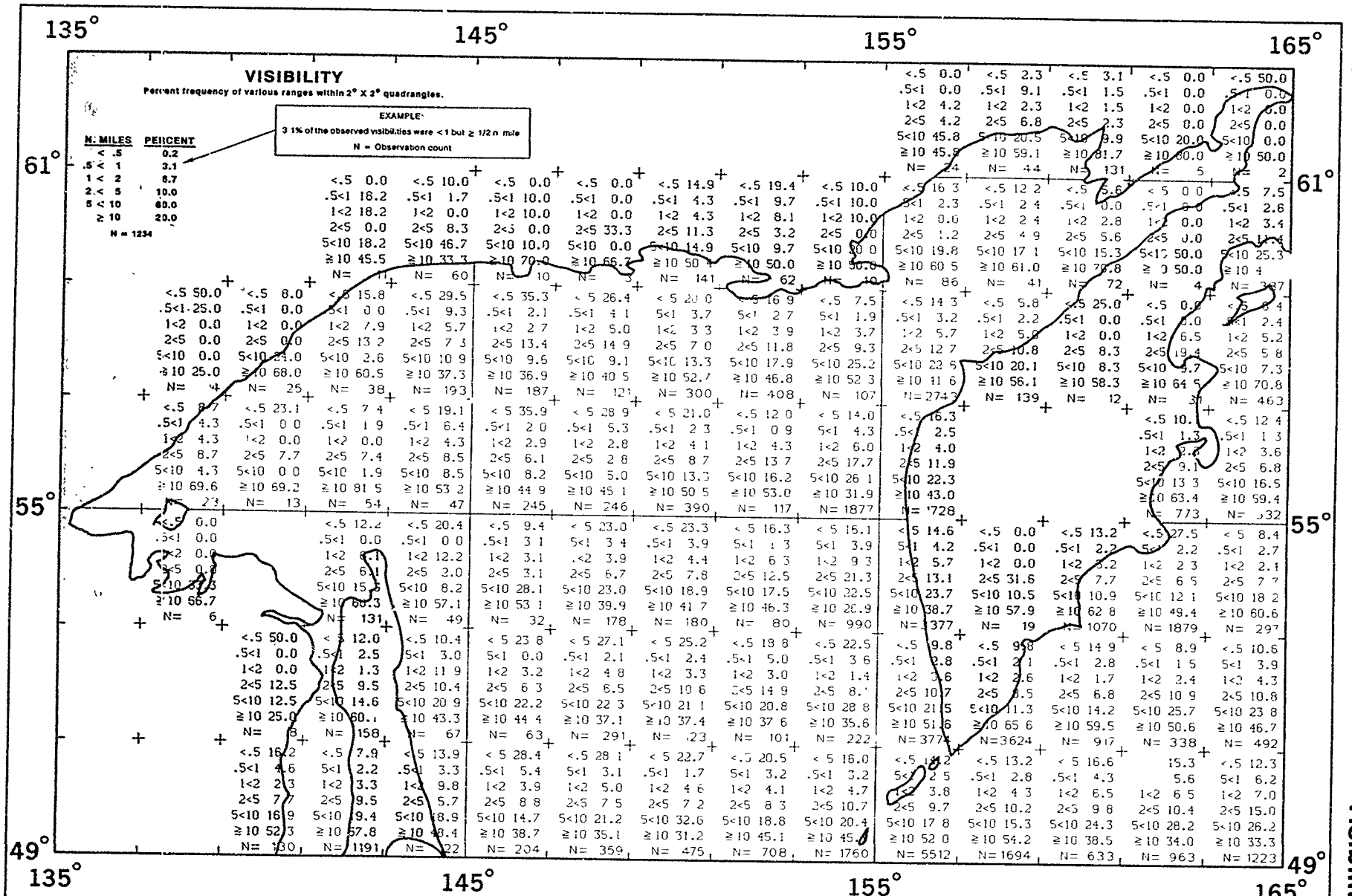

SURFACE CURRENTS
SOLID ARROW(S): Prevailing current direction(s).
DASHED ARROW(S): Secondary current direction(s)
Mean scalar current speed (knots).
Percent of total used to compute primary directions
Percent of total used to compute secondary directions
Total observations.
The plotted number at the end of each arrow is the mean current speed (knots) for the indicated direc
165°
155°
145°
135°
61°
55°
49°

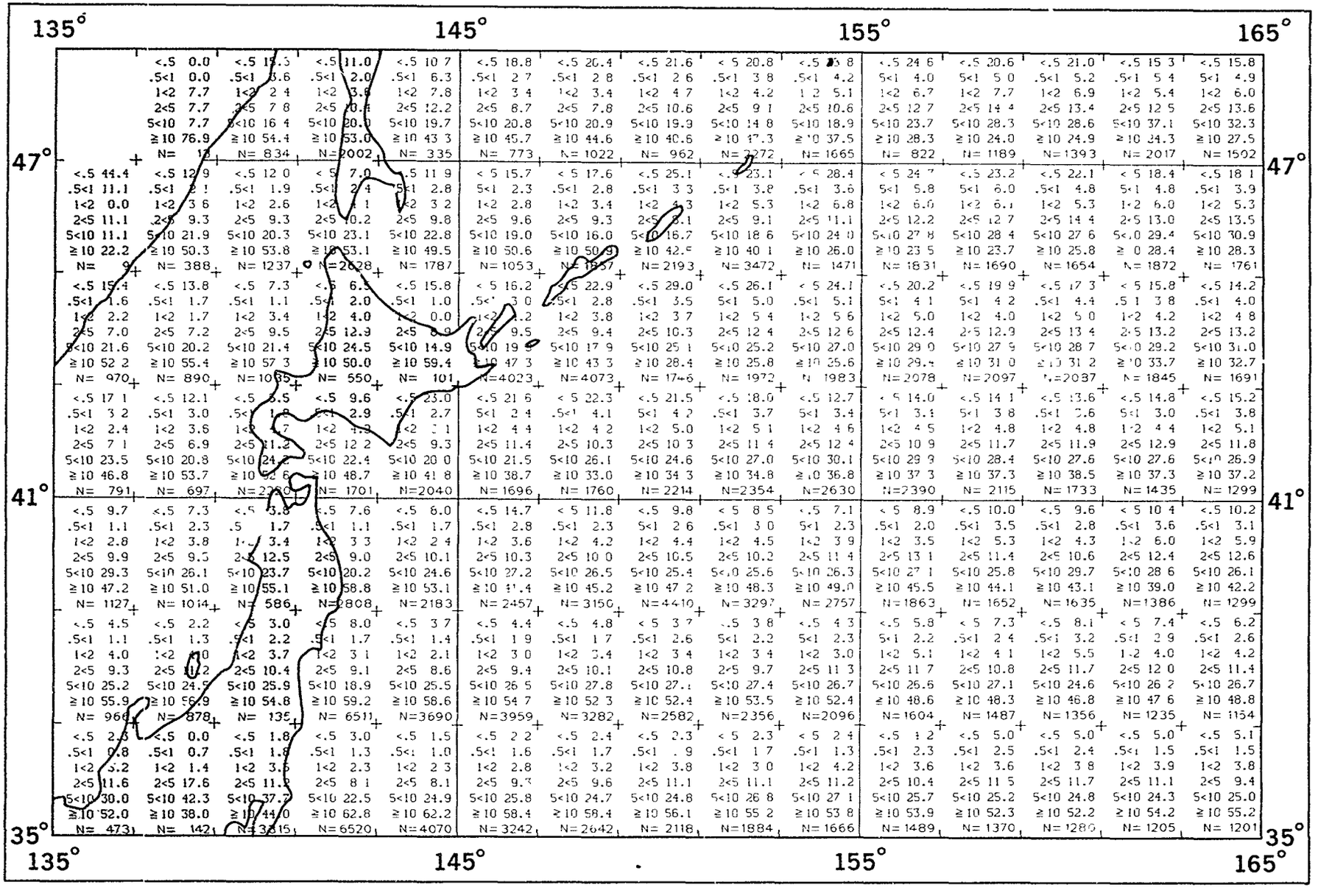
April **Surface Currents**

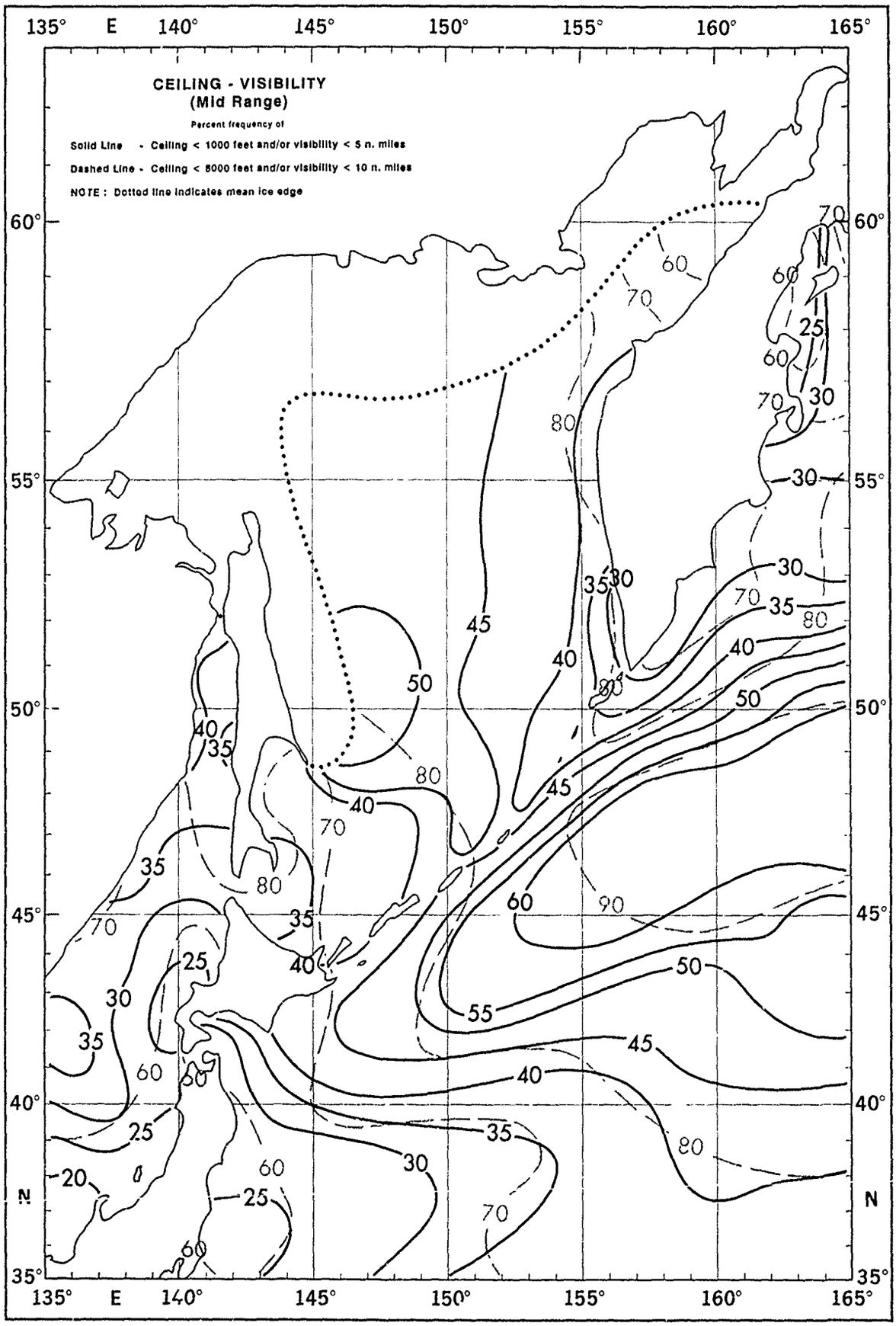



CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°


PRECIPITATION
Percent frequency of
observations reporting precipitation
NOTE Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
35°
N
10
15
20

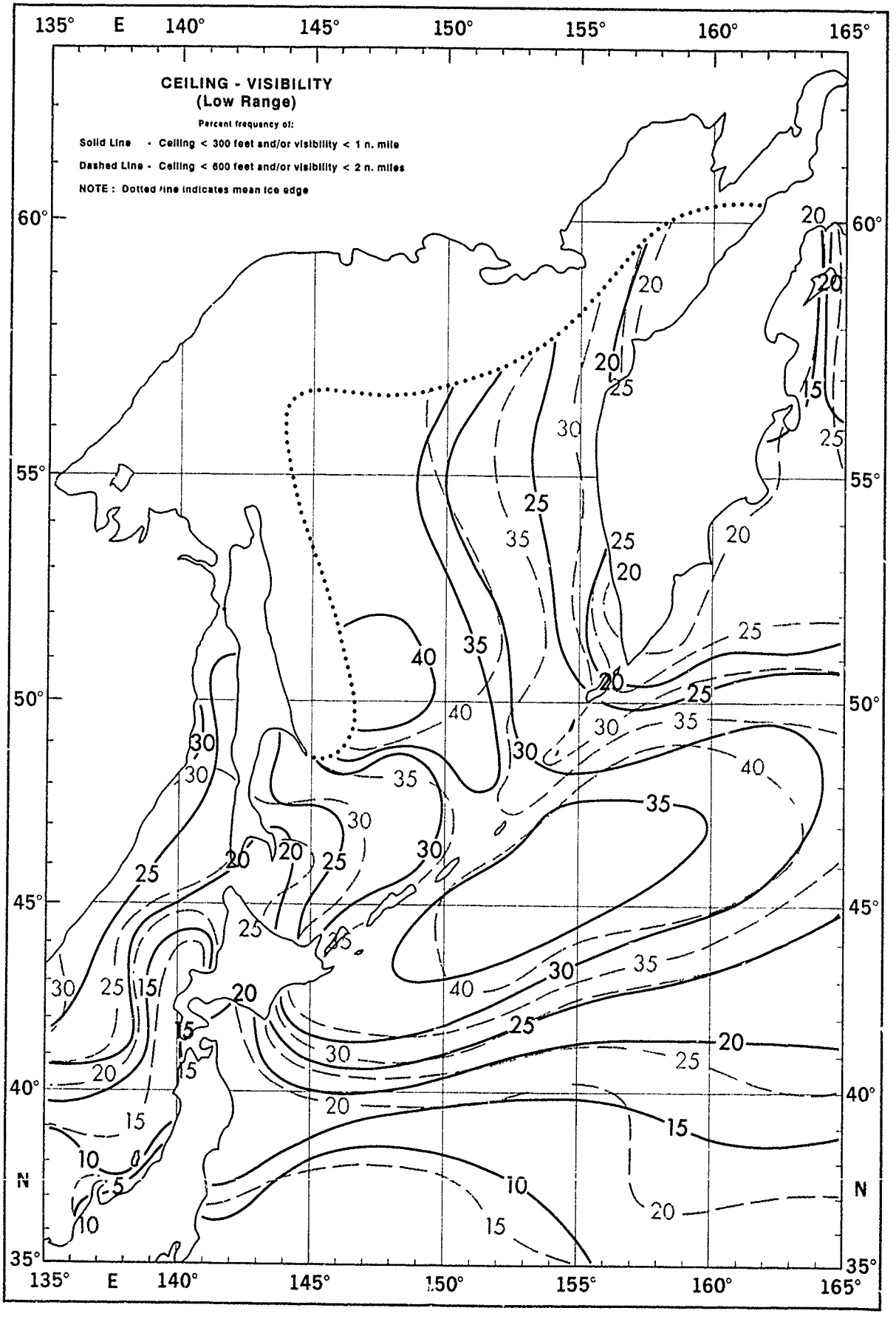

VISIBILITY
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
3.1% of the observed visibilities were < 1 but ≥ 1/2 n mile
N = Observation count
N: MILES PERCENT
< .5 0.2
.5 < 1 3.1
1 < 2 8.7
2 < 5 10.0
5 < 10 60.0
≥ 10 20.0
N = 1234
135°
145°
155°
165°
61°
55°
49°

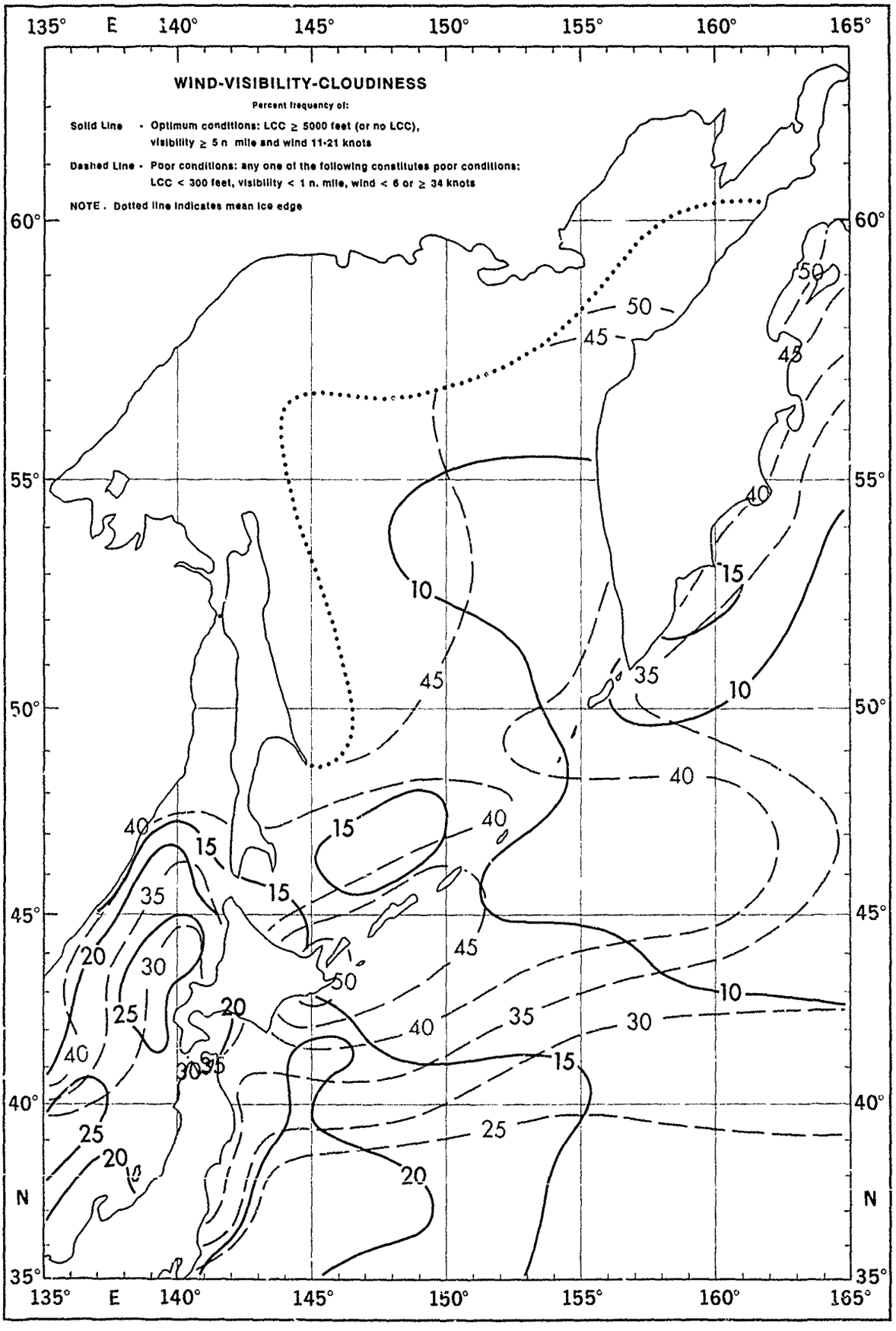

135°
145°
155°
165°
47°
41°
35°
<.5 0.0 <.5 15.5 <.5 11.0 <.5 10 7 <.5 18.8 <.5 20.4 <.5 21.6 < 5 20.8 <.5 [illegible] 8 <.5 24 6 <.5 20.6 <.5 21.0 <.5 15 3 <.5 15.8
.5<1 0.0 .5<1 3.6 .5<1 2.0 .5<1 6.3 .5<1 2 7 .5<1 2 8 .5<1 2 6 .5<1 3 8 .5<1 4.2 5<1 4.0 5<1 5 0 .5<1 5.2 .5<1 5 4 5<1 4.9
1<2 7.7 1<2 2 4 1<2 3.8 1<2 7.8 1<2 3 4 1<2 3.4 1<2 4 7 1<2 4.2 1 2 5.1 1<2 6.7 1<2 7.7 1<2 6.9 1<2 5.4 1<2 6.0
2<5 7.7 2<5 7 8 2<5 10.4 2<5 12.2 2<5 8.7 2<5 7.8 2<5 10.6 2<5 9 1 2<5 10.6 2<5 12 7 2<5 14 4 2<5 13.4 2<5 12 5 2<5 13.6
5<10 7.7 5<10 16 4 5<10 20.0 5<10 19.7 5<10 20.8 5<10 20.9 5<10 19.9 5<10 14 8 5<10 18.9 5<10 23.7 5<10 28.3 5<10 28.6 5<10 37.1 5<10 32.3
≥10 76.9 ≥10 54.4 ≥10 53.0 ≥10 43 3 ≥10 45.7 ≥10 44.6 ≥10 40.6 ≥10 47.3 ≥10 37.5 ≥10 28.3 ≥10 24.0 ≥10 24.9 ≥10 34.3 ≥10 27.5
N= 13 N= 834 N=2002 N= 335 N= 773 N= 1022 N= 962 N= 2272 N= 1665 N= 822 N= 1189 N=1393 N= 2017 N= 1502
<.5 44.4 <.5 12 9 <.5 12 0 < 5 7.0 <.5 11 9 < 5 15.7 < 5 17.6 <.5 25.1 <.5 23.1 < 5 28.4 < 5 24 7 <.5 23.2 <.5 22.1 < 5 18.4 <.5 18 1
.5<1 11.1 .5<1 2 1 .5<1 1.9 .5<1 2.4 .5<1 2.8 5<1 2.3 .5<1 2.8 .5<1 3 3 .5<1 3.8 .5<1 3.6 5<1 5.8 5<1 6.0 .5<1 4.8 5<1 4.8 .5<1 3.9
1<2 0.0 1<2 3 6 1<2 2.6 1<2 4 1 1<2 3 2 1<2 2.8 1<2 3.4 1<2 4 3 1<2 5.3 1<2 6.8 1<2 6.0 1<2 6.1 1<2 5.3 1<2 6.0 1<2 5.3
2<5 11.1 2<5 9.3 2<5 9.3 2<5 10.2 2<5 9.8 2<5 9.6 2<5 9.3 2<5 [illegible] 1 2<5 9.1 2<5 11.1 2<5 12.2 2<5 12 7 2<5 14 4 2<5 13.0 2<5 13.5
5<10 11.1 5<10 21.9 5<10 20.3 5<10 23.1 5<10 22.8 5<10 19.0 5<10 16.0 5<10 16.7 5<10 18 6 5<10 24 0 5<10 27 8 5<10 28 4 5<10 27 6 5<10 29.4 5<10 30.9
≥10 22.2 ≥10 50.3 ≥10 53.8 ≥10 53.1 ≥10 49.5 ≥10 50.6 ≥10 50.9 ≥10 42.5 ≥10 40 1 ≥10 26.0 ≥10 23 5 ≥10 23.7 ≥10 25.8 ≥ 0 28.4 ≥10 28.3
N= 9 N= 388 N= 1237 N=2628 N= 1787 N=1053 N= 1557 N= 2193 N= 3472 N= 1471 N= 1831 N= 1690 N= 1654 N= 1872 N= 1761
<.5 15.4 <.5 13.8 <.5 7.3 <.5 6.5 <.5 15.8 < 5 16.2 <.5 22.9 <.5 29.0 <.5 26.1 < 5 24.1 <.5 20.2 <.5 19 9 <.5 17 3 < 5 15.8 <.5 14.2
.5<1 1.6 .5<1 1.7 .5<1 1.1 .5<1 2.0 .5<1 1.0 .5<1 3 0 .5<1 2.8 .5<1 3.5 5<1 5.0 .5<1 5.1 5<1 4 1 5<1 4 2 .5<1 4.4 .5 1 3 8 .5<1 4.0
1<2 2.2 1<2 1.7 1<2 3.4 1<2 4.0 1<2 0.0 1<2 4.2 1<2 3.8 1<2 3 7 1<2 5 4 1<2 5 6 1<2 5.0 1<2 4.0 1<2 5 0 1<2 4.2 1<2 4 8
2<5 7.0 2<5 7.2 2<5 9.5 2<5 12.3 2<5 8.9 2<5 9.5 2<5 9.4 2<5 10.3 2<5 12 4 2<5 12 6 2<5 12.4 2<5 12.9 2<5 13 4 2<5 13.2 2<5 13.2
5<10 21.6 5<10 20.2 5<10 21.4 5<10 24.5 5<10 14.9 5<10 19 9 5<10 17 9 5<10 25 1 5<10 25.2 5<10 27.0 5<10 29 0 5<10 27 9 5<10 28 7 5<10 29.2 5<10 31.0
≥10 52 2 ≥10 55.4 ≥10 57 3 ≥10 50.0 ≥10 59.4 ≥10 47 3 ≥10 43 3 ≥10 28.4 ≥10 25.8 ≥10 25.6 ≥10 29.4 ≥10 31 0 ≥10 31 2 ≥10 33.7 ≥10 32.7
N= 970 N= 890 N=1035 N= 550 N= 101 N=4023 N=4073 N= 1746 N= 1972 N= 1983 N=2078 N=2097 N=2037 N= 1845 N= 1691
<.5 17 1 <.5 12.1 <.5 8.5 <.5 9.6 <.5 23.0 <.5 21 6 < 5 22.3 <.5 21.5 <.5 18.0 <.5 12.7 < 5 14.0 <.5 14 1 <.5 13.6 <.5 14.8 <.5 15.2
.5<1 3 2 .5<1 3.0 .5<1 1.8 5<1 2.9 .5<1 2.7 5<1 2 4 .5<1 4.1 5<1 4 2 .5<1 3.7 5<1 3.4 5<1 3.4 5<1 3 8 .5<1 3.6 5<1 3.0 .5<1 3.8
1<2 2.4 1<2 3.6 1<2 4.7 1<2 4.3 1<2 3 1 1<2 4 4 1<2 4 2 1<2 5.0 1<2 5 1 1<2 4 6 1<2 4 5 1<2 4.8 1<2 4.8 1<2 4 4 1<2 5.1
2<5 7 1 2<5 6.9 2<5 11.2 2<5 12 2 2<5 9.3 2<5 11.4 2<5 10.3 2<5 10 3 2<5 11 4 2<5 12 4 2<5 10 9 2<5 11.7 2<5 11.9 2<5 12.9 2<5 11.8
5<10 23.5 5<10 20.8 5<10 24.2 5<10 22.4 5<10 20 0 5<10 21.5 5<10 26.1 5<10 24.6 5<10 27.0 5<10 30.1 5<10 29 9 5<10 28.4 5<10 27.6 5<10 27.6 5<10 26.9
≥10 46.8 ≥10 53.7 ≥10 52.6 ≥10 48.7 ≥10 41 8 ≥10 38.7 ≥10 33.0 ≥10 34 3 ≥10 34.8 ≥10 36.8 ≥10 37 3 ≥10 37.3 ≥10 38.5 ≥10 37.3 ≥10 37.2
N= 791 N= 697 N=2280 N= 1701 N=2040 N= 1696 N= 1760 N= 2214 N=2354 N=2630 N=2390 N= 2115 N= 1733 N= 1435 N= 1299
<.5 9.7 <.5 7.3 <.5 5.8 <.5 7.6 <.5 6.0 <.5 14.7 < 5 11.8 <.5 9.8 < 5 8 5 <.5 7.1 < 5 8.9 <.5 10.0 <.5 9.6 < 5 10 4 <.5 10.2
.5<1 1.1 .5<1 2.3 .5 1.7 .5<1 1.1 .5<1 1.7 .5<1 2.8 .5<1 2.3 5<1 2 6 .5<1 3 0 5<1 2.3 .5<1 2.0 .5<1 3.5 .5<1 2.8 .5<1 3.6 .5<1 3.1
1<2 2.8 1<2 3.8 1<2 3.4 1<2 3 3 1<2 2 4 1<2 3.6 1<2 4.2 1<2 4.4 1<2 4.5 1<2 3 9 1<2 3.5 1<2 5.3 1<2 4.3 1<2 6.0 1<2 5.9
2<5 9.9 2<5 9.5 2<5 12.5 2<5 9.0 2<5 10.1 2<5 10.3 2<5 10 0 2<5 10.5 2<5 10.2 2<5 11 4 2<5 13 1 2<5 11.4 2<5 10.6 2<5 12.4 2<5 12.6
5<10 29.3 5<10 26.1 5<10 23.7 5<10 20.2 5<10 24.6 5<10 27.2 5<10 26.5 5<10 25.4 5<10 25.6 5<10 26.3 5<10 27 1 5<10 25.8 5<10 29.7 5<10 28 6 5<10 26.1
≥10 47.2 ≥10 51.0 ≥10 55.1 ≥10 58.8 ≥10 53.1 ≥10 41 4 ≥10 45.2 ≥10 47 2 ≥10 48.3 ≥10 49.0 ≥10 45.5 ≥10 44.1 ≥10 43.1 ≥10 39.0 ≥10 42.2
N= 1127 N= 1014 N= 586 N=2808 N=2183 N= 2457 N= 3150 N=4410 N= 3297 N= 2757 N= 1863 N= 1652 N= 1635 N=1386 N= 1299
<.5 4.5 <.5 2.2 <.5 3.0 <.5 8.0 <.5 3 7 <.5 4.4 <.5 4.8 < 5 3 7 <.5 3 8 <.5 4 3 <.5 5.8 < 5 7.3 <.5 8.1 < 5 7.4 <.5 6.2
.5<1 1.1 .5<1 1.3 .5<1 2.2 .5<1 1.7 .5<1 1.4 .5<1 1 9 .5<1 1 7 .5<1 2.6 5<1 2.2 5<1 2.3 5<1 2.2 .5<1 2 4 .5<1 3.2 .5<1 2 9 .5<1 2.6
1<2 4.0 1<2 4.0 1<2 3.7 1<2 3 1 1<2 2.1 1<2 3 0 1<2 3.4 1<2 3 4 1<2 3 4 1<2 3.0 1<2 5.1 1<2 4 1 1<2 5.5 1<2 4.0 1<2 4.2
2<5 9.3 2<5 10.2 2<5 10.4 2<5 9.1 2<5 8.6 2<5 9.4 2<5 10.1 2<5 10.8 2<5 9.7 2<5 11 3 2<5 11 7 2<5 10.8 2<5 11.7 2<5 12 0 2<5 11.4
5<10 25.2 5<10 24.5 5<10 25.9 5<10 18.9 5<10 25.5 5<10 26 5 5<10 27.8 5<10 27.1 5<10 27.4 5<10 26.7 5<10 26.6 5<10 27.1 5<10 24.6 5<10 26 2 5<10 26.7
≥10 55.9 ≥10 56.9 ≥10 54.8 ≥10 59.2 ≥10 58.6 ≥10 54 7 ≥10 52 3 ≥10 52.4 ≥10 53.5 ≥10 52.4 ≥10 48.6 ≥10 48.3 ≥10 46.8 ≥10 47 6 ≥10 48.8
N= 968 N= 878 N= 135 N= 6511 N=3690 N=3959 N= 3282 N=2582 N=2356 N=2096 N=1604 N= 1487 N=1356 N= 1235 N= 1154
<.5 2.8 <.5 0.0 <.5 1.8 <.5 3.0 <.5 1.5 <.5 2 2 <.5 2.4 <.5 2.3 < 5 2.3 < 5 2 4 <.5 4 2 <.5 5.0 <.5 5.0 <.5 5.0 <.5 5.1
.5<1 0.8 .5<1 0.7 .5<1 1.8 .5<1 1.3 .5<1 1.0 .5<1 1.6 .5<1 1.7 .5<1 1 9 .5<1 1 7 .5<1 1.3 .5<1 2.3 .5<1 2.5 .5<1 2.4 .5<1 1.5 .5<1 1.5
1<2 5.2 1<2 1.4 1<2 3.6 1<2 2.3 1<2 2 3 1<2 2.8 1<2 3.2 1<2 3.8 1<2 3 0 1<2 4.2 1<2 3.6 1<2 3.6 1<2 3 8 1<2 3.9 1<2 3.8
2<5 11.6 2<5 17.6 2<5 11.8 2<5 8 1 2<5 8.1 2<5 9 3 2<5 9.6 2<5 11.1 2<5 11.1 2<5 11.2 2<5 10.4 2<5 11 5 2<5 11.7 2<5 11.1 2<5 9.4
5<10 30.0 5<10 42.3 5<10 37.7 5<10 22.5 5<10 24.9 5<10 25.8 5<10 24.7 5<10 24.8 5<10 26 8 5<10 27 1 5<10 25.7 5<10 25.2 5<10 24.8 5<10 24.3 5<10 25.0
≥10 52.0 ≥10 38.0 ≥10 44.0 ≥10 62.8 ≥10 62.2 ≥10 58.4 ≥10 58.4 ≥10 56.1 ≥10 55 2 ≥10 53 8 ≥10 53.9 ≥10 52.3 ≥10 52.2 ≥10 54.2 ≥10 55.2
N= 473 N= 142 N=3815 N=6520 N=4070 N=3242 N=2642 N= 2118 N=1884 N= 1666 N= 1489 N= 1370 N= 1280 N= 1205 N= 1201


CEILING - VISIBILITY
(Mid Range)
Percent frequency of
Solid Line - Ceiling < 1000 feet and/or visibility < 5 n. miles
Dashed Line - Ceiling < 8000 feet and/or visibility < 10 n. miles
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N

May

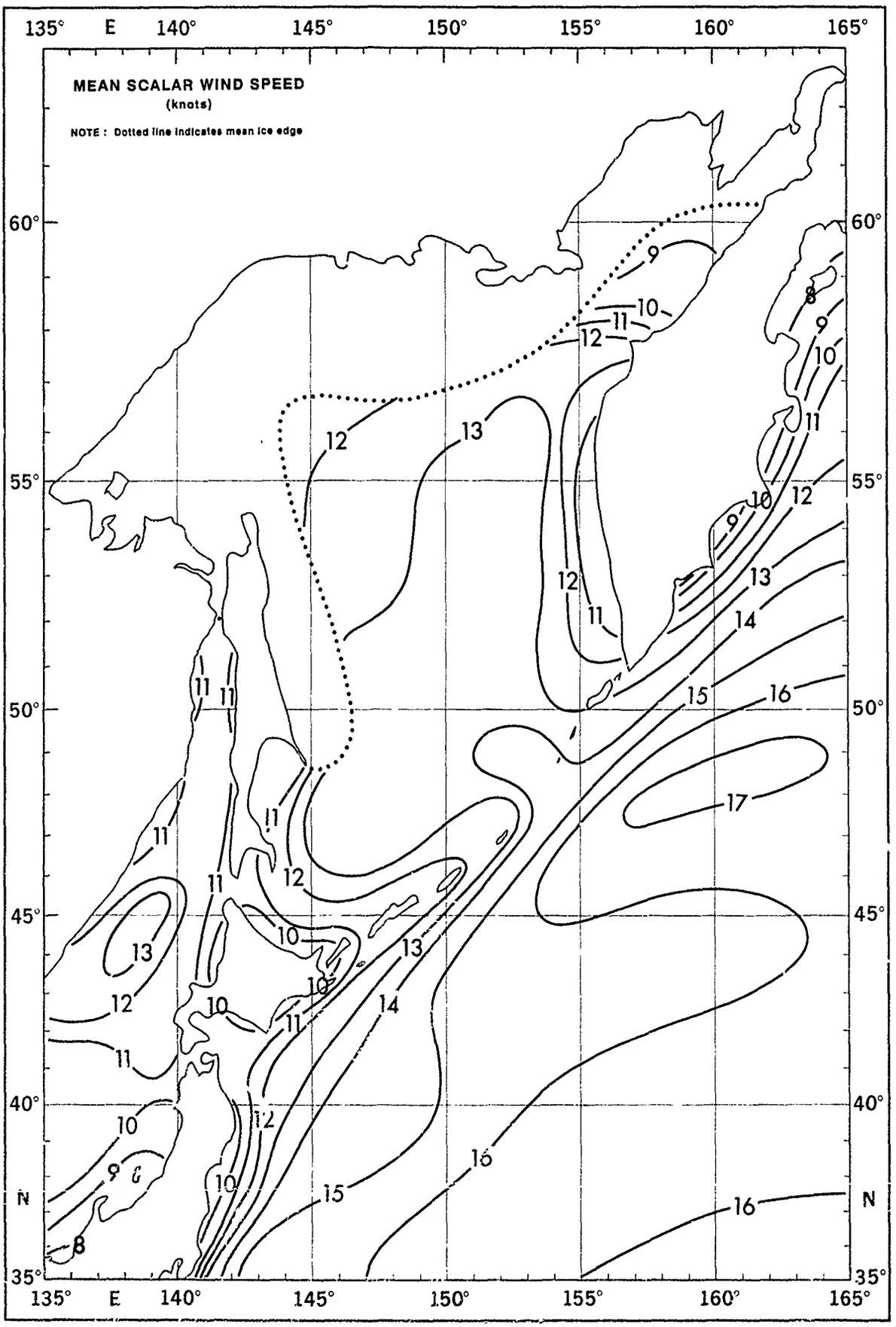
Ceiling-Visibility (Low Range)




WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
NOTE. Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N

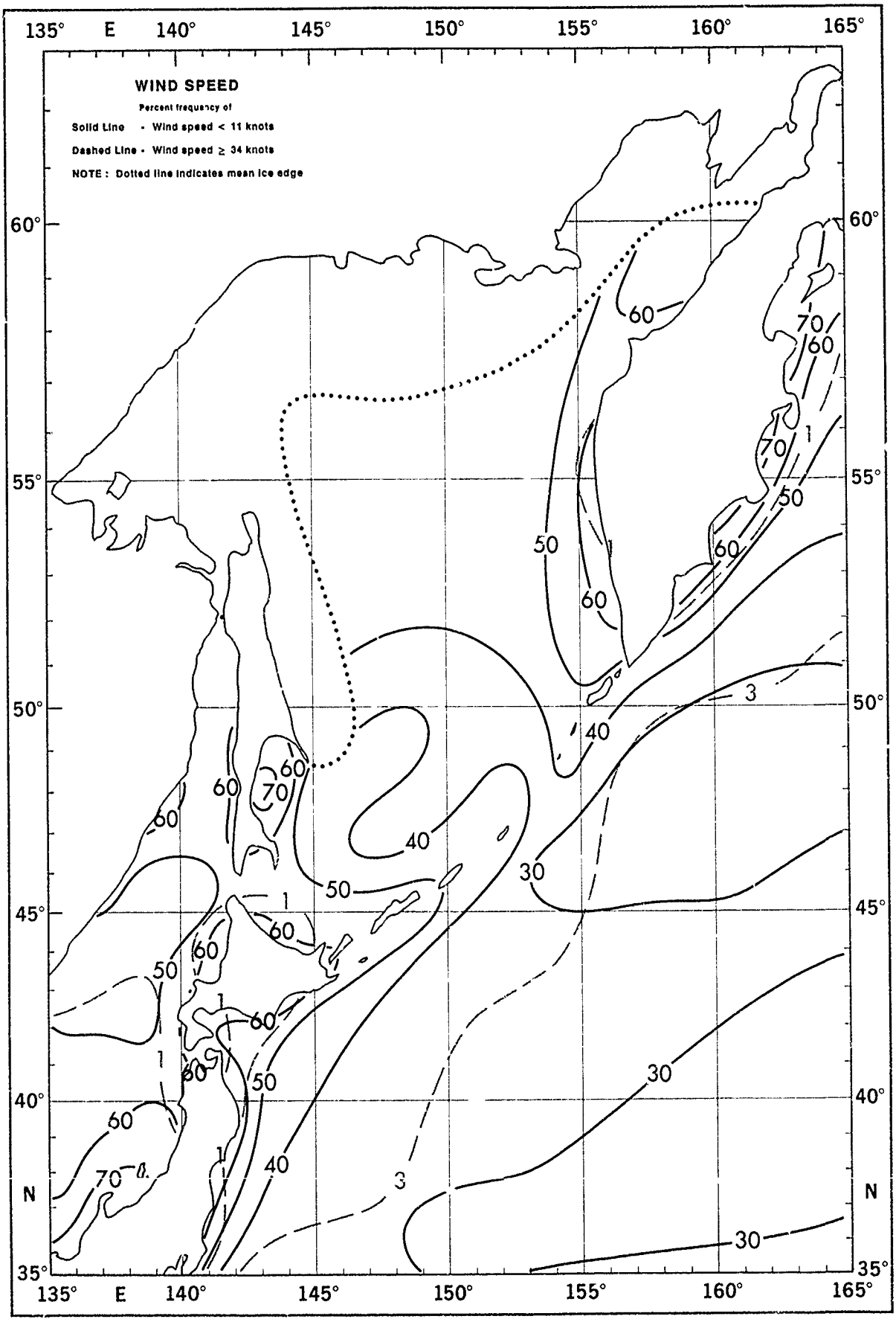
May

Mean Scalar Wind Speed



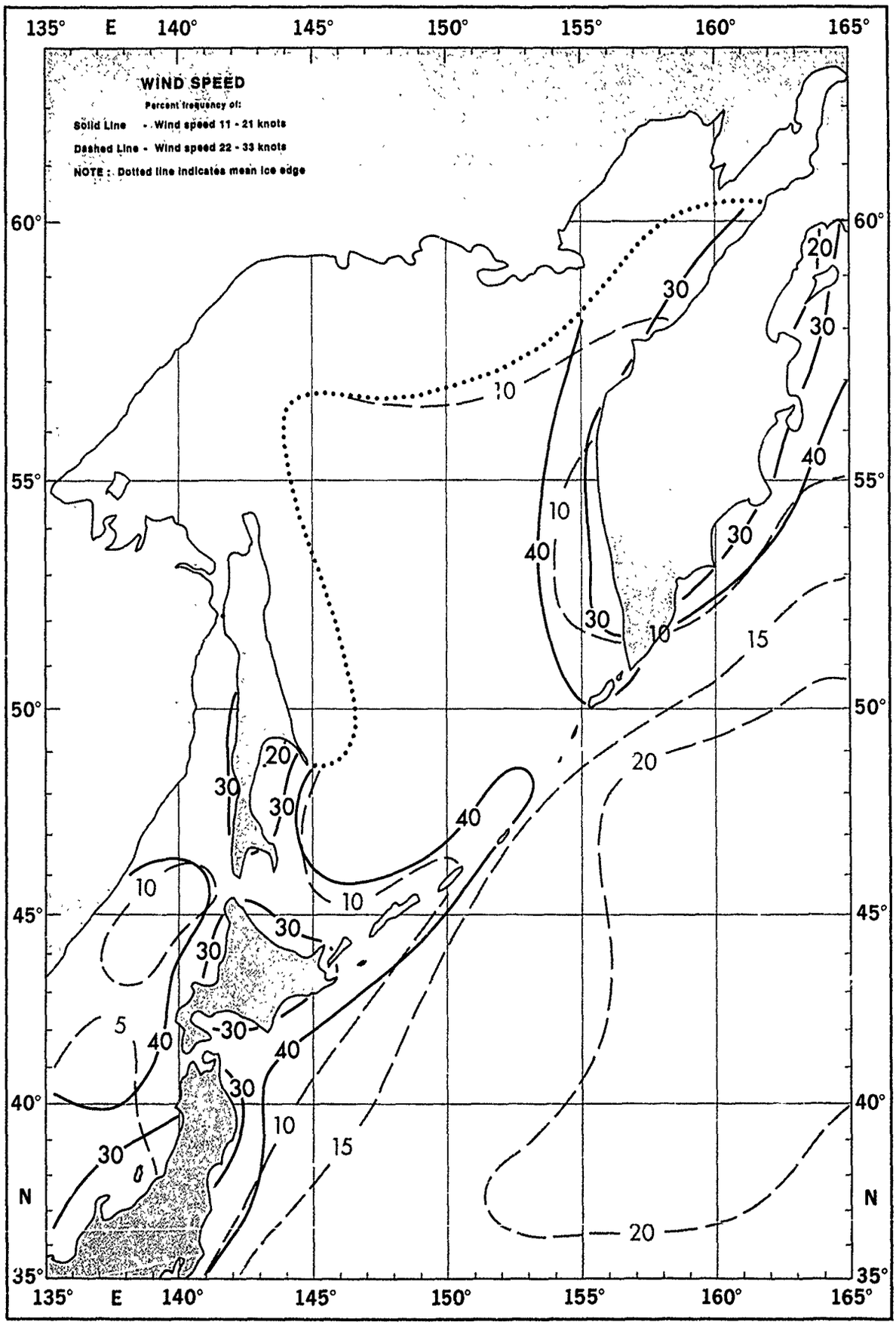
May

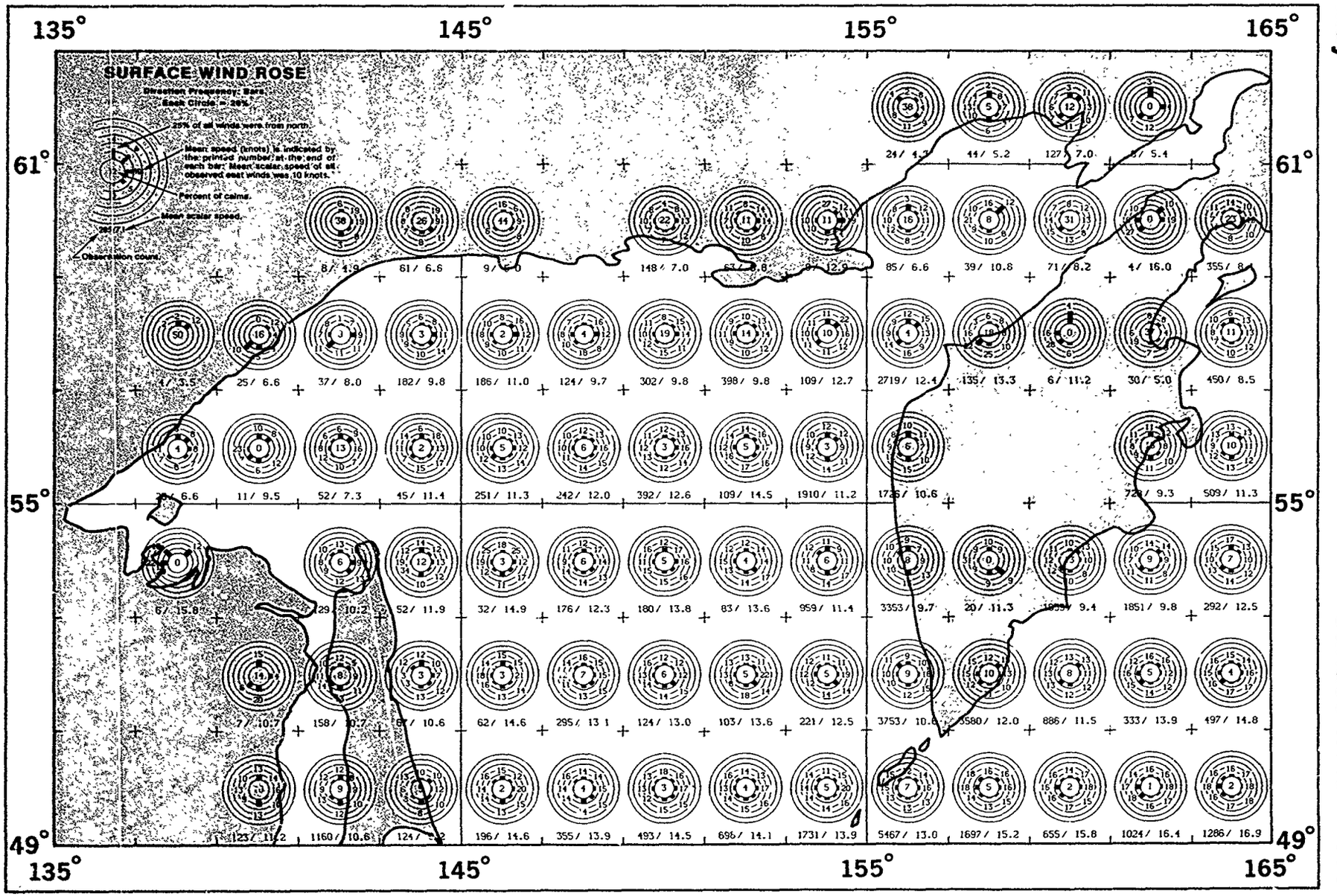
Wind Speed <11 and ≥34 Knots

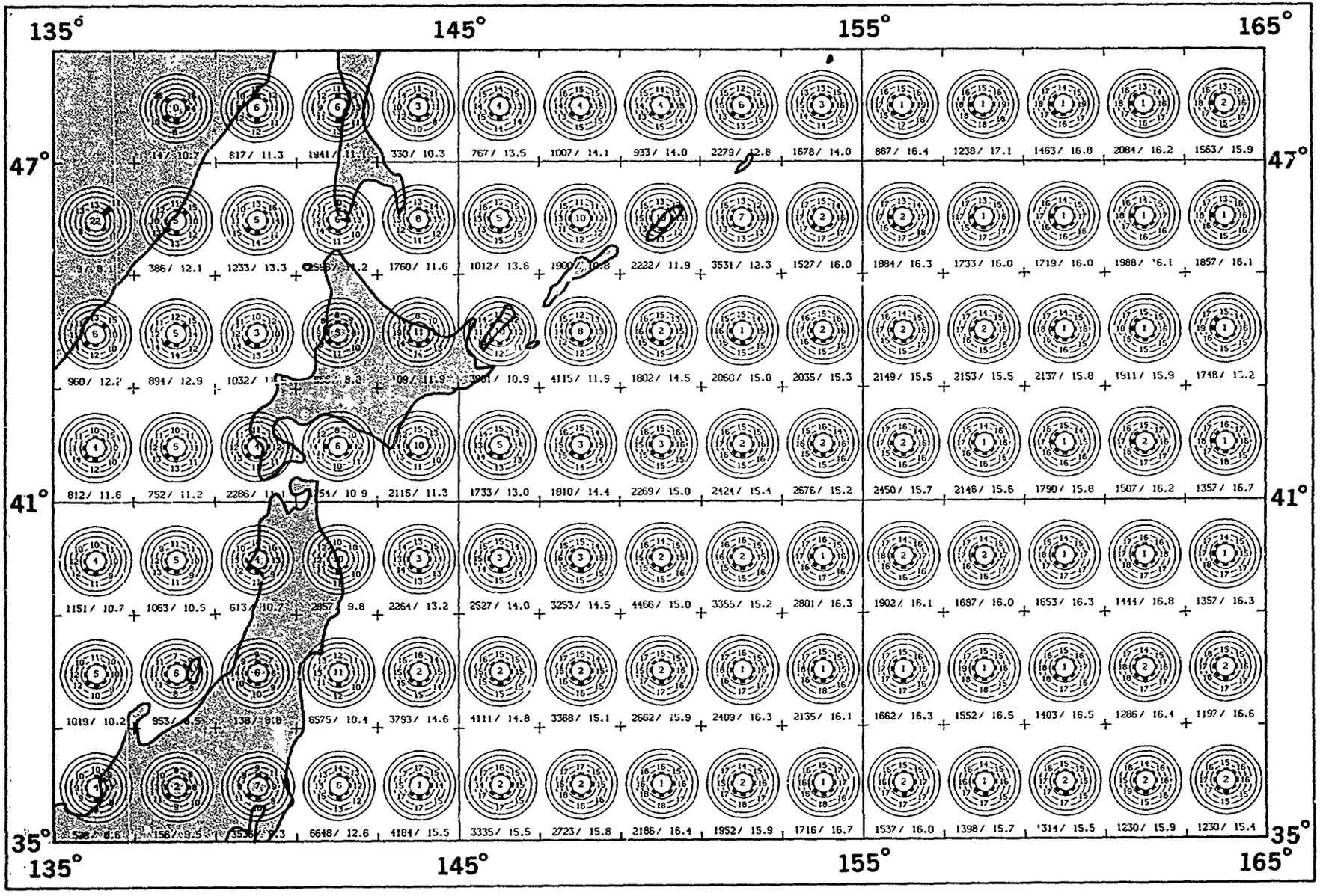


May

Wind Speed 11-21 and 22-33 Knots

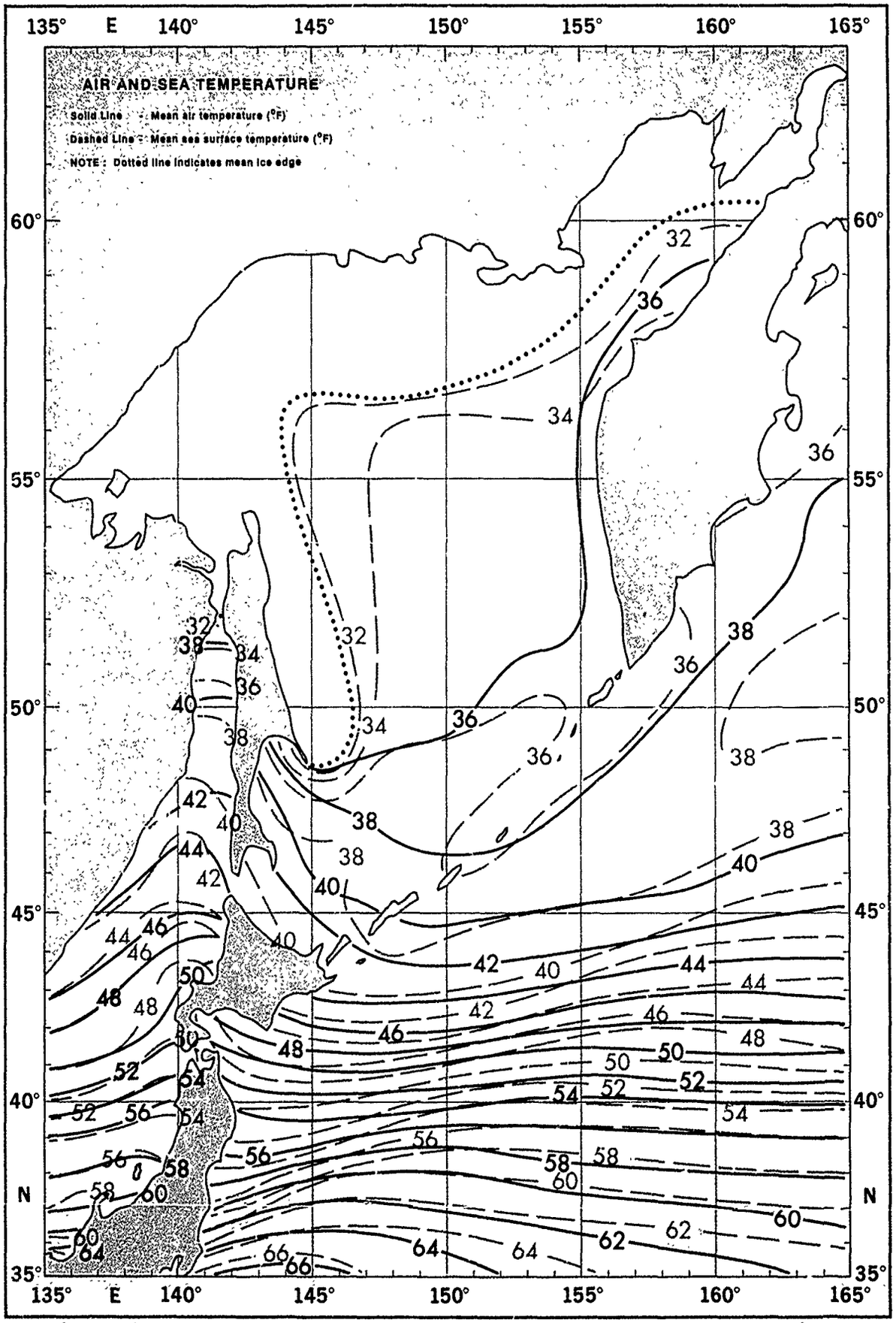


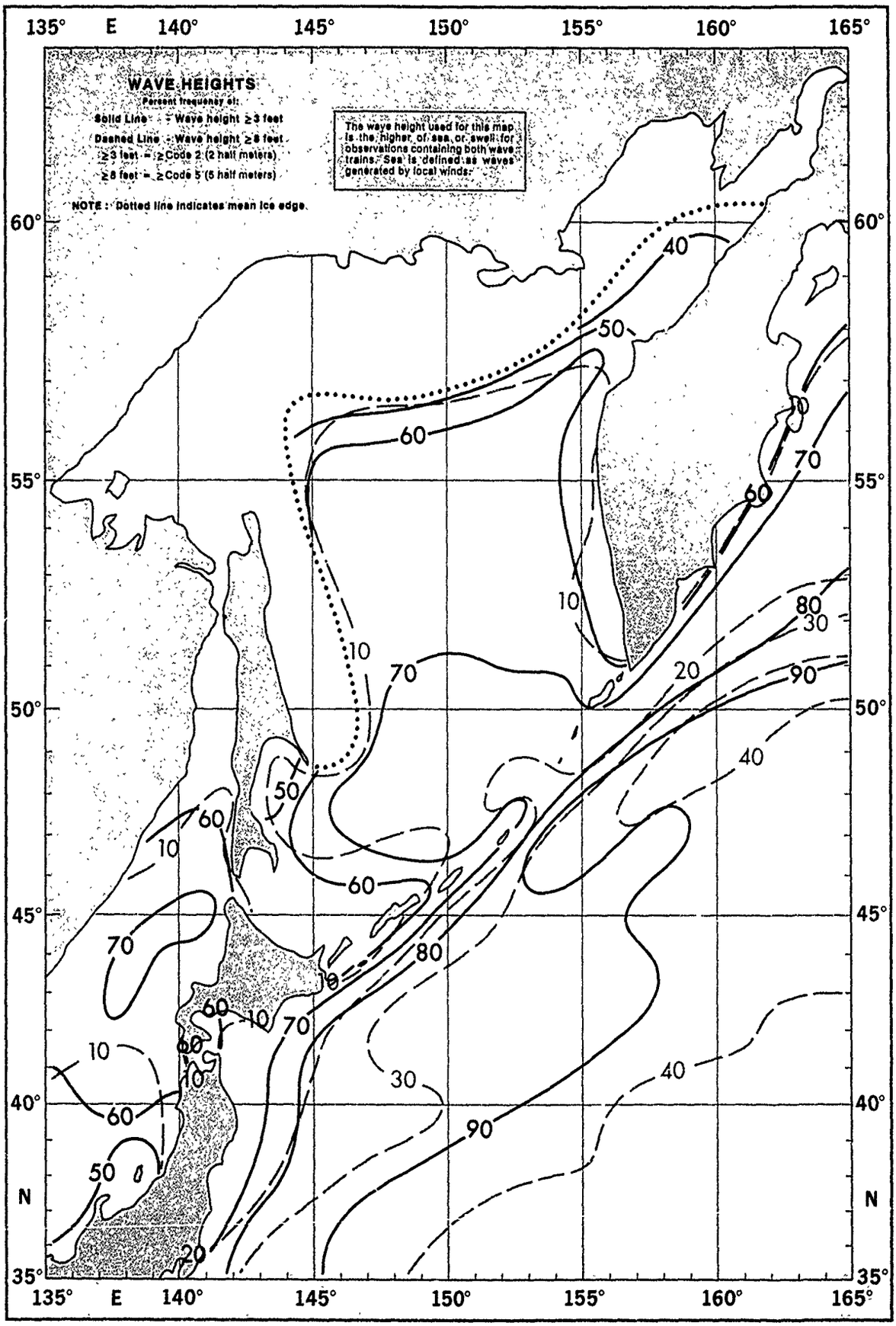

SURFACE WIND ROSE
Direction Frequency: Bars.
Each Circle = 20%
25% of all winds were from north.
Mean speed (knots) is indicated by the printed number at the end of each bar. Mean scalar speed of all observed east winds was 10 knots.
Percent of calms.
Mean scalar speed.
Observation count.
135°
145°
155°
165°
61°
55°
49°

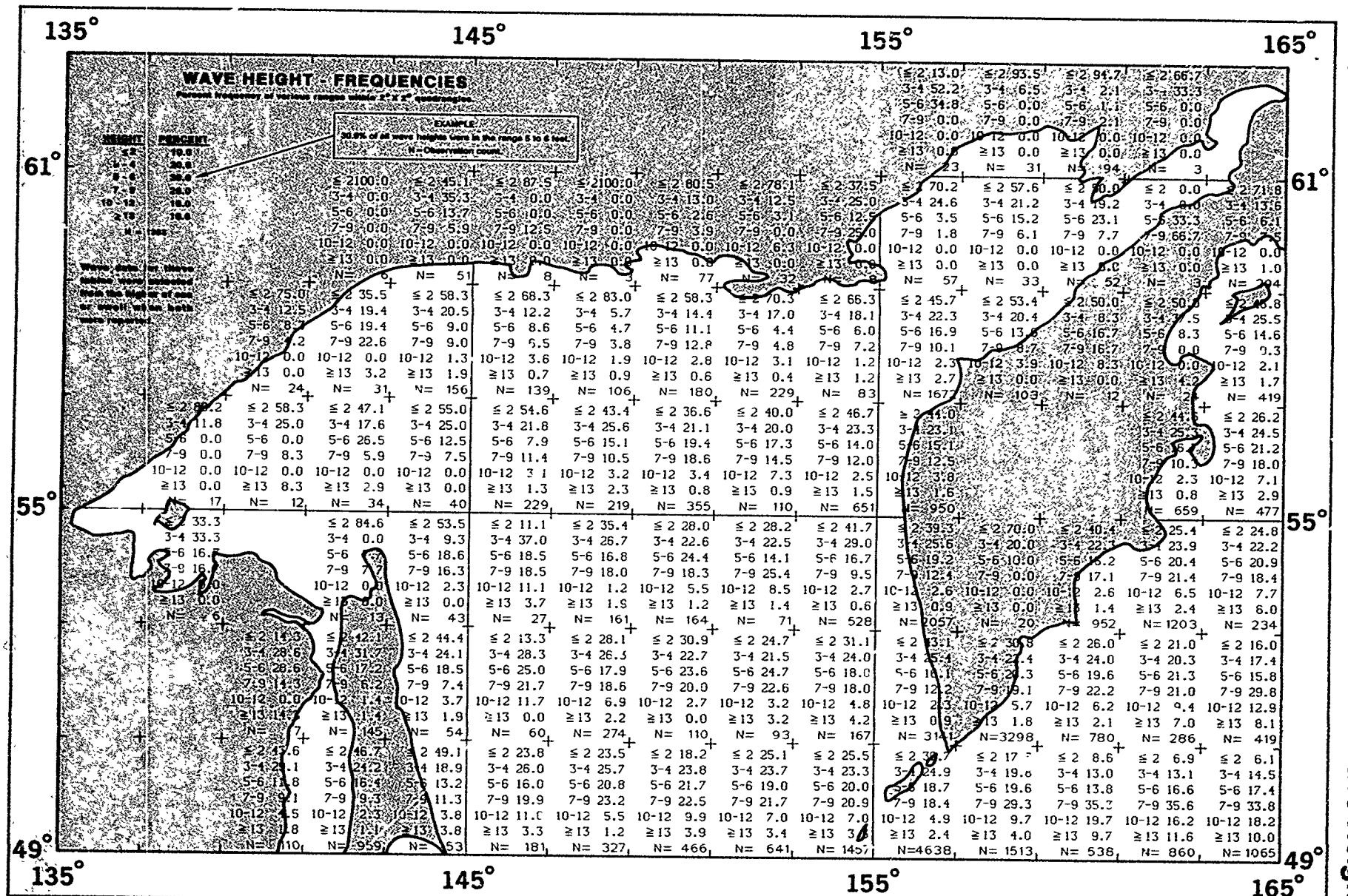

May
Surface Wind Roses
135°
145°
155°
165°
47°
41°
35°

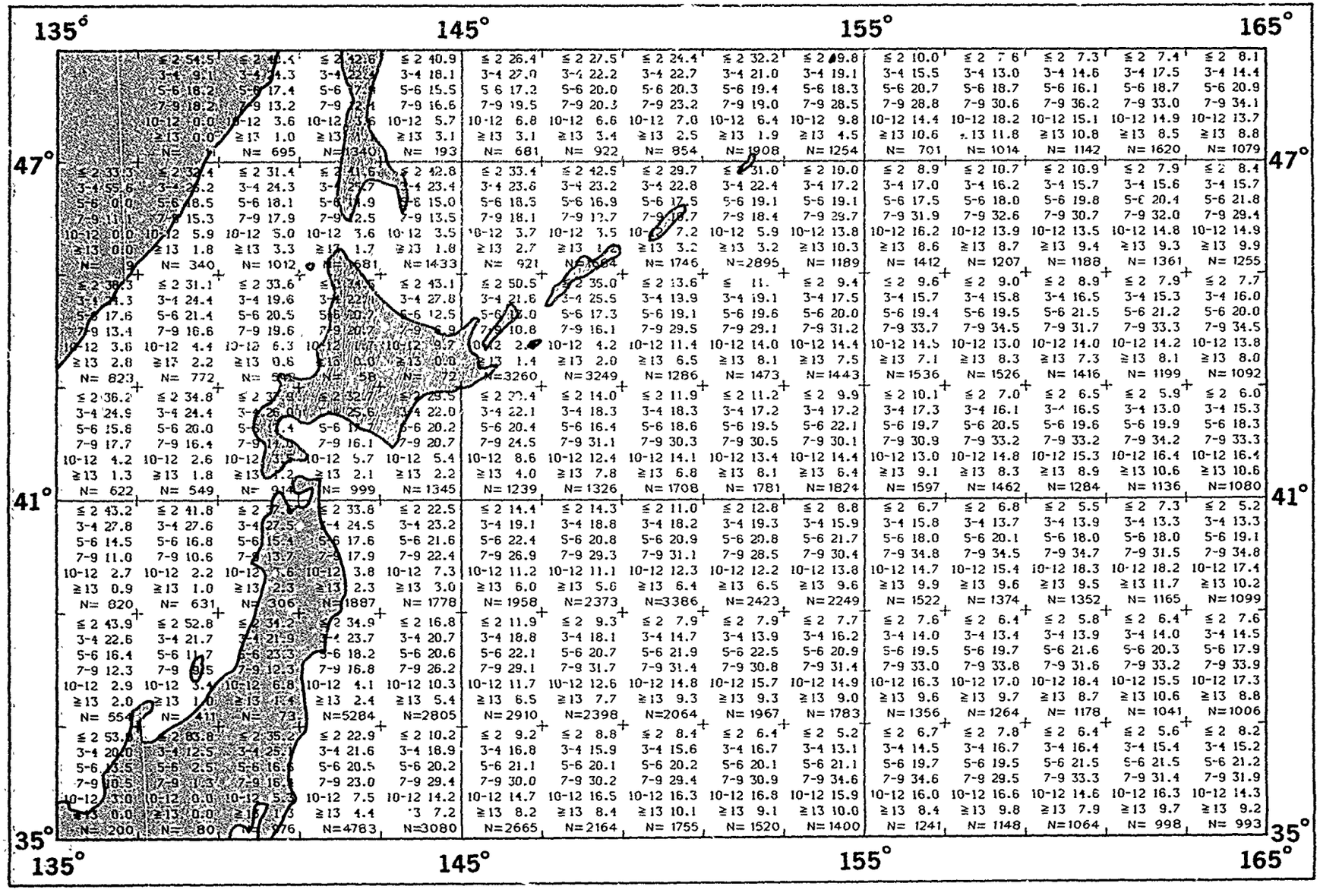
May

Mean Air and Sea Temperature

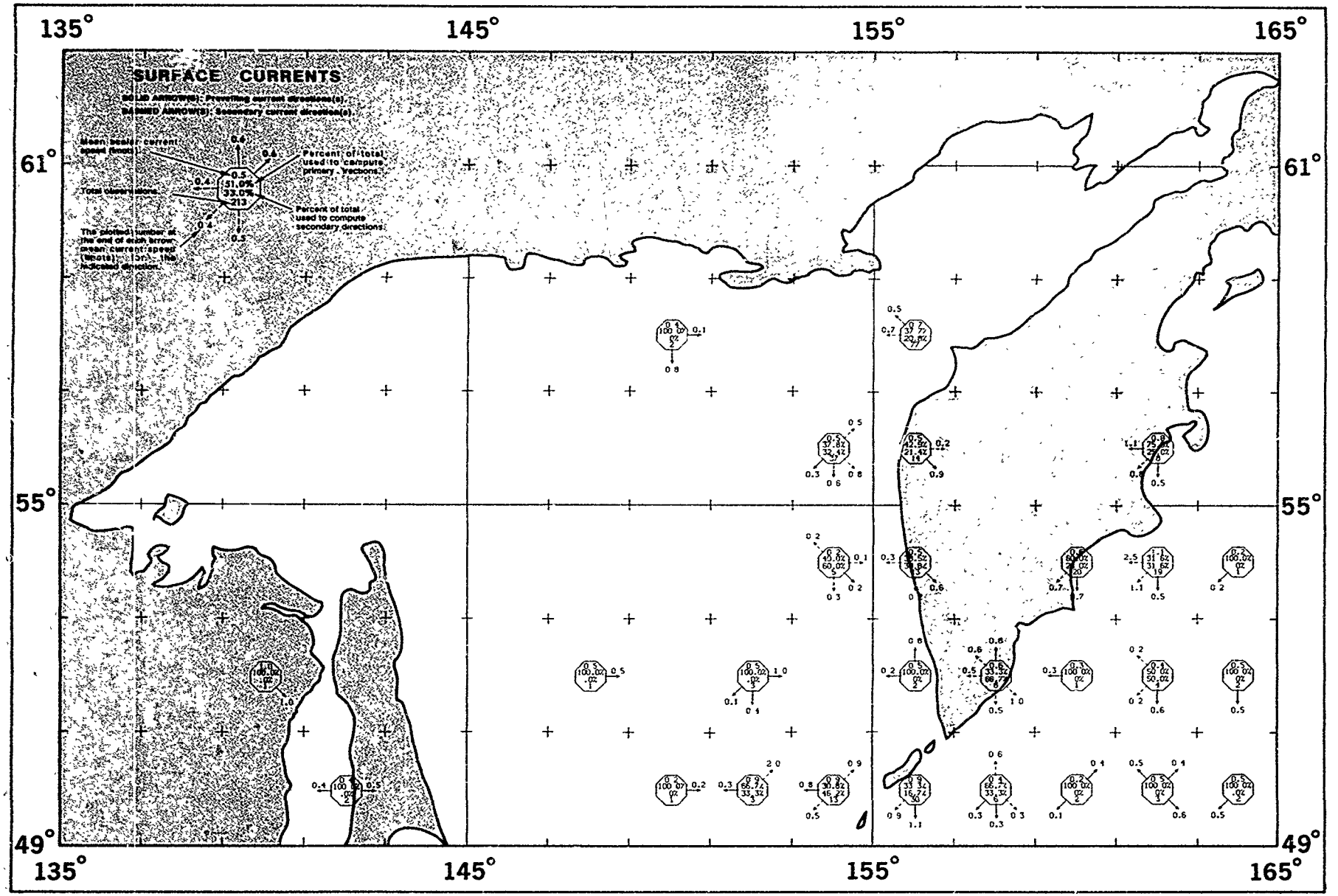



WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥3 feet
Dashed Line - Wave height ≥8 feet
≥3 feet = ≥Code 2 (2 half meters)
≥8 feet = ≥Code 5 (5 half meters)
NOTE: Dotted line indicates mean ice edge.
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°


135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 5° x 5° quadrangles.
EXAMPLE
30.8% of all wave heights were in the range 5 to 6 feet.
N = Observation count.
HEIGHT
PERCENT
Wave data by three-hour periods were accumulated from the logs of ocean weather ships. Data were supplied by the countries operating the ships.
≤ 2 100.0 ≤ 2 45.1 ≤ 2 87.5 ≤ 2 100.0 ≤ 2 80.5 ≤ 2 78.1 ≤ 2 37.5
3-4 0.0 3-4 35.3 3-4 0.0 3-4 0.0 3-4 13.0 3-4 12.5 3-4 25.0
5-6 0.0 5-6 13.7 5-6 0.0 5-6 0.0 5-6 2.6 5-6 3.1 5-6 12.5
7-9 0.0 7-9 5.9 7-9 12.5 7-9 0.0 7-9 3.9 7-9 0.0 7-9 25.0
10-12 0.0 10-12 0.0 10-12 0.0 10-12 0.0 10-12 0.0 10-12 6.3 10-12 0.0
≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0
N= 6 N= 51 N= 8 N= 3 N= 77 N= 32 N= 8
≤ 2 75.0 ≤ 2 35.5 ≤ 2 58.3 ≤ 2 68.3 ≤ 2 83.0 ≤ 2 58.3 ≤ 2 70.3 ≤ 2 66.3
3-4 12.5 3-4 19.4 3-4 20.5 3-4 12.2 3-4 5.7 3-4 14.4 3-4 17.0 3-4 18.1
5-6 8.7 5-6 19.4 5-6 9.0 5-6 8.6 5-6 4.7 5-6 11.1 5-6 4.4 5-6 6.0
7-9 4.2 7-9 22.6 7-9 9.0 7-9 6.5 7-9 3.8 7-9 12.8 7-9 4.8 7-9 7.2
10-12 0.0 10-12 0.0 10-12 1.3 10-12 3.6 10-12 1.9 10-12 2.8 10-12 3.1 10-12 1.2
≥ 13 0.0 ≥ 13 3.2 ≥ 13 1.9 ≥ 13 0.7 ≥ 13 0.9 ≥ 13 0.6 ≥ 13 0.4 ≥ 13 1.2
N= 24 N= 31 N= 156 N= 139 N= 106 N= 180 N= 229 N= 83
≤ 2 88.2 ≤ 2 58.3 ≤ 2 47.1 ≤ 2 55.0 ≤ 2 54.6 ≤ 2 43.4 ≤ 2 36.6 ≤ 2 40.0 ≤ 2 46.7
3-4 11.8 3-4 25.0 3-4 17.6 3-4 25.0 3-4 21.8 3-4 25.6 3-4 21.1 3-4 20.0 3-4 23.3
5-6 0.0 5-6 0.0 5-6 26.5 5-6 12.5 5-6 7.9 5-6 15.1 5-6 19.4 5-6 17.3 5-6 14.0
7-9 0.0 7-9 8.3 7-9 5.9 7-9 7.5 7-9 11.4 7-9 10.5 7-9 18.6 7-9 14.5 7-9 12.0
10-12 0.0 10-12 0.0 10-12 0.0 10-12 0.0 10-12 3.1 10-12 3.2 10-12 3.4 10-12 7.3 10-12 2.5
≥ 13 0.0 ≥ 13 8.3 ≥ 13 2.9 ≥ 13 0.0 ≥ 13 1.3 ≥ 13 2.3 ≥ 13 0.8 ≥ 13 0.9 ≥ 13 1.5
N= 17 N= 12 N= 34 N= 40 N= 229 N= 219 N= 355 N= 110 N= 651
≤ 2 33.3 ≤ 2 84.6 ≤ 2 53.5 ≤ 2 11.1 ≤ 2 35.4 ≤ 2 28.0 ≤ 2 28.2 ≤ 2 41.7
3-4 33.3 3-4 0.0 3-4 9.3 3-4 37.0 3-4 26.7 3-4 22.6 3-4 22.5 3-4 29.0
5-6 16.7 5-6 7.7 5-6 18.6 5-6 18.5 5-6 16.8 5-6 24.4 5-6 14.1 5-6 16.7
7-9 16.7 7-9 7.7 7-9 16.3 7-9 18.5 7-9 18.0 7-9 18.3 7-9 25.4 7-9 9.5
10-12 0.0 10-12 0.0 10-12 2.3 10-12 11.1 10-12 1.2 10-12 5.5 10-12 8.5 10-12 2.7
≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 3.7 ≥ 13 1.9 ≥ 13 1.2 ≥ 13 1.4 ≥ 13 0.6
N= 6 N= 13 N= 43 N= 27 N= 161 N= 164 N= 71 N= 528
≤ 2 14.3 ≤ 2 42.1 ≤ 2 44.4 ≤ 2 13.3 ≤ 2 28.1 ≤ 2 30.9 ≤ 2 24.7 ≤ 2 31.1
3-4 28.6 3-4 31.7 3-4 24.1 3-4 28.3 3-4 26.3 3-4 22.7 3-4 21.5 3-4 24.0
5-6 28.6 5-6 17.2 5-6 18.5 5-6 25.0 5-6 17.9 5-6 23.6 5-6 24.7 5-6 18.0
7-9 14.3 7-9 6.2 7-9 7.4 7-9 21.7 7-9 18.6 7-9 20.0 7-9 22.6 7-9 18.0
10-12 0.0 10-12 1.4 10-12 3.7 10-12 11.7 10-12 6.9 10-12 2.7 10-12 3.2 10-12 4.8
≥ 13 14.3 ≥ 13 1.4 ≥ 13 1.9 ≥ 13 0.0 ≥ 13 2.2 ≥ 13 0.0 ≥ 13 3.2 ≥ 13 4.2
N= 7 N= 145 N= 54 N= 60 N= 274 N= 110 N= 93 N= 167
≤ 2 42.6 ≤ 2 46.7 ≤ 2 49.1 ≤ 2 23.8 ≤ 2 23.5 ≤ 2 18.2 ≤ 2 25.1 ≤ 2 25.5
3-4 23.1 3-4 24.2 3-4 18.9 3-4 26.0 3-4 25.7 3-4 23.8 3-4 23.7 3-4 23.3
5-6 11.8 5-6 16.4 5-6 13.2 5-6 16.0 5-6 20.8 5-6 21.7 5-6 19.0 5-6 20.0
7-9 9.1 7-9 9.3 7-9 11.3 7-9 19.9 7-9 23.2 7-9 22.5 7-9 21.7 7-9 20.9
10-12 4.5 10-12 2.3 10-12 3.8 10-12 11.0 10-12 5.5 10-12 9.9 10-12 7.0 10-12 7.0
≥ 13 8.8 ≥ 13 1.1 ≥ 13 3.8 ≥ 13 3.3 ≥ 13 1.2 ≥ 13 3.9 ≥ 13 3.4 ≥ 13 3.6
N= 110 N= 959 N= 53 N= 181 N= 327 N= 466 N= 641 N= 145
≤ 2 13.0 ≤ 2 93.5 ≤ 2 94.7 ≤ 2 66.7
3-4 52.2 3-4 6.5 3-4 2.1 3-4 33.3
5-6 34.8 5-6 0.0 5-6 1.1 5-6 0.0
7-9 0.0 7-9 0.0 7-9 2.1 7-9 0.0
10-12 0.0 10-12 0.0 10-12 0.0 10-12 0.0
≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0
N= 23 N= 31 N= 194 N= 3
≤ 2 70.2 ≤ 2 57.6 ≤ 2 80.0 ≤ 2 0.0 ≤ 2 71.8
3-4 24.6 3-4 21.2 3-4 19.2 3-4 0.0 3-4 13.6
5-6 3.5 5-6 15.2 5-6 23.1 5-6 33.3 5-6 6.1
7-9 1.8 7-9 6.1 7-9 7.7 7-9 66.7 7-9 7.5
10-12 0.0 10-12 0.0 10-12 0.0 10-12 0.0 10-12 0.0
≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 1.0
N= 57 N= 33 N= 52 N= 3 N= 204
≤ 2 45.7 ≤ 2 53.4 ≤ 2 50.0 ≤ 2 50.0 ≤ 2 46.8
3-4 22.3 3-4 20.4 3-4 8.3 3-4 25.5
5-6 16.9 5-6 13.6 5-6 16.7 5-6 8.3 5-6 14.6
7-9 10.1 7-9 8.7 7-9 16.7 7-9 0.0 7-9 9.3
10-12 2.3 10-12 3.9 10-12 8.3 10-12 0.0 10-12 2.1
≥ 13 2.7 ≥ 13 0.0 ≥ 13 0.0 ≥ 13 4.2 ≥ 13 1.7
N= 167 N= 103 N= 12 N= 24 N= 419
≤ 2 44.0 ≤ 2 44.6 ≤ 2 26.2
3-4 23.1 3-4 25.3 3-4 24.5
5-6 15.1 5-6 16.5 5-6 21.2
7-9 12.5 7-9 10.3 7-9 18.0
10-12 3.8 10-12 2.3 10-12 7.1
≥ 13 1.6 ≥ 13 0.8 ≥ 13 2.9
N= 950 N= 659 N= 477
≤ 2 39.3 ≤ 2 70.0 ≤ 2 40.4 ≤ 2 25.4 ≤ 2 24.8
3-4 25.6 3-4 20.0 3-4 22.3 3-4 23.9 3-4 22.2
5-6 19.2 5-6 10.0 5-6 18.2 5-6 20.4 5-6 20.9
7-9 12.4 7-9 0.0 7-9 17.1 7-9 21.4 7-9 18.4
10-12 2.6 10-12 0.0 10-12 2.6 10-12 6.5 10-12 7.7
≥ 13 0.9 ≥ 13 0.0 ≥ 13 1.4 ≥ 13 2.4 ≥ 13 6.0
N= 2057 N= 20 N= 952 N= 1203 N= 234
≤ 2 33.1 ≤ 2 30.8 ≤ 2 26.0 ≤ 2 21.0 ≤ 2 16.0
3-4 25.4 3-4 27.4 3-4 24.0 3-4 20.3 3-4 17.4
5-6 18.1 5-6 21.3 5-6 19.6 5-6 21.3 5-6 15.8
7-9 12.2 7-9 19.1 7-9 22.2 7-9 21.0 7-9 29.8
10-12 2.3 10-12 5.7 10-12 6.2 10-12 9.4 10-12 12.9
≥ 13 0.9 ≥ 13 1.8 ≥ 13 2.1 ≥ 13 7.0 ≥ 13 8.1
N= 3141 N=3298 N= 780 N= 286 N= 419
≤ 2 32.7 ≤ 2 17.7 ≤ 2 8.6 ≤ 2 6.9 ≤ 2 6.1
3-4 24.9 3-4 19.6 3-4 13.0 3-4 13.1 3-4 14.5
5-6 18.7 5-6 19.6 5-6 13.8 5-6 16.6 5-6 17.4
7-9 18.4 7-9 29.3 7-9 35.2 7-9 35.6 7-9 33.8
10-12 4.9 10-12 9.7 10-12 19.7 10-12 16.2 10-12 18.2
≥ 13 2.4 ≥ 13 4.0 ≥ 13 9.7 ≥ 13 11.6 ≥ 13 10.0
N=4638 N= 1513 N= 538 N= 860 N= 1065

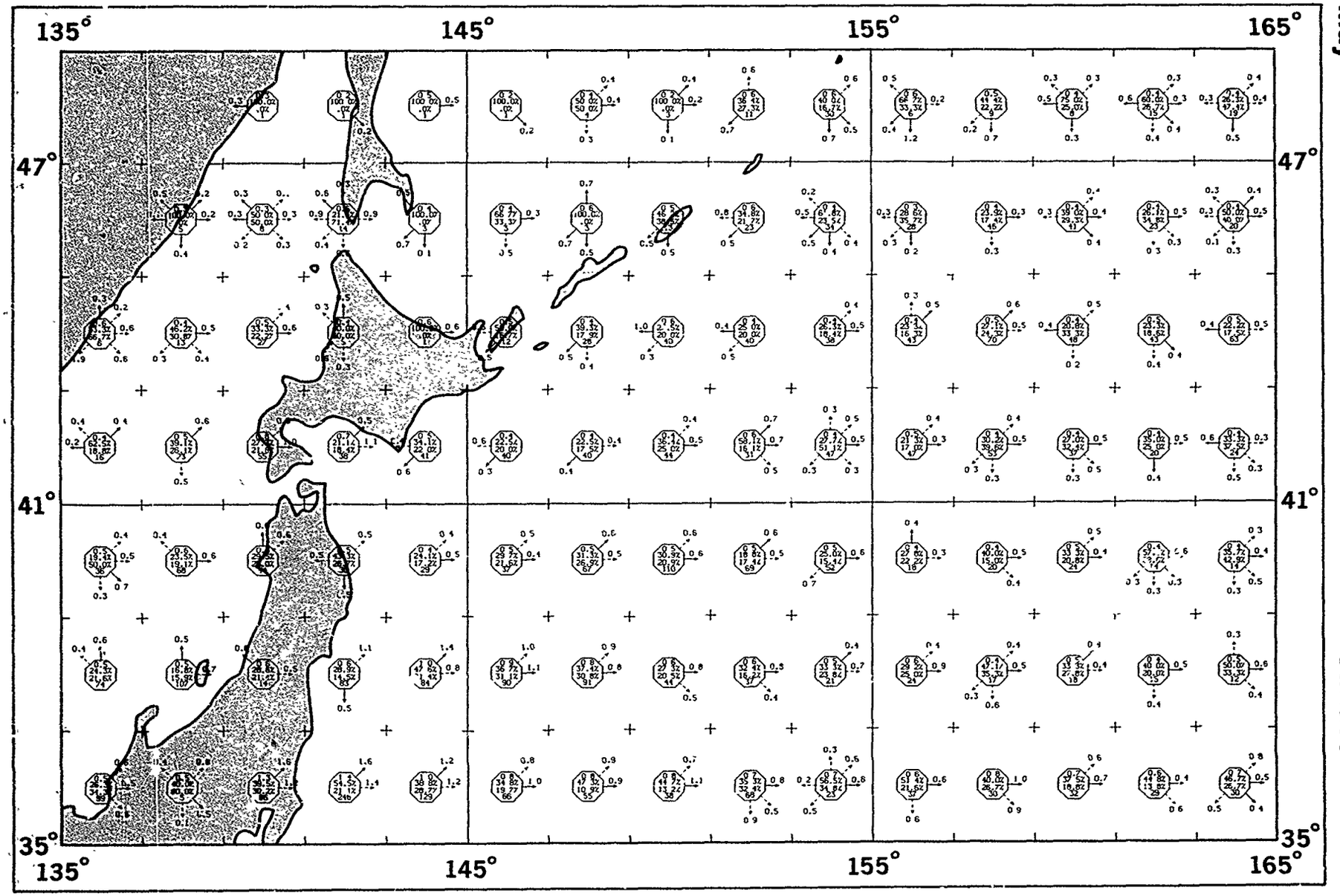


135°			145°			155°			165°	
	≤ 2 54.5	≤ 2 44.4	≤ 2 42.6	≤ 2 40.9	≤ 2 26.4	≤ 2 27.5	≤ 2 24.4	≤ 2 32.2	≤ 2 29.8	≤ 2 10.0	≤ 2 7.6	≤ 2 7.3	≤ 2 7.4	≤ 2 8.1
	3-4 9.1	3-4 14.3	3-4 22.2	3-4 18.1	3-4 27.0	3-4 22.2	3-4 22.7	3-4 21.0	3-4 19.1	3-4 15.5	3-4 13.0	3-4 14.6	3-4 17.5	3-4 14.4
	5-6 18.2	5-6 17.4	5-6 17.5	5-6 15.5	5-6 17.2	5-6 20.0	5-6 20.3	5-6 19.4	5-6 18.3	5-6 20.7	5-6 18.7	5-6 16.1	5-6 18.7	5-6 20.9
	7-9 18.2	7-9 13.2	7-9 [illegible]	7-9 16.6	7-9 19.5	7-9 20.3	7-9 23.2	7-9 19.0	7-9 28.5	7-9 28.8	7-9 30.6	7-9 36.2	7-9 33.0	7-9 34.1
	10-12 0.0	10-12 3.6	10-12 [illegible]	10-12 5.7	10-12 6.8	10-12 6.6	10-12 7.0	10-12 6.4	10-12 9.8	10-12 14.4	10-12 18.2	10-12 15.1	10-12 14.9	10-12 13.7
	≥ 13 0.0	≥ 13 1.0	≥ 13 [illegible]	≥ 13 3.1	≥ 13 3.1	≥ 13 3.4	≥ 13 2.5	≥ 13 1.9	≥ 13 4.5	≥ 13 10.6	≥ 13 11.8	≥ 13 10.8	≥ 13 8.5	≥ 13 8.8
	N= 11	N= 695	N= 1340	N= 193	N= 681	N= 922	N= 854	N= 1908	N= 1254	N= 701	N= 1014	N= 1142	N= 1620	N= 1079
≤ 2 33.3	≤ 2 32.4	≤ 2 31.4	≤ 2 [illegible]	≤ 2 42.8	≤ 2 33.4	≤ 2 42.5	≤ 2 29.7	≤ 2 31.0	≤ 2 10.0	≤ 2 8.9	≤ 2 10.7	≤ 2 10.9	≤ 2 7.9	≤ 2 8.4
3-4 55.6	3-4 [illegible]	3-4 24.3	3-4 [illegible]	3-4 23.4	3-4 23.6	3-4 23.2	3-4 22.8	3-4 22.4	3-4 17.2	3-4 17.0	3-4 16.2	3-4 15.7	3-4 15.6	3-4 15.7
5-6 0.0	5-6 18.5	5-6 18.1	5-6 [illegible]	5-6 15.0	5-6 18.5	5-6 16.9	5-6 17.5	5-6 19.1	5-6 19.1	5-6 17.5	5-6 18.0	5-6 19.8	5-6 20.4	5-6 21.8
7-9 11.1	7-9 15.3	7-9 17.9	7-9 [illegible]	7-9 13.5	7-9 18.1	7-9 19.7	7-9 [illegible]	7-9 18.4	7-9 29.7	7-9 31.9	7-9 32.6	7-9 30.7	7-9 32.0	7-9 29.4
10-12 0.0	10-12 5.9	10-12 5.0	10-12 3.6	10-12 3.5	10-12 3.7	10-12 3.5	10-12 7.2	10-12 5.9	10-12 13.8	10-12 16.2	10-12 13.9	10-12 13.5	10-12 14.8	10-12 14.9
≥ 13 0.0	≥ 13 1.8	≥ 13 3.3	≥ 13 1.7	≥ 13 1.8	≥ 13 2.7	≥ 13 1.[illegible]	≥ 13 3.2	≥ 13 3.2	≥ 13 10.3	≥ 13 8.6	≥ 13 8.7	≥ 13 9.4	≥ 13 9.3	≥ 13 9.9
N= 9	N= 340	N= 1012	N= [illegible]681	N= 1433	N= 921	N= [illegible]984	N= 1746	N= 2895	N= 1189	N= 1412	N= 1207	N= 1188	N= 1361	N= 1255
≤ 2 36.3	≤ 2 31.1	≤ 2 33.6	≤ [illegible]	≤ 2 43.1	≤ 2 50.5	≤ 2 35.0	≤ 2 13.6	≤ [illegible]	≤ 2 9.4	≤ 2 9.6	≤ 2 9.0	≤ 2 8.9	≤ 2 7.9	≤ 2 7.7
3-4 [illegible].3	3-4 24.4	3-4 19.6	3-4 [illegible]	3-4 27.8	3-4 21.6	3-4 25.5	3-4 13.9	3-4 19.1	3-4 17.5	3-4 15.7	3-4 15.8	3-4 16.5	3-4 15.3	3-4 16.0
5-6 17.6	5-6 21.4	5-6 20.5	5-6 [illegible]	5-6 12.5	5-6 [illegible].0	5-6 17.3	5-6 19.1	5-6 19.6	5-6 20.0	5-6 19.4	5-6 19.5	5-6 21.5	5-6 21.2	5-6 20.0
7-9 13.4	7-9 16.6	7-9 19.6	7-9 [illegible]	7-9 [illegible]	7-9 10.8	7-9 16.1	7-9 29.5	7-9 29.1	7-9 31.2	7-9 33.7	7-9 34.5	7-9 31.7	7-9 33.3	7-9 34.5
10-12 3.6	10-12 4.4	10-12 6.3	10-12 [illegible]	10-12 [illegible]	10-12 2.[illegible]	10-12 4.2	10-12 11.4	10-12 14.0	10-12 14.4	10-12 14.5	10-12 13.0	10-12 14.0	10-12 14.2	10-12 13.8
≥ 13 2.8	≥ 13 2.2	≥ 13 0.8	≥ [illegible]	≥ 13 0.0	≥ 13 1.4	≥ 13 2.0	≥ 13 6.5	≥ 13 8.1	≥ 13 7.5	≥ 13 7.1	≥ 13 8.3	≥ 13 7.3	≥ 13 8.1	≥ 13 8.0
N= 823	N= 772	N= [illegible]	N= [illegible]58	N= 72	N= 3260	N= 3249	N= 1286	N= 1473	N= 1443	N= 1536	N= 1526	N= 1416	N= 1199	N= 1092
≤ 2 36.2	≤ 2 34.8	≤ 2 [illegible]	≤ 2 [illegible]	≤ 2 [illegible]	≤ 2 [illegible]	≤ 2 14.0	≤ 2 11.9	≤ 2 11.2	≤ 2 9.9	≤ 2 10.1	≤ 2 7.0	≤ 2 6.5	≤ 2 5.9	≤ 2 6.0
3-4 24.9	3-4 24.4	3-4 [illegible]	[illegible]	3-4 22.0	3-4 22.1	3-4 18.3	3-4 18.3	3-4 17.2	3-4 17.2	3-4 17.3	3-4 16.1	3-4 16.5	3-4 13.0	3-4 15.3
5-6 15.8	5-6 20.0	5-6 [illegible]	5-6 [illegible]	5-6 20.2	5-6 20.4	5-6 16.4	5-6 18.6	5-6 19.5	5-6 22.1	5-6 19.7	5-6 20.5	5-6 19.6	5-6 19.9	5-6 18.3
7-9 17.7	7-9 16.4	7-9 [illegible]	7-9 16.1	7-9 20.7	7-9 24.5	7-9 31.1	7-9 30.3	7-9 30.5	7-9 30.1	7-9 30.9	7-9 33.2	7-9 33.2	7-9 34.2	7-9 33.3
10-12 4.2	10-12 2.6	10-12 [illegible]	10-12 5.7	10-12 5.4	10-12 8.6	10-12 12.4	10-12 14.1	10-12 13.4	10-12 14.4	10-12 13.0	10-12 14.8	10-12 15.3	10-12 16.4	10-12 16.4
≥ 13 1.3	≥ 13 1.8	≥ 13 [illegible]	≥ 13 2.1	≥ 13 2.2	≥ 13 4.0	≥ 13 7.8	≥ 13 6.8	≥ 13 8.1	≥ 13 6.4	≥ 13 9.1	≥ 13 8.3	≥ 13 8.9	≥ 13 10.6	≥ 13 10.6
N= 622	N= 549	N= [illegible]	N= 999	N= 1345	N= 1239	N= 1326	N= 1708	N= 1781	N= 1824	N= 1597	N= 1462	N= 1284	N= 1136	N= 1080
≤ 2 43.2	≤ 2 41.8	≤ 2 [illegible]	≤ 2 33.6	≤ 2 22.5	≤ 2 14.4	≤ 2 14.3	≤ 2 11.0	≤ 2 12.8	≤ 2 8.8	≤ 2 6.7	≤ 2 6.8	≤ 2 5.5	≤ 2 7.3	≤ 2 5.2
3-4 27.8	3-4 27.6	3-4 [illegible]	3-4 24.5	3-4 23.2	3-4 19.1	3-4 18.8	3-4 18.2	3-4 19.3	3-4 15.9	3-4 15.8	3-4 13.7	3-4 13.9	3-4 13.3	3-4 13.3
5-6 14.5	5-6 16.8	5-6 [illegible]	5-6 17.6	5-6 21.6	5-6 22.4	5-6 20.8	5-6 20.9	5-6 20.8	5-6 21.7	5-6 18.0	5-6 20.1	5-6 18.0	5-6 18.0	5-6 19.1
7-9 11.0	7-9 10.6	7-9 [illegible]	7-9 17.9	7-9 22.4	7-9 26.9	7-9 29.3	7-9 31.1	7-9 28.5	7-9 30.4	7-9 34.8	7-9 34.5	7-9 34.7	7-9 31.5	7-9 34.8
10-12 2.7	10-12 2.2	10-12 [illegible]	10-12 3.8	10-12 7.3	10-12 11.2	10-12 11.1	10-12 12.3	10-12 12.2	10-12 13.8	10-12 14.7	10-12 15.4	10-12 18.3	10-12 18.2	10-12 17.4
≥ 13 0.9	≥ 13 1.0	≥ 13 [illegible]	≥ 13 2.3	≥ 13 3.0	≥ 13 6.0	≥ 13 5.6	≥ 13 6.4	≥ 13 6.5	≥ 13 9.6	≥ 13 9.9	≥ 13 9.6	≥ 13 9.5	≥ 13 11.7	≥ 13 10.2
N= 820	N= 631	N= [illegible]306	N= 1887	N= 1778	N= 1958	N= 2373	N= 3386	N= 2423	N= 2249	N= 1522	N= 1374	N= 1352	N= 1165	N= 1099
≤ 2 43.9	≤ 2 52.8	≤ [illegible]	≤ 2 34.9	≤ 2 16.8	≤ 2 11.9	≤ 2 9.3	≤ 2 7.9	≤ 2 7.9	≤ 2 7.7	≤ 2 7.6	≤ 2 6.4	≤ 2 5.8	≤ 2 6.4	≤ 2 7.6
3-4 22.6	3-4 21.7	[illegible]	3-4 23.7	3-4 20.7	3-4 18.8	3-4 18.1	3-4 14.7	3-4 13.9	3-4 16.2	3-4 14.0	3-4 13.4	3-4 13.9	3-4 14.0	3-4 14.5
5-6 16.4	5-6 [illegible]	[illegible]	5-6 18.2	5-6 20.6	5-6 22.1	5-6 20.7	5-6 21.9	5-6 22.5	5-6 20.9	5-6 19.5	5-6 19.7	5-6 21.6	5-6 20.3	5-6 17.9
7-9 12.3	7-9 [illegible]	[illegible]	7-9 16.8	7-9 26.2	7-9 29.1	7-9 31.7	7-9 31.4	7-9 30.8	7-9 31.4	7-9 33.0	7-9 33.8	7-9 31.6	7-9 33.2	7-9 33.9
10-12 2.9	10-12 3.4	10-12 [illegible]	10-12 4.1	10-12 10.3	10-12 11.7	10-12 12.6	10-12 14.8	10-12 15.7	10-12 14.9	10-12 16.3	10-12 17.0	10-12 18.4	10-12 15.5	10-12 17.3
≥ 13 2.0	≥ 13 1.0	≥ 13 [illegible]	≥ 13 2.4	≥ 13 5.4	≥ 13 6.5	≥ 13 7.7	≥ 13 9.3	≥ 13 9.3	≥ 13 9.0	≥ 13 9.6	≥ 13 9.7	≥ 13 8.7	≥ 13 10.6	≥ 13 8.8
N= 554	N= 411	N= 73	N= 5284	N= 2805	N= 2910	N= 2398	N= 2064	N= 1967	N= 1783	N= 1356	N= 1264	N= 1178	N= 1041	N= 1006
≤ 2 53.[illegible]	≤ 2 83.8	≤ 2 [illegible]	≤ 2 22.9	≤ 2 10.2	≤ 2 9.2	≤ 2 8.8	≤ 2 8.4	≤ 2 6.4	≤ 2 5.2	≤ 2 6.7	≤ 2 7.8	≤ 2 6.4	≤ 2 5.6	≤ 2 8.2
3-4 20.0	3-4 12.5	3-4 [illegible]	3-4 21.6	3-4 18.9	3-4 16.8	3-4 15.9	3-4 15.6	3-4 16.7	3-4 13.1	3-4 14.5	3-4 16.7	3-4 16.4	3-4 15.4	3-4 15.2
5-6 [illegible].5	5-6 [illegible].5	5-6 [illegible]	5-6 20.5	5-6 20.2	5-6 21.1	5-6 20.1	5-6 20.2	5-6 20.1	5-6 21.1	5-6 19.7	5-6 19.5	5-6 21.5	5-6 21.5	5-6 21.2
7-9 10.5	7-9 [illegible].3	7-9 [illegible]	7-9 23.0	7-9 29.4	7-9 30.0	7-9 30.2	7-9 29.4	7-9 30.9	7-9 34.6	7-9 34.6	7-9 29.5	7-9 33.3	7-9 31.4	7-9 31.9
10-12 3.0	10-12 0.0	10-12 [illegible]	10-12 7.5	10-12 14.2	10-12 14.7	10-12 16.5	10-12 16.3	10-12 16.8	10-12 15.9	10-12 16.0	10-12 16.6	10-12 14.6	10-12 16.3	10-12 14.3
≥ 13 0.0	≥ 13 0.0	≥ [illegible]	[illegible]3 7.2	≥ 13 7.2	≥ 13 8.2	≥ 13 8.4	≥ 13 10.1	≥ 13 9.1	≥ 13 10.0	≥ 13 8.4	≥ 13 9.8	≥ 13 7.9	≥ 13 9.7	≥ 13 9.2
N= 200	N= 80	N= [illegible]76	N= 4783	N= 3080	N= 2665	N= 2164	N= 1755	N= 1520	N= 1400	N= 1241	N= 1148	N= 1064	N= 998	N= 993



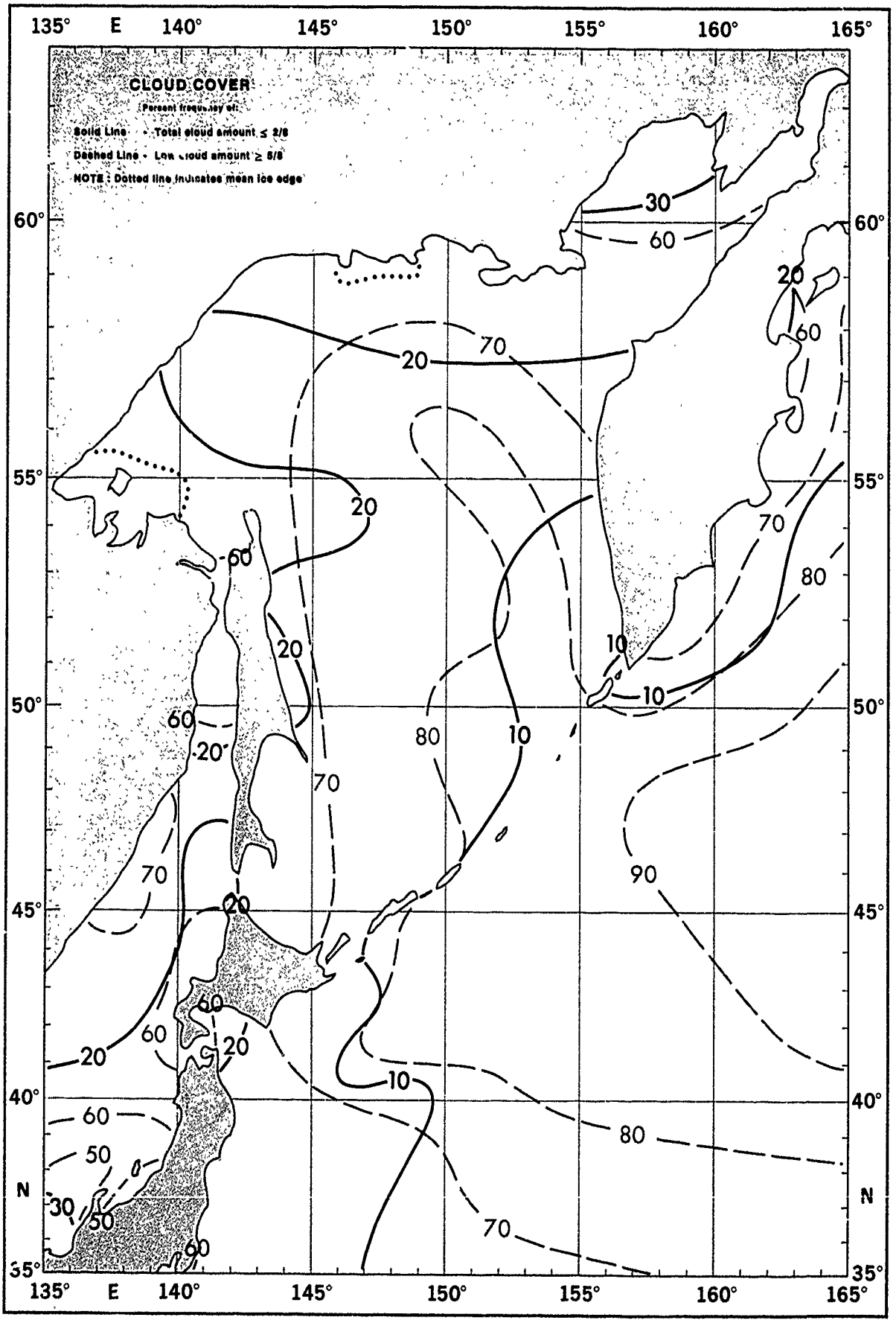
May

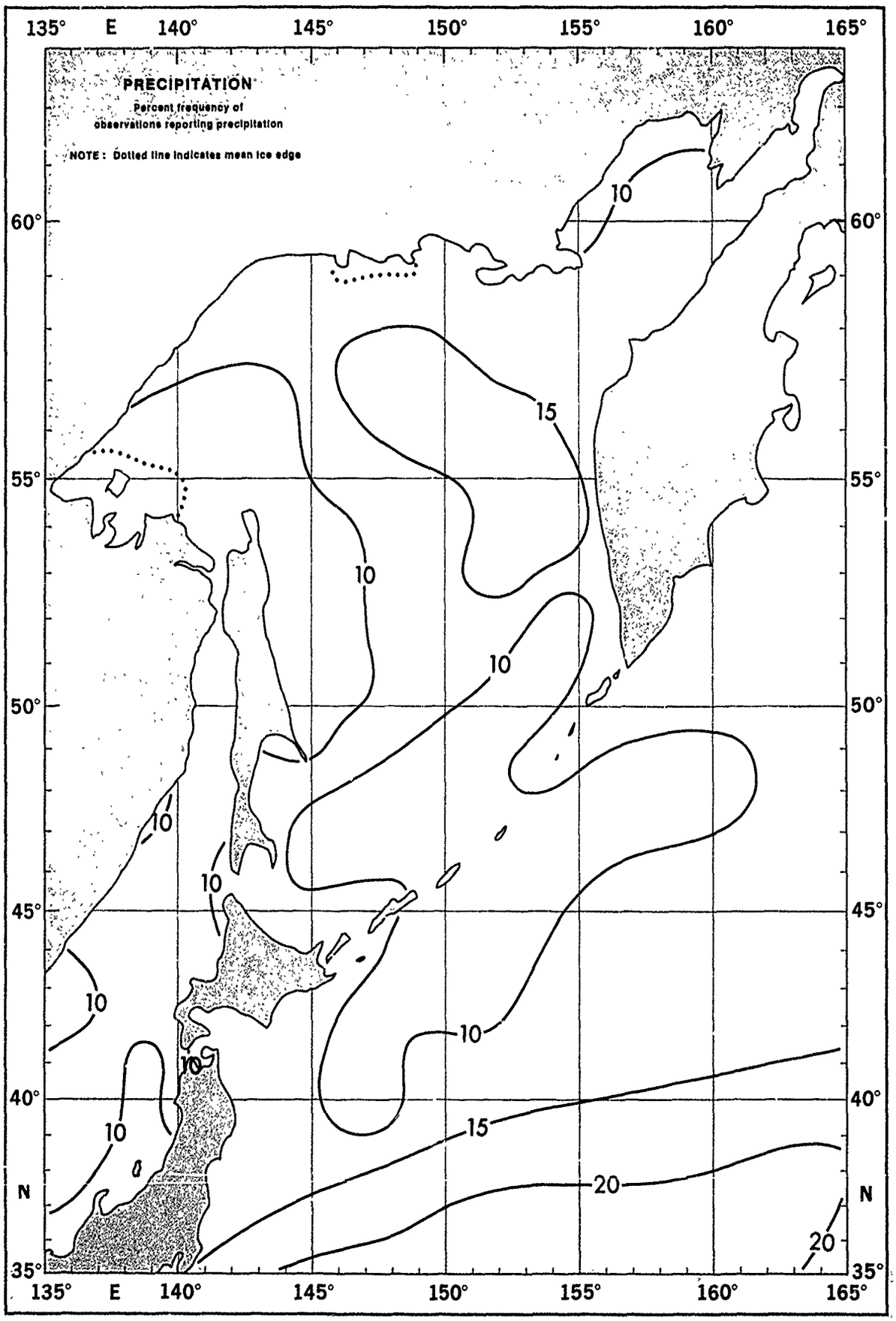
Surface Currents

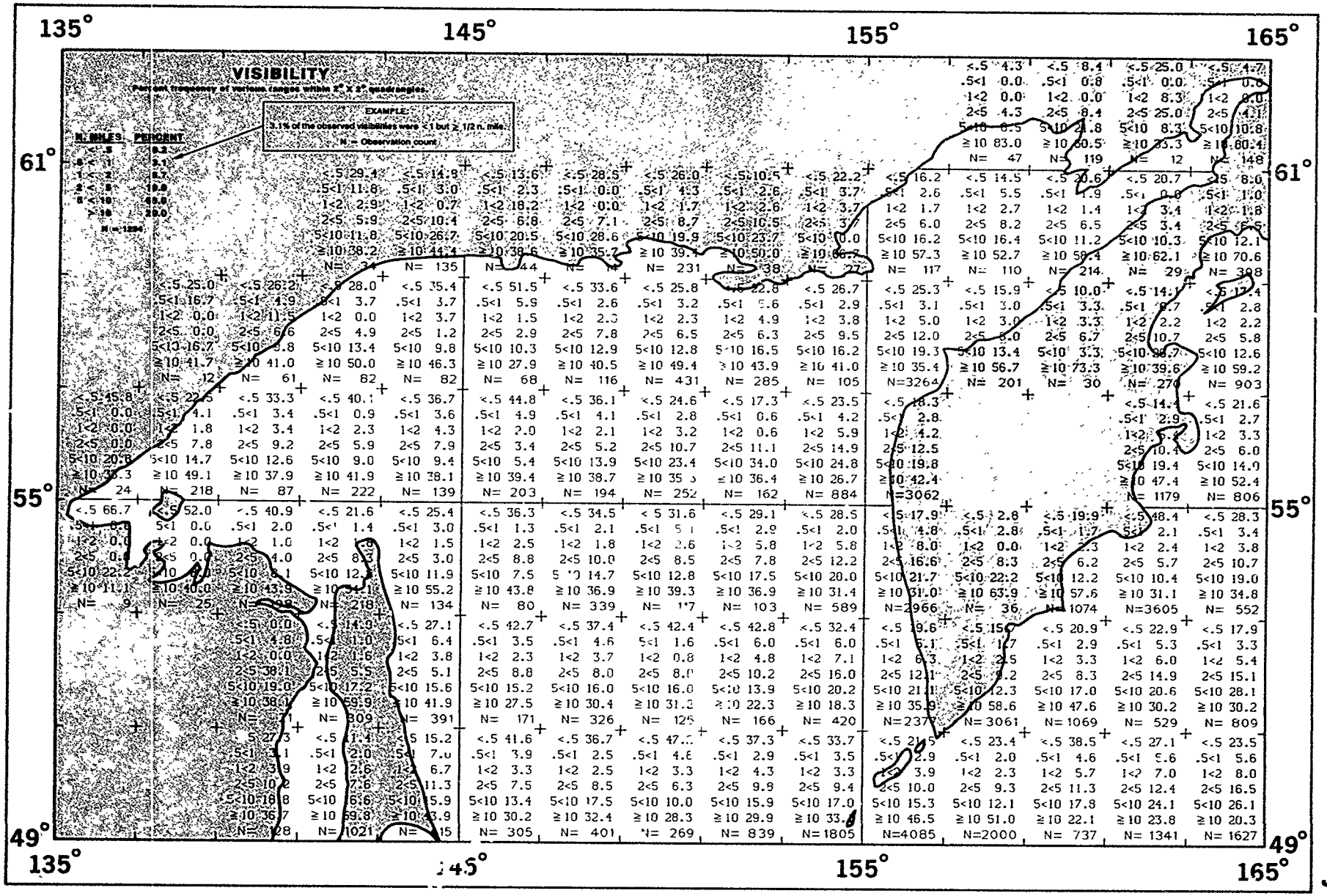


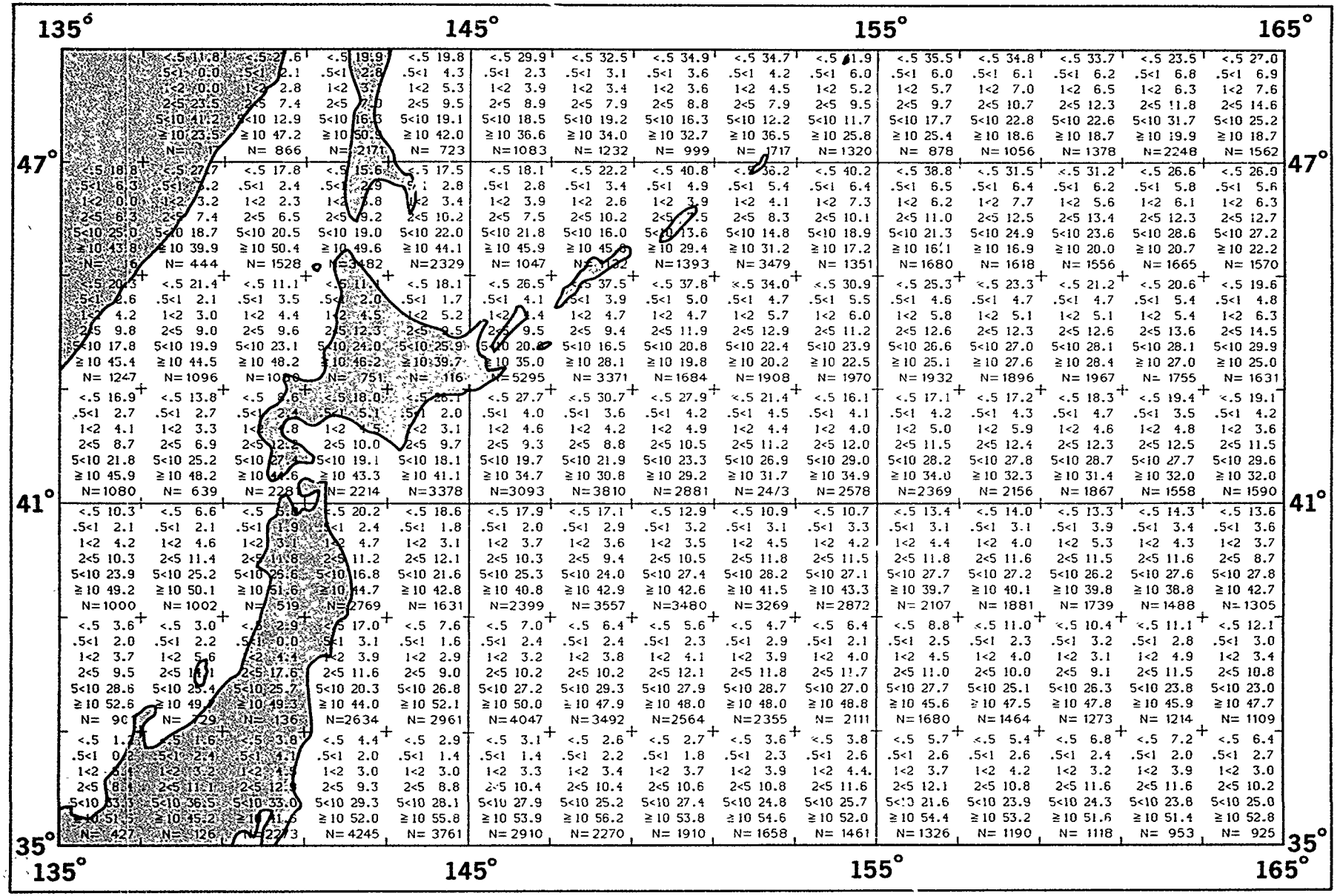
May

Surface Currents

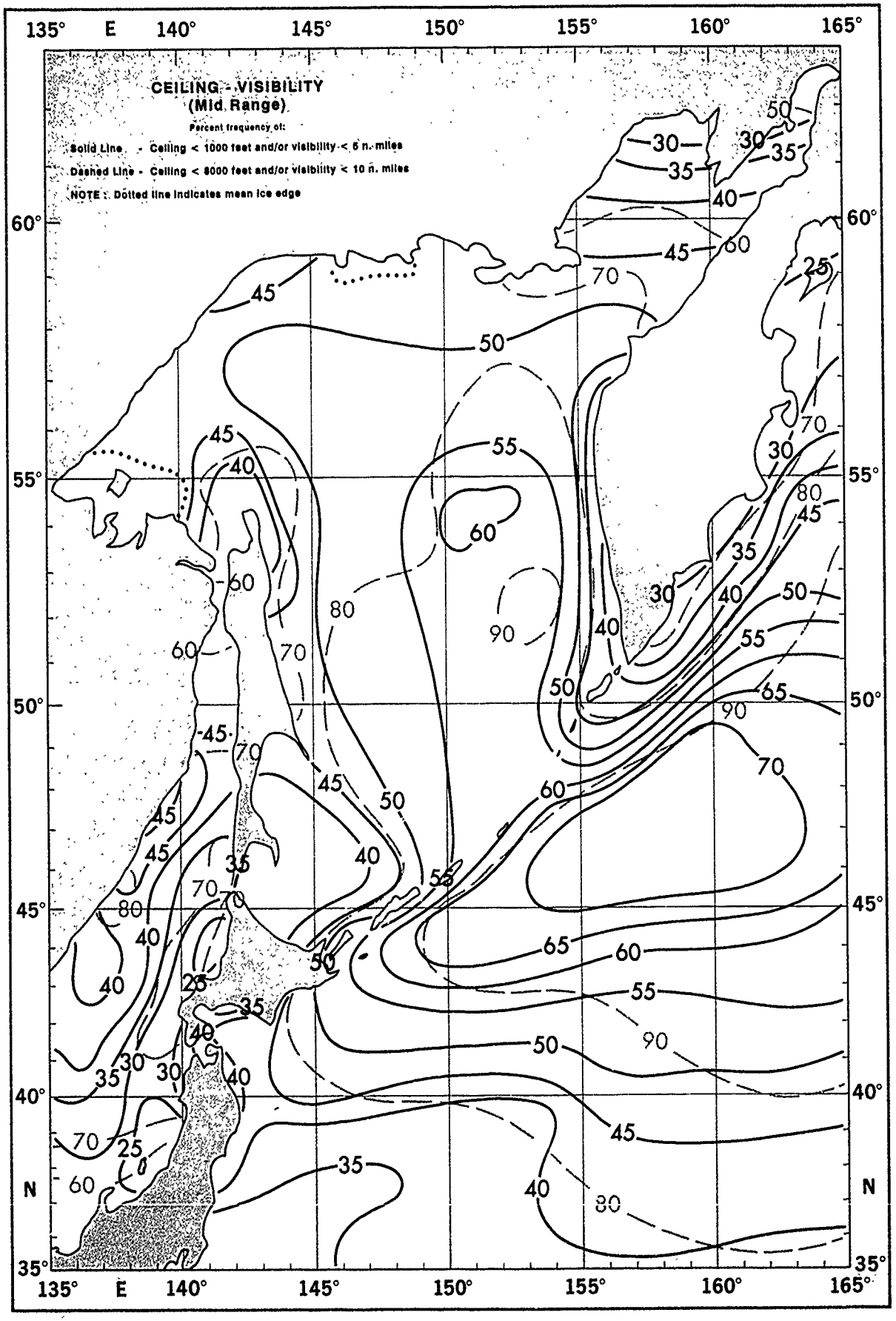

CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 6/8
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°


PRECIPITATION
Percent frequency of observations reporting precipitation
NOTE: Dotted line indicates mean ice edge
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
N
35°
10
15
20


VISIBILITY
Percent frequency of various ranges within 2° x 2° quadrangles
EXAMPLE:
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N = Observation count
N. MILES
PERCENT
135°
145°
155°
165°
61°
55°
49°

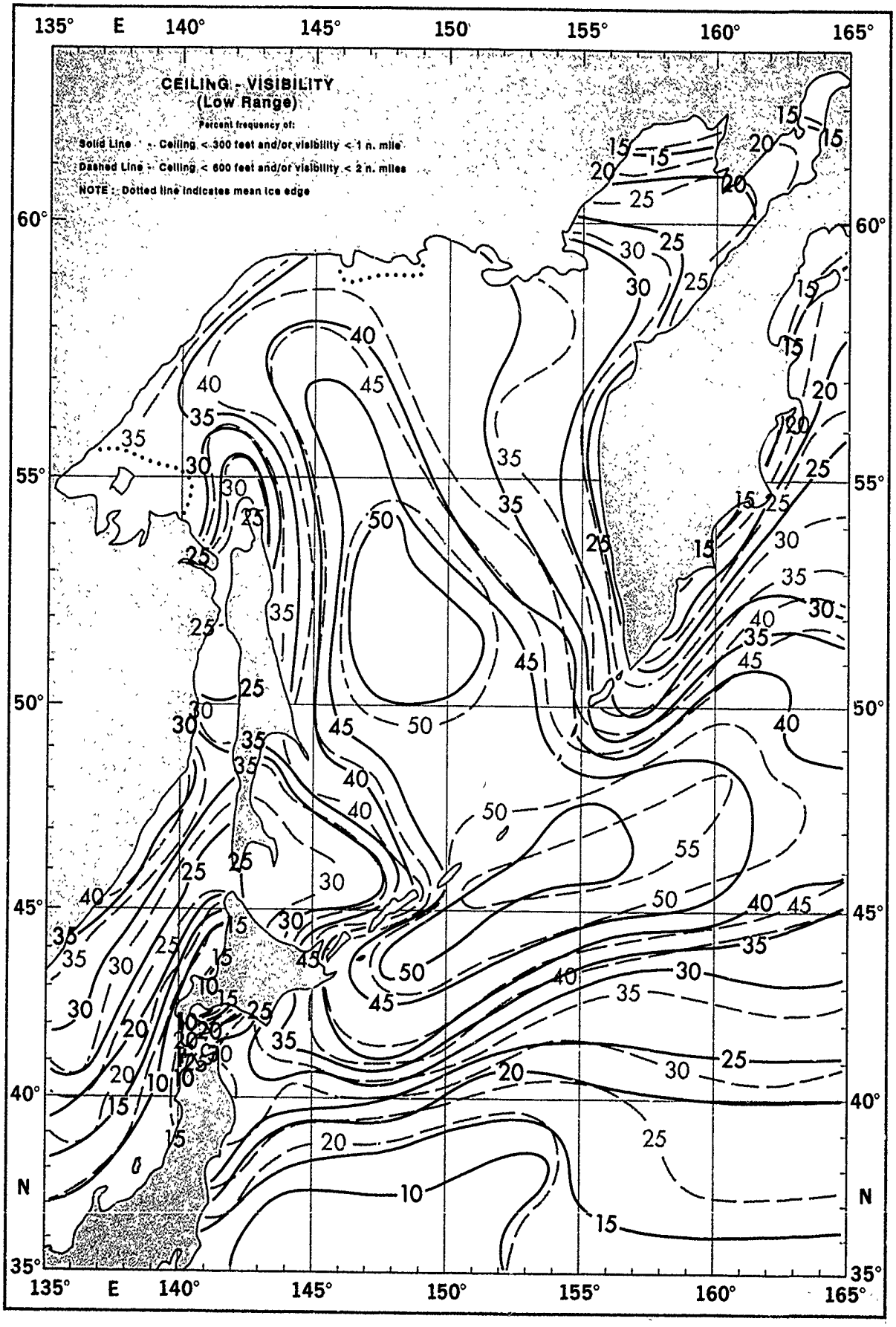

135°
145°
155°
165°
47°
41°
35°
<.5 11.8 <.5 12.6 <.5 19.9 <.5 19.8 <.5 29.9 <.5 32.5 <.5 34.9 <.5 34.7 <.5 41.9 <.5 35.5 <.5 34.8 <.5 33.7 <.5 23.5 <.5 27.0
.5<1 0.0 .5<1 2.1 .5<1 2.8 .5<1 4.3 .5<1 2.3 .5<1 3.1 .5<1 3.6 .5<1 4.2 .5<1 6.0 .5<1 6.0 .5<1 6.1 .5<1 6.2 .5<1 6.8 .5<1 6.9
1<2 0.0 1<2 2.8 1<2 3.7 1<2 5.3 1<2 3.9 1<2 3.4 1<2 3.6 1<2 4.5 1<2 5.2 1<2 5.7 1<2 7.0 1<2 6.5 1<2 6.3 1<2 7.6
2<5 23.5 2<5 7.4 2<5 7.0 2<5 9.5 2<5 8.9 2<5 7.9 2<5 8.8 2<5 7.9 2<5 9.5 2<5 9.7 2<5 10.7 2<5 12.3 2<5 11.8 2<5 14.6
5<10 41.2 5<10 12.9 5<10 16.3 5<10 19.1 5<10 18.5 5<10 19.2 5<10 16.3 5<10 12.2 5<10 11.7 5<10 17.7 5<10 22.8 5<10 22.6 5<10 31.7 5<10 25.2
≥10 23.5 ≥10 47.2 ≥10 50.9 ≥10 42.0 ≥10 36.6 ≥10 34.0 ≥10 32.7 ≥10 36.5 ≥10 25.8 ≥10 25.4 ≥10 18.6 ≥10 18.7 ≥10 19.9 ≥10 18.7
N= 17 N= 866 N= 2171 N= 723 N=1083 N= 1232 N= 999 N= 1717 N=1320 N= 878 N= 1056 N= 1378 N=2248 N= 1562
<.5 18.8 <.5 27.7 <.5 17.8 <.5 15.6 <.5 17.5 <.5 18.1 <.5 22.2 <.5 40.8 <.5 36.2 <.5 40.2 <.5 38.8 <.5 31.5 <.5 31.2 <.5 26.6 <.5 26.9
.5<1 6.3 .5<1 6.2 .5<1 2.4 .5<1 2.9 .5<1 2.8 .5<1 2.8 .5<1 3.4 .5<1 4.9 .5<1 5.4 .5<1 6.4 .5<1 6.5 .5<1 6.4 .5<1 6.2 .5<1 5.8 .5<1 5.6
1<2 0.0 1<2 3.2 1<2 2.3 1<2 3.8 1<2 3.4 1<2 3.9 1<2 2.6 1<2 3.9 1<2 4.1 1<2 7.3 1<2 6.2 1<2 7.7 1<2 5.6 1<2 6.1 1<2 6.3
2<5 6.3 2<5 7.4 2<5 6.5 2<5 9.2 2<5 10.2 2<5 7.5 2<5 10.2 2<5 9.5 2<5 8.3 2<5 10.1 2<5 11.0 2<5 12.5 2<5 13.4 2<5 12.3 2<5 12.7
5<10 25.0 5<10 18.7 5<10 20.5 5<10 19.0 5<10 22.0 5<10 21.8 5<10 16.0 5<10 13.6 5<10 14.8 5<10 18.9 5<10 21.3 5<10 24.9 5<10 23.6 5<10 28.6 5<10 27.2
≥10 43.8 ≥10 39.9 ≥10 50.4 ≥10 49.6 ≥10 44.1 ≥10 45.9 ≥10 45.9 ≥10 29.4 ≥10 31.2 ≥10 17.2 ≥10 16.1 ≥10 16.9 ≥10 20.0 ≥10 20.7 ≥10 22.2
N= 6 N= 444 N= 1528 N=3482 N=2329 N= 1047 N=1132 N=1393 N= 3479 N= 1351 N= 1680 N= 1618 N= 1556 N= 1665 N= 1570
<.5 20.3 <.5 21.4 <.5 11.1 <.5 11.1 <.5 18.1 <.5 26.5 <.5 37.5 <.5 37.8 <.5 34.0 <.5 30.9 <.5 25.3 <.5 23.3 <.5 21.2 <.5 20.6 <.5 19.6
.5<1 2.6 .5<1 2.1 .5<1 3.5 .5<1 2.0 .5<1 1.7 .5<1 4.1 .5<1 3.9 .5<1 5.0 .5<1 4.7 .5<1 5.5 .5<1 4.6 .5<1 4.7 .5<1 4.7 .5<1 5.4 .5<1 4.8
1<2 4.2 1<2 3.0 1<2 4.4 1<2 4.5 1<2 5.2 1<2 4.4 1<2 4.7 1<2 4.7 1<2 5.7 1<2 6.0 1<2 5.8 1<2 5.1 1<2 5.1 1<2 5.4 1<2 6.3
2<5 9.8 2<5 9.0 2<5 9.6 2<5 12.3 2<5 9.5 2<5 9.5 2<5 9.4 2<5 11.9 2<5 12.9 2<5 11.2 2<5 12.6 2<5 12.3 2<5 12.6 2<5 13.6 2<5 14.5
5<10 17.8 5<10 19.9 5<10 23.1 5<10 24.0 5<10 25.9 5<10 20.8 5<10 16.5 5<10 20.8 5<10 22.4 5<10 23.9 5<10 26.6 5<10 27.0 5<10 28.1 5<10 28.1 5<10 29.9
≥10 45.4 ≥10 44.5 ≥10 48.2 ≥10 46.2 ≥10 39.7 ≥10 35.0 ≥10 28.1 ≥10 19.8 ≥10 20.2 ≥10 22.5 ≥10 25.1 ≥10 27.6 ≥10 28.4 ≥10 27.0 ≥10 25.0
N= 1247 N= 1096 N=1000 N= 751 N= 116 N=5295 N= 3371 N=1684 N=1908 N= 1970 N= 1932 N= 1896 N= 1967 N= 1755 N= 1631
<.5 16.9 <.5 13.8 <.5 9.6 <.5 18.0 <.5 26.1 <.5 27.7 <.5 30.7 <.5 27.9 <.5 21.4 <.5 16.1 <.5 17.1 <.5 17.2 <.5 18.3 <.5 19.4 <.5 19.1
.5<1 2.7 .5<1 2.7 .5<1 2.4 .5<1 3.1 .5<1 2.0 .5<1 4.0 .5<1 3.6 .5<1 4.2 .5<1 4.5 .5<1 4.1 .5<1 4.2 .5<1 4.3 .5<1 4.7 .5<1 3.5 .5<1 4.2
1<2 4.1 1<2 3.3 1<2 3.8 1<2 4.5 1<2 3.1 1<2 4.6 1<2 4.2 1<2 4.9 1<2 4.4 1<2 4.0 1<2 5.0 1<2 5.9 1<2 4.6 1<2 4.8 1<2 3.6
2<5 8.7 2<5 6.9 2<5 12.2 2<5 10.0 2<5 9.7 2<5 9.3 2<5 8.8 2<5 10.5 2<5 11.2 2<5 12.0 2<5 11.5 2<5 12.4 2<5 12.3 2<5 12.5 2<5 11.5
5<10 21.8 5<10 25.2 5<10 27.4 5<10 19.1 5<10 18.1 5<10 19.7 5<10 21.9 5<10 23.3 5<10 26.9 5<10 29.0 5<10 28.2 5<10 27.8 5<10 28.7 5<10 27.7 5<10 29.6
≥10 45.9 ≥10 48.2 ≥10 44.6 ≥10 43.3 ≥10 41.1 ≥10 34.7 ≥10 30.8 ≥10 29.2 ≥10 31.7 ≥10 34.9 ≥10 34.0 ≥10 32.3 ≥10 31.4 ≥10 32.0 ≥10 32.0
N=1080 N= 639 N= 228 N= 2214 N=3378 N=3093 N=3810 N=2881 N= 24/3 N=2578 N=2369 N= 2156 N= 1867 N= 1558 N= 1590
<.5 10.3 <.5 6.6 <.5 5.8 <.5 20.2 <.5 18.6 <.5 17.9 <.5 17.1 <.5 12.9 <.5 10.9 <.5 10.7 <.5 13.4 <.5 14.0 <.5 13.3 <.5 14.3 <.5 13.6
.5<1 2.1 .5<1 2.1 .5<1 1.9 .5<1 2.4 .5<1 1.8 .5<1 2.0 .5<1 2.9 .5<1 3.2 .5<1 3.1 .5<1 3.3 .5<1 3.1 .5<1 3.1 .5<1 3.9 .5<1 3.4 .5<1 3.6
1<2 4.2 1<2 4.6 1<2 3.1 1<2 4.7 1<2 3.1 1<2 3.7 1<2 3.6 1<2 3.5 1<2 4.5 1<2 4.2 1<2 4.4 1<2 4.0 1<2 5.3 1<2 4.3 1<2 3.7
2<5 10.3 2<5 11.4 2<5 11.8 2<5 11.2 2<5 12.1 2<5 10.3 2<5 9.4 2<5 10.5 2<5 11.8 2<5 11.5 2<5 11.8 2<5 11.6 2<5 11.5 2<5 11.6 2<5 8.7
5<10 23.9 5<10 25.2 5<10 25.6 5<10 16.8 5<10 21.6 5<10 25.3 5<10 24.0 5<10 27.4 5<10 28.2 5<10 27.1 5<10 27.7 5<10 27.2 5<10 26.2 5<10 27.6 5<10 27.8
≥10 49.2 ≥10 50.1 ≥10 51.6 ≥10 44.7 ≥10 42.8 ≥10 40.8 ≥10 42.9 ≥10 42.6 ≥10 41.5 ≥10 43.3 ≥10 39.7 ≥10 40.1 ≥10 39.8 ≥10 38.8 ≥10 42.7
N=1000 N= 1002 N= 519 N=2769 N= 1631 N=2399 N= 3557 N=3480 N= 3269 N=2872 N= 2107 N= 1881 N= 1739 N= 1488 N= 1305
<.5 3.6 <.5 3.0 <.5 2.9 <.5 17.0 <.5 7.6 <.5 7.0 <.5 6.4 <.5 5.6 <.5 4.7 <.5 6.4 <.5 8.8 <.5 11.0 <.5 10.4 <.5 11.1 <.5 12.1
.5<1 2.0 .5<1 2.2 .5<1 0.0 .5<1 3.1 .5<1 1.6 .5<1 2.4 .5<1 2.4 .5<1 2.3 .5<1 2.9 .5<1 2.1 .5<1 2.5 .5<1 2.3 .5<1 3.2 .5<1 2.8 .5<1 3.0
1<2 3.7 1<2 5.6 1<2 4.4 1<2 3.9 1<2 2.9 1<2 3.2 1<2 3.8 1<2 4.1 1<2 3.9 1<2 4.0 1<2 4.5 1<2 4.0 1<2 3.1 1<2 4.9 1<2 3.4
2<5 9.5 2<5 10.1 2<5 17.6 2<5 11.6 2<5 9.0 2<5 10.2 2<5 10.2 2<5 12.1 2<5 11.8 2<5 11.7 2<5 11.0 2<5 10.0 2<5 9.1 2<5 11.5 2<5 10.8
5<10 28.6 5<10 25.4 5<10 25.7 5<10 20.3 5<10 26.8 5<10 27.2 5<10 29.3 5<10 27.9 5<10 28.7 5<10 27.0 5<10 27.7 5<10 25.1 5<10 26.3 5<10 23.8 5<10 23.0
≥10 52.6 ≥10 49.1 ≥10 49.3 ≥10 44.0 ≥10 52.1 ≥10 50.0 ≥10 47.9 ≥10 48.0 ≥10 48.0 ≥10 48.8 ≥10 45.6 ≥10 47.5 ≥10 47.8 ≥10 45.9 ≥10 47.7
N= 90 N= 129 N= 136 N=2634 N= 2961 N=4047 N=3492 N=2564 N=2355 N= 2111 N=1680 N=1464 N= 1273 N= 1214 N= 1109
<.5 1.7 <.5 1.6 <.5 3.8 <.5 4.4 <.5 2.9 <.5 3.1 <.5 2.6 <.5 2.7 <.5 3.6 <.5 3.8 <.5 5.7 <.5 5.4 <.5 6.8 <.5 7.2 <.5 6.4
.5<1 0.2 .5<1 2.4 .5<1 4.1 .5<1 2.0 .5<1 1.4 .5<1 1.4 .5<1 2.2 .5<1 1.8 .5<1 2.3 .5<1 2.6 .5<1 2.6 .5<1 2.6 .5<1 2.4 .5<1 2.0 .5<1 2.7
1<2 3.1 1<2 3.2 1<2 4.3 1<2 3.0 1<2 3.0 1<2 3.3 1<2 3.4 1<2 3.7 1<2 3.9 1<2 4.4 1<2 3.7 1<2 4.2 1<2 3.2 1<2 3.9 1<2 3.0
2<5 8.1 2<5 11.1 2<5 12.1 2<5 9.3 2<5 8.8 2<5 10.4 2<5 10.4 2<5 10.6 2<5 10.8 2<5 11.6 2<5 12.1 2<5 10.8 2<5 11.6 2<5 11.6 2<5 10.2
5<10 33.3 5<10 36.5 5<10 33.0 5<10 29.3 5<10 28.1 5<10 27.9 5<10 25.2 5<10 27.4 5<10 24.8 5<10 25.7 5<10 21.6 5<10 23.9 5<10 24.3 5<10 23.8 5<10 25.0
≥10 51.5 ≥10 45.2 ≥10 51.6 ≥10 52.0 ≥10 55.8 ≥10 53.9 ≥10 56.2 ≥10 53.8 ≥10 54.6 ≥10 52.0 ≥10 54.4 ≥10 53.2 ≥10 51.6 ≥10 51.4 ≥10 52.8
N= 427 N= 126 N= 2273 N=4245 N= 3761 N=2910 N=2270 N= 1910 N= 1658 N= 1461 N=1326 N= 1190 N= 1118 N= 953 N= 925

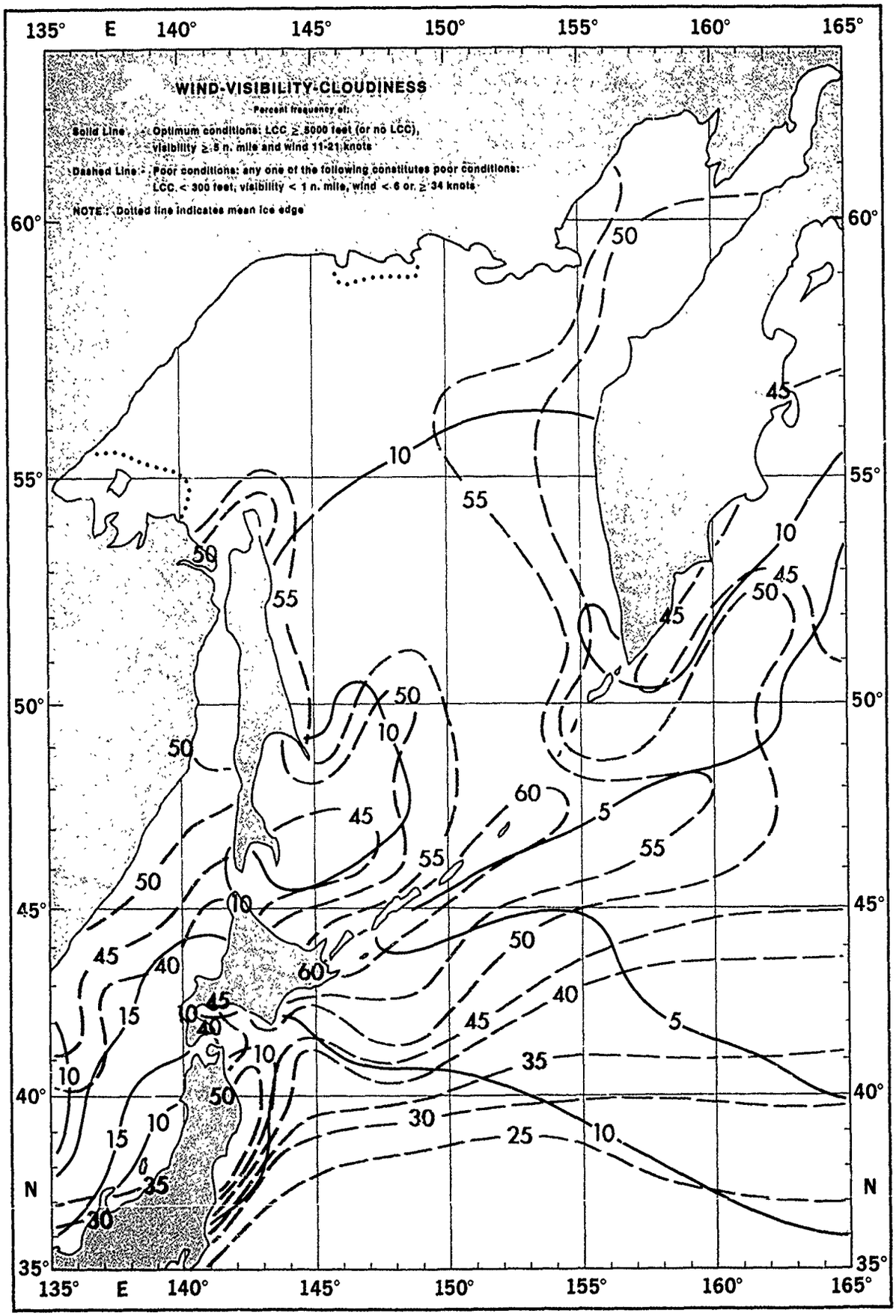
Ceiling-Visibility (Mid Range)



June

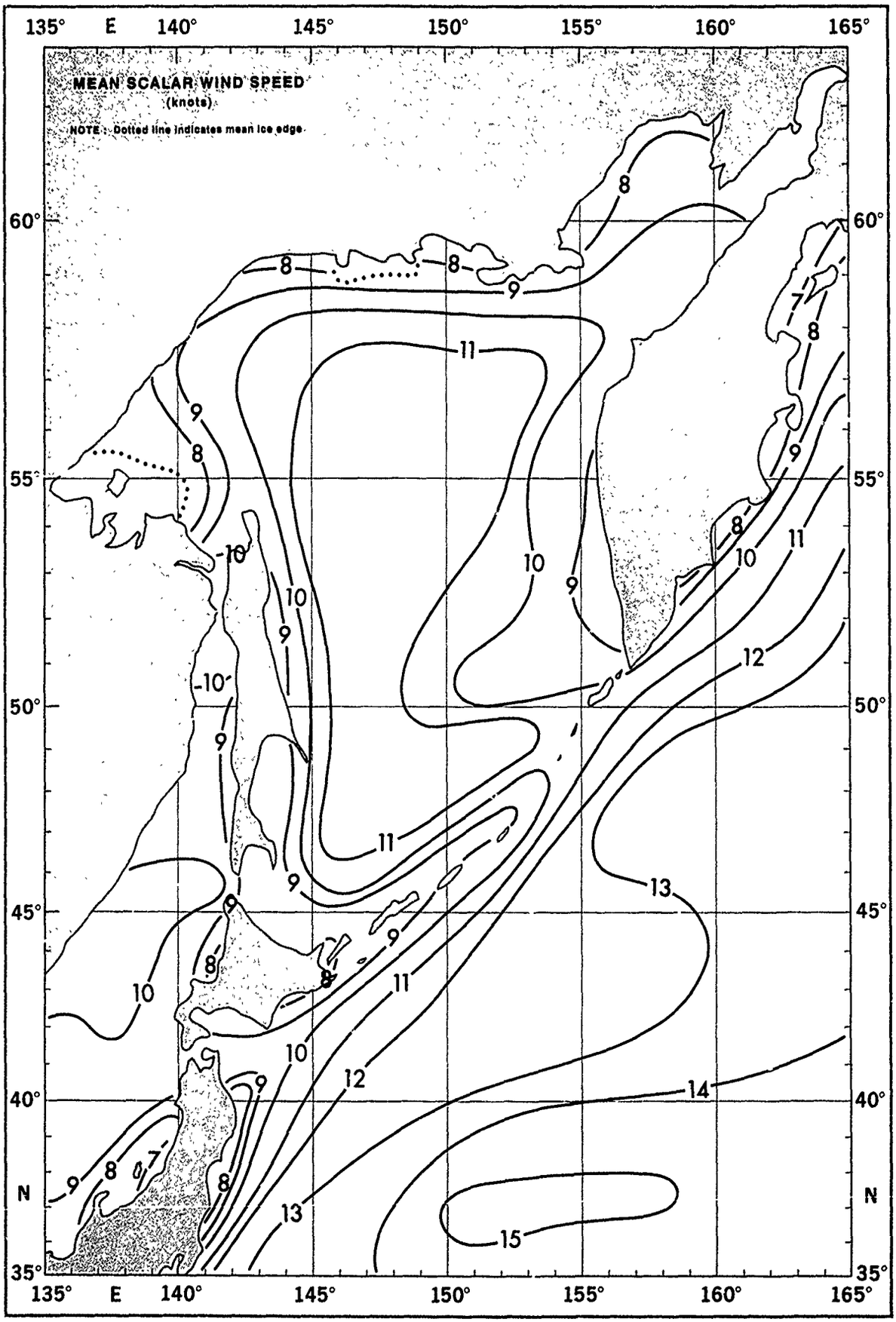
Ceiling-Visibility (Low Range)




WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line: - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line: - Poor conditions: any one of the following constitutes poor conditions: LCC. < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
NOTE: - Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°

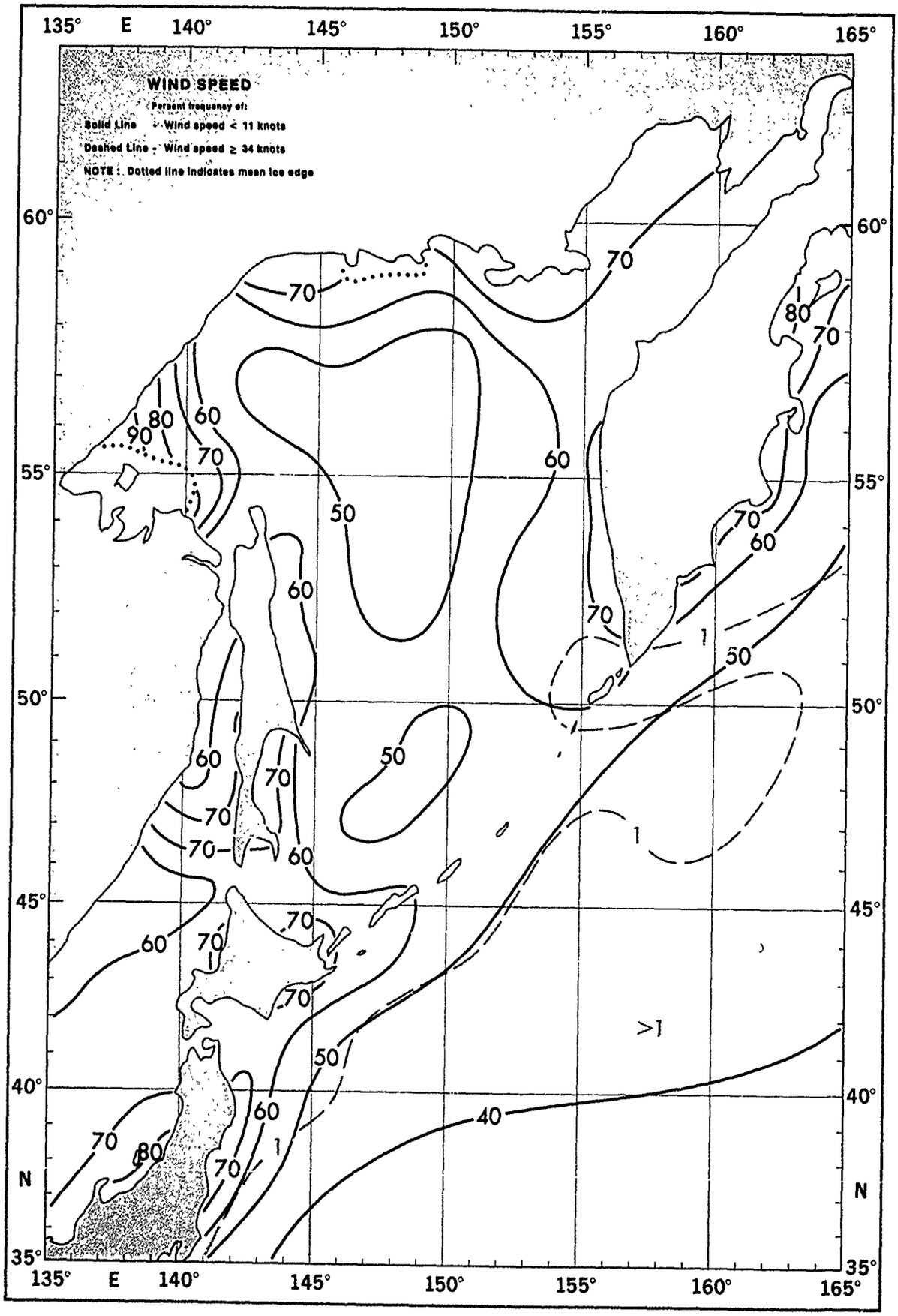
June

Mean Scalar Wind Speed



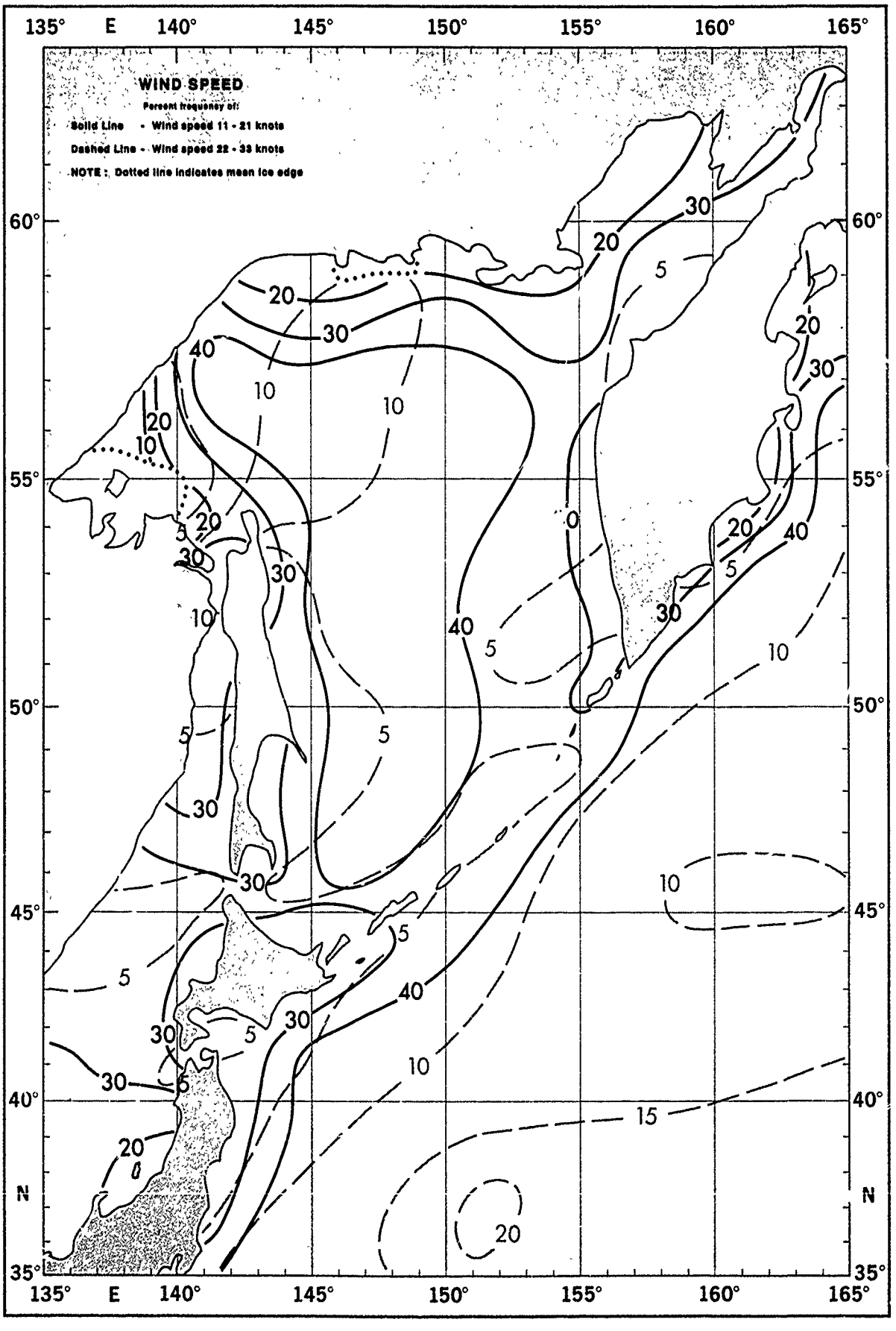
June

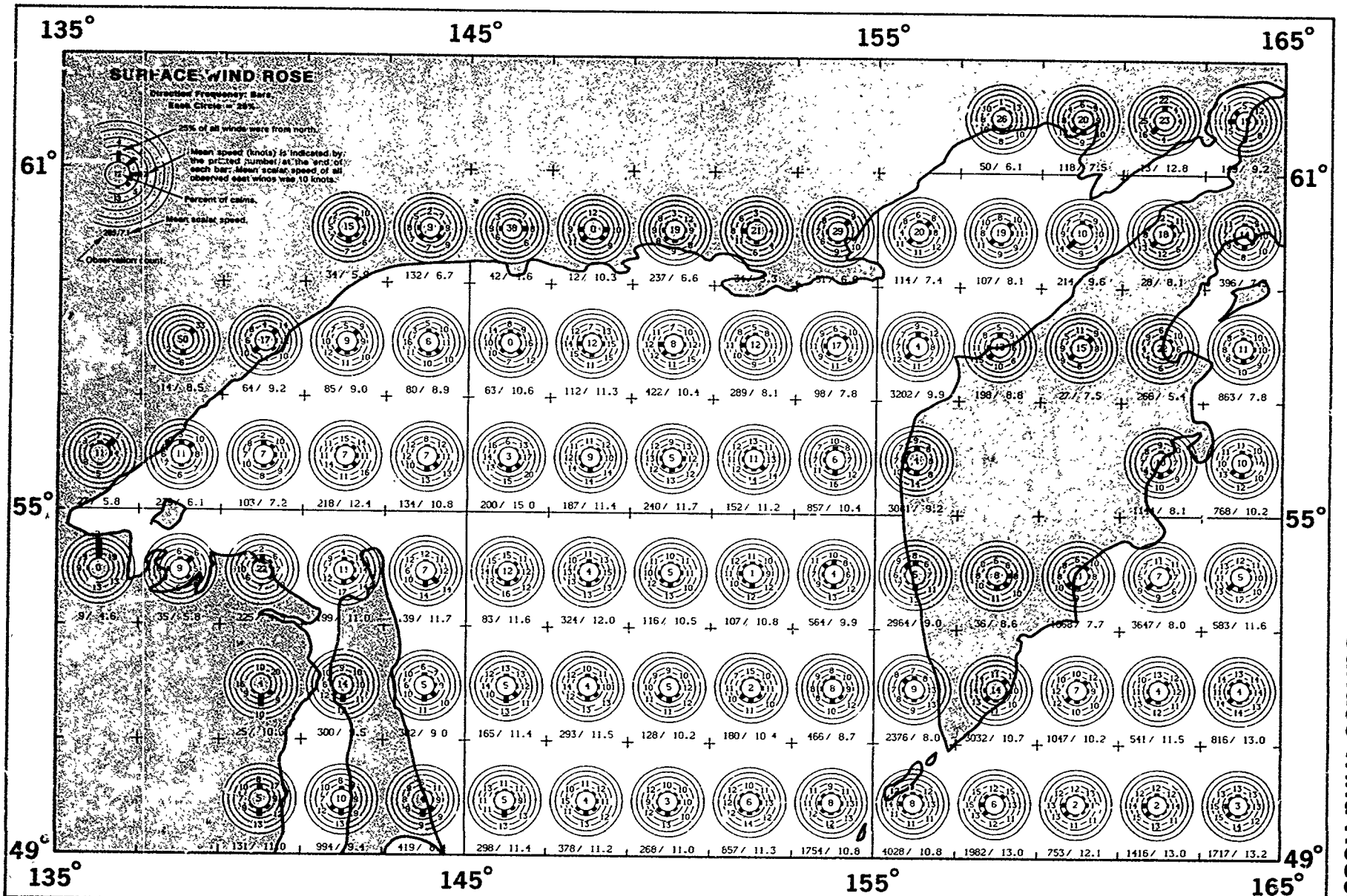
Wind Speed <11 and ≥34 Knots

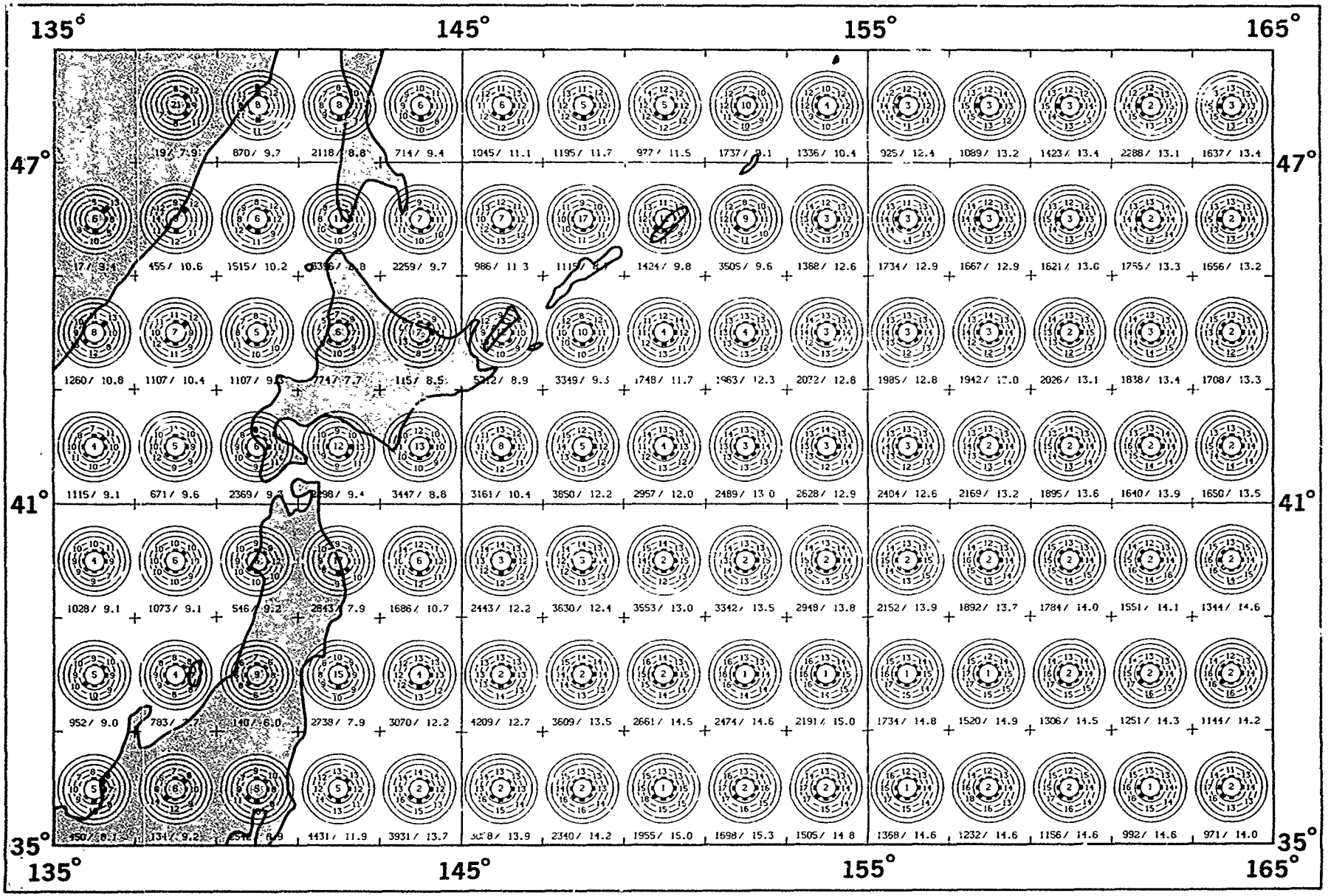


June

Wind Speed 11-21 and 22-33 Knots

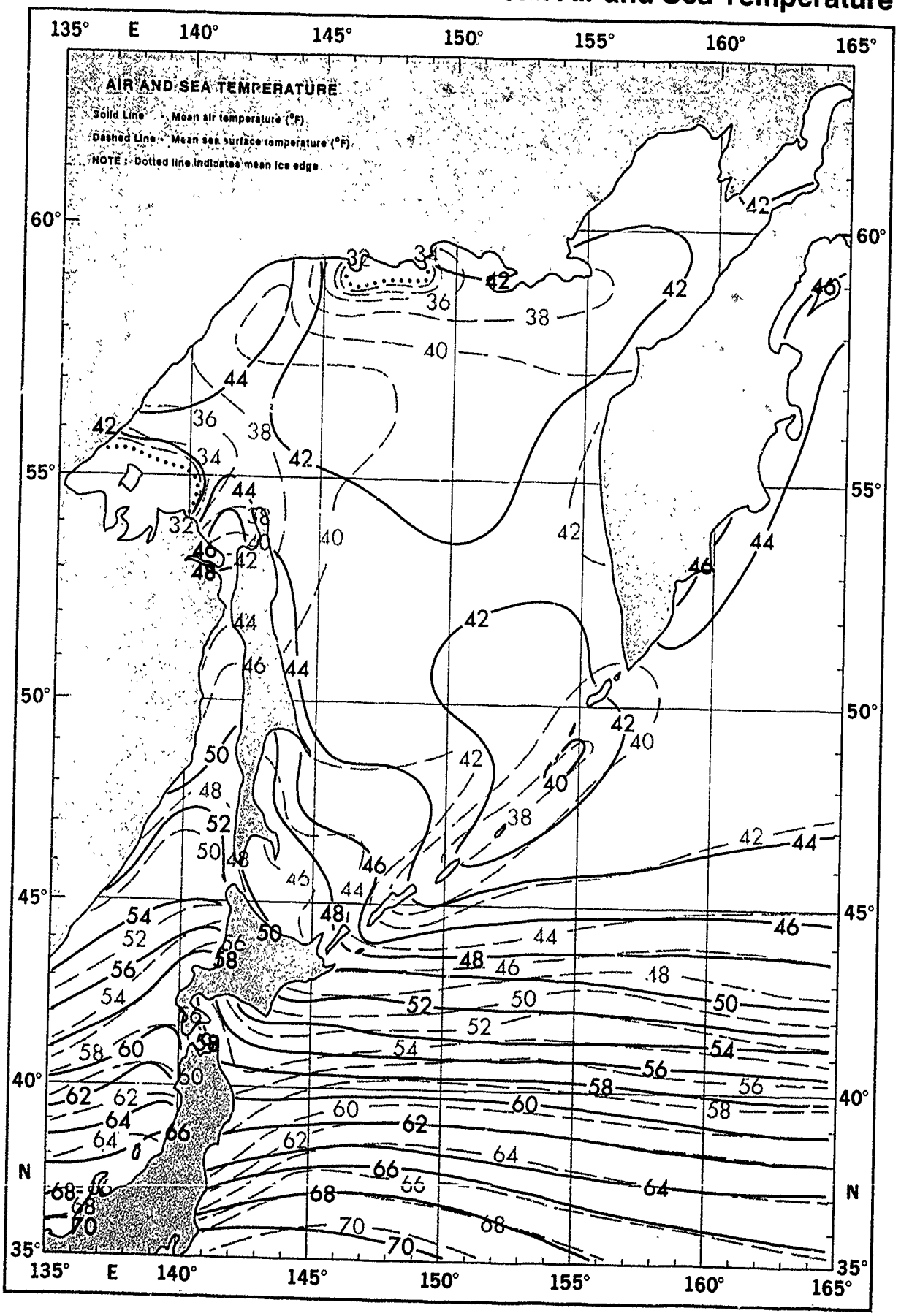


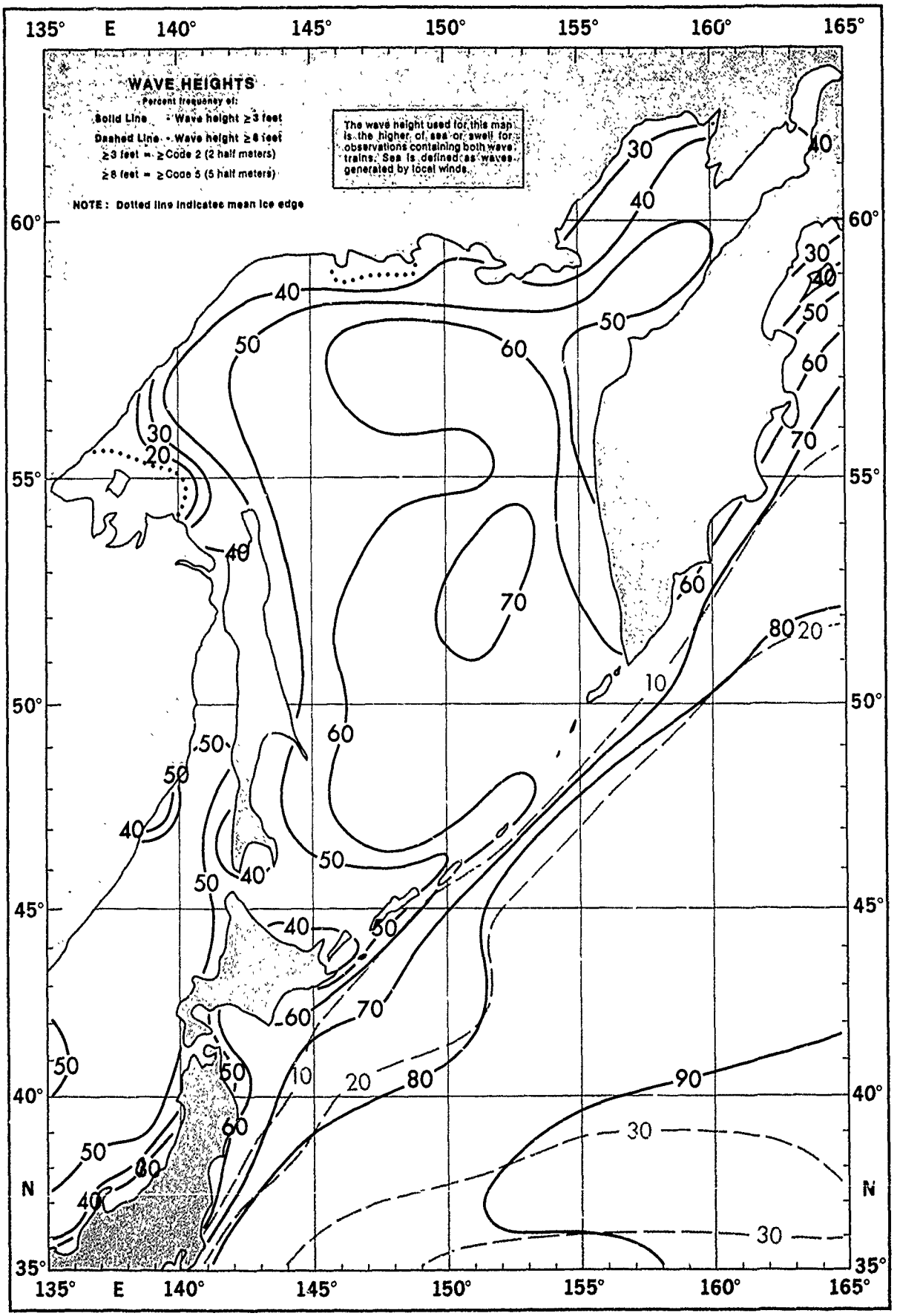

SURFACE WIND ROSE
Direction Frequency: Bars.
Each Circle = 25%.
25% of all winds were from north.
Mean speed (knots) is indicated by the printed number at the end of each bar. Mean scalar speed of all observed east winds was 10 knots.
Percent of calms.
Mean scalar speed.
Observation count.
135°
145°
155°
165°
61°
55°
49°
50/ 6.1
118/ 7.5
13/ 12.8
34/ 5.9
132/ 6.7
42/ 4.6
12/ 10.3
237/ 6.6
114/ 7.4
107/ 8.1
214/ 9.6
28/ 8.1
114/ 8.5
64/ 9.2
85/ 9.0
80/ 8.9
63/ 10.6
112/ 11.3
422/ 10.4
289/ 8.1
98/ 7.8
3202/ 9.9
198/ 8.8
27/ 7.5
266/ 5.1
863/ 7.8
27/ 5.8
103/ 7.2
218/ 12.4
134/ 10.8
200/ 15.0
187/ 11.4
240/ 11.7
152/ 11.2
857/ 10.4
768/ 10.2
8/ 4.6
35/ 5.8
99/ 11.0
39/ 11.7
83/ 11.6
324/ 12.0
116/ 10.5
107/ 10.8
564/ 9.9
2964/ 9.0
36/ 8.6
3647/ 8.0
583/ 11.6
300/
165/ 11.4
293/ 11.5
128/ 10.2
180/ 10.4
466/ 8.7
2376/ 8.0
1047/ 10.2
541/ 11.5
816/ 13.0
131/ 11.0
298/ 11.4
378/ 11.2
268/ 11.0
657/ 11.3
1754/ 10.8
4028/ 10.8
1982/ 13.0
753/ 12.1
1416/ 13.0
1717/ 13.2

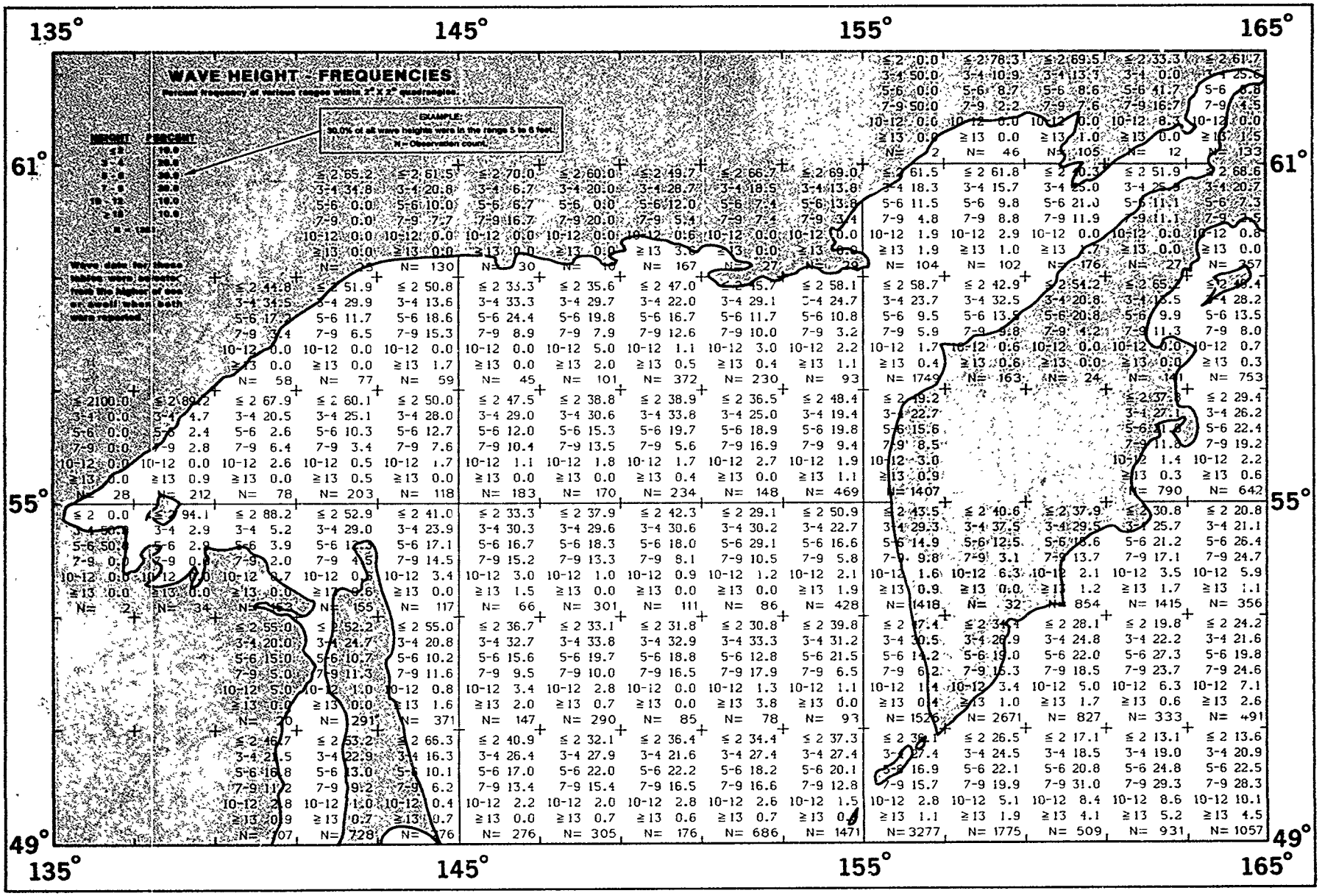

135°
145°
155°
165°
47°
41°
35°
June
Surface Wind Roses

June

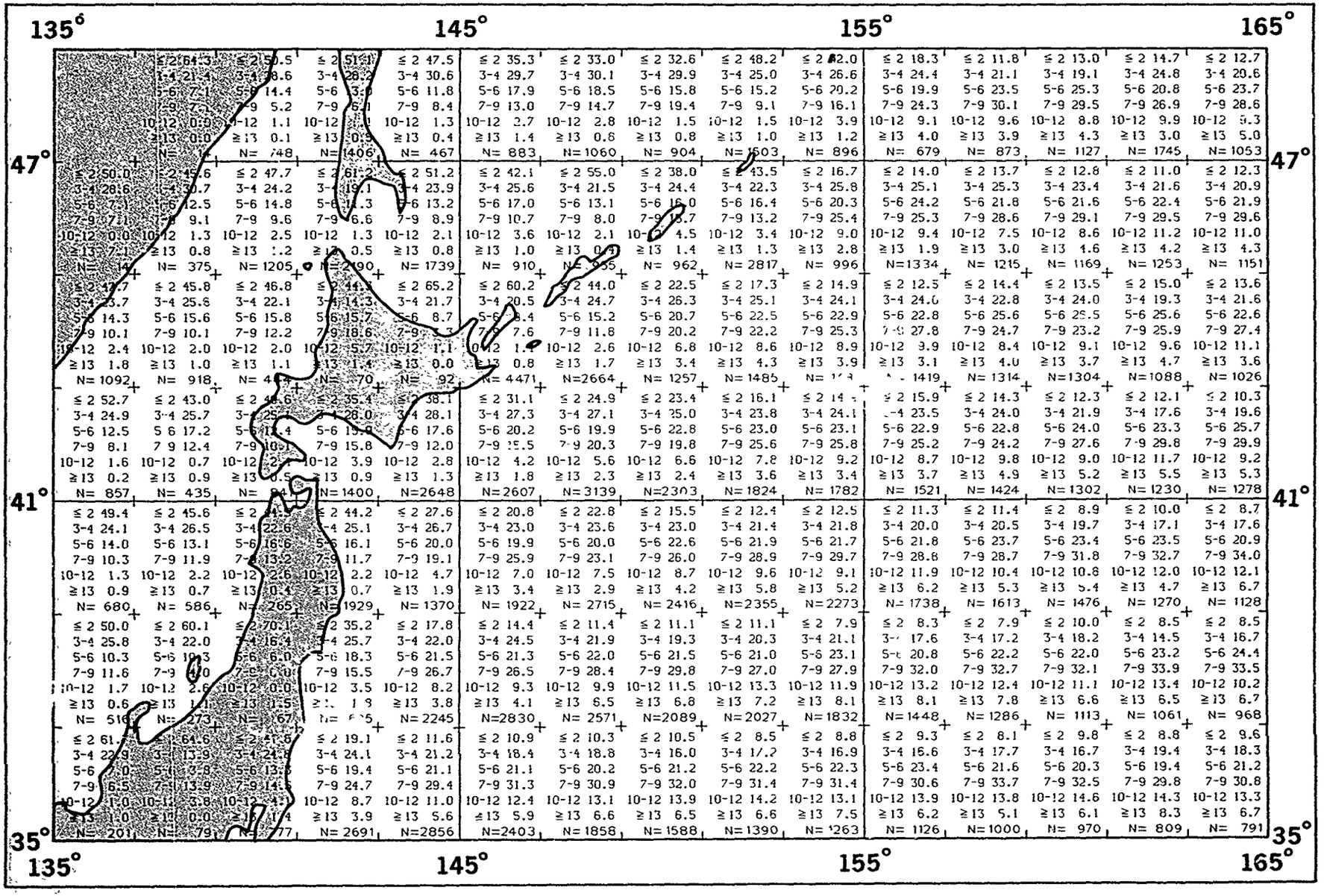
Mean Air and Sea Temperature

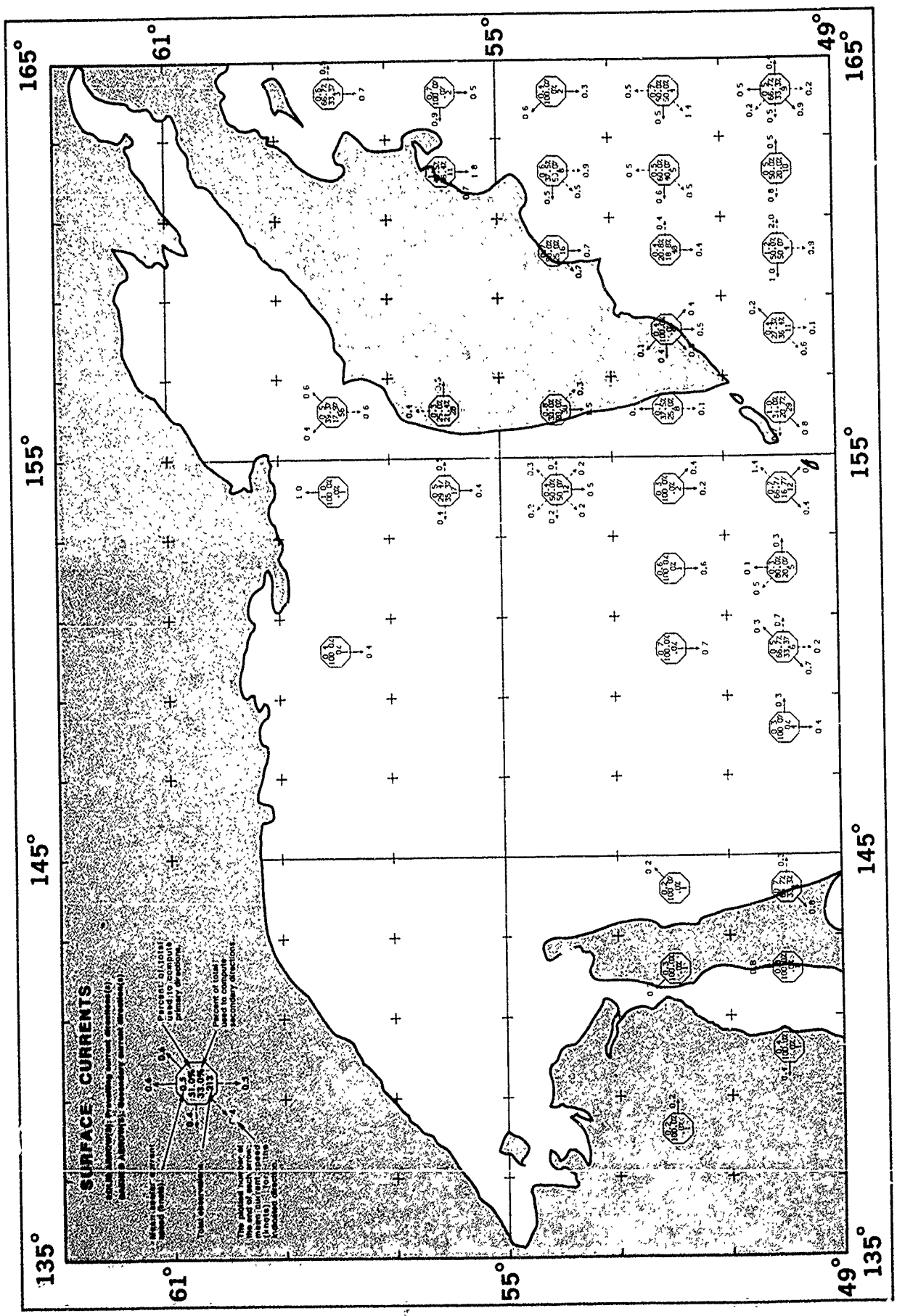


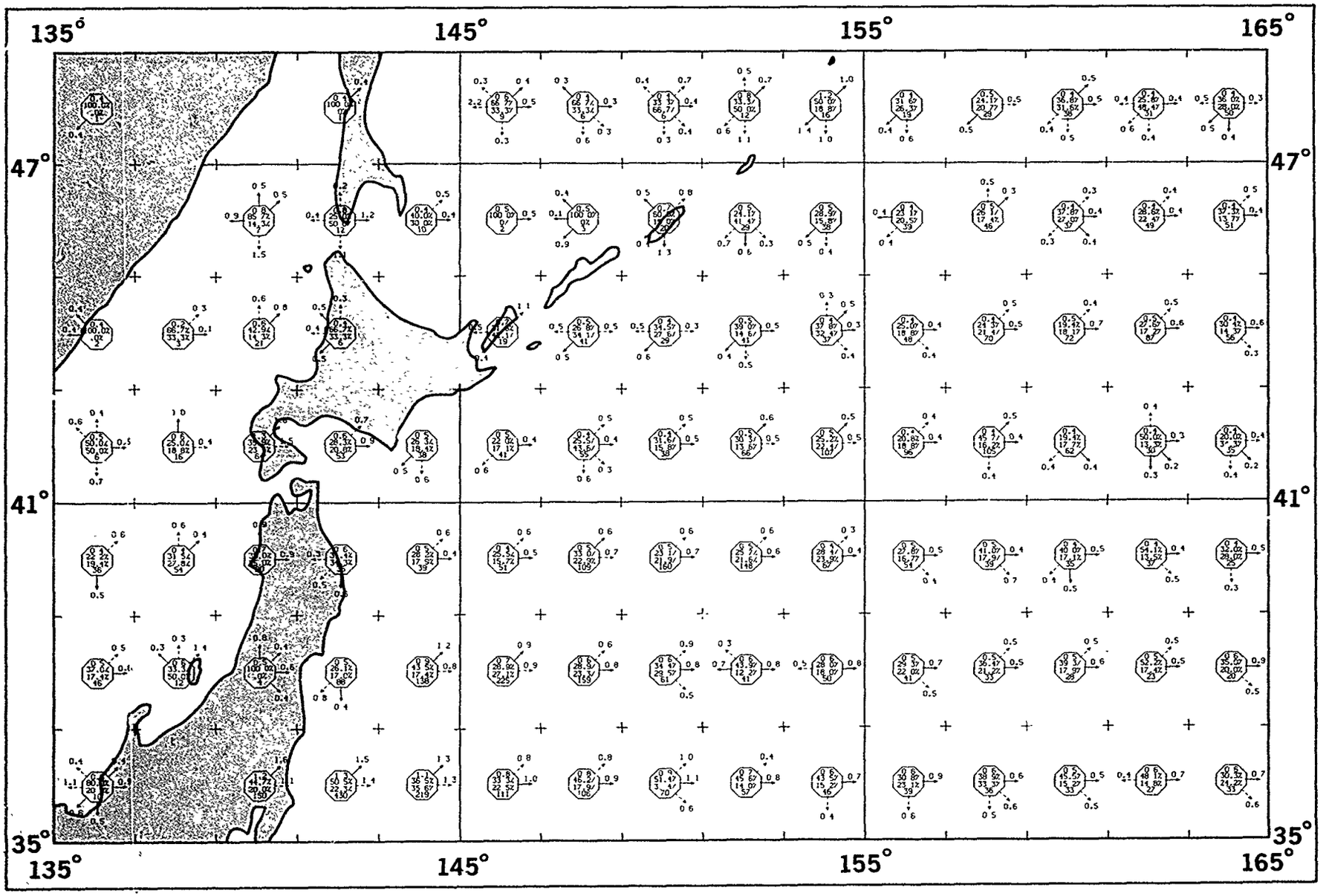

WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥3 feet
Dashed Line - Wave height ≥8 feet
≥3 feet = ≥Code 2 (2 half meters)
≥8 feet = ≥Code 5 (5 half meters)
NOTE: Dotted line indicates mean ice edge
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N


135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° x 2° quadrangles
EXAMPLE:
30.0% of all wave heights were in the range 5 to 6 feet.
N = Observation count.
HEIGHT
PERCENT
≤2
3-4
5-6
7-9
10-12
≥13
N =
10.0
20.0
30.0
20.0
10.0
10.0
Where data for these heights were so alike that the higher of one or swell when both were reported

| | | |

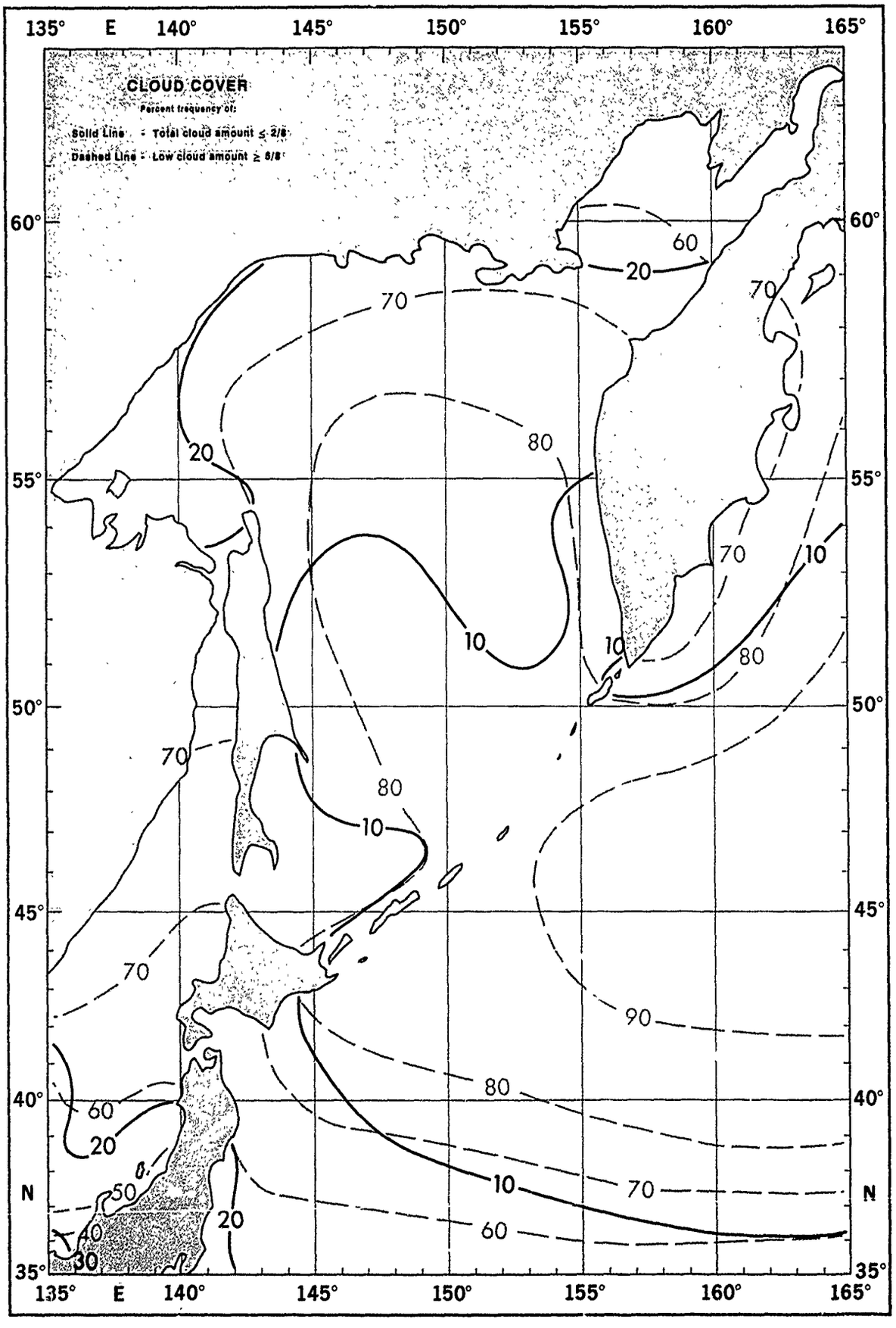

135°
145°
155°
165°
47°
41°
35°
≦2 64.3 ≦2 50.5 ≦2 51.1 ≦2 47.5 ≦2 35.3 ≦2 33.0 ≦2 32.6 ≦2 48.2 ≦2 42.0 ≦2 18.3 ≦2 11.8 ≦2 13.0 ≦2 14.7 ≦2 12.7
1-4 21.4 3-4 18.6 3-4 28.2 3-4 30.6 3-4 29.7 3-4 30.1 3-4 29.9 3-4 25.0 3-4 26.6 3-4 24.4 3-4 21.1 3-4 19.1 3-4 24.8 3-4 20.6
5-6 7.1 5-6 14.4 5-6 3.0 5-6 11.8 5-6 17.9 5-6 18.5 5-6 15.8 5-6 15.2 5-6 20.2 5-6 19.9 5-6 23.5 5-6 25.3 5-6 20.8 5-6 23.7
7-9 7.5 7-9 5.2 7-9 6.1 7-9 8.4 7-9 13.0 7-9 14.7 7-9 19.4 7-9 9.1 7-9 16.1 7-9 24.3 7-9 30.1 7-9 29.5 7-9 26.9 7-9 28.6
10-12 0.0 10-12 1.1 10-12 0.0 10-12 1.3 10-12 2.7 10-12 2.8 10-12 1.5 10-12 1.5 10-12 3.9 10-12 9.1 10-12 9.6 10-12 8.8 10-12 9.9 10-12 9.3
≧13 0.0 ≧13 0.1 ≧13 0.0 ≧13 0.4 ≧13 1.4 ≧13 0.8 ≧13 0.8 ≧13 1.0 ≧13 1.2 ≧13 4.0 ≧13 3.9 ≧13 4.3 ≧13 3.0 ≧13 5.0
N= 14 N= 748 N= 1406 N= 467 N= 883 N=1060 N= 904 N=1603 N= 896 N= 679 N= 873 N= 1127 N= 1745 N=1053
≦2 50.0 ≦2 45.6 ≦2 47.7 ≦2 61.2 ≦2 51.2 ≦2 42.1 ≦2 55.0 ≦2 38.0 ≦2 43.5 ≦2 16.7 ≦2 14.0 ≦2 13.7 ≦2 12.8 ≦2 11.0 ≦2 12.3
3-4 28.6 3-4 30.7 3-4 24.2 3-4 19.1 3-4 23.9 3-4 25.6 3-4 21.5 3-4 24.4 3-4 22.3 3-4 25.8 3-4 25.1 3-4 25.3 3-4 23.4 3-4 21.6 3-4 20.9
5-6 7.1 5-6 12.5 5-6 14.8 5-6 14.3 5-6 13.2 5-6 17.0 5-6 13.1 5-6 15.0 5-6 16.4 5-6 20.3 5-6 24.2 5-6 21.8 5-6 21.6 5-6 22.4 5-6 21.9
7-9 7.1 7-9 9.1 7-9 9.6 7-9 6.6 7-9 8.9 7-9 10.7 7-9 8.0 7-9 8.7 7-9 13.2 7-9 25.4 7-9 25.3 7-9 28.6 7-9 29.1 7-9 29.5 7-9 29.6
10-12 0.0 10-12 1.3 10-12 2.5 10-12 1.3 10-12 2.1 10-12 3.6 10-12 2.1 10-12 4.5 10-12 3.4 10-12 9.0 10-12 9.4 10-12 7.5 10-12 8.6 10-12 11.2 10-12 11.0
≧13 0.0 ≧13 0.8 ≧13 1.2 ≧13 0.5 ≧13 0.8 ≧13 1.0 ≧13 0.8 ≧13 1.4 ≧13 1.3 ≧13 2.8 ≧13 1.9 ≧13 3.0 ≧13 4.6 ≧13 4.2 ≧13 4.3
N= 14 N= 375 N=1205 N=2190 N=1739 N= 910 N=1655 N= 962 N=2817 N= 996 N=1334 N=1215 N=1169 N=1253 N=1151
≦2 47.7 ≦2 45.8 ≦2 46.8 ≦2 44.8 ≦2 65.2 ≦2 60.2 ≦2 44.0 ≦2 22.5 ≦2 17.3 ≦2 14.9 ≦2 12.5 ≦2 14.4 ≦2 13.5 ≦2 15.0 ≦2 13.6
3-4 23.7 3-4 25.6 3-4 22.1 3-4 14.3 3-4 21.7 3-4 20.5 3-4 24.7 3-4 26.3 3-4 25.1 3-4 24.1 3-4 24.6 3-4 22.8 3-4 24.0 3-4 19.3 3-4 21.6
5-6 14.3 5-6 15.6 5-6 15.8 5-6 15.7 5-6 8.7 5-6 8.4 5-6 15.2 5-6 20.7 5-6 22.5 5-6 22.9 5-6 22.8 5-6 25.6 5-6 25.5 5-6 25.6 5-6 22.6
7-9 10.1 7-9 10.1 7-9 12.2 7-9 18.6 7-9 [illegible] 7-9 7.6 7-9 11.8 7-9 20.2 7-9 22.2 7-9 25.3 7-9 27.8 7-9 24.7 7-9 23.2 7-9 25.9 7-9 27.4
10-12 2.4 10-12 2.0 10-12 2.0 10-12 5.7 10-12 1.1 10-12 1.4 10-12 2.6 10-12 6.8 10-12 8.6 10-12 8.9 10-12 3.9 10-12 8.4 10-12 9.1 10-12 9.6 10-12 11.1
≧13 1.8 ≧13 1.0 ≧13 1.1 ≧13 1.4 ≧13 0.0 ≧13 0.8 ≧13 1.7 ≧13 3.4 ≧13 4.3 ≧13 3.9 ≧13 3.1 ≧13 4.0 ≧13 3.7 ≧13 4.7 ≧13 3.6
N=1092 N= 918 N= 4[illegible] N= 70 N= 92 N=4471 N=2664 N= 1257 N=1485 N= 1[illegible] N= 1419 N=1314 N=1304 N=1088 N=1026
≦2 52.7 ≦2 43.0 ≦2 [illegible] ≦2 35.4 ≦2 38.1 ≦2 31.1 ≦2 24.9 ≦2 23.4 ≦2 16.1 ≦2 14.[illegible] ≦2 15.9 ≦2 14.3 ≦2 12.3 ≦2 12.1 ≦2 10.3
3-4 24.9 3-4 25.7 3-4 [illegible] 3-4 28.0 3-4 28.1 3-4 27.3 3-4 27.1 3-4 25.0 3-4 23.8 3-4 24.1 3-4 23.5 3-4 24.0 3-4 21.9 3-4 17.6 3-4 19.6
5-6 12.5 5-6 17.2 5-6 [illegible] 5-6 19.0 5-6 17.6 5-6 20.2 5-6 19.9 5-6 22.8 5-6 23.0 5-6 23.1 5-6 22.9 5-6 22.8 5-6 24.0 5-6 23.3 5-6 25.7
7-9 8.1 7-9 12.4 7-9 [illegible] 7-9 15.8 7-9 12.0 7-9 [illegible] 7-9 20.3 7-9 19.8 7-9 25.6 7-9 25.8 7-9 25.2 7-9 24.2 7-9 27.6 7-9 29.8 7-9 29.9
10-12 1.6 10-12 0.7 10-12 [illegible] 10-12 3.9 10-12 2.8 10-12 4.2 10-12 5.6 10-12 6.6 10-12 7.8 10-12 9.2 10-12 8.7 10-12 9.8 10-12 9.0 10-12 11.7 10-12 9.2
≧13 0.2 ≧13 0.9 ≧13 [illegible] ≧13 0.9 ≧13 1.3 ≧13 1.8 ≧13 2.3 ≧13 2.4 ≧13 3.6 ≧13 3.4 ≧13 3.7 ≧13 4.9 ≧13 5.2 ≧13 5.5 ≧13 5.3
N= 857 N= 435 N= [illegible] N=1400 N=2648 N=2607 N=3139 N=2303 N=1824 N=1782 N= 1521 N=1424 N=1302 N=1230 N=1278
≦2 49.4 ≦2 45.6 ≦2 [illegible] ≦2 44.2 ≦2 27.6 ≦2 20.8 ≦2 22.8 ≦2 15.5 ≦2 12.4 ≦2 12.5 ≦2 11.3 ≦2 11.4 ≦2 8.9 ≦2 10.0 ≦2 8.7
3-4 24.1 3-4 26.5 3-4 [illegible] 3-4 25.1 3-4 26.7 3-4 23.0 3-4 23.6 3-4 23.0 3-4 21.4 3-4 21.8 3-4 20.0 3-4 20.5 3-4 19.7 3-4 17.1 3-4 17.6
5-6 14.0 5-6 13.1 5-6 [illegible] 5-6 16.1 5-6 20.0 5-6 19.9 5-6 20.0 5-6 22.6 5-6 21.9 5-6 21.7 5-6 21.8 5-6 23.7 5-6 23.4 5-6 23.5 5-6 20.9
7-9 10.3 7-9 11.9 7-9 [illegible] 7-9 11.7 7-9 19.1 7-9 25.9 7-9 23.1 7-9 26.0 7-9 28.9 7-9 29.7 7-9 28.8 7-9 28.7 7-9 31.8 7-9 32.7 7-9 34.0
10-12 1.3 10-12 2.2 10-12 [illegible] 10-12 2.2 10-12 4.7 10-12 7.0 10-12 7.5 10-12 8.7 10-12 9.6 10-12 9.1 10-12 11.9 10-12 10.4 10-12 10.8 10-12 12.0 10-12 12.1
≧13 0.9 ≧13 0.7 ≧13 [illegible] ≧13 0.7 ≧13 1.9 ≧13 3.4 ≧13 2.9 ≧13 4.2 ≧13 5.8 ≧13 5.2 ≧13 6.2 ≧13 5.3 ≧13 5.4 ≧13 4.7 ≧13 6.7
N= 680 N= 586 N= 265 N=1929 N=1370 N=1922 N=2715 N=2416 N=2355 N=2273 N=1738 N=1613 N=1476 N=1270 N=1128
≦2 50.0 ≦2 60.1 ≦2 [illegible] ≦2 35.2 ≦2 17.8 ≦2 14.4 ≦2 11.4 ≦2 11.1 ≦2 11.1 ≦2 7.9 ≦2 8.3 ≦2 7.9 ≦2 10.0 ≦2 8.5 ≦2 8.5
3-4 25.8 3-4 22.0 3-4 [illegible] 3-4 25.7 3-4 22.0 3-4 24.5 3-4 21.9 3-4 19.3 3-4 20.3 3-4 21.1 3-4 17.6 3-4 17.2 3-4 18.2 3-4 14.5 3-4 16.7
5-6 10.3 5-6 [illegible] 5-6 [illegible] 5-6 18.3 5-6 21.5 5-6 21.3 5-6 22.0 5-6 21.5 5-6 21.0 5-6 23.1 5-6 20.8 5-6 22.2 5-6 22.0 5-6 23.2 5-6 24.4
7-9 11.6 7-9 [illegible] 7-9 [illegible] 7-9 15.5 7-9 26.7 7-9 26.5 7-9 28.4 7-9 29.8 7-9 27.0 7-9 27.9 7-9 32.0 7-9 32.7 7-9 32.1 7-9 33.9 7-9 33.5
10-12 1.7 10-12 2.6 10-12 [illegible] 10-12 3.5 10-12 8.2 10-12 9.3 10-12 9.9 10-12 11.5 10-12 13.3 10-12 11.9 10-12 13.2 10-12 12.4 10-12 11.1 10-12 13.4 10-12 10.2
≧13 0.6 ≧13 [illegible] ≧13 [illegible] ≧13 1.9 ≧13 3.8 ≧13 4.1 ≧13 6.5 ≧13 6.8 ≧13 7.2 ≧13 8.1 ≧13 8.1 ≧13 7.8 ≧13 6.6 ≧13 6.5 ≧13 6.7
N= 516 N= 273 N= 67 N= [illegible] N=2245 N=2830 N= 2571 N=2089 N=2027 N=1832 N=1448 N=1286 N=1113 N=1061 N= 968
≦2 61.[illegible] ≦2 64.6 ≦2 [illegible] ≦2 19.1 ≦2 11.6 ≦2 10.9 ≦2 10.3 ≦2 10.5 ≦2 8.5 ≦2 8.8 ≦2 9.3 ≦2 8.1 ≦2 9.8 ≦2 8.8 ≦2 9.6
3-4 22.9 3-4 13.9 3-4 [illegible] 3-4 24.1 3-4 21.2 3-4 18.4 3-4 18.8 3-4 16.0 3-4 17.2 3-4 16.9 3-4 16.6 3-4 17.7 3-4 16.7 3-4 19.4 3-4 18.3
5-6 [illegible] 5-6 13.8 5-6 [illegible] 5-6 19.4 5-6 21.1 5-6 21.1 5-6 20.2 5-6 21.2 5-6 22.2 5-6 22.3 5-6 23.4 5-6 21.6 5-6 20.3 5-6 19.4 5-6 21.2
7-9 6.5 7-9 13.9 7-9 [illegible] 7-9 24.7 7-9 29.4 7-9 31.3 7-9 30.9 7-9 32.0 7-9 31.4 7-9 31.4 7-9 30.6 7-9 33.7 7-9 32.5 7-9 29.8 7-9 30.8
10-12 1.0 10-12 3.8 10-12 [illegible] 10-12 8.7 10-12 11.0 10-12 12.4 10-12 13.1 10-12 13.9 10-12 14.2 10-12 13.1 10-12 13.9 10-12 13.8 10-12 14.6 10-12 14.3 10-12 13.3
≧13 1.0 ≧13 0.0 ≧13 [illegible] ≧13 3.9 ≧13 5.6 ≧13 5.9 ≧13 6.6 ≧13 6.5 ≧13 6.6 ≧13 7.5 ≧13 6.2 ≧13 5.1 ≧13 6.1 ≧13 8.3 ≧13 6.7
N= 201 N= 79 N= [illegible] N=2691 N=2856 N=2403 N=1858 N=1588 N=1390 N=1263 N=1126 N=1000 N= 970 N= 809 N= 791

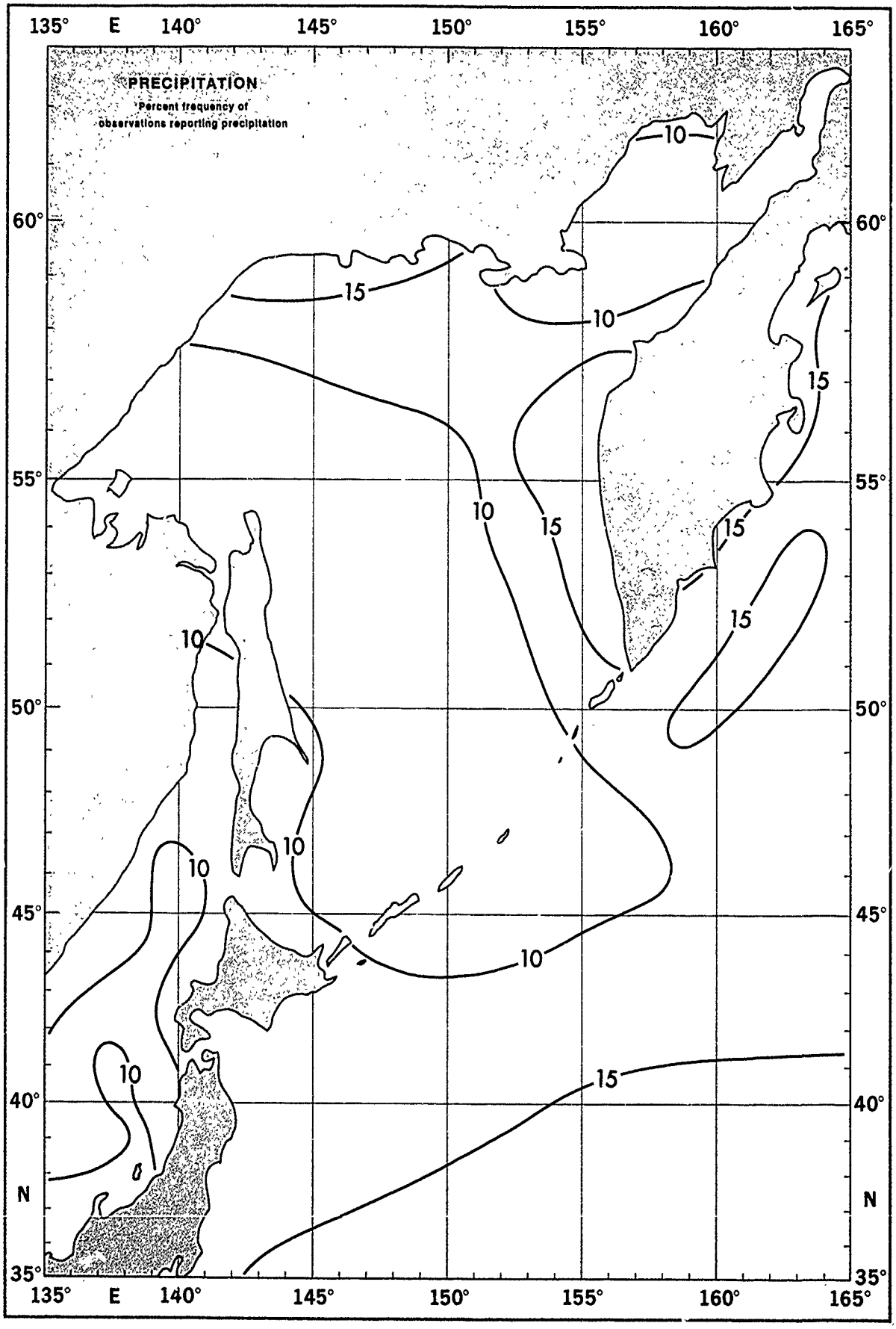

SURFACE CURRENTS
165°
155°
145°
135°
61°
55°
49°

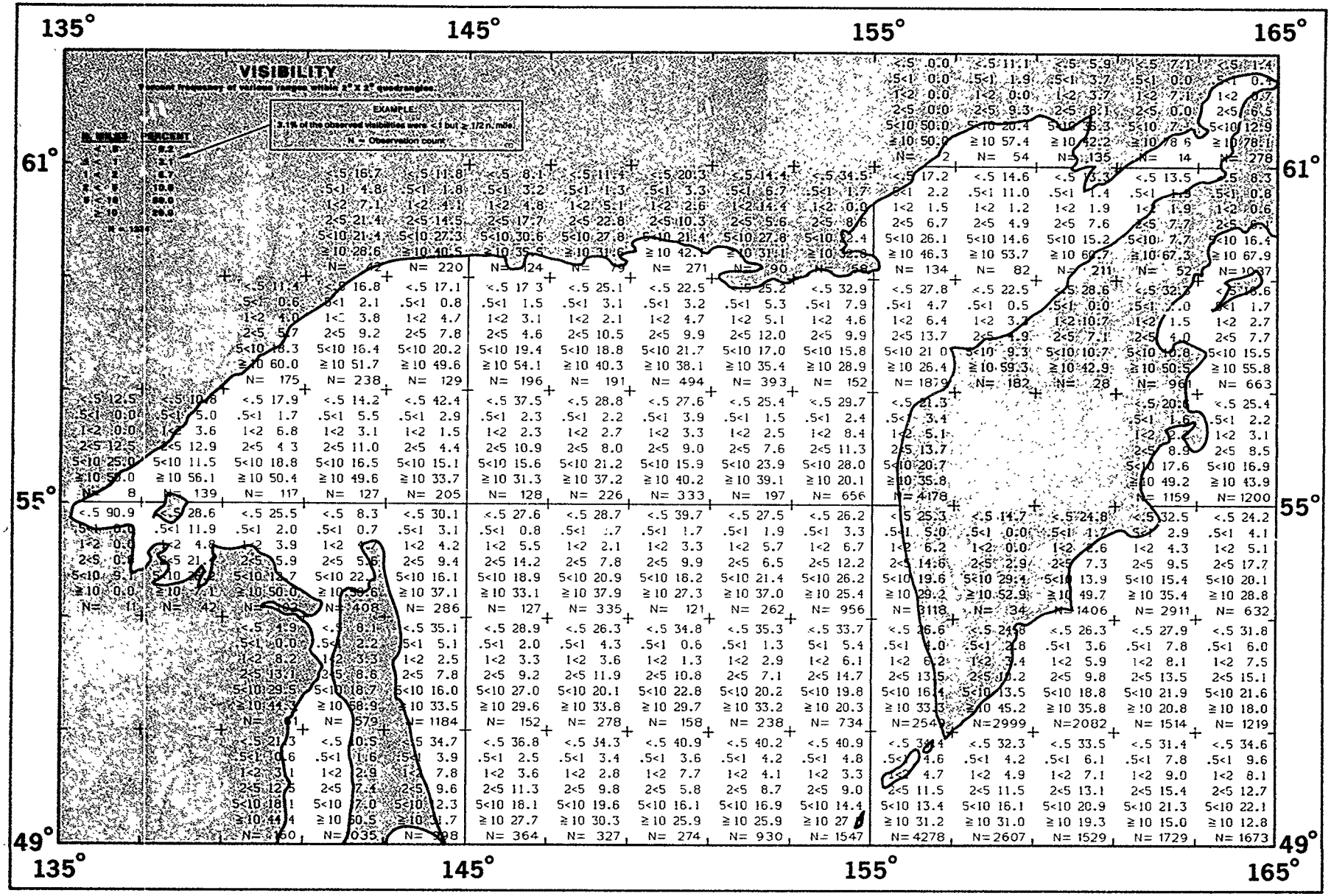


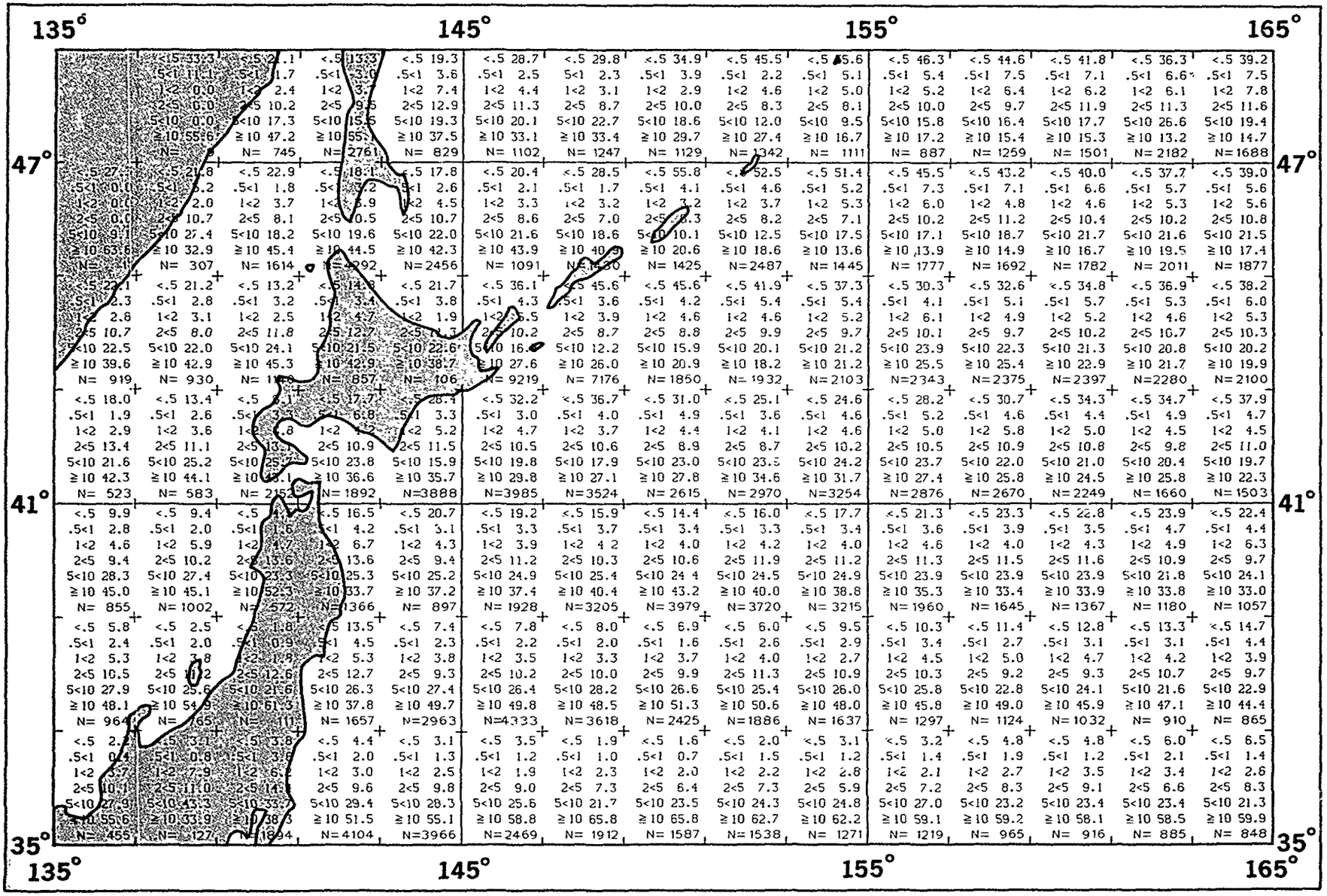
June

Surface Currents


CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 6/8
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°
60
20
70
80
10
90
30
40
50

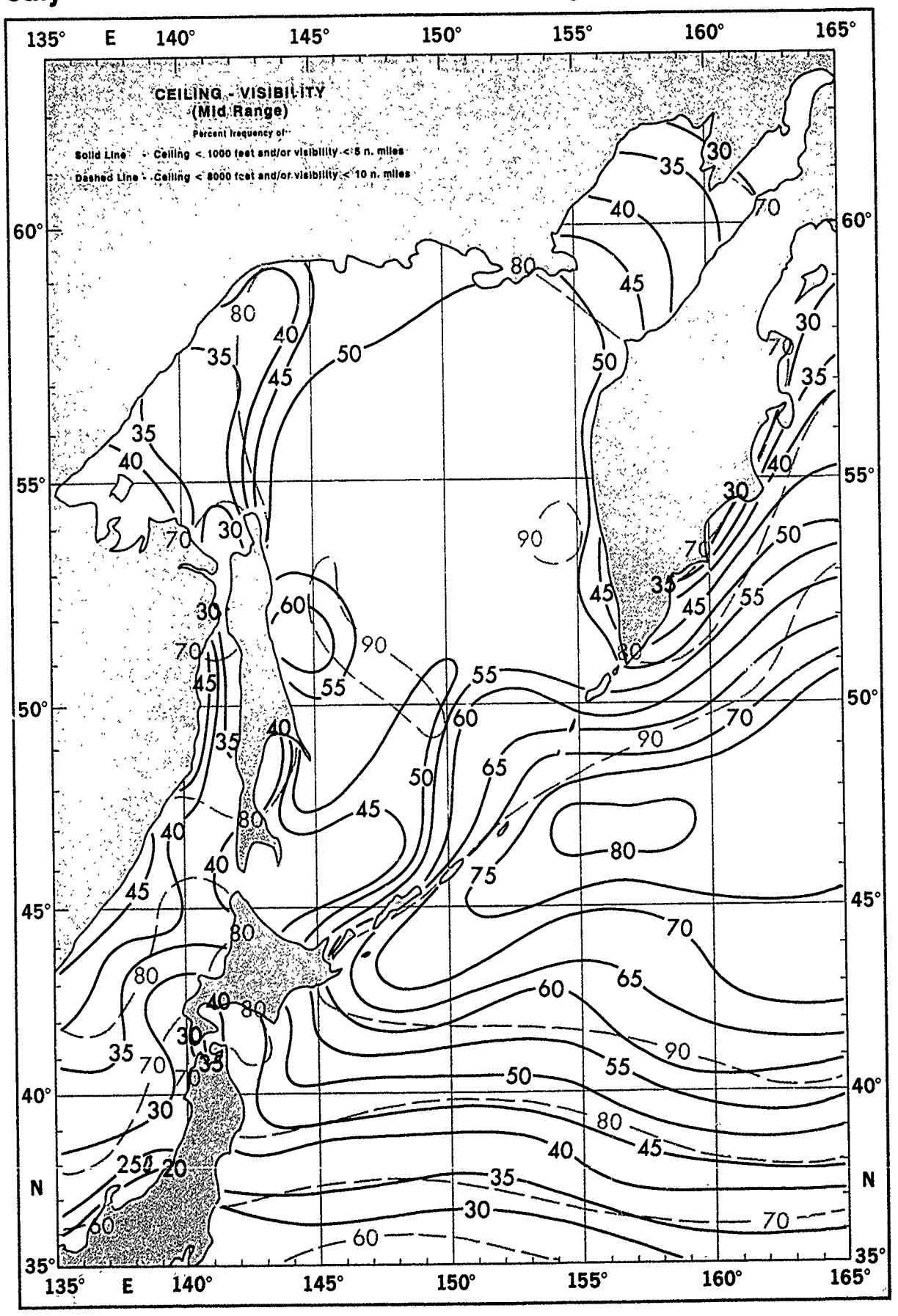

PRECIPITATION
Percent frequency of
observations reporting precipitation
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
10
15


135°
145°
155°
165°
61°
55°
49°
VISIBILITY
Percent frequency of various ranges within 2° x 2° quadrangles
EXAMPLE:
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N = Observation count
STATUTE MILES
PERCENT
Visibility


July
Visibility
135°
145°
155°
165°
47°
41°
35°
<.5 33.3 <.5 21.1 <.5 13.3 <.5 19.3 <.5 28.7 <.5 29.8 <.5 34.9 <.5 45.5 <.5 45.6 <.5 46.3 <.5 44.6 <.5 41.8 <.5 36.3 <.5 39.2
.5<1 11.1 .5<1 11.7 .5<1 3.0 .5<1 3.6 .5<1 2.5 .5<1 2.3 .5<1 3.9 .5<1 2.2 .5<1 5.1 .5<1 5.4 .5<1 7.5 .5<1 7.1 .5<1 6.6 .5<1 7.5
1<2 0.0 1<2 2.4 1<2 3.1 1<2 7.4 1<2 4.4 1<2 3.1 1<2 2.9 1<2 4.6 1<2 5.0 1<2 5.2 1<2 6.4 1<2 6.2 1<2 6.1 1<2 7.8
2<5 0.0 2<5 10.2 2<5 9.5 2<5 12.9 2<5 11.3 2<5 8.7 2<5 10.0 2<5 8.3 2<5 8.1 2<5 10.0 2<5 9.7 2<5 11.9 2<5 11.3 2<5 11.6
5<10 0.0 5<10 17.3 5<10 15.5 5<10 19.3 5<10 20.1 5<10 22.7 5<10 18.6 5<10 12.0 5<10 9.5 5<10 15.8 5<10 16.4 5<10 17.7 5<10 26.6 5<10 19.4
≥10 55.6 ≥10 47.2 ≥10 55.1 ≥10 37.5 ≥10 33.1 ≥10 33.4 ≥10 29.7 ≥10 27.4 ≥10 16.7 ≥10 17.2 ≥10 15.4 ≥10 15.3 ≥10 13.2 ≥10 14.7
N= 9 N= 745 N= 2761 N= 829 N= 1102 N= 1247 N= 1129 N= 1342 N= 1111 N= 887 N= 1259 N= 1501 N= 2182 N= 1688
<.5 27.1 <.5 21.8 <.5 22.9 <.5 18.1 <.5 17.8 <.5 20.4 <.5 28.5 <.5 55.8 <.5 52.5 <.5 51.4 <.5 45.5 <.5 43.2 <.5 40.0 <.5 37.7 <.5 39.0
.5<1 0.0 .5<1 1.8 .5<1 3.2 .5<1 2.6 .5<1 2.1 .5<1 1.7 .5<1 4.1 .5<1 4.6 .5<1 5.2 .5<1 7.3 .5<1 7.1 .5<1 6.6 .5<1 5.7 .5<1 5.6
1<2 0.0 1<2 2.0 1<2 3.7 1<2 4.5 1<2 3.3 1<2 3.2 1<2 3.2 1<2 3.7 1<2 5.3 1<2 6.0 1<2 4.8 1<2 4.6 1<2 5.3 1<2 5.6
2<5 0.0 2<5 10.7 2<5 8.1 2<5 10.5 2<5 10.7 2<5 8.6 2<5 7.0 2<5 8.3 2<5 8.2 2<5 7.1 2<5 10.2 2<5 11.2 2<5 10.4 2<5 10.2 2<5 10.8
5<10 9.1 5<10 27.4 5<10 18.2 5<10 19.6 5<10 22.0 5<10 21.6 5<10 18.6 5<10 10.1 5<10 12.5 5<10 17.5 5<10 17.1 5<10 18.7 5<10 21.7 5<10 21.6 5<10 21.5
≥10 63.6 ≥10 32.9 ≥10 45.4 ≥10 44.5 ≥10 42.3 ≥10 43.9 ≥10 40.9 ≥10 20.6 ≥10 18.6 ≥10 13.6 ≥10 13.9 ≥10 14.9 ≥10 16.7 ≥10 19.5 ≥10 17.4
N= 1 N= 307 N= 1614 N= 292 N=2456 N= 1091 N= 1420 N= 1425 N=2487 N= 1445 N= 1777 N= 1692 N= 1782 N= 2011 N= 1877
<.5 22.1 <.5 21.2 <.5 13.2 <.5 14.8 <.5 21.7 <.5 36.1 <.5 45.6 <.5 45.6 <.5 41.9 <.5 37.3 <.5 30.3 <.5 32.6 <.5 34.8 <.5 36.9 <.5 38.2
.5<1 2.3 .5<1 2.8 .5<1 3.2 .5<1 3.4 .5<1 3.8 .5<1 4.3 .5<1 3.6 .5<1 4.2 .5<1 5.4 .5<1 5.4 .5<1 4.1 .5<1 5.1 .5<1 5.7 .5<1 5.3 .5<1 6.0
1<2 2.8 1<2 3.1 1<2 2.5 1<2 4.7 1<2 1.9 1<2 3.5 1<2 3.9 1<2 4.6 1<2 4.6 1<2 5.2 1<2 6.1 1<2 4.9 1<2 5.2 1<2 4.6 1<2 5.3
2<5 10.7 2<5 8.0 2<5 11.8 2<5 12.7 2<5 11.3 2<5 10.2 2<5 8.7 2<5 8.8 2<5 9.9 2<5 9.7 2<5 10.1 2<5 9.7 2<5 10.2 2<5 10.7 2<5 10.3
5<10 22.5 5<10 22.0 5<10 24.1 5<10 21.5 5<10 22.6 5<10 16.6 5<10 12.2 5<10 15.9 5<10 20.1 5<10 21.2 5<10 23.9 5<10 22.3 5<10 21.3 5<10 20.8 5<10 20.2
≥10 39.6 ≥10 42.9 ≥10 45.3 ≥10 42.9 ≥10 38.7 ≥10 27.6 ≥10 26.0 ≥10 20.9 ≥10 18.2 ≥10 21.2 ≥10 25.5 ≥10 25.4 ≥10 22.9 ≥10 21.7 ≥10 19.9
N= 919 N= 930 N= 1[illegible] N= 857 N= 106 N= 9219 N= 7176 N= 1850 N= 1932 N=2103 N=2343 N=2375 N=2397 N=2280 N=2100
<.5 18.0 <.5 13.4 <.5 [illegible] .5 17.7 <.5 28.4 <.5 32.2 <.5 36.7 <.5 31.0 <.5 25.1 <.5 24.6 <.5 28.2 <.5 30.7 <.5 34.3 <.5 34.7 <.5 37.9
.5<1 1.9 .5<1 2.6 .5<1 3.3 .5<1 6.8 .5<1 3.3 .5<1 3.0 .5<1 4.0 .5<1 4.9 .5<1 3.6 .5<1 4.6 .5<1 5.2 .5<1 4.6 .5<1 4.4 .5<1 4.9 .5<1 4.7
1<2 2.9 1<2 3.6 1<2 [illegible] 1<2 4.2 1<2 5.2 1<2 4.7 1<2 3.7 1<2 4.4 1<2 4.1 1<2 4.6 1<2 5.0 1<2 5.8 1<2 5.0 1<2 4.5 1<2 4.5
2<5 13.4 2<5 11.1 2<5 13.[illegible] 2<5 10.9 2<5 11.5 2<5 10.5 2<5 10.6 2<5 8.9 2<5 8.7 2<5 10.2 2<5 10.5 2<5 10.9 2<5 10.8 2<5 9.8 2<5 11.0
5<10 21.6 5<10 25.2 5<10 25.[illegible] 5<10 23.8 5<10 15.9 5<10 19.8 5<10 17.9 5<10 23.0 5<10 23.5 5<10 24.2 5<10 23.7 5<10 22.0 5<10 21.0 5<10 20.4 5<10 19.7
≥10 42.3 ≥10 44.1 ≥10 [illegible] ≥10 36.6 ≥10 35.7 ≥10 29.8 ≥10 27.1 ≥10 27.8 ≥10 34.6 ≥10 31.7 ≥10 27.4 ≥10 25.8 ≥10 24.5 ≥10 25.8 ≥10 22.3
N= 523 N= 583 N= 2152 N= 1892 N=3888 N=3985 N=3524 N= 2615 N= 2970 N=3254 N=2876 N=2670 N=2249 N= 1660 N=1503
<.5 9.9 <.5 9.4 <.5 [illegible] <.5 16.5 <.5 20.7 <.5 19.2 <.5 15.9 <.5 14.4 <.5 16.0 <.5 17.7 <.5 21.3 <.5 23.3 <.5 22.8 <.5 23.9 <.5 22.4
.5<1 2.8 .5<1 2.0 .5<1 [illegible].6 .5<1 4.2 .5<1 3.1 .5<1 3.3 .5<1 3.7 .5<1 3.4 .5<1 3.3 .5<1 3.4 .5<1 3.6 .5<1 3.9 .5<1 3.5 .5<1 4.7 .5<1 4.4
1<2 4.6 1<2 5.9 1<2 [illegible].7 1<2 6.7 1<2 4.3 1<2 3.9 1<2 4.2 1<2 4.0 1<2 4.2 1<2 4.0 1<2 4.6 1<2 4.0 1<2 4.3 1<2 4.9 1<2 6.3
2<5 9.4 2<5 10.2 2<5 [illegible].6 2<5 13.6 2<5 9.4 2<5 11.2 2<5 10.3 2<5 10.6 2<5 11.9 2<5 11.2 2<5 11.3 2<5 11.5 2<5 11.6 2<5 10.9 2<5 9.7
5<10 28.3 5<10 27.4 5<10 [illegible].3 5<10 25.3 5<10 25.2 5<10 24.9 5<10 25.4 5<10 24.4 5<10 24.5 5<10 24.9 5<10 23.9 5<10 23.9 5<10 23.9 5<10 21.8 5<10 24.1
≥10 45.0 ≥10 45.1 ≥10 [illegible].3 ≥10 33.7 ≥10 37.2 ≥10 37.4 ≥10 40.4 ≥10 43.2 ≥10 40.0 ≥10 38.8 ≥10 35.3 ≥10 33.4 ≥10 33.9 ≥10 33.8 ≥10 33.0
N= 855 N= 1002 N= 572 N= 1366 N= 897 N= 1928 N=3205 N= 3979 N=3720 N= 3215 N= 1960 N= 1645 N= 1367 N= 1180 N= 1057
<.5 5.8 <.5 2.5 <.5 [illegible].8 <.5 13.5 <.5 7.4 <.5 7.8 <.5 8.0 <.5 6.9 <.5 6.0 <.5 9.5 <.5 10.3 <.5 11.4 <.5 12.8 <.5 13.3 <.5 14.7
.5<1 2.4 .5<1 2.0 .5<1 [illegible].9 .5<1 4.5 .5<1 2.3 .5<1 2.2 .5<1 2.0 .5<1 1.6 .5<1 2.6 .5<1 2.9 .5<1 3.4 .5<1 2.7 .5<1 3.1 .5<1 3.1 .5<1 4.4
1<2 5.3 1<2 3.8 1<2 [illegible].8 1<2 5.3 1<2 3.8 1<2 3.5 1<2 3.3 1<2 3.7 1<2 4.0 1<2 2.7 1<2 4.5 1<2 5.0 1<2 4.7 1<2 4.2 1<2 3.9
2<5 16.5 2<5 11.2 2<5 [illegible].6 2<5 12.7 2<5 9.3 2<5 10.2 2<5 10.0 2<5 9.9 2<5 11.3 2<5 10.9 2<5 10.3 2<5 9.2 2<5 9.3 2<5 10.7 2<5 9.7
5<10 27.9 5<10 25.6 5<10 [illegible].6 5<10 26.3 5<10 27.4 5<10 26.4 5<10 28.2 5<10 26.6 5<10 25.4 5<10 26.0 5<10 25.8 5<10 22.8 5<10 24.1 5<10 21.6 5<10 22.9
≥10 48.1 ≥10 54.9 ≥10 [illegible].3 ≥10 37.8 ≥10 49.7 ≥10 49.8 ≥10 48.5 ≥10 51.3 ≥10 50.6 ≥10 48.0 ≥10 45.8 ≥10 49.0 ≥10 45.9 ≥10 47.1 ≥10 44.4
N= 964 N= 65 N= 111 N= 1657 N=2963 N=4333 N=3618 N= 2425 N=1886 N= 1637 N= 1297 N= 1124 N= 1032 N= 910 N= 865
<.5 2.[illegible] <.5 3.[illegible] <.5 3.8 <.5 4.4 <.5 3.1 <.5 3.5 <.5 1.9 <.5 1.6 <.5 2.0 <.5 3.1 <.5 3.2 <.5 4.8 <.5 4.8 <.5 6.0 <.5 6.5
.5<1 0.4 .5<1 0.8 .5<1 3.[illegible] .5<1 2.0 .5<1 1.3 .5<1 1.2 .5<1 1.0 .5<1 0.7 .5<1 1.5 .5<1 1.2 .5<1 1.4 .5<1 1.9 .5<1 1.2 .5<1 2.1 .5<1 1.4
1<2 [illegible].7 1<2 [illegible].9 1<2 [illegible].6 1<2 3.0 1<2 2.5 1<2 1.9 1<2 2.3 1<2 2.0 1<2 2.2 1<2 2.8 1<2 2.1 1<2 2.7 1<2 3.5 1<2 3.4 1<2 2.6
2<5 10.1 2<5 11.0 2<5 [illegible].[illegible] 2<5 9.6 2<5 9.8 2<5 9.0 2<5 7.3 2<5 6.4 2<5 7.3 2<5 5.9 2<5 7.2 2<5 8.3 2<5 9.1 2<5 6.6 2<5 8.3
5<10 27.9 5<10 43.3 5<10 [illegible].7 5<10 29.4 5<10 28.3 5<10 25.6 5<10 21.7 5<10 23.5 5<10 24.3 5<10 24.8 5<10 27.0 5<10 23.2 5<10 23.4 5<10 23.4 5<10 21.3
≥10 55.6 ≥10 33.9 ≥10 [illegible].3 ≥10 51.5 ≥10 55.1 ≥10 58.8 ≥10 65.8 ≥10 65.8 ≥10 62.7 ≥10 62.2 ≥10 59.1 ≥10 59.2 ≥10 58.1 ≥10 58.5 ≥10 59.9
N= 455 N= 127 N= [illegible]94 N=4104 N=3966 N=2469 N= 1912 N= 1587 N=1538 N= 1271 N= 1219 N= 965 N= 916 N= 885 N= 848

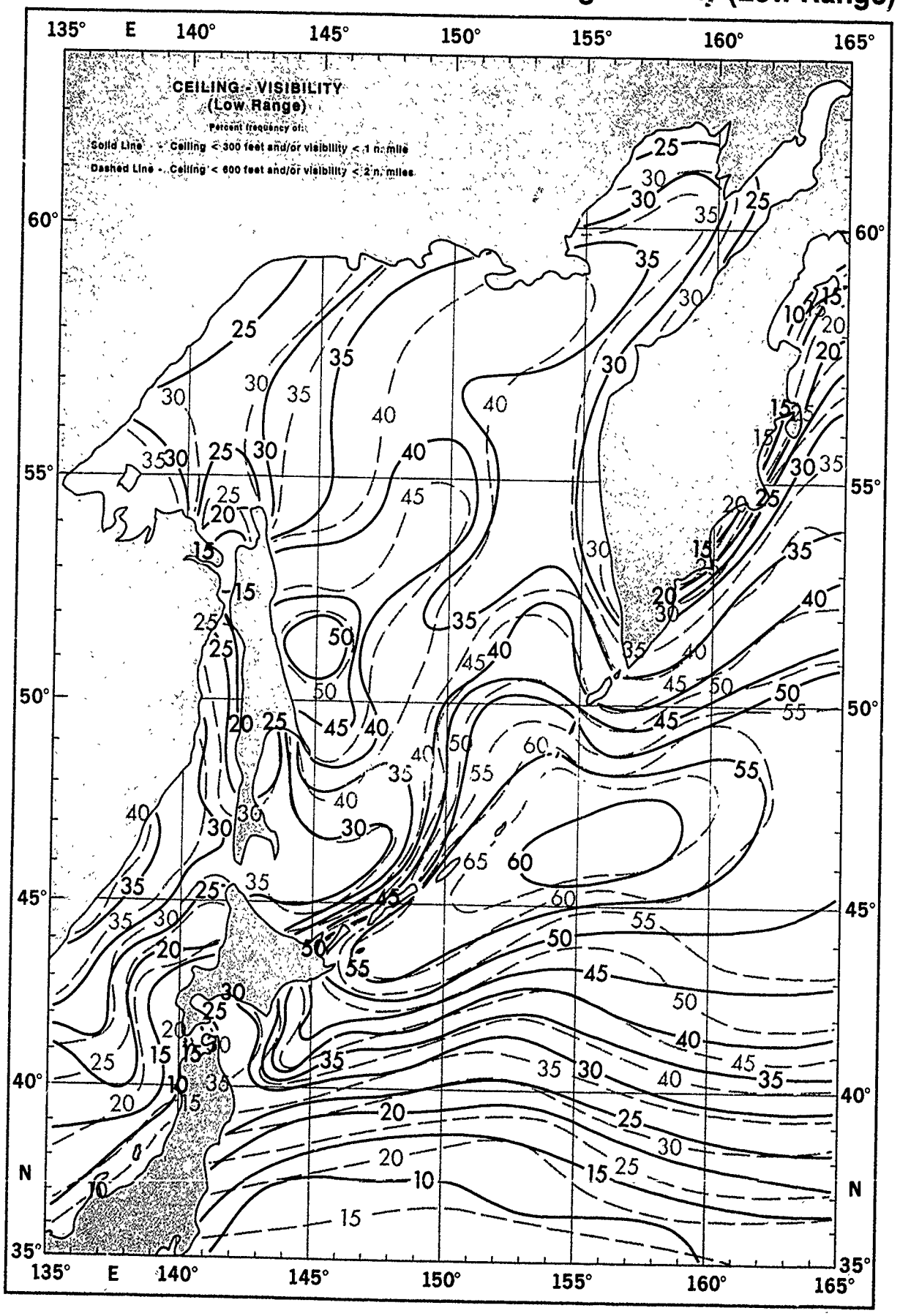
July

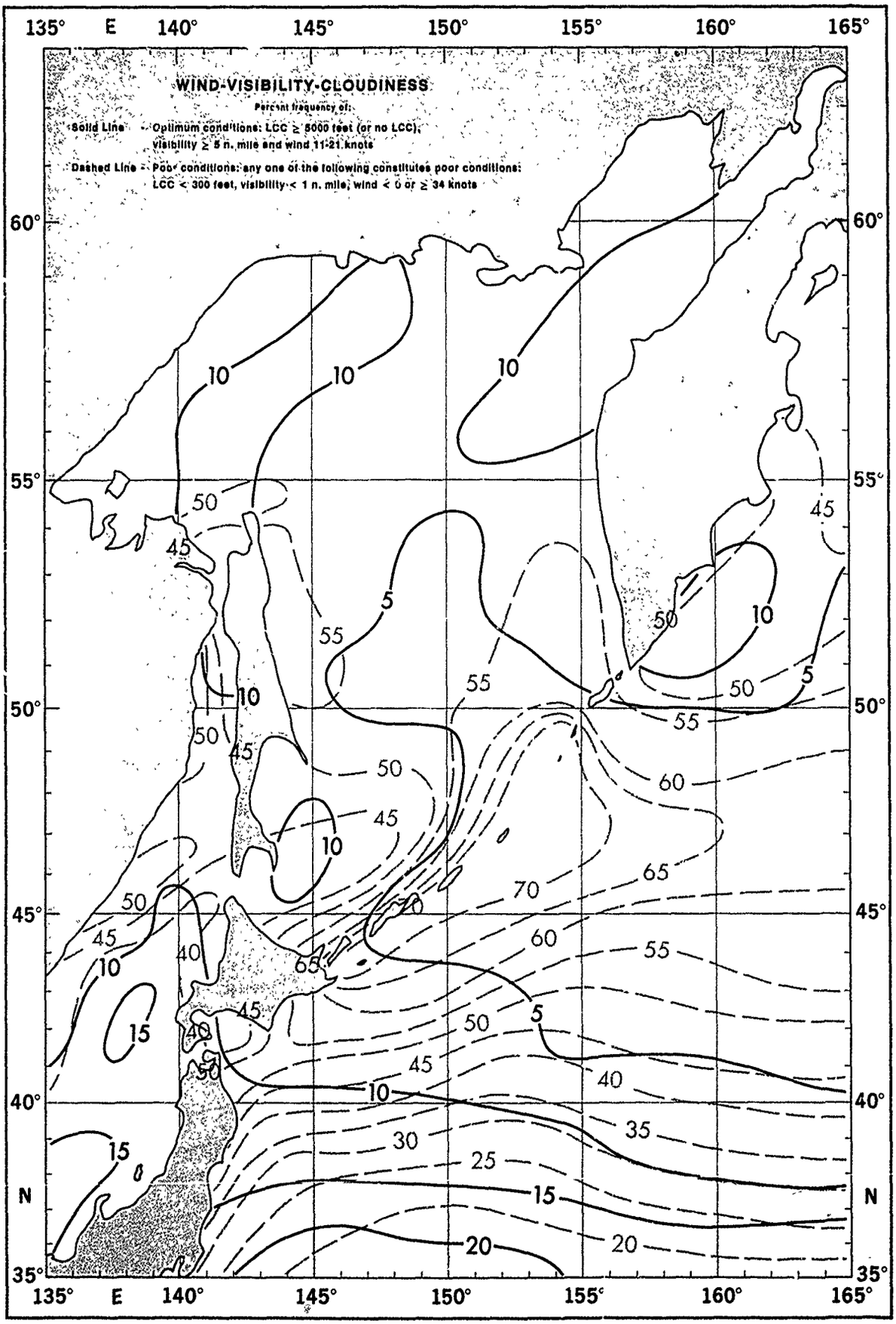
Ceiling-Visibility (Mid Range)



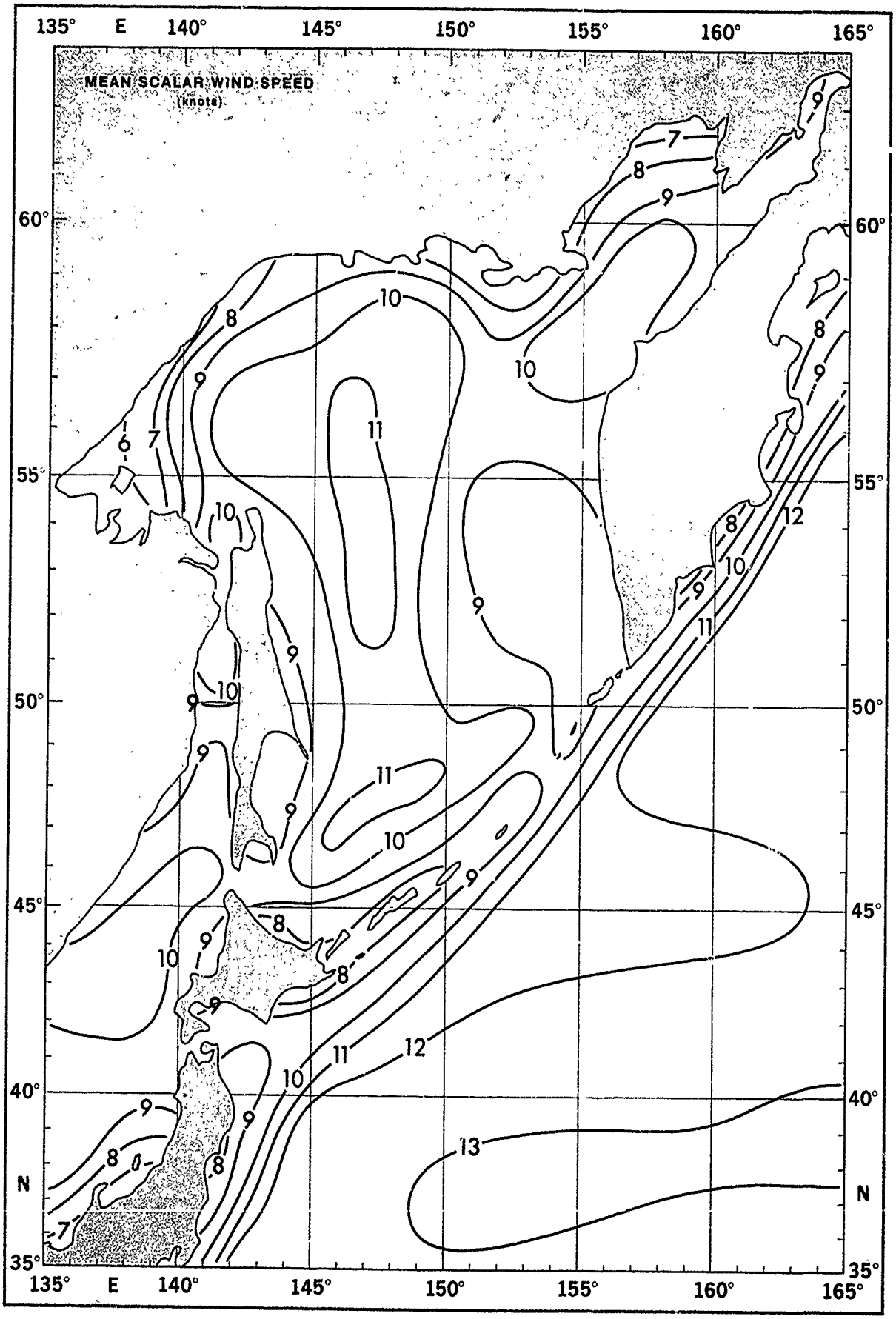
July

Ceiling-Visibility (Low Range)



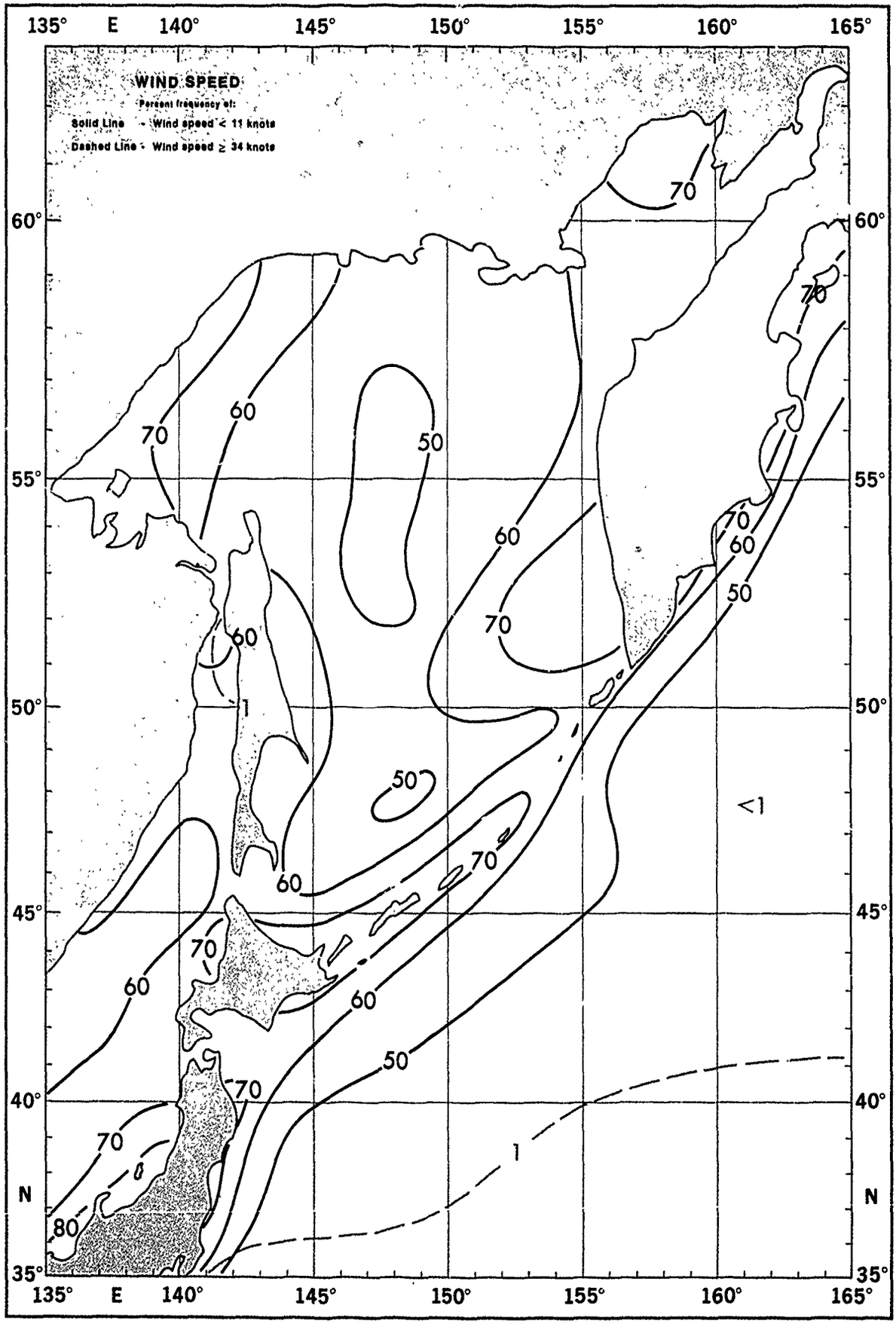

WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 0 or ≥ 34 knots
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
N
35°

Mean Scalar Wind Speed



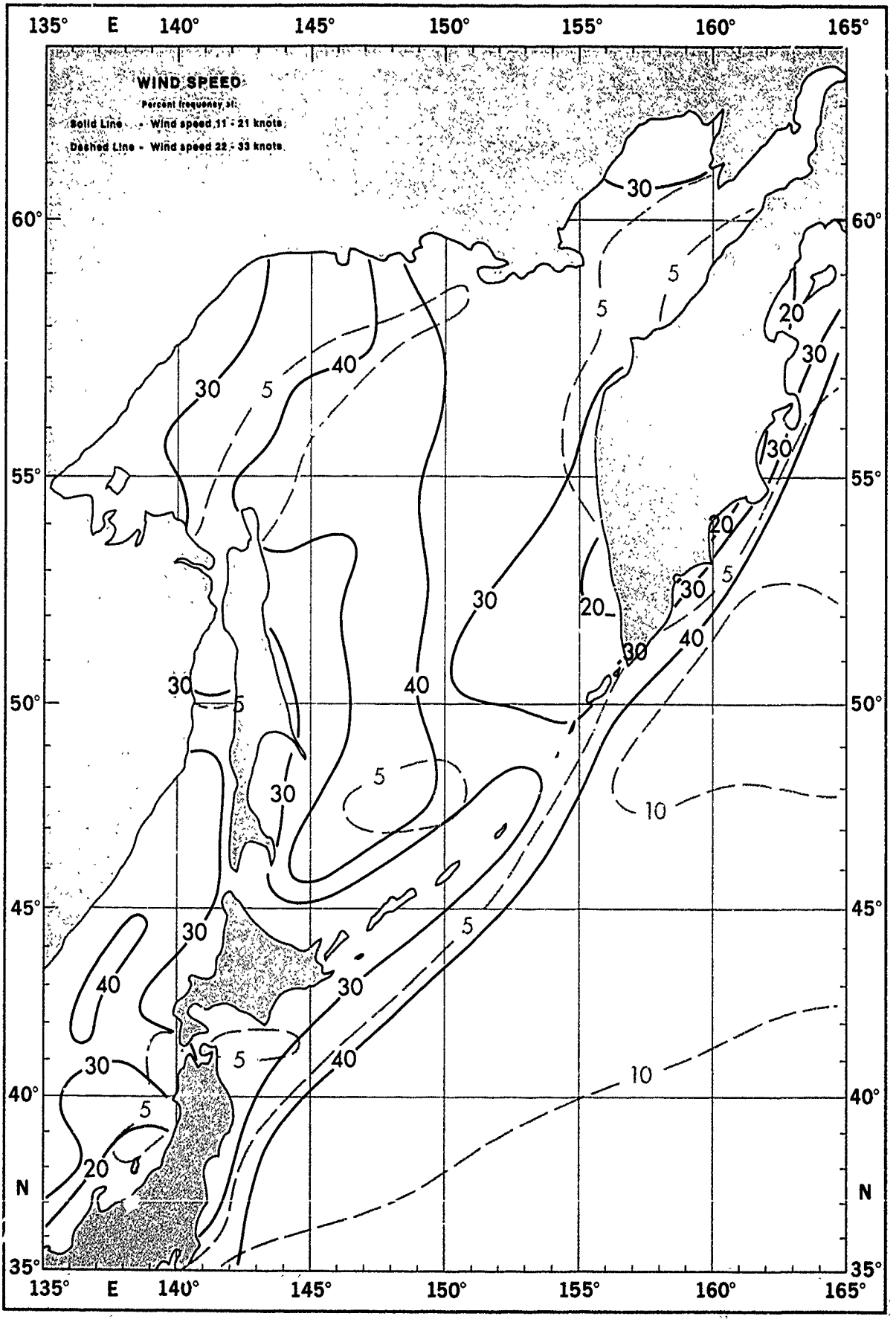
July

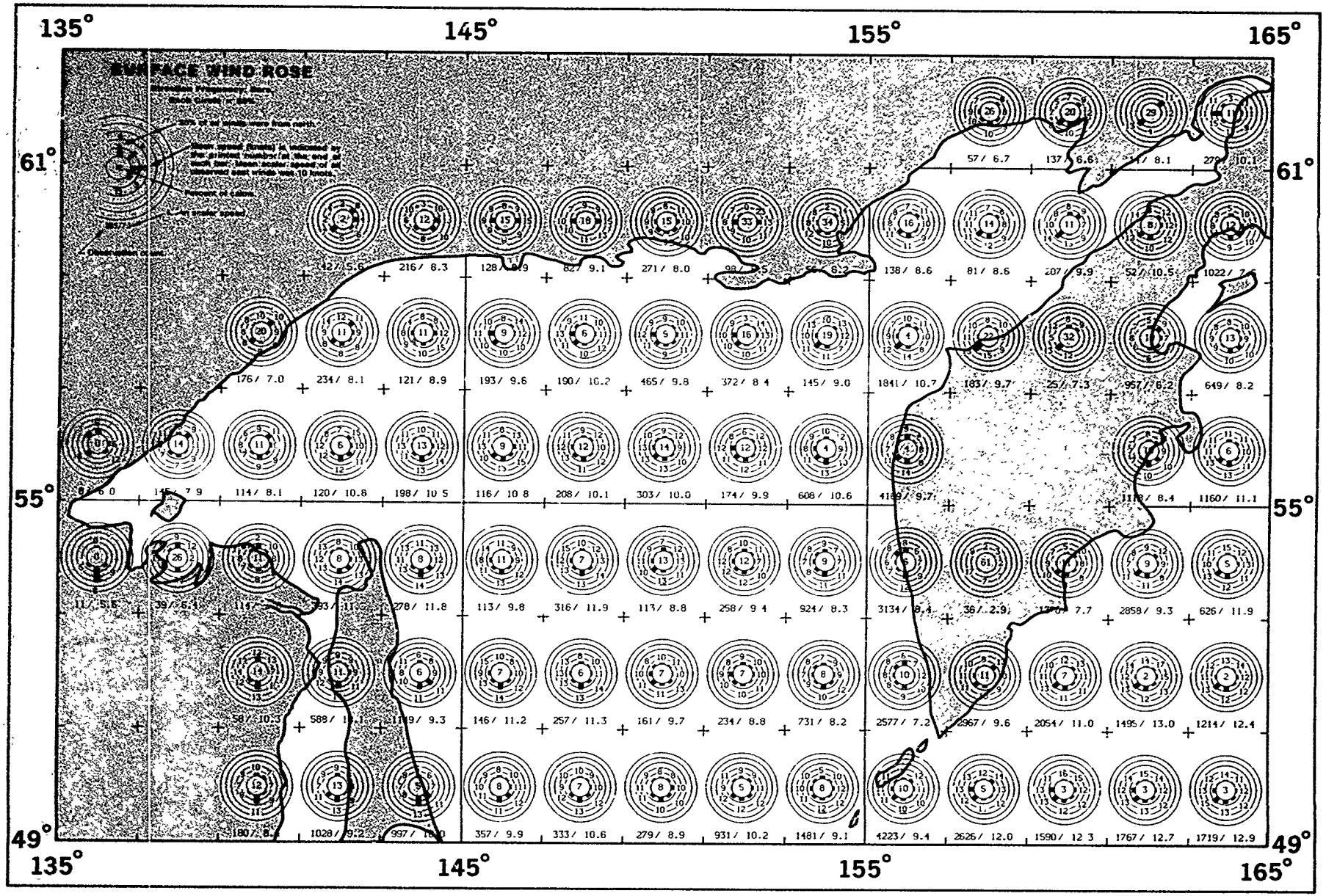
Wind Speed <11 and ≥34 Knots

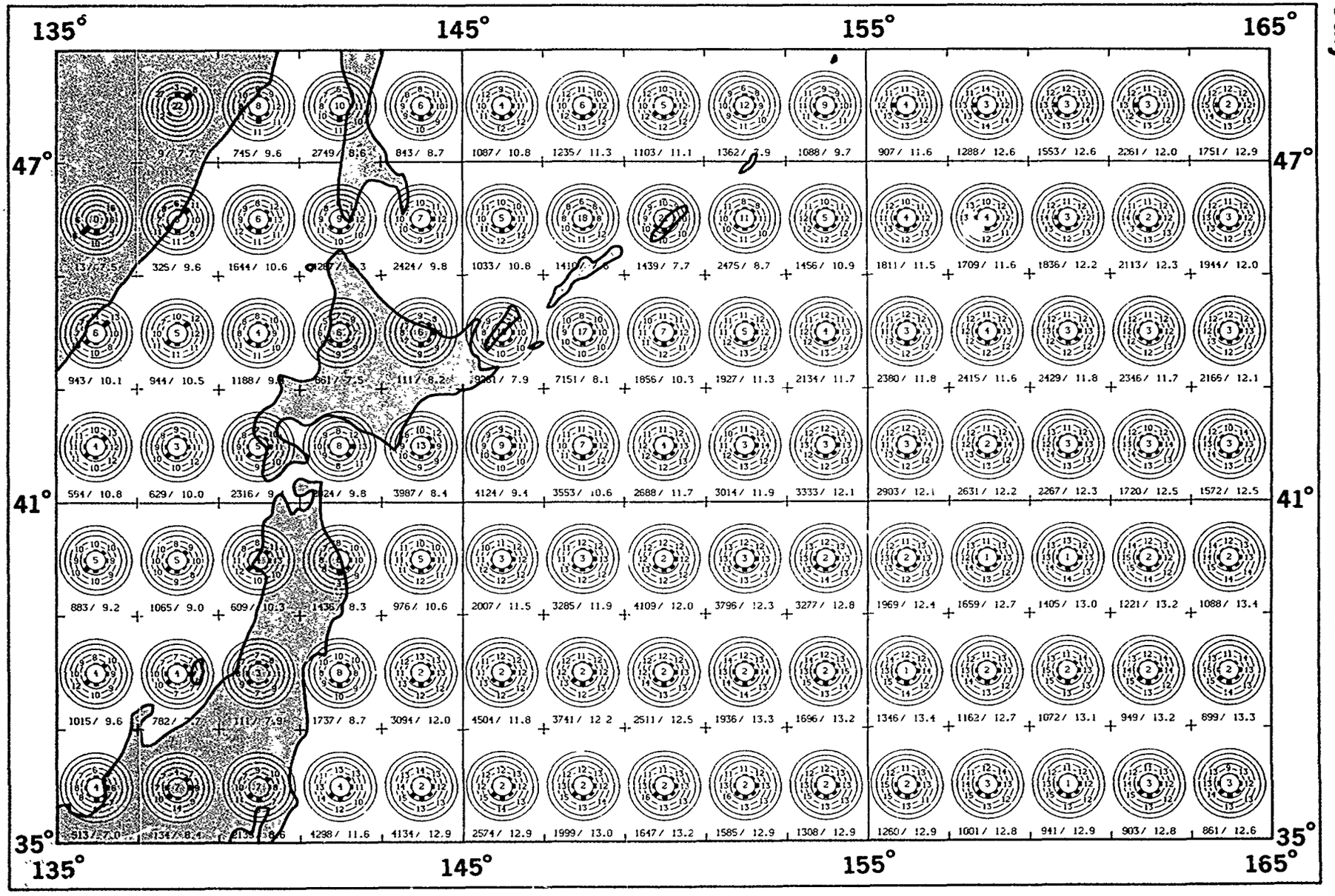


July

Wind Speed 11-21 and 22-33 Knots




SURFACE WIND ROSE
135°
145°
155°
165°
61°
55°
49°
July
Surface Wind Roses

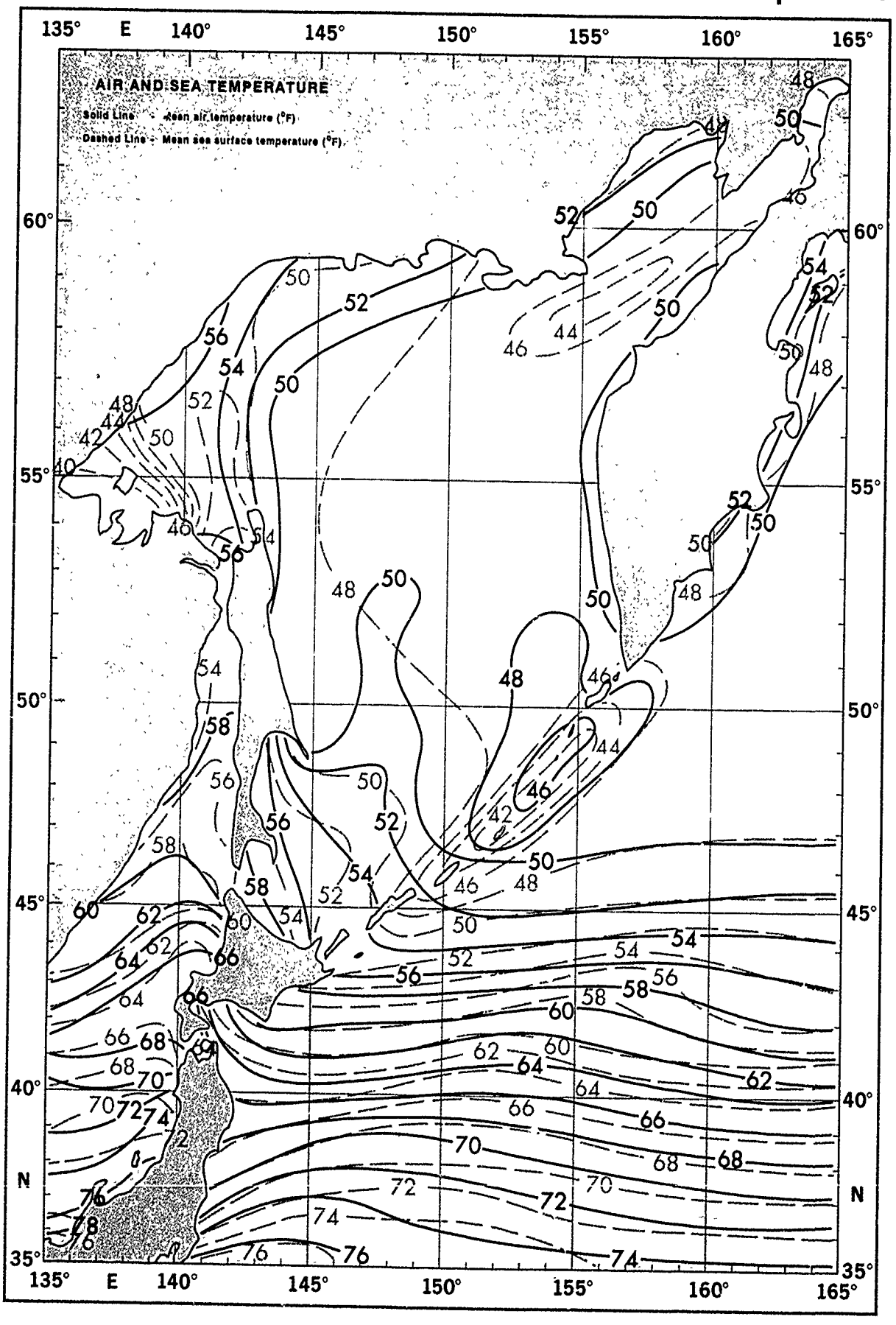


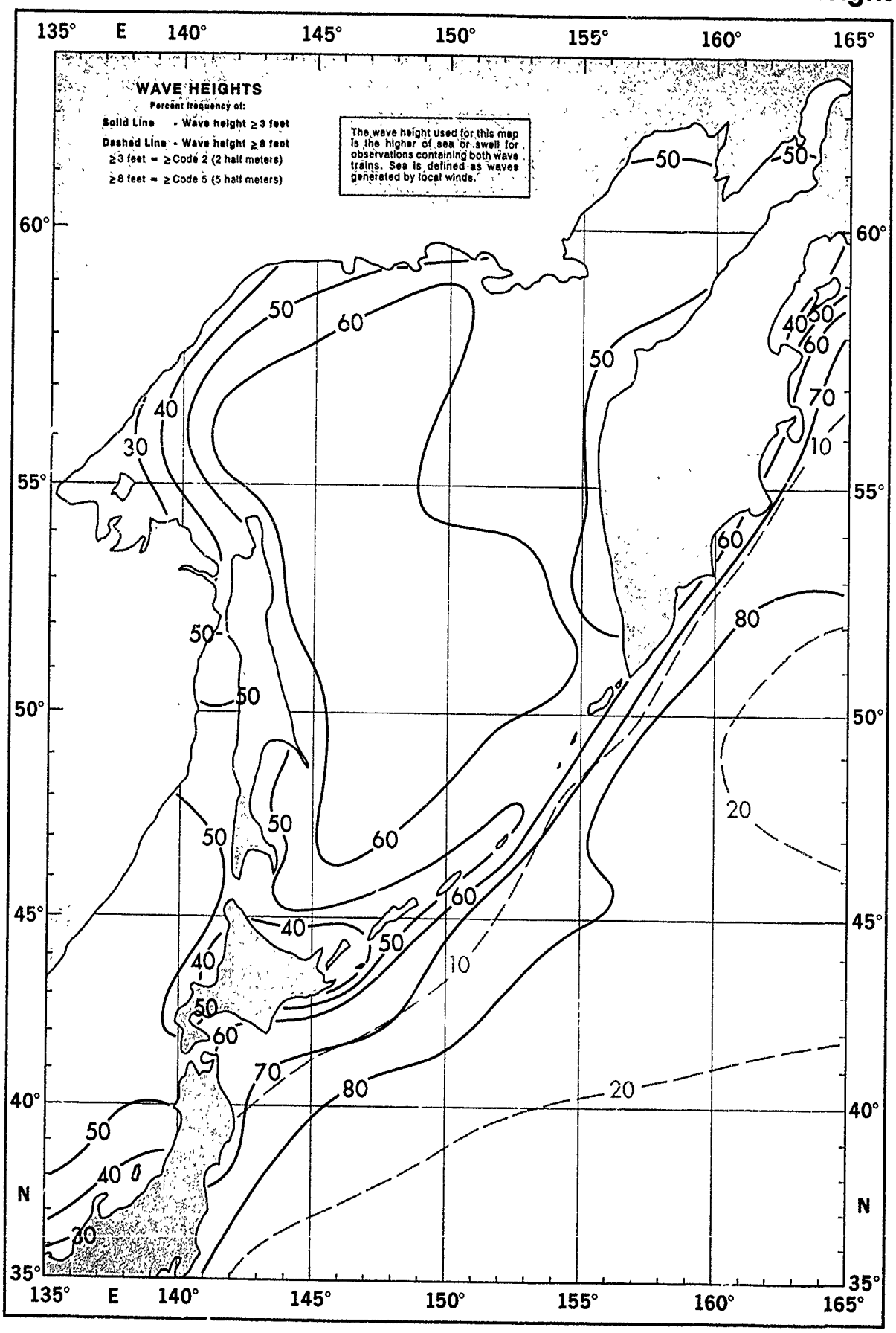
July

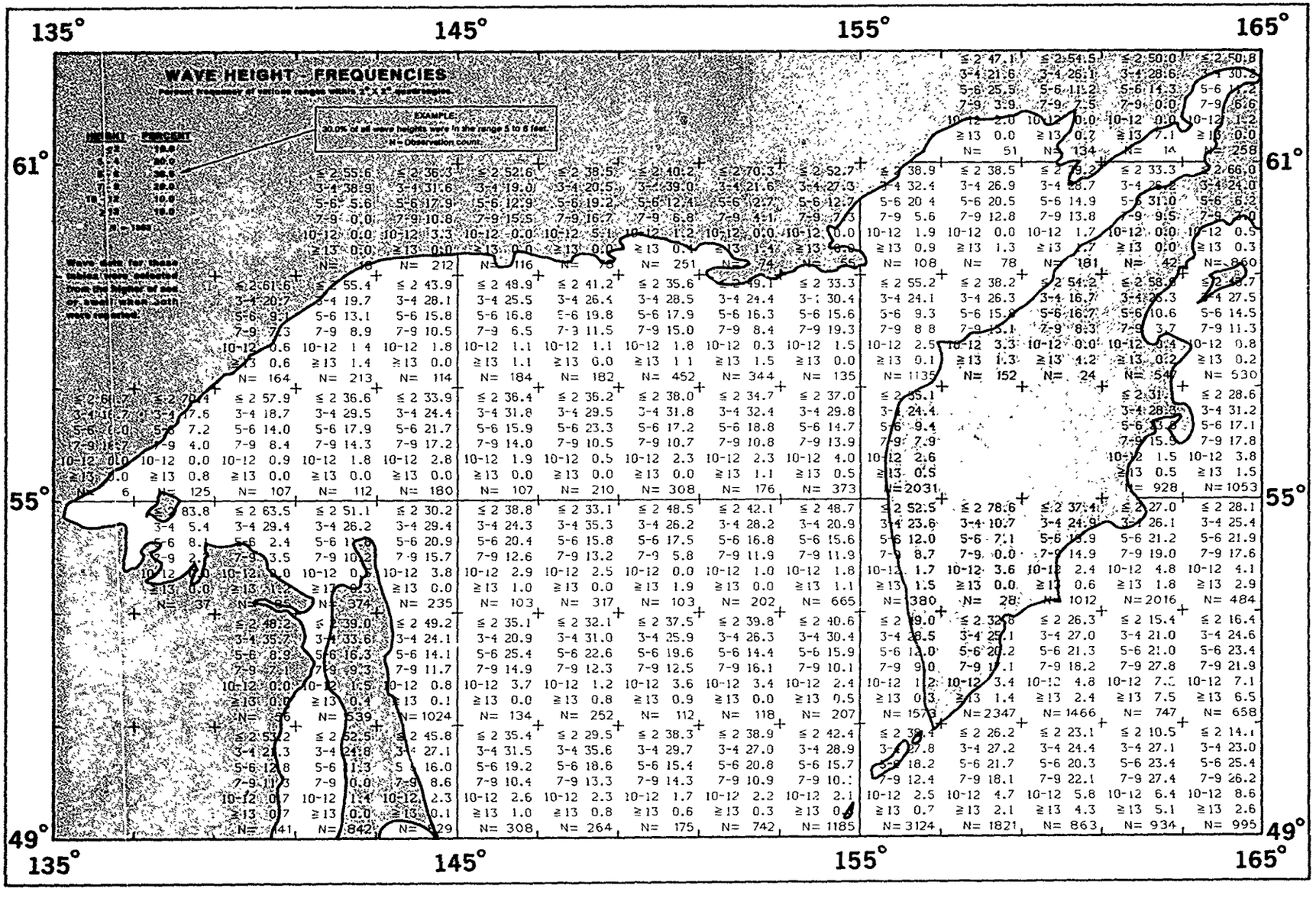
Surface Wind Roses

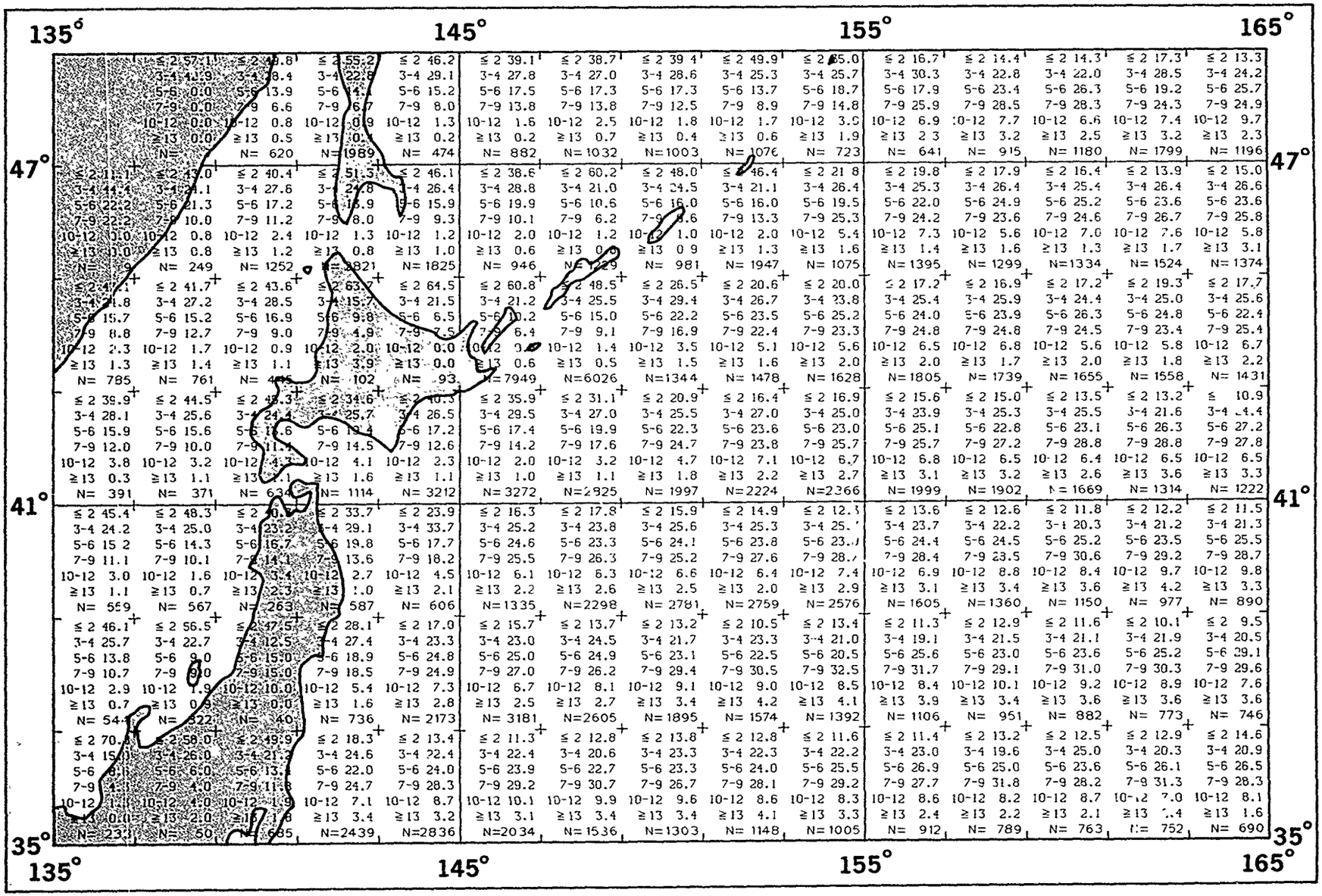
July

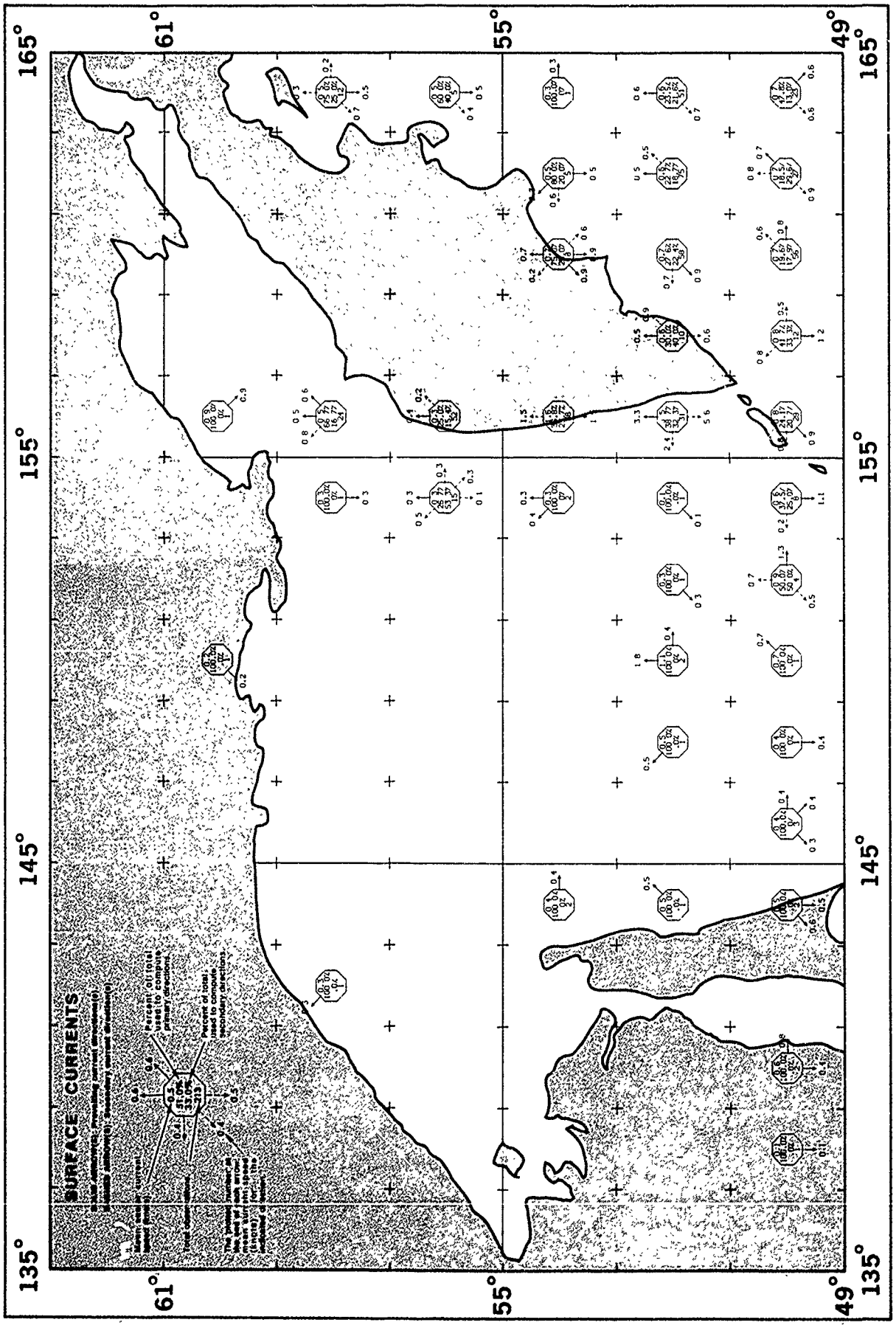
Mean Air and Sea Temperature

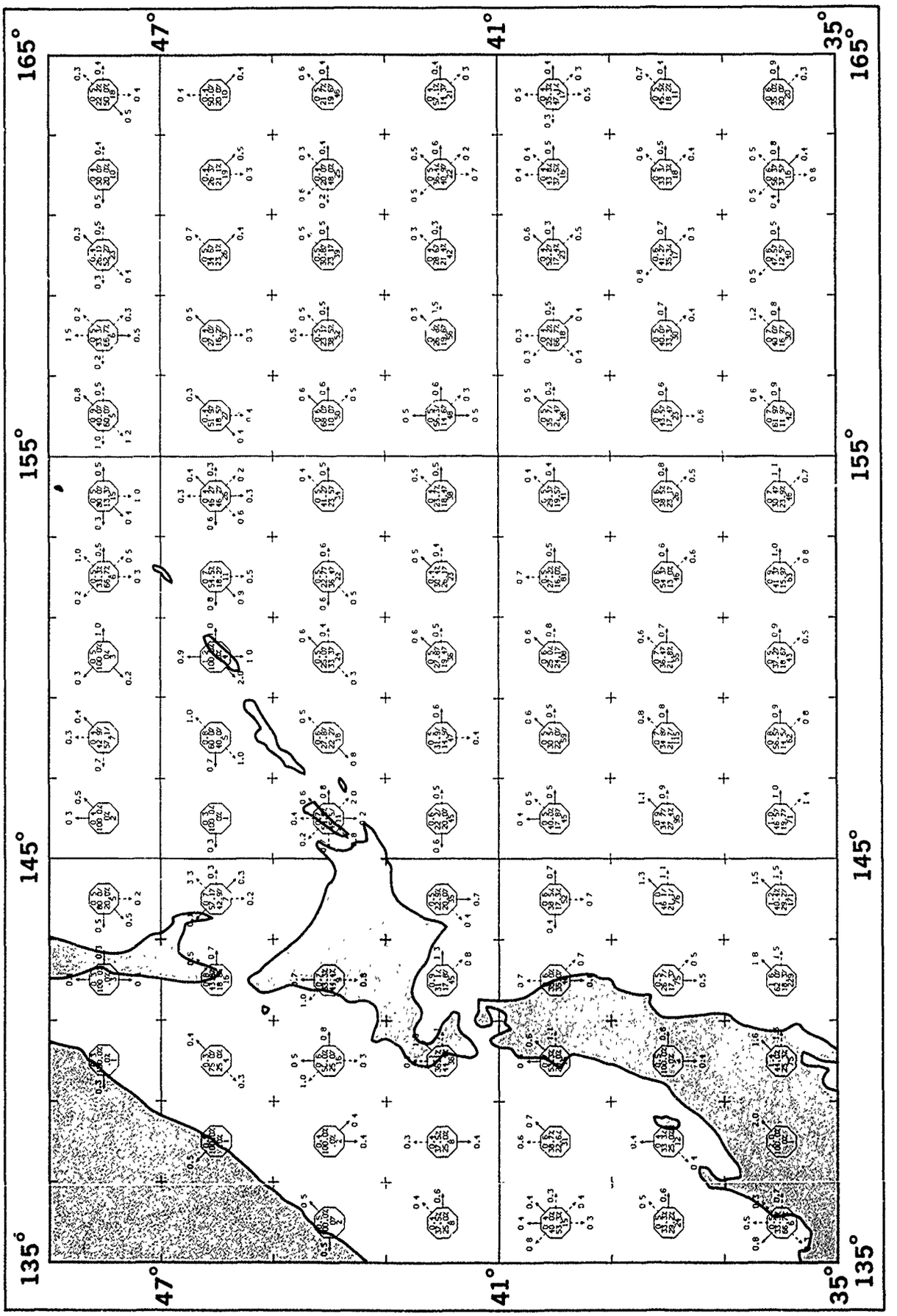


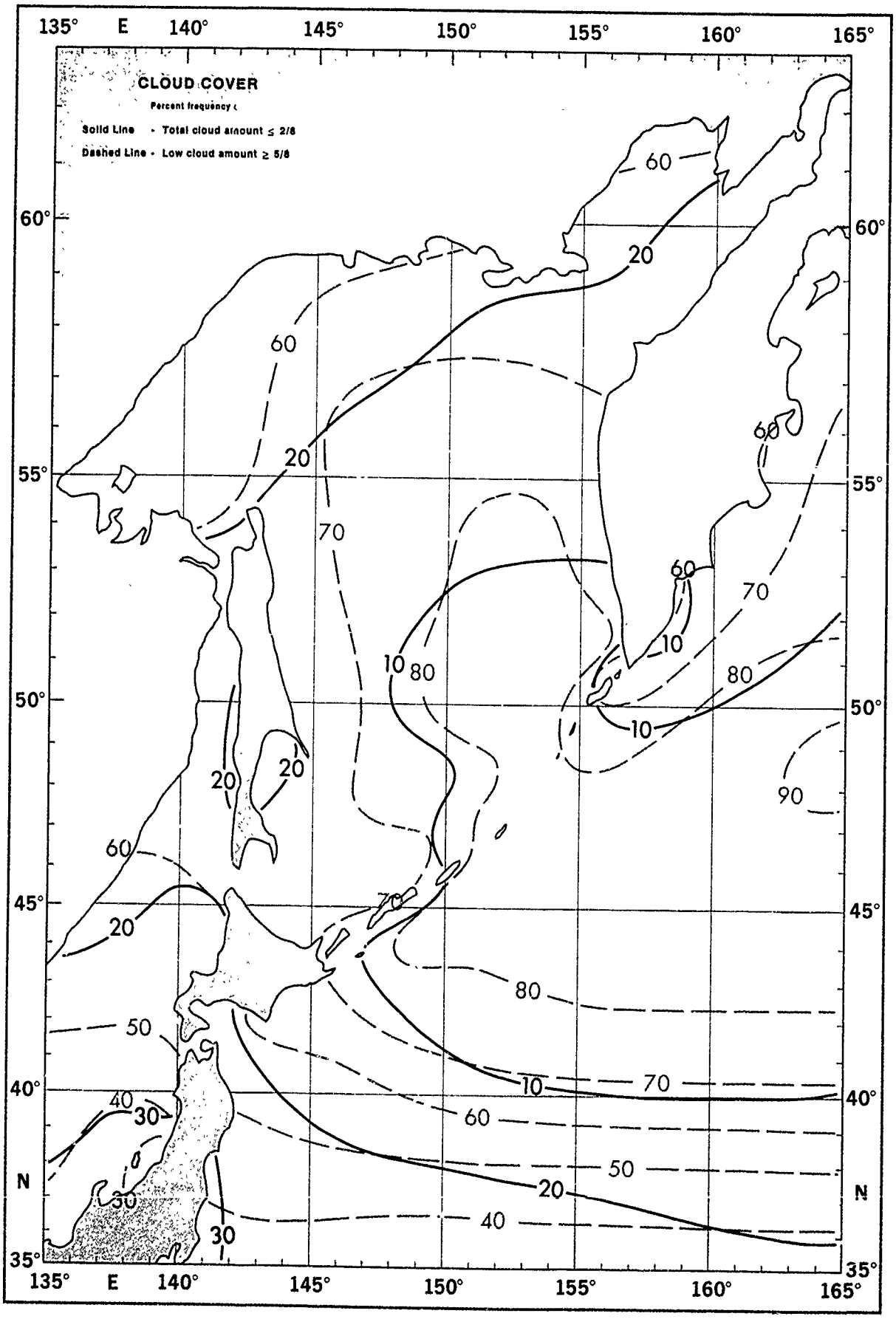

WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥3 feet
Dashed Line - Wave height ≥8 feet
≥3 feet = ≥Code 2 (2 half meters)
≥8 feet = ≥Code 5 (5 half meters)
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°

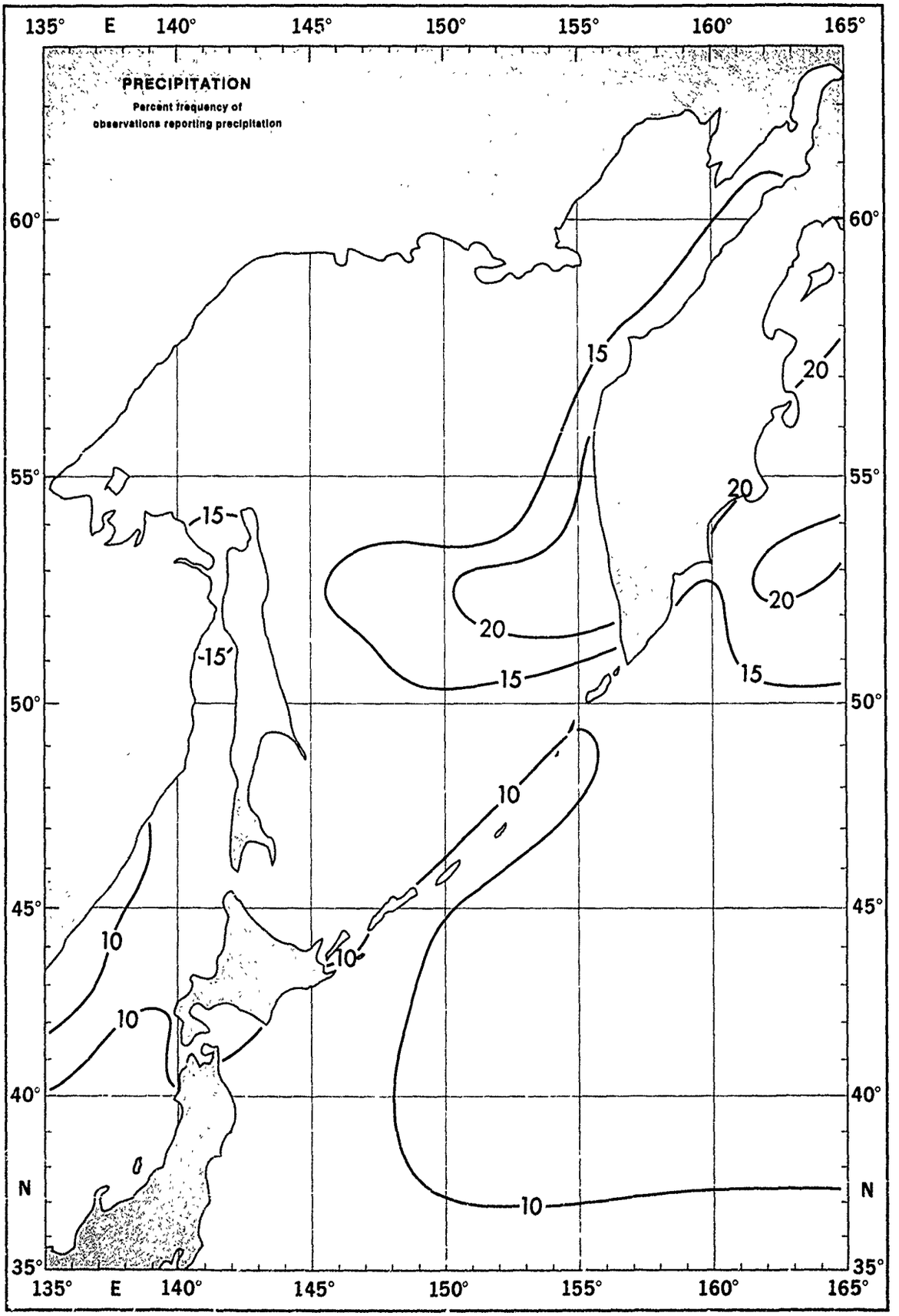

135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 8 feet.
N = Observation count.
HEIGHT PERCENT
Wave data for these plates were selected from the logbook of ship or coast when both were operated.

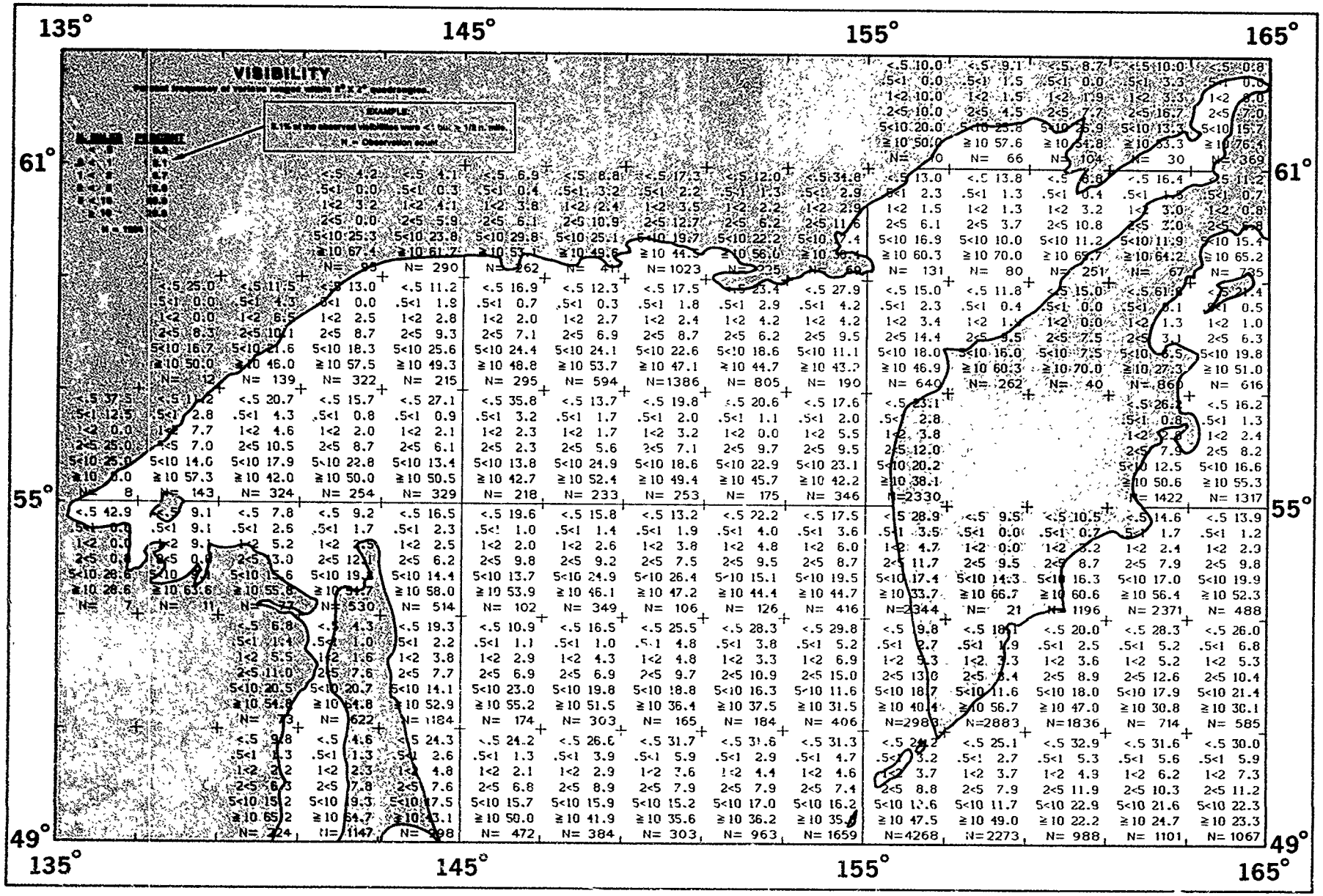

135°
145°
155°
165°
47°
41°
35°
July
Wave Height
≦ 2 57.1 ≦ 2 48.8 ≦ 2 55.2 ≦ 2 46.2 ≦ 2 39.1 ≦ 2 38.7 ≦ 2 39.4 ≦ 2 49.9 ≦ 2 65.0 ≦ 2 16.7 ≦ 2 14.4 ≦ 2 14.3 ≦ 2 17.3 ≦ 2 13.3
3-4 41.9 3-4 28.4 3-4 22.8 3-4 29.1 3-4 27.8 3-4 27.0 3-4 28.6 3-4 25.3 3-4 25.7 3-4 30.3 3-4 22.8 3-4 22.0 3-4 28.5 3-4 24.2
5-6 0.0 5-6 13.9 5-6 14.1 5-6 15.2 5-6 17.5 5-6 17.3 5-6 17.3 5-6 13.7 5-6 18.7 5-6 17.9 5-6 23.4 5-6 26.3 5-6 19.2 5-6 25.7
7-9 0.0 7-9 6.6 7-9 6.7 7-9 8.0 7-9 13.8 7-9 13.8 7-9 12.5 7-9 8.9 7-9 14.8 7-9 25.9 7-9 28.5 7-9 28.3 7-9 24.3 7-9 24.9
10-12 0.0 10-12 0.8 10-12 0.9 10-12 1.3 10-12 1.6 10-12 2.5 10-12 1.8 10-12 1.7 10-12 3.9 10-12 6.9 10-12 7.7 10-12 6.6 10-12 7.4 10-12 9.7
≧13 0.0 ≧13 0.5 ≧13 0.5 ≧13 0.2 ≧13 0.2 ≧13 0.7 ≧13 0.4 ≧13 0.6 ≧13 1.9 ≧13 2.3 ≧13 3.2 ≧13 2.5 ≧13 3.2 ≧13 2.3
N= N= 620 N= 1989 N= 474 N= 882 N= 1032 N= 1003 N= 1076 N= 723 N= 641 N= 915 N= 1180 N= 1799 N= 1196
≦ 2 11.1 ≦ 2 43.0 ≦ 2 40.4 ≦ 2 51.3 ≦ 2 46.1 ≦ 2 38.6 ≦ 2 60.2 ≦ 2 48.0 ≦ 2 46.4 ≦ 2 21.8 ≦ 2 19.8 ≦ 2 17.9 ≦ 2 16.4 ≦ 2 13.9 ≦ 2 15.0
3-4 44.1 3-4 24.1 3-4 27.6 3-4 24.8 3-4 26.4 3-4 28.8 3-4 21.0 3-4 24.5 3-4 21.1 3-4 26.4 3-4 25.3 3-4 26.4 3-4 25.4 3-4 26.4 3-4 26.6
5-6 22.2 5-6 21.3 5-6 17.2 5-6 16.9 5-6 15.9 5-6 19.9 5-6 10.6 5-6 16.0 5-6 16.0 5-6 19.5 5-6 22.0 5-6 24.9 5-6 25.2 5-6 23.6 5-6 23.6
7-9 22.2 7-9 10.0 7-9 11.2 7-9 8.0 7-9 9.3 7-9 10.1 7-9 6.2 7-9 8.6 7-9 13.3 7-9 25.3 7-9 24.2 7-9 23.6 7-9 24.6 7-9 26.7 7-9 25.8
10-12 0.0 10-12 0.8 10-12 2.4 10-12 1.3 10-12 1.2 10-12 2.0 10-12 1.2 10-12 1.0 10-12 2.0 10-12 5.4 10-12 7.3 10-12 5.6 10-12 7.0 10-12 7.6 10-12 5.8
≧13 0.0 ≧13 0.8 ≧13 1.2 ≧13 0.8 ≧13 1.0 ≧13 0.6 ≧13 0.9 ≧13 0.9 ≧13 1.3 ≧13 1.6 ≧13 1.4 ≧13 1.6 ≧13 1.3 ≧13 1.7 ≧13 3.1
N= 9 N= 249 N= 1252 N= 3821 N= 1825 N= 946 N= 1129 N= 981 N= 1947 N= 1075 N= 1395 N= 1299 N=1334 N= 1524 N= 1374
≦ 2 41.1 ≦ 2 41.7 ≦ 2 43.6 ≦ 2 63.7 ≦ 2 64.5 ≦ 2 60.8 ≦ 2 48.5 ≦ 2 26.5 ≦ 2 20.6 ≦ 2 20.0 ≦ 2 17.2 ≦ 2 16.9 ≦ 2 17.2 ≦ 2 19.3 ≦ 2 17.7
3-4 31.8 3-4 27.2 3-4 28.5 3-4 15.7 3-4 21.5 3-4 21.2 3-4 25.5 3-4 29.4 3-4 26.7 3-4 23.8 3-4 25.4 3-4 25.9 3-4 24.4 3-4 25.0 3-4 25.6
5-6 15.7 5-6 15.2 5-6 16.9 5-6 9.8 5-6 6.5 5-6 10.2 5-6 15.0 5-6 22.2 5-6 23.5 5-6 25.2 5-6 24.0 5-6 23.9 5-6 26.3 5-6 24.8 5-6 22.4
7-9 8.8 7-9 12.7 7-9 9.0 7-9 4.9 7-9 7.5 7-9 6.4 7-9 9.1 7-9 16.9 7-9 22.4 7-9 23.3 7-9 24.8 7-9 24.8 7-9 24.5 7-9 23.4 7-9 25.4
10-12 2.3 10-12 1.7 10-12 0.9 10-12 2.0 10-12 0.0 10-12 0.0 10-12 1.4 10-12 3.5 10-12 5.1 10-12 5.6 10-12 6.5 10-12 6.8 10-12 5.6 10-12 5.8 10-12 6.7
≧13 1.3 ≧13 1.4 ≧13 1.1 ≧13 3.9 ≧13 0.0 ≧13 0.6 ≧13 0.5 ≧13 1.5 ≧13 1.6 ≧13 2.0 ≧13 2.0 ≧13 1.7 ≧13 2.0 ≧13 1.8 ≧13 2.2
N= 785 N= 761 N= 405 N= 102 N= 93 N= 7949 N=6026 N=1344 N= 1478 N= 1628 N=1805 N= 1739 N= 1655 N= 1558 N= 1431
≦ 2 39.9 ≦ 2 44.5 ≦ 2 48.3 ≦ 2 34.6 ≦ 2 10.3 ≦ 2 35.9 ≦ 2 31.1 ≦ 2 20.9 ≦ 2 16.4 ≦ 2 16.9 ≦ 2 15.6 ≦ 2 15.0 ≦ 2 13.5 ≦ 2 13.2 ≦ 10.9
3-4 28.1 3-4 25.6 3-4 24.4 3-4 25.7 3-4 26.5 3-4 29.5 3-4 27.0 3-4 25.5 3-4 27.0 3-4 25.0 3-4 23.9 3-4 25.3 3-4 25.5 3-4 21.6 3-4 24.4
5-6 15.9 5-6 15.6 5-6 16.6 5-6 10.4 5-6 17.2 5-6 17.4 5-6 19.9 5-6 22.3 5-6 23.6 5-6 23.0 5-6 25.1 5-6 22.8 5-6 23.1 5-6 26.3 5-6 27.2
7-9 12.0 7-9 10.0 7-9 11.4 7-9 14.5 7-9 12.6 7-9 14.2 7-9 17.6 7-9 24.7 7-9 23.8 7-9 25.7 7-9 25.7 7-9 27.2 7-9 28.8 7-9 28.8 7-9 27.8
10-12 3.8 10-12 3.2 10-12 4.7 10-12 4.1 10-12 2.3 10-12 2.0 10-12 3.2 10-12 4.7 10-12 7.1 10-12 6.7 10-12 6.8 10-12 6.5 10-12 6.4 10-12 6.5 10-12 6.5
≧13 0.3 ≧13 1.1 ≧13 2.1 ≧13 1.6 ≧13 1.1 ≧13 1.0 ≧13 1.1 ≧13 1.8 ≧13 2.2 ≧13 2.7 ≧13 3.1 ≧13 3.2 ≧13 2.6 ≧13 3.6 ≧13 3.3
N= 391 N= 371 N= 634 N= 1114 N= 3212 N= 3272 N=2825 N= 1997 N=2224 N=2366 N= 1999 N= 1902 N= 1669 N= 1314 N= 1222
≦ 2 45.4 ≦ 2 48.3 ≦ 2 30.4 ≦ 2 33.7 ≦ 2 23.9 ≦ 2 16.3 ≦ 2 17.8 ≦ 2 15.9 ≦ 2 14.9 ≦ 2 12.3 ≦ 2 13.6 ≦ 2 12.6 ≦ 2 11.8 ≦ 2 12.2 ≦ 2 11.5
3-4 24.2 3-4 25.0 3-4 23.2 3-4 29.1 3-4 33.7 3-4 25.2 3-4 23.8 3-4 25.6 3-4 25.3 3-4 25.1 3-4 23.7 3-4 22.2 3-4 20.3 3-4 21.2 3-4 21.3
5-6 15.2 5-6 14.3 5-6 16.7 5-6 19.8 5-6 17.7 5-6 24.6 5-6 23.3 5-6 24.1 5-6 23.8 5-6 23.0 5-6 24.4 5-6 24.5 5-6 25.2 5-6 23.5 5-6 25.5
7-9 11.1 7-9 10.1 7-9 14.1 7-9 13.6 7-9 18.2 7-9 25.5 7-9 26.3 7-9 25.2 7-9 27.6 7-9 28.7 7-9 28.4 7-9 23.5 7-9 30.6 7-9 29.2 7-9 28.7
10-12 3.0 10-12 1.6 10-12 3.4 10-12 2.7 10-12 4.5 10-12 6.1 10-12 6.3 10-12 6.6 10-12 6.4 10-12 7.4 10-12 6.9 10-12 8.8 10-12 8.4 10-12 9.7 10-12 9.8
≧13 1.1 ≧13 0.7 ≧13 2.3 ≧13 1.0 ≧13 2.1 ≧13 2.2 ≧13 2.6 ≧13 2.5 ≧13 2.0 ≧13 2.9 ≧13 3.1 ≧13 3.4 ≧13 3.6 ≧13 4.2 ≧13 3.3
N= 559 N= 567 N= 263 N= 587 N= 606 N=1335 N=2298 N= 2781 N= 2759 N= 2576 N=1605 N=1360 N= 1150 N= 977 N= 890
≦ 2 46.1 ≦ 2 56.5 ≦ 2 47.5 ≦ 2 28.1 ≦ 2 17.0 ≦ 2 15.7 ≦ 2 13.7 ≦ 2 13.2 ≦ 2 10.5 ≦ 2 13.4 ≦ 2 11.3 ≦ 2 12.9 ≦ 2 11.6 ≦ 2 10.1 ≦ 2 9.5
3-4 25.7 3-4 22.7 3-4 12.5 3-4 27.4 3-4 23.3 3-4 23.0 3-4 24.5 3-4 21.7 3-4 23.3 3-4 21.0 3-4 19.1 3-4 21.5 3-4 21.1 3-4 21.9 3-4 20.5
5-6 13.8 5-6 9.0 5-6 15.0 5-6 18.9 5-6 24.8 5-6 25.0 5-6 24.9 5-6 23.1 5-6 22.5 5-6 20.5 5-6 25.6 5-6 23.0 5-6 23.6 5-6 25.2 5-6 29.1
7-9 10.7 7-9 9.0 7-9 15.0 7-9 18.5 7-9 24.9 7-9 27.0 7-9 26.2 7-9 29.4 7-9 30.5 7-9 32.5 7-9 31.7 7-9 29.1 7-9 31.0 7-9 30.3 7-9 29.6
10-12 2.9 10-12 1.9 10-12 10.0 10-12 5.4 10-12 7.3 10-12 6.7 10-12 8.1 10-12 9.1 10-12 9.0 10-12 8.5 10-12 8.4 10-12 10.1 10-12 9.2 10-12 8.9 10-12 7.6
≧13 0.7 ≧13 0.9 ≧13 0.0 ≧13 1.6 ≧13 2.8 ≧13 2.5 ≧13 2.7 ≧13 3.4 ≧13 4.2 ≧13 4.1 ≧13 3.9 ≧13 3.4 ≧13 3.6 ≧13 3.6 ≧13 3.6
N= 54 N= 322 N= 40 N= 736 N= 2173 N= 3181 N=2605 N= 1895 N= 1574 N= 1392 N= 1106 N= 951 N= 882 N= 773 N= 746
≦ 2 70.4 ≦ 2 58.0 ≦ 2 49.9 ≦ 2 18.3 ≦ 2 13.4 ≦ 2 11.3 ≦ 2 12.8 ≦ 2 13.8 ≦ 2 12.8 ≦ 2 11.6 ≦ 2 11.4 ≦ 2 13.2 ≦ 2 12.5 ≦ 2 12.9 ≦ 2 14.6
3-4 15.0 3-4 26.0 3-4 21.2 3-4 24.6 3-4 22.4 3-4 22.4 3-4 20.6 3-4 23.3 3-4 22.3 3-4 22.2 3-4 23.0 3-4 19.6 3-4 25.0 3-4 20.3 3-4 20.9
5-6 8.1 5-6 6.0 5-6 13.1 5-6 22.0 5-6 24.0 5-6 23.9 5-6 22.7 5-6 23.3 5-6 24.0 5-6 25.5 5-6 26.9 5-6 25.0 5-6 23.6 5-6 26.1 5-6 26.5
7-9 4.1 7-9 4.0 7-9 11.8 7-9 24.7 7-9 28.3 7-9 29.2 7-9 30.7 7-9 26.7 7-9 28.1 7-9 29.2 7-9 27.7 7-9 31.8 7-9 28.2 7-9 31.3 7-9 28.3
10-12 1.1 10-12 4.0 10-12 1.9 10-12 7.1 10-12 8.7 10-12 10.1 10-12 9.9 10-12 9.6 10-12 8.6 10-12 8.3 10-12 8.6 10-12 8.2 10-12 8.7 10-12 7.0 10-12 8.1
≧13 0.0 ≧13 2.0 ≧13 1.9 ≧13 3.4 ≧13 3.2 ≧13 3.1 ≧13 3.4 ≧13 3.4 ≧13 4.1 ≧13 3.3 ≧13 2.4 ≧13 2.2 ≧13 2.1 ≧13 2.4 ≧13 1.6
N= 231 N= 50 N= 685 N=2439 N=2836 N=2034 N= 1536 N=1303 N= 1148 N= 1005 N= 912 N= 789 N= 763 N= 752 N= 690

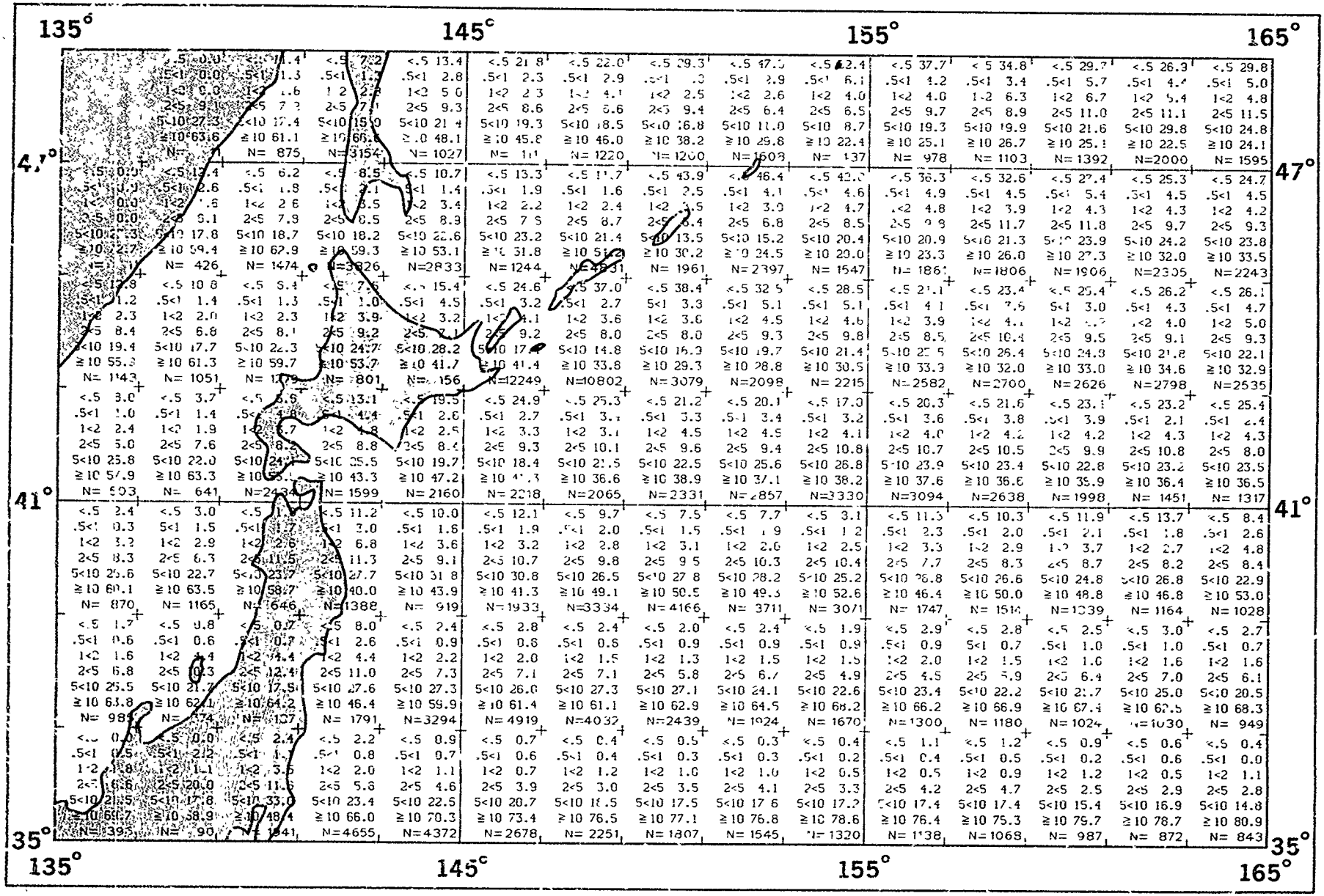

165°
155°
145°
135°
61°
55°
49°
SURFACE CURRENTS


165°
155°
145°
135°
47°
41°
35°


CLOUD COVER
Percent frequency (
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°

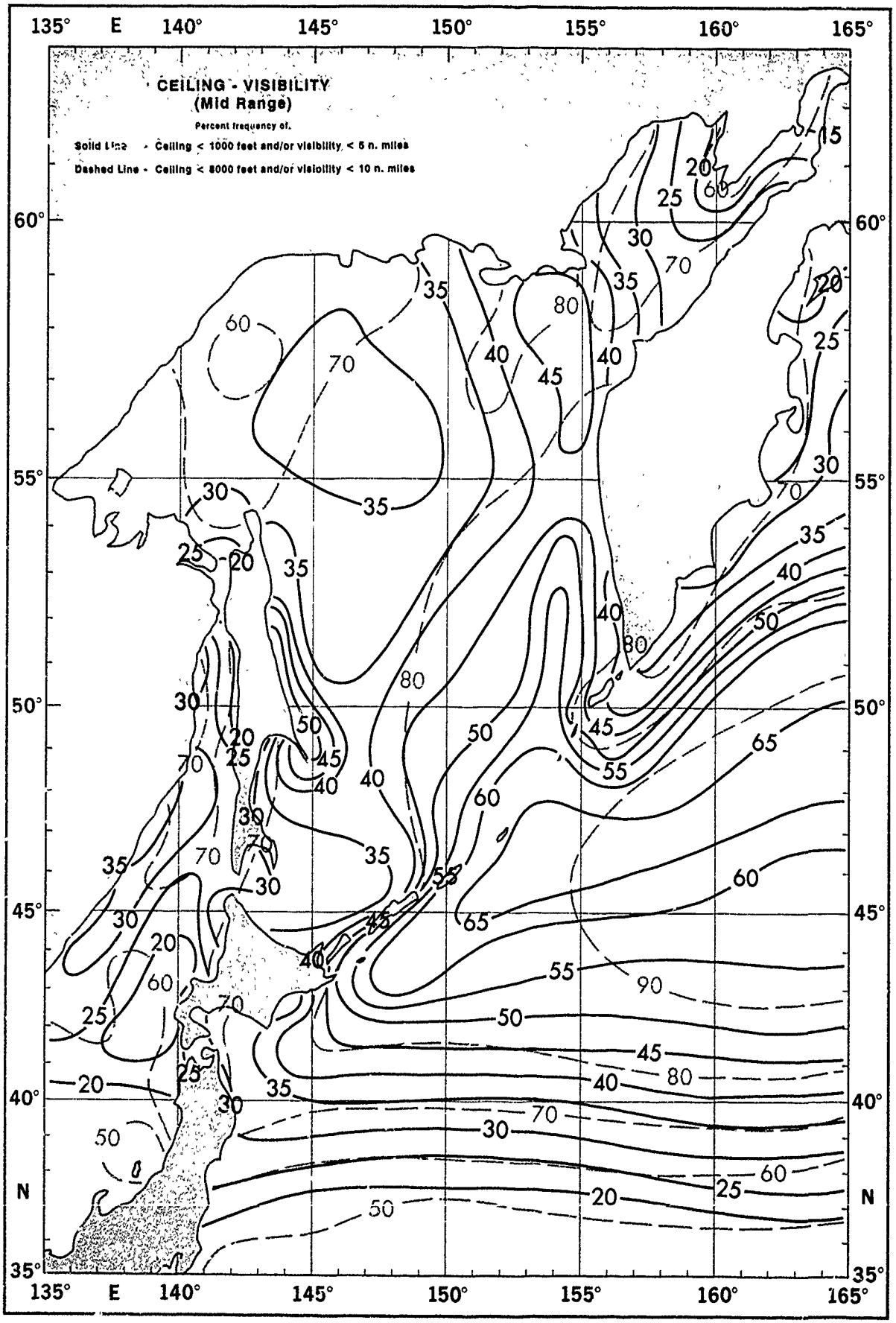

PRECIPITATION
Percent frequency of
observations reporting precipitation
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
15
20
20
15
20
20
15
15
10
10
10
10
0


VISIBILITY
135°
145°
155°
165°
61°
55°
49°

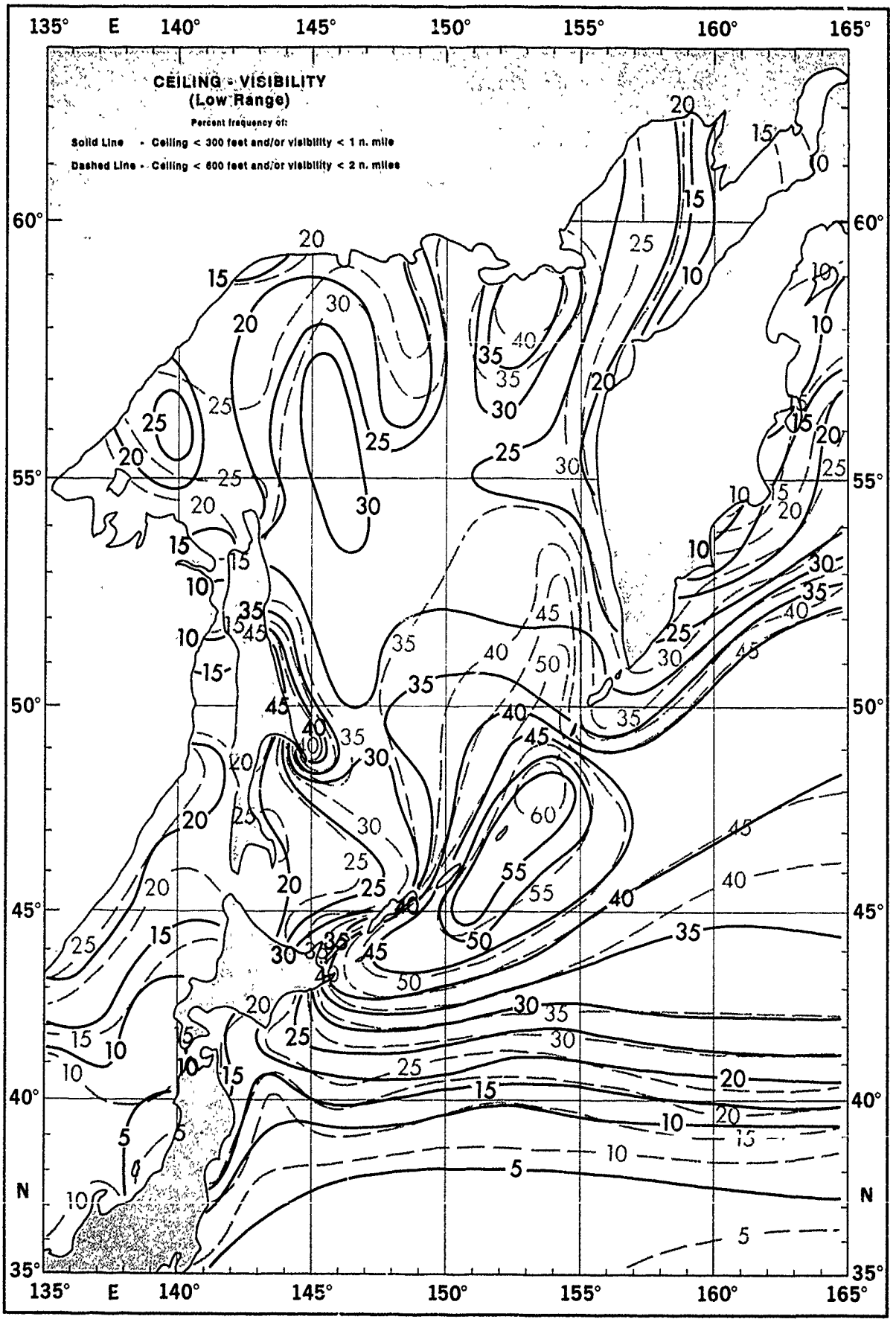

135°
145°
155°
165°
47°
41°
35°
<.5 0.0 <.5 11.4 <.5 7.2 <.5 13.4 <.5 21.8 <.5 22.0 <.5 29.3 <.5 47.0 <.5 42.4 <.5 37.7 <.5 34.8 <.5 29.7 <.5 26.3 <.5 29.8
.5<1 0.0 .5<1 1.3 .5<1 1.2 .5<1 2.8 .5<1 2.3 .5<1 2.9 .5<1 .3 .5<1 2.9 .5<1 6.1 .5<1 4.2 .5<1 3.4 .5<1 5.7 .5<1 4.4 .5<1 5.0
1<2 0.0 1<2 1.6 1<2 2.2 1<2 5.0 1<2 2.3 1<2 4.1 1<2 2.5 1<2 2.6 1<2 4.0 1<2 4.0 1<2 6.3 1<2 6.7 1<2 5.4 1<2 4.8
2<5 0.0 2<5 3.9 2<5 7.2 2<5 9.3 2<5 8.6 2<5 8.6 2<5 9.4 2<5 6.4 2<5 6.5 2<5 9.7 2<5 8.9 2<5 11.0 2<5 11.1 2<5 11.5
5<10 27.3 5<10 17.4 5<10 15.0 5<10 21.4 5<10 19.3 5<10 18.5 5<10 16.8 5<10 11.0 5<10 8.7 5<10 19.3 5<10 19.9 5<10 21.6 5<10 29.8 5<10 24.8
≥10 63.6 ≥10 61.1 ≥10 66.6 ≥10 48.1 ≥10 45.8 ≥10 46.0 ≥10 38.2 ≥10 29.8 ≥10 22.4 ≥10 25.1 ≥10 26.7 ≥10 25.1 ≥10 22.5 ≥10 24.1
N= 11 N= 875 N=3154 N= 1027 N= 111 N=1220 N=1200 N=1603 N= 137 N= 978 N= 1103 N=1392 N=2000 N= 1595
<.5 0.0 <.5 13.4 <.5 6.2 <.5 8.5 <.5 10.7 <.5 13.3 <.5 11.7 <.5 43.9 <.5 46.4 <.5 42.0 <.5 38.3 <.5 32.6 <.5 27.4 <.5 25.3 <.5 24.7
.5<1 0.0 .5<1 2.6 .5<1 1.8 .5<1 2.1 .5<1 1.4 .5<1 1.9 .5<1 1.6 .5<1 2.5 .5<1 4.1 .5<1 4.6 .5<1 4.9 .5<1 4.5 .5<1 5.4 .5<1 4.5 .5<1 4.5
1<2 0.0 1<2 1.6 1<2 2.6 1<2 3.5 1<2 3.4 1<2 2.2 1<2 2.4 1<2 3.5 1<2 3.9 1<2 4.7 1<2 4.8 1<2 3.9 1<2 4.3 1<2 4.3 1<2 4.2
2<5 0.0 2<5 3.1 2<5 7.9 2<5 8.5 2<5 8.9 2<5 7.5 2<5 8.7 2<5 8.4 2<5 6.8 2<5 8.5 2<5 9.9 2<5 11.7 2<5 11.8 2<5 9.7 2<5 9.3
5<10 27.3 5<10 17.8 5<10 18.7 5<10 18.2 5<10 22.6 5<10 23.2 5<10 21.4 5<10 13.5 5<10 15.2 5<10 20.4 5<10 20.9 5<10 21.3 5<10 23.9 5<10 24.2 5<10 23.8
≥10 63.6 ≥10 59.4 ≥10 62.9 ≥10 59.3 ≥10 53.1 ≥10 51.8 ≥10 51.2 ≥10 30.2 ≥10 24.5 ≥10 20.0 ≥10 23.3 ≥10 26.0 ≥10 27.3 ≥10 32.0 ≥10 33.5
N= 11 N= 426 N= 1474 N=3826 N=2833 N= 1244 N=4931 N= 1961 N=2397 N= 1547 N= 1867 N=1806 N=1906 N=2305 N=2243
<.5 17.8 <.5 10.8 <.5 8.4 <.5 7.6 <.5 15.4 <.5 24.6 <.5 37.0 <.5 38.4 <.5 32.5 <.5 28.5 <.5 24.1 <.5 23.4 <.5 25.4 <.5 26.2 <.5 26.1
.5<1 1.2 .5<1 1.4 .5<1 1.3 .5<1 1.0 .5<1 4.5 .5<1 3.2 .5<1 2.7 .5<1 3.3 .5<1 5.1 .5<1 5.1 .5<1 4.1 .5<1 7.6 .5<1 3.0 .5<1 4.3 .5<1 4.7
1<2 2.3 1<2 2.0 1<2 2.3 1<2 3.9 1<2 3.2 1<2 4.1 1<2 3.6 1<2 3.6 1<2 4.5 1<2 4.6 1<2 3.9 1<2 4.1 1<2 5.2 1<2 4.0 1<2 5.0
2<5 8.4 2<5 6.8 2<5 8.1 2<5 9.2 2<5 7.1 2<5 9.2 2<5 8.0 2<5 8.0 2<5 9.3 2<5 9.8 2<5 8.5 2<5 10.4 2<5 9.5 2<5 9.1 2<5 9.3
5<10 19.4 5<10 17.7 5<10 26.3 5<10 24.7 5<10 28.2 5<10 17.4 5<10 14.8 5<10 16.3 5<10 19.7 5<10 21.4 5<10 25.5 5<10 26.4 5<10 24.3 5<10 21.8 5<10 22.1
≥10 55.3 ≥10 61.3 ≥10 59.7 ≥10 53.7 ≥10 41.7 ≥10 41.4 ≥10 33.8 ≥10 29.3 ≥10 28.8 ≥10 30.5 ≥10 33.3 ≥10 32.0 ≥10 33.0 ≥10 34.6 ≥10 32.9
N= 1143 N= 1051 N= 1179 N= 801 N= 156 N=12249 N=10802 N=3079 N=2098 N= 2215 N=2582 N=2700 N=2626 N=2798 N=2535
<.5 3.0 <.5 3.7 <.5 5.6 <.5 13.1 <.5 19.5 <.5 24.9 <.5 25.3 <.5 21.2 <.5 20.1 <.5 17.0 <.5 20.3 <.5 21.6 <.5 23.1 <.5 23.2 <.5 25.4
.5<1 1.0 .5<1 1.4 .5<1 1.8 .5<1 4.4 .5<1 2.6 .5<1 2.7 .5<1 3.1 .5<1 3.3 .5<1 3.4 .5<1 3.2 .5<1 3.6 .5<1 3.8 .5<1 3.9 .5<1 2.1 .5<1 2.4
1<2 2.4 1<2 1.9 1<2 2.7 1<2 4.8 1<2 2.5 1<2 3.3 1<2 3.1 1<2 4.5 1<2 4.5 1<2 4.1 1<2 4.0 1<2 4.2 1<2 4.2 1<2 4.2 1<2 4.3
2<5 5.0 2<5 7.6 2<5 8.2 2<5 8.8 2<5 8.4 2<5 9.3 2<5 10.1 2<5 9.6 2<5 9.4 2<5 10.8 2<5 10.7 2<5 10.5 2<5 9.9 2<5 10.8 2<5 8.0
5<10 25.8 5<10 22.0 5<10 24.1 5<10 25.5 5<10 19.7 5<10 18.4 5<10 21.5 5<10 22.5 5<10 25.6 5<10 26.8 5<10 23.9 5<10 23.4 5<10 22.8 5<10 23.2 5<10 23.5
≥10 57.9 ≥10 63.3 ≥10 58.1 ≥10 43.3 ≥10 47.2 ≥10 41.3 ≥10 36.6 ≥10 38.9 ≥10 37.1 ≥10 38.2 ≥10 37.6 ≥10 36.6 ≥10 35.9 ≥10 36.4 ≥10 36.5
N= 503 N= 641 N=2434 N= 1599 N= 2160 N= 2218 N=2065 N=2331 N=2857 N=3330 N=3094 N=2638 N=1998 N= 1451 N= 1317
<.5 2.4 <.5 3.0 <.5 4.1 <.5 11.2 <.5 10.0 <.5 12.1 <.5 9.7 <.5 7.5 <.5 7.7 <.5 3.1 <.5 11.3 <.5 10.3 <.5 11.9 <.5 13.7 <.5 8.4
.5<1 0.3 .5<1 1.5 .5<1 1.7 .5<1 3.0 .5<1 1.6 .5<1 1.9 .5<1 2.0 .5<1 1.5 .5<1 1.9 .5<1 1.2 .5<1 2.3 .5<1 2.0 .5<1 2.1 .5<1 1.8 .5<1 2.6
1<2 3.2 1<2 2.9 1<2 2.6 1<2 6.8 1<2 3.6 1<2 3.2 1<2 2.8 1<2 3.1 1<2 2.6 1<2 2.5 1<2 3.3 1<2 2.9 1<2 3.7 1<2 2.7 1<2 4.8
2<5 8.3 2<5 6.3 2<5 11.5 2<5 11.3 2<5 9.1 2<5 10.7 2<5 9.8 2<5 9.5 2<5 10.3 2<5 10.4 2<5 7.7 2<5 8.3 2<5 8.7 2<5 8.2 2<5 8.4
5<10 25.6 5<10 22.7 5<10 23.7 5<10 27.7 5<10 31.8 5<10 30.8 5<10 26.5 5<10 27.8 5<10 28.2 5<10 25.2 5<10 26.8 5<10 26.6 5<10 24.8 5<10 26.8 5<10 22.9
≥10 60.1 ≥10 63.5 ≥10 58.7 ≥10 40.0 ≥10 43.9 ≥10 41.3 ≥10 49.1 ≥10 50.5 ≥10 49.3 ≥10 52.6 ≥10 46.4 ≥10 50.0 ≥10 48.8 ≥10 46.8 ≥10 53.0
N= 870 N= 1165 N=1646 N=1388 N= 919 N=1933 N=3334 N=4166 N= 3711 N=3071 N= 1747 N= 1514 N=1039 N= 1164 N= 1028
<.5 1.7 <.5 0.8 <.5 0.7 <.5 8.0 <.5 2.4 <.5 2.8 <.5 2.4 <.5 2.0 <.5 2.4 <.5 1.9 <.5 2.9 <.5 2.8 <.5 2.5 <.5 3.0 <.5 2.7
.5<1 0.6 .5<1 0.6 .5<1 0.7 .5<1 2.6 .5<1 0.9 .5<1 0.8 .5<1 0.8 .5<1 0.9 .5<1 0.9 .5<1 0.9 .5<1 0.9 .5<1 0.7 .5<1 1.0 .5<1 1.0 .5<1 0.7
1<2 1.6 1<2 1.4 1<2 1.4 1<2 4.4 1<2 2.2 1<2 2.0 1<2 1.5 1<2 1.3 1<2 1.5 1<2 1.5 1<2 2.0 1<2 1.5 1<2 1.6 1<2 1.6 1<2 1.6
2<5 6.8 2<5 5.3 2<5 12.4 2<5 11.0 2<5 7.3 2<5 7.1 2<5 7.1 2<5 5.8 2<5 6.7 2<5 4.9 2<5 4.5 2<5 5.9 2<5 6.4 2<5 7.0 2<5 6.1
5<10 25.5 5<10 21.7 5<10 17.5 5<10 27.6 5<10 27.3 5<10 26.0 5<10 27.3 5<10 27.1 5<10 24.1 5<10 22.6 5<10 23.4 5<10 22.2 5<10 21.7 5<10 25.0 5<10 20.5
≥10 63.8 ≥10 62.1 ≥10 64.2 ≥10 46.4 ≥10 59.9 ≥10 61.4 ≥10 61.1 ≥10 62.9 ≥10 64.5 ≥10 68.2 ≥10 66.2 ≥10 66.9 ≥10 67.4 ≥10 62.5 ≥10 68.3
N= 989 N= 874 N= 127 N= 1791 N=3294 N= 4919 N=4032 N=2439 N= 1924 N= 1670 N=1300 N= 1180 N= 1024 N=1030 N= 949
<.5 0.0 <.5 0.0 <.5 2.4 <.5 2.2 <.5 0.9 <.5 0.7 <.5 0.4 <.5 0.5 <.5 0.3 <.5 0.4 <.5 1.1 <.5 1.2 <.5 0.9 <.5 0.6 <.5 0.4
.5<1 0.5 .5<1 2.2 .5<1 1.7 .5<1 0.8 .5<1 0.7 .5<1 0.6 .5<1 0.4 .5<1 0.3 .5<1 0.3 .5<1 0.2 .5<1 0.4 .5<1 0.5 .5<1 0.2 .5<1 0.6 .5<1 0.0
1<2 1.8 1<2 1.1 1<2 3.5 1<2 2.0 1<2 1.1 1<2 0.7 1<2 1.2 1<2 1.0 1<2 1.0 1<2 0.5 1<2 0.5 1<2 0.9 1<2 1.2 1<2 0.5 1<2 1.1
2<5 6.6 2<5 20.0 2<5 11.6 2<5 5.6 2<5 4.6 2<5 3.9 2<5 3.0 2<5 3.5 2<5 4.1 2<5 3.3 2<5 4.2 2<5 4.7 2<5 2.5 2<5 2.9 2<5 2.8
5<10 21.5 5<10 17.8 5<10 33.0 5<10 23.4 5<10 22.5 5<10 20.7 5<10 18.5 5<10 17.5 5<10 17.6 5<10 17.2 5<10 17.4 5<10 17.4 5<10 15.4 5<10 16.9 5<10 14.8
≥10 60.7 ≥10 38.9 ≥10 48.4 ≥10 66.0 ≥10 70.3 ≥10 73.4 ≥10 76.5 ≥10 77.1 ≥10 76.8 ≥10 78.6 ≥10 76.4 ≥10 75.3 ≥10 79.7 ≥10 78.7 ≥10 80.9
N= 395 N= 90 N= 1641 N=4655 N=4372 N=2678 N= 2251 N= 1807 N= 1545 N= 1320 N= 1138 N=1068 N= 987 N= 872 N= 843

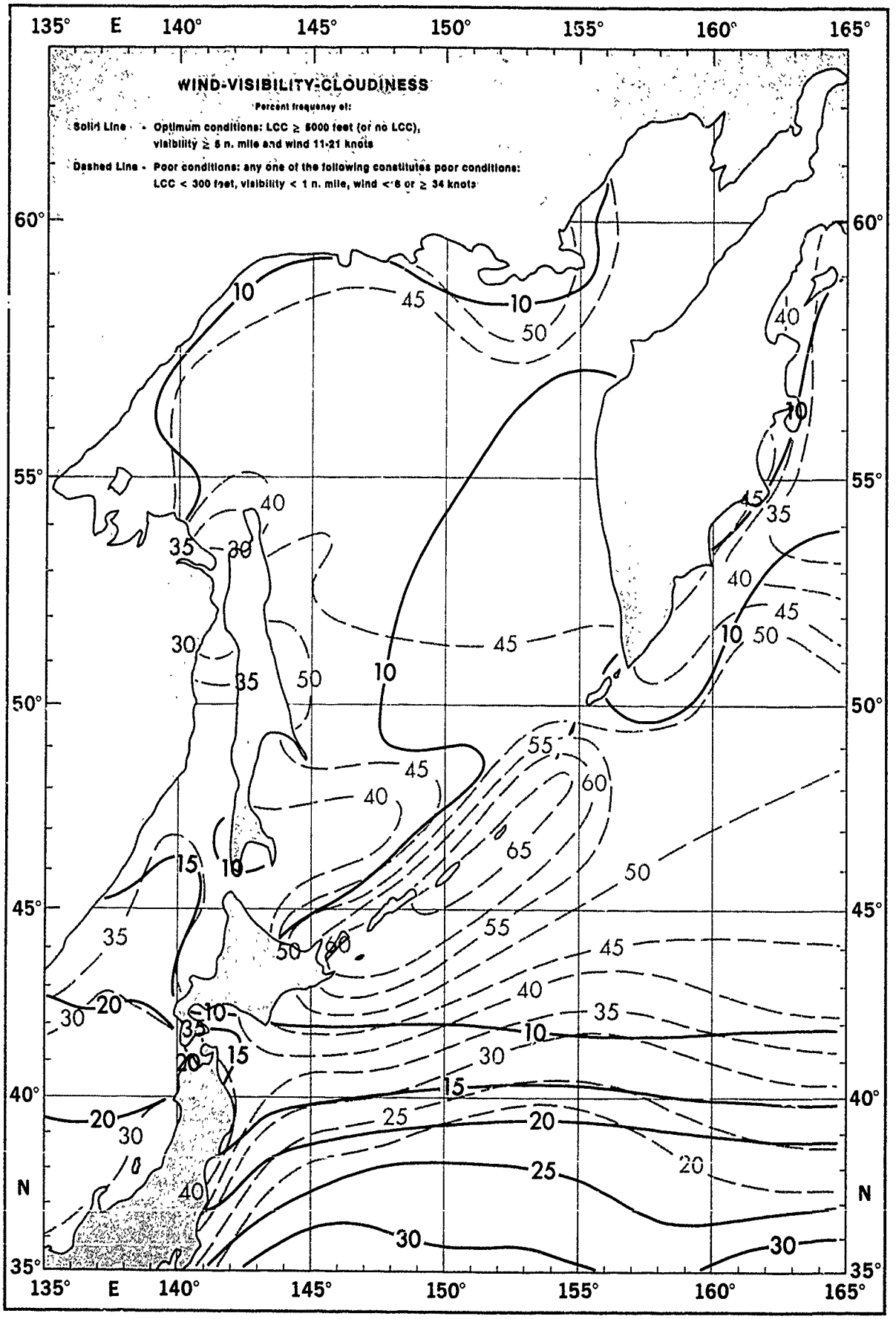
August

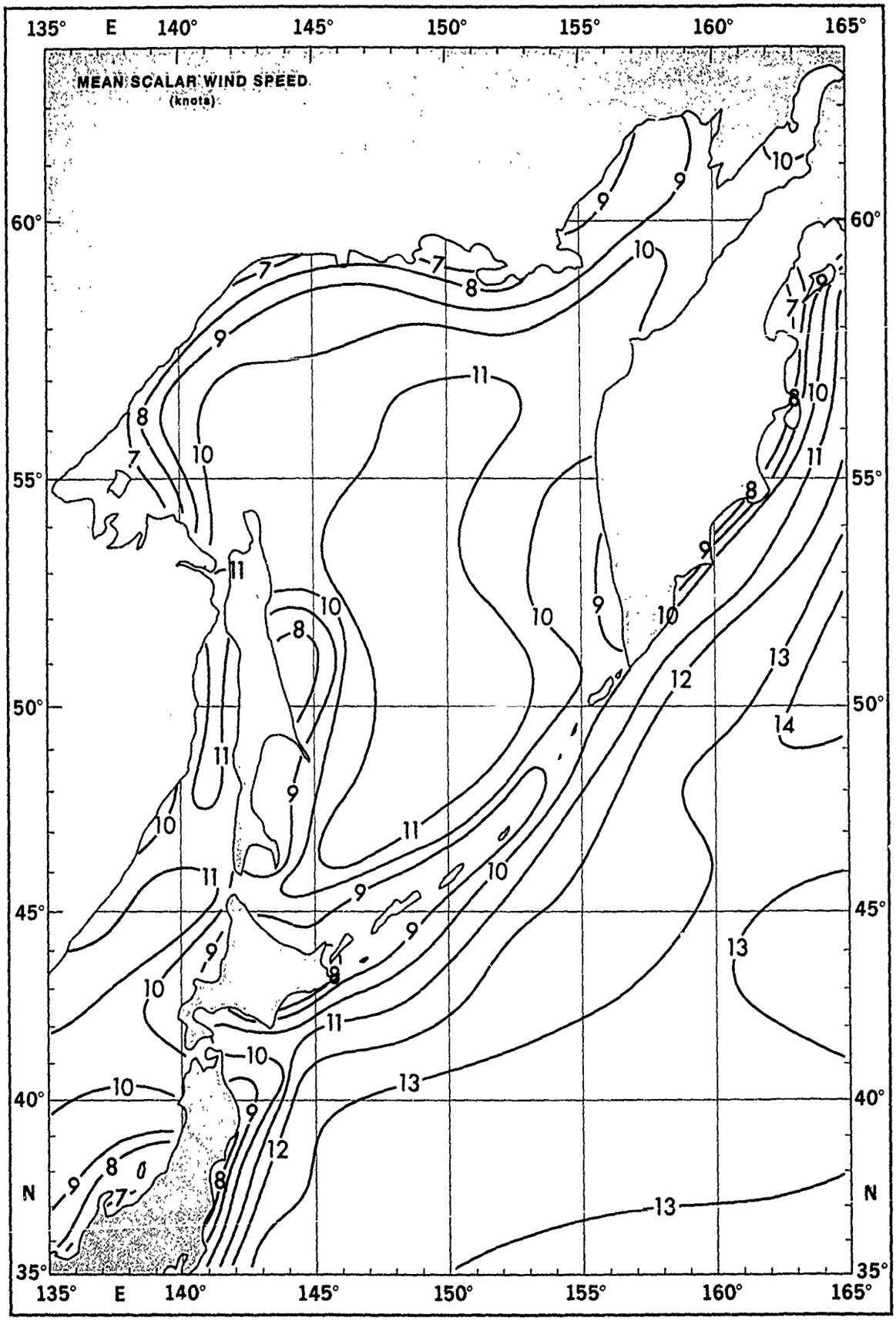
Ceiling-Visibility (Mid Range)



Ceiling-Visibility (Low Range)

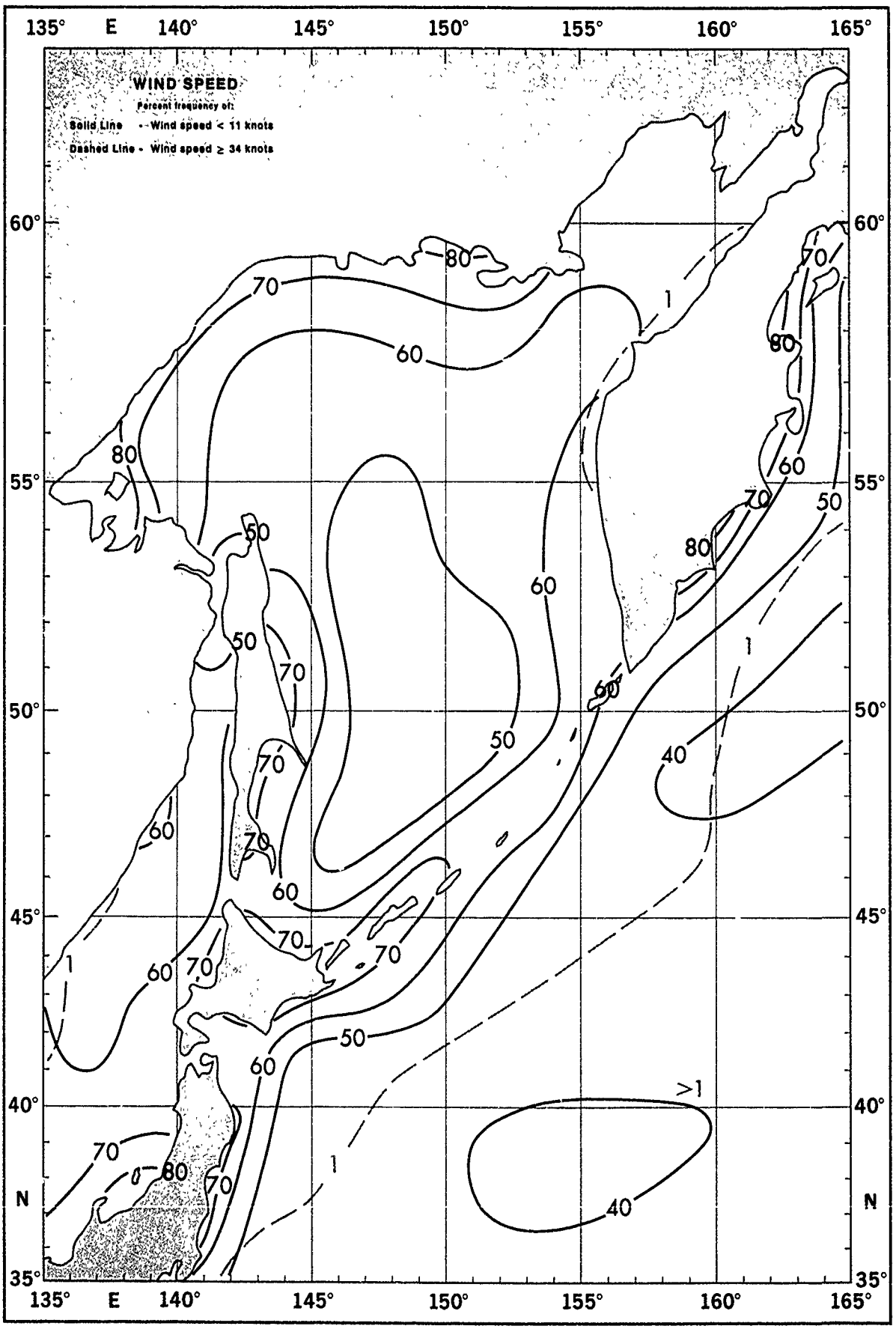



WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°


MEAN SCALAR WIND SPEED
(knots)
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°

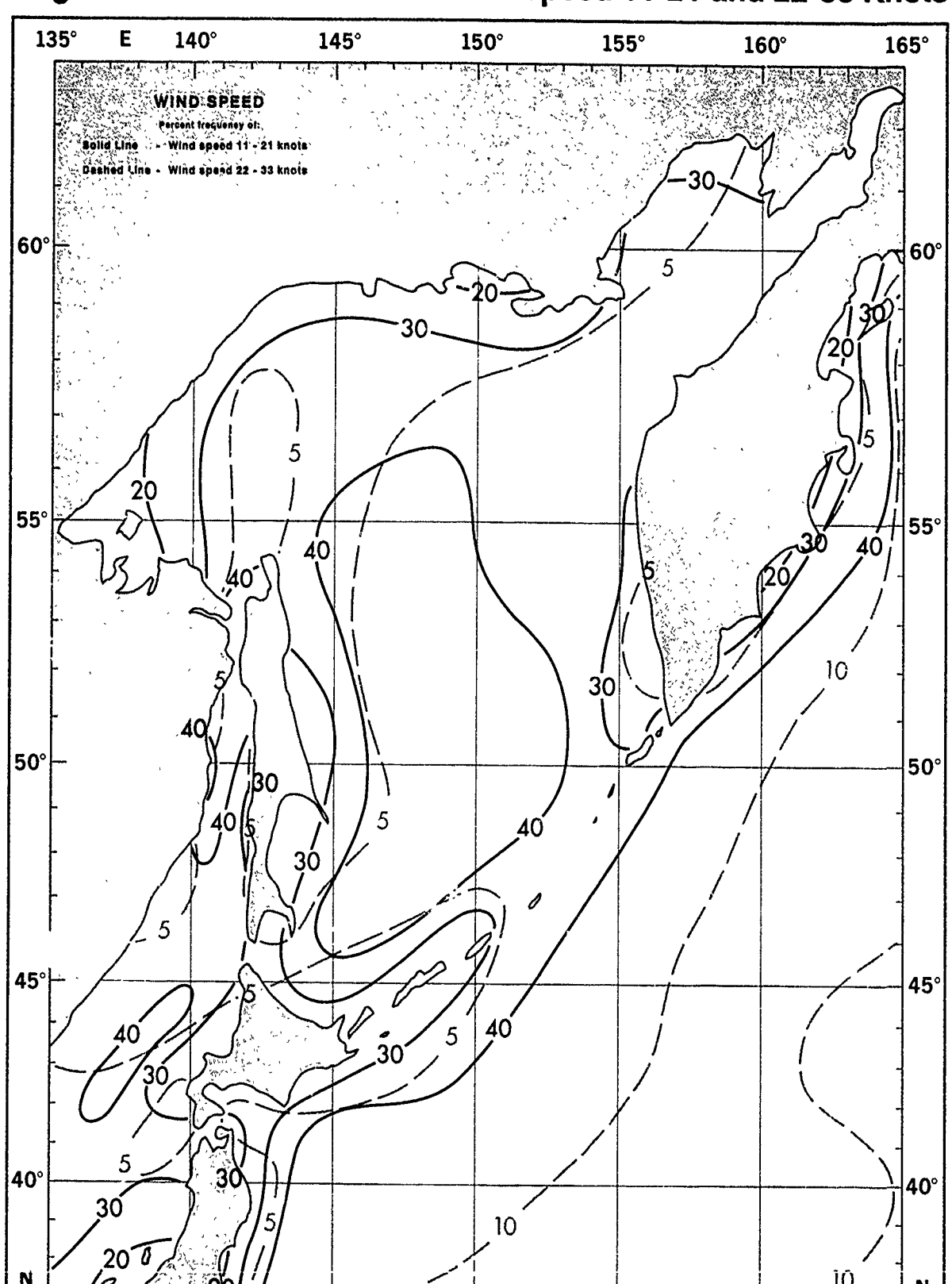
August

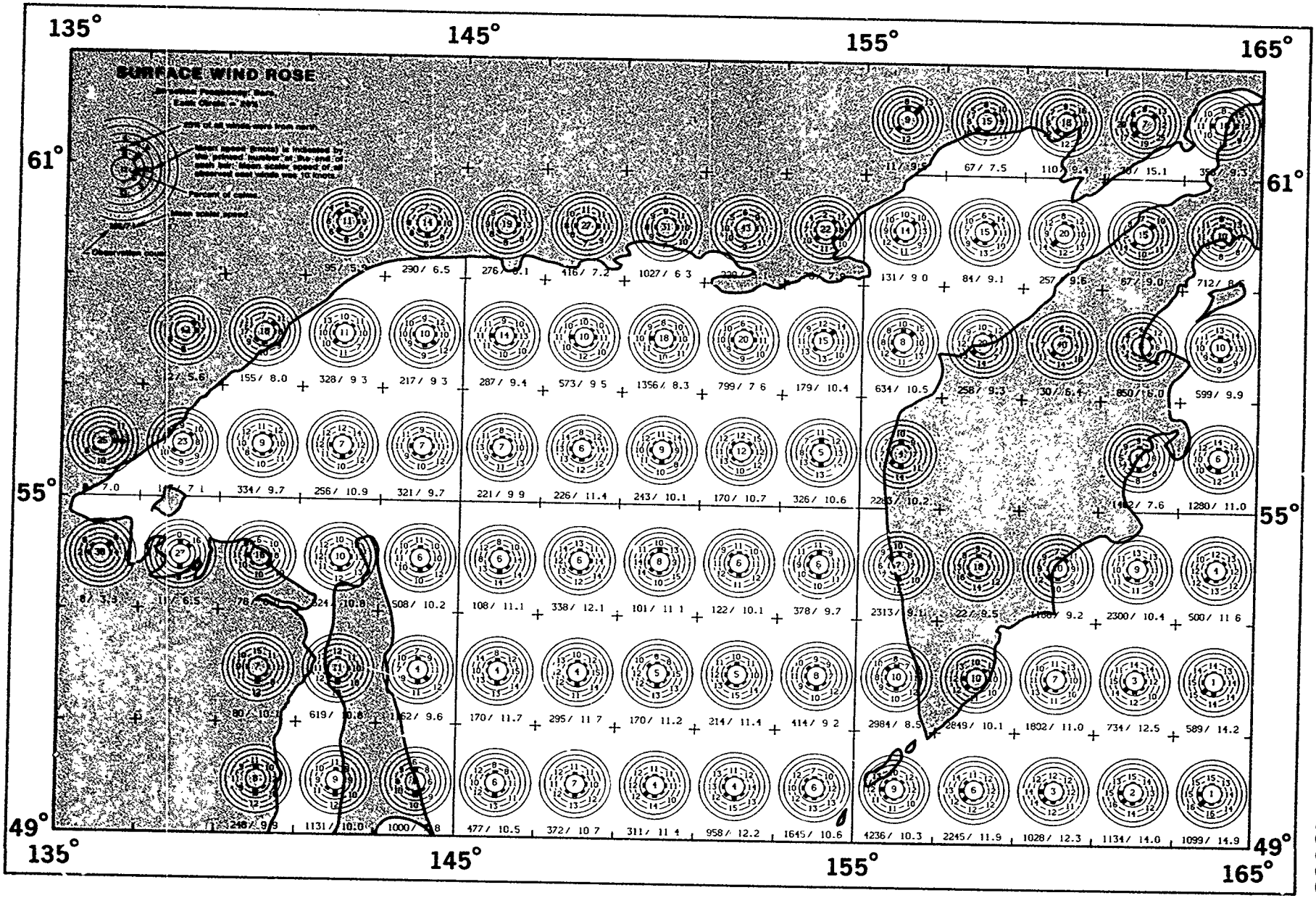
Wind Speed <11 and ≥34 Knots

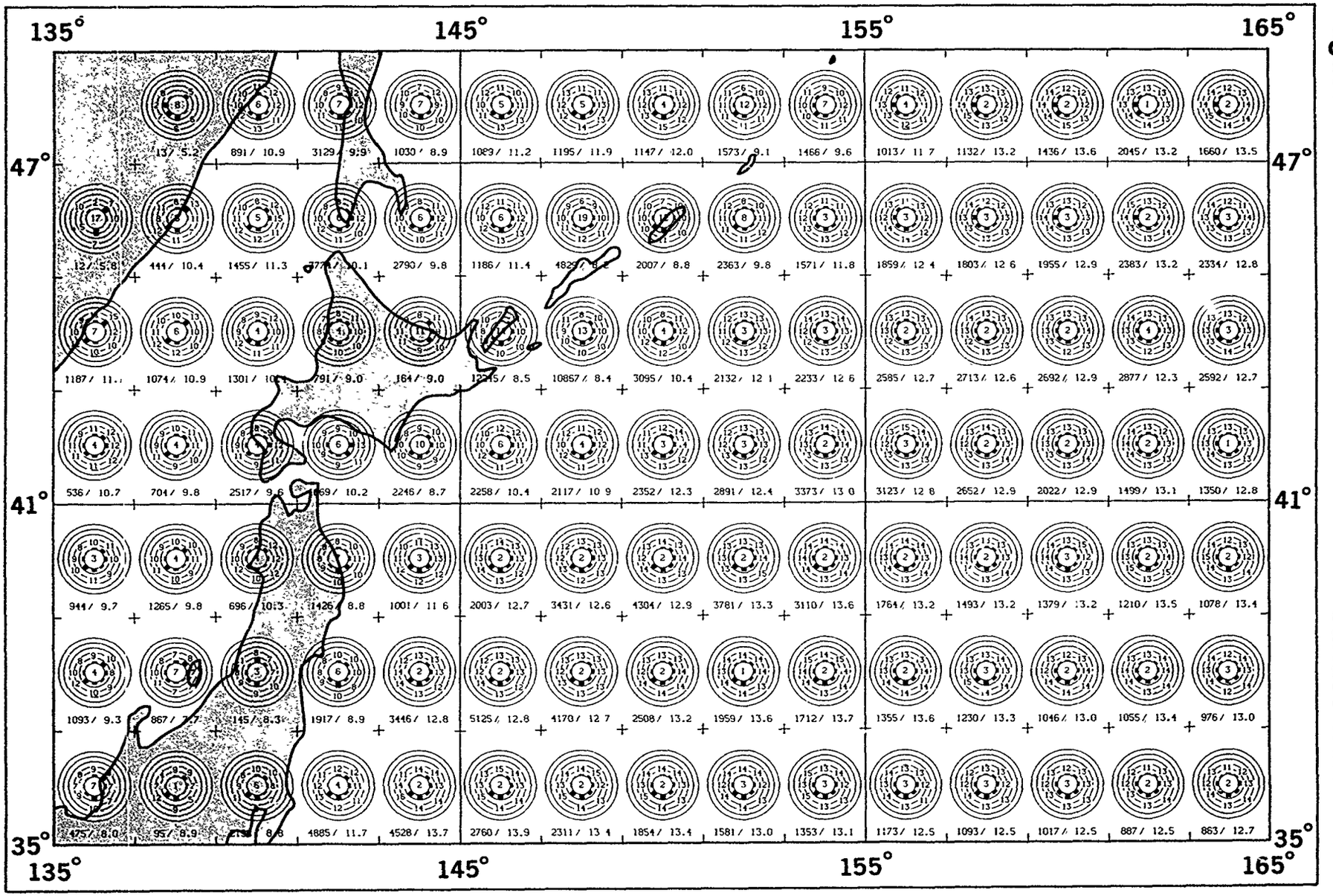


August

Wind Speed 11-21 and 22-33 Knots

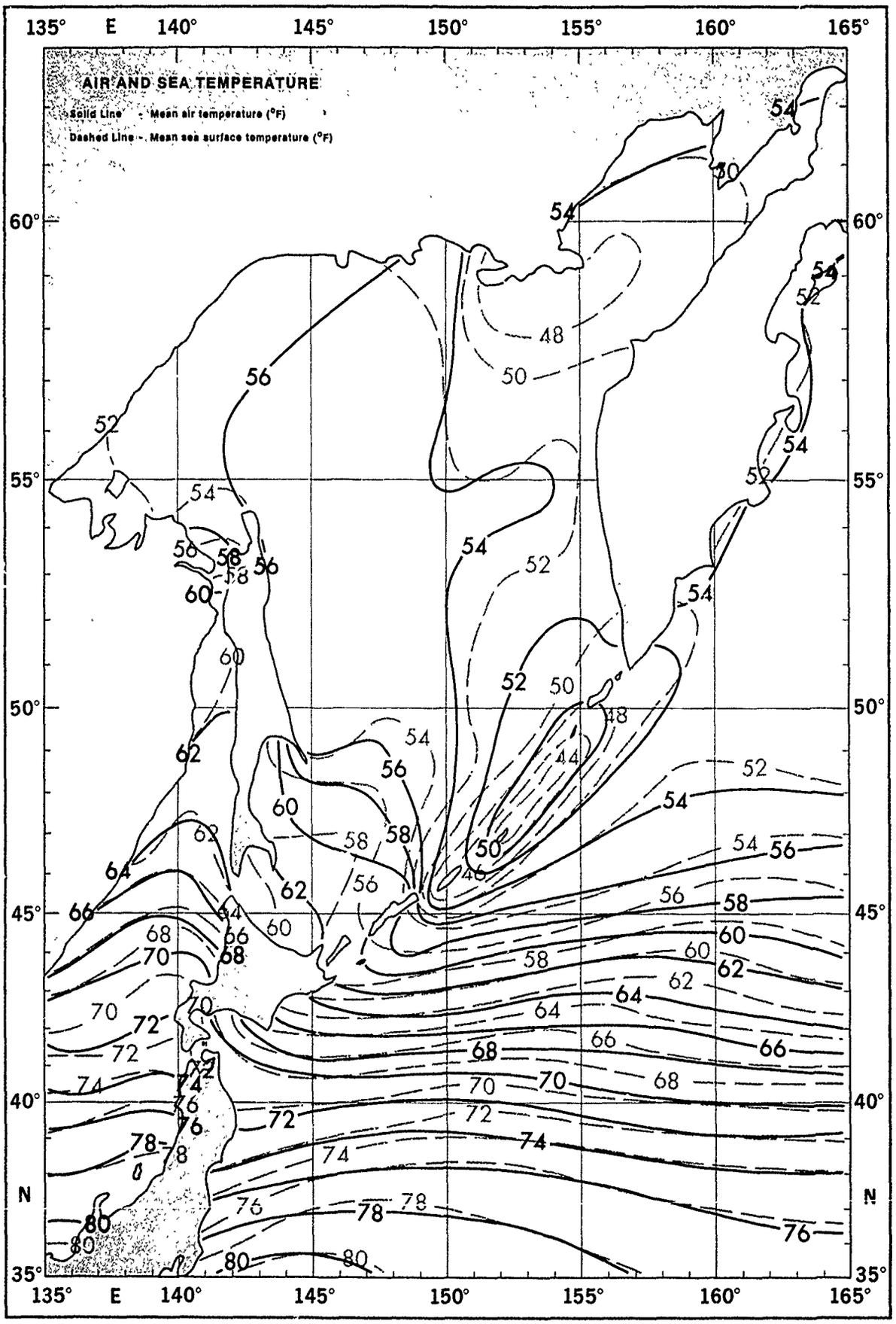


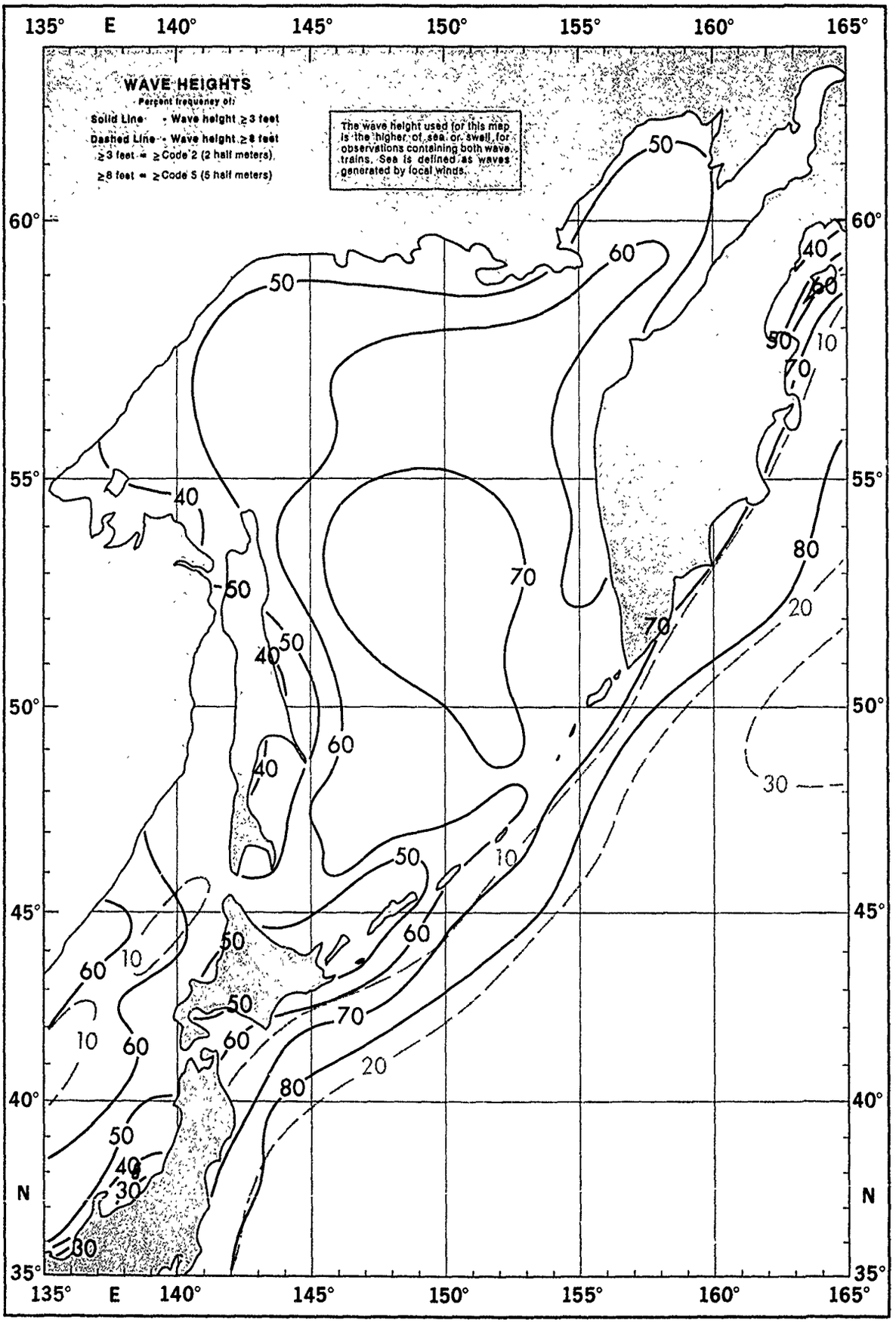

SURFACE WIND ROSE
135°
145°
155°
165°
61°
55°
49°
August
Surface Wind Roses

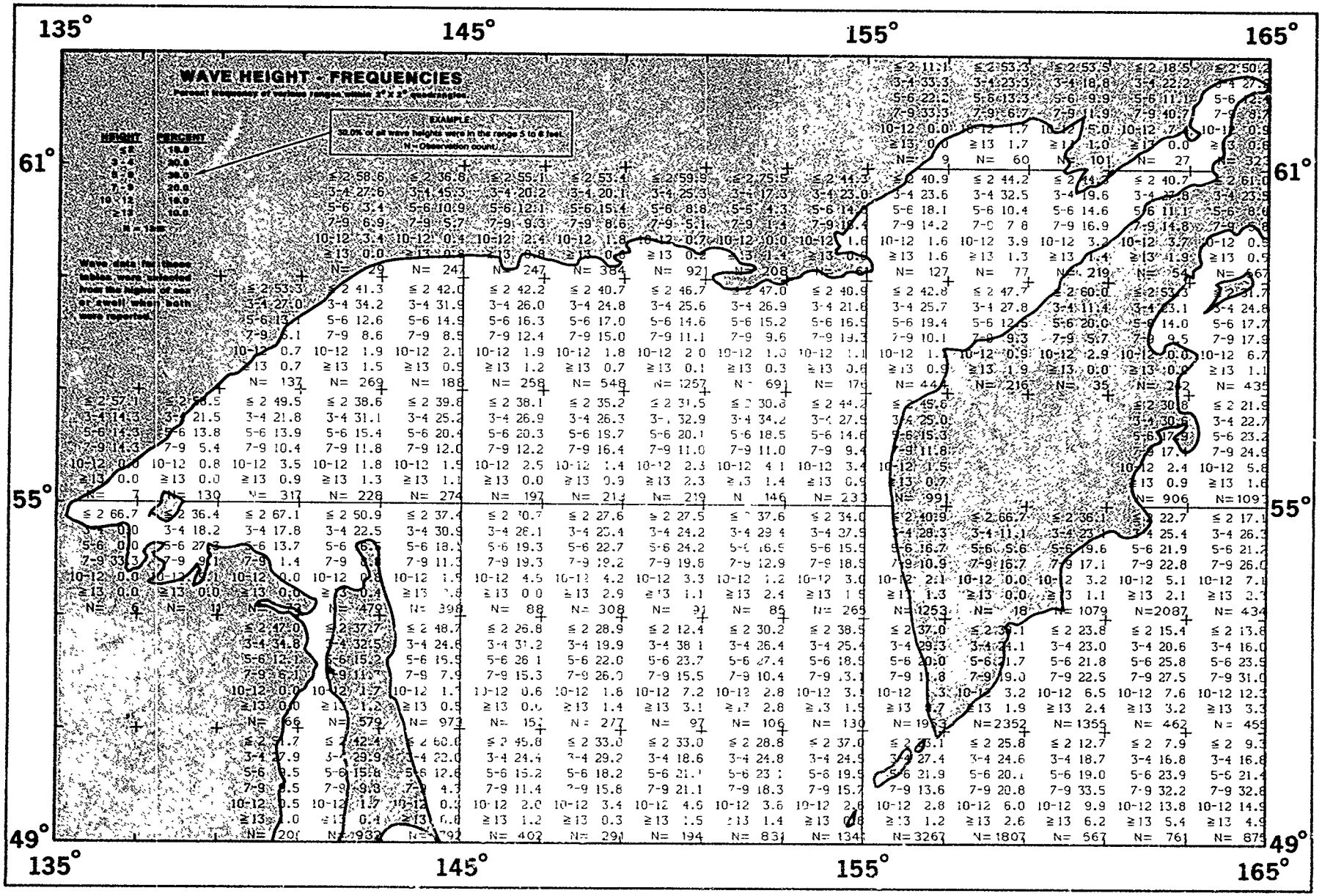

135°
145°
155°
165°
47°
41°
35°
August
Surface Wind Roses

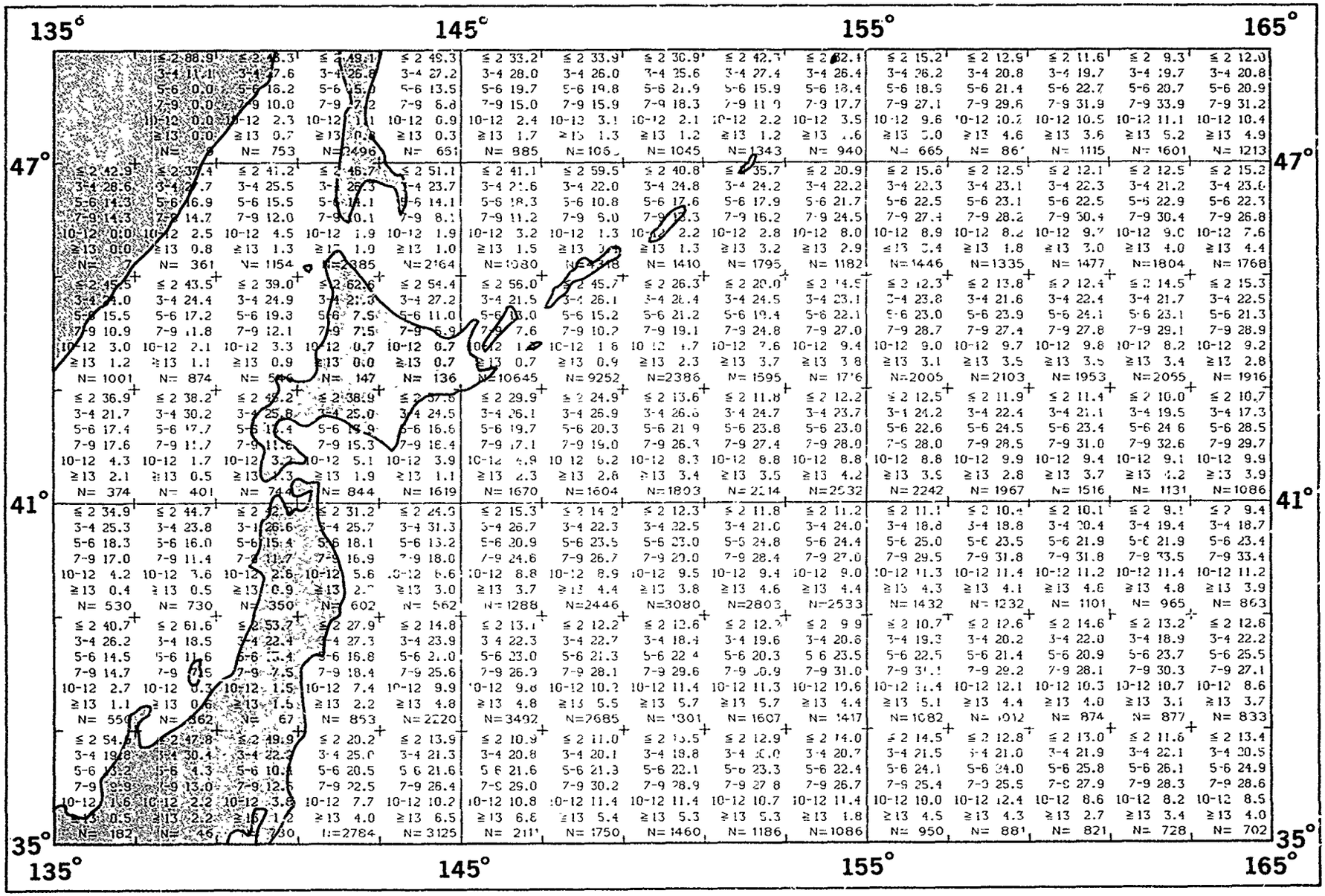
August

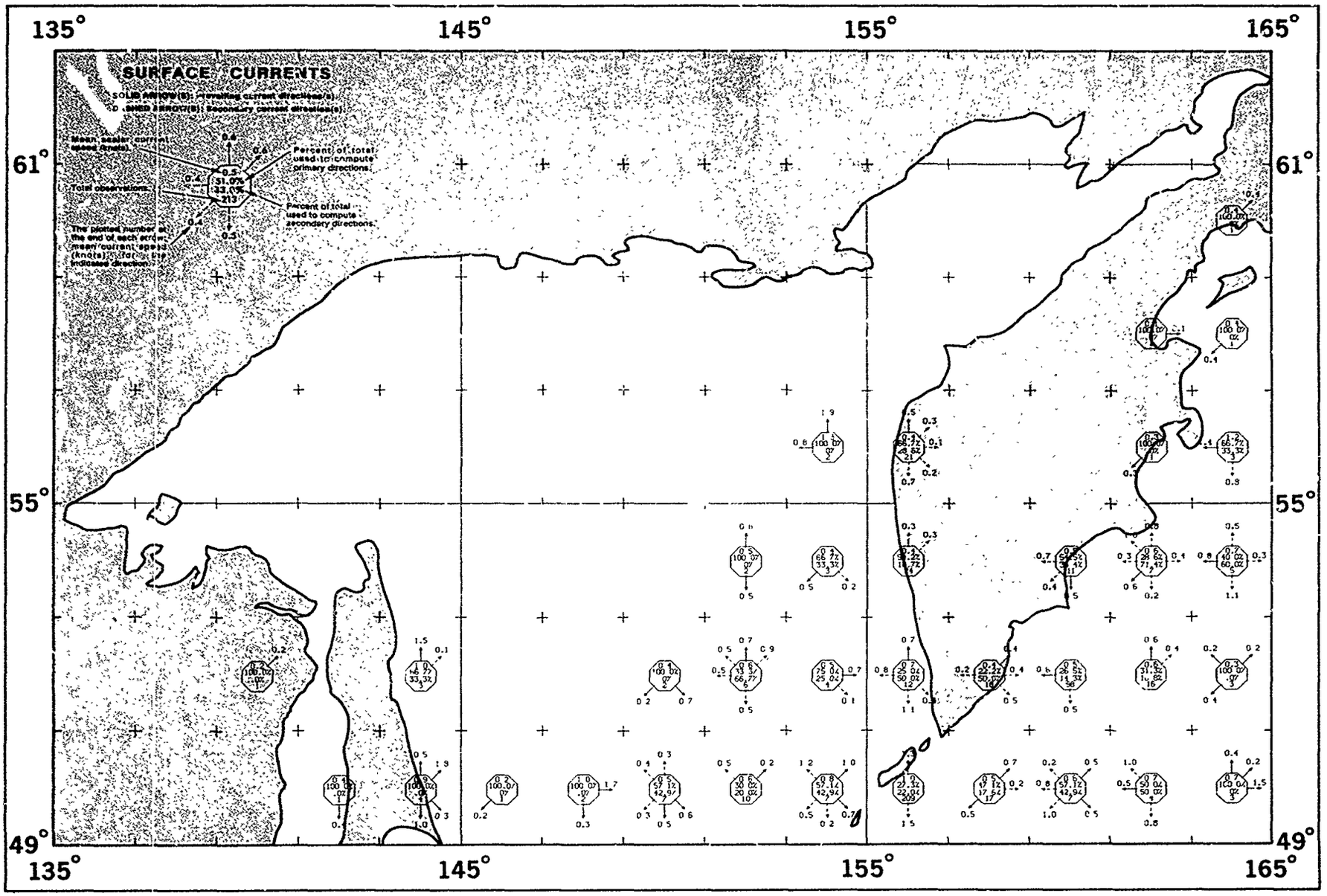
Mean Air and Sea Temperature

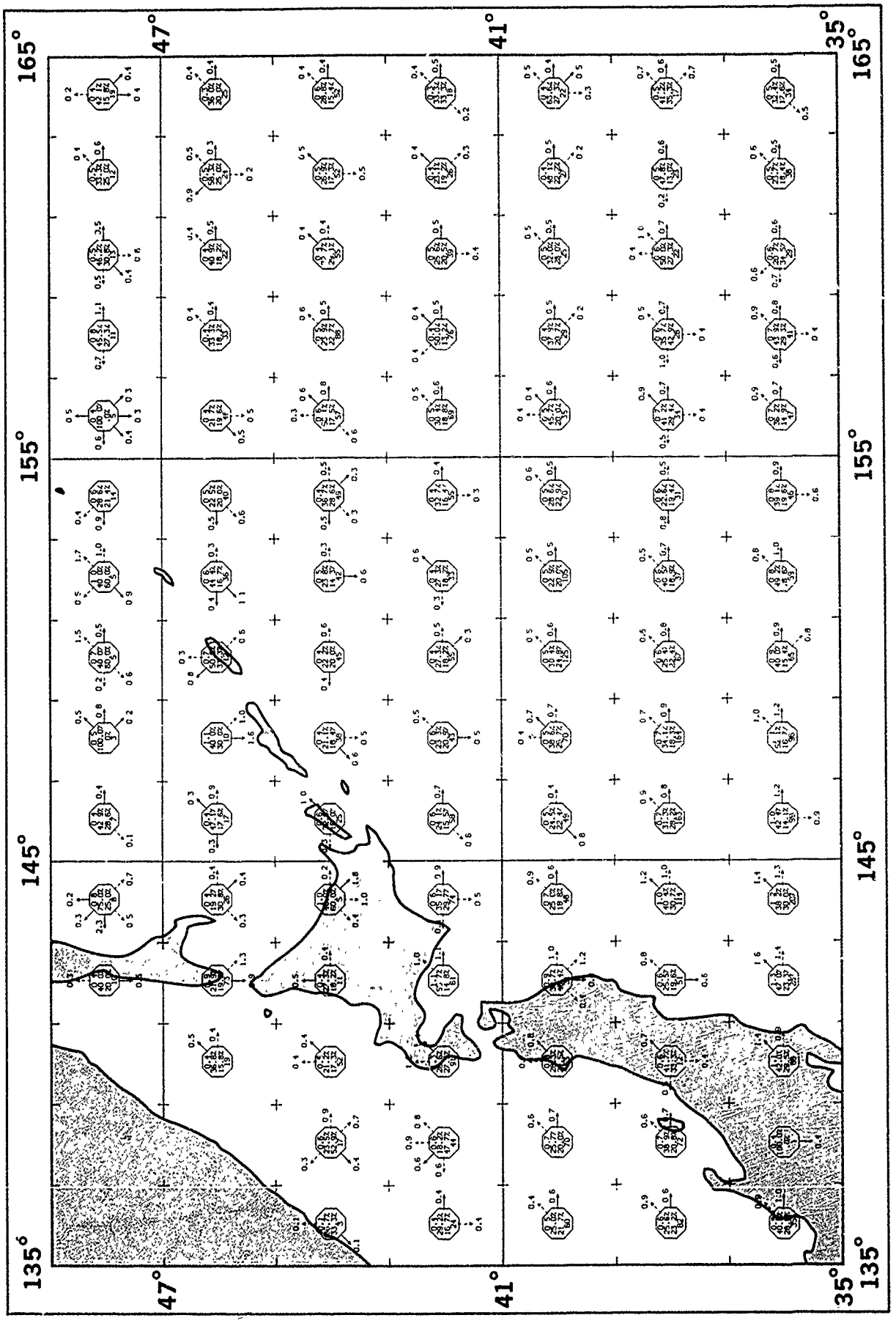


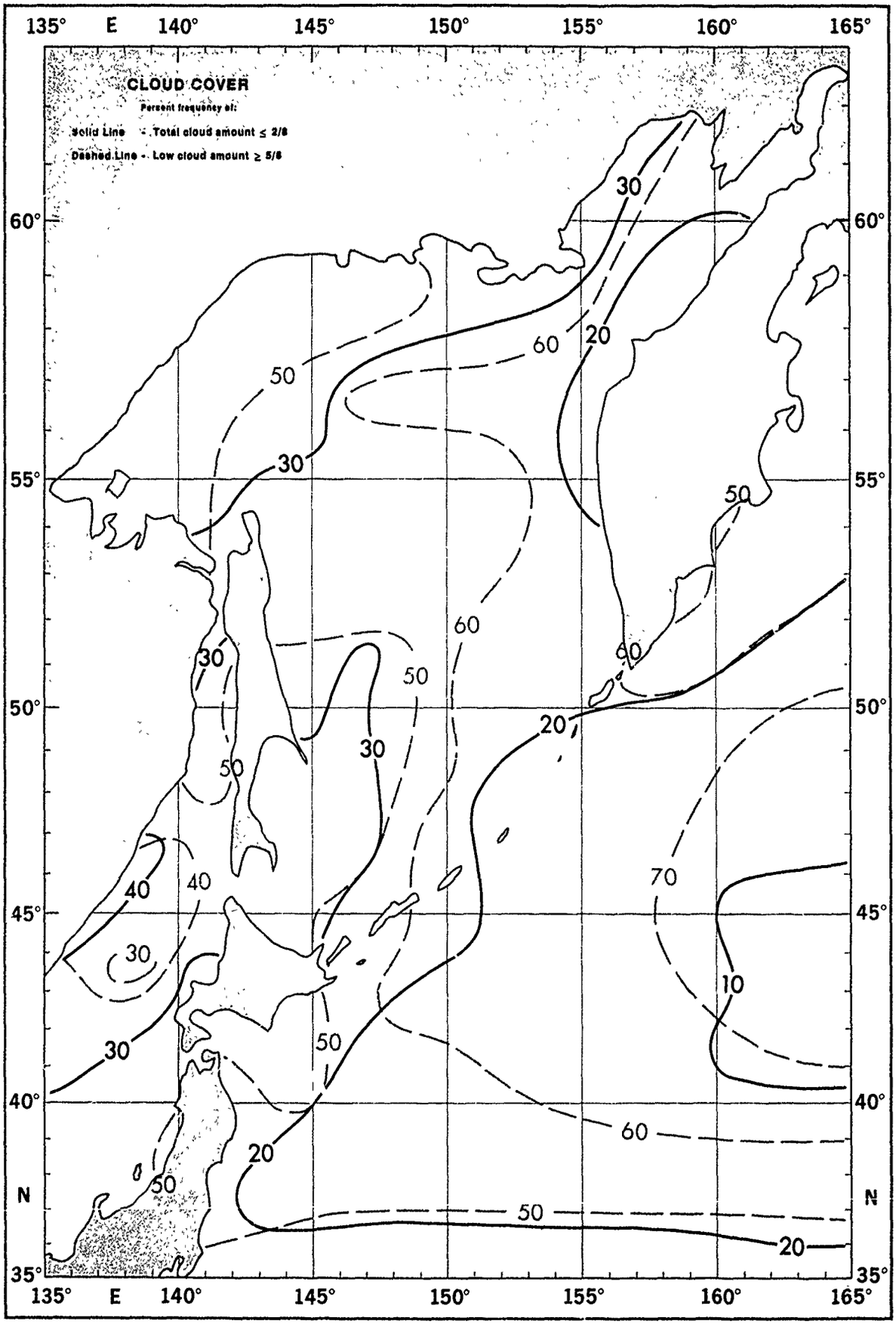

WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥3 feet
Dashed Line - Wave height ≥8 feet
≥3 feet = ≥Code 2 (2 half meters),
≥8 feet = ≥Code 5 (5 half meters)
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°

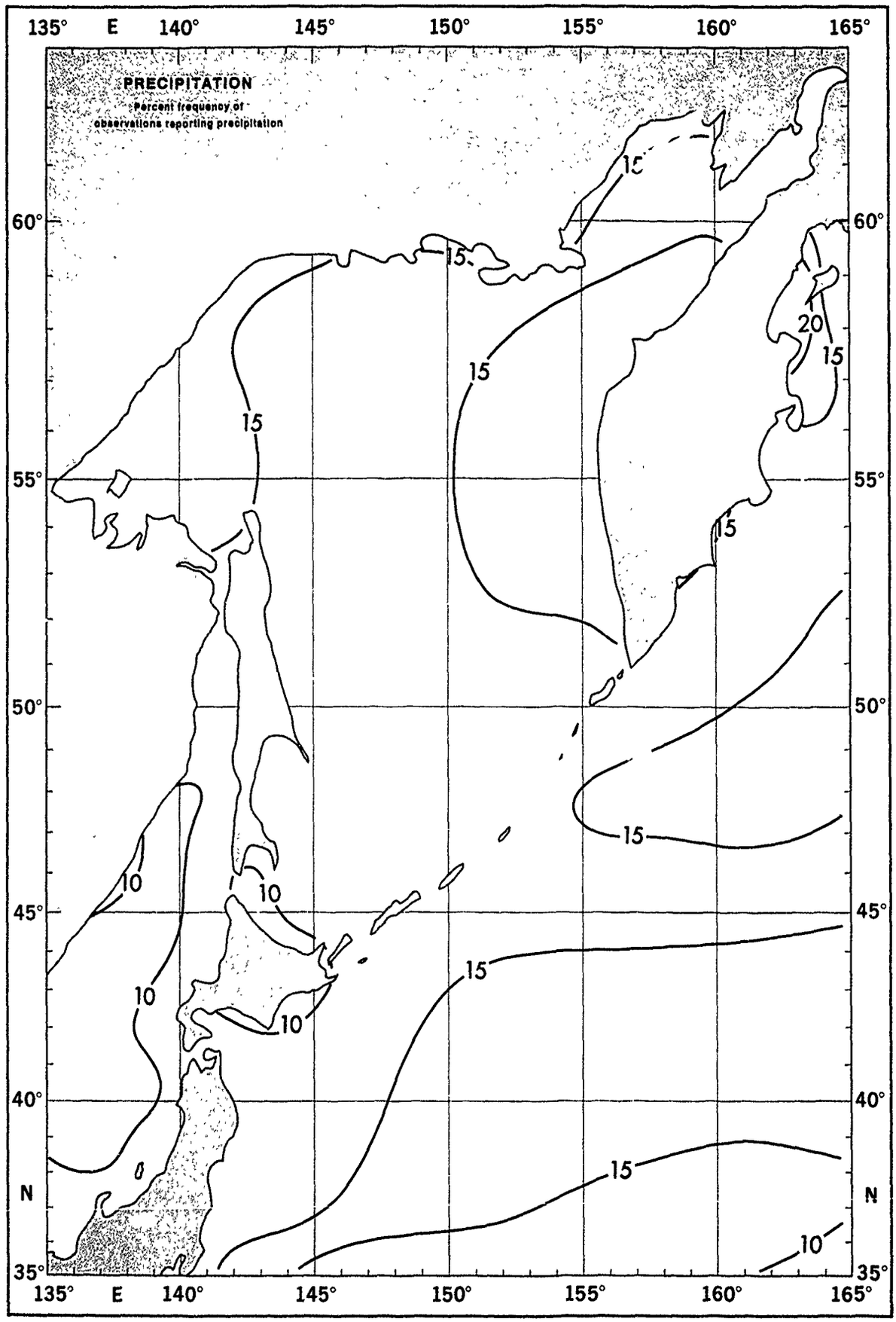

135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° lat x 2° long squares.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 6 feet.
N = Observation count
HEIGHT
PERCENT
≤ 2
3 - 4
5 - 6
7 - 9
10 - 12
≥ 13
N = Total
Wave data for these tables were selected from the higher of sea or swell when both were reported.

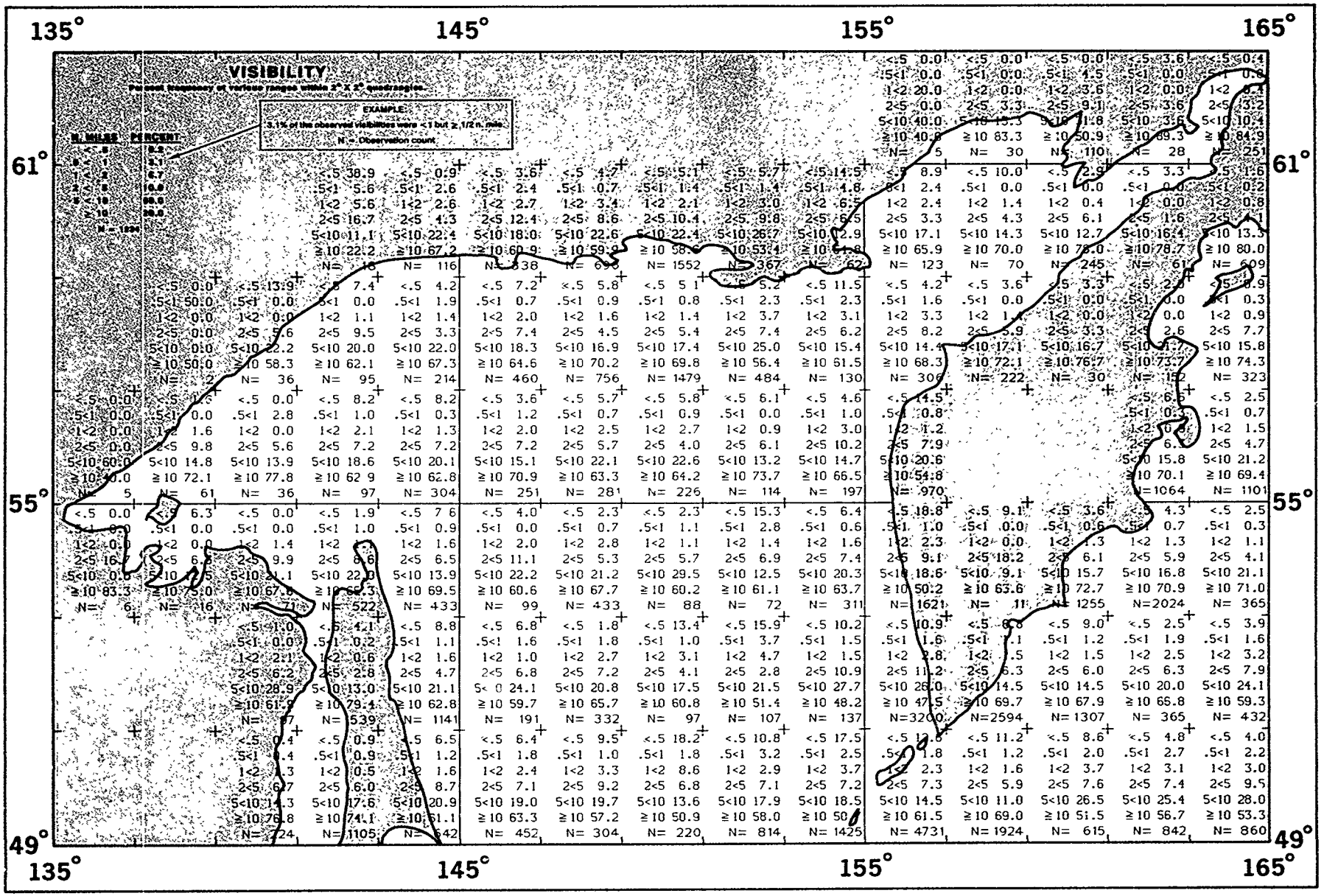

135°
145°
155°
165°
47°
41°
35°
≦2 88.9 ≦2 48.3 ≦2 49.1 ≦2 49.3 ≦2 33.2 ≦2 33.9 ≦2 36.9 ≦2 42.7 ≦2 62.1 ≦2 15.2 ≦2 12.9 ≦2 11.6 ≦2 9.3 ≦2 12.0
3-4 11.1 3-4 27.6 3-4 26.8 3-4 27.2 3-4 28.0 3-4 26.0 3-4 25.6 3-4 27.4 3-4 26.4 3-4 26.2 3-4 20.8 3-4 19.7 3-4 19.7 3-4 20.8
5-6 0.0 5-6 16.2 5-6 15.0 5-6 13.5 5-6 19.7 5-6 19.8 5-6 21.9 5-6 15.9 5-6 18.4 5-6 18.9 5-6 21.4 5-6 22.7 5-6 20.7 5-6 20.9
7-9 0.0 7-9 10.0 7-9 7.2 7-9 6.8 7-9 15.0 7-9 15.9 7-9 18.3 7-9 11.9 7-9 17.7 7-9 27.1 7-9 29.6 7-9 31.9 7-9 33.9 7-9 31.2
10-12 0.0 10-12 2.3 10-12 1.1 10-12 0.9 10-12 2.4 10-12 3.1 10-12 2.1 10-12 2.2 10-12 3.5 10-12 9.6 10-12 10.7 10-12 10.5 10-12 11.1 10-12 10.4
≧13 0.0 ≧13 0.7 ≧13 0.8 ≧13 0.3 ≧13 1.7 ≧13 1.3 ≧13 1.2 ≧13 1.2 ≧13 1.6 ≧13 5.0 ≧13 4.6 ≧13 3.6 ≧13 5.2 ≧13 4.9
N= 8 N= 753 N=2496 N= 651 N= 885 N=1062 N=1045 N=1343 N= 940 N= 665 N= 867 N= 1115 N= 1601 N= 1213
≦2 42.9 ≦2 37.4 ≦2 41.2 ≦2 46.7 ≦2 51.1 ≦2 41.1 ≦2 59.5 ≦2 40.8 ≦2 35.7 ≦2 20.9 ≦2 15.6 ≦2 12.5 ≦2 12.1 ≦2 12.5 ≦2 15.2
3-4 28.6 3-4 27.7 3-4 25.5 3-4 26.3 3-4 23.7 3-4 21.6 3-4 22.0 3-4 24.8 3-4 24.2 3-4 22.2 3-4 22.3 3-4 23.1 3-4 22.3 3-4 21.2 3-4 23.6
5-6 14.3 5-6 16.9 5-6 15.5 5-6 14.1 5-6 14.1 5-6 18.3 5-6 10.8 5-6 17.6 5-6 17.9 5-6 21.7 5-6 22.5 5-6 23.1 5-6 22.5 5-6 22.9 5-6 22.3
7-9 14.3 7-9 14.7 7-9 12.0 7-9 10.1 7-9 8.1 7-9 11.2 7-9 9.0 7-9 12.3 7-9 16.2 7-9 24.5 7-9 27.4 7-9 28.2 7-9 30.4 7-9 30.4 7-9 26.8
10-12 0.0 10-12 2.5 10-12 4.5 10-12 1.9 10-12 1.9 10-12 3.2 10-12 1.3 10-12 2.2 10-12 2.8 10-12 8.0 10-12 8.9 10-12 8.2 10-12 9.7 10-12 9.0 10-12 7.6
≧13 0.0 ≧13 0.8 ≧13 1.3 ≧13 1.5 ≧13 1.9 ≧13 1.0 ≧13 1.5 ≧13 1.3 ≧13 3.2 ≧13 2.9 ≧13 3.4 ≧13 1.8 ≧13 3.0 ≧13 4.0 ≧13 4.4
N= 7 N= 361 N= 1154 N=2385 N=2164 N=1080 N=1418 N= 1410 N= 1795 N= 1182 N=1446 N=1335 N= 1477 N=1804 N= 1768
≦2 45.5 ≦2 43.5 ≦2 39.0 ≦2 62.6 ≦2 54.4 ≦2 56.0 ≦2 45.7 ≦2 26.3 ≦2 20.0 ≦2 14.9 ≦2 12.3 ≦2 13.8 ≦2 12.4 ≦2 14.5 ≦2 15.3
3-4 24.0 3-4 24.4 3-4 24.9 3-4 21.0 3-4 27.2 3-4 21.5 3-4 26.1 3-4 26.4 3-4 24.5 3-4 23.1 3-4 23.8 3-4 21.6 3-4 22.4 3-4 21.7 3-4 22.5
5-6 15.5 5-6 17.2 5-6 19.3 5-6 7.5 5-6 11.0 5-6 18.0 5-6 15.2 5-6 21.2 5-6 19.4 5-6 22.1 5-6 23.0 5-6 23.9 5-6 24.1 5-6 23.1 5-6 21.3
7-9 10.9 7-9 11.8 7-9 12.1 7-9 7.5 7-9 6.9 7-9 7.6 7-9 10.2 7-9 19.1 7-9 24.8 7-9 27.0 7-9 28.7 7-9 27.4 7-9 27.8 7-9 29.1 7-9 28.9
10-12 3.0 10-12 2.1 10-12 3.3 10-12 0.7 10-12 0.7 10-12 1.2 10-12 1.6 10-12 4.7 10-12 7.6 10-12 9.4 10-12 9.0 10-12 9.7 10-12 9.8 10-12 8.2 10-12 9.2
≧13 1.2 ≧13 1.1 ≧13 0.9 ≧13 0.0 ≧13 0.7 ≧13 0.7 ≧13 0.9 ≧13 2.3 ≧13 3.7 ≧13 3.8 ≧13 3.1 ≧13 3.5 ≧13 3.5 ≧13 3.4 ≧13 2.8
N= 1001 N= 874 N= 546 N= 147 N= 136 N=10645 N= 9252 N=2386 N= 1595 N= 1776 N=2005 N=2103 N= 1953 N=2055 N= 1916
≦2 36.9 ≦2 38.2 ≦2 42.2 ≦2 38.9 ≦2 37.6 ≦2 29.9 ≦2 24.9 ≦2 13.6 ≦2 11.8 ≦2 12.2 ≦2 12.5 ≦2 11.9 ≦2 11.4 ≦2 10.0 ≦2 10.7
3-4 21.7 3-4 30.2 3-4 25.8 3-4 25.0 3-4 24.5 3-4 26.1 3-4 26.9 3-4 26.6 3-4 24.7 3-4 23.7 3-4 24.2 3-4 22.4 3-4 21.1 3-4 19.5 3-4 17.3
5-6 17.4 5-6 17.7 5-6 16.4 5-6 15.9 5-6 16.6 5-6 19.7 5-6 20.3 5-6 21.9 5-6 23.8 5-6 23.0 5-6 22.6 5-6 24.5 5-6 23.4 5-6 24.6 5-6 28.5
7-9 17.6 7-9 11.7 7-9 11.6 7-9 15.3 7-9 18.4 7-9 17.1 7-9 19.0 7-9 26.3 7-9 27.4 7-9 28.0 7-9 28.0 7-9 28.5 7-9 31.0 7-9 32.6 7-9 29.7
10-12 4.3 10-12 1.7 10-12 3.2 10-12 5.1 10-12 3.9 10-12 4.9 10-12 6.2 10-12 8.3 10-12 8.8 10-12 8.8 10-12 8.8 10-12 9.9 10-12 9.4 10-12 9.1 10-12 9.9
≧13 2.1 ≧13 0.5 ≧13 1.3 ≧13 1.9 ≧13 1.1 ≧13 2.3 ≧13 2.8 ≧13 3.4 ≧13 3.5 ≧13 4.2 ≧13 3.9 ≧13 2.8 ≧13 3.7 ≧13 4.2 ≧13 3.9
N= 374 N= 401 N= 744 N= 844 N= 1619 N= 1670 N=1604 N=1803 N= 2214 N=2532 N= 2242 N= 1967 N= 1516 N= 1131 N=1086
≦2 34.9 ≦2 44.7 ≦2 32.6 ≦2 31.2 ≦2 24.3 ≦2 15.3 ≦2 14.2 ≦2 12.3 ≦2 11.8 ≦2 11.2 ≦2 11.1 ≦2 10.4 ≦2 10.1 ≦2 9.1 ≦2 9.4
3-4 25.3 3-4 23.8 3-4 26.6 3-4 25.7 3-4 31.3 3-4 26.7 3-4 22.3 3-4 22.5 3-4 21.0 3-4 24.0 3-4 18.8 3-4 18.8 3-4 20.4 3-4 19.4 3-4 18.7
5-6 18.3 5-6 16.0 5-6 15.4 5-6 18.1 5-6 13.2 5-6 20.9 5-6 23.5 5-6 23.0 5-6 24.8 5-6 24.4 5-6 25.0 5-6 23.5 5-6 21.9 5-6 21.9 5-6 23.4
7-9 17.0 7-9 11.4 7-9 11.7 7-9 16.9 7-9 18.0 7-9 24.6 7-9 26.7 7-9 29.0 7-9 28.4 7-9 27.0 7-9 29.5 7-9 31.8 7-9 31.8 7-9 33.5 7-9 33.4
10-12 4.2 10-12 3.6 10-12 2.6 10-12 5.6 10-12 6.6 10-12 8.8 10-12 8.9 10-12 9.5 10-12 9.4 10-12 9.0 10-12 11.3 10-12 11.4 10-12 11.2 10-12 11.4 10-12 11.2
≧13 0.4 ≧13 0.5 ≧13 0.9 ≧13 2.7 ≧13 3.0 ≧13 3.7 ≧13 4.4 ≧13 3.8 ≧13 4.6 ≧13 4.4 ≧13 4.3 ≧13 4.1 ≧13 4.6 ≧13 4.8 ≧13 3.9
N= 530 N= 730 N= 350 N= 602 N= 562 N=1288 N=2446 N=3080 N=2803 N=2533 N= 1432 N= 1232 N= 1101 N= 965 N= 863
≦2 40.7 ≦2 61.6 ≦2 53.7 ≦2 27.9 ≦2 14.8 ≦2 13.1 ≦2 12.2 ≦2 12.6 ≦2 12.3 ≦2 9.9 ≦2 10.7 ≦2 12.6 ≦2 14.6 ≦2 13.2 ≦2 12.8
3-4 26.2 3-4 18.5 3-4 22.4 3-4 27.3 3-4 23.9 3-4 22.3 3-4 22.7 3-4 18.4 3-4 19.6 3-4 20.6 3-4 19.3 3-4 20.2 3-4 22.0 3-4 18.9 3-4 22.2
5-6 14.5 5-6 11.6 5-6 11.4 5-6 16.8 5-6 21.0 5-6 23.0 5-6 21.3 5-6 22.4 5-6 20.3 5-6 23.5 5-6 22.5 5-6 21.4 5-6 20.9 5-6 23.7 5-6 25.5
7-9 14.7 7-9 9.5 7-9 7.5 7-9 18.4 7-9 25.6 7-9 26.3 7-9 28.1 7-9 29.6 7-9 30.9 7-9 31.0 7-9 31.1 7-9 29.2 7-9 28.1 7-9 30.3 7-9 27.1
10-12 2.7 10-12 0.3 10-12 1.5 10-12 7.4 10-12 9.9 10-12 9.8 10-12 10.2 10-12 11.4 10-12 11.3 10-12 10.6 10-12 11.4 10-12 12.1 10-12 10.3 10-12 10.7 10-12 8.6
≧13 1.1 ≧13 0.6 ≧13 1.5 ≧13 2.2 ≧13 4.8 ≧13 4.8 ≧13 5.5 ≧13 5.7 ≧13 5.7 ≧13 4.4 ≧13 5.1 ≧13 4.4 ≧13 4.0 ≧13 3.1 ≧13 3.7
N= 559 N= 362 N= 67 N= 853 N=2220 N=3492 N=2685 N=1301 N= 1607 N= 1417 N=1082 N=1012 N= 874 N= 877 N= 833
≦2 54.6 ≦2 47.8 ≦2 49.9 ≦2 20.2 ≦2 13.9 ≦2 10.9 ≦2 11.0 ≦2 13.5 ≦2 12.9 ≦2 14.0 ≦2 14.5 ≦2 12.8 ≦2 13.0 ≦2 11.6 ≦2 13.4
3-4 19.8 3-4 30.4 3-4 22.2 3-4 25.0 3-4 21.3 3-4 20.8 3-4 20.1 3-4 18.8 3-4 20.0 3-4 20.7 3-4 21.5 3-4 21.0 3-4 21.9 3-4 22.1 3-4 20.5
5-6 13.2 5-6 4.3 5-6 10.1 5-6 20.5 5-6 21.6 5-6 21.6 5-6 21.3 5-6 22.1 5-6 23.3 5-6 22.4 5-6 24.1 5-6 24.0 5-6 25.8 5-6 26.1 5-6 24.9
7-9 [illegible] 7-9 13.0 7-9 12.5 7-9 22.5 7-9 26.4 7-9 29.0 7-9 30.2 7-9 28.9 7-9 27.8 7-9 26.7 7-9 25.4 7-9 25.5 7-9 27.9 7-9 28.3 7-9 28.6
10-12 1.6 10-12 2.2 10-12 3.6 10-12 7.7 10-12 10.2 10-12 10.8 10-12 11.4 10-12 11.4 10-12 10.7 10-12 11.4 10-12 10.0 10-12 12.4 10-12 8.6 10-12 8.2 10-12 8.5
≧13 0.5 ≧13 2.2 ≧13 1.2 ≧13 4.0 ≧13 6.5 ≧13 6.8 ≧13 5.4 ≧13 5.3 ≧13 5.3 ≧13 4.8 ≧13 4.5 ≧13 4.3 ≧13 2.7 ≧13 3.4 ≧13 4.0
N= 182 N= 46 N= 730 N=2784 N=3125 N= 2111 N=1750 N=1460 N= 1186 N=1086 N= 950 N= 881 N= 821 N= 728 N= 702

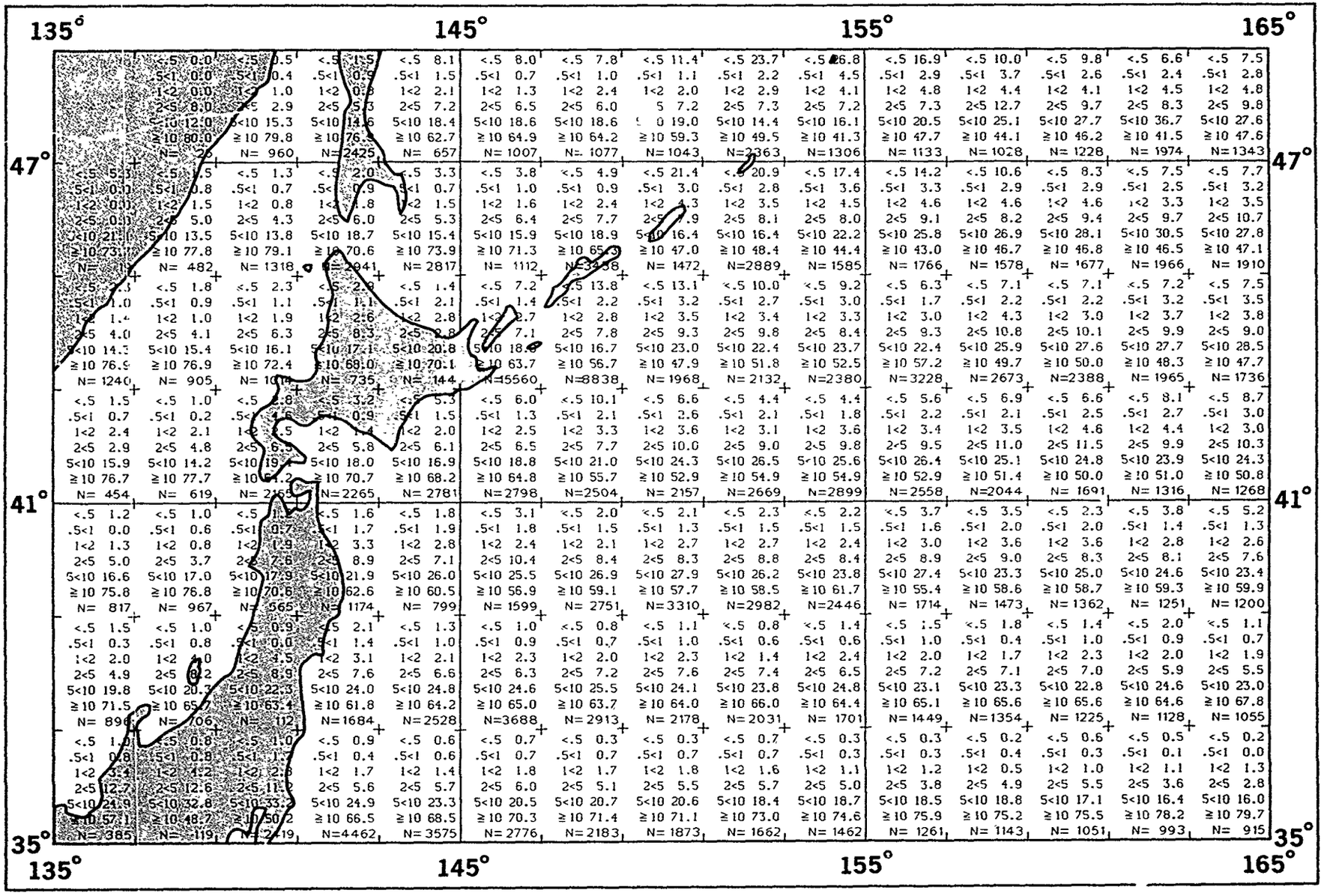

SURFACE CURRENTS
135°
145°
155°
165°
61°
55°
49°
Mean scalar current speed (knots).
Total observations.
Percent of total used to compute primary directions.
Percent of total used to compute secondary directions.
The plotted number at the end of each arrow is mean current speed (knots) for the indicated direction.

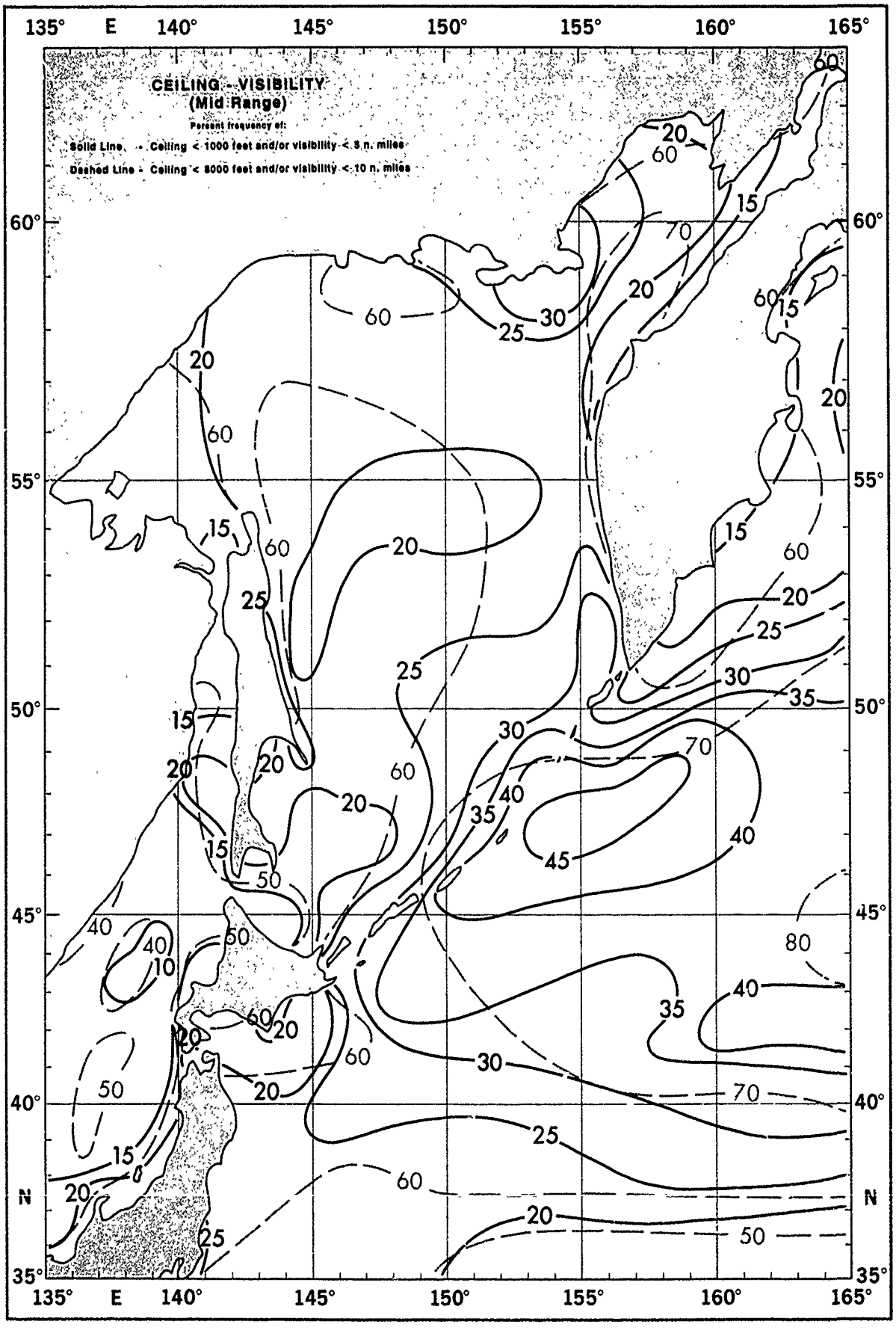

165°
155°
145°
135°
47°
41°
35°

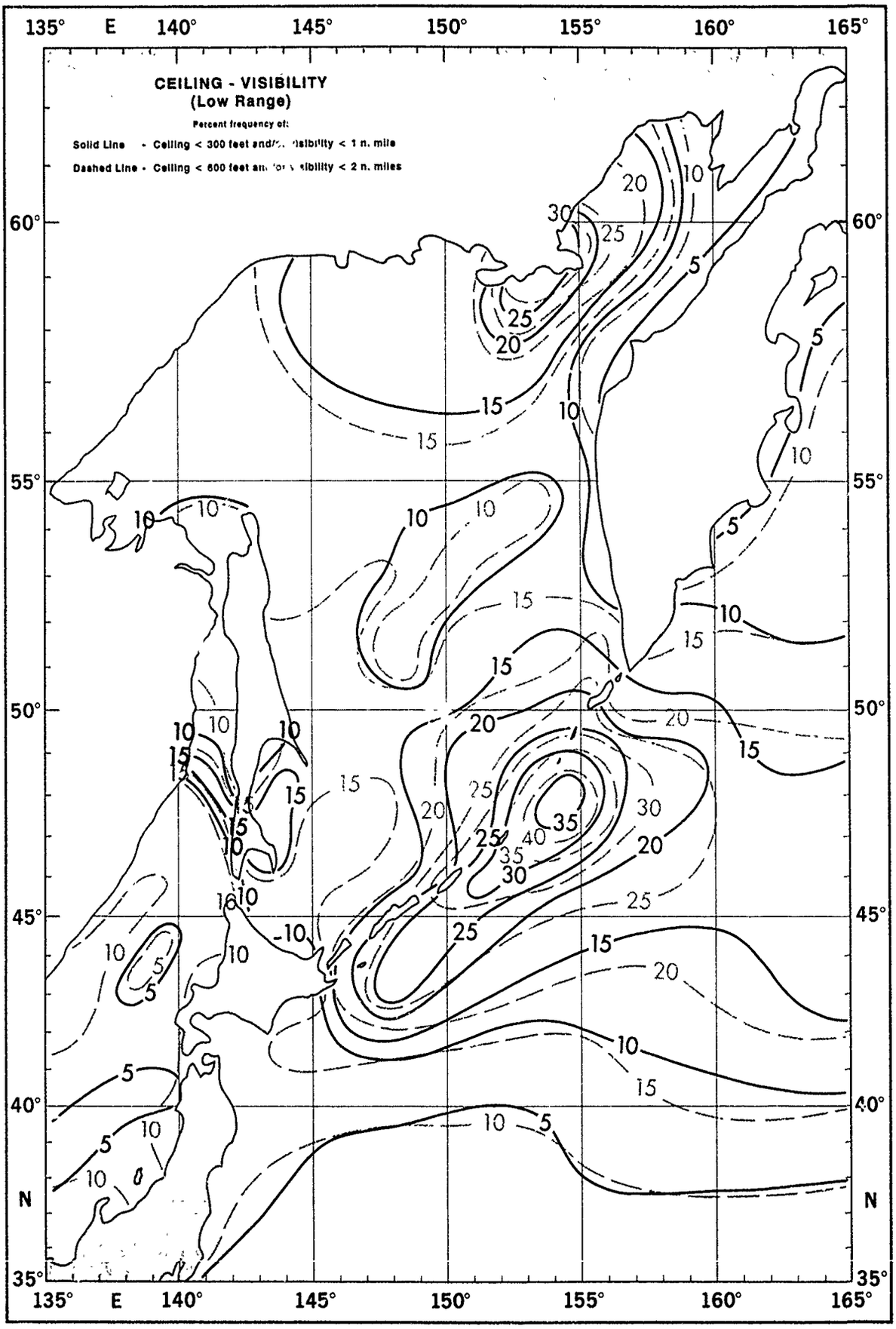

CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
30
60
20
50
30
50
60
30
60
20
50
30
50
40
40
30
70
10
30
50
60
20
50
20

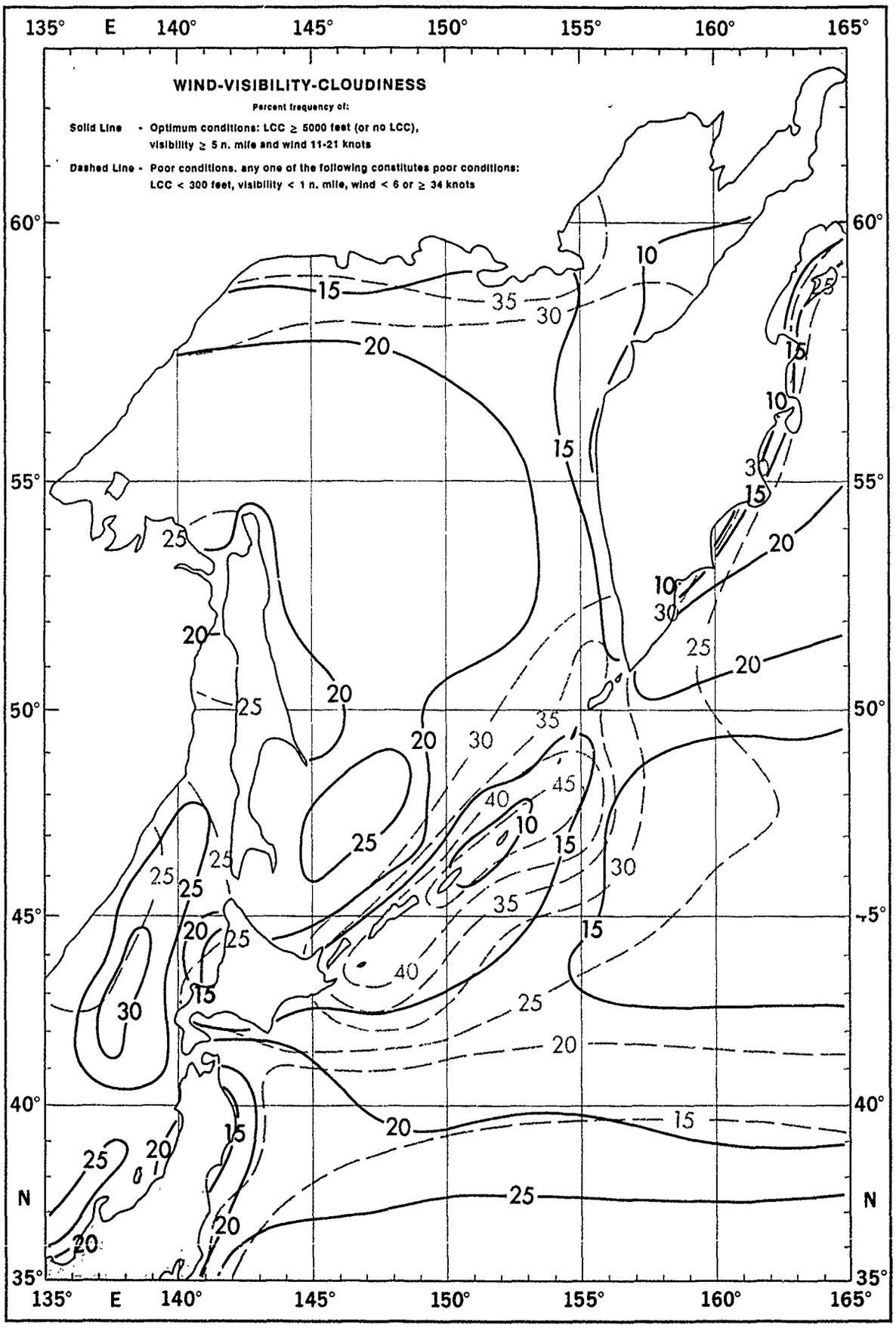

PRECIPITATION
Percent frequency of
observations reporting precipitation
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
15
20
10


VISIBILITY
Percent frequency of various ranges within 2° x 2° quadrangles.
EXAMPLE:
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N = Observation count.
N. MILES
PERCENT
135°
145°
155°
165°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°
September
Visibility

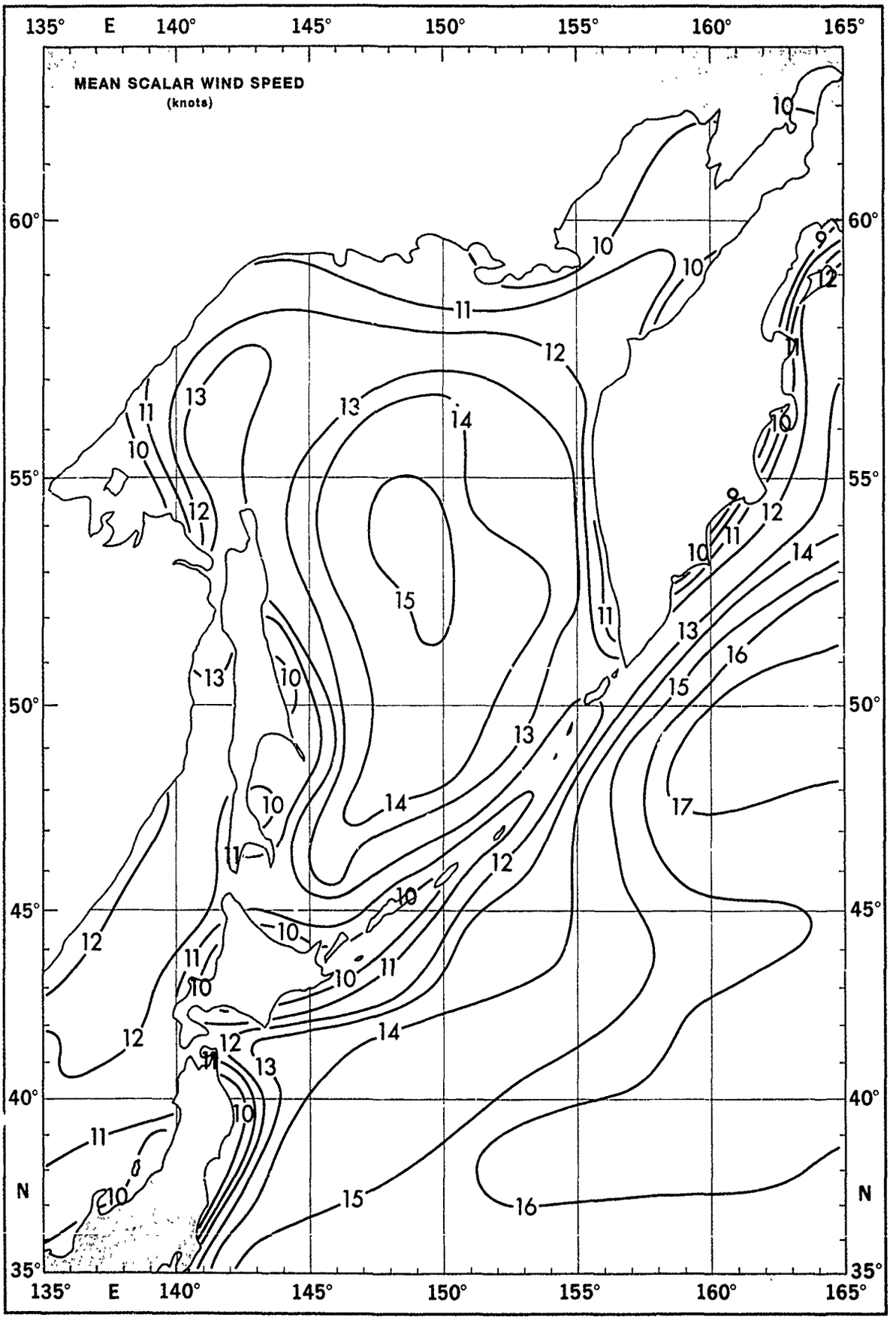

CEILING - VISIBILITY
(Mid Range)
Percent frequency of:
Solid Line - Ceiling < 1000 feet and/or visibility < 3 n. miles
Dashed Line - Ceiling < 3000 feet and/or visibility < 10 n. miles
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
N
35°


CEILING - VISIBILITY
(Low Range)
Percent frequency of:
Solid Line - Ceiling < 300 feet and/or visibility < 1 n. mile
Dashed Line - Ceiling < 600 feet and/or visibility < 2 n. miles
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°


WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line - Poor conditions, any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°

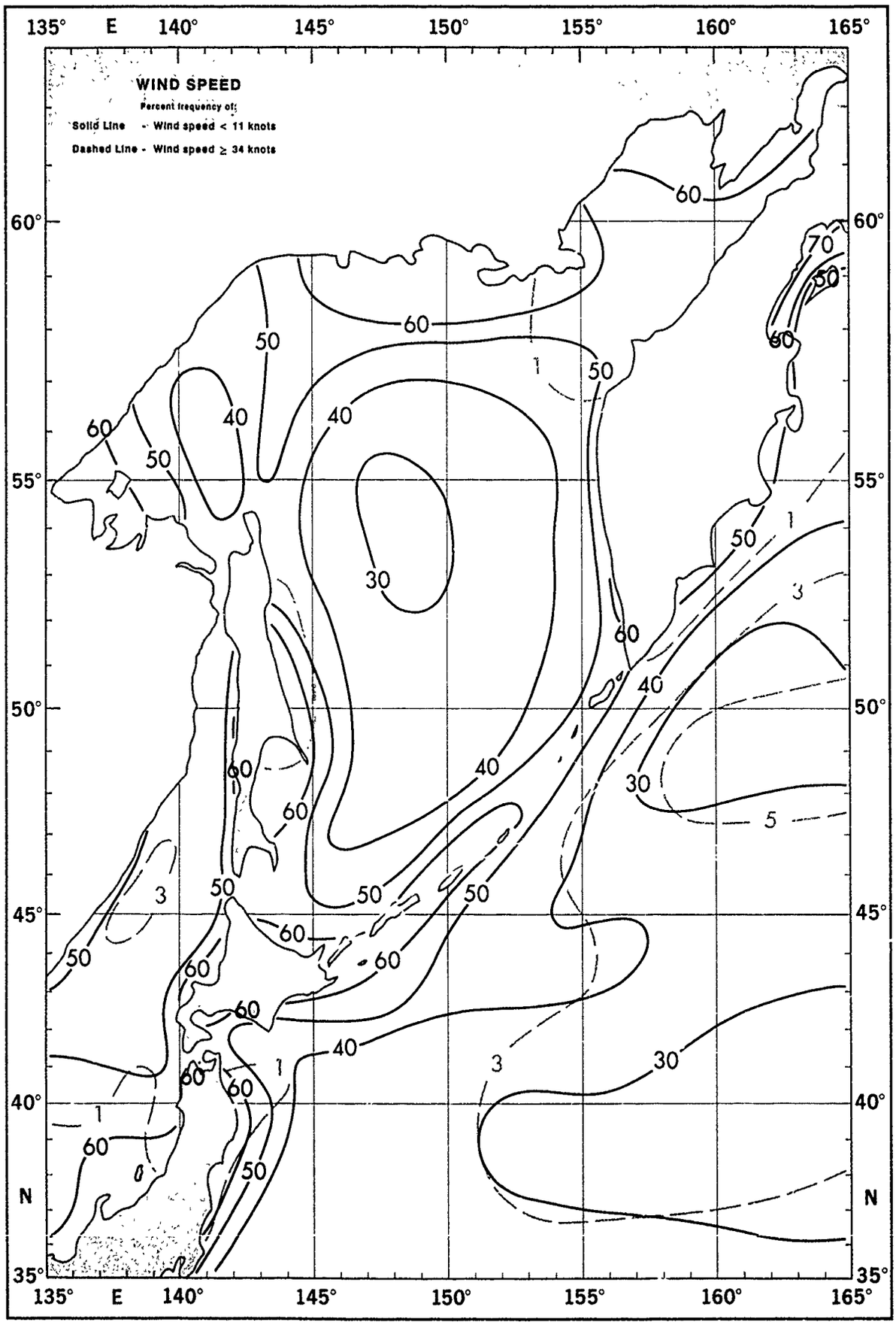
September

Mean Scalar Wind Speed



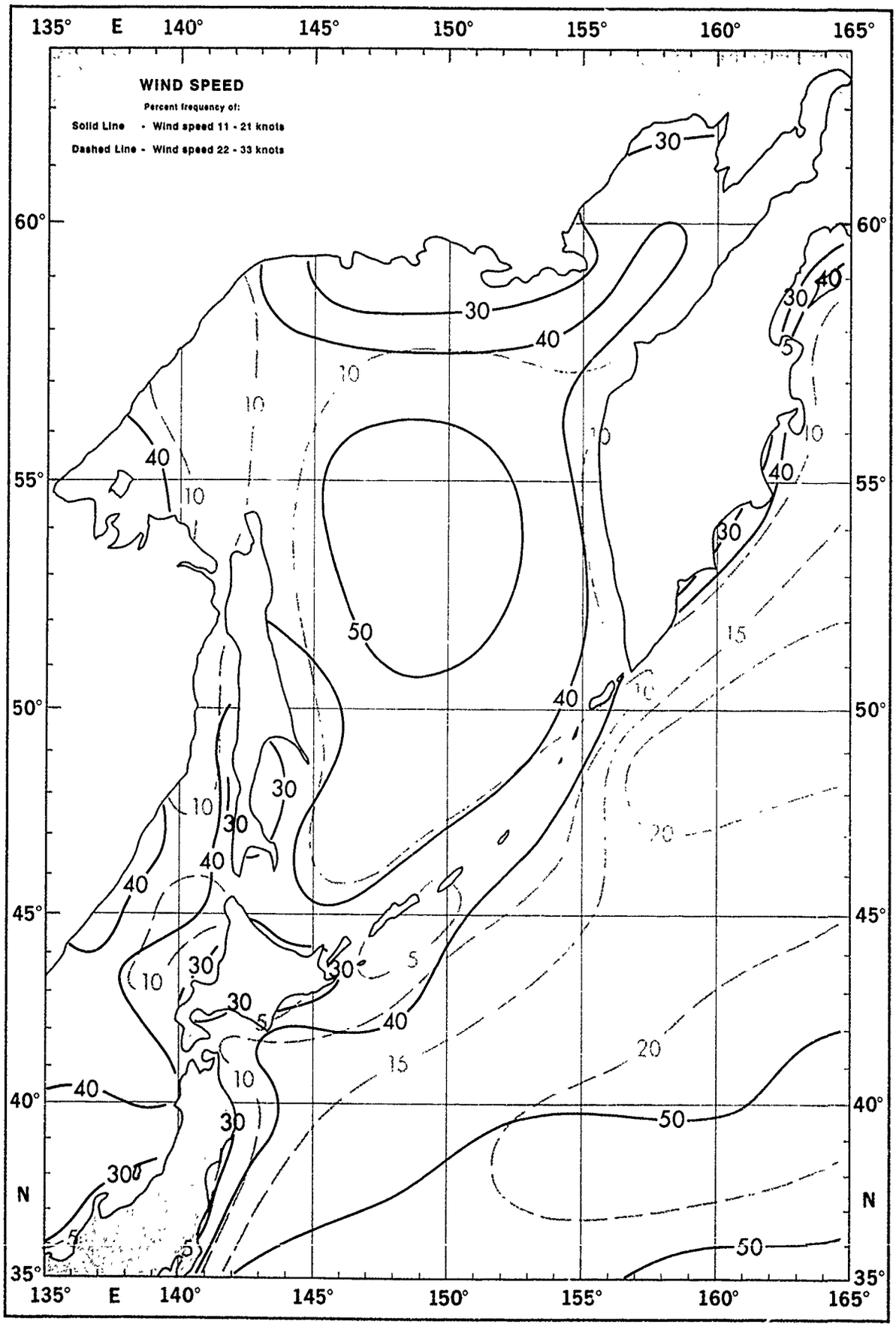
September

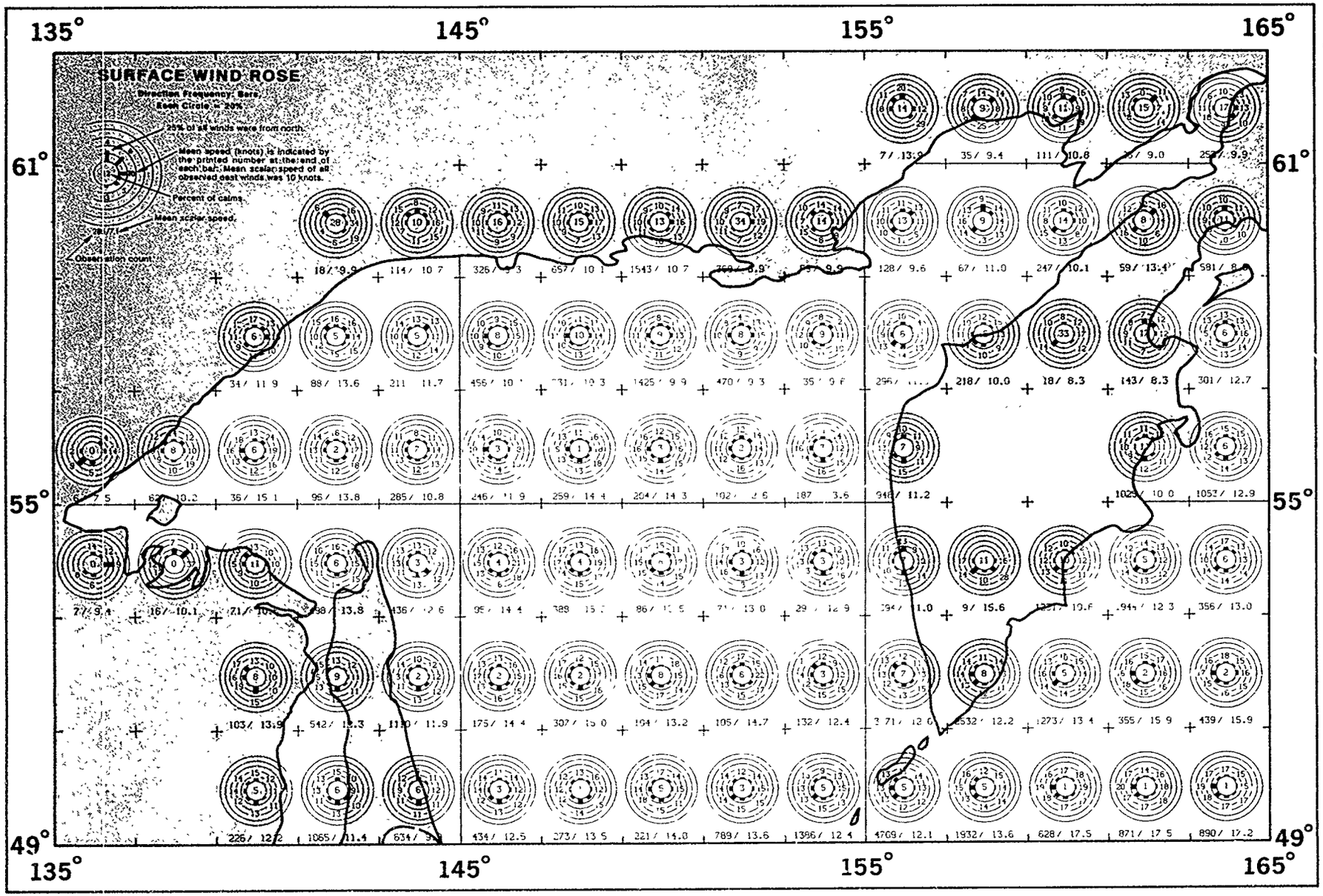
Wind Speed <11 and ≥34 Knots

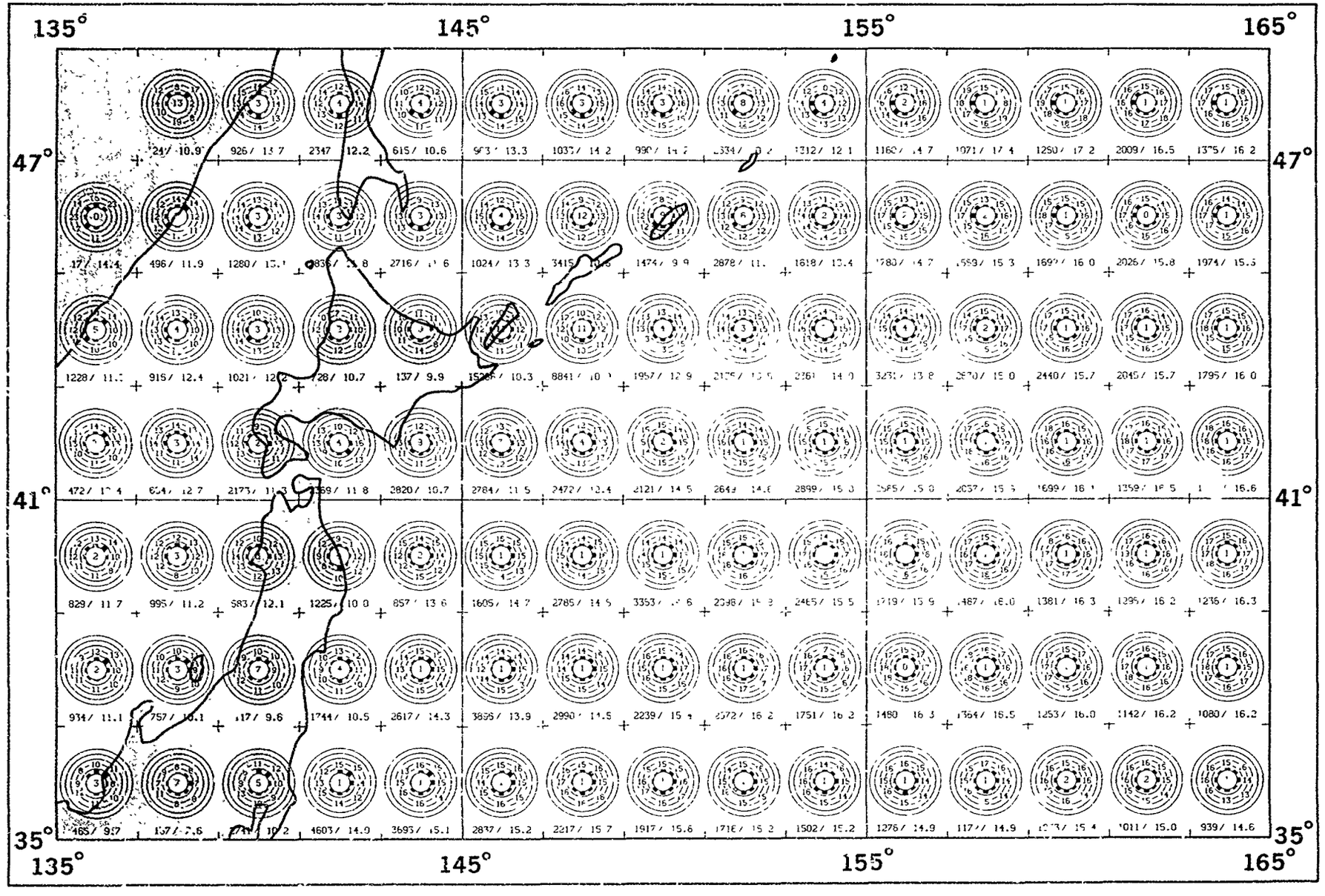


September

Wind Speed 11-21 and 22-33 Knots

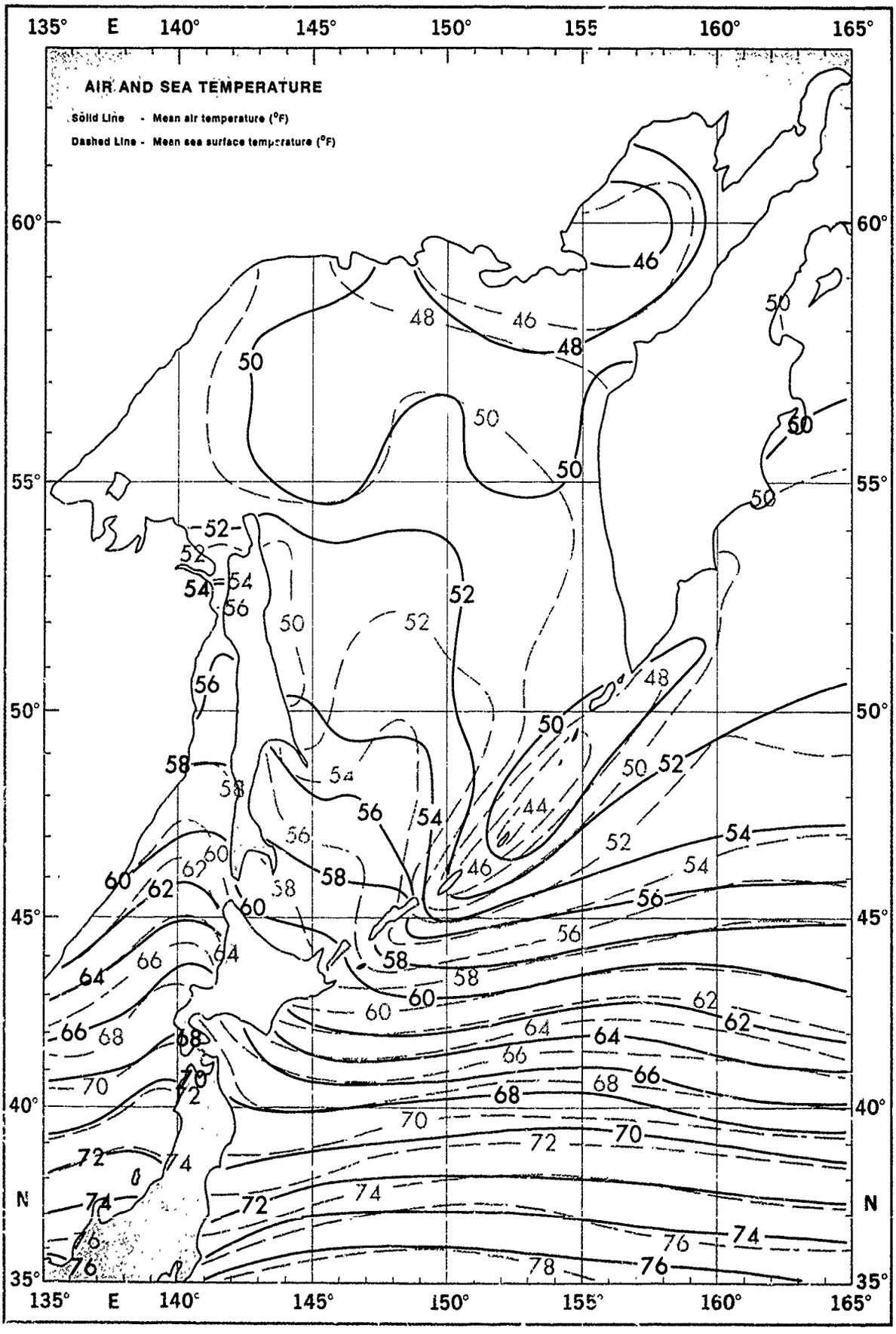


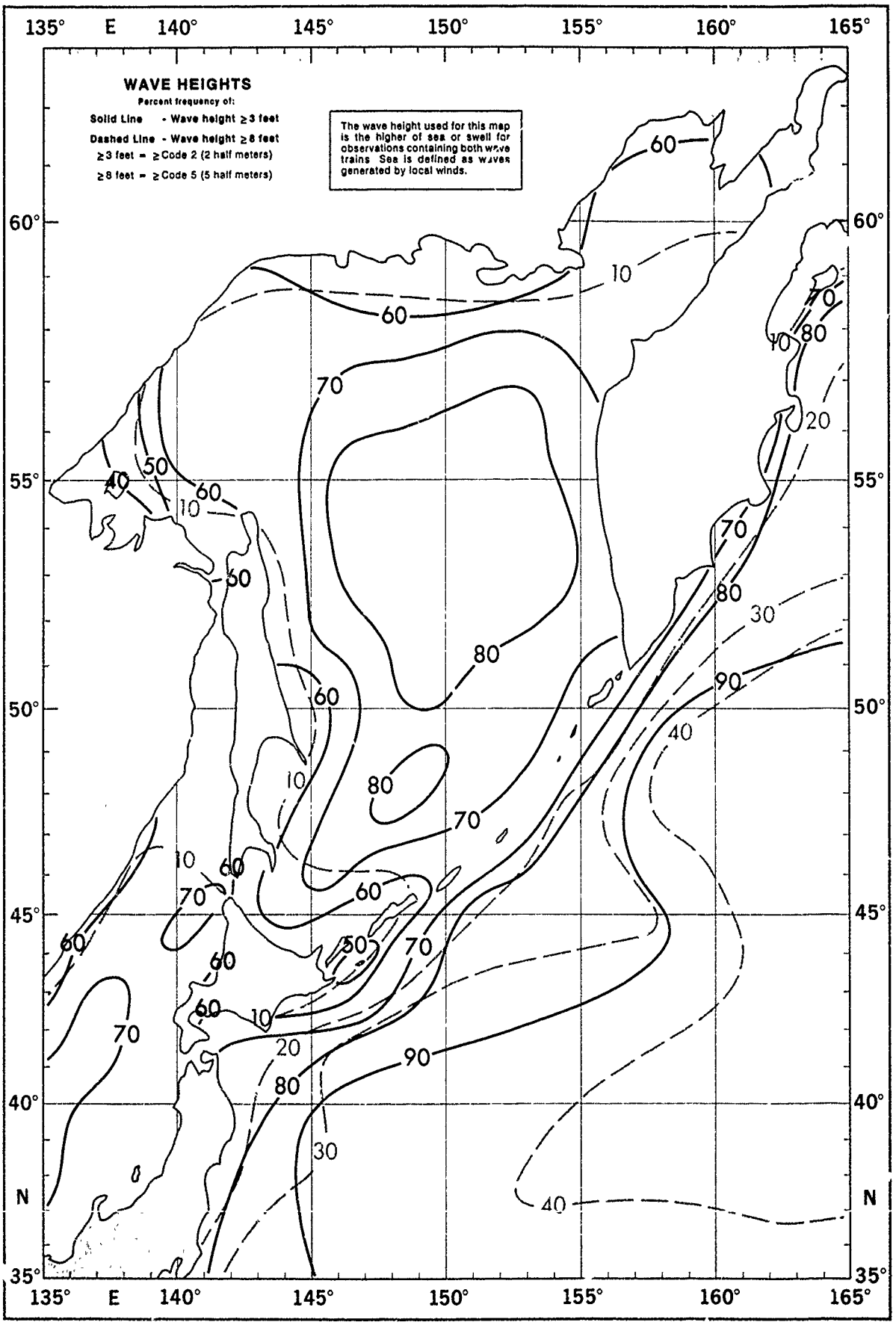

SURFACE WIND ROSE
Direction Frequency: Bars
Each Circle = 20%
25% of all winds were from north.
Mean speed (knots) is indicated by the printed number at the end of each bar. Mean scalar speed of all observed east winds was 10 knots.
Percent of calms
Mean scalar speed
Observation count
135°
145°
155°
165°
61°
55°
49°

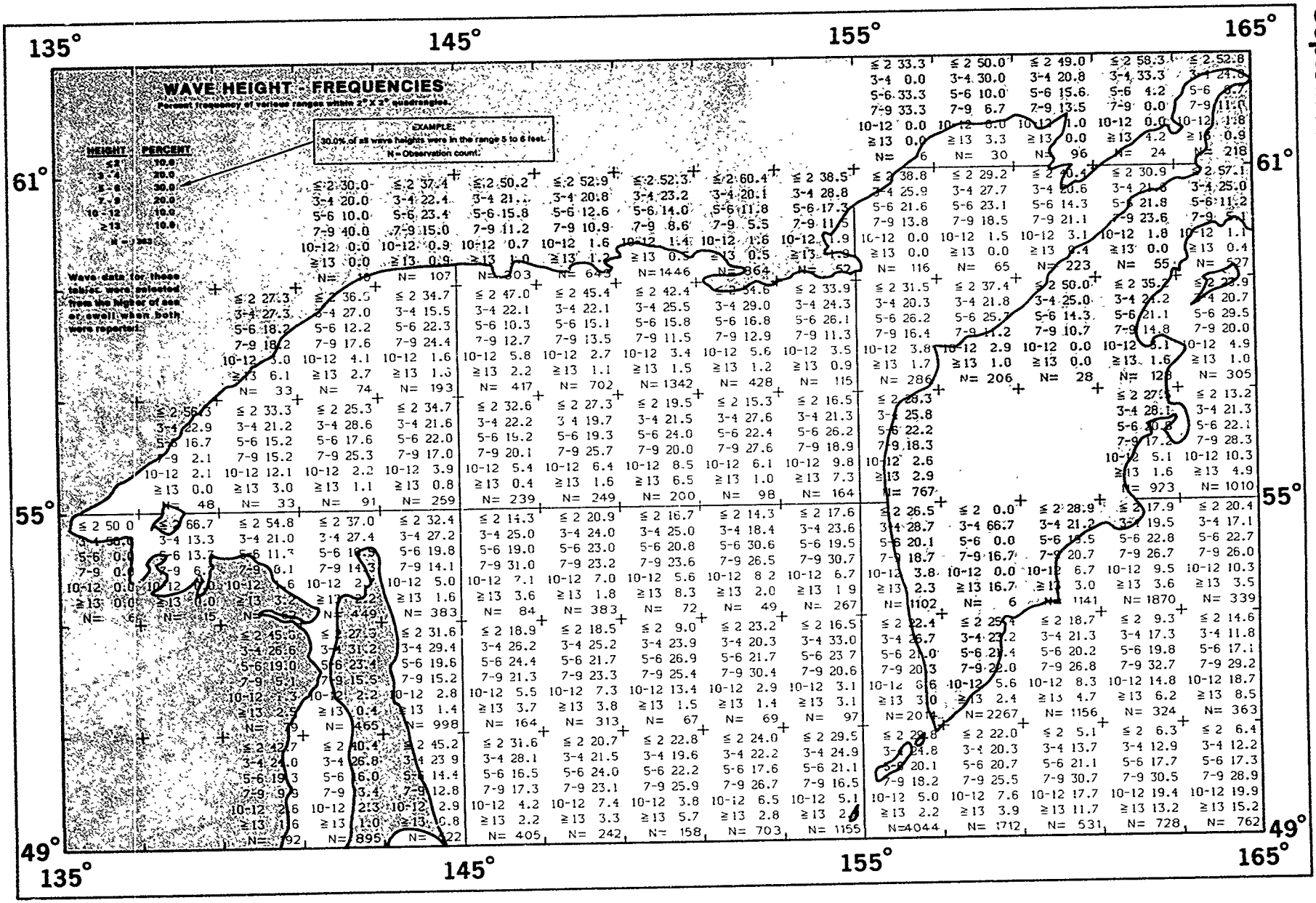

135°
145°
155°
165°
47°
41°
35°

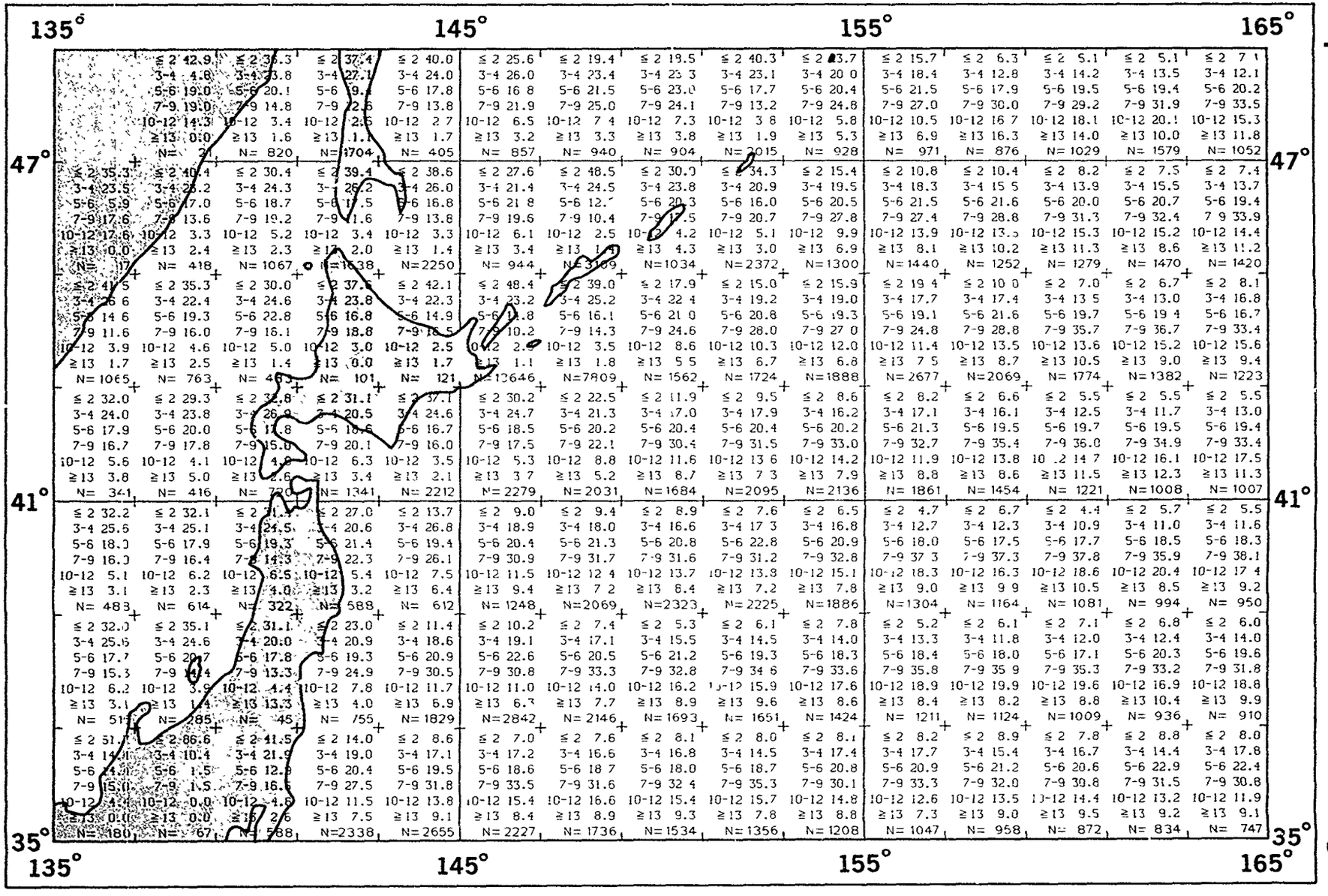
September

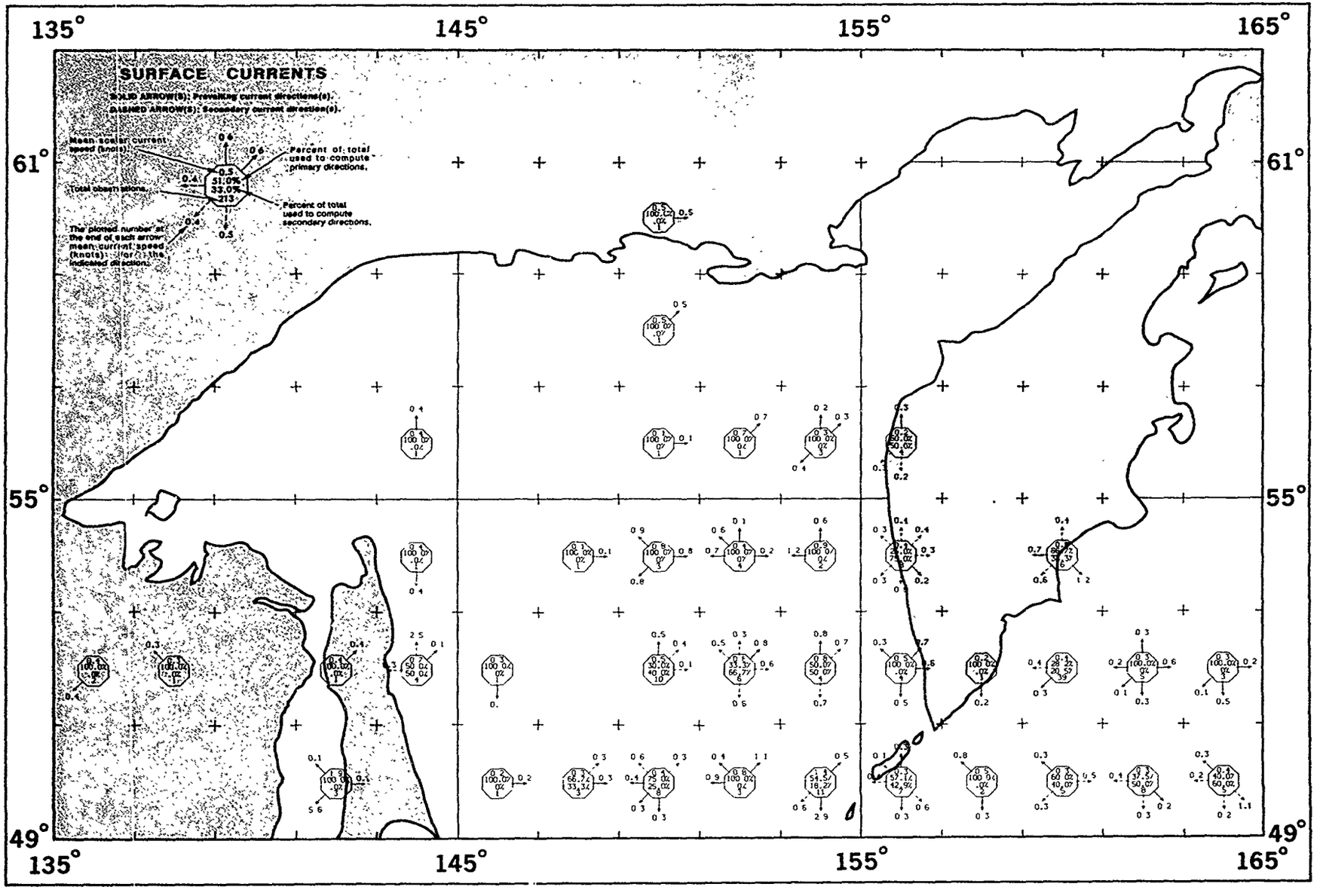
Mean Air and Sea Temperature

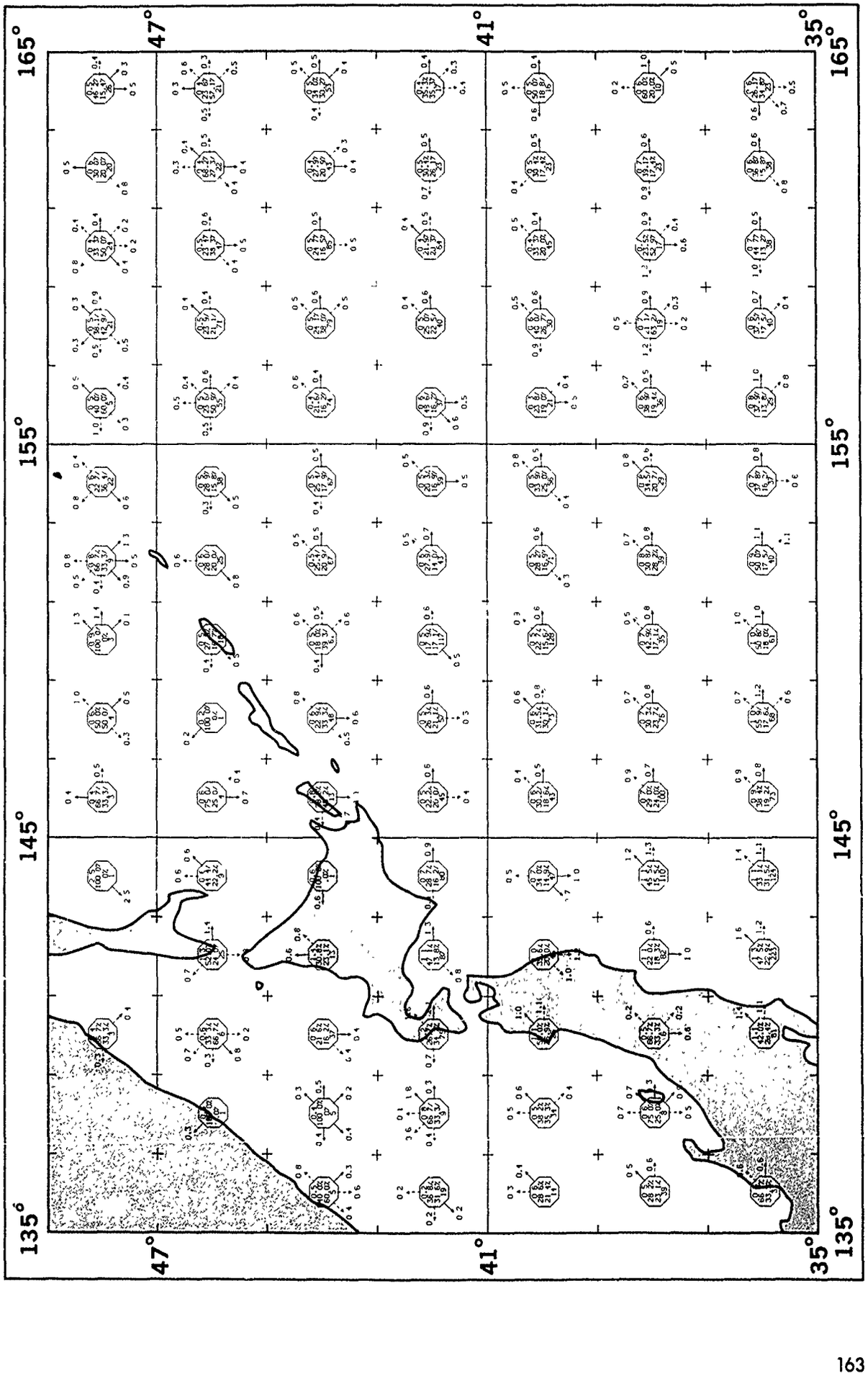


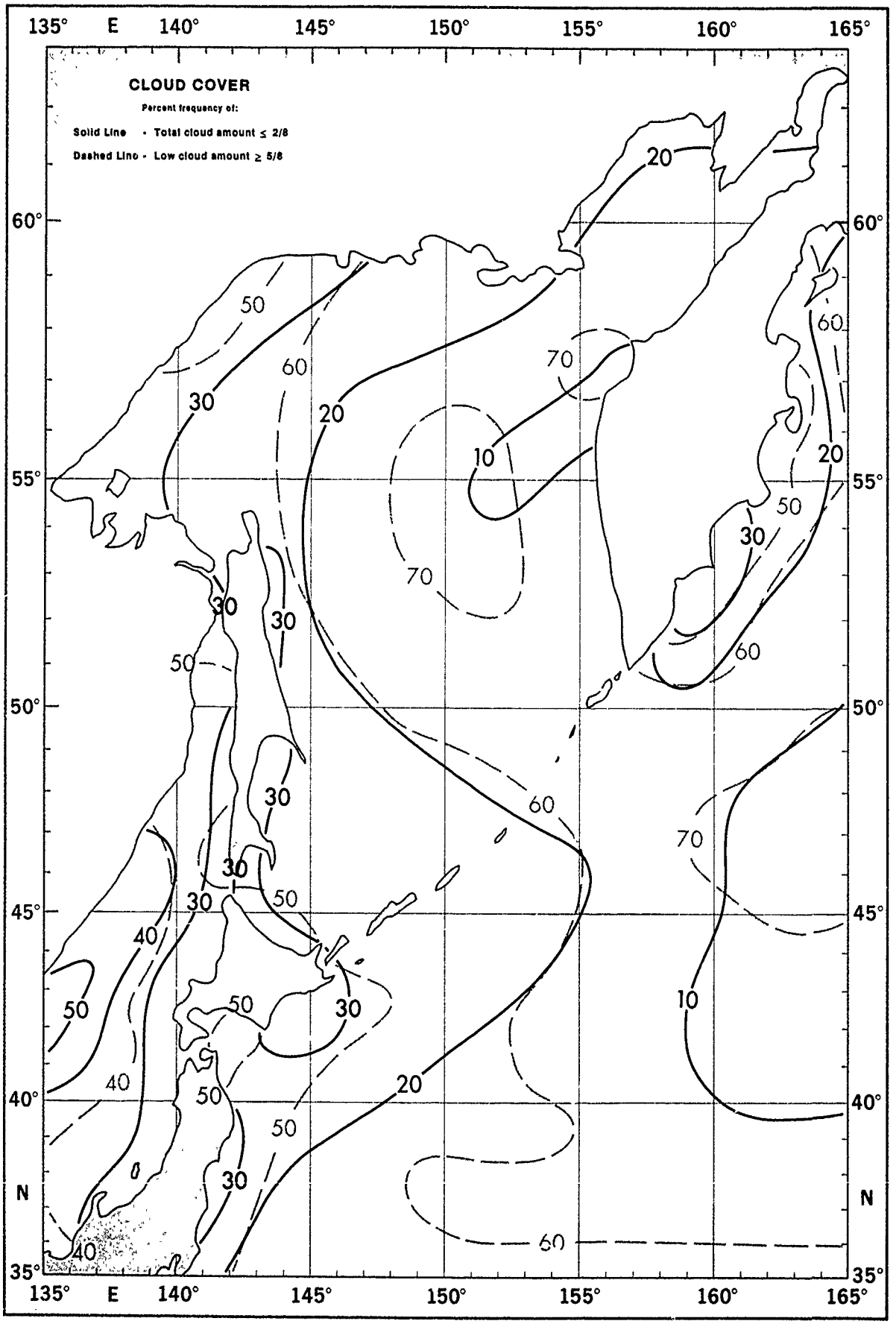

WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥3 feet
Dashed Line - Wave height ≥8 feet
≥3 feet = ≥Code 2 (2 half meters)
≥8 feet = ≥Code 5 (5 half meters)
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N

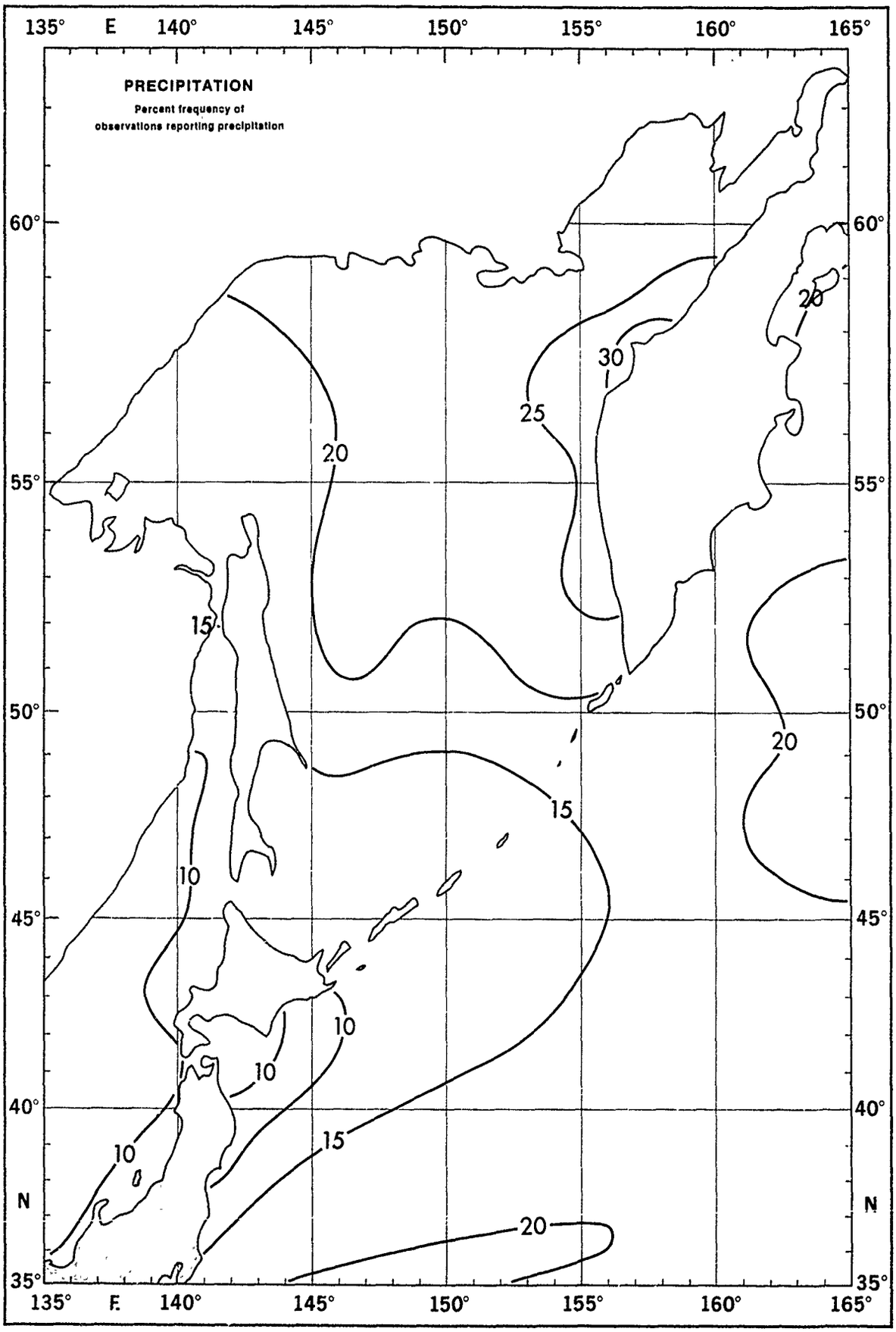

WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 6 feet.
N = Observation count.
HEIGHT
PERCENT
Wave data for these tables were selected from the higher of sea or swell when both were reported.
135°
145°
155°
165°
61°
55°
49°

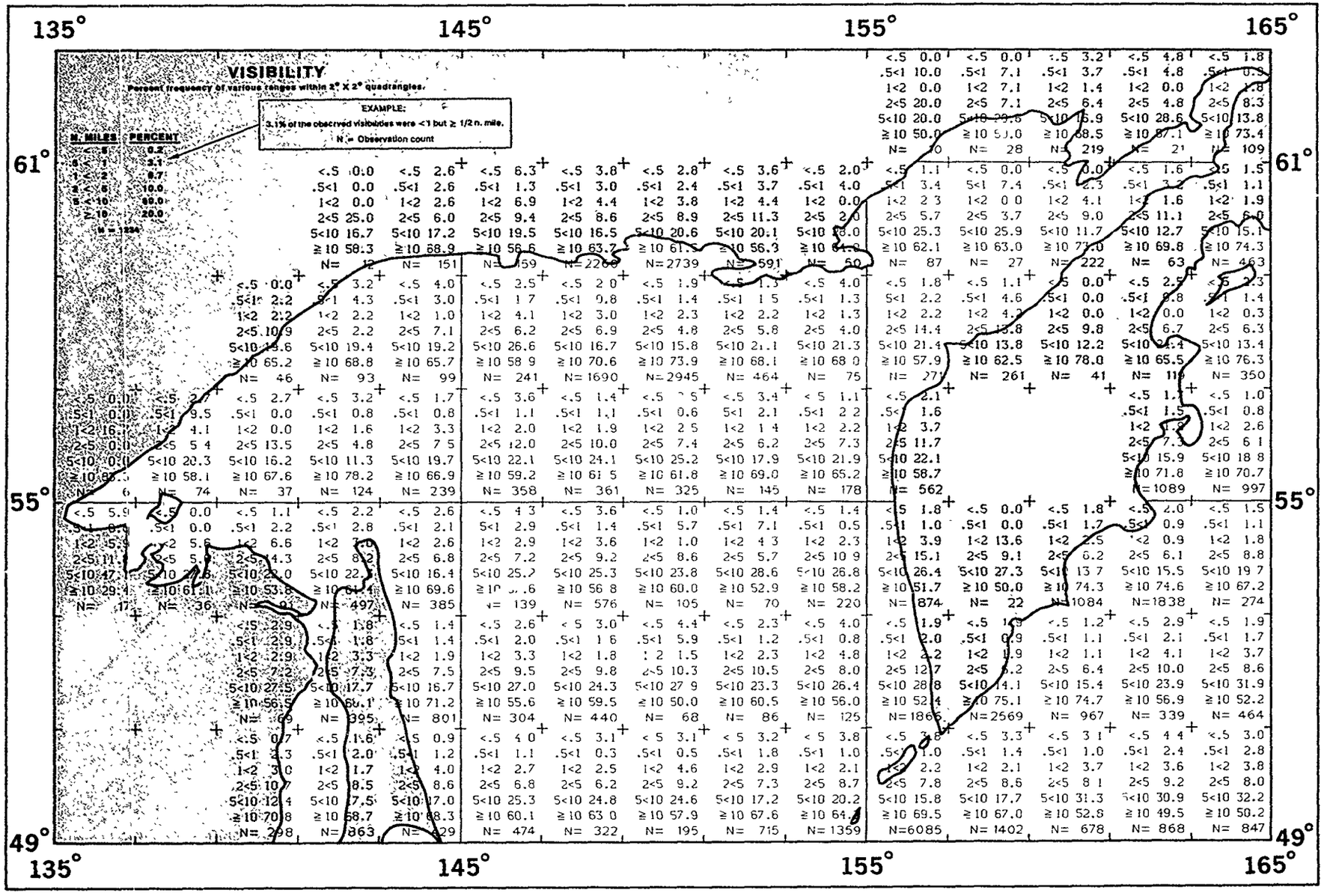

135°
145°
155°
165°
47°
41°
35°
≤ 2 42.9 ≤ 2 36.3 ≤ 2 37.4 ≤ 2 40.0
3-4 4.6 3-4 3.8 3-4 22.1 3-4 24.0
5-6 19.0 5-6 20.1 5-6 19.4 5-6 17.8
7-9 19.0 7-9 14.8 7-9 12.6 7-9 13.8
10-12 14.3 10-12 3.4 10-12 2.5 10-12 2.7
≥13 0.0 ≥13 1.6 ≥13 1.1 ≥13 1.7
N= 21 N= 820 N= 1704 N= 405
≤ 2 25.6 ≤ 2 19.4 ≤ 2 18.5 ≤ 2 40.3 ≤ 2 43.7
3-4 26.0 3-4 23.4 3-4 25.3 3-4 23.1 3-4 20.0
5-6 16.8 5-6 21.5 5-6 23.0 5-6 17.7 5-6 20.4
7-9 21.9 7-9 25.0 7-9 24.1 7-9 13.2 7-9 24.8
10-12 6.5 10-12 7.4 10-12 7.3 10-12 3.8 10-12 5.8
≥13 3.2 ≥13 3.3 ≥13 3.8 ≥13 1.9 ≥13 5.3
N= 857 N= 940 N= 904 N= 2015 N= 928
≤ 2 15.7 ≤ 2 6.3 ≤ 2 5.1 ≤ 2 5.1 ≤ 2 7.1
3-4 18.4 3-4 12.8 3-4 14.2 3-4 13.5 3-4 12.1
5-6 21.5 5-6 17.9 5-6 19.5 5-6 19.4 5-6 20.2
7-9 27.0 7-9 30.0 7-9 29.2 7-9 31.9 7-9 33.5
10-12 10.5 10-12 16.7 10-12 18.1 10-12 20.1 10-12 15.3
≥13 6.9 ≥13 16.3 ≥13 14.0 ≥13 10.0 ≥13 11.8
N= 971 N= 876 N= 1029 N= 1579 N= 1052
≤ 2 35.3 ≤ 2 40.4 ≤ 2 30.4 ≤ 2 39.4 ≤ 2 38.6
3-4 23.5 3-4 26.2 3-4 24.3 3-4 26.2 3-4 26.0
5-6 5.9 5-6 17.0 5-6 18.7 5-6 17.5 5-6 16.8
7-9 17.6 7-9 13.6 7-9 19.2 7-9 11.6 7-9 13.8
10-12 17.6 10-12 3.3 10-12 5.2 10-12 3.4 10-12 3.3
≥13 0.0 ≥13 2.4 ≥13 2.3 ≥13 2.0 ≥13 1.4
N= 17 N= 418 N= 1067 N= 1638 N= 2250
≤ 2 27.6 ≤ 2 48.5 ≤ 2 30.0 ≤ 2 34.3 ≤ 2 15.4
3-4 21.4 3-4 24.5 3-4 23.8 3-4 20.9 3-4 19.5
5-6 21.8 5-6 12.7 5-6 20.3 5-6 16.0 5-6 20.5
7-9 19.6 7-9 10.4 7-9 17.5 7-9 20.7 7-9 27.8
10-12 6.1 10-12 2.5 10-12 4.2 10-12 5.1 10-12 9.9
≥13 3.4 ≥13 1.4 ≥13 4.3 ≥13 3.0 ≥13 6.9
N= 944 N= 309 N= 1034 N= 2372 N= 1300
≤ 2 10.8 ≤ 2 10.4 ≤ 2 8.2 ≤ 2 7.5 ≤ 2 7.4
3-4 18.3 3-4 15.5 3-4 13.9 3-4 15.5 3-4 13.7
5-6 21.5 5-6 21.6 5-6 20.0 5-6 20.7 5-6 19.4
7-9 27.4 7-9 28.8 7-9 31.3 7-9 32.4 7-9 33.9
10-12 13.9 10-12 13.5 10-12 15.3 10-12 15.2 10-12 14.4
≥13 8.1 ≥13 10.2 ≥13 11.3 ≥13 8.6 ≥13 11.2
N= 1440 N= 1252 N= 1279 N= 1470 N= 1420
≤ 2 41.5 ≤ 2 35.3 ≤ 2 30.0 ≤ 2 37.6 ≤ 2 42.1
3-4 26.6 3-4 22.4 3-4 24.6 3-4 23.8 3-4 22.3
5-6 14.6 5-6 19.3 5-6 22.8 5-6 16.8 5-6 14.9
7-9 11.6 7-9 16.0 7-9 16.1 7-9 18.8 7-9 16.5
10-12 3.9 10-12 4.6 10-12 5.0 10-12 3.0 10-12 2.5
≥13 1.7 ≥13 2.5 ≥13 1.4 ≥13 0.0 ≥13 1.7
N= 1065 N= 763 N= 463 N= 101 N= 121
≤ 2 48.4 ≤ 2 39.0 ≤ 2 17.9 ≤ 2 15.0 ≤ 2 15.9
3-4 23.2 3-4 25.2 3-4 22.4 3-4 19.2 3-4 19.0
5-6 12.8 5-6 16.1 5-6 21.0 5-6 20.8 5-6 19.3
7-9 10.2 7-9 14.3 7-9 24.6 7-9 28.0 7-9 27.0
10-12 2.9 10-12 3.5 10-12 8.6 10-12 10.3 10-12 12.0
≥13 1.1 ≥13 1.8 ≥13 5.5 ≥13 6.7 ≥13 6.8
N= 10646 N= 7809 N= 1562 N= 1724 N= 1888
≤ 2 19.4 ≤ 2 10.0 ≤ 2 7.0 ≤ 2 6.7 ≤ 2 8.1
3-4 17.7 3-4 17.4 3-4 13.5 3-4 13.0 3-4 16.8
5-6 19.1 5-6 21.6 5-6 19.7 5-6 19.4 5-6 16.7
7-9 24.8 7-9 28.8 7-9 35.7 7-9 36.7 7-9 33.4
10-12 11.4 10-12 13.5 10-12 13.6 10-12 15.2 10-12 15.6
≥13 7.5 ≥13 8.7 ≥13 10.5 ≥13 9.0 ≥13 9.4
N= 2677 N= 2069 N= 1774 N= 1382 N= 1223
≤ 2 32.0 ≤ 2 29.3 ≤ 2 32.8 ≤ 2 31.1 ≤ 2 37.1
3-4 24.0 3-4 23.8 3-4 28.9 3-4 20.5 3-4 24.6
5-6 17.9 5-6 20.0 5-6 17.8 5-6 18.6 5-6 16.7
7-9 16.7 7-9 17.8 7-9 15.0 7-9 20.1 7-9 16.0
10-12 5.6 10-12 4.1 10-12 4.8 10-12 6.3 10-12 3.5
≥13 3.8 ≥13 5.0 ≥13 2.6 ≥13 3.4 ≥13 2.1
N= 341 N= 416 N= 720 N= 1341 N= 2212
≤ 2 30.2 ≤ 2 22.5 ≤ 2 11.9 ≤ 2 9.5 ≤ 2 8.6
3-4 24.7 3-4 21.3 3-4 17.0 3-4 17.9 3-4 16.2
5-6 18.5 5-6 20.2 5-6 20.4 5-6 20.4 5-6 20.2
7-9 17.5 7-9 22.1 7-9 30.4 7-9 31.5 7-9 33.0
10-12 5.3 10-12 8.8 10-12 11.6 10-12 13.6 10-12 14.2
≥13 3.7 ≥13 5.2 ≥13 8.7 ≥13 7.3 ≥13 7.9
N= 2279 N= 2031 N= 1684 N= 2095 N= 2136
≤ 2 8.2 ≤ 2 6.6 ≤ 2 5.5 ≤ 2 5.5 ≤ 2 5.5
3-4 17.1 3-4 16.1 3-4 12.5 3-4 11.7 3-4 13.0
5-6 21.3 5-6 19.5 5-6 19.7 5-6 19.5 5-6 19.4
7-9 32.7 7-9 35.4 7-9 36.0 7-9 34.9 7-9 33.4
10-12 11.9 10-12 13.8 10-12 14.7 10-12 16.1 10-12 17.5
≥13 8.8 ≥13 8.6 ≥13 11.5 ≥13 12.3 ≥13 11.3
N= 1861 N= 1454 N= 1221 N= 1008 N= 1007
≤ 2 32.2 ≤ 2 32.1 ≤ 2 31.1 ≤ 2 27.0 ≤ 2 13.7
3-4 25.6 3-4 25.1 3-4 24.5 3-4 20.6 3-4 26.8
5-6 18.0 5-6 17.9 5-6 19.3 5-6 21.4 5-6 19.4
7-9 16.0 7-9 16.4 7-9 14.3 7-9 22.3 7-9 26.1
10-12 5.1 10-12 6.2 10-12 6.5 10-12 5.4 10-12 7.5
≥13 3.1 ≥13 2.3 ≥13 4.0 ≥13 3.2 ≥13 6.4
N= 483 N= 614 N= 322 N= 588 N= 612
≤ 2 9.0 ≤ 2 9.4 ≤ 2 8.9 ≤ 2 7.6 ≤ 2 6.5
3-4 18.9 3-4 18.0 3-4 16.6 3-4 17.3 3-4 16.8
5-6 20.4 5-6 21.3 5-6 20.8 5-6 22.8 5-6 20.9
7-9 30.9 7-9 31.7 7-9 31.6 7-9 31.2 7-9 32.8
10-12 11.5 10-12 12.4 10-12 13.7 10-12 13.8 10-12 15.1
≥13 9.4 ≥13 7.2 ≥13 8.4 ≥13 7.2 ≥13 7.8
N= 1248 N= 2069 N= 2323 N= 2225 N= 1886
≤ 2 4.7 ≤ 2 6.7 ≤ 2 4.4 ≤ 2 5.7 ≤ 2 5.5
3-4 12.7 3-4 12.3 3-4 10.9 3-4 11.0 3-4 11.6
5-6 18.0 5-6 17.5 5-6 17.7 5-6 18.5 5-6 18.3
7-9 37.3 7-9 37.3 7-9 37.8 7-9 35.9 7-9 38.1
10-12 18.3 10-12 16.3 10-12 18.6 10-12 20.4 10-12 17.4
≥13 9.0 ≥13 9.9 ≥13 10.5 ≥13 8.5 ≥13 9.2
N= 1304 N= 1164 N= 1081 N= 994 N= 950
≤ 2 32.0 ≤ 2 35.1 ≤ 2 31.1 ≤ 2 23.0 ≤ 2 11.4
3-4 25.6 3-4 24.6 3-4 20.0 3-4 20.9 3-4 18.6
5-6 17.7 5-6 20.7 5-6 17.8 5-6 19.3 5-6 20.9
7-9 15.3 7-9 19.4 7-9 13.3 7-9 24.9 7-9 30.5
10-12 6.2 10-12 3.9 10-12 4.4 10-12 7.8 10-12 11.7
≥13 3.1 ≥13 1.4 ≥13 13.3 ≥13 4.0 ≥13 6.9
N= 51 N= 285 N= 45 N= 755 N= 1829
≤ 2 10.2 ≤ 2 7.4 ≤ 2 5.3 ≤ 2 6.1 ≤ 2 7.8
3-4 19.1 3-4 17.1 3-4 15.5 3-4 14.5 3-4 14.0
5-6 22.6 5-6 20.5 5-6 21.2 5-6 19.3 5-6 18.3
7-9 30.8 7-9 33.3 7-9 32.8 7-9 34.6 7-9 33.6
10-12 11.0 10-12 14.0 10-12 16.2 10-12 15.9 10-12 17.6
≥13 6.3 ≥13 7.7 ≥13 8.9 ≥13 9.6 ≥13 8.6
N= 2842 N= 2146 N= 1693 N= 1651 N= 1424
≤ 2 5.2 ≤ 2 6.1 ≤ 2 7.1 ≤ 2 6.8 ≤ 2 6.0
3-4 13.3 3-4 11.8 3-4 12.0 3-4 12.4 3-4 14.0
5-6 18.4 5-6 18.0 5-6 17.1 5-6 20.3 5-6 19.6
7-9 35.8 7-9 35.9 7-9 35.3 7-9 33.2 7-9 31.8
10-12 18.9 10-12 19.9 10-12 19.6 10-12 16.9 10-12 18.8
≥13 8.4 ≥13 8.2 ≥13 8.8 ≥13 10.4 ≥13 9.9
N= 1211 N= 1124 N= 1009 N= 936 N= 910
≤ 2 51.1 ≤ 2 86.6 ≤ 2 41.5 ≤ 2 14.0 ≤ 2 8.6
3-4 14.8 3-4 10.4 3-4 21.9 3-4 19.0 3-4 17.1
5-6 14.1 5-6 1.5 5-6 12.9 5-6 20.4 5-6 19.5
7-9 15.0 7-9 1.5 7-9 16.6 7-9 27.5 7-9 31.8
10-12 4.1 10-12 0.0 10-12 4.6 10-12 11.5 10-12 13.8
≥13 0.0 ≥13 0.0 ≥13 2.6 ≥13 7.5 ≥13 9.1
N= 180 N= 67 N= 588 N= 2338 N= 2655
≤ 2 8.6 ≤ 2 7.6 ≤ 2 8.1 ≤ 2 8.0 ≤ 2 8.1
3-4 17.2 3-4 16.6 3-4 16.8 3-4 14.5 3-4 17.4
5-6 18.6 5-6 18.7 5-6 18.0 5-6 18.7 5-6 20.8
7-9 33.5 7-9 31.6 7-9 32.4 7-9 35.3 7-9 30.1
10-12 15.4 10-12 16.6 10-12 15.4 10-12 15.7 10-12 14.8
≥13 8.4 ≥13 8.9 ≥13 9.3 ≥13 7.8 ≥13 8.8
N= 2227 N= 1736 N= 1534 N= 1356 N= 1208
≤ 2 8.2 ≤ 2 8.9 ≤ 2 7.8 ≤ 2 8.8 ≤ 2 8.0
3-4 17.7 3-4 15.4 3-4 16.7 3-4 14.4 3-4 17.8
5-6 20.9 5-6 21.2 5-6 20.6 5-6 22.9 5-6 22.4
7-9 33.3 7-9 32.0 7-9 30.8 7-9 31.5 7-9 30.8
10-12 12.6 10-12 13.5 10-12 14.4 10-12 13.2 10-12 11.9
≥13 7.3 ≥13 9.0 ≥13 9.5 ≥13 9.2 ≥13 9.1
N= 1047 N= 958 N= 872 N= 834 N= 747

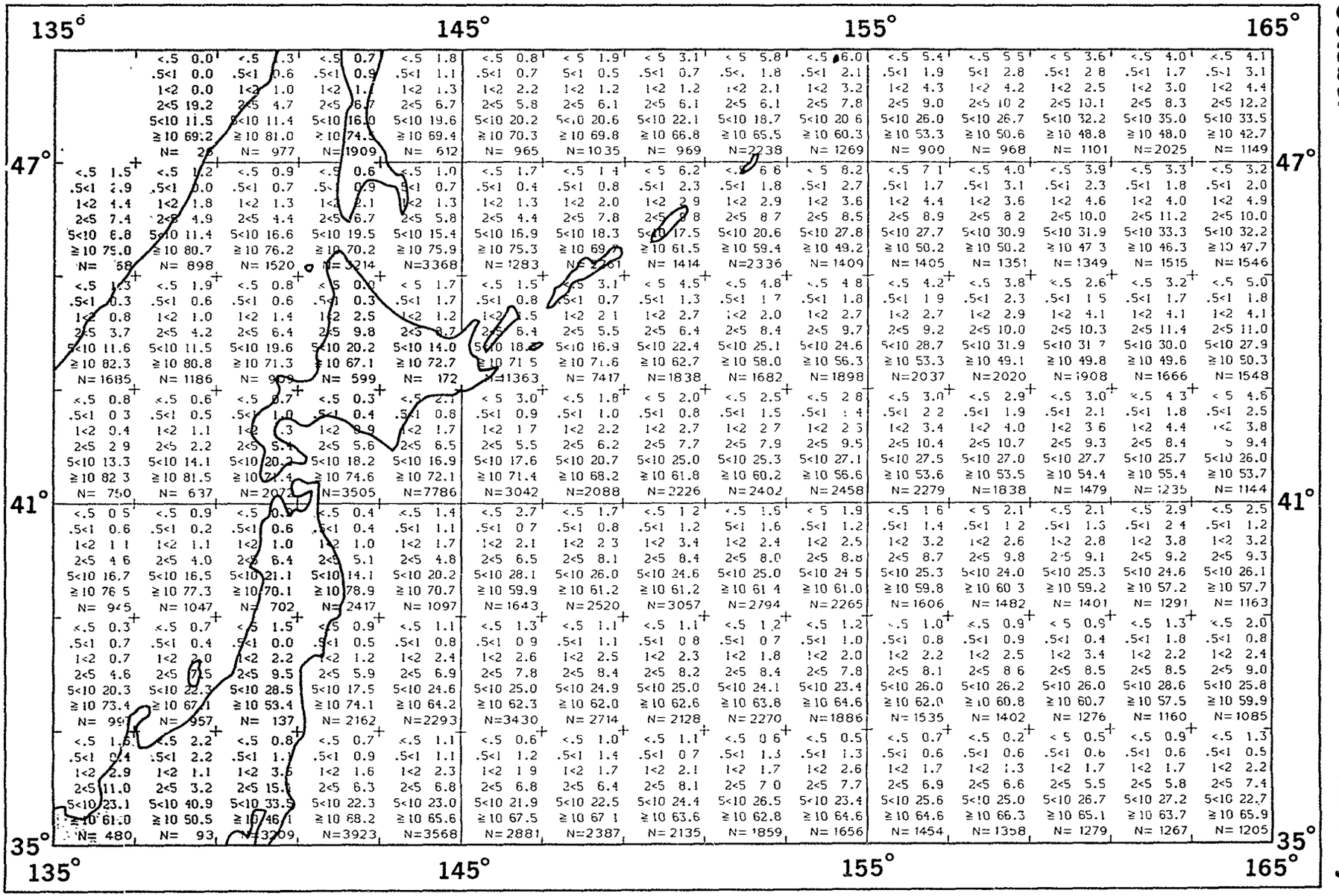

SURFACE CURRENTS
SOLID ARROW(S): Prevailing current direction(s).
DASHED ARROW(S): Secondary current direction(s).
Mean scalar current speed (knots).
Percent of total used to compute primary directions.
Total observations.
Percent of total used to compute secondary directions.
The plotted number at the end of each arrow: mean current speed (knots); for 2; the indicated direction.
135°
145°
155°
165°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°


CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 5/8
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°

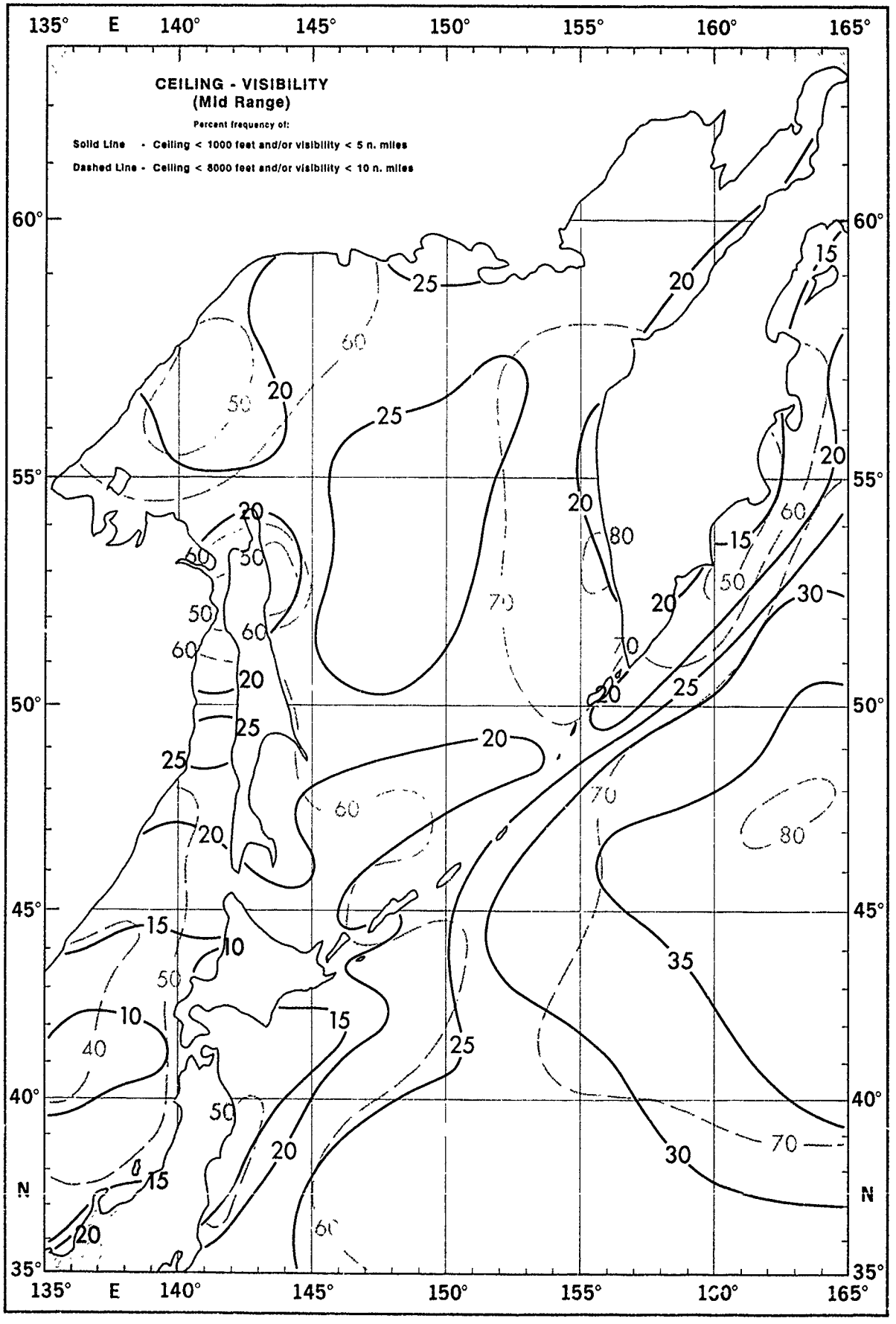

PRECIPITATION
Percent frequency of
observations reporting precipitation
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
20
30
25
20
15
20
15
10
10
10
10
15
20


VISIBILITY
Percent frequency of various ranges within 2° X 2° quadrangles.
EXAMPLE:
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N = Observation count
N. MILES PERCENT
< .5 0.2
.5 - 1 2.1
1 - 2 6.7
2 < 5 10.0
5 < 10 60.0
≥ 10 20.0
N = 2264
135°
145°
155°
165°
61°
55°
49°



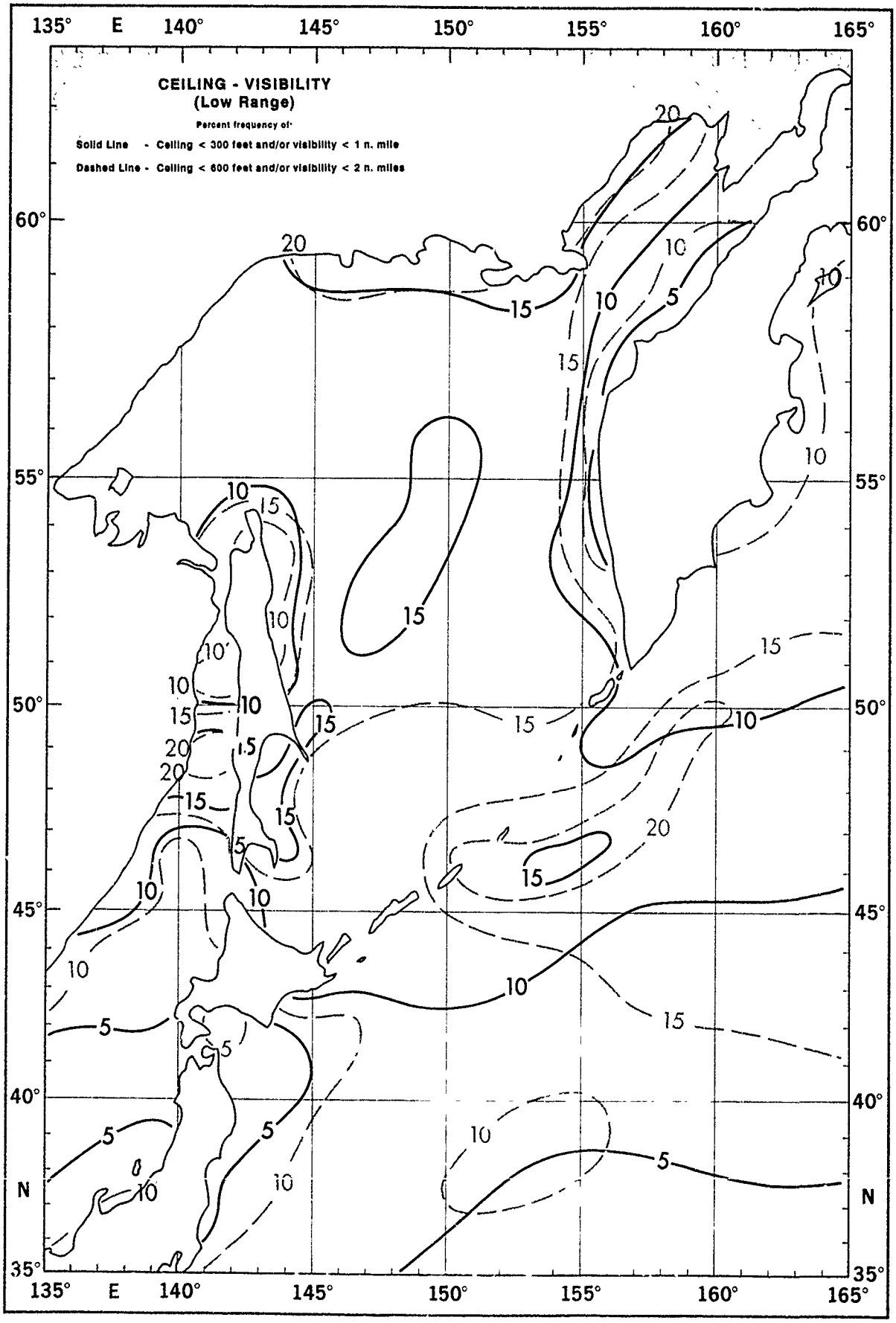
		<.5	0.0	<.5	.3	<.5	0.7	<.5	1.8	<.5	0.8	< 5	1.9	< 5	3.1	< 5	5.8	<.5	6.0
		.5<1	0.0	.5<1	0.6	.5<1	0.9	.5<1	1.1	.5<1	0.7	5<1	0.5	.5<1	0.7	.5<.	1.8	.5<1	2.1
		1<2	0.0	1<2	1.0	1<2	1.4	1<2	1.3	1<2	2.2	1<2	1.2	1<2	1.2	1<2	2.1	1<2	3.2
		2<5	19.2	2<5	4.7	2<5	6.7	2<5	6.7	2<5	5.8	2<5	6.1	2<5	6.1	2<5	6.1	2<5	7.8
		5<10	11.5	5<10	11.4	5<10	16.0	5<10	19.6	5<10	20.2	5<10	20.6	5<10	22.1	5<10	18.7	5<10	20 6
		≥10	69.2	≥10	81.0	≥10	74.5	≥10	69.4	≥10	70.3	≥10	69.8	≥10	66.8	≥10	65.5	≥10	60.3
		N=	26	N=	977	N=	1909	N=	612	N=	965	N=	1035	N=	969	N=	2238	N=	1269
		<.5	1.5	<.5	1.2	<.5	0.9	<.5	0.6	<.5	1.0	<.5	1.7	<.5	1 4	< 5	6.2	<.5	6 6
		.5<1	2.9	.5<1	0.0	.5<1	0.7	.5<1	0.9	.5<1	0.7	.5<1	0.4	.5<1	0.8	.5<1	2.3	.5<1	1.8
		1<2	4.4	1<2	1.8	1<2	1.3	1<2	2.1	1<2	1.3	1<2	1.3	1<2	2.0	1<2	2 9	1<2	2.9
		2<5	7.4	2<5	4.9	2<5	4.4	2<5	6.7	2<5	5.8	2<5	4.4	2<5	7.8	2<5	8 8	2<5	8 7
		5<10	6.8	5<10	11.4	5<10	16.6	5<10	19.5	5<10	15.4	5<10	16.9	5<10	18.3	5<10	17.5	5<10	20.6
		≥10	75.0	≥10	80.7	≥10	76.2	≥10	70.2	≥10	75.9	≥10	75.3	≥10	69.4	≥10	61.5	≥10	59.4
		N=	58	N=	898	N=	1520	N=	3214	N=	3368	N=	1283	N=	2261	N=	1414	N=	2336
		<.5	1.3	<.5	1.9	<.5	0.8	<.5	0.0	< 5	1.7	<.5	1.5	<.5	3.1	< 5	4.5	<.5	4.8
		.5<1	0.3	.5<1	0.6	.5<1	0.6	.5<1	0.3	.5<1	1.7	.5<1	0.8	.5<1	0.7	.5<1	1.3	.5<1	1 7
		1<2	0.8	1<2	1.0	1<2	1.4	1<2	2.5	1<2	1.2	1<2	1.5	1<2	2 1	1<2	2.7	1<2	2.0
		2<5	3.7	2<5	4.2	2<5	6.4	2<5	9.8	2<5	8.7	2<5	6.4	2<5	5.5	2<5	6.4	2<5	8.4
		5<10	11.6	5<10	11.5	5<10	19.6	5<10	20.2	5<10	14.0	5<10	18.0	5<10	16.9	5<10	22.4	5<10	25.1
		≥10	82.3	≥10	80.8	≥10	71.3	≥10	67.1	≥10	72.7	≥10	71 5	≥10	71.6	≥10	62.7	≥10	58.0
		N=	1685	N=	1186	N=	909	N=	599	N=	172	N=	1363	N=	7417	N=	1838	N=	1682
		<.5	0.8	<.5	0.6	<.5	0.7	<.5	0.3	<.5	2.1	< 5	3.0	<.5	1.8	< 5	2.0	<.5	2.5
		.5<1	0 3	.5<1	0.5	.5<1	1.0	.5<1	0.4	.5<1	0.8	.5<1	0.9	.5<1	1.0	.5<1	0.8	.5<1	1.5
		1<2	0.4	1<2	1.1	1<2	1.3	1<2	0.9	1<2	1.7	1<2	1 7	1<2	2.2	1<2	2.7	1<2	2 7
		2<5	2 9	2<5	2.2	2<5	5.4	2<5	5.8	2<5	6.5	2<5	5.5	2<5	6.2	2<5	7.7	2<5	7.9
		5<10	13.3	5<10	14.1	5<10	20.2	5<10	18.2	5<10	16.9	5<10	17.6	5<10	20.7	5<10	25.0	5<10	25.3
		≥10	82 3	≥10	81.5	≥10	71.4	≥10	74.6	≥10	72.1	≥10	71.4	≥10	68.2	≥10	61.8	≥10	60.2
		N=	750	N=	637	N=	2073	N=	3505	N=	7786	N=	3042	N=	2088	N=	2226	N=	2402
		<.5	0 5	<.5	0.9	<.5	0.3	<.5	0.4	<.5	1.4	<.5	2.7	<.5	1.7	<.5	1 2	<.5	1.6
		.5<1	0.6	.5<1	0.2	.5<1	0.6	.5<1	0.4	.5<1	1.1	.5<1	0 7	.5<1	0.8	.5<1	1.2	5<1	1.6
		1<2	1 1	1<2	1.1	1<2	1.0	1<2	1.0	1<2	1.7	1<2	2.1	1<2	2 3	1<2	3.4	1<2	2.4
		2<5	4 6	2<5	4.0	2<5	6.4	2<5	5.1	2<5	4.8	2<5	6.5	2<5	8.1	2<5	8.4	2<5	8.0
		5<10	16.7	5<10	16.5	5<10	21.1	5<10	14.1	5<10	20.2	5<10	28.1	5<10	26.0	5<10	24.6	5<10	25.0
		≥10	76 5	≥10	77.3	≥10	70.1	≥10	78.9	≥10	70.7	≥10	59.9	≥10	61.2	≥10	61.2	≥10	61 4
		N=	945	N=	1047	N=	702	N=	2417	N=	1097	N=	1643	N=	2520	N=	3057	N=	2794
		<.5	0.3	<.5	0.7	<.5	1.5	<.5	0.9	<.5	1.1	<.5	1.3	<.5	1.1	<.5	1.1	<.5	1.2
		.5<1	0.7	.5<1	0.4	.5<1	0.0	.5<1	0.5	.5<1	0.8	.5<1	0 9	.5<1	1.1	.5<1	0 8	.5<1	0 7
		1<2	0.7	1<2	2.0	1<2	2.2	1<2	1.2	1<2	2.4	1<2	2.6	1<2	2.5	1<2	2.3	1<2	1.8
		2<5	4.6	2<5	7.5	2<5	9.5	2<5	5.9	2<5	6.9	2<5	7.8	2<5	8.4	2<5	8.2	2<5	8.4
		5<10	20.3	5<10	22.3	5<10	28.5	5<10	17.5	5<10	24.6	5<10	25.0	5<10	24.9	5<10	25.0	5<10	24.1
		≥10	73.4	≥10	67.1	≥10	53.4	≥10	74.1	≥10	64.2	≥10	62.3	≥10	62.0	≥10	62.6	≥10	63.8
		N=	991	N=	957	N=	137	N=	2162	N=	2293	N=	3430	N=	2714	N=	2128	N=	2270
		<.5	1.6	<.5	2.2	<.5	0.8	<.5	0.7	<.5	1.1	<.5	0.6	<.5	1.0	<.5	1.1	<.5	0 6
		.5<1	0.4	.5<1	2.2	.5<1	1.1	.5<1	0.9	.5<1	1.1	.5<1	1.2	.5<1	1.4	.5<1	0 7	.5<1	1.3
		1<2	2.9	1<2	1.1	1<2	3.5	1<2	1.6	1<2	2.3	1<2	1 9	1<2	1.7	1<2	2.1	1<2	1.7
		2<5	11.0	2<5	3.2	2<5	15.1	2<5	6.3	2<5	6.8	2<5	6.8	2<5	6.4	2<5	8.1	2<5	7 0
		5<10	23.1	5<10	40.9	5<10	33.5	5<10	22.3	5<10	23.0	5<10	21.9	5<10	22.5	5<10	24.4	5<10	26.5
		≥10	61.0	≥10	50.5	≥10	46.1	≥10	68.2	≥10	65.6	≥10	67.5	≥10	67 1	≥10	63.6	≥10	62.8
		N=	480	N=	93	N=	3209	N=	3923	N=	3568	N=	2881	N=	2387	N=	2135	N=	1859

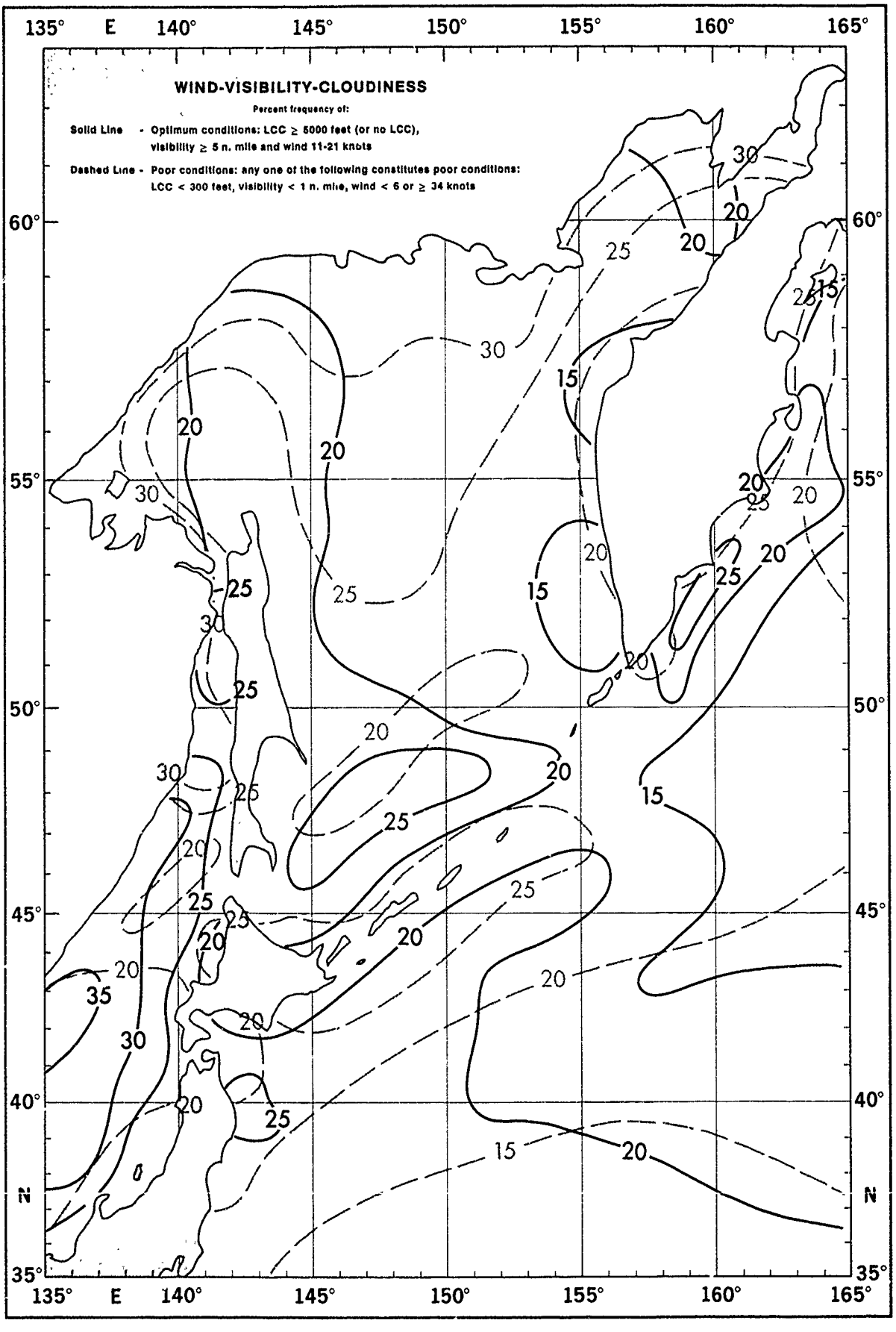
		<.5	5.4	<.5	5 5	< 5	3.6	<.5	4.0	<.5	4.1								
		.5<1	1.9	5<1	2.8	.5<1	2 8	.5<1	1.7	.5<1	3.1								
		1<2	4.3	1<2	4.2	1<2	2.5	1<2	3.0	1<2	4.4								
		2<5	9.0	2<5	10 2	2<5	10.1	2<5	8.3	2<5	12.2								
		5<10	26.0	5<10	26.7	5<10	32.2	5<10	35.0	5<10	33.5								
		≥10	53.3	≥10	50.6	≥10	48.8	≥10	48.0	≥10	42.7								
		N=	900	N=	968	N=	1101	N=	2025	N=	1149								
		<.5	7 1	<.5	4.0	<.5	3.9	<.5	3.3	<.5	3.2								
		.5<1	1.7	.5<1	3.1	.5<1	2.3	.5<1	1.8	.5<1	2.0								
		1<2	4.4	1<2	3.6	1<2	4.6	1<2	4.0	1<2	4.9								
		2<5	8.9	2<5	8 2	2<5	10.0	2<5	11.2	2<5	10.0								
		5<10	27.7	5<10	30.9	5<10	31.9	5<10	33.3	5<10	32.2								
		≥10	50.2	≥10	50.2	≥10	47 3	≥10	46.3	≥10	47.7								
		N=	1405	N=	1351	N=	1349	N=	1515	N=	1546								
		<.5	4.2	<.5	3.8	<.5	2.6	<.5	3.2	<.5	5.0								
		.5<1	1 9	.5<1	2.3	.5<1	1 5	.5<1	1.7	.5<1	1.8								
		1<2	2.7	1<2	2.9	1<2	4.1	1<2	4.1	1<2	4.1								
		2<5	9.2	2<5	10.0	2<5	10.3	2<5	11.4	2<5	11.0								
		5<10	28.7	5<10	31.9	5<10	31 7	5<10	30.0	5<10	27.9								
		≥10	53.3	≥10	49.1	≥10	49.8	≥10	49.6	≥10	50.3								
		N=	2037	N=	2020	N=	1908	N=	1666	N=	1548								
		<.5	3.0	<.5	2.9	<.5	3.0	<.5	4 3	< 5	4.6								
		.5<1	2 2	.5<1	1.9	.5<1	2.1	.5<1	1.8	.5<1	2.5								
		1<2	3.4	1<2	4.0	1<2	3 6	1<2	4.4	1<2	3.8								
		2<5	10.4	2<5	10.7	2<5	9.3	2<5	8.4	5	9.4								
		5<10	27.5	5<10	27.0	5<10	27.7	5<10	25.7	5<10	26.0								
		≥10	53.6	≥10	53.5	≥10	54.4	≥10	55.4	≥10	53.7								
		N=	2279	N=	1838	N=	1479	N=	1235	N=	1144								
		<.5	1 6	< 5	2.1	<.5	2.1	<.5	2.9	<.5	2.5								
		.5<1	1.4	.5<1	1 2	.5<1	1.3	.5<1	2 4	.5<1	1.2								
		1<2	3.2	1<2	2.6	1<2	2.8	1<2	3.8	1<2	3.2								
		2<5	8.7	2<5	9.8	2<5	9.1	2<5	9.2	2<5	9.3								
		5<10	25.3	5<10	24.0	5<10	25.3	5<10	24.6	5<10	26.1								
		≥10	59.8	≥10	60 3	≥10	59.2	≥10	57.2	≥10	57.7								
		N=	1606	N=	1482	N=	1401	N=	1291	N=	1163								
		<.5	1.0	<.5	0.9	< 5	0.9	<.5	1.3	<.5	2.0								
		.5<1	0.8	.5<1	0.9	.5<1	0.4	.5<1	1.8	.5<1	0.8								
		1<2	2.2	1<2	2.5	1<2	3.4	1<2	2.2	1<2	2.4								
		2<5	8.1	2<5	8 6	2<5	8.5	2<5	8.5	2<5	9.0								
		5<10	26.0	5<10	26.2	5<10	26.0	5<10	28.6	5<10	25.8								
		≥10	62.0	≥10	60.8	≥10	60.7	≥10	57.5	≥10	59.9								
		N=	1535	N=	1402	N=	1276	N=	1160	N=	1085								
		<.5	0.7	<.5	0.2	< 5	0.5	<.5	0.9	<.5	1.3								
		.5<1	0.6	.5<1	0.6	.5<1	0.6	.5<1	0.6	.5<1	0.5								
		1<2	1.7	1<2	1.3	1<2	1.7	1<2	1.7	1<2	2.2								
		2<5	6.9	2<5	6.6	2<5	5.5	2<5	5.8	2<5	7.4								
		5<10	25.6	5<10	25.0	5<10	26.7	5<10	27.2	5<10	22.7								
		≥10	64.6	≥10	66.3	≥10	65.1	≥10	63.7	≥10	65.9								
		N=	1454	N=	1358	N=	1279	N=	1267	N=	1205								


CEILING - VISIBILITY
(Mid Range)
Percent frequency of:
Solid Line - Ceiling < 1000 feet and/or visibility < 5 n. miles
Dashed Line - Ceiling < 3000 feet and/or visibility < 10 n. miles
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
35°
N

October

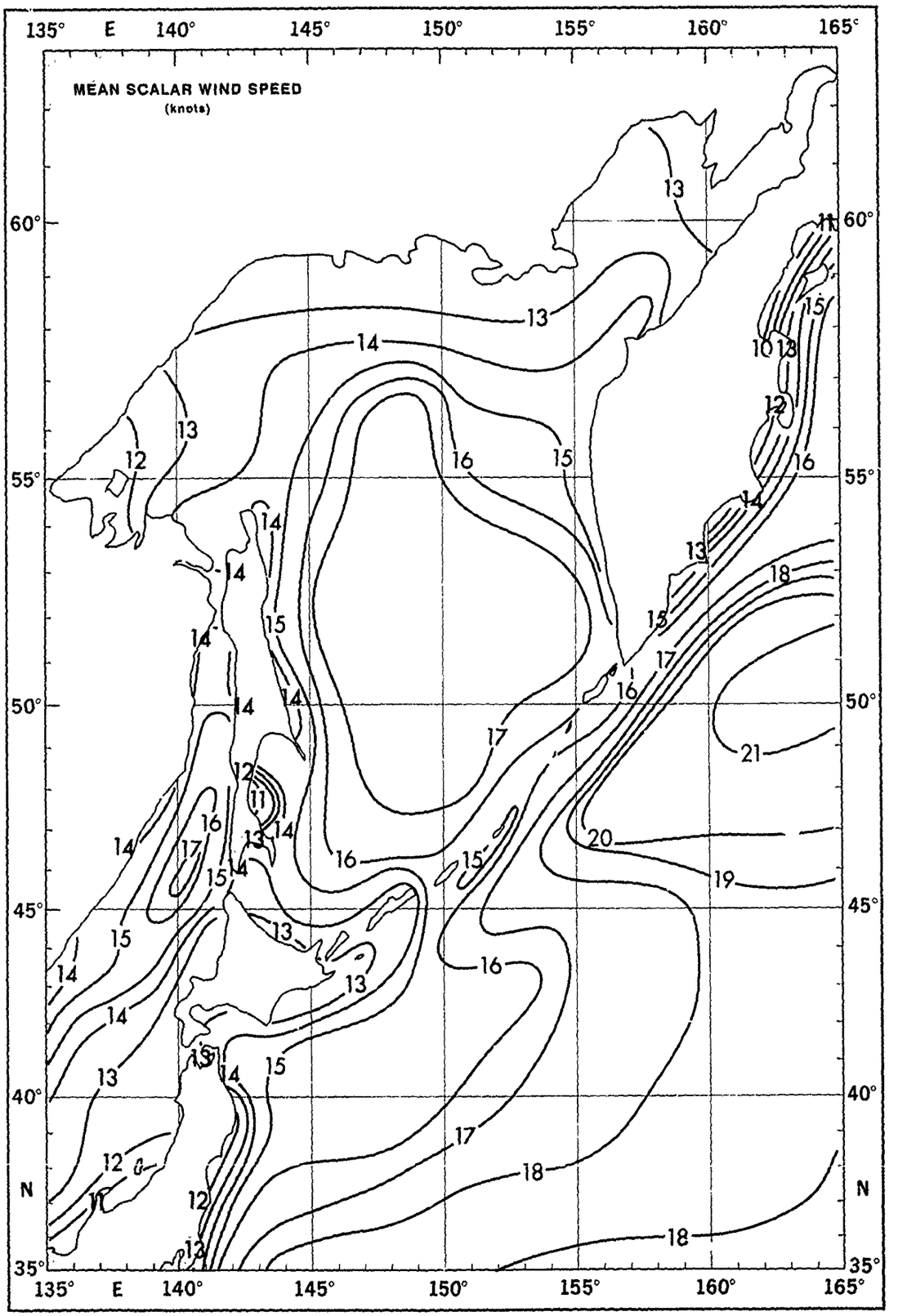
Ceiling-Visibility (Low Range)




WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 5000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
N
35°

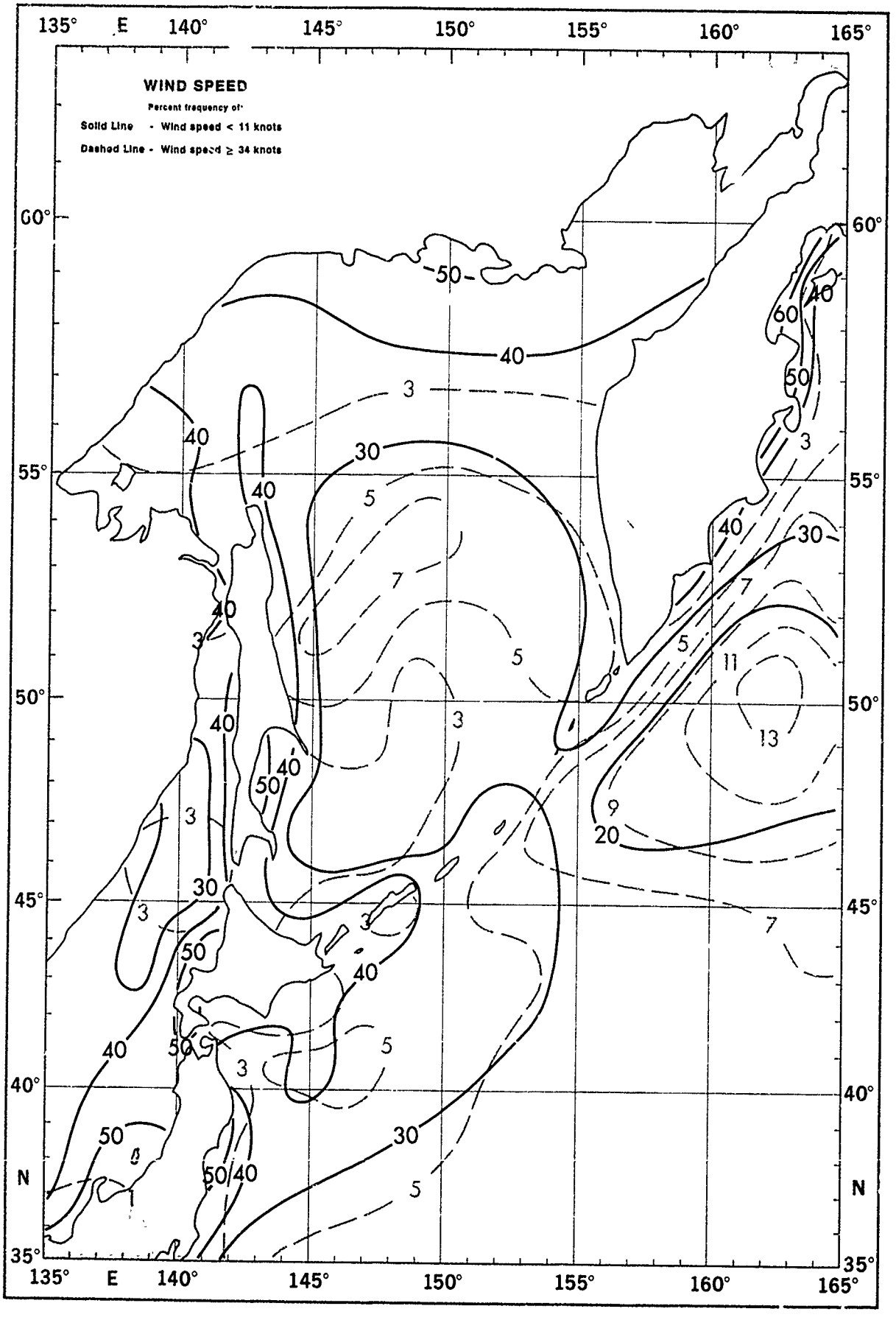
October

Mean Scalar Wind Speed



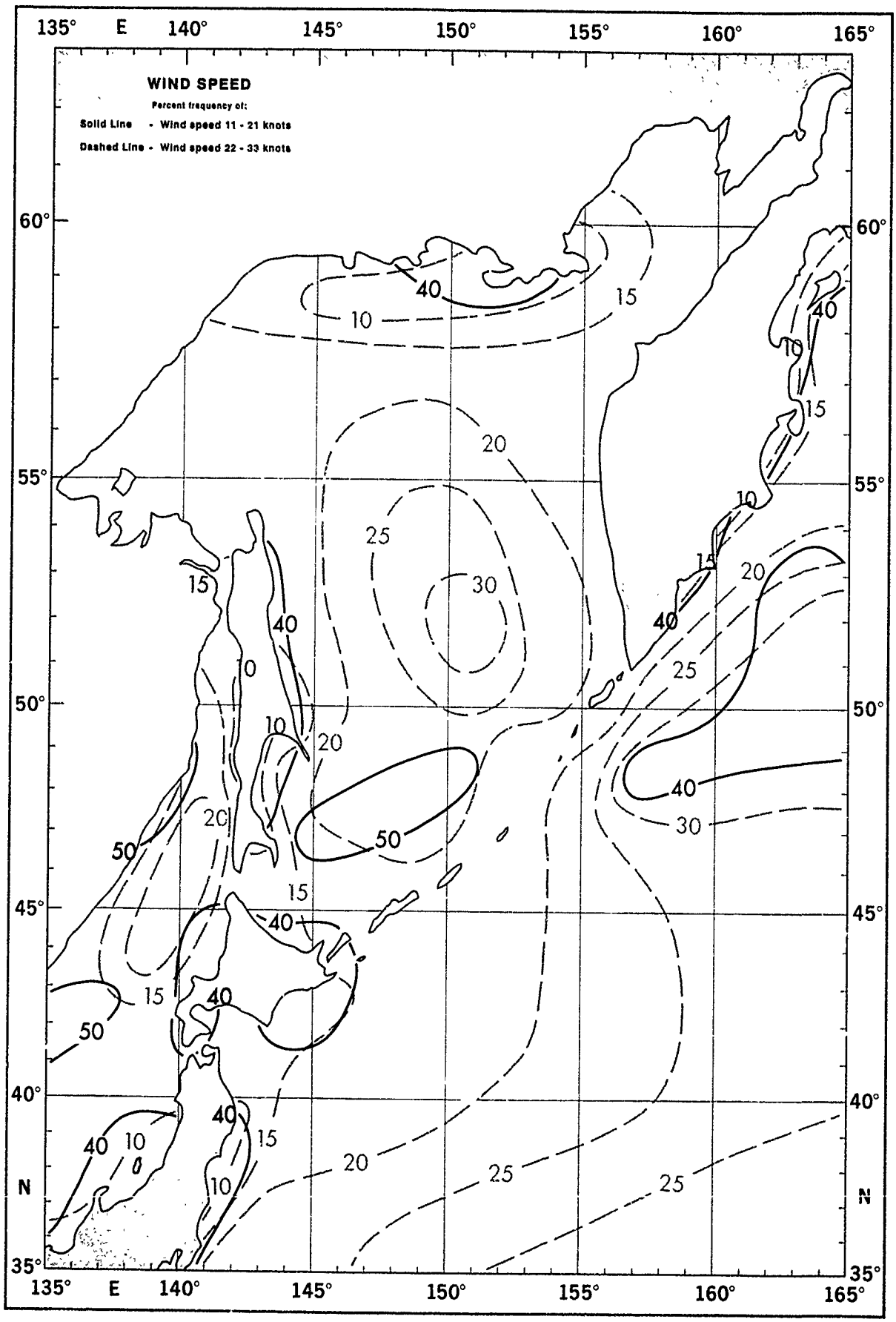
October

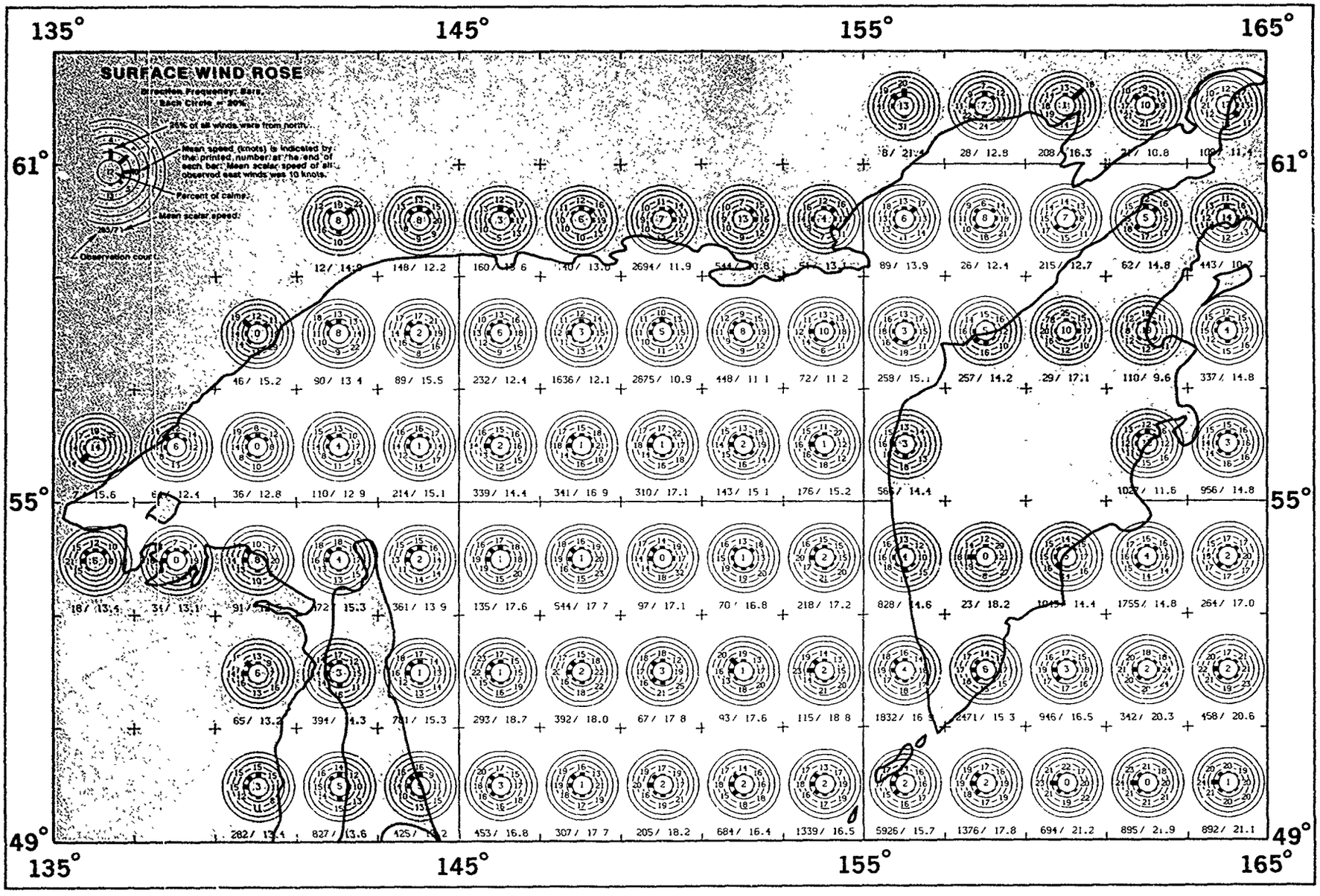
Wind Speed <11 and ≥34 Knots

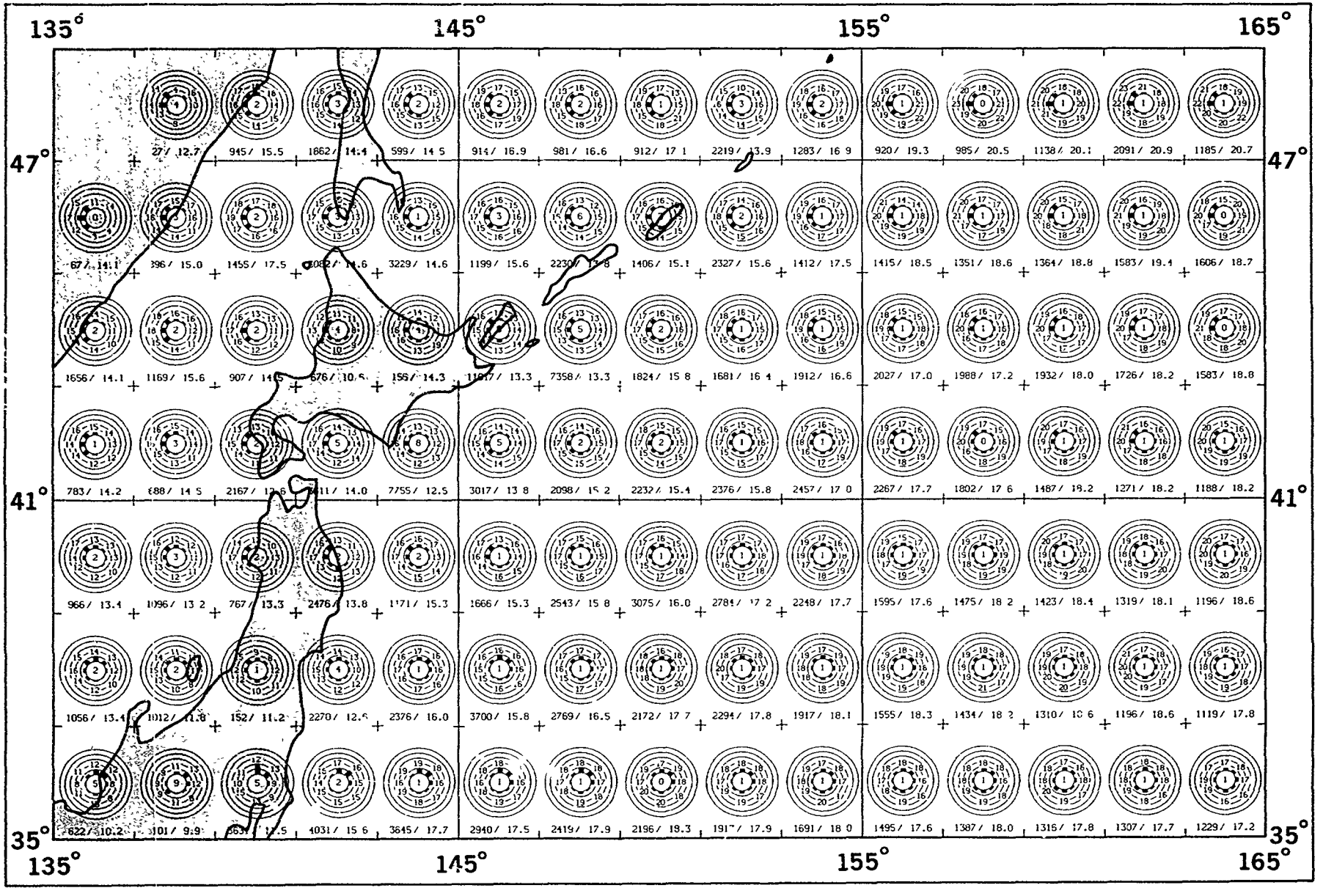


October

Wind Speed 11-21 and 22-33 Knots

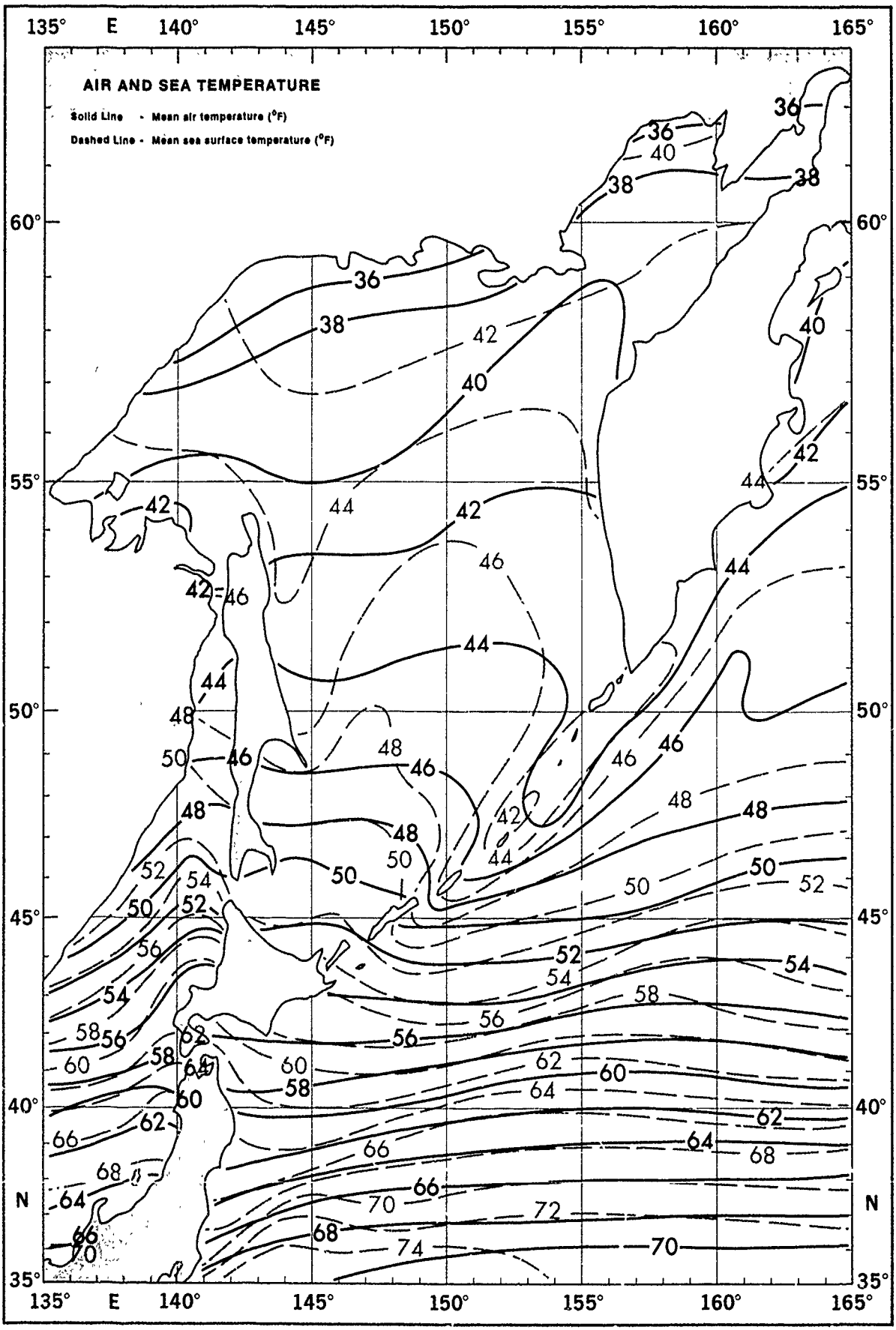



SURFACE WIND ROSE
Direction Frequency: Bars.
Each Circle = 20%.
25% of all winds were from north.
Mean speed (knots) is indicated by the printed number at the end of each bar; Mean scalar speed of all observed east winds was 10 knots.
Percent of calms:
Mean scalar speed:
Observation count:
135°
145°
155°
165°
61°
55°
49°


135°
145°
155°
165°
47°
41°
35°

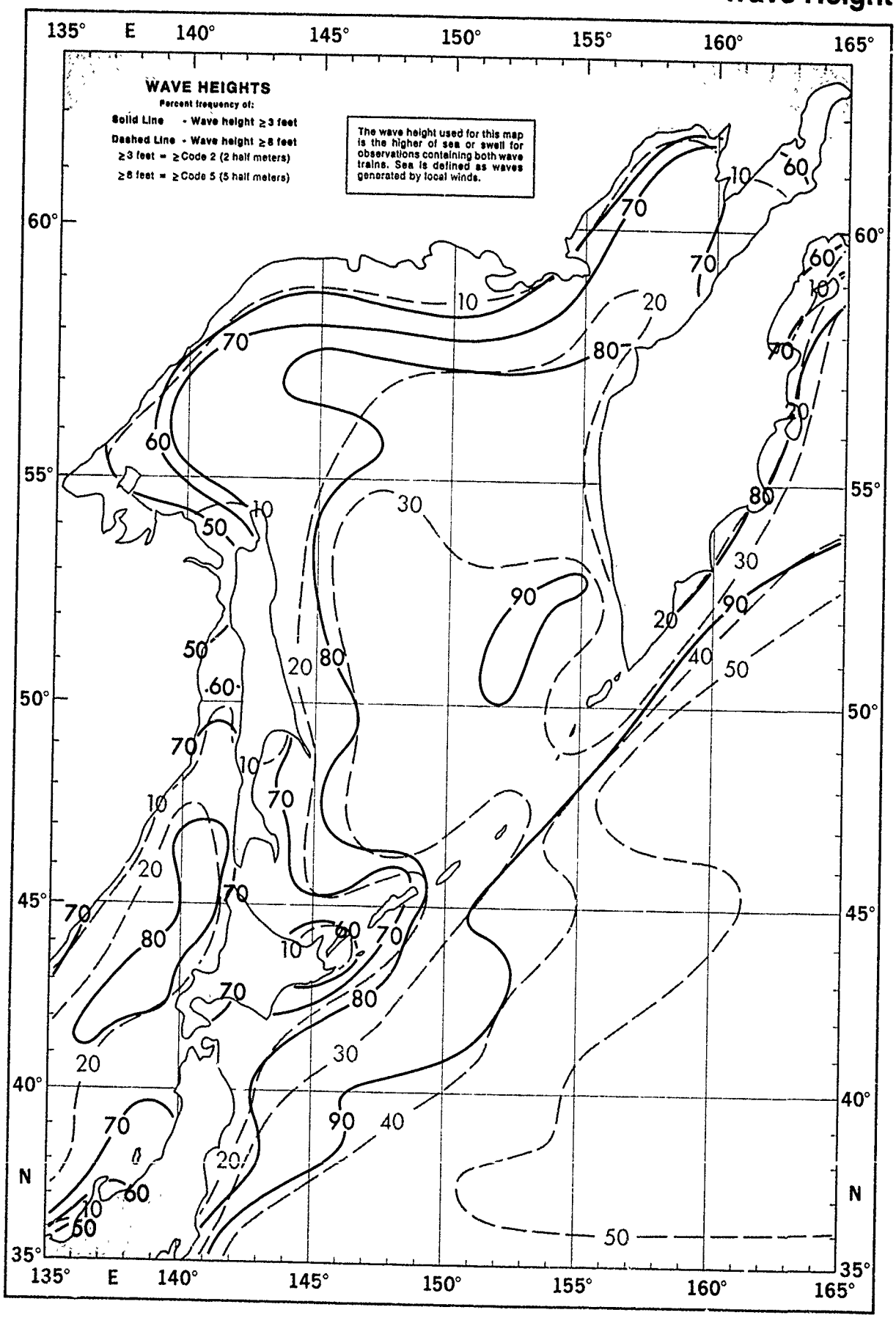
October

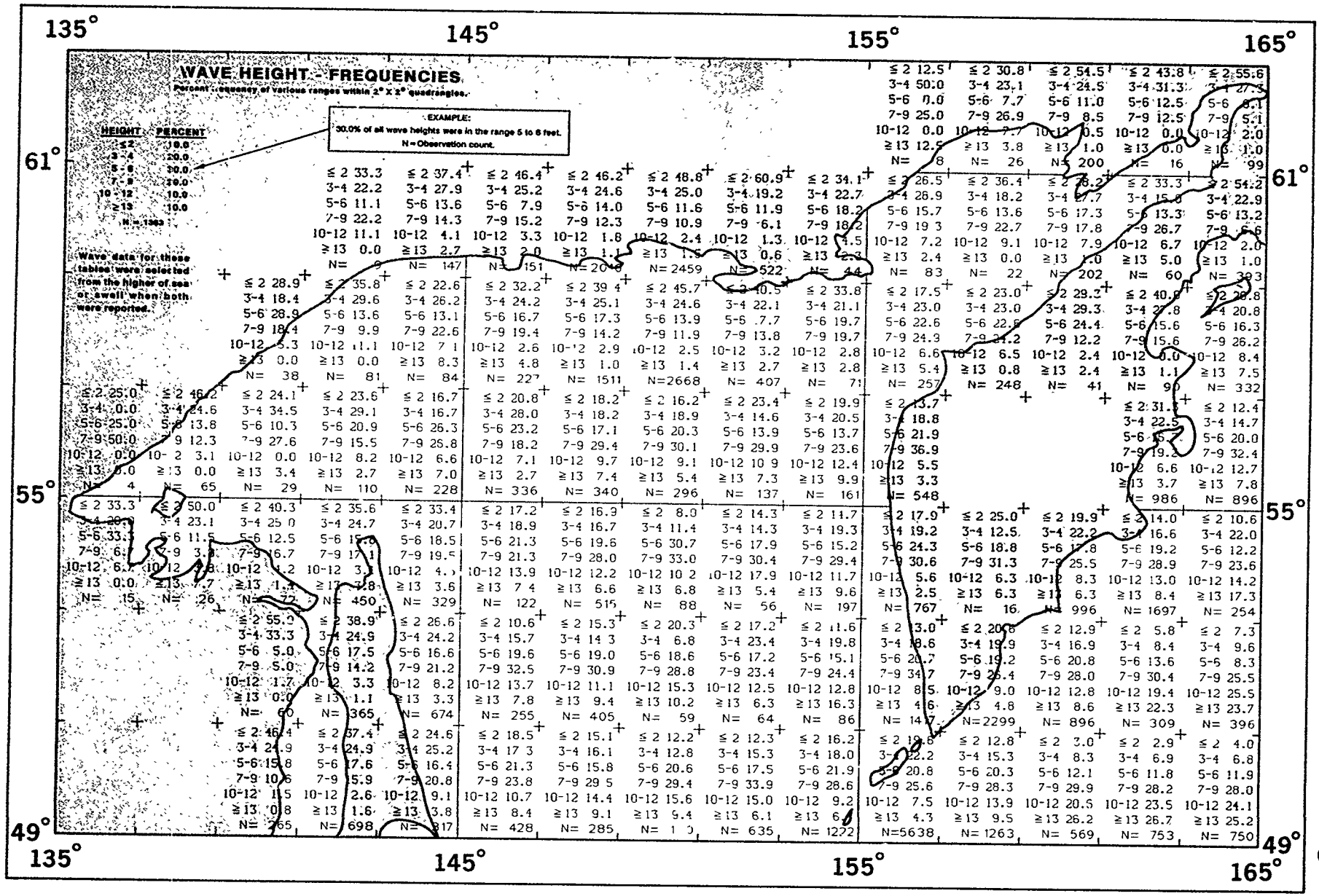
Mean Air and Sea Temperature

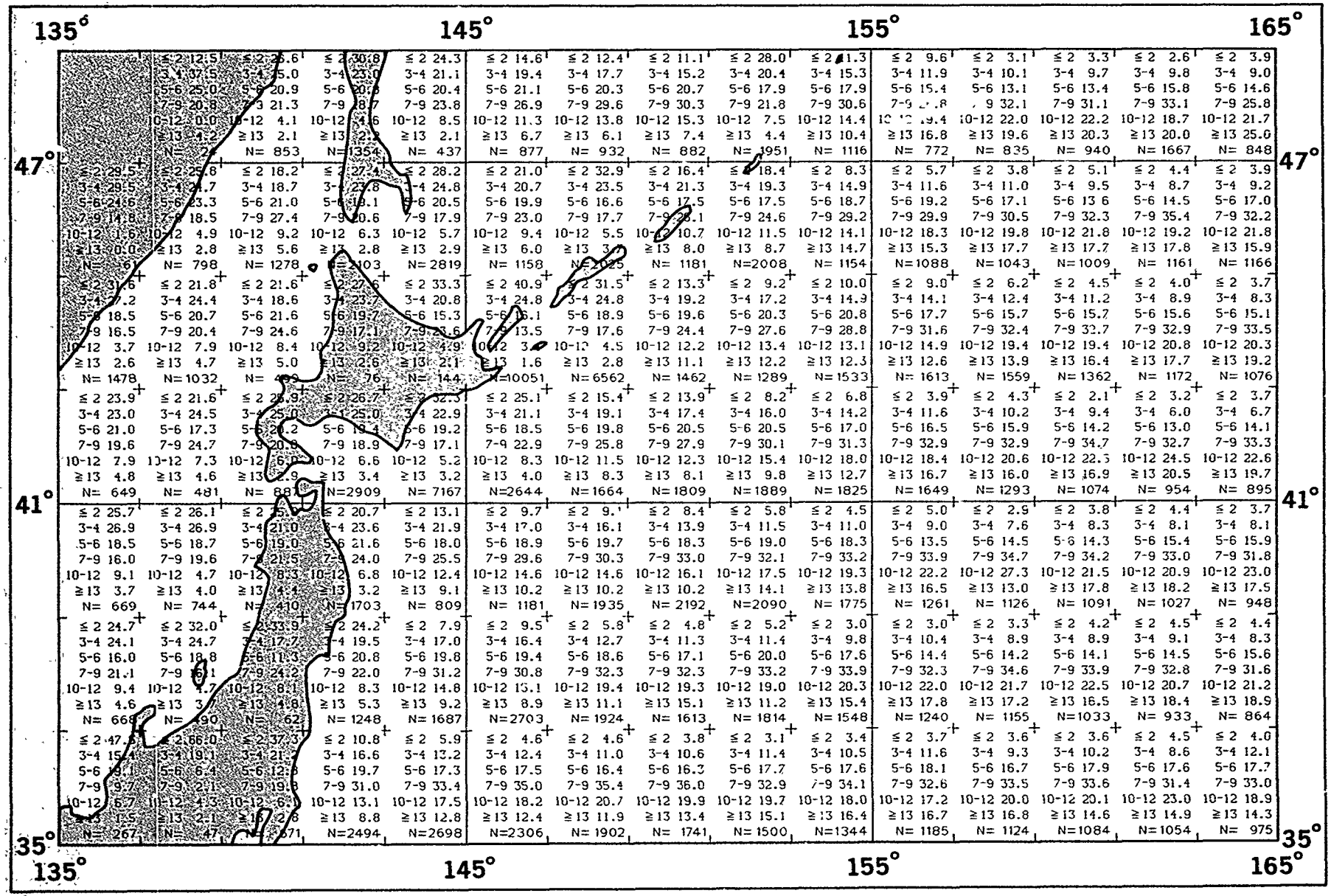


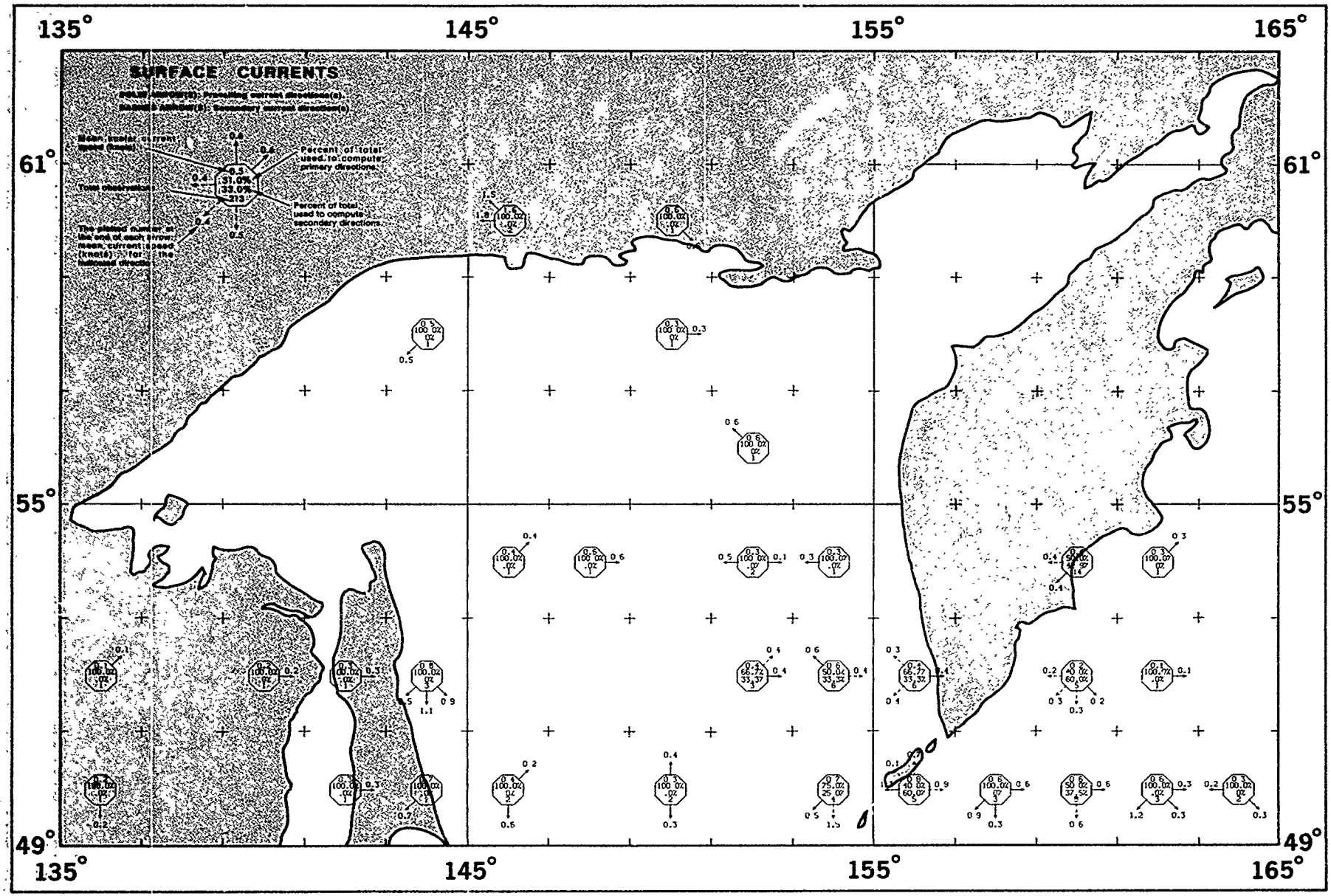
October

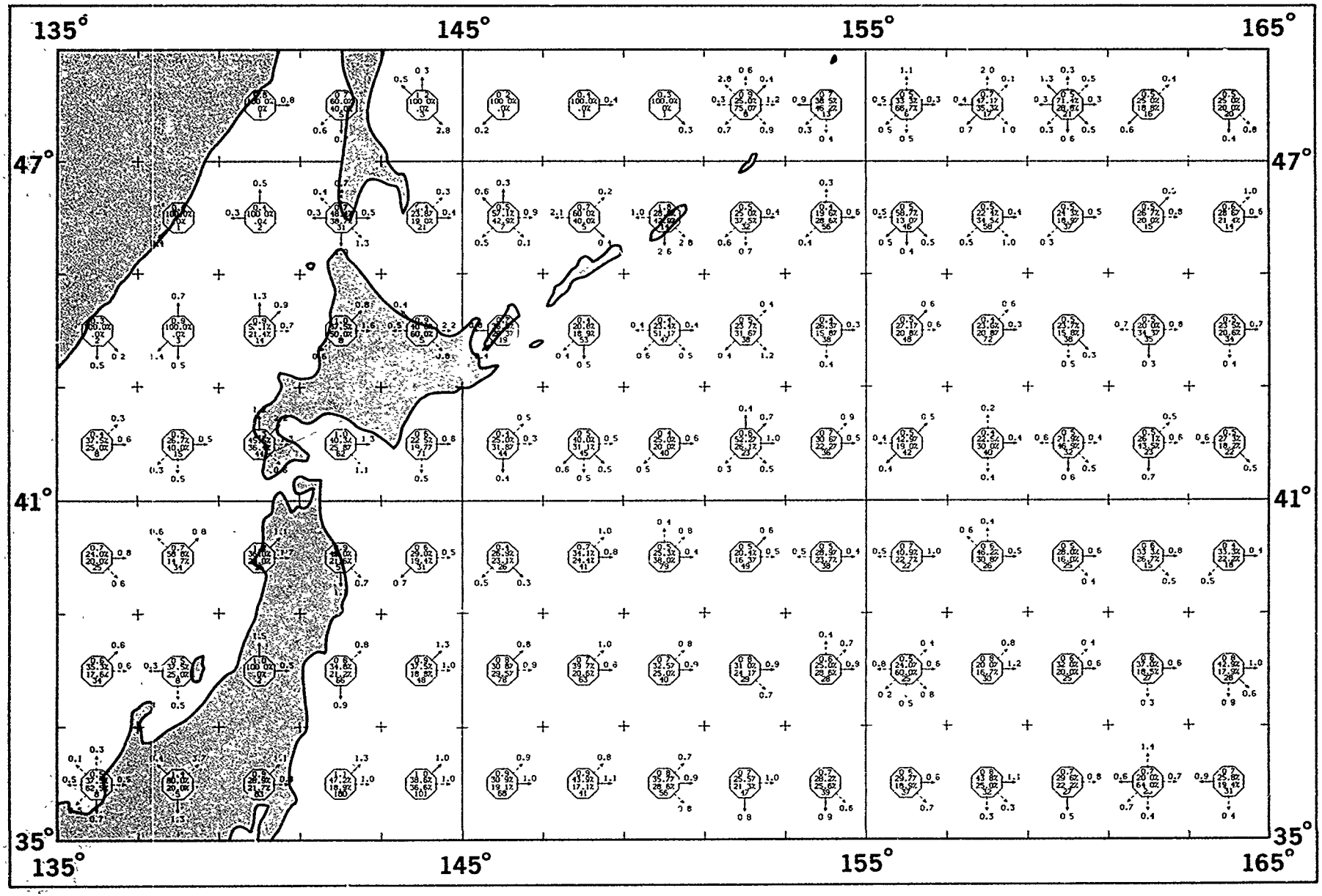
Wave Height




135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° x 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 6 feet.
N = Observation count.
HEIGHT PERCENT
≤2 10.0
3-4 20.0
5-6 30.0
7-9 20.0
10-12 10.0
≥13 10.0
N = 1363
Wave data for these tables were selected from the higher of sea or swell when both were reported.
≤ 2 12.5 ≤ 2 30.8 ≤ 2 54.5 ≤ 2 43.8 ≤ 2 55.6
3-4 50.0 3-4 23.1 3-4 24.5 3-4 31.3 3-4 27.3
5-6 0.0 5-6 7.7 5-6 11.0 5-6 12.5 5-6 8.1
7-9 25.0 7-9 26.9 7-9 8.5 7-9 12.5 7-9 5.1
10-12 0.0 10-12 7.7 10-12 0.5 10-12 0.0 10-12 2.0
≥13 12.5 ≥13 3.8 ≥13 1.0 ≥13 0.0 ≥13 1.0
N= 8 N= 26 N= 200 N= 16 N= 99
≤ 2 33.3 ≤ 2 37.4 ≤ 2 46.4 ≤ 2 46.2 ≤ 2 48.8 ≤ 2 60.9 ≤ 2 34.1
3-4 22.2 3-4 27.9 3-4 25.2 3-4 24.6 3-4 25.0 3-4 19.2 3-4 22.7
5-6 11.1 5-6 13.6 5-6 7.9 5-6 14.0 5-6 11.6 5-6 11.9 5-6 18.2
7-9 22.2 7-9 14.3 7-9 15.2 7-9 12.3 7-9 10.9 7-9 6.1 7-9 18.2
10-12 11.1 10-12 4.1 10-12 3.3 10-12 1.8 10-12 2.4 10-12 1.3 10-12 4.5
≥13 0.0 ≥13 2.7 ≥13 2.0 ≥13 1.1 ≥13 1.5 ≥13 0.6 ≥13 2.3
N= 9 N= 147 N= 151 N= 2040 N= 2459 N= 522 N= 44
≤ 2 26.5 ≤ 2 36.4 ≤ 2 36.2 ≤ 2 33.3 ≤ 2 54.2
3-4 26.9 3-4 18.2 3-4 17.7 3-4 15.8 3-4 22.9
5-6 15.7 5-6 13.6 5-6 17.3 5-6 13.3 5-6 13.2
7-9 19.3 7-9 22.7 7-9 17.8 7-9 26.7 7-9 6.6
10-12 7.2 10-12 9.1 10-12 7.9 10-12 6.7 10-12 2.0
≥13 2.4 ≥13 0.0 ≥13 1.0 ≥13 5.0 ≥13 1.0
N= 83 N= 22 N= 202 N= 60 N= 393
≤ 2 28.9 ≤ 2 35.8 ≤ 2 22.6 ≤ 2 32.2 ≤ 2 39.4 ≤ 2 45.7 ≤ 2 40.5 ≤ 2 33.8
3-4 18.4 3-4 29.6 3-4 26.2 3-4 24.2 3-4 25.1 3-4 24.6 3-4 22.1 3-4 21.1
5-6 28.9 5-6 13.6 5-6 13.1 5-6 16.7 5-6 17.3 5-6 13.9 5-6 17.7 5-6 19.7
7-9 18.4 7-9 9.9 7-9 22.6 7-9 19.4 7-9 14.2 7-9 11.9 7-9 13.8 7-9 19.7
10-12 5.3 10-12 4.1 10-12 7.1 10-12 2.6 10-12 2.9 10-12 2.5 10-12 3.2 10-12 2.8
≥13 0.0 ≥13 0.0 ≥13 8.3 ≥13 4.8 ≥13 1.0 ≥13 1.4 ≥13 2.7 ≥13 2.8
N= 38 N= 81 N= 84 N= 227 N= 1511 N=2668 N= 407 N= 71
≤ 2 17.5 ≤ 2 23.0 ≤ 2 29.2 ≤ 2 40.6 ≤ 2 20.8
3-4 23.0 3-4 23.0 3-4 29.3 3-4 27.8 3-4 20.8
5-6 22.6 5-6 22.6 5-6 24.4 5-6 15.6 5-6 16.3
7-9 24.3 7-9 24.2 7-9 12.2 7-9 15.6 7-9 26.2
10-12 6.6 10-12 6.5 10-12 2.4 10-12 0.0 10-12 8.4
≥13 5.4 ≥13 0.8 ≥13 2.4 ≥13 1.1 ≥13 7.5
N= 257 N= 248 N= 41 N= 90 N= 332
≤ 2 25.0 ≤ 2 46.2 ≤ 2 24.1 ≤ 2 23.6 ≤ 2 16.7 ≤ 2 20.8 ≤ 2 18.2 ≤ 2 16.2 ≤ 2 23.4 ≤ 2 19.9
3-4 0.0 3-4 24.6 3-4 34.5 3-4 29.1 3-4 16.7 3-4 28.0 3-4 18.2 3-4 18.9 3-4 14.6 3-4 20.5
5-6 25.0 5-6 13.8 5-6 10.3 5-6 20.9 5-6 26.3 5-6 23.2 5-6 17.1 5-6 20.3 5-6 13.9 5-6 13.7
7-9 50.0 7-9 12.3 7-9 27.6 7-9 15.5 7-9 26.8 7-9 18.2 7-9 29.4 7-9 30.1 7-9 29.9 7-9 23.6
10-12 0.0 10-12 3.1 10-12 0.0 10-12 8.2 10-12 6.6 10-12 7.1 10-12 9.7 10-12 9.1 10-12 10.9 10-12 12.4
≥13 0.0 ≥13 0.0 ≥13 3.4 ≥13 2.7 ≥13 7.0 ≥13 2.7 ≥13 7.4 ≥13 5.4 ≥13 7.3 ≥13 9.9
N= 4 N= 65 N= 29 N= 110 N= 228 N= 336 N= 340 N= 296 N= 137 N= 161
≤ 2 13.7
3-4 18.8
5-6 21.9
7-9 36.9
10-12 5.5
≥13 3.3
N= 548
≤ 2 31.3
3-4 22.5
5-6 15.2
7-9 19.2
10-12 6.6
≥13 3.7
N= 986
≤ 2 12.4
3-4 14.7
5-6 20.0
7-9 32.4
10-12 12.7
≥13 7.8
N= 896
≤ 2 33.3 ≤ 2 50.0 ≤ 2 40.3 ≤ 2 35.6 ≤ 2 33.4 ≤ 2 17.2 ≤ 2 16.9 ≤ 2 8.0 ≤ 2 14.3 ≤ 2 11.7
3-4 20.0 3-4 23.1 3-4 25.0 3-4 24.7 3-4 20.7 3-4 18.9 3-4 16.7 3-4 11.4 3-4 14.3 3-4 19.3
5-6 33.3 5-6 11.5 5-6 12.5 5-6 15.6 5-6 18.5 5-6 21.3 5-6 19.6 5-6 30.7 5-6 17.9 5-6 15.2
7-9 6.7 7-9 3.8 7-9 16.7 7-9 17.1 7-9 19.5 7-9 21.3 7-9 28.0 7-9 33.0 7-9 30.4 7-9 29.4
10-12 6.7 10-12 7.8 10-12 4.2 10-12 3.1 10-12 4.1 10-12 13.9 10-12 12.2 10-12 10.2 10-12 17.9 10-12 11.7
≥13 0.0 ≥13 7.7 ≥13 1.4 ≥13 7.8 ≥13 3.6 ≥13 7.4 ≥13 6.6 ≥13 6.8 ≥13 5.4 ≥13 9.6
N= 15 N= 26 N= 72 N= 450 N= 329 N= 122 N= 515 N= 88 N= 56 N= 197
≤ 2 17.9 ≤ 2 25.0 ≤ 2 19.9 ≤ 2 14.0 ≤ 2 10.6
3-4 19.2 3-4 12.5 3-4 22.2 3-4 16.6 3-4 22.0
5-6 24.3 5-6 18.8 5-6 17.8 5-6 19.2 5-6 12.2
7-9 30.6 7-9 31.3 7-9 25.5 7-9 28.9 7-9 23.6
10-12 5.6 10-12 6.3 10-12 8.3 10-12 13.0 10-12 14.2
≥13 2.5 ≥13 6.3 ≥13 6.3 ≥13 8.4 ≥13 17.3
N= 767 N= 16 N= 996 N= 1697 N= 254
≤ 2 55.3 ≤ 2 38.9 ≤ 2 26.6 ≤ 2 10.6 ≤ 2 15.3 ≤ 2 20.3 ≤ 2 17.2 ≤ 2 11.6 ≤ 2 13.0 ≤ 2 20.6 ≤ 2 12.9 ≤ 2 5.8 ≤ 2 7.3
3-4 33.3 3-4 24.9 3-4 24.2 3-4 15.7 3-4 14.3 3-4 6.8 3-4 23.4 3-4 19.8 3-4 18.6 3-4 19.9 3-4 16.9 3-4 8.4 3-4 9.6
5-6 5.0 5-6 17.5 5-6 16.6 5-6 19.6 5-6 19.0 5-6 18.6 5-6 17.2 5-6 15.1 5-6 20.7 5-6 19.2 5-6 20.8 5-6 13.6 5-6 8.3
7-9 5.0 7-9 14.2 7-9 21.2 7-9 32.5 7-9 30.9 7-9 28.8 7-9 23.4 7-9 24.4 7-9 34.7 7-9 26.4 7-9 28.0 7-9 30.4 7-9 25.5
10-12 1.7 10-12 3.3 10-12 8.2 10-12 13.7 10-12 11.1 10-12 15.3 10-12 12.5 10-12 12.8 10-12 8.5 10-12 9.0 10-12 12.8 10-12 19.4 10-12 25.5
≥13 0.0 ≥13 1.1 ≥13 3.3 ≥13 7.8 ≥13 9.4 ≥13 10.2 ≥13 6.3 ≥13 16.3 ≥13 4.6 ≥13 4.8 ≥13 8.6 ≥13 22.3 ≥13 23.7
N= 60 N= 365 N= 674 N= 255 N= 405 N= 59 N= 64 N= 86 N= 147 N=2299 N= 896 N= 309 N= 396
≤ 2 46.4 ≤ 2 37.4 ≤ 2 24.6 ≤ 2 18.5 ≤ 2 15.1 ≤ 2 12.2 ≤ 2 12.3 ≤ 2 16.2 ≤ 2 19.6 ≤ 2 12.8 ≤ 2 3.0 ≤ 2 2.9 ≤ 2 4.0
3-4 24.9 3-4 24.9 3-4 25.2 3-4 17.3 3-4 16.1 3-4 12.8 3-4 15.3 3-4 18.0 3-4 22.2 3-4 15.3 3-4 8.3 3-4 6.9 3-4 6.8
5-6 15.8 5-6 17.6 5-6 16.4 5-6 21.3 5-6 15.8 5-6 20.6 5-6 17.5 5-6 21.9 5-6 20.8 5-6 20.3 5-6 12.1 5-6 11.8 5-6 11.9
7-9 10.6 7-9 15.9 7-9 20.8 7-9 23.8 7-9 29.5 7-9 29.4 7-9 33.9 7-9 28.6 7-9 25.6 7-9 28.3 7-9 29.9 7-9 28.2 7-9 28.0
10-12 1.5 10-12 2.6 10-12 9.1 10-12 10.7 10-12 14.4 10-12 15.6 10-12 15.0 10-12 9.2 10-12 7.5 10-12 13.9 10-12 20.5 10-12 23.5 10-12 24.1
≥13 0.8 ≥13 1.6 ≥13 3.8 ≥13 8.4 ≥13 9.1 ≥13 9.4 ≥13 6.1 ≥13 6.6 ≥13 4.3 ≥13 9.5 ≥13 26.2 ≥13 26.7 ≥13 25.2
N= 265 N= 698 N= 817 N= 428 N= 285 N= 1 0 N= 635 N= 1272 N=5638 N= 1263 N= 569 N= 753 N= 750

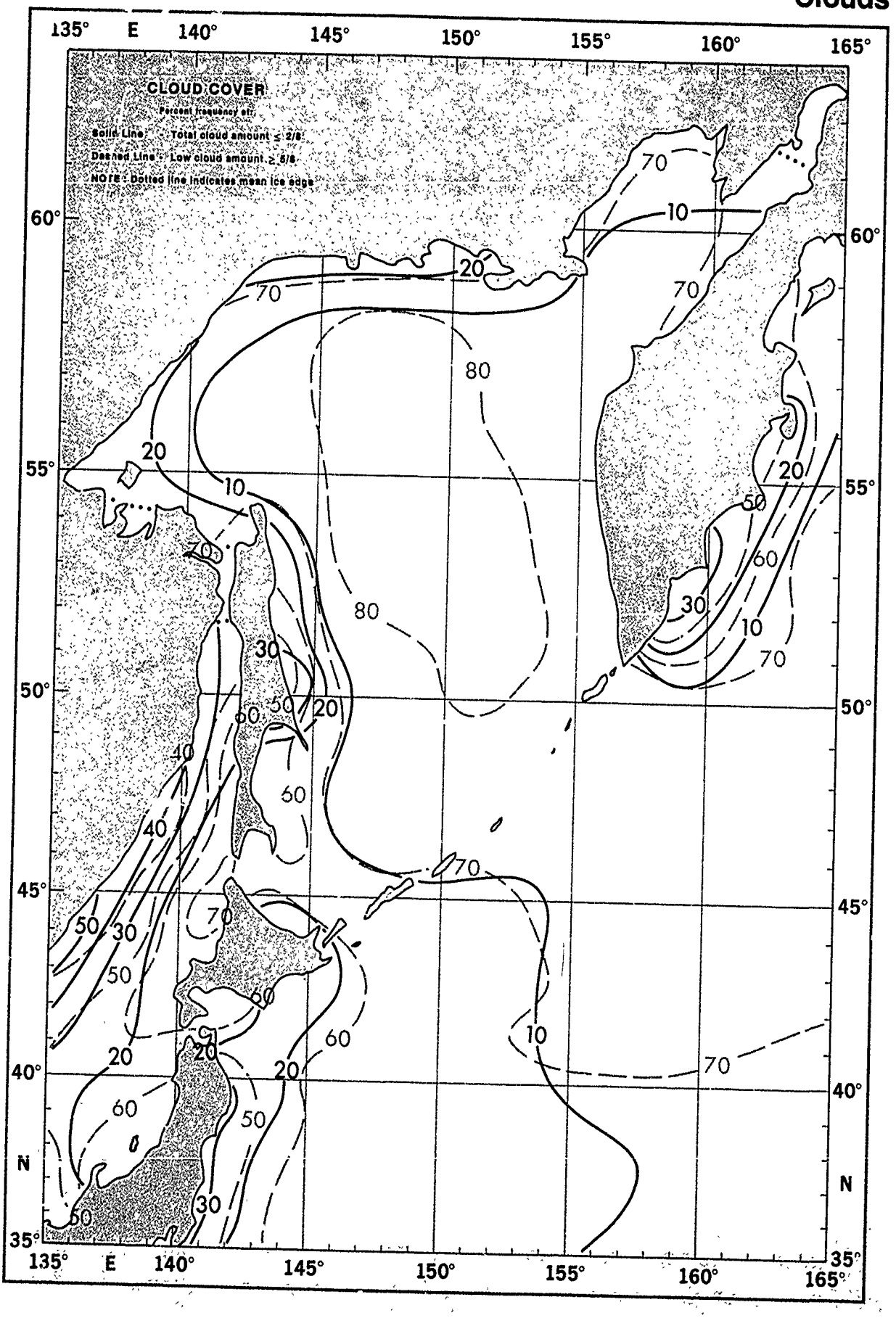

135°
145°
155°
165°
47°
41°
35°
≦2 12.5 ≦2 26.6 ≦2 30.8 ≦2 24.3 ≦2 14.6 ≦2 12.4 ≦2 11.1 ≦2 28.0 ≦2 11.3 ≦2 9.6 ≦2 3.1 ≦2 3.3 ≦2 2.6 ≦2 3.9
3-4 37.5 3-4 25.0 3-4 23.0 3-4 21.1 3-4 19.4 3-4 17.7 3-4 15.2 3-4 20.4 3-4 15.3 3-4 11.9 3-4 10.1 3-4 9.7 3-4 9.8 3-4 9.0
5-6 25.0 5-6 20.9 5-6 20.6 5-6 20.4 5-6 21.1 5-6 20.3 5-6 20.7 5-6 17.9 5-6 17.9 5-6 15.4 5-6 13.1 5-6 13.4 5-6 15.8 5-6 14.6
7-9 20.8 7-9 21.3 7-9 18.7 7-9 23.8 7-9 26.9 7-9 29.6 7-9 30.3 7-9 21.8 7-9 30.6 7-9 [illegible].8 [illegible] 9 32.1 7-9 31.1 7-9 33.1 7-9 25.8
10-12 0.0 10-12 4.1 10-12 4.6 10-12 8.5 10-12 11.3 10-12 13.8 10-12 15.3 10-12 7.5 10-12 14.4 10-12 [illegible].4 10-12 22.0 10-12 22.2 10-12 18.7 10-12 21.7
≧13 4.2 ≧13 2.1 ≧13 2.1 ≧13 2.1 ≧13 6.7 ≧13 6.1 ≧13 7.4 ≧13 4.4 ≧13 10.4 ≧13 16.8 ≧13 19.6 ≧13 20.3 ≧13 20.0 ≧13 25.0
N= 2[illegible] N= 853 N= 1354 N= 437 N= 877 N= 932 N= 882 N= 1951 N= 1116 N= 772 N= 835 N= 940 N= 1667 N= 848
≦2 29.5 ≦2 25.8 ≦2 18.2 ≦2 27.4 ≦2 28.2 ≦2 21.0 ≦2 32.9 ≦2 16.4 ≦2 [illegible].4 ≦2 8.3 ≦2 5.7 ≦2 3.8 ≦2 5.1 ≦2 4.4 ≦2 3.9
3-4 29.5 3-4 [illegible].7 3-4 18.7 3-4 [illegible].8 3-4 24.8 3-4 20.7 3-4 23.5 3-4 21.3 3-4 19.3 3-4 14.9 3-4 11.6 3-4 11.0 3-4 9.5 3-4 8.7 3-4 9.2
5-6 24.6 5-6 23.3 5-6 21.0 5-6 [illegible].1 5-6 20.5 5-6 19.9 5-6 16.6 5-6 17.5 5-6 17.5 5-6 18.7 5-6 19.2 5-6 17.1 5-6 13.6 5-6 14.5 5-6 17.0
7-9 14.8 7-9 18.5 7-9 27.4 7-9 [illegible].6 7-9 17.9 7-9 23.0 7-9 17.7 7-9 [illegible].1 7-9 24.6 7-9 29.2 7-9 29.9 7-9 30.5 7-9 32.3 7-9 35.4 7-9 32.2
10-12 1.6 10-12 4.9 10-12 9.2 10-12 6.3 10-12 5.7 10-12 9.4 10-12 5.5 10-12 [illegible].7 10-12 11.5 10-12 14.1 10-12 18.3 10-12 19.8 10-12 21.8 10-12 19.2 10-12 21.8
≧13 0.0 ≧13 2.8 ≧13 5.6 ≧13 2.8 ≧13 2.9 ≧13 6.0 ≧13 3.[illegible] ≧13 8.0 ≧13 8.7 ≧13 14.7 ≧13 15.3 ≧13 17.7 ≧13 17.7 ≧13 17.8 ≧13 15.9
N= 61 N= 798 N= 1278 N= [illegible]103 N= 2819 N= 1158 N= [illegible]025 N= 1181 N=2008 N= 1154 N=1088 N=1043 N=1009 N= 1161 N= 1166
≦2 31.6 ≦2 21.8 ≦2 21.6 ≦2 [illegible].6 ≦2 33.3 ≦2 40.9 ≦2 31.5 ≦2 13.3 ≦2 9.2 ≦2 10.0 ≦2 9.0 ≦2 6.2 ≦2 4.5 ≦2 4.0 ≦2 3.7
3-4 [illegible].2 3-4 24.4 3-4 18.6 3-4 [illegible].3 3-4 20.8 3-4 24.8 3-4 24.8 3-4 19.2 3-4 17.2 3-4 14.9 3-4 14.1 3-4 12.4 3-4 11.2 3-4 8.9 3-4 8.3
5-6 18.5 5-6 20.7 5-6 21.6 5-6 [illegible].7 5-6 15.3 5-6 [illegible].1 5-6 18.9 5-6 19.6 5-6 20.3 5-6 20.8 5-6 17.7 5-6 15.7 5-6 15.7 5-6 15.6 5-6 15.1
7-9 16.5 7-9 20.4 7-9 24.6 7-9 [illegible].1 7-9 [illegible].6 7-9 [illegible].5 7-9 17.6 7-9 24.4 7-9 27.6 7-9 28.8 7-9 31.6 7-9 32.4 7-9 32.7 7-9 32.9 7-9 33.5
10-12 3.7 10-12 7.9 10-12 8.4 10-12 [illegible].2 10-12 [illegible].9 10-12 [illegible].2 10-12 4.5 10-12 12.2 10-12 13.4 10-12 13.1 10-12 14.9 10-12 19.4 10-12 19.4 10-12 20.8 10-12 20.3
≧13 2.6 ≧13 4.7 ≧13 5.0 ≧13 [illegible].6 ≧13 2.1 ≧13 1.6 ≧13 2.8 ≧13 11.1 ≧13 12.2 ≧13 12.3 ≧13 12.6 ≧13 13.9 ≧13 16.4 ≧13 17.7 ≧13 19.2
N= 1478 N=1032 N= [illegible] N= [illegible]76 N= 144 N=10051 N= 6562 N= 1462 N= 1289 N= 1533 N= 1613 N= 1559 N= 1362 N= 1172 N= 1076
≦2 23.9 ≦2 21.6 ≦2 [illegible].[illegible] ≦2 [illegible].7 ≦2 [illegible].3 ≦2 25.1 ≦2 15.4 ≦2 13.9 ≦2 8.2 ≦2 6.8 ≦2 3.9 ≦2 4.3 ≦2 2.1 ≦2 3.2 ≦2 3.7
3-4 23.0 3-4 24.5 3-4 [illegible].0 3-4 [illegible].0 3-4 22.9 3-4 21.1 3-4 19.1 3-4 17.4 3-4 16.0 3-4 14.2 3-4 11.6 3-4 10.2 3-4 9.4 3-4 6.0 3-4 6.7
5-6 21.0 5-6 17.3 5-6 [illegible].2 5-6 [illegible] 5-6 19.2 5-6 18.5 5-6 19.8 5-6 20.5 5-6 20.5 5-6 17.0 5-6 16.5 5-6 15.9 5-6 14.2 5-6 13.0 5-6 14.1
7-9 19.6 7-9 24.7 7-9 [illegible].8 7-9 18.9 7-9 17.1 7-9 22.9 7-9 25.8 7-9 27.9 7-9 30.1 7-9 31.3 7-9 32.9 7-9 32.9 7-9 34.7 7-9 32.7 7-9 33.3
10-12 7.9 10-12 7.3 10-12 [illegible].6 10-12 6.6 10-12 5.2 10-12 8.3 10-12 11.5 10-12 12.3 10-12 15.4 10-12 18.0 10-12 18.4 10-12 20.6 10-12 22.[illegible] 10-12 24.5 10-12 22.6
≧13 4.8 ≧13 4.6 ≧13 [illegible].9 ≧13 3.4 ≧13 3.2 ≧13 4.0 ≧13 8.3 ≧13 8.1 ≧13 9.8 ≧13 12.7 ≧13 16.7 ≧13 16.0 ≧13 [illegible].9 ≧13 20.5 ≧13 19.7
N= 649 N= 481 N= 88[illegible] N=2909 N= 7167 N=2644 N= 1664 N= 1809 N= 1889 N= 1825 N= 1649 N= 1293 N= 1074 N= 954 N= 895
≦2 25.7 ≦2 26.1 ≦2 [illegible].5 ≦2 20.7 ≦2 13.1 ≦2 9.7 ≦2 9.[illegible] ≦2 8.4 ≦2 5.8 ≦2 4.5 ≦2 5.0 ≦2 2.9 ≦2 3.8 ≦2 4.4 ≦2 3.7
3-4 26.9 3-4 26.9 3-4 [illegible].0 3-4 23.6 3-4 21.9 3-4 17.0 3-4 16.1 3-4 13.9 3-4 11.5 3-4 11.0 3-4 9.0 3-4 7.6 3-4 8.3 3-4 8.1 3-4 8.1
5-6 18.5 5-6 18.7 5-6 [illegible].0 5-6 21.6 5-6 18.0 5-6 18.9 5-6 19.7 5-6 18.3 5-6 19.0 5-6 18.3 5-6 13.5 5-6 14.5 5-6 14.3 5-6 15.4 5-6 15.9
7-9 16.0 7-9 19.6 7-9 [illegible].5 7-9 24.0 7-9 25.5 7-9 29.6 7-9 30.3 7-9 33.0 7-9 32.1 7-9 33.2 7-9 33.9 7-9 34.7 7-9 34.2 7-9 33.0 7-9 31.8
10-12 9.1 10-12 4.7 10-12 [illegible].3 10-12 6.8 10-12 12.4 10-12 14.6 10-12 14.6 10-12 16.1 10-12 17.5 10-12 19.3 10-12 22.2 10-12 27.3 10-12 21.5 10-12 20.9 10-12 23.0
≧13 3.7 ≧13 4.0 ≧13 [illegible].4 ≧13 3.2 ≧13 9.1 ≧13 10.2 ≧13 10.2 ≧13 10.2 ≧13 14.1 ≧13 13.8 ≧13 16.5 ≧13 13.0 ≧13 17.8 ≧13 18.2 ≧13 17.5
N= 669 N= 744 N= 410 N=1703 N= 809 N= 1181 N=1935 N= 2192 N=2090 N= 1775 N= 1261 N= 1126 N= 1091 N= 1027 N= 948
≦2 24.7 ≦2 32.0 ≦2 [illegible].9 ≦2 24.2 ≦2 7.9 ≦2 9.5 ≦2 5.8 ≦2 4.8 ≦2 5.2 ≦2 3.0 ≦2 3.0 ≦2 3.3 ≦2 4.2 ≦2 4.5 ≦2 4.4
3-4 24.1 3-4 24.7 3-4 [illegible].7 3-4 19.5 3-4 17.0 3-4 16.4 3-4 12.7 3-4 11.3 3-4 11.4 3-4 9.8 3-4 10.4 3-4 8.9 3-4 8.9 3-4 9.1 3-4 8.3
5-6 16.0 5-6 18.8 5-6 [illegible].3 5-6 20.8 5-6 19.8 5-6 19.4 5-6 18.6 5-6 17.1 5-6 20.0 5-6 17.6 5-6 14.4 5-6 14.2 5-6 14.1 5-6 14.5 5-6 15.6
7-9 21.1 7-9 [illegible].1 7-9 24.2 7-9 22.0 7-9 31.2 7-9 30.8 7-9 32.3 7-9 32.3 7-9 33.2 7-9 33.9 7-9 32.3 7-9 34.6 7-9 33.9 7-9 32.8 7-9 31.6
10-12 9.4 10-12 4.7 10-12 [illegible].1 10-12 8.3 10-12 14.8 10-12 [illegible].1 10-12 19.4 10-12 19.3 10-12 19.0 10-12 20.3 10-12 22.0 10-12 21.7 10-12 22.5 10-12 20.7 10-12 21.2
≧13 4.6 ≧13 3.7 ≧13 [illegible].8 ≧13 5.3 ≧13 9.2 ≧13 8.9 ≧13 11.1 ≧13 15.1 ≧13 11.2 ≧13 15.4 ≧13 17.8 ≧13 17.2 ≧13 16.5 ≧13 18.4 ≧13 18.9
N= 668 N= [illegible]90 N= 62 N= 1248 N= 1687 N=2703 N= 1924 N= 1613 N= 1814 N= 1548 N= 1240 N= 1155 N=1033 N= 933 N= 864
≦2 47.[illegible] ≦2 66.0 ≦2 37.3 ≦2 10.8 ≦2 5.9 ≦2 4.6 ≦2 4.6 ≦2 3.8 ≦2 3.1 ≦2 3.4 ≦2 3.7 ≦2 3.6 ≦2 3.6 ≦2 4.5 ≦2 4.0
3-4 15.4 3-4 19.1 3-4 [illegible] 3-4 16.6 3-4 13.2 3-4 12.4 3-4 11.0 3-4 10.6 3-4 11.4 3-4 10.5 3-4 11.6 3-4 9.3 3-4 10.2 3-4 8.6 3-4 12.1
5-6 [illegible].1 5-6 6.4 5-6 [illegible].8 5-6 19.7 5-6 17.3 5-6 17.5 5-6 16.4 5-6 16.3 5-6 17.7 5-6 17.6 5-6 18.1 5-6 16.7 5-6 17.9 5-6 17.6 5-6 17.7
7-9 9.7 7-9 [illegible].1 7-9 [illegible].8 7-9 31.0 7-9 33.4 7-9 35.0 7-9 35.4 7-9 36.0 7-9 32.9 7-9 [illegible].1 7-9 32.6 7-9 33.5 7-9 33.6 7-9 31.4 7-9 33.0
10-12 6.7 10-12 4.3 10-12 [illegible].3 10-12 13.1 10-12 17.5 10-12 18.2 10-12 20.7 10-12 19.9 10-12 19.7 10-12 18.0 10-12 17.2 10-12 20.0 10-12 [illegible].1 10-12 23.0 10-12 18.9
≧13 [illegible].5 ≧13 [illegible].1 ≧13 [illegible].8 ≧13 8.8 ≧13 12.8 ≧13 12.4 ≧13 11.9 ≧13 13.4 ≧13 15.1 ≧13 16.4 ≧13 16.7 ≧13 16.8 ≧13 14.6 ≧13 14.9 ≧13 14.3
N= 267 N= 47 N= [illegible]71 N=2494 N=2698 N=2306 N= 1902 N= 1741 N= 1500 N=1344 N= 1185 N= 1124 N=1084 N=1054 N= 975

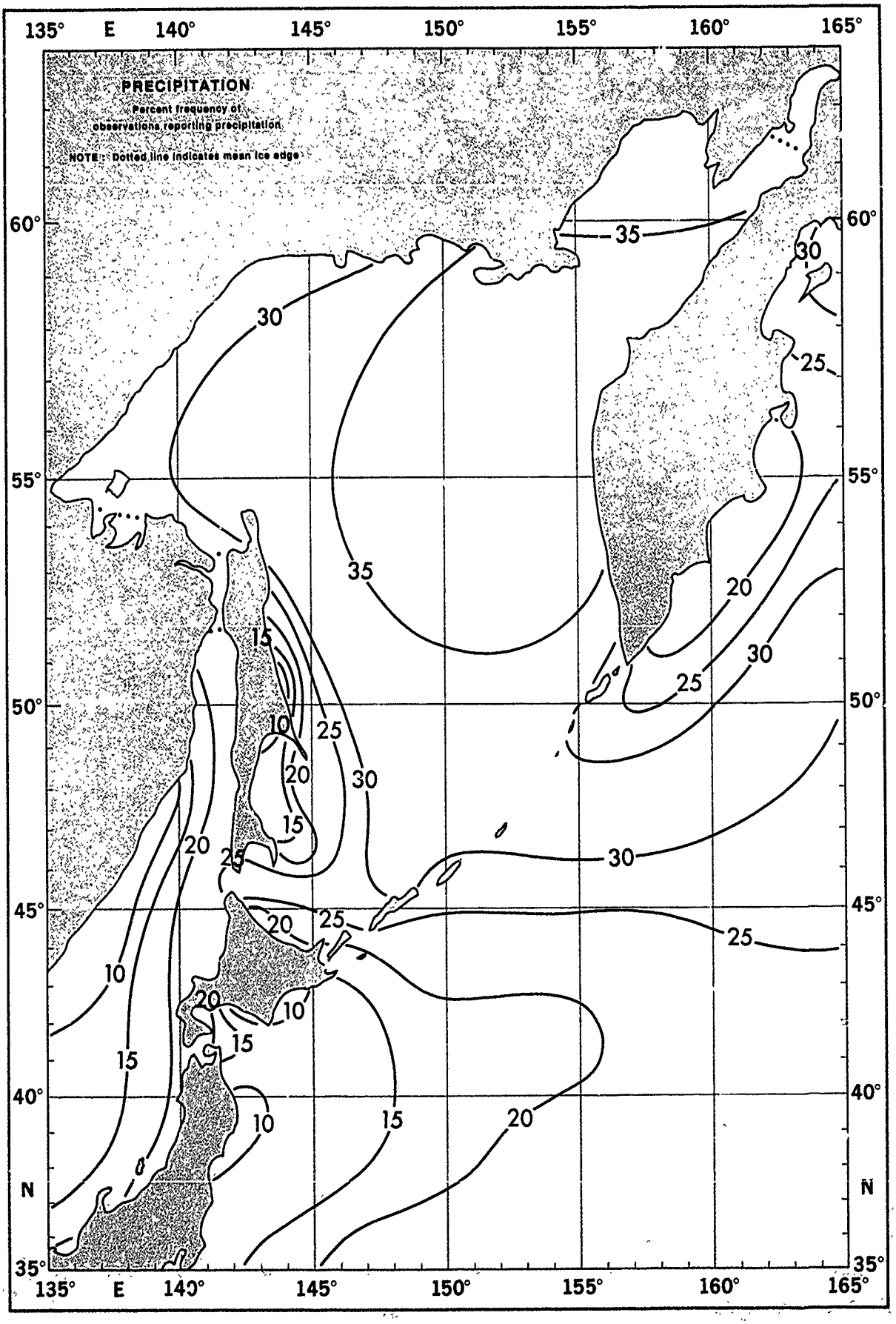

SURFACE CURRENTS
135°
145°
155°
165°
61°
55°
49°

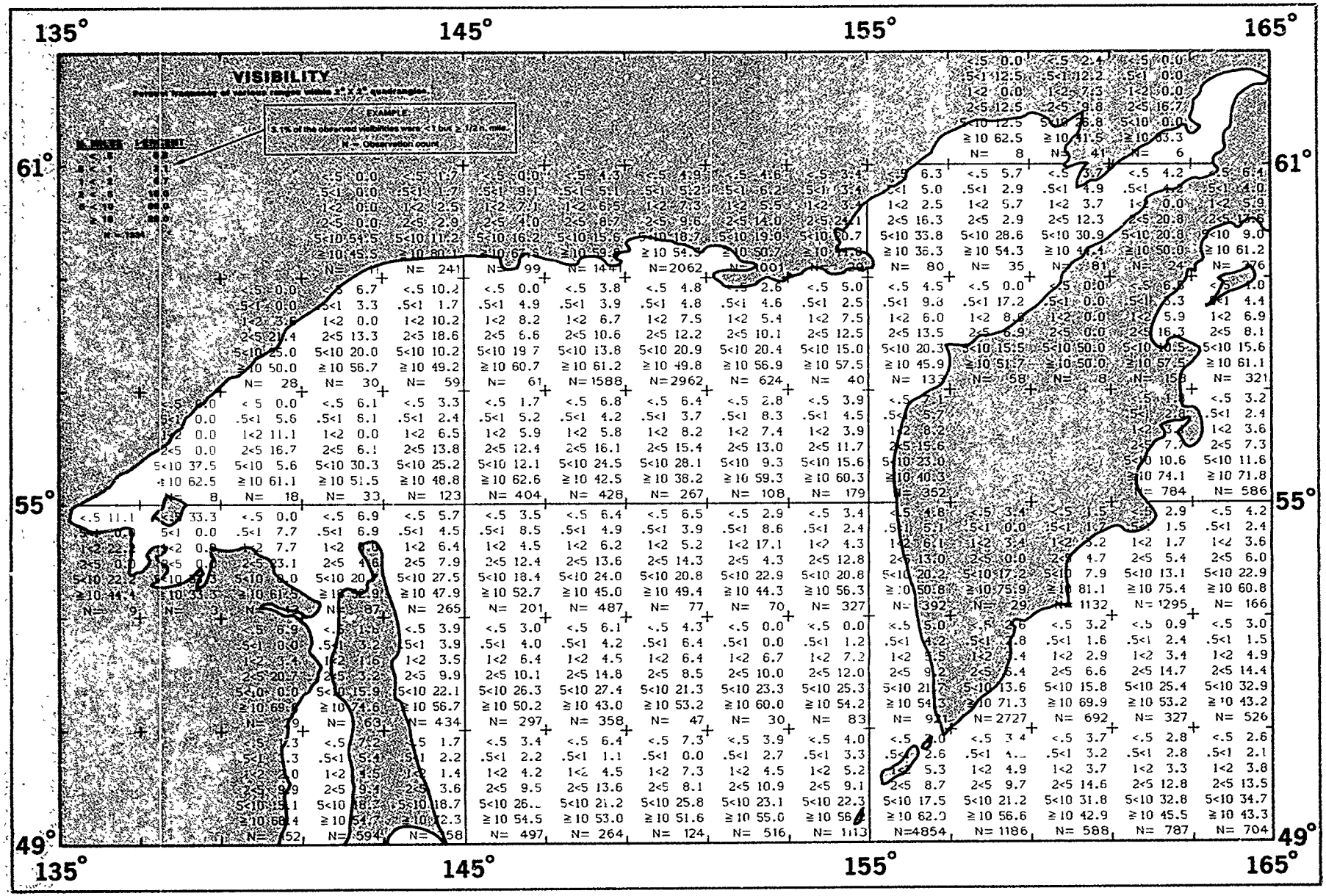


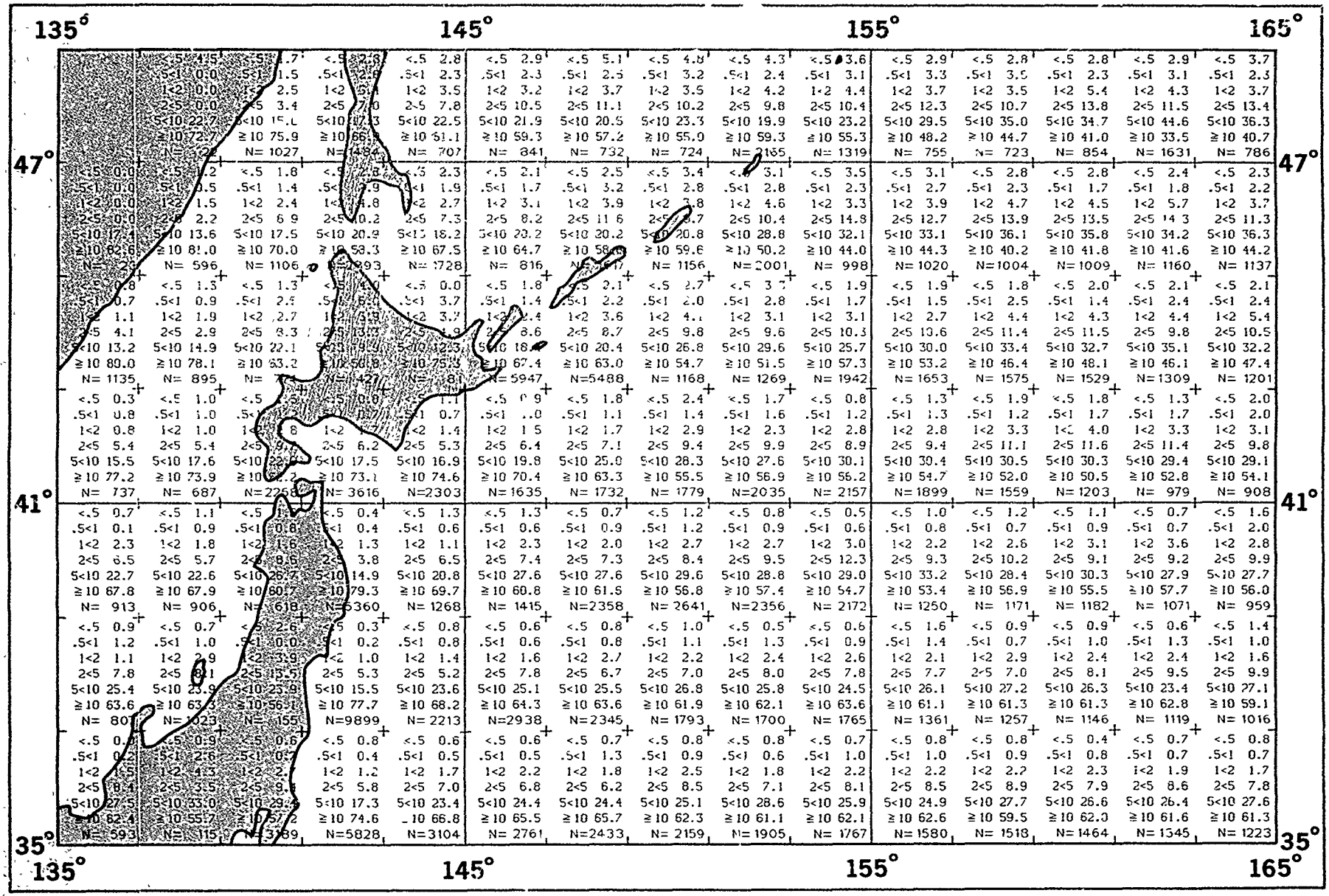
October

Surface Currents


CLOUD COVER
Percent frequency of:
Solid Line - Total cloud amount ≤ 2/8
Dashed Line - Low cloud amount ≥ 6/8
NOTE - Dotted line indicates mean ice edge
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
N
35°


PRECIPITATION
Percent frequency of observations reporting precipitation
NOTE: Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°
35
30
25
20
15
10


VISIBILITY
Percent frequency of various ranges within 2° x 2° quadrangles
EXAMPLE
3.1% of the observed visibilities were <1 but ≥ 1/2 n. mile.
N = Observation count
135°
145°
155°
165°
61°
55°
49°

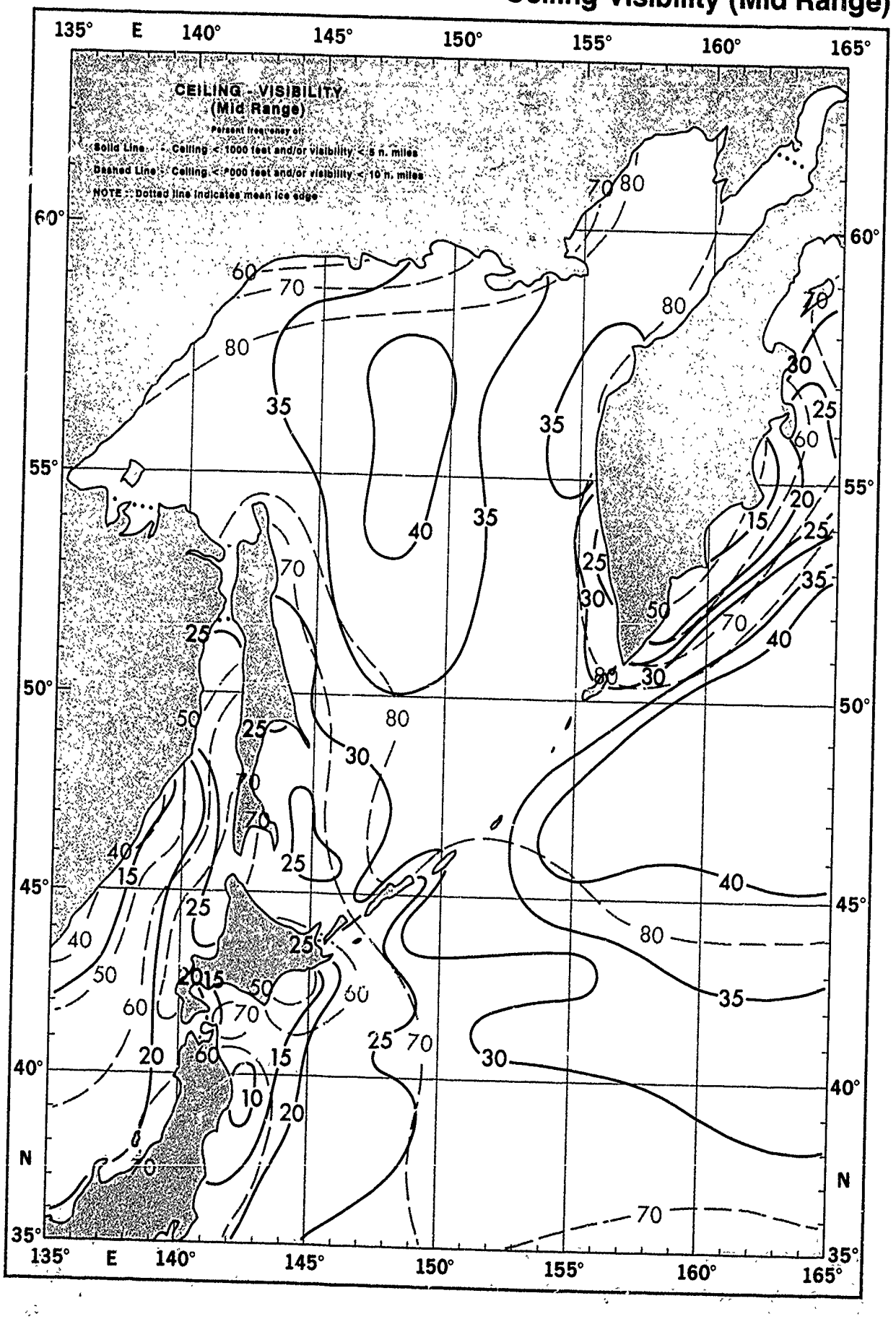


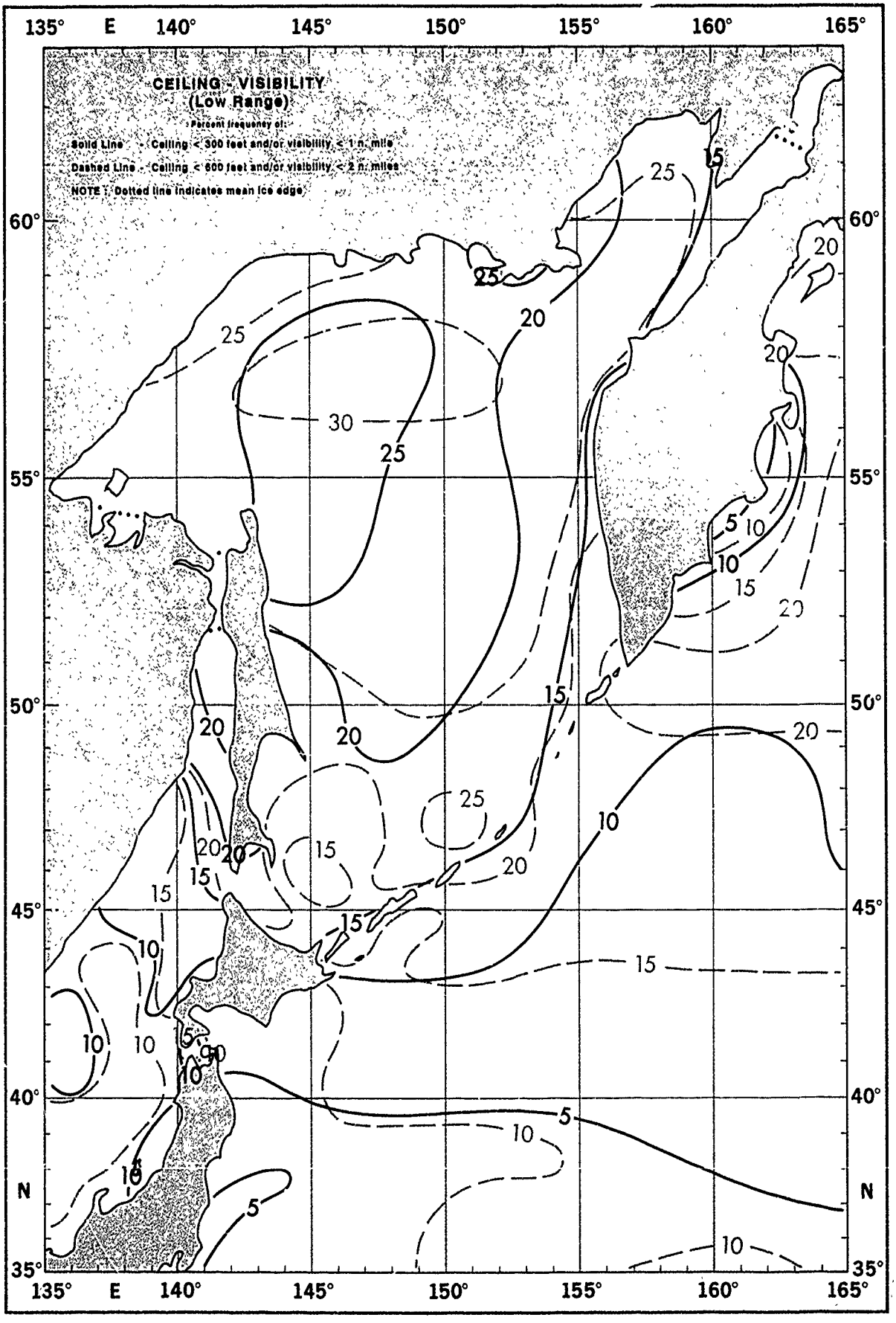
135°	145°	155°	165°
47°			
<.5 0.0	<.5 1.2	<.5 1.8	<.5 2.3
.5<1 0.0	.5<1 1.5	.5<1 1.4	.5<1 1.9
1<2 0.0	1<2 1.5	1<2 2.4	1<2 2.7
2<5 0.0	2<5 2.2	2<5 6.9	2<5 7.3
5<10 17.4	5<10 13.6	5<10 17.5	5<10 18.2
≥10 82.6	≥10 81.0	≥10 70.0	≥10 67.5
N= 23	N= 596	N= 1106	N= 1728
<.5 0.8	<.5 1.5	<.5 1.3	<.5 0.0
.5<1 0.7	.5<1 0.9	.5<1 2.6	.5<1 3.7
1<2 1.1	1<2 1.9	1<2 2.7	1<2 3.7
2<5 4.1	2<5 2.9	2<5 8.3	2<5 9.9
5<10 13.2	5<10 14.9	5<10 22.1	5<10 23.5
≥10 80.0	≥10 78.1	≥10 63.2	≥10 60.8
N= 1135	N= 895	N= 1	N= 4271
<.5 0.3	<.5 1.0	<.5	
.5<1 0.8	.5<1 1.0	.5<	
1<2 0.8	1<2 1.0	1<	
2<5 5.4	2<5 5.4	2<	2<5 6.2
5<10 15.5	5<10 17.6	5<10	5<10 17.5
≥10 77.2	≥10 73.9	≥10	≥10 73.1
N= 737	N= 687	N=2258	N= 3616
<.5 0.7	<.5 1.1	<.5	<.5 0.4
.5<1 0.1	.5<1 0.9	.5<1 0.8	.5<1 0.4
1<2 2.3	1<2 1.8	1<2 1.6	1<2 1.3
2<5 6.5	2<5 5.7	2<5 8.6	2<5 3.8
5<10 22.7	5<10 22.6	5<10 26.7	5<10 14.9
≥10 67.8	≥10 67.9	≥10 60.7	≥10 79.3
N= 913	N= 906	N= 618	N=5360
<.5 0.9	<.5 0.7	<.5 2.6	<.5 0.3
.5<1 1.2	.5<1 1.0	.5<1 0.0	.5<1 0.2
1<2 1.1	1<2 2.9	1<2 3.9	1<2 1.0
2<5 7.8	2<5 8.1	2<5 15.5	2<5 5.3
5<10 25.4	5<10 23.9	5<10 23.9	5<10 15.5
≥10 63.6	≥10 63.3	≥10 56.1	≥10 77.7
N= 801	N= 1023	N= 155	N=9899
<.5 0.4	<.5 0.9	<.5 0.6	<.5 0.8
.5<1 0.2	.5<1 2.6	.5<1 0.7	.5<1 0.4
1<2 1.5	1<2 4.3	1<2 2.1	1<2 1.2
2<5 8.4	2<5 3.5	2<5 9.6	2<5 5.8
5<10 27.5	5<10 33.0	5<10 29.4	5<10 17.3
≥10 62.4	≥10 55.7	≥10 57.2	≥10 74.6
N= 593	N= 115	N= 389	N=5828

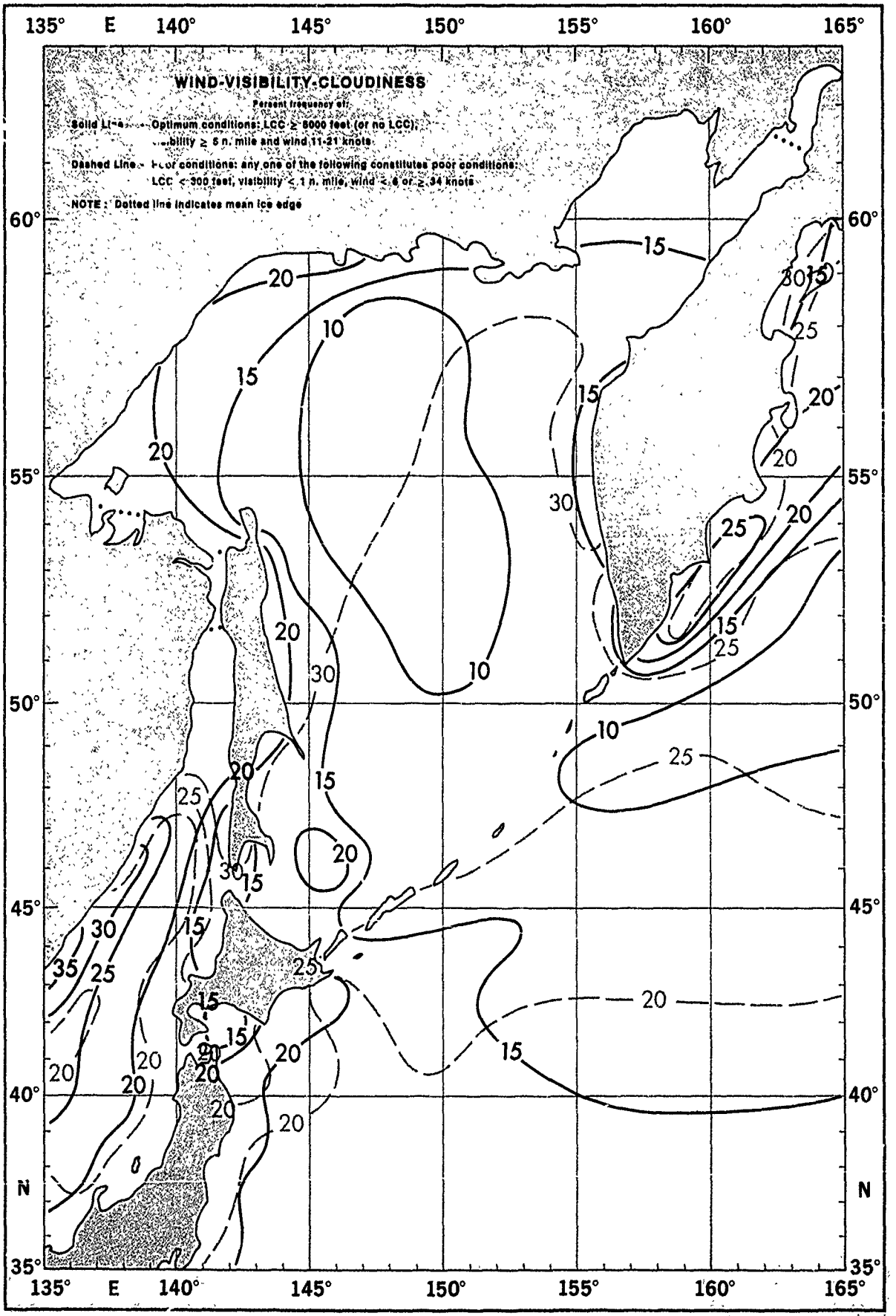
135°	145°	155°	165°
47°			
<.5 2.9	<.5 5.1	<.5 4.8	<.5 4.3	<.5 3.6
.5<1 2.3	.5<1 2.5	.5<1 3.2	.5<1 2.4	.5<1 3.1
1<2 3.2	1<2 3.7	1<2 3.5	1<2 4.2	1<2 4.4
2<5 10.5	2<5 11.1	2<5 10.2	2<5 9.8	2<5 10.4
5<10 21.9	5<10 20.5	5<10 23.3	5<10 19.9	5<10 23.2
≥10 59.3	≥10 57.2	≥10 55.0	≥10 59.3	≥10 55.3
N= 841	N= 732	N= 724	N= 2185	N= 1319
<.5 2.1	<.5 2.5	<.5 3.4	<.5 3.1	<.5 3.5
.5<1 1.7	.5<1 3.2	.5<1 2.8	.5<1 2.8	.5<1 2.3
1<2 3.1	1<2 3.9	1<2 3.8	1<2 4.6	1<2 3.3
2<5 8.2	2<5 11.6	2<5 8.7	2<5 10.4	2<5 14.8
5<10 23.2	5<10 20.2	5<10 20.8	5<10 28.8	5<10 32.1
≥10 64.7	≥10 58.9	≥10 59.6	≥10 50.2	≥10 44.0
N= 816	N= 717	N= 1156	N= 2001	N= 998
<.5 1.8	<.5 2.1	<.5 2.7	<.5 3.7	<.5 1.9
.5<1 1.4	.5<1 2.2	.5<1 2.0	.5<1 2.8	.5<1 1.7
1<2 2.4	1<2 3.6	1<2 4.1	1<2 3.1	1<2 3.1
2<5 8.6	2<5 8.7	2<5 9.8	2<5 9.6	2<5 10.3
5<10 18.4	5<10 20.4	5<10 26.8	5<10 29.6	5<10 25.7
≥10 67.4	≥10 63.0	≥10 54.7	≥10 51.5	≥10 57.3
N= 5947	N=5488	N= 1168	N= 1269	N= 1942
<.5 0.9	<.5 1.8	<.5 2.4	<.5 1.7	<.5 0.8
.5<1 1.0	.5<1 1.1	.5<1 1.4	.5<1 1.6	.5<1 1.2
1<2 1.5	1<2 1.7	1<2 2.9	1<2 2.3	1<2 2.8
2<5 6.4	2<5 7.1	2<5 9.4	2<5 9.9	2<5 8.9
5<10 19.8	5<10 25.8	5<10 28.3	5<10 27.6	5<10 30.1
≥10 70.4	≥10 63.3	≥10 55.5	≥10 56.9	≥10 56.2
N= 1635	N= 1732	N= 1779	N=2035	N= 2157
<.5 1.3	<.5 0.7	<.5 1.2	<.5 0.8	<.5 0.5
.5<1 0.6	.5<1 0.9	.5<1 1.2	.5<1 0.9	.5<1 0.6
1<2 2.3	1<2 2.0	1<2 2.7	1<2 2.7	1<2 3.0
2<5 7.4	2<5 7.3	2<5 8.4	2<5 9.5	2<5 12.3
5<10 27.6	5<10 27.6	5<10 29.6	5<10 28.8	5<10 29.0
≥10 60.8	≥10 61.6	≥10 56.8	≥10 57.4	≥10 54.7
N= 1415	N=2358	N= 2641	N=2356	N= 2172
<.5 0.6	<.5 0.8	<.5 1.0	<.5 0.5	<.5 0.6
.5<1 0.6	.5<1 0.8	.5<1 1.1	.5<1 1.3	.5<1 0.9
1<2 1.6	1<2 2.7	1<2 2.2	1<2 2.4	1<2 2.6
2<5 7.8	2<5 6.7	2<5 7.0	2<5 8.0	2<5 7.8
5<10 25.1	5<10 25.5	5<10 26.8	5<10 25.8	5<10 24.5
≥10 64.3	≥10 63.6	≥10 61.9	≥10 62.1	≥10 63.6
N=2938	N=2345	N= 1793	N= 1700	N= 1765
<.5 0.6	<.5 0.7	<.5 0.8	<.5 0.8	<.5 0.7
.5<1 0.5	.5<1 1.3	.5<1 0.9	.5<1 0.6	.5<1 1.0
1<2 2.2	1<2 1.8	1<2 2.5	1<2 1.8	1<2 2.2
2<5 6.8	2<5 6.2	2<5 8.5	2<5 7.1	2<5 8.1
5<10 24.4	5<10 24.4	5<10 25.1	5<10 28.6	5<10 25.9
≥10 65.5	≥10 65.7	≥10 62.3	≥10 61.1	≥10 62.1
N= 2761	N=2433	N= 2159	N= 1905	N= 1767
35°			

135°	145°	155°	165°
47°			
<.5 2.9	<.5 2.8	<.5 2.8	<.5 2.9	<.5 3.7
.5<1 3.3	.5<1 3.5	.5<1 2.3	.5<1 3.1	.5<1 2.3
1<2 3.7	1<2 3.5	1<2 5.4	1<2 4.3	1<2 3.7
2<5 12.3	2<5 10.7	2<5 13.8	2<5 11.5	2<5 13.4
5<10 29.5	5<10 35.0	5<10 34.7	5<10 44.6	5<10 36.3
≥10 48.2	≥10 44.7	≥10 41.0	≥10 33.5	≥10 40.7
N= 755	N= 723	N= 864	N= 1631	N= 786
<.5 3.1	<.5 2.8	<.5 2.8	<.5 2.4	<.5 2.3
.5<1 2.7	.5<1 2.3	.5<1 1.7	.5<1 1.8	.5<1 2.2
1<2 3.9	1<2 4.7	1<2 4.5	1<2 5.7	1<2 3.7
2<5 12.7	2<5 13.9	2<5 13.5	2<5 14.3	2<5 11.3
5<10 33.1	5<10 36.1	5<10 35.8	5<10 34.2	5<10 36.3
≥10 44.3	≥10 40.2	≥10 41.8	≥10 41.6	≥10 44.2
N= 1020	N=1004	N= 1009	N= 1160	N= 1137
<.5 1.9	<.5 1.8	<.5 2.0	<.5 2.1	<.5 2.1
.5<1 1.5	.5<1 2.5	.5<1 1.4	.5<1 2.4	.5<1 2.4
1<2 2.7	1<2 4.4	1<2 4.3	1<2 4.4	1<2 5.4
2<5 10.6	2<5 11.4	2<5 11.5	2<5 9.8	2<5 10.5
5<10 30.0	5<10 33.4	5<10 32.7	5<10 35.1	5<10 32.2
≥10 53.2	≥10 46.4	≥10 48.1	≥10 46.1	≥10 47.4
N= 1653	N= 1575	N= 1529	N=1309	N= 1201
<.5 1.3	<.5 1.9	<.5 1.8	<.5 1.3	<.5 2.0
.5<1 1.3	.5<1 1.2	.5<1 1.7	.5<1 1.7	.5<1 2.0
1<2 2.8	1<2 3.3	1<2 4.0	1<2 3.3	1<2 3.1
2<5 9.4	2<5 11.1	2<5 11.6	2<5 11.4	2<5 9.8
5<10 30.4	5<10 30.5	5<10 30.3	5<10 29.4	5<10 29.1
≥10 54.7	≥10 52.0	≥10 50.5	≥10 52.8	≥10 54.1
N= 1899	N= 1559	N= 1203	N= 979	N= 908
<.5 1.0	<.5 1.2	<.5 1.1	<.5 0.7	<.5 1.6
.5<1 0.8	.5<1 0.7	.5<1 0.9	.5<1 0.7	.5<1 2.0
1<2 2.2	1<2 2.6	1<2 3.1	1<2 3.6	1<2 2.8
2<5 9.3	2<5 10.2	2<5 9.1	2<5 9.2	2<5 9.9
5<10 33.2	5<10 28.4	5<10 30.3	5<10 27.9	5<10 27.7
≥10 53.4	≥10 56.9	≥10 55.5	≥10 57.7	≥10 56.0
N= 1250	N= 1171	N= 1182	N= 1071	N= 959
<.5 1.6	<.5 0.9	<.5 0.9	<.5 0.6	<.5 1.4
.5<1 1.4	.5<1 0.7	.5<1 1.0	.5<1 1.3	.5<1 1.0
1<2 2.1	1<2 2.9	1<2 2.4	1<2 2.4	1<2 1.6
2<5 7.7	2<5 7.0	2<5 8.1	2<5 9.5	2<5 9.9
5<10 26.1	5<10 27.2	5<10 26.3	5<10 23.4	5<10 27.1
≥10 61.1	≥10 61.3	≥10 61.3	≥10 62.8	≥10 59.1
N= 1361	N= 1257	N= 1146	N= 1119	N= 1016
<.5 0.8	<.5 0.8	<.5 0.4	<.5 0.7	<.5 0.8
.5<1 1.0	.5<1 0.9	.5<1 0.8	.5<1 0.7	.5<1 0.7
1<2 2.2	1<2 2.2	1<2 2.3	1<2 1.9	1<2 1.7
2<5 8.5	2<5 8.9	2<5 7.9	2<5 8.6	2<5 7.8
5<10 24.9	5<10 27.7	5<10 26.6	5<10 26.4	5<10 27.6
≥10 62.6	≥10 59.5	≥10 62.0	≥10 61.6	≥10 61.3
N= 1580	N= 1518	N= 1464	N= 1345	N= 1223
35°			

Ceiling-Visibility (Mid Range)

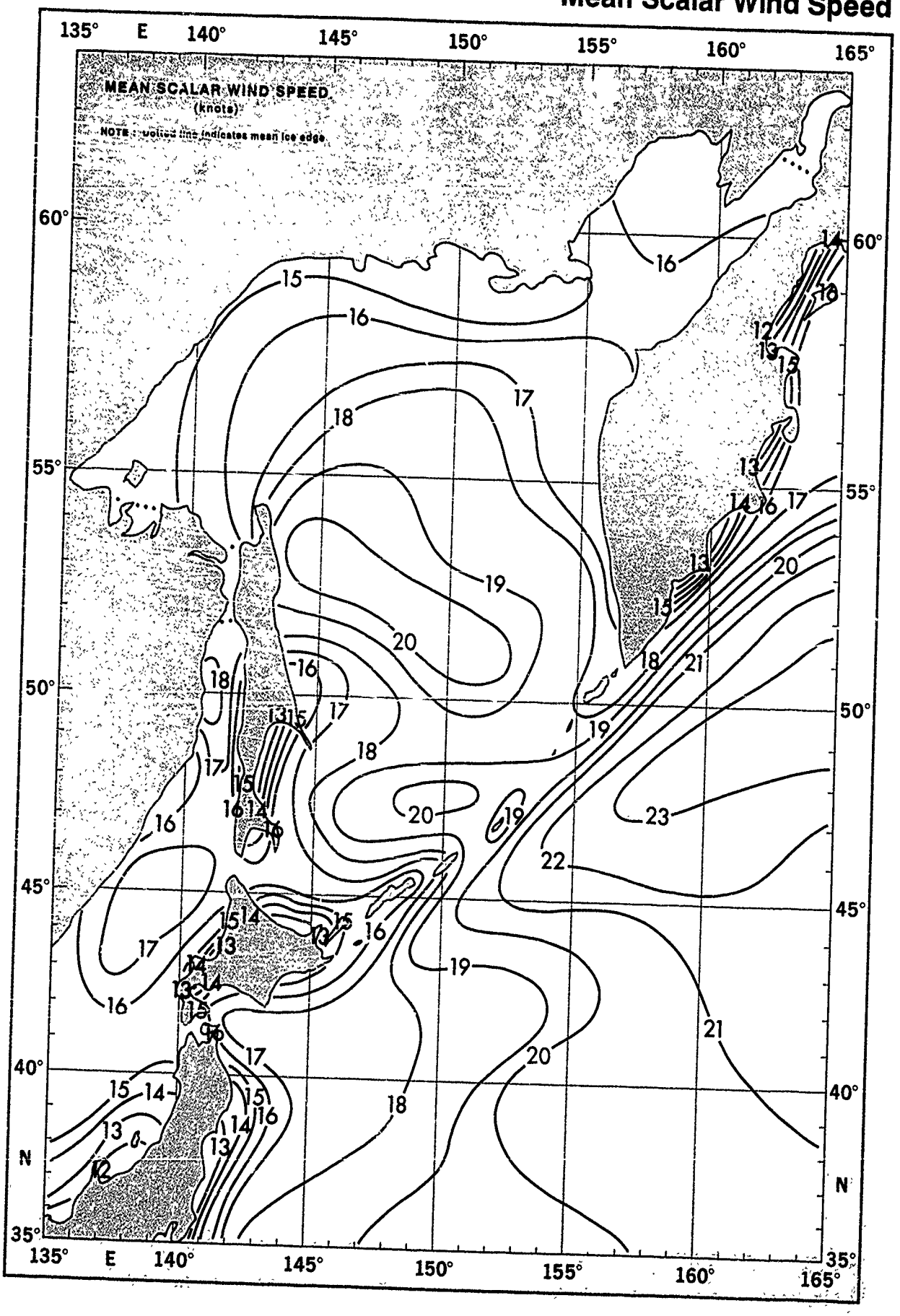



CEILING - VISIBILITY
(Low Range)
Percent frequency of:
Solid Line - Ceiling < 300 feet and/or visibility < 1 n. mile
Dashed Line - Ceiling < 600 feet and/or visibility < 2 n. miles
NOTE: Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°


WIND-VISIBILITY-CLOUDINESS
Percent frequency of:
Solid Line - Optimum conditions: LCC ≥ 3000 feet (or no LCC), visibility ≥ 5 n. mile and wind 11-21 knots
Dashed Line - Poor conditions: any one of the following constitutes poor conditions: LCC < 300 feet, visibility < 1 n. mile, wind < 6 or ≥ 34 knots
NOTE: Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N

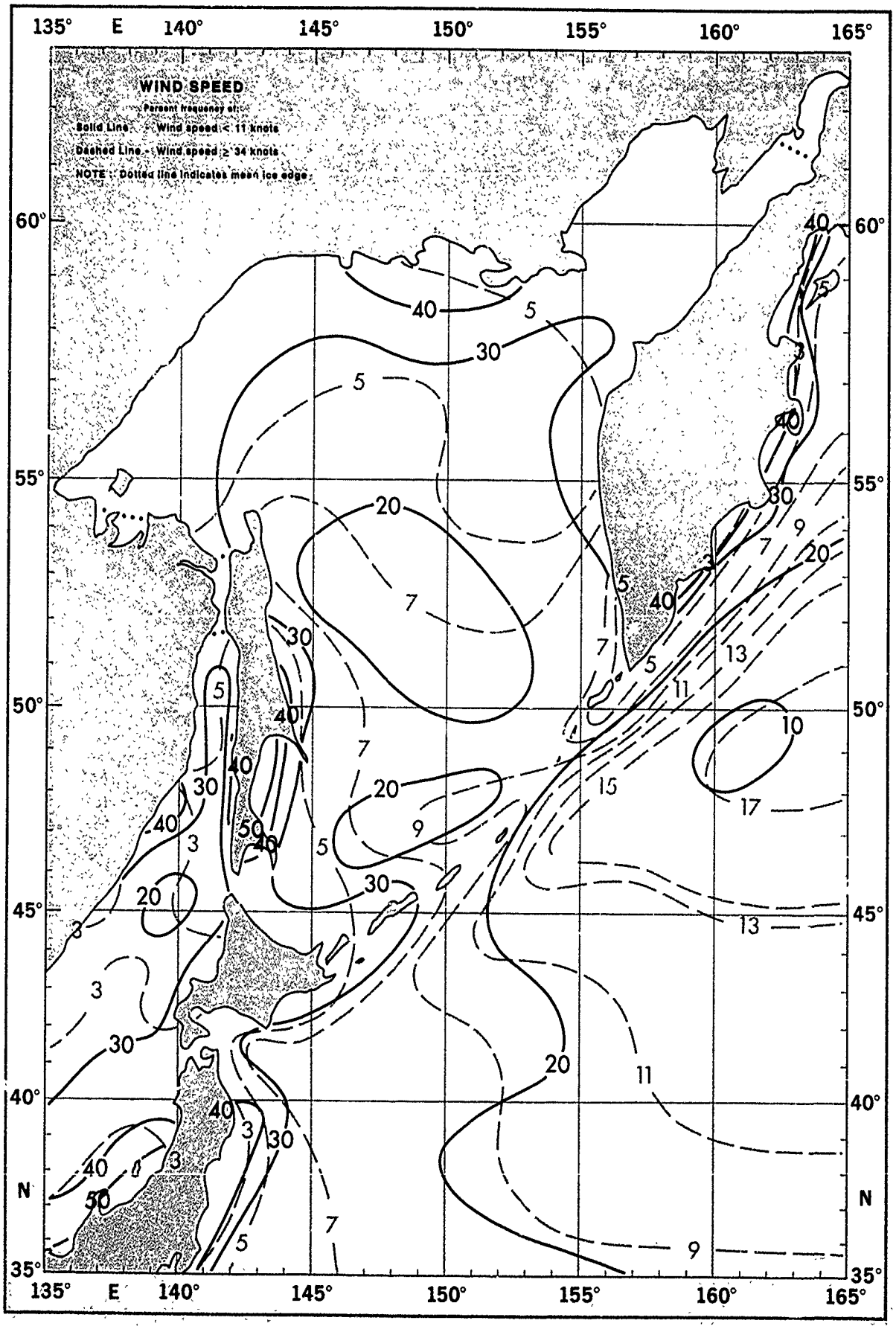
November

Mean Scalar Wind Speed



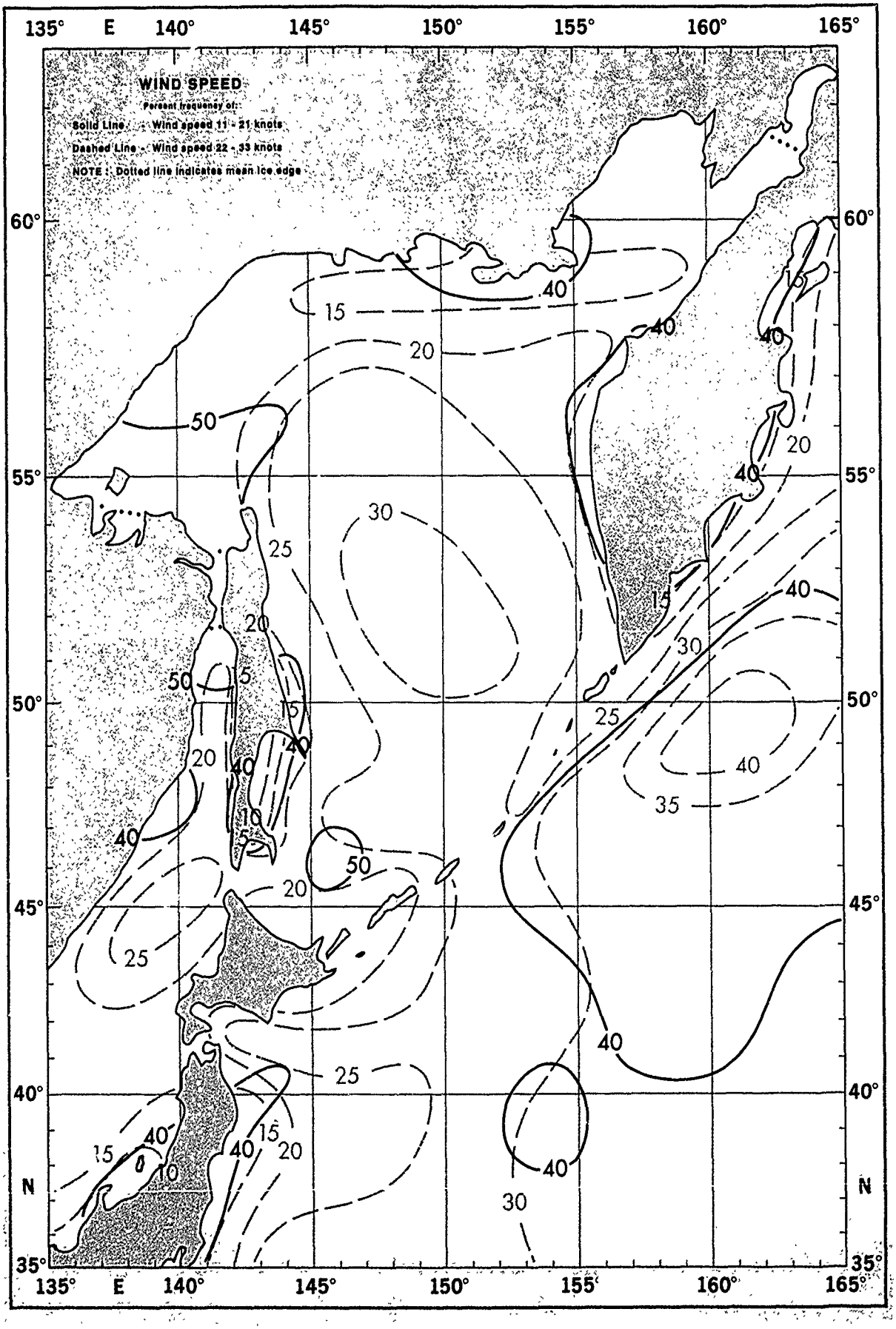
November

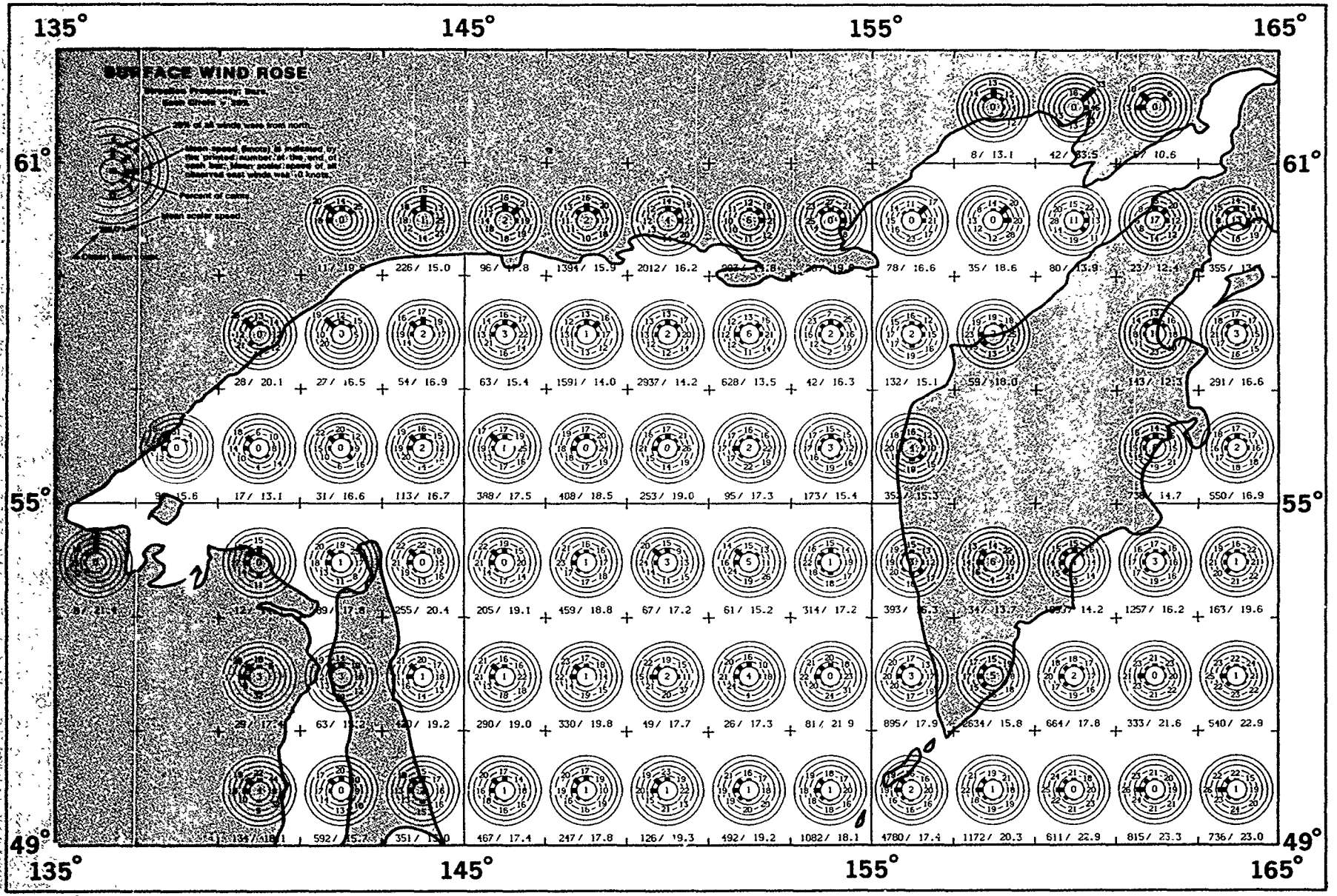
Wind Speed <11 and ≥34 Knots

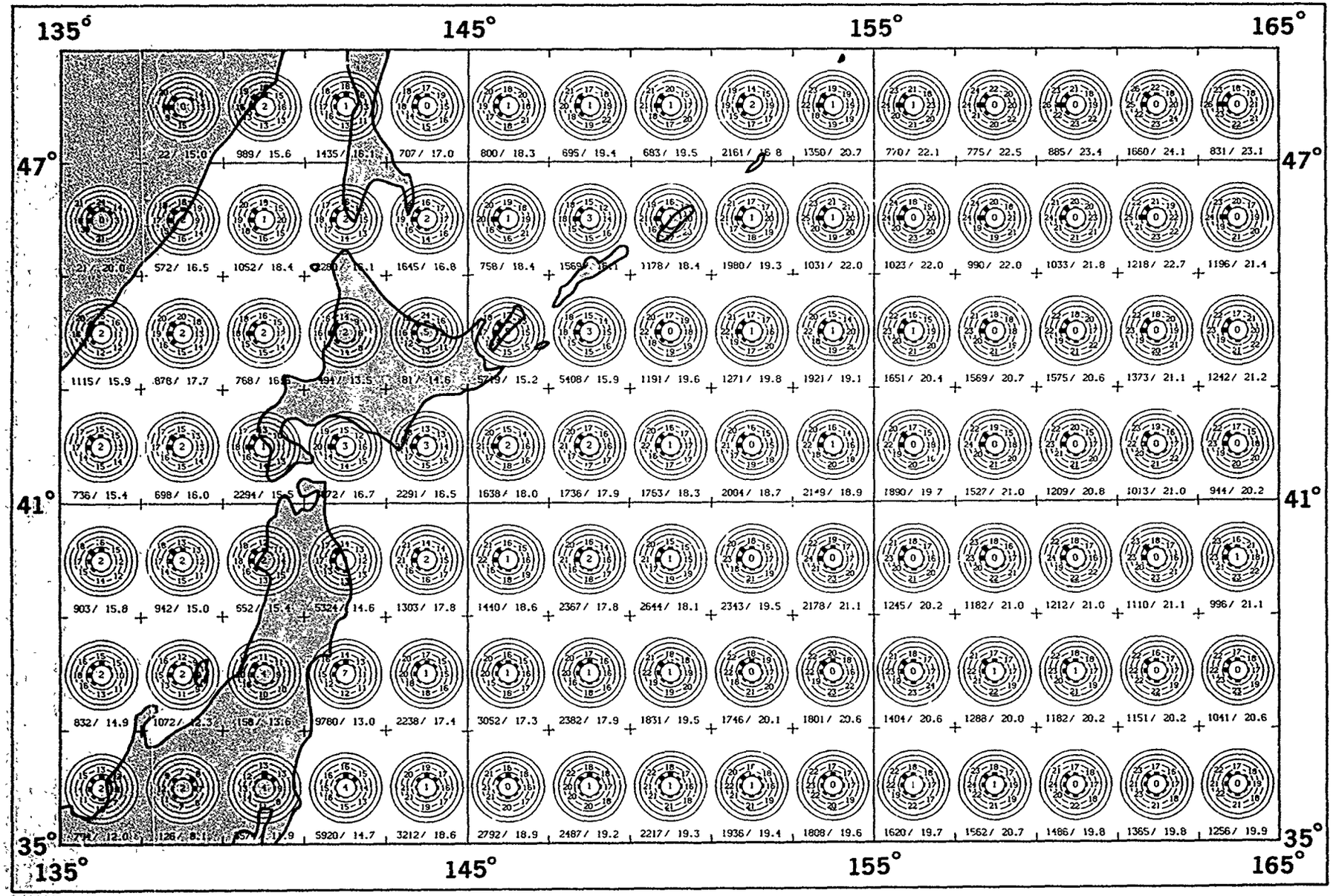


November

Wind Speed 11-21 and 22-33 Knots




135°
145°
155°
165°
61°
55°
49°
SURFACE WIND ROSE

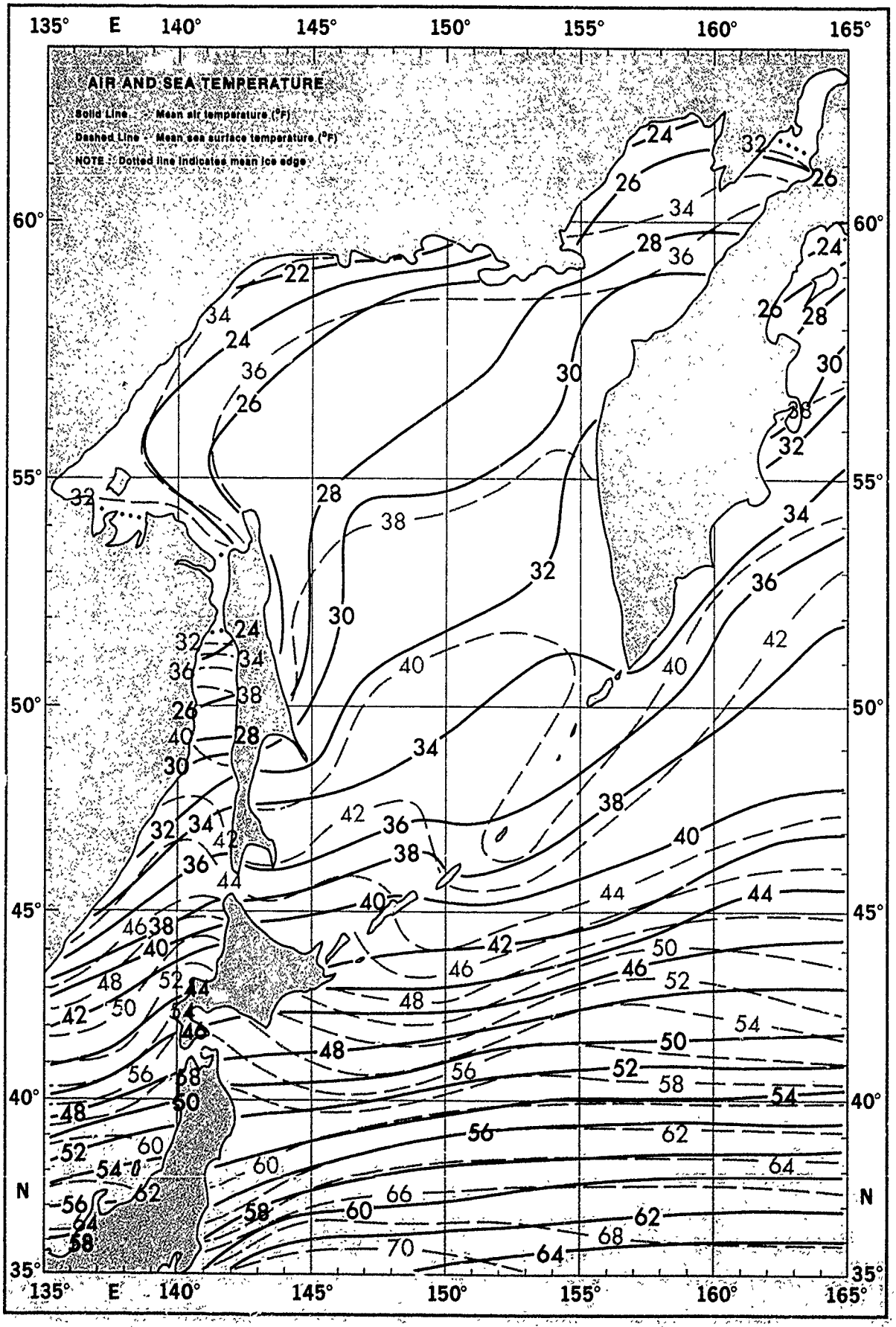


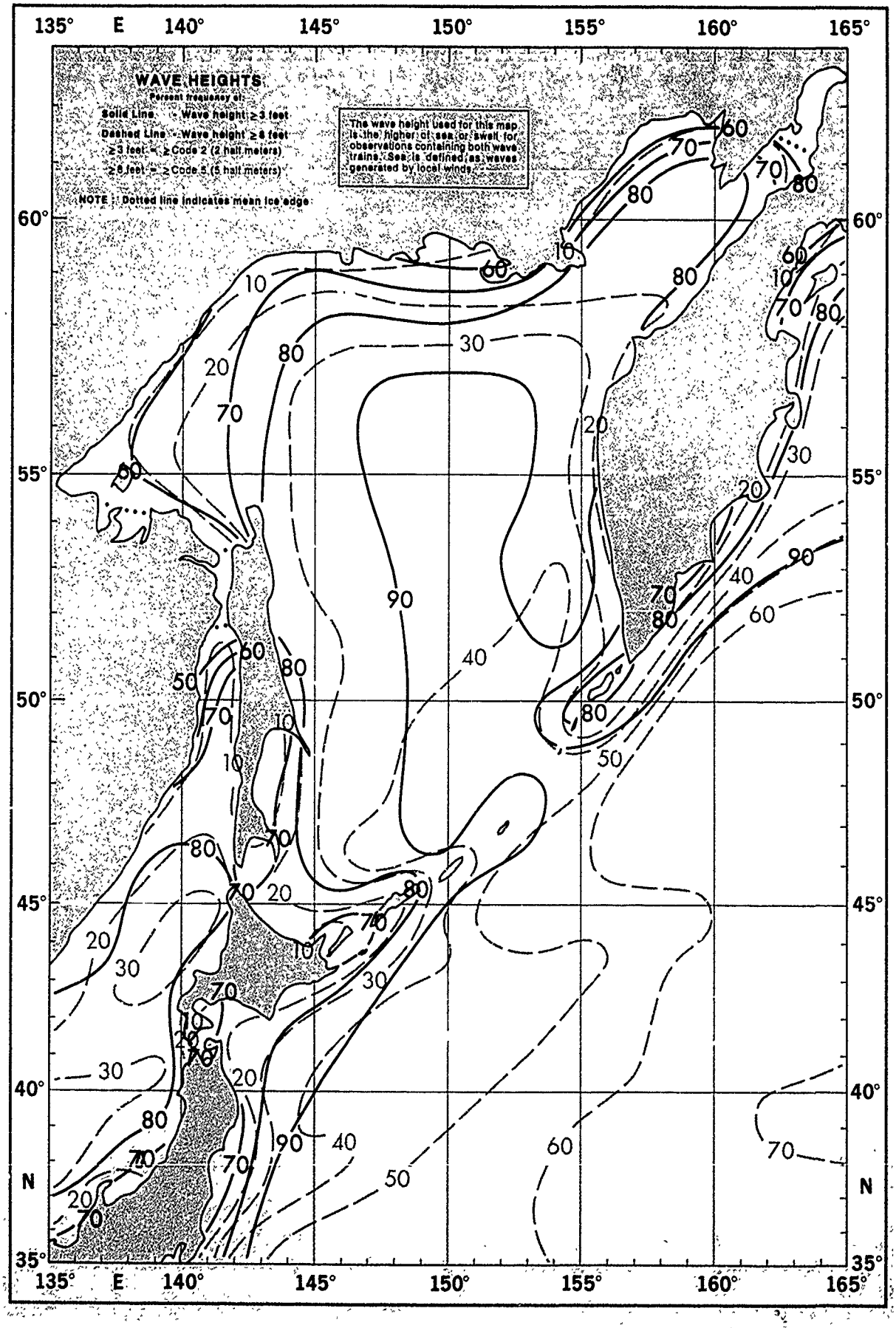
November

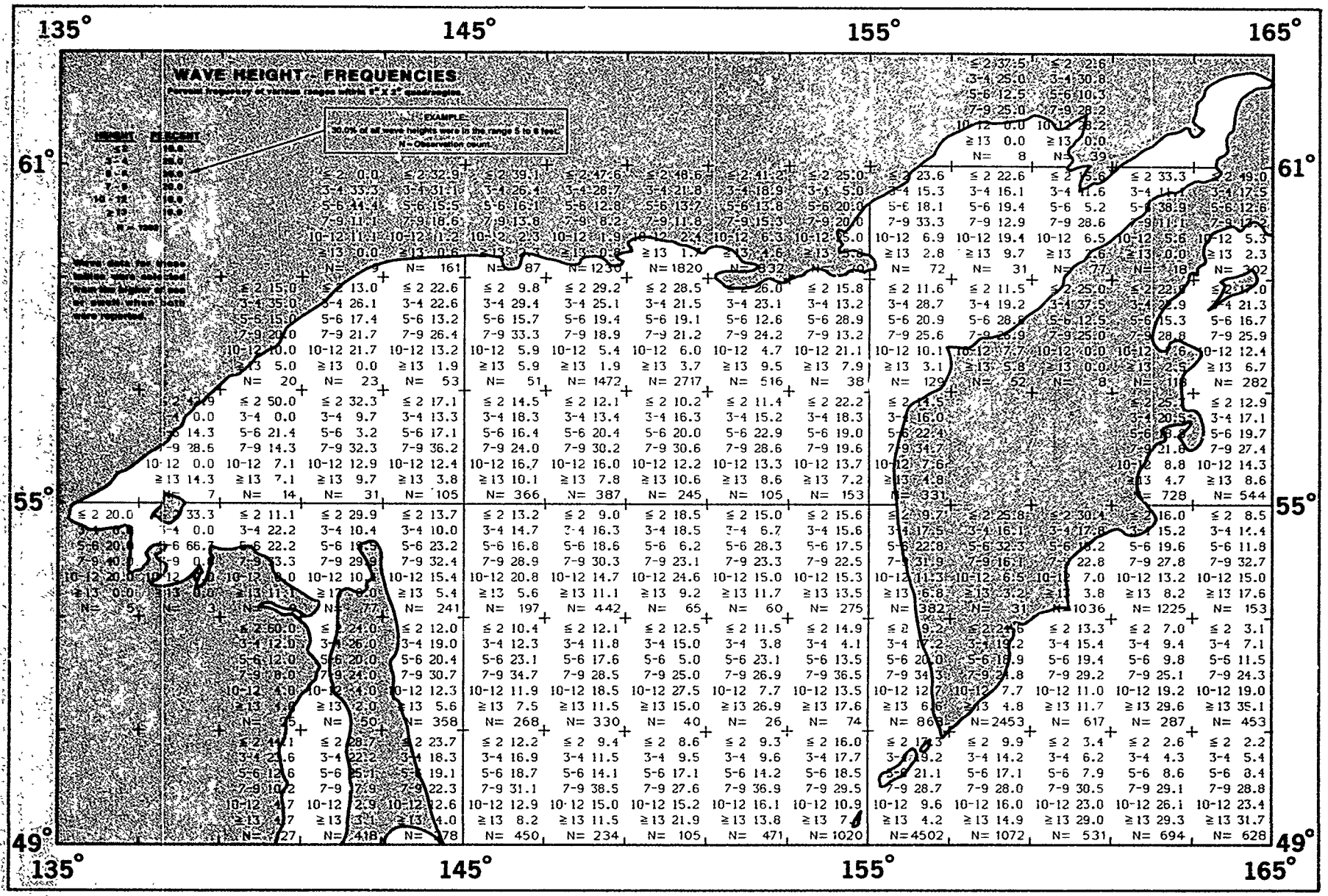
Surface Wind Roses

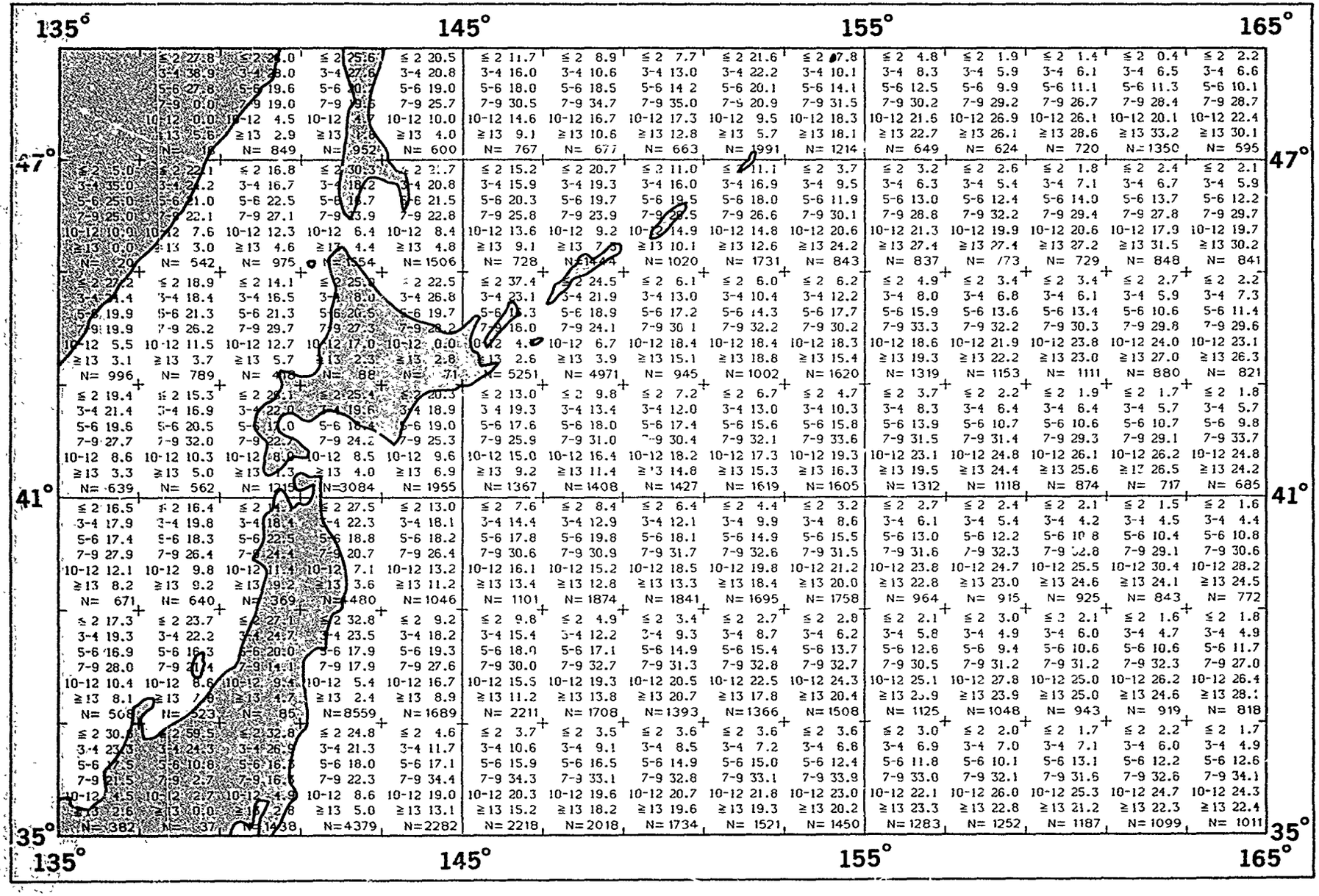
November

Mean Air and Sea Temperature

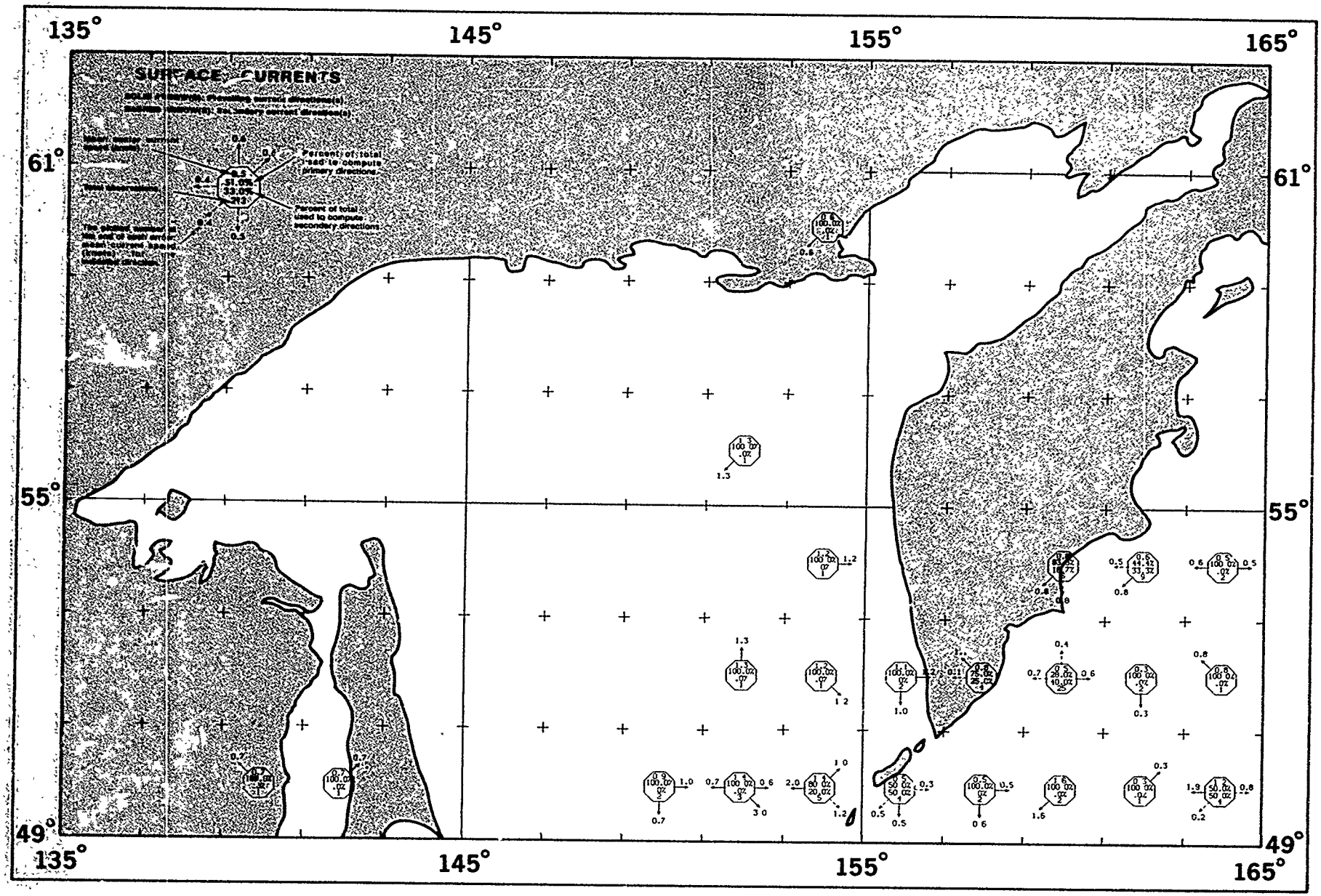



WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥ 3 feet
Dashed Line - Wave height ≥ 8 feet
≥ 3 feet = ≥ Code 2 (2 half meters)
≥ 8 feet = ≥ Code 5 (5 half meters)
NOTE : Dotted line indicates mean ice edge
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°


135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT FREQUENCIES
Percent frequency of various ranges within 5° x 5° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 8 feet.
N = Observation count.
HEIGHT PERCENT
≤ 2 10.0
3 - 4 20.0
5 - 6 30.0
7 - 9 20.0
10 - 12 10.0
≥ 13 10.0
N = 1000
Wave data for those ranges which are not shown that are higher or less or zeros when both were reported.

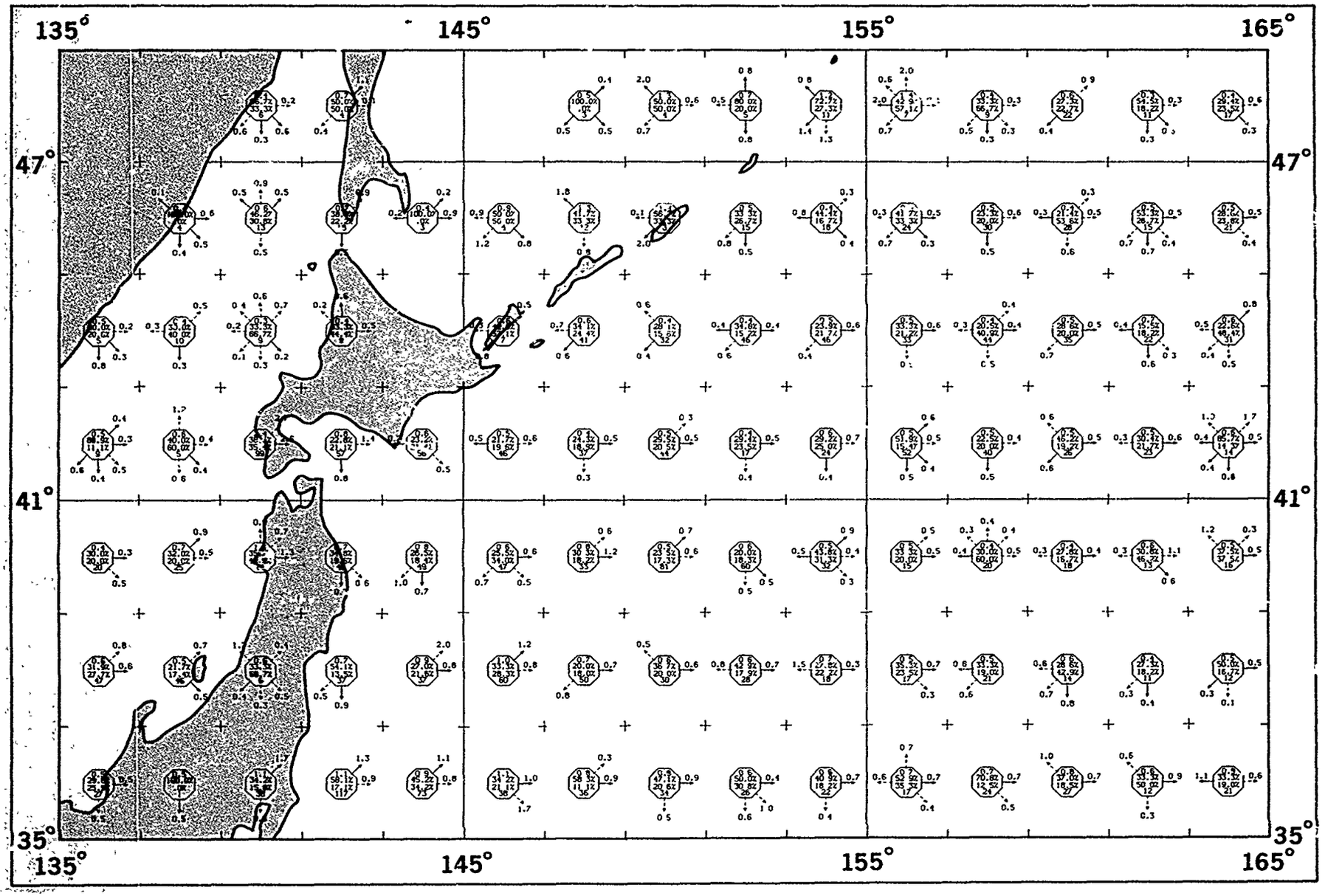


135°				145°				155°				165°			
	≤ 2 27.8	≤ 2 26.0	≤ 2 25.6	≤ 2 20.5	≤ 2 11.7	≤ 2 8.9	≤ 2 7.7	≤ 2 21.6	≤ 2 27.8	≤ 2 4.8	≤ 2 1.9	≤ 2 1.4	≤ 2 0.4	≤ 2 2.2
	3-4 38.9	3-4 28.0	3-4 27.6	3-4 20.8	3-4 16.0	3-4 10.6	3-4 13.0	3-4 22.2	3-4 10.1	3-4 8.3	3-4 5.9	3-4 6.1	3-4 6.5	3-4 6.6
	5-6 27.8	5-6 19.6	5-6 20.[illegible]	5-6 19.0	5-6 18.0	5-6 18.5	5-6 14.2	5-6 20.1	5-6 14.1	5-6 12.5	5-6 9.9	5-6 11.1	5-6 11.3	5-6 10.1
	7-9 0.0	7-9 19.0	7-9 [illegible]	7-9 25.7	7-9 30.5	7-9 34.7	7-9 35.0	7-9 20.9	7-9 31.5	7-9 30.2	7-9 29.2	7-9 26.7	7-9 28.4	7-9 28.7
	10-12 0.0	10-12 4.5	10-12 [illegible]	10-12 10.0	10-12 14.6	10-12 16.7	10-12 17.3	10-12 9.5	10-12 18.3	10-12 21.6	10-12 26.9	10-12 26.1	10-12 20.1	10-12 22.4
	≥13 5.6	≥13 2.9	≥13 [illegible]	≥13 4.0	≥13 9.1	≥13 10.6	≥13 12.8	≥13 5.7	≥13 18.1	≥13 22.7	≥13 26.1	≥13 28.6	≥13 33.2	≥13 30.1
	N= 16	N= 849	N= [illegible]952	N= 600	N= 767	N= 677	N= 663	N= 1991	N= 1214	N= 649	N= 624	N= 720	N= 1350	N= 595
≤ 2 5.0	≤ 2 22.1	≤ 2 16.8	≤ 2 30.3	≤ 2 21.7	≤ 2 15.2	≤ 2 20.7	≤ 2 11.0	≤ 2 11.1	≤ 2 3.7	≤ 2 3.2	≤ 2 2.6	≤ 2 1.8	≤ 2 2.4	≤ 2 2.1
3-4 35.0	3-4 24.2	3-4 16.7	3-4 [illegible]	3-4 20.8	3-4 15.9	3-4 19.3	3-4 16.0	3-4 16.9	3-4 9.5	3-4 6.3	3-4 5.4	3-4 7.1	3-4 6.7	3-4 5.9
5-6 25.0	5-6 21.0	5-6 22.5	5-6 [illegible]	5-6 21.5	5-6 20.3	5-6 19.7	5-6 19.5	5-6 18.0	5-6 11.9	5-6 13.0	5-6 12.4	5-6 14.0	5-6 13.7	5-6 12.2
7-9 25.0	7-9 22.1	7-9 27.1	7-9 [illegible]	7-9 22.8	7-9 25.8	7-9 23.9	7-9 [illegible]	7-9 26.6	7-9 30.1	7-9 28.8	7-9 32.2	7-9 29.4	7-9 27.8	7-9 29.7
10-12 10.9	10-12 7.6	10-12 12.3	10-12 6.4	10-12 8.4	10-12 13.6	10-12 9.2	10-12 [illegible]	10-12 14.8	10-12 20.6	10-12 21.3	10-12 19.9	10-12 20.6	10-12 17.9	10-12 19.7
≥13 0.0	≥13 3.0	≥13 4.6	≥13 4.4	≥13 4.8	≥13 9.1	≥13 [illegible]	≥13 10.1	≥13 12.6	≥13 24.2	≥13 27.4	≥13 27.4	≥13 27.2	≥13 31.5	≥13 30.2
N= 29	N= 542	N= 975	N= [illegible]554	N= 1506	N= 728	N= [illegible]1444	N= 1020	N= 1731	N= 843	N= 837	N= 773	N= 729	N= 848	N= 841
≤ 2 27.2	≤ 2 18.9	≤ 2 14.1	≤ 2 [illegible]	≤ 2 22.5	≤ 2 37.4	≤ 2 24.5	≤ 2 6.1	≤ 2 6.0	≤ 2 6.2	≤ 2 4.9	≤ 2 3.4	≤ 2 3.4	≤ 2 2.7	≤ 2 2.2
3-4 [illegible].4	3-4 18.4	3-4 16.5	3-4 [illegible]8.0	3-4 26.8	3-4 23.1	3-4 21.9	3-4 13.0	3-4 10.4	3-4 12.2	3-4 8.0	3-4 6.8	3-4 6.1	3-4 5.9	3-4 7.3
5-6 19.9	5-6 21.3	5-6 21.3	5-6 [illegible]20.5	5-6 19.7	5-6 [illegible].3	5-6 18.9	5-6 17.2	5-6 14.3	5-6 17.7	5-6 15.9	5-6 13.6	5-6 13.4	5-6 10.6	5-6 11.4
7-9 19.9	7-9 26.2	7-9 29.7	7-9 [illegible]27.3	7-9 [illegible]28.2	7-9 16.0	7-9 24.1	7-9 30.1	7-9 32.2	7-9 30.2	7-9 33.3	7-9 32.2	7-9 30.3	7-9 29.8	7-9 29.6
10-12 5.5	10-12 11.5	10-12 12.7	10-12 [illegible]17.0	10-12 [illegible]0.0	10-12 4.[illegible]	10-12 6.7	10-12 18.4	10-12 18.4	10-12 18.3	10-12 18.6	10-12 21.9	10-12 23.8	10-12 24.0	10-12 23.1
≥13 3.1	≥13 3.7	≥13 5.7	≥13 [illegible]2.3	≥13 [illegible]2.8	≥13 2.6	≥13 3.9	≥13 15.1	≥13 18.8	≥13 15.4	≥13 19.3	≥13 22.2	≥13 23.0	≥13 27.0	≥13 26.3
N= 996	N= 789	N= [illegible]08	N= [illegible]88	N= [illegible]71	N= 5251	N= 4971	N= 945	N= 1002	N= 1620	N= 1319	N= 1153	N= 1111	N= 880	N= 821
≤ 2 19.4	≤ 2 15.3	≤ 2 [illegible]	≤ 2 [illegible]25.4	≤ 2 [illegible]20.3	≤ 2 13.0	≤ 2 9.8	≤ 2 7.2	≤ 2 6.7	≤ 2 4.7	≤ 2 3.7	≤ 2 2.2	≤ 2 1.9	≤ 2 1.7	≤ 2 1.8
3-4 21.4	3-4 16.9	3-4 [illegible]22.0	3-4 [illegible]19.6	3-4 18.9	3-4 19.3	3-4 13.4	3-4 12.0	3-4 13.0	3-4 10.3	3-4 8.3	3-4 6.4	3-4 6.4	3-4 5.7	3-4 5.7
5-6 19.6	5-6 20.5	5-6 [illegible]17.0	5-6 [illegible]16.4	5-6 19.0	5-6 17.6	5-6 18.0	5-6 17.4	5-6 15.6	5-6 15.8	5-6 13.9	5-6 10.7	5-6 10.6	5-6 10.7	5-6 9.8
7-9 27.7	7-9 32.0	7-9 [illegible]22.7	7-9 24.2	7-9 25.3	7-9 25.9	7-9 31.0	7-9 30.4	7-9 32.1	7-9 33.6	7-9 31.5	7-9 31.4	7-9 29.3	7-9 29.1	7-9 33.7
10-12 8.6	10-12 10.3	10-12 [illegible]8.0	10-12 8.5	10-12 9.6	10-12 15.0	10-12 16.4	10-12 18.2	10-12 17.3	10-12 19.3	10-12 23.1	10-12 24.8	10-12 26.1	10-12 26.2	10-12 24.8
≥13 3.3	≥13 5.0	≥13 [illegible].3	≥13 4.0	≥13 6.9	≥13 9.2	≥13 11.4	≥13 14.8	≥13 15.3	≥13 16.3	≥13 19.5	≥13 24.4	≥13 25.6	≥13 26.5	≥13 24.2
N= 639	N= 562	N= [illegible]215	N=3084	N= 1955	N= 1367	N= 1408	N= 1427	N= 1619	N= 1605	N= 1312	N= 1118	N= 874	N= 717	N= 685
≤ 2 16.5	≤ 2 16.4	≤ 2 [illegible]	≤ 2 27.5	≤ 2 13.0	≤ 2 7.6	≤ 2 8.4	≤ 2 6.4	≤ 2 4.4	≤ 2 3.2	≤ 2 2.7	≤ 2 2.4	≤ 2 2.1	≤ 2 1.5	≤ 2 1.6
3-4 17.9	3-4 19.8	3-4 [illegible]18.4	3-4 22.3	3-4 18.1	3-4 14.4	3-4 12.9	3-4 12.1	3-4 9.9	3-4 8.6	3-4 6.1	3-4 5.4	3-4 4.2	3-4 4.5	3-4 4.4
5-6 17.4	5-6 18.3	5-6 [illegible]22.5	5-6 18.8	5-6 18.2	5-6 17.8	5-6 19.8	5-6 18.1	5-6 14.9	5-6 15.5	5-6 13.0	5-6 12.2	5-6 10.8	5-6 10.4	5-6 10.8
7-9 27.9	7-9 26.4	7-9 [illegible]24.4	7-9 20.7	7-9 26.4	7-9 30.6	7-9 30.9	7-9 31.7	7-9 32.6	7-9 31.5	7-9 31.6	7-9 32.3	7-9 [illegible]2.8	7-9 29.1	7-9 30.6
10-12 12.1	10-12 9.8	10-12 [illegible]11.4	10-12 7.1	10-12 13.2	10-12 16.1	10-12 15.2	10-12 18.5	10-12 19.8	10-12 21.2	10-12 23.8	10-12 24.7	10-12 25.5	10-12 30.4	10-12 28.2
≥13 8.2	≥13 9.2	≥13 [illegible]9.2	≥13 3.6	≥13 11.2	≥13 13.4	≥13 12.8	≥13 13.3	≥13 18.4	≥13 20.0	≥13 22.8	≥13 23.0	≥13 24.6	≥13 24.1	≥13 24.5
N= 671	N= 640	N= 369	N= [illegible]480	N= 1046	N= 1101	N= 1874	N= 1841	N= 1695	N= 1758	N= 964	N= 915	N= 925	N= 843	N= 772
≤ 2 17.3	≤ 2 23.7	≤ 2 [illegible]27.1	≤ 2 32.8	≤ 2 9.2	≤ 2 9.8	≤ 2 4.9	≤ 2 3.4	≤ 2 2.7	≤ 2 2.8	≤ 2 2.1	≤ 2 3.0	≤ 2 2.1	≤ 2 1.6	≤ 2 1.8
3-4 19.3	3-4 22.2	3-4 [illegible]24.7	3-4 23.5	3-4 18.2	3-4 15.4	3-4 12.2	3-4 9.3	3-4 8.7	3-4 6.2	3-4 5.8	3-4 4.9	3-4 6.0	3-4 4.7	3-4 4.9
5-6 16.9	5-6 16.3	5-6 [illegible]20.0	5-6 17.9	5-6 19.3	5-6 18.0	5-6 17.1	5-6 14.9	5-6 15.4	5-6 13.7	5-6 12.6	5-6 9.4	5-6 10.6	5-6 10.6	5-6 11.7
7-9 28.0	7-9 [illegible]20.4	7-9 [illegible]14.1	7-9 17.9	7-9 27.6	7-9 30.0	7-9 32.7	7-9 31.3	7-9 32.8	7-9 32.7	7-9 30.5	7-9 31.2	7-9 31.2	7-9 32.3	7-9 27.0
10-12 10.4	10-12 8.6	10-12 [illegible]9.4	10-12 5.4	10-12 16.7	10-12 15.5	10-12 19.3	10-12 20.5	10-12 22.5	10-12 24.3	10-12 25.1	10-12 27.8	10-12 25.0	10-12 26.2	10-12 26.4
≥13 8.1	≥13 [illegible]7.9	≥13 [illegible]4.7	≥13 2.4	≥13 8.9	≥13 11.2	≥13 13.8	≥13 20.7	≥13 17.8	≥13 20.4	≥13 [illegible]2.9	≥13 23.9	≥13 25.0	≥13 24.6	≥13 28.[illegible]
N= 508	N= [illegible]523	N= 85	N=8559	N=1689	N= 2211	N= 1708	N=1393	N=1366	N=1508	N= 1125	N=1048	N= 943	N= 919	N= 818
≤ 2 30.6	≤ 2 [illegible]59.5	≤ [illegible]32.8	≤ 2 24.8	≤ 2 4.6	≤ 2 3.7	≤ 2 3.5	≤ 2 3.6	≤ 2 3.6	≤ 2 3.6	≤ 2 3.0	≤ 2 2.0	≤ 2 1.7	≤ 2 2.2	≤ 2 1.7
3-4 23.3	3-4 [illegible]24.3	3-4 [illegible]26.9	3-4 21.3	3-4 11.7	3-4 10.6	3-4 9.1	3-4 8.5	3-4 7.2	3-4 6.8	3-4 6.9	3-4 7.0	3-4 7.1	3-4 6.0	3-4 4.9
5-6 [illegible].5	5-6 10.8	5-6 [illegible]16.[illegible]	5-6 18.0	5-6 17.1	5-6 15.9	5-6 16.5	5-6 14.9	5-6 15.0	5-6 12.4	5-6 11.8	5-6 10.1	5-6 13.1	5-6 12.2	5-6 12.6
7-9 [illegible]1.5	7-9 [illegible]2.7	7-9 [illegible]16.[illegible]	7-9 22.3	7-9 34.4	7-9 34.3	7-9 33.1	7-9 32.8	7-9 33.1	7-9 33.9	7-9 33.0	7-9 32.1	7-9 31.6	7-9 32.6	7-9 34.1
10-12 [illegible]4.5	10-12 [illegible]2.7	10-12 [illegible]4.9	10-12 8.6	10-12 19.0	10-12 20.3	10-12 19.6	10-12 20.7	10-12 21.8	10-12 23.0	10-12 22.1	10-12 26.0	10-12 25.3	10-12 24.7	10-12 24.3
≥13 [illegible]2.6	≥13 [illegible]0.0	≥13 [illegible]2.8	≥13 5.0	≥13 13.1	≥13 15.2	≥13 18.2	≥13 19.6	≥13 19.3	≥13 20.2	≥13 23.3	≥13 22.8	≥13 21.2	≥13 22.3	≥13 22.4
N= 382	N= 37	N= 1438	N=4379	N=2282	N= 2218	N=2018	N=1734	N= 1521	N= 1450	N= 1283	N= 1252	N= 1187	N= 1099	N= 1011
135°				145°				155°				165°			



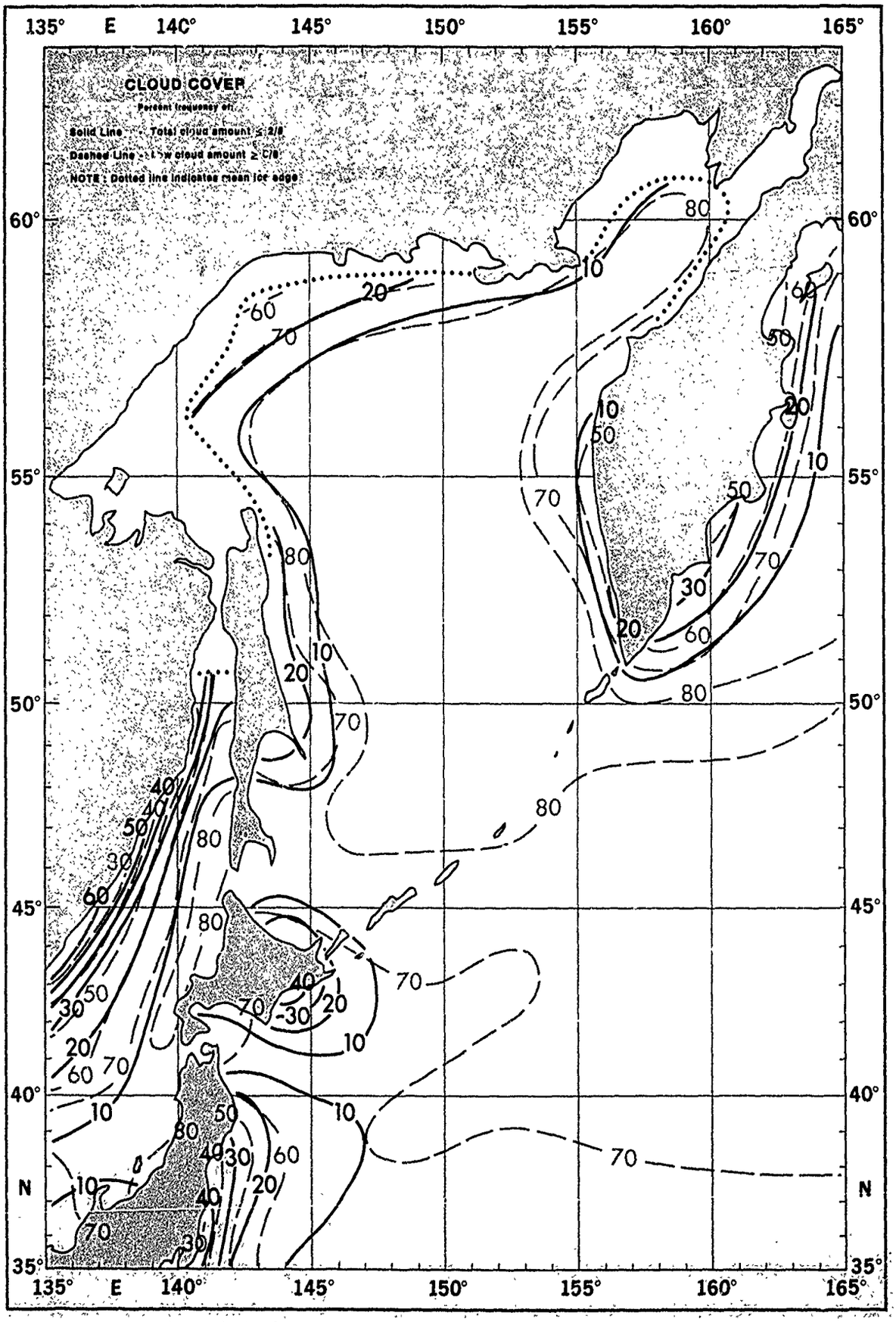
November

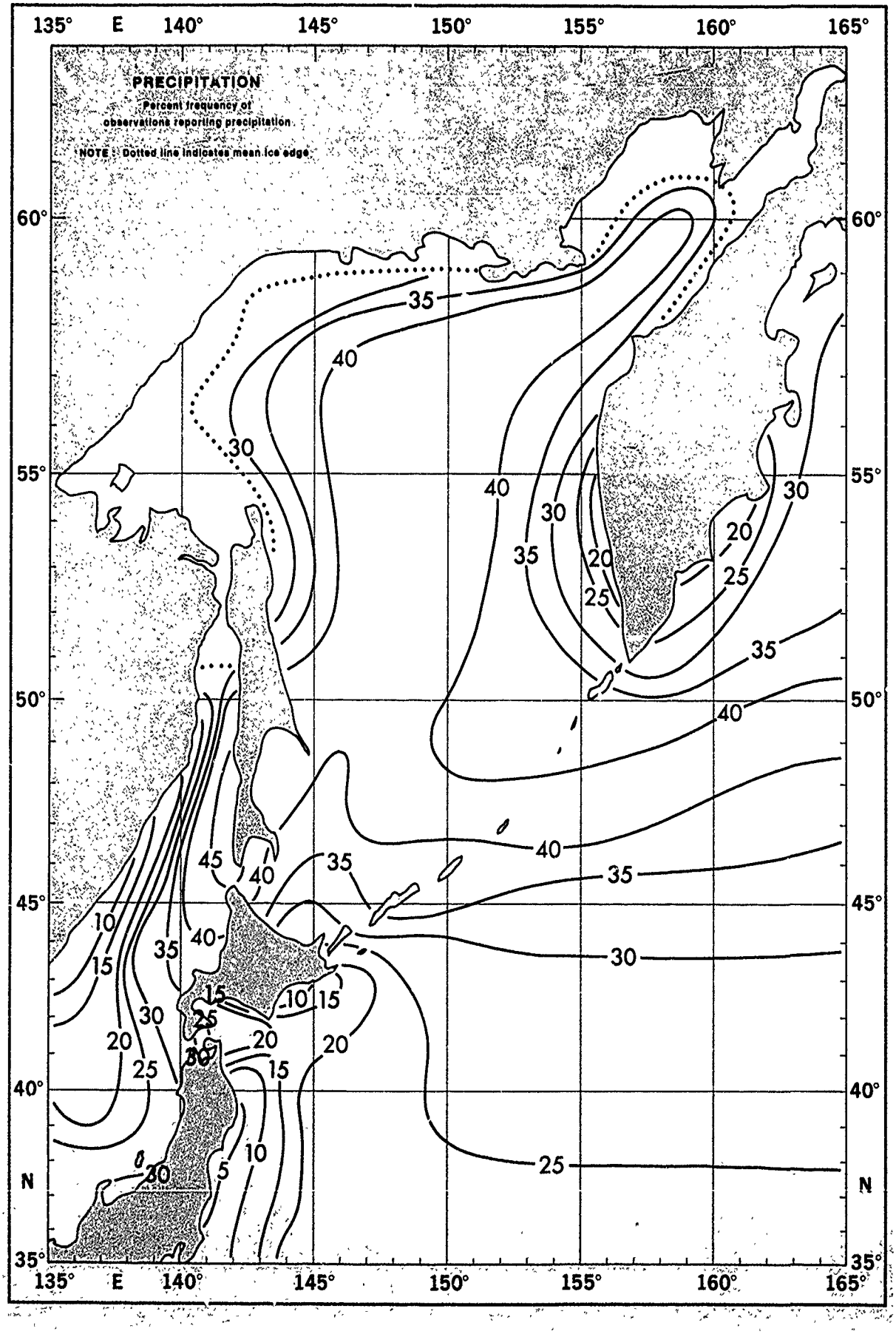
Surface Currents

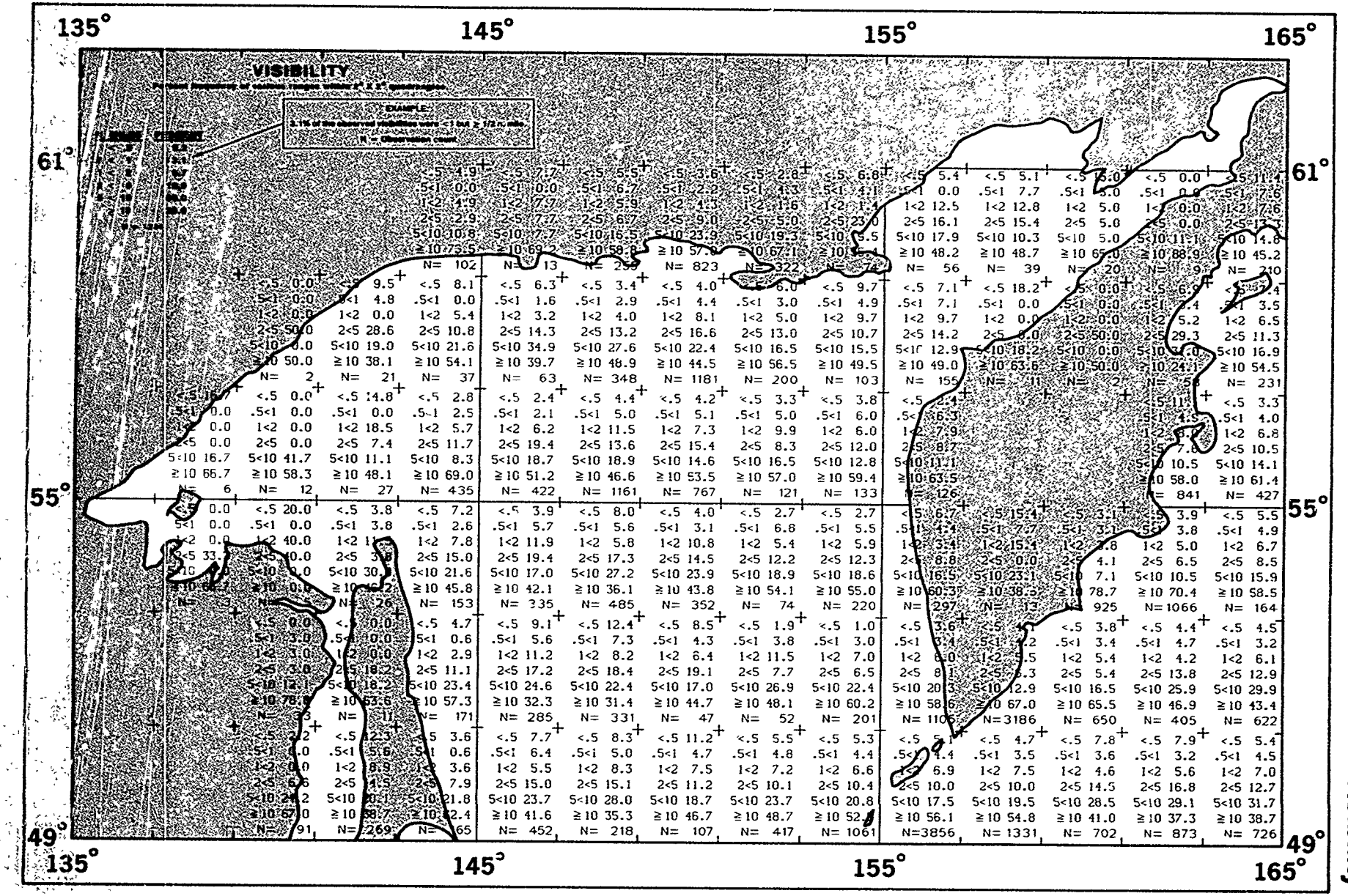


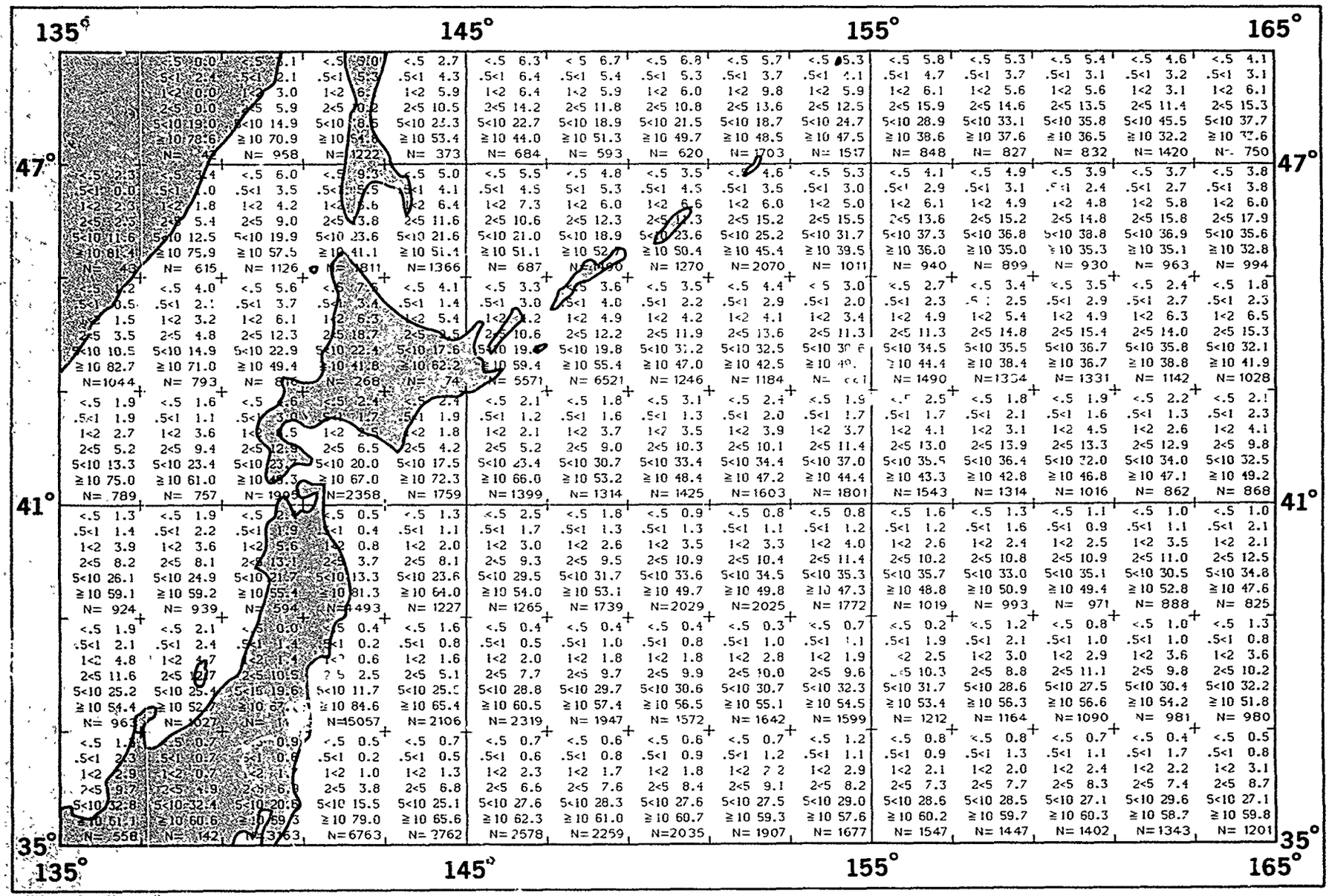
November

Surface Currents


CLOUD COVER
Percent frequency of:
Solid Line : Total cloud amount ≤ 2/8
Dashed Line : Low cloud amount ≥ 6/8
NOTE : Dotted line indicates mean ice edge
135° E
140°
145°
150°
155°
160°
165°
60°
55°
50°
45°
40°
35°
N


PRECIPITATION
Percent frequency of observations reporting precipitation
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° N 35°
35 40 30 40 30 35 20 25 20 30 35 40 40 35 45 40 35 10 15 35 40 30 15 10 15 30 25 20 25 20 30 20 15 0 30 5 10 25

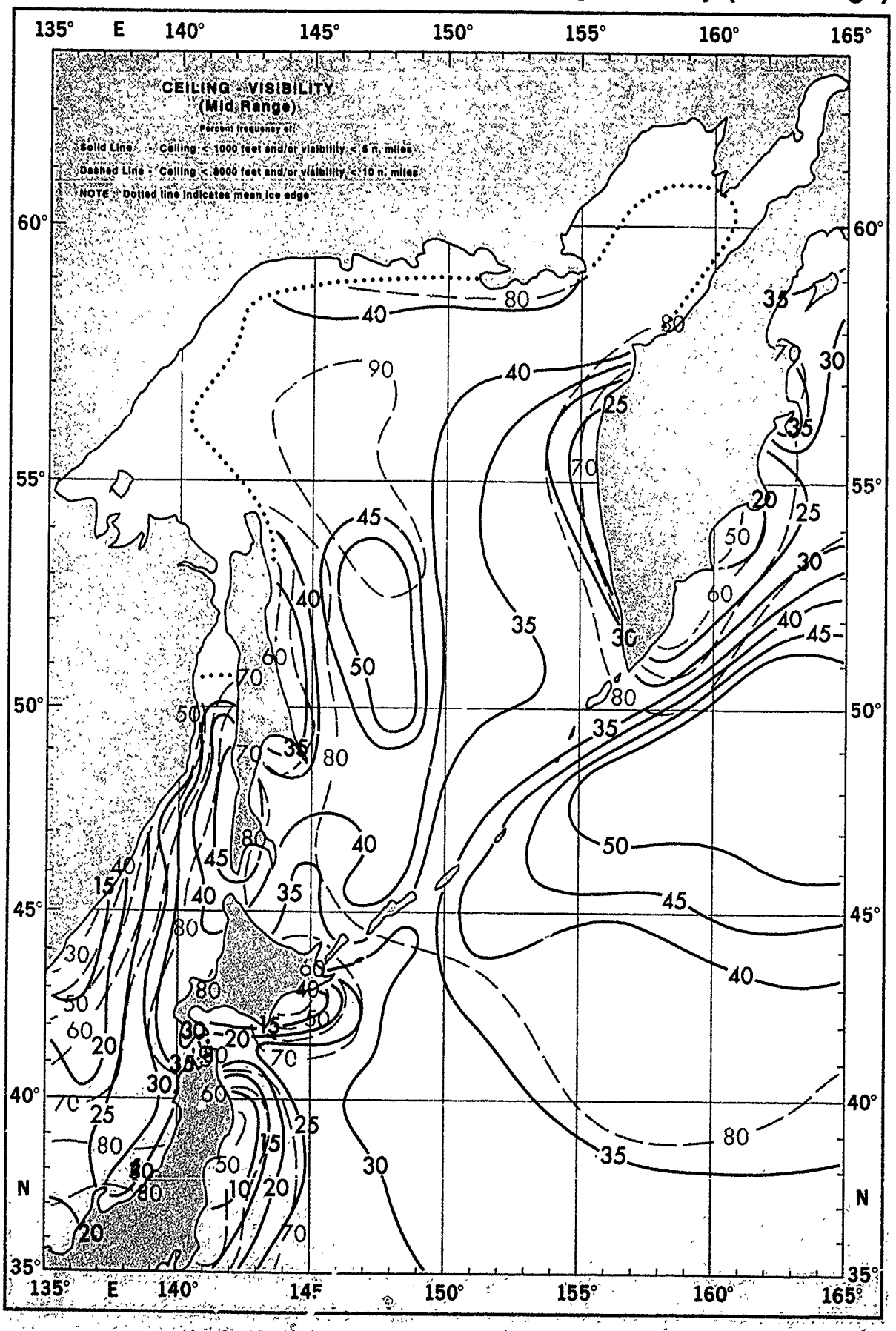

VISIBILITY
135°
145°
155°
165°
61°
55°
49°

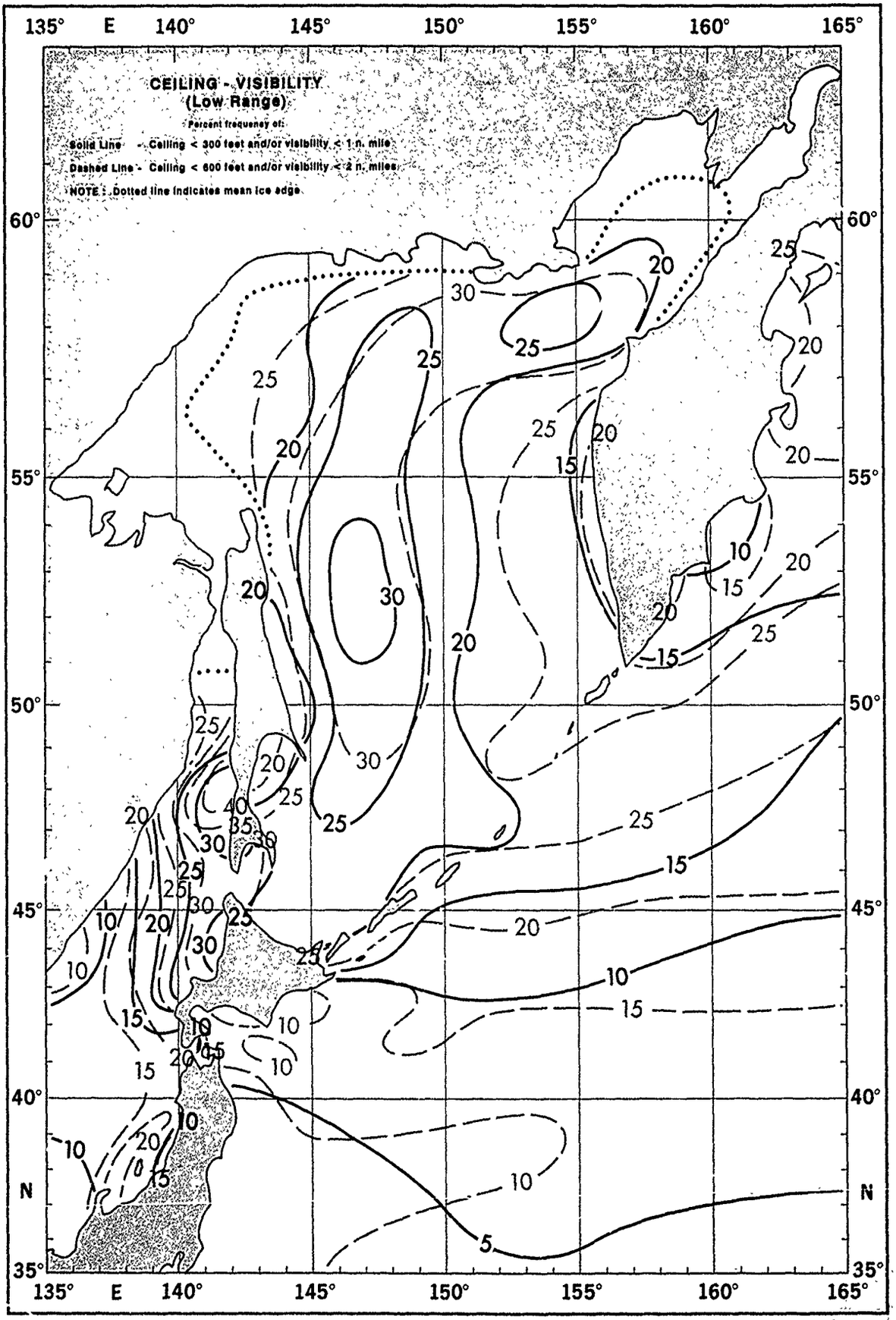


135°		145°		155°		165°	
47°	<.5 0.0 <.5 3.1 <.5 3.0 <.5 2.7 .5<1 2.1 .5<1 2.1 .5<1 4.3 1<2 0.0 1<2 3.0 1<2 5.9 2<5 0.0 2<5 5.9 2<5 10.2 2<5 10.5 5<10 19.0 5<10 14.9 5<10 18.5 5<10 25.3 ≥10 78.6 ≥10 70.9 ≥10 54.8 ≥10 53.4 N= 42 N= 958 N= 1222 N= 373	<.5 6.3 <.5 6.7 <.5 6.8 <.5 5.7 <.5 5.3 .5<1 6.4 .5<1 5.4 .5<1 5.3 .5<1 3.7 .5<1 4.1 1<2 6.4 1<2 5.9 1<2 6.0 1<2 9.8 1<2 5.9 2<5 14.2 2<5 11.8 2<5 10.8 2<5 13.6 2<5 12.5 5<10 22.7 5<10 18.9 5<10 21.5 5<10 18.7 5<10 24.7 ≥10 44.0 ≥10 51.3 ≥10 49.7 ≥10 48.5 ≥10 47.5 N= 684 N= 593 N= 620 N= 1703 N= 1517	<.5 5.8 <.5 5.3 <.5 5.4 <.5 4.6 <.5 4.1 .5<1 4.7 .5<1 3.7 .5<1 3.1 .5<1 3.2 .5<1 3.1 1<2 6.1 1<2 5.6 1<2 5.6 1<2 3.1 1<2 6.1 2<5 15.9 2<5 14.6 2<5 13.5 2<5 11.4 2<5 15.3 5<10 28.9 5<10 33.1 5<10 35.8 5<10 45.5 5<10 37.7 ≥10 38.6 ≥10 37.6 ≥10 36.5 ≥10 32.2 ≥10 32.6 N= 848 N= 827 N= 832 N= 1420 N= 750	47°
	<.5 2.3 <.5 2.4 <.5 6.0 <.5 3.3 <.5 5.0 .5<1 0.0 .5<1 1.0 .5<1 3.5 .5<1 3.5 .5<1 4.1 1<2 2.3 1<2 1.8 1<2 4.2 1<2 5.6 1<2 6.4 2<5 2.3 2<5 5.4 2<5 9.0 2<5 3.8 2<5 11.6 5<10 11.6 5<10 12.5 5<10 19.9 5<10 23.6 5<10 21.6 ≥10 81.4 ≥10 75.9 ≥10 57.5 ≥10 41.1 ≥10 51.4 N= 43 N= 615 N= 1126 N= 1811 N=1366	<.5 5.5 <.5 4.8 <.5 3.5 <.5 4.6 <.5 5.3 .5<1 4.5 .5<1 5.3 .5<1 4.5 .5<1 3.5 .5<1 3.0 1<2 7.3 1<2 6.0 1<2 6.6 1<2 6.0 1<2 5.0 2<5 10.6 2<5 12.3 2<5 11.3 2<5 15.2 2<5 15.5 5<10 21.0 5<10 18.9 5<10 23.6 5<10 25.2 5<10 31.7 ≥10 51.1 ≥10 52 ≥10 50.4 ≥10 45.4 ≥10 39.5 N= 687 N= 590 N= 1270 N=2070 N= 1011	<.5 4.1 <.5 4.9 <.5 3.9 <.5 3.7 <.5 3.8 .5<1 2.9 .5<1 3.1 .5<1 2.4 .5<1 2.7 .5<1 3.8 1<2 6.1 1<2 4.9 1<2 4.8 1<2 5.8 1<2 6.0 2<5 13.6 2<5 15.2 2<5 14.8 2<5 15.8 2<5 17.9 5<10 37.3 5<10 36.8 5<10 38.8 5<10 36.9 5<10 35.6 ≥10 36.0 ≥10 35.0 ≥10 35.3 ≥10 35.1 ≥10 32.8 N= 940 N= 899 N= 930 N= 963 N= 994	47°
	<.5 1.2 <.5 4.0 <.5 5.6 <.5 7.5 <.5 4.1 .5<1 0.5 .5<1 2.1 .5<1 3.7 .5<1 3.4 .5<1 1.4 1<2 1.5 1<2 3.2 1<2 6.1 1<2 6.3 1<2 5.4 2<5 3.5 2<5 4.8 2<5 12.3 2<5 18.7 2<5 9.5 5<10 10.5 5<10 14.9 5<10 22.9 5<10 22.4 5<10 17.6 ≥10 82.7 ≥10 71.0 ≥10 49.4 ≥10 41.8 ≥10 62.2 N=1044 N= 793 N= 8[illegible] N= 268 N= 74	<.5 3.3 <.5 3.6 <.5 3.5 <.5 4.4 <.5 3.0 .5<1 3.0 .5<1 4.0 .5<1 2.2 .5<1 2.9 .5<1 2.0 1<2 4.2 1<2 4.9 1<2 4.2 1<2 4.1 1<2 3.4 2<5 10.6 2<5 12.2 2<5 11.9 2<5 13.6 2<5 11.3 5<10 19.0 5<10 19.8 5<10 31.2 5<10 32.5 5<10 30.6 ≥10 59.4 ≥10 55.4 ≥10 47.0 ≥10 42.5 ≥10 40.[illegible] N= 5571 N= 6521 N= 1246 N= 1184 N= [illegible]	<.5 2.7 <.5 3.4 <.5 3.5 <.5 2.4 <.5 1.8 .5<1 2.3 .5<1 2.5 .5<1 2.9 .5<1 2.7 .5<1 2.3 1<2 4.9 1<2 5.4 1<2 4.9 1<2 6.3 1<2 6.5 2<5 11.3 2<5 14.8 2<5 15.4 2<5 14.0 2<5 15.3 5<10 34.5 5<10 35.5 5<10 36.7 5<10 35.8 5<10 32.1 ≥10 44.4 ≥10 38.4 ≥10 36.7 ≥10 38.8 ≥10 41.9 N= 1490 N=1304 N= 1331 N= 1142 N=1028	
41°	<.5 1.9 <.5 1.6 <.5 [illegible] <.5 2.4 <.5 2.4 .5<1 1.9 .5<1 1.1 .5<1 [illegible] .5<1 1.9 1<2 2.7 1<2 3.6 1<2 [illegible] 1<2 1.8 2<5 5.2 2<5 9.4 2<5 12.9 2<5 6.5 2<5 4.2 5<10 13.3 5<10 23.4 5<10 23.[illegible] 5<10 20.0 5<10 17.5 ≥10 75.0 ≥10 61.0 ≥10 48.3 ≥10 67.0 ≥10 72.3 N= 789 N= 757 N= 1995 N=2358 N= 1759	<.5 2.1 <.5 1.8 <.5 3.1 <.5 2.4 <.5 1.9 .5<1 1.2 .5<1 1.6 .5<1 1.3 .5<1 2.0 .5<1 1.7 1<2 2.1 1<2 3.7 1<2 3.5 1<2 3.9 1<2 3.7 2<5 5.2 2<5 9.0 2<5 10.3 2<5 10.1 2<5 11.4 5<10 23.4 5<10 30.7 5<10 33.4 5<10 34.4 5<10 37.0 ≥10 66.0 ≥10 53.2 ≥10 48.4 ≥10 47.2 ≥10 44.4 N= 1399 N= 1314 N= 1425 N=1603 N= 1801	<.5 2.5 <.5 1.8 <.5 1.9 <.5 2.2 <.5 2.1 .5<1 1.7 .5<1 2.1 .5<1 1.6 .5<1 1.3 .5<1 2.3 1<2 4.1 1<2 3.1 1<2 4.5 1<2 2.6 1<2 4.1 2<5 13.0 2<5 13.9 2<5 13.3 2<5 12.9 2<5 9.8 5<10 35.5 5<10 36.4 5<10 32.0 5<10 34.0 5<10 32.5 ≥10 43.3 ≥10 42.8 ≥10 46.8 ≥10 47.1 ≥10 49.2 N= 1543 N= 1314 N= 1016 N= 862 N= 868	41°
	<.5 1.3 <.5 1.9 <.5 [illegible] <.5 0.5 <.5 1.3 .5<1 1.4 .5<1 2.2 .5<1 [illegible] .5<1 0.4 .5<1 1.1 1<2 3.9 1<2 3.6 1<2 [illegible] 1<2 0.8 1<2 2.0 2<5 8.2 2<5 8.1 2<5 [illegible] 2<5 3.7 2<5 8.1 5<10 26.1 5<10 24.9 5<10 [illegible] 5<10 13.3 5<10 23.6 ≥10 59.1 ≥10 59.2 ≥10 [illegible] ≥10 81.3 ≥10 64.0 N= 924 N= 939 N= [illegible] N=1493 N= 1227	<.5 2.5 <.5 1.8 <.5 0.9 <.5 0.8 <.5 0.8 .5<1 1.7 .5<1 1.3 .5<1 1.3 .5<1 1.1 .5<1 1.2 1<2 3.0 1<2 2.6 1<2 3.5 1<2 3.3 1<2 4.0 2<5 9.3 2<5 9.5 2<5 10.9 2<5 10.4 2<5 11.4 5<10 29.5 5<10 31.7 5<10 33.6 5<10 34.5 5<10 35.3 ≥10 54.0 ≥10 53.1 ≥10 49.7 ≥10 49.8 ≥10 47.3 N= 1265 N= 1739 N=2029 N=2025 N= 1772	<.5 1.6 <.5 1.3 <.5 1.1 <.5 1.0 <.5 1.0 .5<1 1.2 .5<1 1.6 .5<1 0.9 .5<1 1.1 .5<1 2.1 1<2 2.6 1<2 2.4 1<2 2.5 1<2 3.5 1<2 2.1 2<5 10.2 2<5 10.8 2<5 10.9 2<5 11.0 2<5 12.5 5<10 35.7 5<10 33.0 5<10 35.1 5<10 30.5 5<10 34.8 ≥10 48.8 ≥10 50.9 ≥10 49.4 ≥10 52.8 ≥10 47.6 N= 1019 N= 993 N= 971 N= 888 N= 825	
	<.5 1.9 <.5 2.1 <.5 [illegible] <.5 0.4 <.5 1.6 .5<1 2.1 .5<1 2.4 .5<1 [illegible] .5<1 0.2 .5<1 0.8 1<2 4.8 1<2 4.7 1<2 [illegible] 1<2 0.6 1<2 1.6 2<5 11.6 2<5 12.7 2<5 [illegible] 2<5 2.5 2<5 5.1 5<10 25.2 5<10 25.4 5<10 [illegible] 5<10 11.7 5<10 25.0 ≥10 54.4 ≥10 52.7 ≥10 [illegible] ≥10 84.6 ≥10 65.4 N= 963 N= 1027 N= [illegible] N=15057 N=2106	<.5 0.4 <.5 0.4 <.5 0.4 <.5 0.3 <.5 0.7 .5<1 0.5 .5<1 1.0 .5<1 0.8 .5<1 1.0 .5<1 1.1 1<2 2.0 1<2 1.8 1<2 1.8 1<2 2.8 1<2 1.9 2<5 7.7 2<5 9.7 2<5 9.9 2<5 10.0 2<5 9.6 5<10 28.8 5<10 29.7 5<10 30.6 5<10 30.7 5<10 32.3 ≥10 60.5 ≥10 57.4 ≥10 56.5 ≥10 55.1 ≥10 54.5 N= 2319 N= 1947 N= 1572 N= 1642 N= 1599	<.5 0.2 <.5 1.2 <.5 0.8 <.5 1.0 <.5 1.3 .5<1 1.9 .5<1 2.1 .5<1 1.0 .5<1 1.0 .5<1 0.8 1<2 2.5 1<2 3.0 1<2 2.9 1<2 3.6 1<2 3.6 2<5 10.3 2<5 8.8 2<5 11.1 2<5 9.8 2<5 10.2 5<10 31.7 5<10 28.6 5<10 27.5 5<10 30.4 5<10 32.2 ≥10 53.4 ≥10 56.3 ≥10 56.6 ≥10 54.2 ≥10 51.8 N= 1212 N= 1164 N=1090 N= 981 N= 980	
	<.5 1.8 <.5 0.7 <.5 0.9 <.5 0.5 <.5 0.7 .5<1 2.3 .5<1 0.7 .5<1 0.6 .5<1 0.2 .5<1 0.5 1<2 2.9 1<2 0.7 1<2 1.[illegible] 1<2 1.0 1<2 1.3 2<5 9.7 2<5 4.9 2<5 6.8 2<5 3.8 2<5 6.8 5<10 32.8 5<10 32.4 5<10 20.5 5<10 15.5 5<10 25.1 ≥10 61.1 ≥10 60.6 ≥10 [illegible] ≥10 79.0 ≥10 65.6 N= 558 N= 142 N=3163 N=6763 N=2762	<.5 0.7 <.5 0.6 <.5 0.6 <.5 0.7 <.5 1.2 .5<1 0.6 .5<1 0.8 .5<1 0.9 .5<1 1.2 .5<1 1.1 1<2 2.3 1<2 1.7 1<2 1.8 1<2 2.2 1<2 2.9 2<5 6.6 2<5 7.6 2<5 8.4 2<5 9.1 2<5 8.2 5<10 27.6 5<10 28.3 5<10 27.6 5<10 27.5 5<10 29.0 ≥10 62.3 ≥10 61.0 ≥10 60.7 ≥10 59.3 ≥10 57.6 N= 2578 N=2259 N=2035 N= 1907 N= 1677	<.5 0.8 <.5 0.8 <.5 0.7 <.5 0.4 <.5 0.5 .5<1 0.9 .5<1 1.3 .5<1 1.1 .5<1 1.7 .5<1 0.8 1<2 2.1 1<2 2.0 1<2 2.4 1<2 2.2 1<2 3.1 2<5 7.3 2<5 7.7 2<5 8.3 2<5 7.4 2<5 8.7 5<10 28.6 5<10 28.5 5<10 27.1 5<10 29.6 5<10 27.1 ≥10 60.2 ≥10 59.7 ≥10 60.3 ≥10 58.7 ≥10 59.8 N= 1547 N= 1447 N= 1402 N=1343 N= 1201	35°
135°		145°		155°		165°	

December

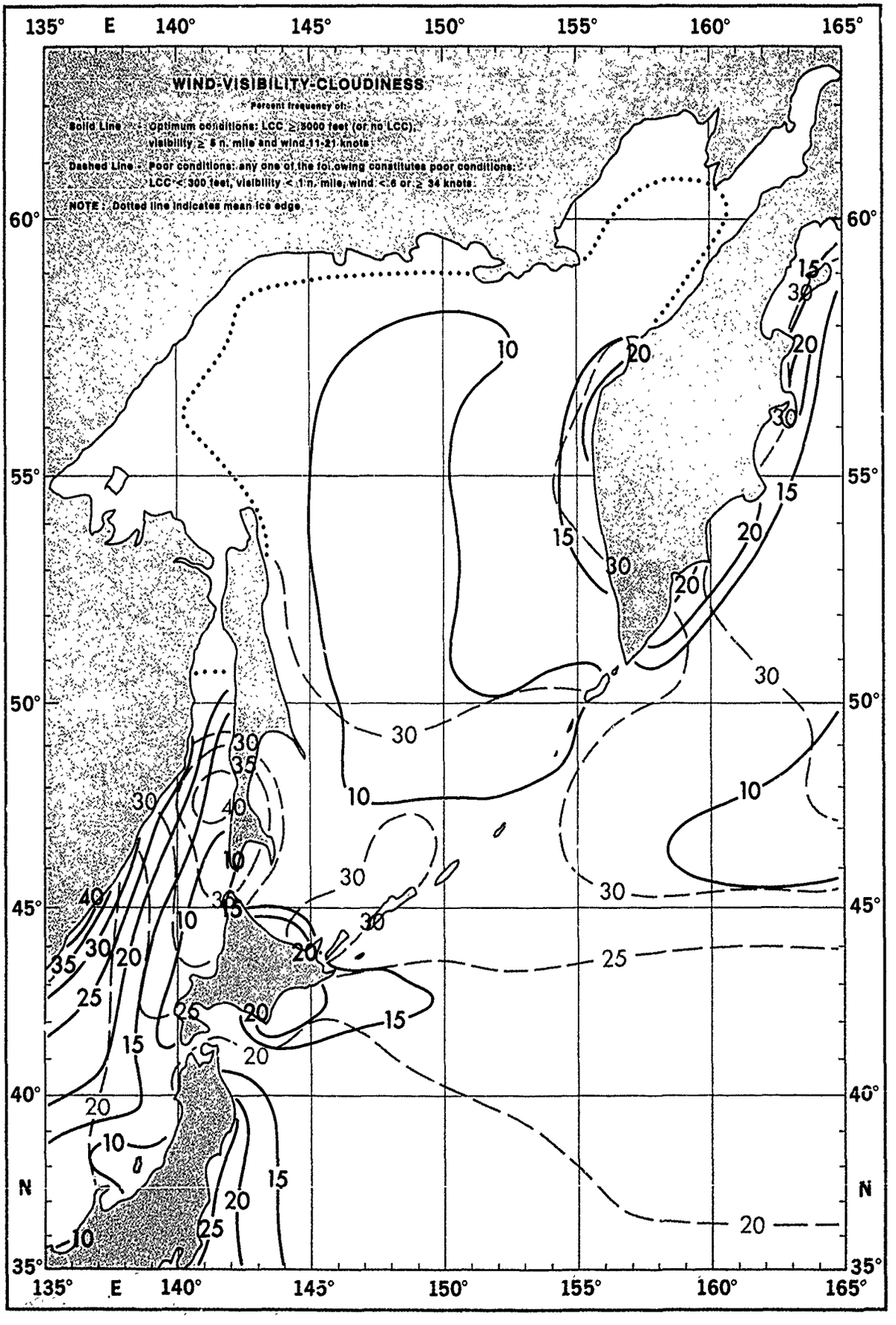
Ceiling-Visibility (Mid Range)




CEILING - VISIBILITY
(Low Range)
Percent frequency of:
Solid Line - Ceiling < 300 feet and/or visibility < 1 n. mile
Dashed Line - Ceiling < 600 feet and/or visibility < 2 n. miles
NOTE : Dotted line indicates mean ice edge
135° E 140° 145° 150° 155° 160° 165°
60°
55°
50°
45°
40°
N
35°

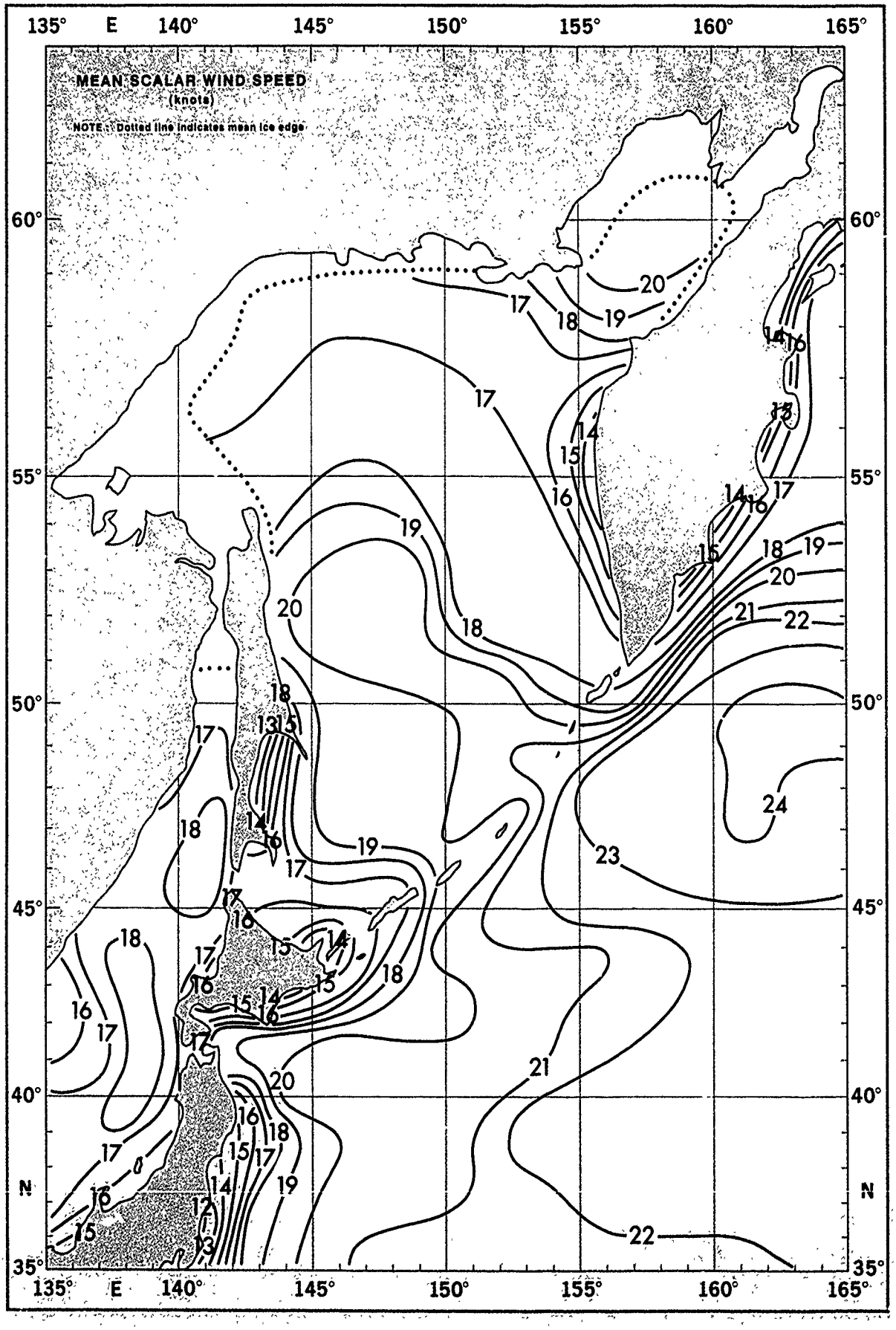
December

Wind-Visibility-Cloudiness



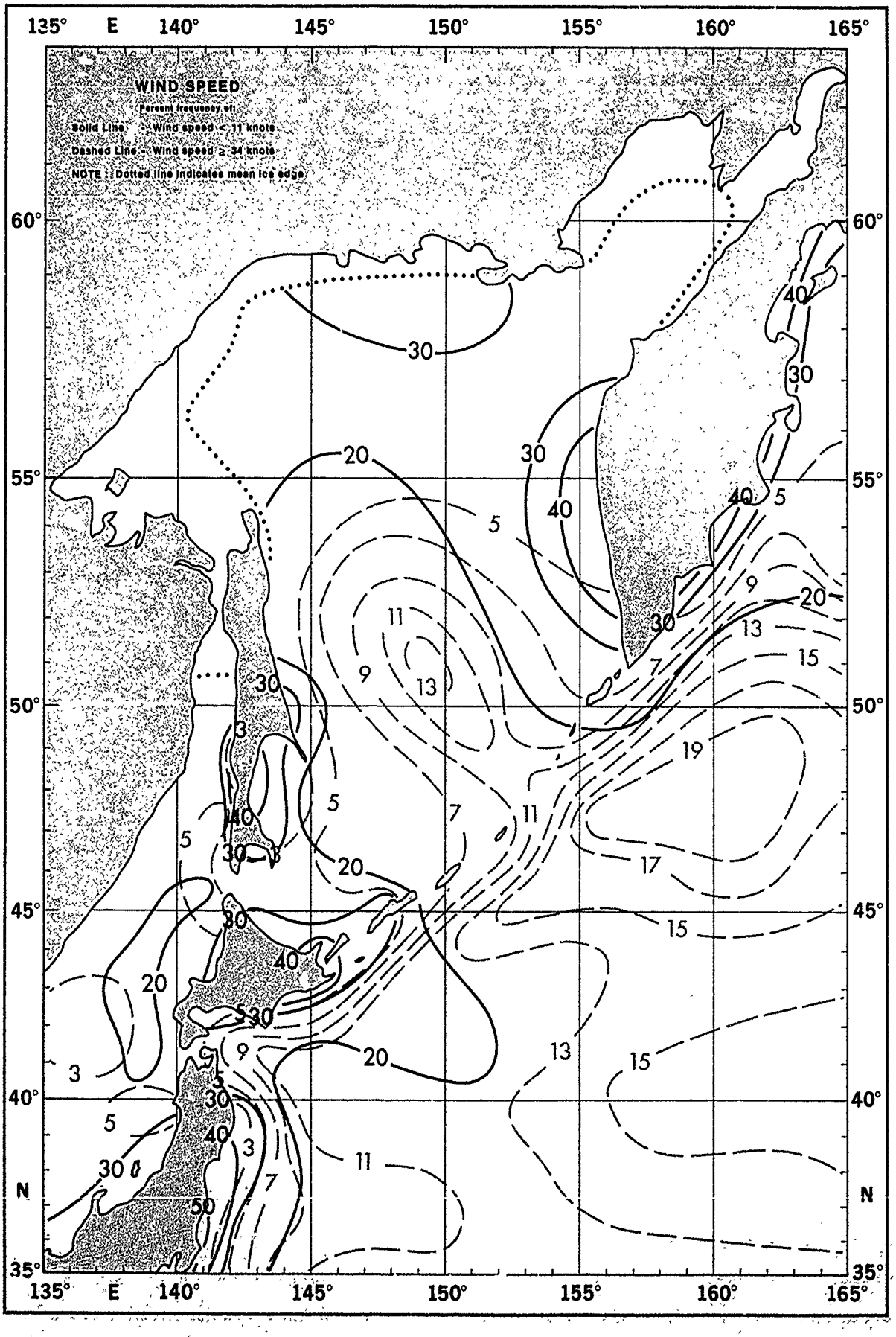
December

Mean Scalar Wind Speed



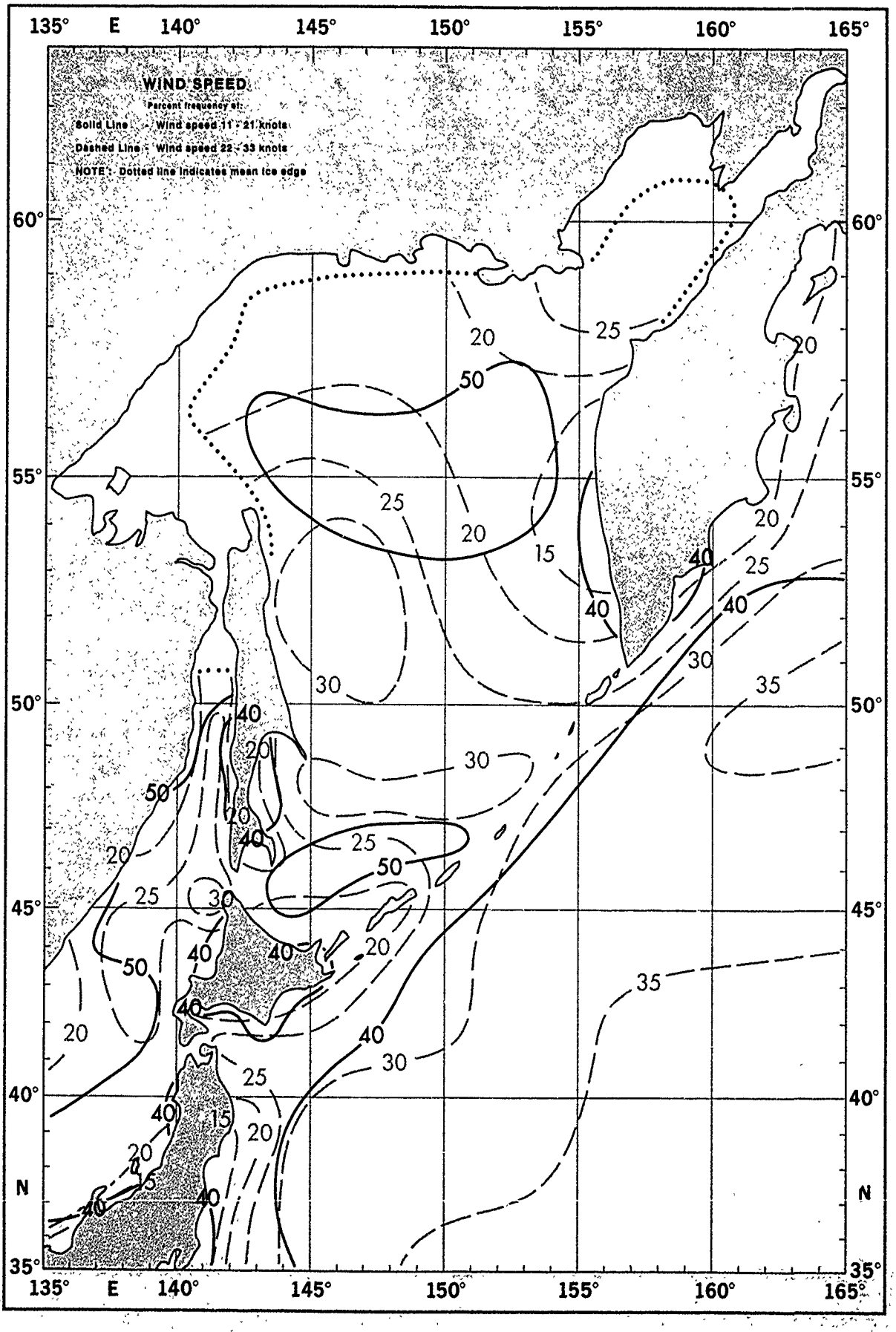
December

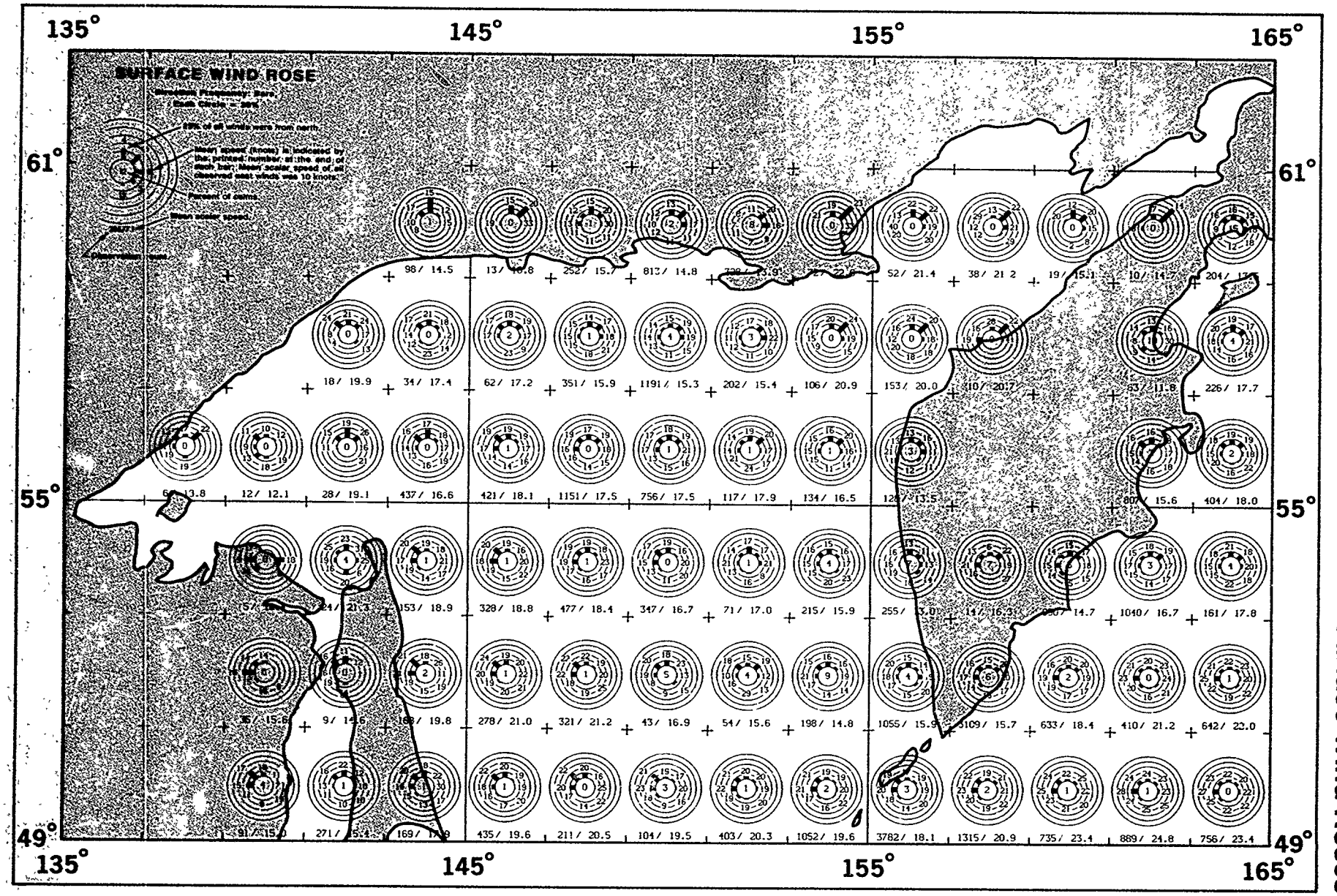
Wind Speed <11 and ≥34 Knots

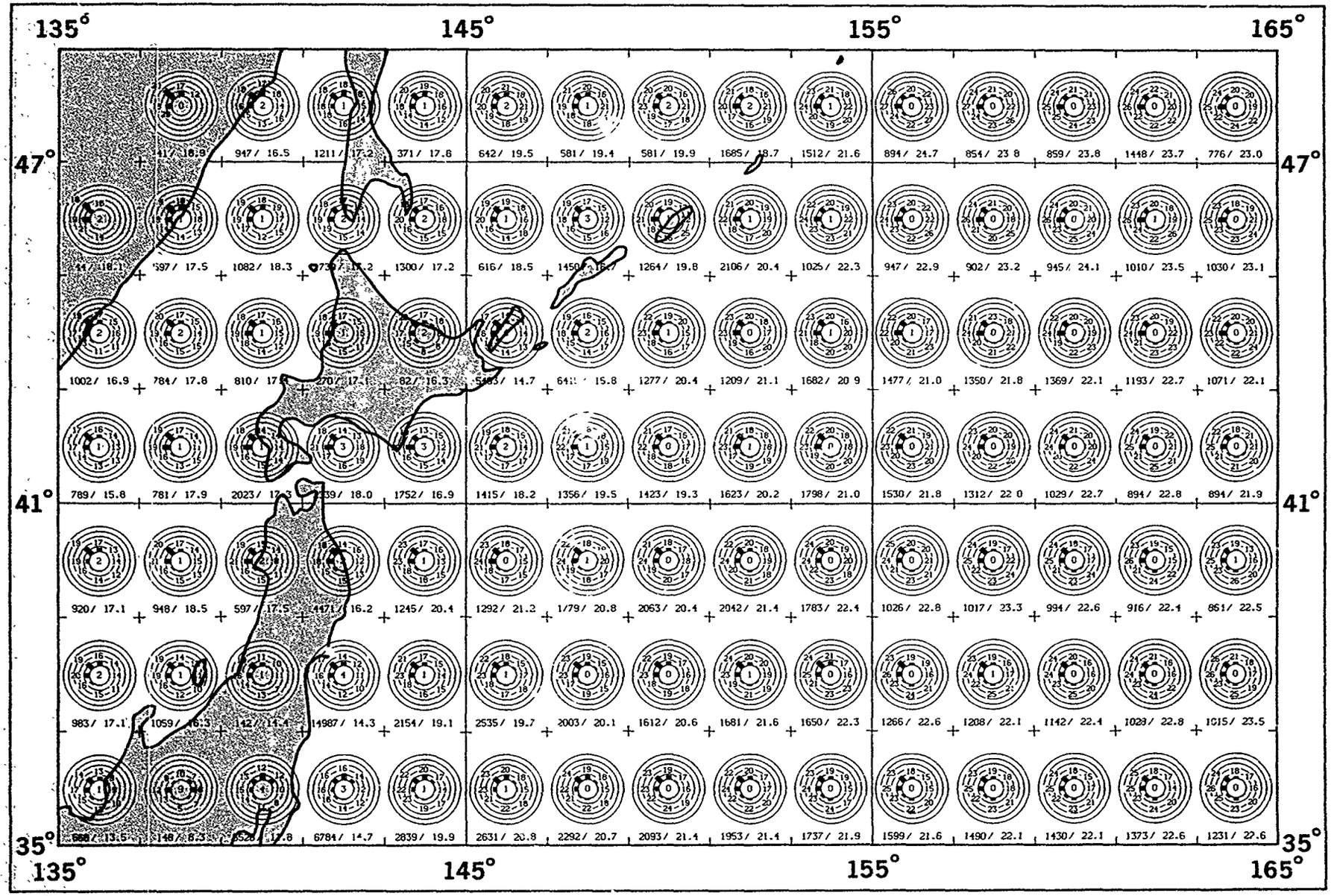


December

Wind Speed 11-21 and 22-33 Knots




SURFACE WIND ROSE
135°
145°
155°
165°
61°
55°
49°
98/ 14.5
52/ 21.4
38/ 21 2
18/ 19.9
34/ 17.4
62/ 17.2
351/ 15.9
1191/ 15.3
202/ 15.4
106/ 20.9
153/ 20.0
226/ 17.7
12/ 12.1
28/ 19.1
437/ 16.6
421/ 18.1
1151/ 17.5
756/ 17.5
117/ 17.9
134/ 16.5
404/ 18.0
153/ 18.9
328/ 18.8
477/ 18.4
347/ 16.7
71/ 17.0
215/ 15.9
1040/ 16.7
161/ 17.8
9/ 14.6
278/ 21.0
321/ 21.2
43/ 16.9
54/ 15.6
198/ 14.8
633/ 18.4
410/ 21.2
642/ 22.0
271/ 15.4
435/ 19.6
211/ 20.5
104/ 19.5
403/ 20.3
1052/ 19.6
3782/ 18.1
1315/ 20.9
735/ 23.4
889/ 24.8
756/ 23.4

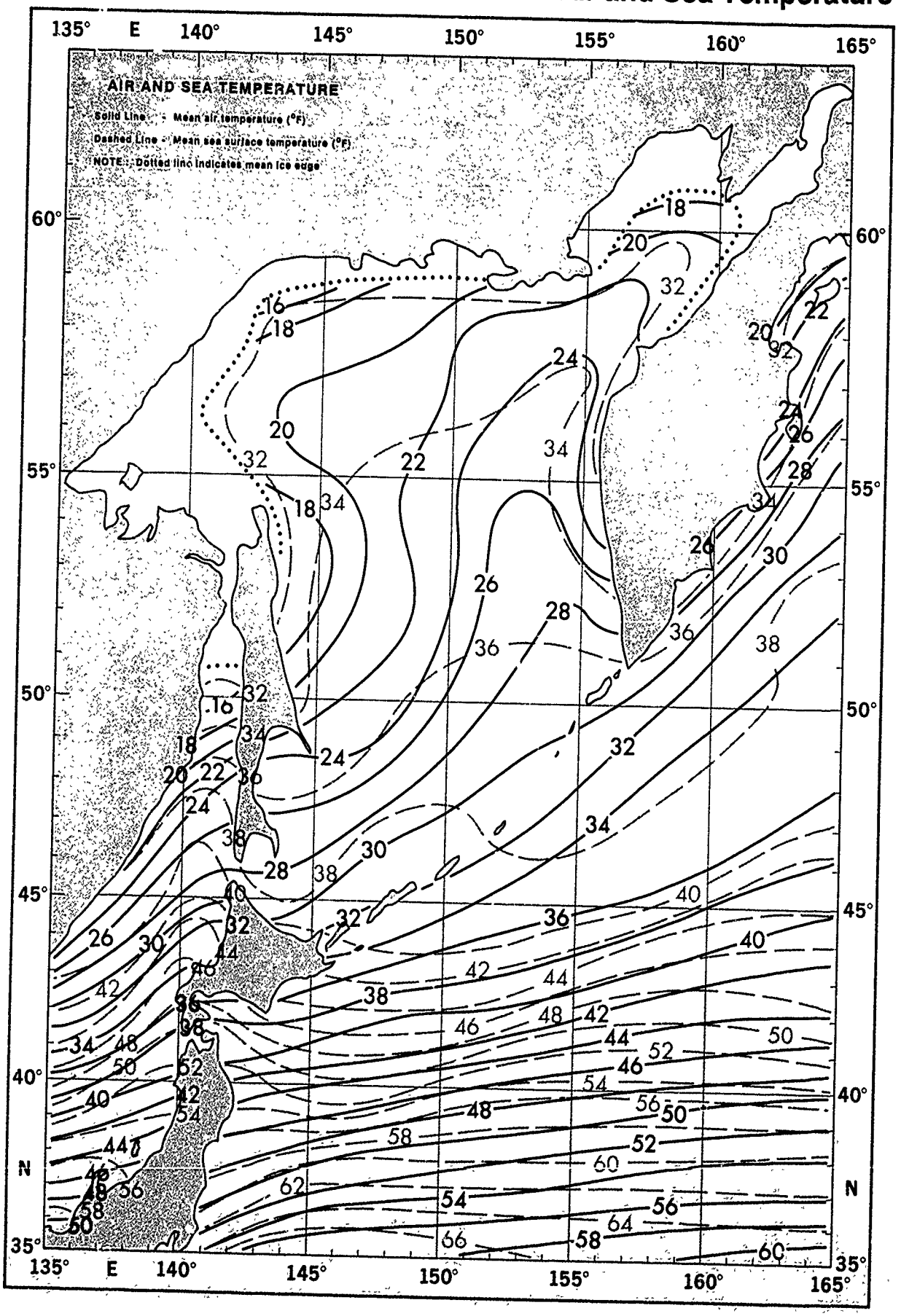


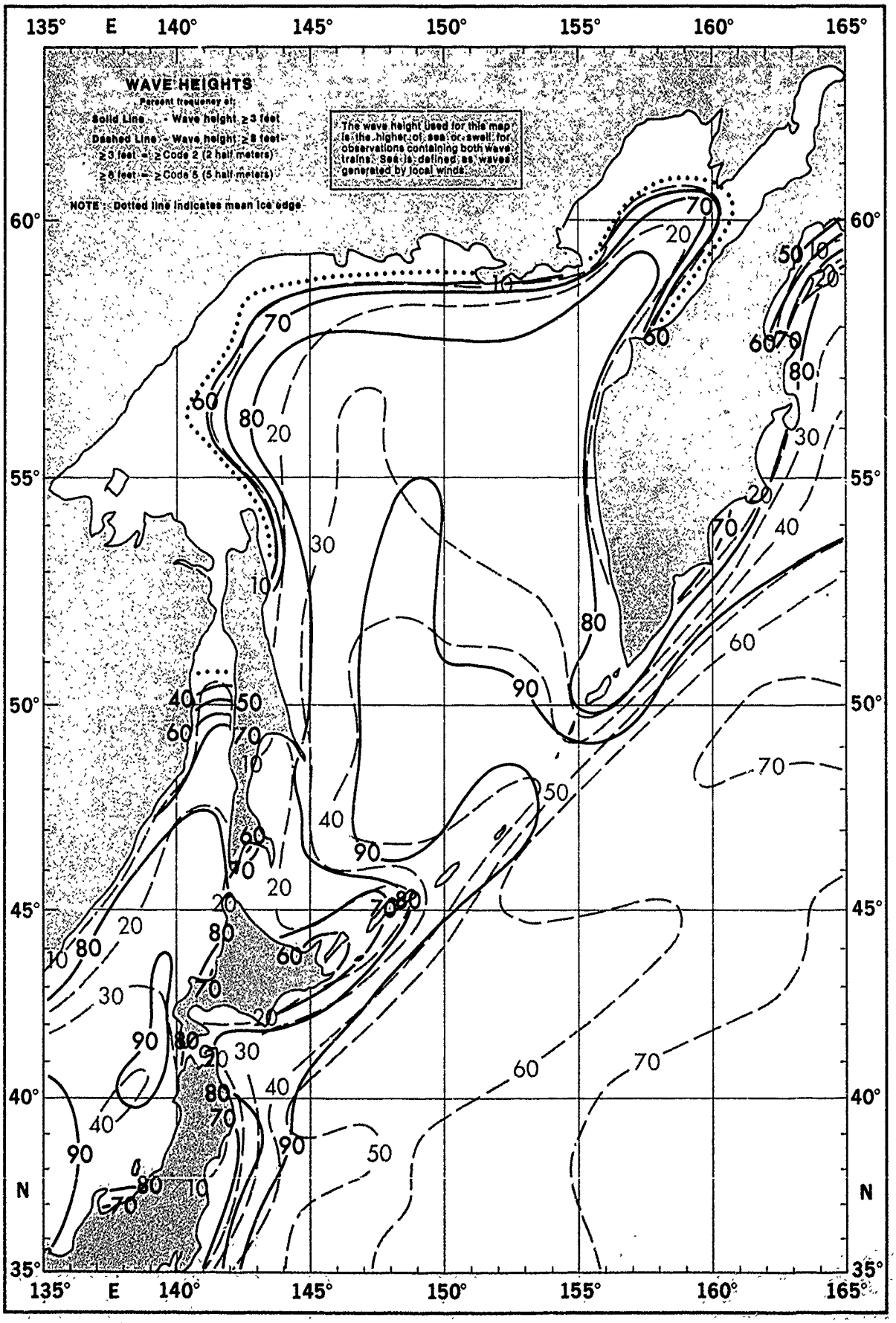
December

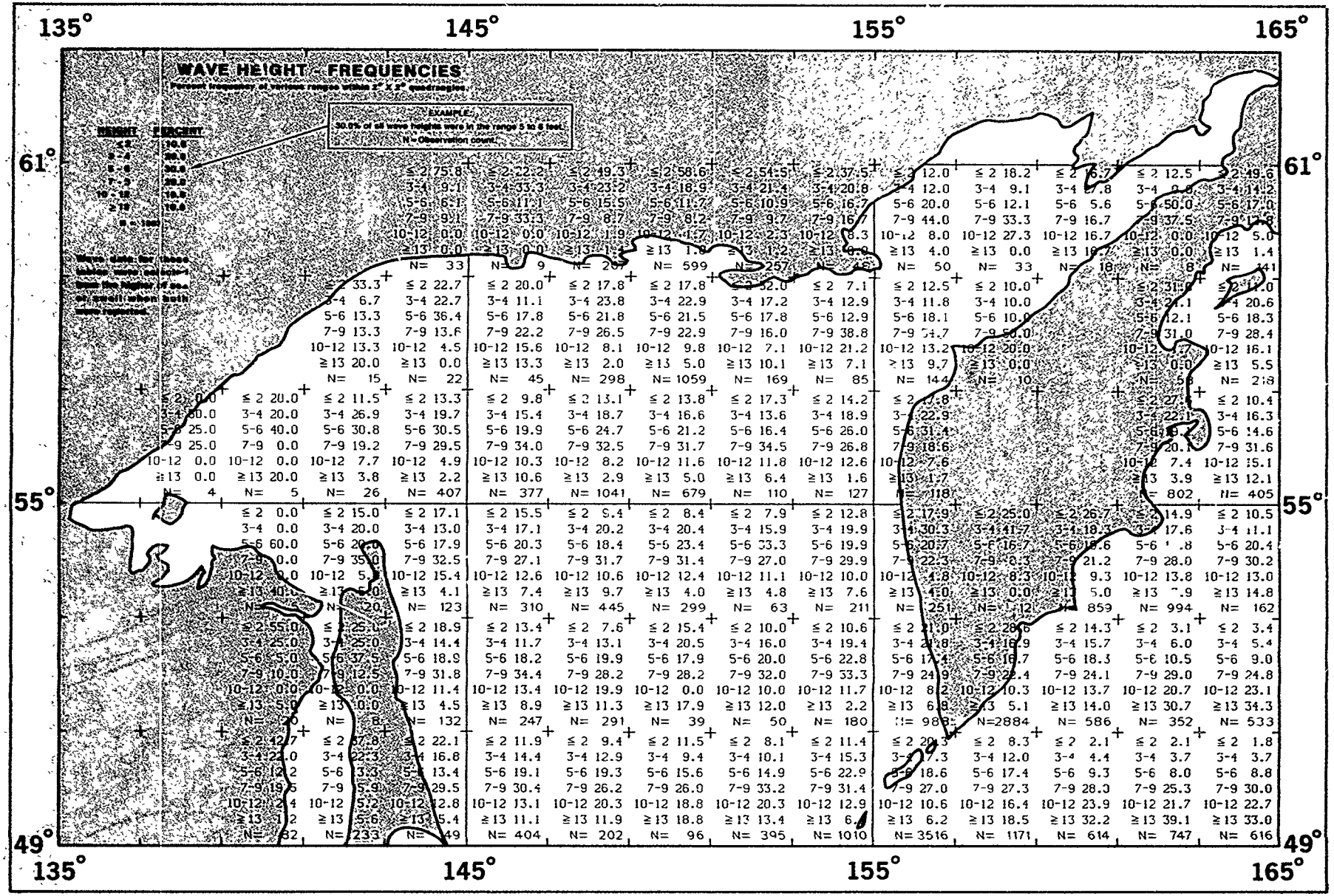
Surface Wind Roses

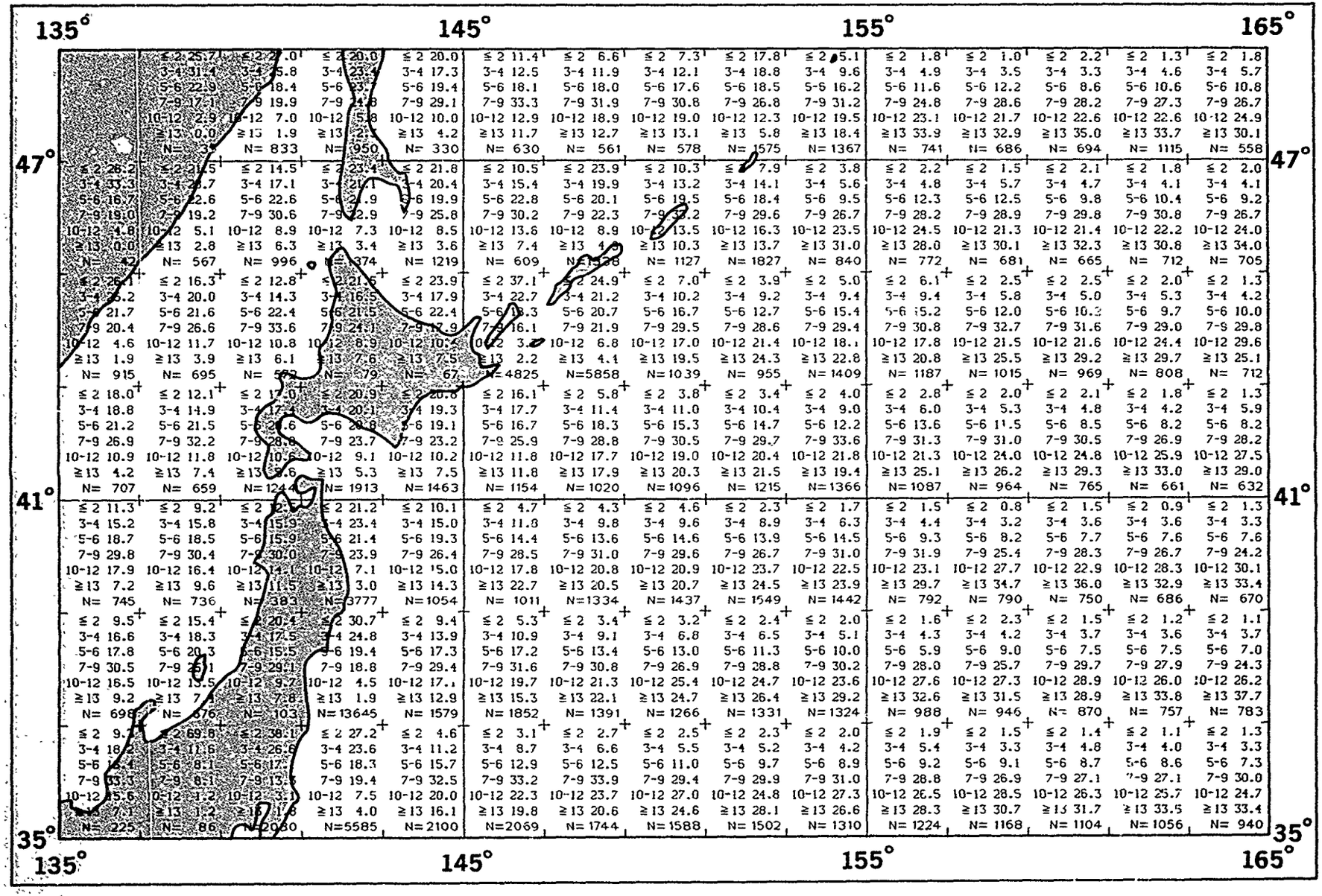
December

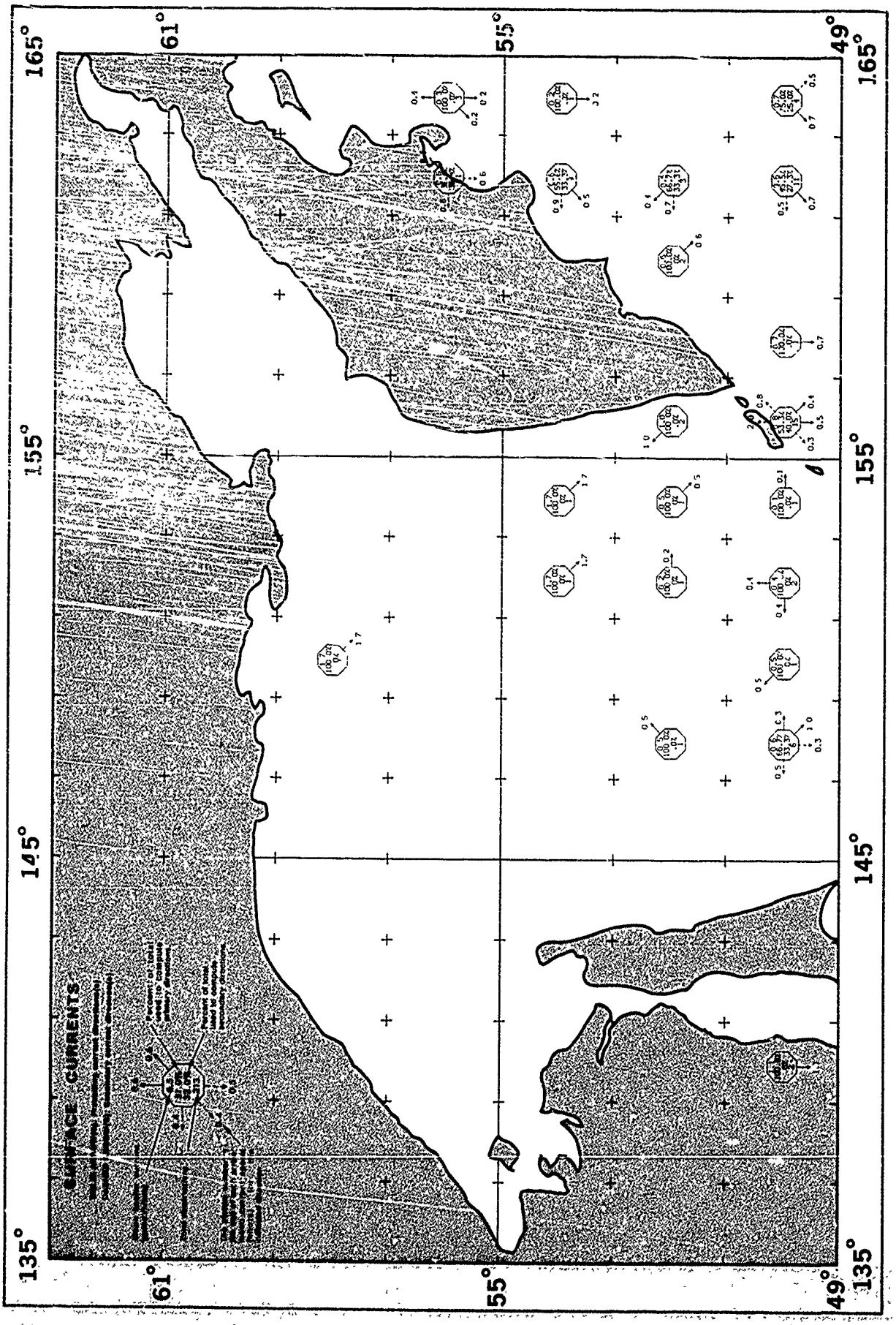
Mean Air and Sea Temperature

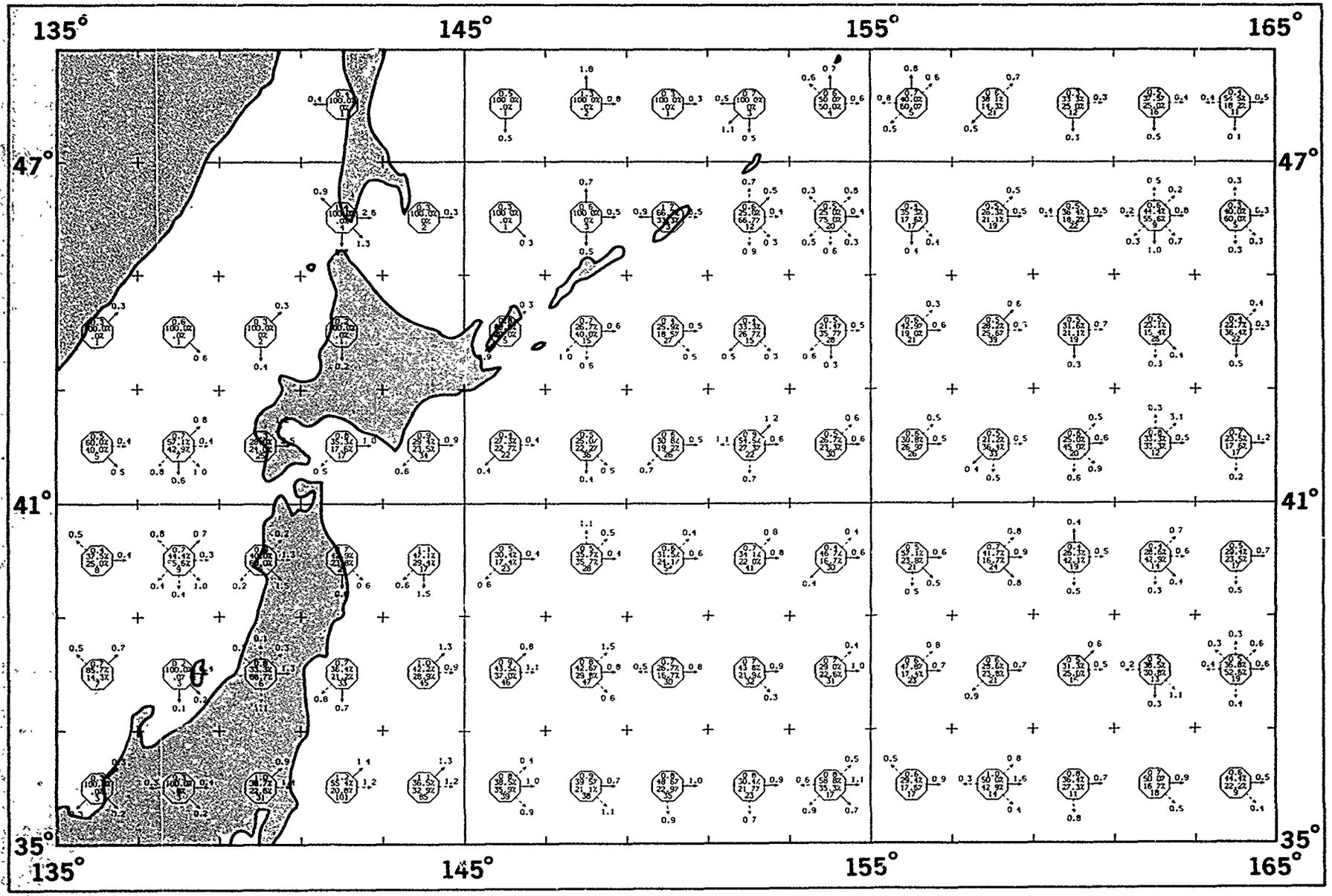



WAVE HEIGHTS
Percent frequency of:
Solid Line - Wave height ≥ 3 feet
Dashed Line - Wave height ≥ 8 feet
≥ 3 feet = ≥ Code 2 (2 half meters)
≥ 8 feet = ≥ Code 5 (5 half meters)
NOTE: Dotted line indicates mean ice edge
The wave height used for this map is the higher of sea or swell for observations containing both wave trains. Sea is defined as waves generated by local winds.
135° E 140° 145° 150° 155° 160° 165°
60° 55° 50° 45° 40° 35° N


135°
145°
155°
165°
61°
55°
49°
WAVE HEIGHT - FREQUENCIES
Percent frequency of various ranges within 2° x 2° quadrangles.
EXAMPLE:
30.0% of all wave heights were in the range 5 to 8 feet.
N = Observation count.
HEIGHT PERCENT
≤2 10.0
3 - 4 20.0
5 - 8 30.0
9 - 12 20.0
10 - 16 10.0
≥ 13 10.0
N = 100
Wave data for these 2-degree areas will apply when the higher of sea or swell when both have frequencies.
N= 33 N= 9 N= 267 N= 599 N= 257 N= 48
≤ 2 75.8 ≤ 2 22.2 ≤ 2 49.3 ≤ 2 58.6 ≤ 2 54.5 ≤ 2 37.5
3-4 9.1 3-4 33.3 3-4 23.2 3-4 18.9 3-4 21.4 3-4 20.8
5-6 6.1 5-6 11.1 5-6 15.5 5-6 11.7 5-6 10.9 5-6 16.7
7-9 9.1 7-9 33.3 7-9 8.7 7-9 8.2 7-9 9.7 7-9 16.7
10-12 0.0 10-12 0.0 10-12 1.9 10-12 1.7 10-12 2.3 10-12 8.3
≥13 0.0 ≥13 0.0 ≥13 1.9 ≥13 1.0 ≥13 1.2 ≥13 8.3
N= 15 N= 22 N= 45 N= 298 N= 1059 N= 169 N= 85
≤ 2 33.3 ≤ 2 22.7 ≤ 2 20.0 ≤ 2 17.8 ≤ 2 17.8 ≤ 2 12.0 ≤ 2 7.1
3-4 6.7 3-4 22.7 3-4 11.1 3-4 23.8 3-4 22.9 3-4 17.2 3-4 12.9
5-6 13.3 5-6 36.4 5-6 17.8 5-6 21.8 5-6 21.5 5-6 17.8 5-6 12.9
7-9 13.3 7-9 13.6 7-9 22.2 7-9 26.5 7-9 22.9 7-9 16.0 7-9 38.8
10-12 13.3 10-12 4.5 10-12 15.6 10-12 8.1 10-12 9.8 10-12 7.1 10-12 21.2
≥13 20.0 ≥13 0.0 ≥13 13.3 ≥13 2.0 ≥13 5.0 ≥13 10.1 ≥13 7.1
N= 5 N= 26 N= 407 N= 377 N= 1041 N= 679 N= 110 N= 127
≤ 2 0.0 ≤ 2 20.0 ≤ 2 11.5 ≤ 2 13.3 ≤ 2 9.8 ≤ 2 13.1 ≤ 2 13.8 ≤ 2 17.3 ≤ 2 14.2
3-4 0.0 3-4 20.0 3-4 26.9 3-4 19.7 3-4 15.4 3-4 18.7 3-4 16.6 3-4 13.6 3-4 18.9
5-6 60.0 5-6 40.0 5-6 30.8 5-6 30.5 5-6 19.9 5-6 24.7 5-6 21.2 5-6 16.4 5-6 26.0
7-9 0.0 7-9 0.0 7-9 19.2 7-9 29.5 7-9 34.0 7-9 32.5 7-9 31.7 7-9 34.5 7-9 26.8
10-12 0.0 10-12 0.0 10-12 7.7 10-12 4.9 10-12 10.3 10-12 8.2 10-12 11.6 10-12 11.8 10-12 12.6
≥13 40.0 ≥13 20.0 ≥13 3.8 ≥13 2.2 ≥13 10.6 ≥13 2.9 ≥13 5.0 ≥13 6.4 ≥13 1.6
N= 20 N= 8 N= 132 N= 247 N= 291 N= 39 N= 50 N= 180
≤ 2 55.0 ≤ 2 25.0 ≤ 2 18.9 ≤ 2 13.4 ≤ 2 7.6 ≤ 2 15.4 ≤ 2 10.0 ≤ 2 10.6
3-4 25.0 3-4 25.0 3-4 14.4 3-4 11.7 3-4 13.1 3-4 20.5 3-4 16.0 3-4 19.4
5-6 5.0 5-6 37.5 5-6 18.9 5-6 18.2 5-6 19.9 5-6 17.9 5-6 20.0 5-6 22.8
7-9 10.0 7-9 12.5 7-9 31.8 7-9 34.4 7-9 28.2 7-9 28.2 7-9 32.0 7-9 33.3
10-12 0.0 10-12 0.0 10-12 11.4 10-12 13.4 10-12 19.9 10-12 0.0 10-12 10.0 10-12 11.7
≥13 5.0 ≥13 0.0 ≥13 4.5 ≥13 8.9 ≥13 11.3 ≥13 17.9 ≥13 12.0 ≥13 2.2
N= 20 N= 8 N= 132 N= 247 N= 291 N= 39 N= 50 N= 180
≤ 2 42.7 ≤ 2 37.8 ≤ 2 22.1 ≤ 2 11.9 ≤ 2 9.4 ≤ 2 11.5 ≤ 2 8.1 ≤ 2 11.4
3-4 22.0 3-4 22.3 3-4 16.8 3-4 14.4 3-4 12.9 3-4 9.4 3-4 10.1 3-4 15.3
5-6 12.2 5-6 13.3 5-6 13.4 5-6 19.1 5-6 19.3 5-6 15.6 5-6 14.9 5-6 22.9
7-9 19.5 7-9 5.9 7-9 29.5 7-9 30.4 7-9 26.2 7-9 26.0 7-9 33.2 7-9 31.4
10-12 2.4 10-12 5.2 10-12 12.8 10-12 13.1 10-12 20.3 10-12 18.8 10-12 20.3 10-12 12.9
≥13 1.2 ≥13 5.6 ≥13 5.4 ≥13 11.1 ≥13 11.9 ≥13 18.8 ≥13 13.4 ≥13 6.4
N= 82 N= 233 N= 49 N= 404 N= 202 N= 96 N= 395 N= 1010
≤ 2 12.0 ≤ 2 18.2 ≤ 2 16.7 ≤ 2 12.5 ≤ 2 49.6
3-4 12.0 3-4 9.1 3-4 5.6 3-4 14.2
5-6 20.0 5-6 12.1 5-6 5.6 5-6 17.0
7-9 44.0 7-9 33.3 7-9 16.7 7-9 12.8
10-12 8.0 10-12 27.3 10-12 16.7 10-12 5.0
≥13 4.0 ≥13 0.0 ≥13 1.4
N= 50 N= 33 N= 18 N= 141
≤ 2 12.5 ≤ 2 10.0 ≤ 2 20.6
3-4 11.8 3-4 10.0 5-6 18.3
5-6 18.1 5-6 10.0 7-9 28.4
7-9 54.7 7-9 50.0 10-12 16.1
10-12 13.2 10-12 20.0 ≥13 5.5
≥13 9.7 ≥13 0.0 N= 218
N= 144 N= 10
≤ 2 10.4
3-4 16.3
5-6 14.6
7-9 31.6
10-12 15.1
≥13 12.1
N= 405
≤ 2 10.5
3-4 11.1
5-6 20.4
7-9 30.2
10-12 13.0
≥13 14.8
N= 162
≤ 2 3.4
3-4 5.4
5-6 9.0
7-9 24.8
10-12 23.1
≥13 34.3
N= 533
≤ 2 1.8
3-4 3.7
5-6 8.8
7-9 30.0
10-12 22.7
≥13 33.0
N= 616


135°
145°
155°
165°
47°
41°
35°
≦2 25.7 ≦2 27.0 ≦2 20.0 ≦2 20.0 ≦2 11.4 ≦2 6.6 ≦2 7.3 ≦2 17.8 ≦2 5.1 ≦2 1.8 ≦2 1.0 ≦2 2.2 ≦2 1.3 ≦2 1.8
3-4 31.4 3-4 25.8 3-4 23.4 3-4 17.3 3-4 12.5 3-4 11.9 3-4 12.1 3-4 18.8 3-4 9.6 3-4 4.9 3-4 3.5 3-4 3.3 3-4 4.6 3-4 5.7
5-6 22.9 5-6 18.4 5-6 23.7 5-6 19.4 5-6 18.1 5-6 18.0 5-6 17.6 5-6 18.5 5-6 16.2 5-6 11.6 5-6 12.2 5-6 8.6 5-6 10.6 5-6 10.8
7-9 17.1 7-9 19.9 7-9 24.8 7-9 29.1 7-9 33.3 7-9 31.9 7-9 30.8 7-9 26.8 7-9 31.2 7-9 24.8 7-9 28.6 7-9 28.2 7-9 27.3 7-9 26.7
10-12 2.9 10-12 7.0 10-12 5.8 10-12 10.0 10-12 12.9 10-12 18.9 10-12 19.0 10-12 12.3 10-12 19.5 10-12 23.1 10-12 21.7 10-12 22.6 10-12 22.6 10-12 24.9
≧13 0.0 ≧13 1.9 ≧13 2.1 ≧13 4.2 ≧13 11.7 ≧13 12.7 ≧13 13.1 ≧13 5.8 ≧13 18.4 ≧13 33.9 ≧13 32.9 ≧13 35.0 ≧13 33.7 ≧13 30.1
N= 3 N= 833 N= 950 N= 330 N= 630 N= 561 N= 578 N= 1575 N= 1367 N= 741 N= 686 N= 694 N= 1115 N= 558
≦2 26.2 ≦2 21.5 ≦2 14.5 ≦2 23.4 ≦2 21.8 ≦2 10.5 ≦2 23.9 ≦2 10.3 ≦2 7.9 ≦2 3.8 ≦2 2.2 ≦2 1.5 ≦2 2.1 ≦2 1.8 ≦2 2.0
3-4 33.3 3-4 28.7 3-4 17.1 3-4 21.1 3-4 20.4 3-4 15.4 3-4 19.9 3-4 13.2 3-4 14.1 3-4 5.7 3-4 4.8 3-4 5.7 3-4 4.7 3-4 4.1 3-4 4.1
5-6 16.7 5-6 22.6 5-6 22.6 5-6 21.9 5-6 19.9 5-6 22.8 5-6 20.1 5-6 19.5 5-6 18.4 5-6 9.5 5-6 12.3 5-6 12.5 5-6 9.8 5-6 10.4 5-6 9.2
7-9 19.0 7-9 19.2 7-9 30.6 7-9 22.9 7-9 25.8 7-9 30.2 7-9 22.3 7-9 [illegible].2 7-9 29.6 7-9 26.7 7-9 28.2 7-9 28.9 7-9 29.8 7-9 30.8 7-9 26.7
10-12 4.8 10-12 5.1 10-12 8.9 10-12 7.3 10-12 8.5 10-12 13.6 10-12 8.9 10-12 13.5 10-12 16.3 10-12 23.5 10-12 24.5 10-12 21.3 10-12 21.4 10-12 22.2 10-12 24.0
≧13 0.0 ≧13 2.8 ≧13 6.3 ≧13 3.4 ≧13 3.6 ≧13 7.4 ≧13 4.9 ≧13 10.3 ≧13 13.7 ≧13 31.0 ≧13 28.0 ≧13 30.1 ≧13 32.3 ≧13 30.8 ≧13 34.0
N= 42 N= 567 N= 996 N= 1374 N= 1219 N= 609 N= 1338 N= 1127 N= 1827 N= 840 N= 772 N= 681 N= 665 N= 712 N= 705
≦2 26.1 ≦2 16.3 ≦2 12.8 ≦2 21.5 ≦2 23.9 ≦2 37.1 ≦2 24.9 ≦2 7.0 ≦2 3.9 ≦2 5.0 ≦2 6.1 ≦2 2.5 ≦2 2.5 ≦2 2.0 ≦2 1.3
3-4 35.2 3-4 20.0 3-4 14.3 3-4 16.5 3-4 17.9 3-4 22.7 3-4 21.2 3-4 10.2 3-4 9.2 3-4 9.4 3-4 9.4 3-4 5.8 3-4 5.0 3-4 5.3 3-4 4.2
5-6 21.7 5-6 21.6 5-6 22.4 5-6 21.5 5-6 22.4 5-6 [illegible].3 5-6 20.7 5-6 16.7 5-6 12.7 5-6 15.4 5-6 15.2 5-6 12.0 5-6 10.3 5-6 9.7 5-6 10.0
7-9 20.4 7-9 26.6 7-9 33.6 7-9 24.1 7-9 [illegible].9 7-9 16.1 7-9 21.9 7-9 29.5 7-9 28.6 7-9 29.4 7-9 30.8 7-9 32.7 7-9 31.6 7-9 29.0 7-9 29.8
10-12 4.6 10-12 11.7 10-12 10.8 10-12 8.9 10-12 10.4 10-12 3.2 10-12 6.8 10-12 17.0 10-12 21.4 10-12 18.1 10-12 17.8 10-12 21.5 10-12 21.6 10-12 24.4 10-12 29.6
≧13 1.9 ≧13 3.9 ≧13 6.1 ≧13 7.6 ≧13 7.5 ≧13 2.2 ≧13 4.1 ≧13 19.5 ≧13 24.3 ≧13 22.8 ≧13 20.8 ≧13 25.5 ≧13 29.2 ≧13 29.7 ≧13 25.1
N= 915 N= 695 N= 563 N= 79 N= 67 N=4825 N=5858 N=1039 N= 955 N=1409 N= 1187 N= 1015 N= 969 N= 808 N= 712
≦2 18.0 ≦2 12.1 ≦2 17.0 ≦2 20.9 ≦2 20.8 ≦2 16.1 ≦2 5.8 ≦2 3.8 ≦2 3.4 ≦2 4.0 ≦2 2.8 ≦2 2.0 ≦2 2.1 ≦2 1.8 ≦2 1.3
3-4 18.8 3-4 14.9 3-4 17.4 3-4 20.1 3-4 19.3 3-4 17.7 3-4 11.4 3-4 11.0 3-4 10.4 3-4 9.0 3-4 6.0 3-4 5.3 3-4 4.8 3-4 4.2 3-4 5.9
5-6 21.2 5-6 21.5 5-6 [illegible].6 5-6 20.8 5-6 19.1 5-6 16.7 5-6 18.3 5-6 15.3 5-6 14.7 5-6 12.2 5-6 13.6 5-6 11.5 5-6 8.5 5-6 8.2 5-6 8.2
7-9 26.9 7-9 32.2 7-9 28.8 7-9 23.7 7-9 23.2 7-9 25.9 7-9 28.8 7-9 30.5 7-9 29.7 7-9 33.6 7-9 31.3 7-9 31.0 7-9 30.5 7-9 26.9 7-9 28.2
10-12 10.9 10-12 11.8 10-12 10.6 10-12 9.1 10-12 10.2 10-12 11.8 10-12 17.7 10-12 19.0 10-12 20.4 10-12 21.8 10-12 21.3 10-12 24.0 10-12 24.8 10-12 25.9 10-12 27.5
≧13 4.2 ≧13 7.4 ≧13 [illegible].6 ≧13 5.3 ≧13 7.5 ≧13 11.8 ≧13 17.9 ≧13 20.3 ≧13 21.5 ≧13 19.4 ≧13 25.1 ≧13 26.2 ≧13 29.3 ≧13 33.0 ≧13 29.0
N= 707 N= 659 N= 124 N= 1913 N= 1463 N= 1154 N= 1020 N= 1096 N= 1215 N=1366 N= 1087 N= 964 N= 765 N= 661 N= 632
≦2 11.3 ≦2 9.2 ≦2 [illegible] ≦2 21.2 ≦2 10.1 ≦2 4.7 ≦2 4.3 ≦2 4.6 ≦2 2.3 ≦2 1.7 ≦2 1.5 ≦2 0.8 ≦2 1.5 ≦2 0.9 ≦2 1.3
3-4 15.2 3-4 15.8 3-4 15.9 3-4 23.4 3-4 15.0 3-4 11.8 3-4 9.8 3-4 9.6 3-4 8.9 3-4 6.3 3-4 4.4 3-4 3.2 3-4 3.6 3-4 3.6 3-4 3.3
5-6 18.7 5-6 18.5 5-6 15.9 5-6 21.4 5-6 19.3 5-6 14.4 5-6 13.6 5-6 14.6 5-6 13.9 5-6 14.5 5-6 9.3 5-6 8.2 5-6 7.7 5-6 7.6 5-6 7.6
7-9 29.8 7-9 30.4 7-9 30.0 7-9 23.9 7-9 26.4 7-9 28.5 7-9 31.0 7-9 29.6 7-9 26.7 7-9 31.0 7-9 31.9 7-9 25.4 7-9 28.3 7-9 26.7 7-9 24.2
10-12 17.9 10-12 16.4 10-12 14.[illegible] 10-12 7.1 10-12 15.0 10-12 17.8 10-12 20.8 10-12 20.9 10-12 23.7 10-12 22.5 10-12 23.1 10-12 27.7 10-12 22.9 10-12 28.3 10-12 30.1
≧13 7.2 ≧13 9.6 ≧13 11.5 ≧13 3.0 ≧13 14.3 ≧13 22.7 ≧13 20.5 ≧13 20.7 ≧13 24.5 ≧13 23.9 ≧13 29.7 ≧13 34.7 ≧13 36.0 ≧13 32.9 ≧13 33.4
N= 745 N= 736 N= 383 N=3777 N=1054 N= 1011 N=1334 N= 1437 N= 1549 N= 1442 N= 792 N= 790 N= 750 N= 686 N= 670
≦2 9.5 ≦2 15.4 ≦2 [illegible] ≦2 30.7 ≦2 9.4 ≦2 5.3 ≦2 3.4 ≦2 3.2 ≦2 2.4 ≦2 2.0 ≦2 1.6 ≦2 2.3 ≦2 1.5 ≦2 1.2 ≦2 1.1
3-4 16.6 3-4 18.3 3-4 17.5 3-4 24.8 3-4 13.9 3-4 10.9 3-4 9.1 3-4 6.8 3-4 6.5 3-4 5.1 3-4 4.3 3-4 4.2 3-4 3.7 3-4 3.6 3-4 3.7
5-6 17.8 5-6 20.3 5-6 15.5 5-6 19.4 5-6 17.3 5-6 17.2 5-6 13.4 5-6 13.0 5-6 11.3 5-6 10.0 5-6 5.9 5-6 9.0 5-6 7.5 5-6 7.5 5-6 7.0
7-9 30.5 7-9 [illegible] 7-9 29.1 7-9 18.8 7-9 29.4 7-9 31.6 7-9 30.8 7-9 26.9 7-9 28.8 7-9 30.2 7-9 28.0 7-9 25.7 7-9 29.7 7-9 27.9 7-9 24.3
10-12 16.5 10-12 [illegible] 10-12 9.7 10-12 4.5 10-12 17.1 10-12 19.7 10-12 21.3 10-12 25.4 10-12 24.7 10-12 23.6 10-12 27.6 10-12 27.3 10-12 28.9 10-12 26.0 10-12 26.2
≧13 9.2 ≧13 7.1 ≧13 7.8 ≧13 1.9 ≧13 12.9 ≧13 15.3 ≧13 22.1 ≧13 24.7 ≧13 26.4 ≧13 29.2 ≧13 32.6 ≧13 31.5 ≧13 28.9 ≧13 33.8 ≧13 37.7
N= 698 N= 576 N= 103 N=13645 N= 1579 N= 1852 N= 1391 N= 1266 N= 1331 N= 1324 N= 988 N= 946 N= 870 N= 757 N= 783
≦2 9.[illegible] ≦2 69.8 ≦2 38.1 ≦2 27.2 ≦2 4.6 ≦2 3.1 ≦2 2.7 ≦2 2.5 ≦2 2.3 ≦2 2.0 ≦2 1.9 ≦2 1.5 ≦2 1.4 ≦2 1.1 ≦2 1.3
3-4 18.2 3-4 11.6 3-4 26.6 3-4 23.6 3-4 11.2 3-4 8.7 3-4 6.6 3-4 5.5 3-4 5.2 3-4 4.2 3-4 5.4 3-4 3.3 3-4 4.8 3-4 4.0 3-4 3.3
5-6 16.4 5-6 8.1 5-6 17.[illegible] 5-6 18.3 5-6 15.7 5-6 12.9 5-6 12.5 5-6 11.0 5-6 9.7 5-6 8.9 5-6 9.2 5-6 9.1 5-6 8.7 5-6 8.6 5-6 7.3
7-9 33.3 7-9 8.1 7-9 13.[illegible] 7-9 19.4 7-9 32.5 7-9 33.2 7-9 33.9 7-9 29.4 7-9 29.9 7-9 31.0 7-9 28.8 7-9 26.9 7-9 27.1 7-9 27.1 7-9 30.0
10-12 15.6 10-12 1.2 10-12 3.[illegible] 10-12 7.5 10-12 20.0 10-12 22.3 10-12 23.7 10-12 27.0 10-12 24.8 10-12 27.3 10-12 26.5 10-12 28.5 10-12 26.3 10-12 25.7 10-12 24.7
≧13 7.1 ≧13 1.2 ≧13 [illegible].8 ≧13 4.0 ≧13 16.1 ≧13 19.8 ≧13 20.6 ≧13 24.6 ≧13 28.1 ≧13 26.6 ≧13 28.3 ≧13 30.7 ≧13 31.7 ≧13 33.5 ≧13 33.4
N= 225 N= 86 N=2080 N=5585 N=2100 N=2069 N= 1744 N=1588 N= 1502 N= 1310 N= 1224 N= 1168 N= 1104 N= 1056 N= 940


165°
61°
55°
49°
155°
145°
135°
SURFACE CURRENTS



December

Surface Currents

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 043319: Atsugi, Japan **LAT: 35°27'N** **LONG: 139°27'E** **ELEV: 200 Ft**

Period of record (hourly): 1951-1987 **Period of record (daily): 1951-1971**

	TEMPERATURE (DEG F)					PRECIPITATION (INCHES)								REL HUM		VAP	DEW	PR	WIND (KTS)			MEAN NO. OF DAYS WITH (&)									
	MEANS			EXTREME		PRECIP.			SNOWFALL (@)					PERCENT		PR	PT.	ALT				SKY	PRECIP.		SNOW-			TEMP (DEG F)			
							24HI			24HI				(LST)		IN.	(F)	FT.	PREVAIL	MAX	CVR	INCHES			FALL(")	ITH	FOG	MAX	MAX	MIN	MIN
	MAX	MIN	AVG	MAX	MIN	MEAN	MAX	MO	MAX	MEAN	MAX	MAX	04	13	HG.		$	DIR	SPD	GST	*	>=1	>	>=1	>=1	STN	*	>=1	>=1	<=1	<=
																						.01	.50	1.0	1.5			90	75	32	20
JAN	50	28	39	75	9	1.9	5.3	.1	1.6	1	11	6	66	44	.13	24	80	N	7	51	CLR	6	2	1	#	#	8	0	#	23	3
FEB	51	30	40	77	16	2.0	5.1	.4	1.9	3	14	11	67	46	.14	26	80	N	7	52	OVR	8	1	2	1	#	10	0	#	19	2
MAR	56	36	46	75	18	3.8	6.6	1.8	2.9	2	20	12	73	51	.19	33	85	N	8	49	OVR	11	3	1	#	#	15	0	#	10	#
APR	65	46	56	86	26	4.8	8.2	1.6	2.8	T	3	3	79	57	.30	45	80	N	8	54	OVR	13	3	#	#	#	19	0	3	1	0
MAY	72	54	64	87	36	5.9	12.3	2.4	3.3	T	T	T	85	60	.43	54	80	S	10	49	OVR	13	4	0	0	1	23	0	12	0	0
JUN	77	62	70	93	48	7.6	15.6	2.4	8.8	0	0	0	89	68	.58	63	75	S	9	50	OVR	14	4	0	0	1	25	#	21	0	0
JUL	83	70	77	97	57	5.6	12.0	1.0	3.8	0	0	0	91	71	.74	70	70	S	8	61	OVR	13	4	0	0	1	26	5	29	0	0
AUG	87	72	79	102	60	5.7	12.6	2.3	4.2	0	0	0	89	67	.79	72	70	S	9	52	OVR	12	4	0	0	3	24	10	30	0	0
SEP	80	65	73	95	47	7.1	14.1	.4	7.3	0	0	0	88	68	.63	65	70	N	7	80	OVR	13	4	0	0	1	23	2	24	0	0
OCT	70	54	62	88	36	5.7	12.4	2.7	4.1	0	0	0	84	62	.41	53	70	N	7	55	OVR	13	4	0	0	#	21	0	8	0	0
NOV	62	43	53	79	24	3.1	6.4	.6	2.7	T	T	T	78	55	.27	42	70	N	7	48	OVR	10	2	0	0	#	15	0	1	2	0
DEC	55	33	44	74	16	2.3	8.7	.3	3.3	T	T	T	71	48	.17	31	75	N	6	45	CLR	6	2	0	0	#	11	0	0	15	1
ANN	67	50	59	102	9	55.6	68.5	41.2	8.8	7	30	12	80	58	.34	48	80	N	8	80	OVR	133	37	3	1	8	225	17	129	72	6
POR	21	21	21	21	21	21	21	21	21	21	21	21	37	37	37	37	37	37	37	21	37	21	21	21	21	21	21	21	21	21	21

NOTES:

- T - Trace amounts (<.05 inch liquid, <.5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, mist included when reported
- & - Annual totals may differ from the sum of the monthly values because of round.ng
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
	PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET & VISIBILITY LESS THAN 5.00 MILES													
00	22	31	38	38	40	54	61	47	49	46	40	30	41	37
03	19	27	38	41	44	64	68	55	53	42	34	24	42	37
06	17	26	40	51	56	72	77	69	65	49	37	22	47	37
09	35	36	40	44	44	63	71	62	54	43	41	48	48	37
12	17	25	36	41	39	58	61	53	52	37	30	26	39	37
15	23	32	38	39	31	51	50	43	47	37	33	29	37	37
18	32	42	45	41	35	51	49	45	58	52	48	46	45	37
21	28	36	38	36	34	50	53	43	51	50	49	41	42	37
ALL	24	32	39	41	40	58	61	52	54	45	39	33	43	37
	PERCENT OF HOURS WITH CEILING LESS THAN 1500 FEET & VISIBILITY LESS THAN 3.00 MILES													
00	6	10	11	15	18	28	34	22	23	17	13	8	17	37
03	5	8	9	16	21	36	44	30	27	15	9	5	18	37
06	3	8	14	24	29	46	55	44	36	19	10	4	23	37
09	9	14	14	20	18	36	39	29	25	15	13	15	20	37
12	6	9	12	16	15	28	27	21	21	12	8	8	15	37
15	8	13	15	15	13	23	20	16	19	12	13	11	14	37
18	13	18	20	17	16	27	25	20	27	20	20	20	20	37
21	9	12	13	14	14	25	26	19	20	17	19	17	17	37
ALL	8	11	14	17	18	31	34	25	25	16	13	11	18	37
	PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET & VISIBILITY LESS THAN 3.00 MILES													
00	6	10	9	13	16	26	31	20	20	15	12	7	15	37
03	5	7	8	13	19	31	41	27	24	12	9	4	16	37
06	2	7	13	22	29	45	52	42	34	18	9	4	22	37
09	9	13	13	18	17	33	34	25	23	14	13	15	18	37
12	6	8	11	15	13	24	24	18	19	11	8	8	13	37
15	8	12	12	13	12	20	17	14	16	11	12	10	13	37
18	13	17	20	16	16	25	23	18	26	19	20	19	19	37
21	9	11	11	13	12	23	24	17	17	16	17	16	15	37
ALL	7	11	12	15	17	28	31	22	22	14	12	10	17	37
	PERCENT OF HOURS WITH CEILING LESS THAN 400 FEET & VISIBILITY LESS THAN 1 MILES													
00	1	1	2	2	4	4	6	3	3	1	1	1	2	37
03	1	2	2	3	4	6	12	7	5	2	1	1	4	37
06	0*	1	2	5	6	12	19	11	7	3	1	0*	5	37
09	0*	1	1	2	2	4	4	1	1	1	1	1	1	37
12	1	2	2	2	2	2	2	1	1	1	1	0*	1	37
15	1	2	2	1	2	2	2	1	2	1	1	1	1	37
18	1	3	3	3	3	4	4	1	3	1	1	1	2	37
21	0*	1	1	2	2	3	3	2	1	1	1	1	1	37
ALL	1	2	2	3	3	5	6	3	3	1	1	1	2	37
	PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET & VISIBILITY LESS THAN 1/2 MILES													
00	0*	1	0*	0*	1	1	2	1	1	1	0*	1	1	37
03	0*	0*	1	2	1	3	5	3	1	1	0	0*	1	37
06	0*	0*	1	2	2	3	6	4	1	1	1	0*	2	37
09	0	0	0	0	0	0	0*	0*	0	0	0	0	0*	37
12	0*	0*	0*	0	0*	0*	0*	0*	0	0	0	0	0*	37
15	0	0*	0*	0	0*	0	0*	0	0*	0	0	0*	0*	37
18	0*	0*	0*	1	0*	0*	0*	0	0*	0	0	0*	0*	37
21	0*	0*	0*	0*	0	0*	1	0	0*	0*	0*	0*	0*	37
ALL	0*	0*	0*	1	1	1	2	1	0*	0*	0*	0*	1	37

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 311740: Bolshoy Santar Island, USSR LAT: 54°50'N LONG: 137°32'E ELEV: 56 Ft

Period of record (hourly): 1973-1988 Period of record (daily): 1973-1988

	TEMPERATURE (DEG F) MEANS			EXTREME		REL HUM (PERCENT) (LST)		VAPOR PR (LST)	DEW PT. (LST)	PR ALT.	WIND (KTS)			TOT CKY	TEMP (DEG F)				MEAN NO. OF DAYS WITH (&) PRECIPITATION				OBSTR TO VISION				
	MAX	MIN	AVG	MAX	MIN	AM	PM	IN.		FT. $	PREVAIL DIR	MAX SPD	MAX SPD	+	MAX >=90	MAX >=75	MIN <=45	MIN <=32	FRZ R/DZ	FRZ R/DZ	SNOW	HAIL SLT	TH PRCP	TH STM	FOG *	SMOK HAZE	BLOW SNOW	DUST SAND	OBS VIS
JAN	2	-13	-4	32	-40	85	77	.02	-9	70	NW	8	35	OVR	0	0	31	31	#	0	13	0	13	#	#	0	5	0	5
FEB	6	-12	-2	30	-40	85	73	.02	-7	60	N	7	31	OVR	0	0	28	28	#	0	10	0	10	#	1	#	4	0	5
MAR	18	-5	7	39	-31	90	70	.04	1	50	N	7	35	OVR	0	0	31	31	1	0	8	0	8	#	1	#	4	#	5
APR	32	15	24	55	-21	91	74	.10	19	75	N	8	35	OVR	0	0	30	30	1	0	12	0	12	#	3	0	1	#	4
MAY	41	29	35	68	10	92	76	.17	30	80	N	7	25	OVR	0	0	31	26	7	#	9	0	12	0	5	#	#	#	5
JUN	52	36	44	81	21	91	77	.24	39	65	N	6	27	OVR	0	#	29	9	8	C	#	0	9	#	10	#	0	#	10
JUL	59	44	52	88	28	95	85	.34	48	65	N	6	23	OVR	0	1	18	#	11	0	0	0	11	1	12	#	0	0	13
AUG	61	46	54	83	32	96	82	.37	50	70	N	6	23	OVR	0	1	13	#	12	0	#	0	12	1	7	0	0	0	7
SEP	55	37	46	74	19	94	72	.26	41	70	N	6	35	OVR	0	0	25	10	12	0	#	0	12	#	2	0	0	0	2
OCT	39	25	32	57	-4	83	66	.13	25	70	N	7	35	OVR	0	0	31	26	6	0	9	#	13	#	1	#	1	#	2
NOV	20	8	14	46	-24	82	76	.06	9	70	NW	9	37	OVR	0	0	29	29	1	0	17	0	18	#	1	#	6	1	7
DEC	7	-7	0	34	-40	84	81	.03	-3	65	NW	8	37	OVR	0	0	31	31	1	0	13	0	14	#	1	#	4	#	5
ANN	33	17	25	88	-40	89	76	.10	20	75	N	7	37	OVR	0	2	327	252	60	#	90	#	144	2	44	1	25	1	70
POR	16	16	16	16	16	15	15	15	15	15	15	15	16	11	16	16	16	16	15	15	15	15	15	16	16	15	15	15	15

NOTES:

- T - Trace amounts (< 05 inch liquid, < .5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i e , 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, must included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

PERCENT OF HOURS WITH
CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	24	22	14	32	47	42	53	50	39	40	38	28	36	16
03	24	22	15	36	51	45	57	52	40	38	38	26	37	16
06	25	21	18	37	49	43	54	51	42	45	43	24	38	16
09	27	23	16	36	45	42	51	47	42	45	46	28	37	16
12	29	24	18	34	40	35	46	45	42	48	51	32	37	16
15	27	27	18	32	36	33	43	44	40	48	50	30	36	16
18	22	21	16	32	39	33	43	44	39	47	44	25	34	16
21	22	20	13	33	43	39	52	46	40	38	42	23	34	16
ALL	25	23	16	34	44	39	50	46	41	44	44	27	36	16

PERCENT OF HOURS WITH
CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	24	22	14	31	44	39	49	48	35	37	37	27	34	16
03	24	22	15	36	47	42	53	51	38	36	37	26	35	16
06	25	21	17	35	46	40	51	48	41	41	42	24	36	16
09	27	23	15	35	41	40	48	45	40	41	45	28	35	16
12	29	23	18	33	39	33	47	43	39	44	50	31	36	16
15	27	26	18	30	35	32	41	41	38	45	49	29	34	16
18	22	21	15	31	36	31	41	41	36	43	44	25	32	16
21	21	20	13	33	36	36	46	44	38	37	41	23	33	16
ALL	25	22	16	33	41	37	47	45	38	41	43	27	34	16

PERCENT OF HOURS WITH
CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 1.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	21	18	12	18	16	11	18	12	8	15	24	21	16	16
03	21	19	12	20	16	14	20	13	6	14	23	21	17	16
06	21	17	12	20	19	19	25	14	7	13	27	20	18	16
09	22	18	10	19	17	18	20	14	7	12	22	17	16	16
12	23	14	11	17	16	15	20	14	6	13	24	19	16	16
15	19	16	11	16	14	12	16	12	5	14	24	18	15	16
18	18	15	9	18	14	13	15	10	7	12	27	18	15	16
21	19	16	9	19	15	11	16	11	7	14	27	17	15	16
ALL	21	17	11	18	16	14	19	13	6	13	25	19	16	16

PERCENT OF HOURS WITH
CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	2	2	3	3	5	6	10	5	3	2	4	2	4	16
03	3	2	3	3	3	9	12	6	2	2	3	1	4	16
06	2	2	3	6	6	12	15	8	3	1	3	1	5	16
09	3	3	3	6	5	12	12	6	2	3	5	3	5	16
12	4	4	3	5	5	8	11	5	1	2	6	3	5	16
15	5	4	3	4	4	7	7	4	1	2	6	3	4	16
18	4	2	2	5	4	7	7	3	2	1	4	1	4	16
21	3	2	2	3	5	6	9	4	1	1	3	2	3	16
ALL	3	2	3	4	5	8	10	5	2	2	4	2	4	16

PERCENT OF HOURS WITH
CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	2	2	2	3	4	6	9	4	3	1	4	2	4	16
03	3	2	3	3	2	8	11	5	2	2	3	1	4	16
06	2	2	3	5	5	12	14	8	2	1	3	1	5	16
09	3	3	2	5	5	11	11	6	1	2	5	3	5	16
12	4	4	3	5	4	8	11	5	1	2	6	3	5	16
15	5	4	3	4	3	7	7	4	1	2	6	3	4	16
18	4	2	2	5	4	7	7	3	1	1	4	1	3	16
21	3	2	2	3	5	6	8	4	1	1	3	1	3	16
ALL	3	2	3	4	4	8	10	5	2	2	4	2	4	16

NOTE :
= VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 324080: Ust Kamchatsk, USSR **LAT: 56°13'N** **LONG: 162°28'E** **ELEV: 20 Ft**

Period of record (hourly): 1973-1989 **Period of record (daily): 1973-1989**

	TEMPERATURE (DEG F)					REL HUM	VAP	DEW	PR	WIND (KTS)			TOT		TEMP (DEG F)				MEAN NO. OF DAYS WITH (&)									
	MEANS			EXTREME		PERCENT	PR	PT.	ALT				(SKY)						PRECIPITATION				OBSTR TO VISION					
	MAX	MIN	AVG	MAX	MIN	(LST) 05	IN. 11		FT. $	PREVAIL DIR	MAX SPD	CVR +	MAX DIR	MAX SPD	MIN >=70	MIN >=60	MIN <=32	MIN <=0	FR2 DZ/IR	FR2 DZ/IR	HAIL @	TH SNOW/SLT	FOG PRCP	SMOK STM	BLOW *	DUST HAZE	SAND SNOW	OBS VIS
JAN	15	3	10	37	-42	80	76	.05	4	150	N	9	39	OVR	0	0	22	9	1	0	20	0	21	#	1	0	9	#	11
FEB	17	4	11	36	-36	81	78	.05	6	125	N	9	39	OVR	0	0	20	8	1	0	20	0	20	#	1	0	6	#	10
MAR	21	7	14	43	-33	83	75	.06	9	115	N	9	39	OVR	0	0	22	8	1	0	20	0	21	1	2	#	9	#	11
APR	31	18	25	47	-13	86	78	.10	20	105	N	9	39	OVR	0	0	28	2	2	0	16	0	17	0	4	#	4	#	8
MAY	39	31	35	59	7	91	81	.17	31	80	S	8	33	OVR	0	0	18	0	9	#	10	0	15	0	7	0	#	0	7
JUN	50	41	45	77	31	92	86	.25	40	70	S	9	33	OVR	1	3	1	0	16	#	1	0	16	0	8	0	0	#	9
JUL	56	48	52	84	36	94	85	.34	48	65	S	9	35	OVR	1	7	0	0	18	0	0	0	18	0	10	#	0	#	10
AUG	58	49	54	75	33	93	83	.35	49	80	S	8	39	OVR	1	10	0	0	20	0	0	0	20	#	7	#	0	#	7
SEP	53	42	48	72	25	92	76	.27	42	85	S	9	39	OVR	#	2	3	0	16	0	#	0	16	0	5	0	0	#	5
OCT	43	33	38	55	12	85	75	.17	31	105	N	7	41	OVR	0	0	16	0	14	0	5	0	17	0	1	0	#	#	2
NOV	29	18	24	48	-14	81	76	.09	17	145	NW	8	41	OVR	0	0	27	1	6	#	15	0	16	#	1	#	2	#	3
DEC	18	7	13	41	-26	79	77	.05	7	145	NW	9	45	OVR	0	0	23	8	3	#	19	0	19	0	2	0	7	#	8
ANN	36	25	31	84	-42	86	79	.13	25	110	N	9	45	OVR	4	23	179	37	107	#	126	0	216	1	49	1	39	2	91
POR	16	16	16	16	16	15	15	15	15	15	15	17	13	16	16	16	16	16	15	15	15	15	15	16	16	15	15	15	15

NOTES:

- T - Trace amounts (< 05 inch liquid, < .5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, mist included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES														
02	53	59	54	58	65	69	75	69	51	44	43	49	58	17
05	55	61	55	55	63	72	78	73	55	47	45	50	59	17
08	54	59	51	51	58	67	76	69	55	49	49	53	57	17
11	51	54	43	42	54	57	70	65	53	46	45	51	53	17
14	49	56	40	41	52	56	67	66	53	49	41	48	52	17
17	46	55	43	39	52	59	72	65	52	51	46	49	53	17
20	51	53	49	45	56	61	70	67	47	47	42	51	53	17
23	54	57	51	50	60	65	71	65	48	45	41	52	55	17
ALL	52	57	48	48	58	63	72	66	52	47	44	50	55	17
PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
02	51	56	51	53	60	62	66	62	46	39	39	46	52	17
05	52	57	52	51	55	65	70	63	47	41	42	46	54	17
08	52	57	48	48	52	63	69	61	46	40	43	47	52	17
11	49	52	41	39	49	51	63	57	44	39	41	46	48	17
14	47	53	38	37	46	49	58	56	43	42	36	42	46	17
17	43	52	40	35	47	50	64	57	41	43	40	45	47	17
20	49	52	45	42	48	53	64	57	37	40	36	48	48	17
23	52	54	48	45	52	55	63	57	41	39	37	49	49	17
ALL	49	54	45	44	51	56	65	59	43	40	40	46	49	17
PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
02	27	32	24	22	26	29	33	29	16	9	13	20	23	17
05	27	31	25	23	28	33	41	34	16	12	15	21	26	17
08	30	31	28	25	24	27	38	30	17	12	20	23	25	17
11	26	31	24	21	20	19	29	20	9	7	17	24	21	17
14	25	32	25	18	19	15	26	18	8	8	15	22	19	17
17	26	31	26	18	17	16	29	22	12	12	13	20	20	17
20	26	29	23	19	20	20	34	22	10	12	12	22	21	17
23	26	32	24	21	23	26	31	25	12	11	12	22	22	17
ALL	27	31	25	21	22	23	33	25	13	10	15	22	22	17
PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES														
02	8	7	8	6	10	16	19	14	6	2	2	5	9	17
05	6	8	7	9	12	17	22	15	7	3	2	5	9	17
08	9	10	10	8	10	12	21	13	5	4	4	5	9	17
11	12	12	11	7	8	7	15	7	2	2	5	8	8	17
14	10	13	10	6	7	7	16	6	2	2	4	8	8	17
17	10	10	8	5	7	9	16	9	3	2	1	6	7	17
20	6	7	8	7	8	11	19	9	2	2	2	6	7	17
23	7	8	7	7	10	14	17	11	4	3	1	6	8	17
ALL	9	9	9	7	9	12	18	10	4	2	3	6	8	17
PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES														
02	8	7	7	4	7	10	8	8	5	1	1	5	6	17
05	6	7	6	7	9	12	11	8	5	1	2	4	7	17
08	9	10	10	7	6	5	7	6	4	2	4	5	6	17
11	12	12	11	6	3	1	2	1	1	1	5	8	5	17
14	10	13	10	5	4	1	1	1	1	1	4	8	5	17
17	10	10	8	4	4	4	3	2	1	1	1	5	4	17
20	6	6	7	5	6	8	8	4	1	1	2	6	5	17
23	6	8	7	5	7	8	6	5	2	1	1	5	5	17
ALL	8	9	8	5	6	6	6	4	2	1	2	6	5	17

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 475800: Misawa, Japan **LAT: 40°42'N** **LONG: 141°25'E** **ELEV: 128 Ft**

Period of record (hourly): 1973-1988 **Period of record (daily): 1973-1988**

	TEMPERATURE (DEG F) MEANS			EXTREME		REL HUM (PERCENT) (LST)		VAPOR PR IN. HG.	DEW PT.	PR ALT FT. $	WIND (KTS) PREVAIL DIR	MAX SPD	CVR SPD	SKY +	MEAN NO. OF DAYS WITH (&) TEMP (DEG F) MAX >=90	MAX >=65	MIN <=32	MIN <=0	PRECIPITATION FRZ R/DZ	HAIL SNOW/SLT	PRCP	TH STM	OBSTR TO VISION FOG *	SMOK HAZE	BLOW SNOW	DUST SAND	OBS VIS
	MAX	MIN	AVG	MAX	MIN	AM 05	PM 17																				
JAN	33	23	29	57	10	77	73	.11	21	75	W	11	33	I	0	0	29	0	5	0	27	0	27	#	2	#	1	0	3
FEB	33	23	28	55	3	79	73	.11	21	75	W	11	33	I	0	0	27	#	4	0	25	0	24	0	2	#	1	#	4
MAR	41	28	35	63	14	78	67	.14	26	80	W	11	42	I	0	0	26	0	10	0	21	0	23	#	6	1	#	#	6
APR	54	38	46	79	19	79	63	.20	35	75	W	12	40	I	0	3	5	0	16	0	4	0	17	#	12	3	0	2	14
MAY	63	46	55	88	32	84	67	.30	45	75	E	8	32	I	0	12	#	0	17	0	0	#	17	1	15	2	0	1	16
JUN	66	54	60	91	39	94	83	.44	55	65	ESE	9	27	I	#	15	0	0	19	0	0	0	19	2	23	2	0	0	23
JUL	72	61	67	93	45	96	85	.58	63	60	E	7	25	I	1	24	0	0	20	0	0	0	20	3	26	3	0	#	26
AUG	77	66	72	91	52	92	82	.66	67	65	E	8	38	I	1	30	0	0	19	0	0	0	19	3	22	3	0	#	23
SEP	71	59	65	91	45	88	77	.49	56	60	ESE	10	33	I	#	27	0	0	19	0	0	0	19	2	12	1	0	#	12
OCT	62	47	55	79	30	82	70	.31	45	70	W	9	36	I	0	11	#	0	20	0	#	#	20	1	7	2	0	0	7
NOV	50	36	43	72	21	78	71	.19	34	75	W	11	34	I	0	1	10	0	19	#	10	1	23	1	4	1	0	0	4
DEC	39	28	34	63	10	77	72	.14	26	70	W	10	35	I	0	0	24	0	12	#	22	0	26	#	3	1	#	0	4
ANN	55	43	49	93	3	84	74	.26	41	75	W	10	42	I	2	122	122	#	180	#	109	1	254	13	134	19	2	3	142
POR	16	16	16	16	16	16	16	16	16	16	15	15	16	0	16	16	16	16	15	15	15	15	15	16	16	15	15	15	15

NOTES:

- T - Trace amounts (< .05 inch liquid, < .5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i e , 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
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- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES														
02	58	60	47	40	47	72	76	67	44	37	49	57	55	16
05	56	60	46	45	48	74	79	67	46	36	50	60	56	16
08	58	53	45	37	40	67	69	61	40	38	46	57	51	16
11	45	52	49	31	36	54	61	54	41	36	42	49	46	16
14	53	60	49	43	38	52	54	49	42	34	46	50	48	16
17	48	49	41	35	34	56	59	53	37	35	48	49	45	16
20	51	53	38	39	39	64	70	59	40	35	49	53	49	16
23	53	56	45	37	43	67	71	63	44	34	49	55	52	16
ALL	53	56	45	39	41	63	67	59	42	36	47	54	50	16
PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
02	36	45	32	23	32	59	62	49	28	14	22	31	37	16
05	38	45	33	25	32	61	65	52	27	12	22	36	37	16
08	36	40	26	23	28	54	53	44	26	13	22	28	33	16
11	34	39	35	22	21	43	42	37	25	13	20	28	30	16
14	36	47	35	22	21	43	37	32	23	12	19	28	30	16
17	33	36	28	19	20	42	41	37	21	11	22	26	28	16
20	36	40	26	22	25	49	52	41	25	12	24	30	32	16
23	39	42	32	22	30	53	53	47	26	12	22	26	34	16
ALL	37	42	31	22	26	50	50	42	25	12	22	30	32	16
PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
02	18	20	17	16	25	56	57	42	17	4	8	11	24	16
05	17	20	16	17	26	57	61	44	19	3	10	12	25	16
08	15	23	15	16	20	47	46	35	15	3	8	11	21	16
11	15	16	13	12	15	34	33	26	12	3	8	11	17	16
14	14	19	13	11	13	34	29	23	10	3	7	10	16	16
17	16	16	13	13	15	36	34	26	13	3	7	12	17	16
20	15	17	13	15	20	44	45	33	15	4	8	14	20	16
23	15	18	16	17	23	48	47	37	17	4	8	11	22	16
ALL	16	19	15	14	20	44	44	33	15	3	8	11	20	16
PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES														
02	5	5	6	10	15	42	40	28	10	0*	2	3	14	16
05	4	8	5	11	14	44	41	28	9	0*	2	4	14	16
08	5	8	6	8	13	34	31	22	6	1	2	3	12	16
11	6	7	5	4	7	24	20	15	4	1	1	2	8	16
14	5	7	5	5	8	23	18	14	4	1	1	4	8	16
17	5	7	7	7	11	27	24	17	5	0*	2	3	10	16
20	3	5	5	9	12	30	30	23	7	0*	2	3	11	16
23	4	5	6	10	15	35	34	24	8	0*	1	4	12	16
ALL	4	6	5	8	12	32	30	21	7	0*	2	3	11	16
PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES														
02	2	3	2	6	7	26	28	16	3	0*	1	2	8	16
05	1	4	1	5	8	29	26	17	4	0*	1	2	8	16
08	3	5	3	2	4	13	12	7	1	0	1	2	4	16
11	3	5	2	1	1	6	5	2	0*	0*	1	1	2	16
14	3	5	2	1	1	5	4	2	1	0	1	2	2	16
17	3	4	4	2	4	9	9	5	1	0	1	2	4	16
20	1	3	2	3	6	16	17	9	1	0	0*	1	5	16
23	2	2	2	4	7	19	20	13	2	0*	0*	2	6	16
ALL	2	4	2	3	5	15	15	9	2	0*	1	2	5	16

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 321450: Nevelsk, USSR **LAT: 46°40'N** **LONG: 141°52'E** **ELEV: 20 Ft**

Period of record (hourly): 1973-1989 **Period of record (daily): 1973-1989**

	TEMPERATURE (DEG F) MEANS			EXTREME		REL HUM PERCENT (LST)		VAPOR PR IN.	DEW PT.	PR ALT FT. $	WIND (KTS) PREVAIL DIR	MAX SPD	MAX VCR SPD	TOT SKY +	TEMP (DEG F) MAX >=90	MAX >=65	MIN <=32	MIN <=0	MEAN NO. OF DAYS WITH (&) PRECIPITATION FR>2	HAIL	ICE PLT/SLT	PRCP	STM	OBSTR TO VISION TH	FOG *	SMOK HAZE	BLOW SNOW	DUST SAND	OBS VIS
	MAX	MIN	AVG	MAX	MIN	AM	PM	HG.																					
JAN	18	12	15	36	-8	75	73	.06	6	80	N	18	54	OVR	C	0	30	5	1	#	24	0	24	0	#	#	15	#	15
FEB	19	13	16	41	-6	73	71	.06	8	80	N	18	72	OVR	0	0	27	3	1	0	21	0	21	#	1	#	14	#	14
MAR	27	21	24	49	3	74	68	.08	15	80	N	16	78	OVR	0	0	31	#	1	0	18	0	18	#	1	#	8	#	10
APR	38	32	35	59	18	79	74	.15	26	85	S	15	54	OVR	0	0	18	0	7	0	9	0	14	#	7	#	1	#	7
MAY	47	39	43	72	25	81	76	.21	36	70	S	15	82	OVR	0	#	5	0	12	#	3	#	13	#	11	#	0	#	11
JUN	55	48	52	72	33	85	81	.32	46	55	S	12	47	OVR	0	2	0	0	12	0	#	0	12	#	13	#	0	#	13
JUL	63	56	60	82	43	90	87	.45	56	55	S	12	45	OVR	0	10	0	0	13	0	0	0	13	#	17	0	0	#	17
AUG	66	60	63	82	48	89	84	.50	59	65	S	13	54	OVR	0	18	0	0	14	0	0	#	14	#	9	0	0	#	9
SEP	61	54	57	76	39	83	75	.37	SC	60	E	15	58	OVR	0	4	0	0	12	0	0	#	12	1	2	#	0	#	2
OCT	48	41	45	64	25	74	69	.21	35	80	W	15	66	OVR	0	0	3	0	12	0	3	0	13	1	2	1	0	0	2
NOV	35	28	31	54	5	73	71	.12	23	65	W	16	66	OVR	0	0	23	#	6	0	15	0	18	0	1	#	3	0	3
DEC	24	19	22	48	3	74	74	.08	14	80	NW	19	51	OVR	0	0	30	1	2	#	24	0	24	0	#	#	11	#	11
ANN	42	35	39	82	-8	79	75	.17	31	75	E	15	82	OVR	0	35	167	10	93	#	117	#	196	2	64	1	52	2	114
POR	16	16	16	16	16	13	14	14	14	14	14	14	17	11	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

NOTES:

- T - Trace amounts (<.05 inch liquid, <.5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i e , 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, mist included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	71	63	46	44	46	49	62	54	37	44	63	73	54	17
03	73	57	49	50	53	53	65	55	34	44	61	73	56	17
06	74	63	52	46	50	55	67	59	36	49	66	74	58	17
09	67	56	46	45	49	54	65	57	36	51	62	72	55	17
12	66	59	53	45	49	50	64	58	41	48	66	71	56	17
15	70	62	49	44	43	49	62	53	39	52	68	73	55	17
18	72	65	47	42	46	45	59	51	36	45	61	72	54	17
21	71	62	43	40	47	49	64	51	35	42	61	72	53	17
ALL	71	61	48	45	48	51	64	55	37	47	63	72	55	17

PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	70	62	45	44	44	49	62	54	37	43	61	72	54	17
03	73	57	49	48	52	52	65	54	34	43	60	72	55	17
06	74	62	52	46	49	55	67	58	38	48	66	73	58	17
09	67	54	46	44	49	54	64	57	36	51	61	71	55	17
12	66	59	52	45	49	50	64	56	40	47	66	70	55	17
15	70	62	48	43	42	49	62	52	38	51	67	73	55	17
18	72	65	47	41	45	44	59	50	36	43	60	72	53	17
21	71	62	42	39	46	48	64	51	35	41	60	72	53	17
ALL	70	61	48	44	47	50	63	54	37	46	63	72	55	17

PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	23	19	9	9	12	19	26	12	2	2	7	16	13	17
03	21	18	10	10	14	17	27	15	4	3	7	17	13	17
06	21	16	10	14	20	24	35	19	4	2	8	20	16	17
09	30	25	15	13	19	26	33	16	4	6	12	25	19	17
12	27	26	11	15	18	19	32	16	3	7	12	26	17	17
15	28	23	12	11	13	17	28	13	3	6	11	24	16	17
18	22	20	12	12	16	15	23	13	5	6	7	18	14	17
21	21	16	7	8	15	20	25	12	2	1	8	14	12	17
ALL	24	20	11	11	16	20	29	14	3	4	9	20	15	17

PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	12	8	3	6	11	16	23	10	1	1	3	7	8	17
03	9	8	3	7	12	15	24	11	2	1	4	8	9	17
06	11	8	3	9	15	20	29	15	1	1	5	9	10	17
09	13	11	5	7	15	21	29	11	2	3	5	11	11	17
12	11	9	5	9	12	15	28	11	1	2	5	11	10	17
15	11	10	4	7	9	14	25	10	1	1	4	12	9	17
18	11	10	4	7	11	13	20	9	1	2	3	9	8	17
21	10	7	3	6	13	18	23	10	0*	1	3	6	8	17
ALL	11	9	4	7	12	17	25	11	1	1	4	9	9	17

PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	10	7	3	5	10	16	22	9	1	1	2	6	7	17
03	7	6	2	7	12	15	24	11	2	1	3	6	8	17
06	9	7	3	9	14	20	29	14	1	1	4	7	9	17
09	13	11	4	7	15	21	29	10	2	3	4	11	11	17
12	11	9	4	8	12	15	27	11	0*	2	5	11	9	17
15	11	10	4	7	9	13	24	10	1	1	4	12	9	17
18	9	8	4	7	11	13	19	9	1	2	2	8	8	17
21	9	4	2	6	12	17	22	9	0*	1	2	6	7	17
ALL	10	8	3	7	12	16	25	10	1	1	3	8	9	17

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 310880: Okhotsk, USSR **LAT: 59°22'N** **LONG: 143°12'E** **ELEV: 20 Ft**

Period of record (hourly): 1973-1989 **Period of record (daily): 1973-1989**

	TEMPERATURE (DEG F) MEANS			EXTREME		REL HUM PERCENT (LST)		VAPOR PR IN.	DEW PT.	PR ALTI FT.	WIND (KTS) PREVAIL		MAX	TOT SKY CVR	MAX	TEMP (DEG F) MAX	MIN	MIN	MEAN NO. OF DAYS WITH (A) PRECIPITATION FRZ		HAIL		TH	OBSTR TO VISION FOG	SMOK	BLOWI	DUST	OBSI
	MAX	MIN	AVG	MAX	MIN	AM	PM	ING.		S	DIR	SPD	SPD	+	>=70	>=60	<=32	<=0	IR/DZ	IR/DZ	SNOW	I/SL	TPRCP	ST	*	HAZE	SNOW	SAND	VISI
JAN	-1	-9	-4	32	-33	61	59	.02	-15	95	N	8	39	CLR	0	0	17	14	#	0	8	0	8	#	0	0	2	0	2
FEB	6	-5	1	35	-27	63	55	.02	-10	85	N	8	31	CLR	0	0	16	12	#	0	8	0	8	0	#	0	2	0	2
MAR	17	0	8	41	-27	71	55	.03	-1	70	N	6	33	BRK	0	0	20	11	#	#	8	0	8	0	1	0	1	#	2
APR	29	16	23	61	-14	81	69	.06	16	85	N	5	51	OVR	0	#	28	2	1	0	11	0	11	0	5	#	1	0	6
MAY	39	31	35	64	16	86	79	.16	29	80	S	6	49	OVR	0	#	21	0	7	#	10	0	14	#	10	0	#	0	10
JUN	50	42	46	74	30	88	81	.26	41	70	S	6	39	OVR	#	2	1	0	14	0	#	0	14	#	13	0	0	#	13
JUL	57	51	54	80	41	92	84	.37	51	70	SE	10	35	OVR	1	8	0	0	16	0	0	0	16	#	16	#	0	#	16
AUG	61	51	56	81	32	90	78	.37	51	75	N	5	43	OVR	2	15	#	0	14	0	0	0	14	#	9	#	0	#	9
SEP	53	41	47	76	21	85	69	.24	40	80	N	6	43	BRK	#	3	4	0	13	0	1	0	13	#	4	0	#	0	4
OCT	34	23	28	54	-2	74	57	.09	16	80	N	7	43	BRK	0	0	26	#	5	0	8	0	11	#	1	0	1	0	2
NOV	10	2	7	37	-27	63	59	.03	-4	95	N	9	43	BRK	0	0	21	9	#	0	9	0	9	0	#	0	3	0	4
DEC	0	-6	-2	32	-29	61	59	.02	-13	90	N	9	51	CLR	0	0	18	14	#	0	8	0	8	0	0	0	3	#	3
ANN	30	20	25	81	-33	77	67	.09	16	85	N	7	51	OVR	3	28	172	63	70	#	71	0	134	3	59	#	13	#	73
POR	17	17	17	17	17	16	17	16	16	16	17	17	17	14	17	17	17	17	16	16	16	16	16	17	17	16	16	16	16

NOTES:

- T - Trace amounts (< 05 inch liquid, <.5 inch frozen)
- # - Mean number of days < 5 days
- $ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, mist included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES														
00	13	12	14	33	54	54	67	53	37	26	19	15	33	17
03	12	10	15	39	59	62	74	58	40	26	16	14	35	17
06	10	13	15	37	58	65	76	60	47	28	15	13	36	17
09	11	13	12	31	47	54	69	53	44	27	15	13	32	17
12	13	9	10	26	44	49	62	47	42	25	15	13	29	17
15	11	7	10	25	44	47	59	46	41	24	13	12	28	17
18	11	8	10	27	46	49	62	47	39	23	16	13	29	17
21	12	11	13	27	52	50	65	49	40	25	16	14	31	17
ALL	11	10	12	31	51	54	67	52	41	26	16	13	32	17
PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
00	11	11	14	33	53	53	67	51	37	25	19	14	32	17
03	11	9	15	38	57	60	73	56	38	25	15	14	34	17
06	9	13	14	37	56	63	75	59	44	27	15	13	35	17
09	10	11	11	30	46	53	68	51	41	24	15	12	31	17
12	12	9	9	26	43	48	61	45	40	24	15	13	29	17
15	10	7	9	24	43	47	58	44	38	22	13	12	27	17
18	10	8	10	27	45	49	61	46	37	22	16	13	29	17
21	11	10	12	27	51	49	64	48	38	24	15	13	30	17
ALL	11	10	12	30	49	53	66	50	39	24	15	13	31	17
PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
00	9	9	8	21	35	35	44	28	15	13	12	10	20	17
03	8	7	10	26	39	45	54	30	17	15	9	10	23	17
06	8	9	9	26	41	48	55	35	20	11	9	9	23	17
09	9	8	8	21	31	35	43	29	16	11	10	8	19	17
12	9	7	6	16	28	30	41	22	14	12	11	9	17	17
15	9	6	7	15	29	29	34	20	11	9	10	8	16	17
18	9	5	6	16	28	28	34	23	13	10	11	9	16	17
21	9	8	7	17	30	32	41	25	13	11	11	10	18	17
ALL	9	7	8	20	33	35	43	27	15	12	11	9	19	17
PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES														
00	1	1	2	7	16	14	15	5	2	2	2	1	6	17
03	1	1	3	9	16	20	17	7	3	1	1	2	7	17
06	1	1	2	11	16	20	15	9	5	1	2	2	7	17
09	2	1	1	8	10	10	8	4	2	2	3	2	5	17
12	2	1	1	4	7	8	8	2	2	2	2	1	3	17
15	2	2	0*	3	10	6	8	3	2	2	3	1	3	17
18	1	1	1	5	12	10	10	3	3	1	2	2	4	17
21	1	1	2	6	13	12	13	3	2	1	2	*	5	17
ALL	1	1	1	7	12	13	12	5	3	1	2	2	5	17
PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES														
00	1	1	2	6	13	12	12	4	2	2	2	1	5	17
03	1	1	3	8	14	18	14	6	3	1	1	1	6	17
06	1	1	2	9	14	16	13	8	5	1	2	2	6	17
09	2	1	1	8	8	8	6	3	2	1	3	1	4	17
12	2	1	1	4	5	5	5	2	1	2	2	1	3	17
15	2	2	0*	2	7	4	6	2	1	2	3	1	3	17
18	1	1	1	4	9	7	8	2	2	1	2	2	3	17
21	1	1	2	4	11	9	11	2	1	1	2	2	4	17
ALL	1	1	1	6	10	10	9	4	2	1	2	1	4	17

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 320980: Poronaysk, USSR **LAT: 49°13'N** **LONG: 143°06'E** **ELEV: 13 Ft**

Period of record (hourly): 1973-1989 **Period of record (daily): 1973-1988**

	TEMPERATURE (DEG F) MEANS			EXTREME		PERCENT		REL HUM (LST)		VAPOR PRES IN.	DEW PT.	PR ALT. FT. $	WIND (KTS) PREVAIL DIR	MAX SPD	MAX GUST	TOT SKY CVR +	MAX TEMP >=65	MAX TEMP >=50	MIN TEMP <=32	MIN TEMP <=0	MEAN NO. OF DAYS WITH (&) PRECIPITATION FRZ RAIN/DZ	HAIL	TH	FOG	SMOKE/HAZE	BLOWING SNOW	DUST/SAND	OBSTR TO VISION OBS VIS
	MAX	MIN	AVG	MAX	MIN	AM 06	PM 15	MNTH.																				
JAN	10	-4	3	35	-31	76	61	.03	-5	85	N	8	47	CLR	0	0	18	13	#	0	12	0	12	0	1	#	6	#	7
FEB	15	0	7	38	-27	76	60	.04	0	75	N	8	39	CLR	0	0	17	11	#	0	12	0	12	0	1	0	6	#	6
MAR	25	11	18	42	-15	80	67	.07	11	60	N	8	54	OVR	0	0	26	4	1	0	16	0	16	#	4	#	4	0	8
APR	36	27	32	66	0	84	74	.14	26	90	S	9	29	OVR	#	1	26	#	6	#	14	0	16	#	10	#	1	0	10
MAY	45	35	41	82	21	87	78	.20	35	75	S	10	27	OVR	1	8	9	0	15	#	5	0	17	0	12	#	0	#	12
JUN	53	44	49	86	29	92	84	.30	45	60	S	9	25	OVR	2	20	#	0	18	0	0	0	18	#	18	#	0	#	18
JUL	61	53	57	84	36	96	87	.42	54	60	S	9	21	OVR	6	31	0	0	22	0	0	0	22	#	21	#	0	#	21
AUG	65	56	61	88	40	93	81	.46	56	70	S	10	23	OVR	14	31	0	0	18	0	0	0	18	#	14	#	0	#	15
SEP	60	47	54	77	29	91	72	.33	48	65	S	11	39	OVR	5	29	#	0	16	0	0	0	16	1	9	#	0	#	9
OCT	47	33	40	68	10	83	64	.18	32	85	N	7	39	OVR	#	12	16	0	11	0	5	0	15	#	5	1	#	#	5
NOV	30	16	23	54	-12	82	63	.08	15	90	N	7	31	OVR	0	#	28	2	3	#	11	0	13	0	2	0	3	#	5
DEC	16	2	10	37	-20	79	65	.04	2	80	N	8	29	CLR	0	0	21	10	1	0	12	0	12	#	1	0	7	#	8
ANN	39	27	33	88	-31	85	71	.14	27	80	N	9	54	OVR	29	132	162	39	111	1	67	0	187	1	98	1	27	1	124
POR	17	17	17	17	17	16	17	14	14	14	14	14	17	14	17	17	17	17	16	16	16	16	16	17	17	16	16	16	16

NOTES:

T - Trace amounts (<.05 inch liquid, <.5 inch frozen)

\# - Mean number of days < .5 days

$ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)

@ - Navy stations reported hail as snowfall
NWS stations reported hail as snowfall for the period July 1948-December 1955

\+ - The predominant sky condition

* - Visibility is not considered, mist included when reported

& - Annual totals may differ from the sum of the monthly values because of rounding

\- - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)

**** - Indicates data not available

I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES														
03	29	26	35	52	54	71	79	66	48	27	24	24	45	17
06	33	29	36	48	52	66	76	60	44	30	27	32	45	17
09	22	22	31	46	52	59	73	56	40	27	20	21	39	17
12	18	16	26	45	48	52	60	46	43	33	23	18	36	17
15	17	17	28	40	42	46	55	42	35	32	21	19	33	17
18	32	28	28	40	46	47	55	45	35	29	27	34	37	17
21	33	33	38	43	49	57	65	54	38	30	29	31	42	17
ALL	26	25	32	45	49	57	66	53	40	30	24	25	39	17
PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
03	22	21	31	47	49	69	77	59	43	21	17	19	40	17
06	24	23	35	47	51	67	75	59	42	26	20	21	41	17
09	22	22	30	45	50	57	71	52	37	25	19	20	38	17
12	18	15	26	45	46	51	58	45	38	28	22	18	34	17
15	17	16	27	39	40	44	52	39	31	27	19	18	31	17
18	21	20	27	40	42	47	53	43	32	25	19	22	32	17
21	24	24	31	39	45	54	60	47	33	23	21	21	35	17
ALL	21	20	29	43	46	56	64	49	37	25	19	20	36	17
PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
03	14	12	17	29	29	58	62	38	20	10	9	12	26	17
06	14	17	26	37	39	59	68	43	24	16	10	12	31	17
09	17	19	26	34	34	48	56	34	22	15	13	17	28	17
12	14	13	20	31	27	37	49	25	17	12	12	14	23	17
15	12	12	20	28	24	32	41	22	13	11	10	15	20	17
18	15	13	18	28	27	33	41	25	15	10	10	15	21	17
21	15	18	15	23	24	38	43	24	12	9	10	13	20	17
ALL	15	15	20	30	29	43	52	30	18	12	11	14	24	17
PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES														
03	3	3	7	12	15	32	36	20	9	4	3	3	12	17
06	3	4	10	19	22	35	42	24	12	5	3	3	15	17
09	5	4	6	16	12	18	24	12	6	4	3	5	10	17
12	4	4	6	12	8	11	15	8	3	3	2	5	7	17
15	4	4	6	9	7	10	12	6	2	3	2	4	6	17
18	4	3	6	10	9	15	17	8	2	1	2	4	7	17
21	3	3	5	9	11	18	19	8	3	3	2	3	7	17
ALL	4	3	7	13	12	20	24	12	5	3	2	4	9	17
PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES														
03	2	2	6	9	11	27	27	15	8	3	2	3	10	17
06	1	2	9	17	17	26	31	19	11	4	2	2	12	17
09	5	4	6	14	9	10	13	8	3	3	3	5	7	17
12	4	3	5	10	4	4	4	3	1	1	2	4	4	17
15	4	4	6	8	5	6	4	2	1	2	2	4	4	17
18	3	3	6	8	7	8	8	2	1	1	2	3	4	17
21	3	2	4	6	7	11	9	5	2	1	2	2	5	17
ALL	3	3	6	10	8	13	14	6	4	2	2	3	6	17

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 321950: Simusir, USSR **LAT: 46°51'N** **LONG: 151°52'E** **ELEV: 85 Ft**

Period of record (hourly): 1973-1989 **Period of record (daily): 1973-1989**

	TEMPERATURE (DEG F) MEANS			EXTREME		RCL HUM (PERCENT) (LST)		PR	DEW PT.	WIND (KTS) PREVAIL		MAX	TOT SKY COVR	TEMP (DEG F) MAX >= 90	MAX >= 75	MIN <= 45	MIN <= 32	MEAN NO. OF DAYS WITH '+' PRECIPITATION FRZ R/DZ		HAIL R/DZ		TH SNOW/SLT	PRCP	OBSTR TO VISION FOG STH *	SMOK HAZE	BLOW SNOW	DUST SAND	OBS VIS
	MAX	MIN	AVG	MAX	MIN	AM 06	PM 15	HG.		FT. $	DIR	SPD	SPD															
JAN	27	22	24	43	3	81	81	.10	19	120	NW	24	68 OVR	0	0	31	31	2	0	29	0	29	#	1	0	13	#	14
FEB	25	20	23	42	5	81	80	.09	17	115	NW	24	76 OVR	0	0	28	28	2	0	25	0	25	#	#	0	13	#	13
MAR	28	23	26	50	10	80	79	.10	20	125	NW	23	60 OVR	0	0	31	31	2	#	25	0	25	#	1	0	10	#	12
APR	36	30	33	64	16	85	83	.15	28	105	NW	19	56 OVR	0	0	30	24	8	#	14	0	19	#	8	0	2	#	10
MAY	42	34	38	71	27	89	86	.20	34	90	SE	14	60 OVR	0	0	31	11	15	#	5	0	18	#	18	#	#	#	18
JUN	46	37	42	73	25	95	90	.24	39	70	SE	12	47 OVR	0	0	30	3	17	#	#	0	17	0	24	0	#	#	24
JUL	52	43	48	82	32	96	91	.31	46	65	SE	12	49 OVR	0	1	23	#	18	0	#	0	18	#	28	0	0	#	28
AUG	57	47	53	84	32	95	90	.36	50	65	SE	12	60 OVR	0	1	11	#	18	0	0	0	18	#	25	0	0	#	25
SEP	55	46	51	80	32	91	85	.32	47	70	SE	11	68 OVR	0	#	13	#	13	0	0	0	13	#	16	#	0	#	16
OCT	48	40	44	70	27	87	84	.24	40	95	W	19	54 OVR	0	0	28	1	17	0	1	0	17	0	7	#	#	#	7
NOV	38	32	35	64	20	85	84	.17	31	115	W	20	74 OVR	0	0	30	17	12	0	15	0	23	0	2	0	1	#	4
DEC	32	26	29	45	12	81	82	.12	24	120	NW	24	72 OVR	0	0	31	29	6	0	25	#	26	#	1	#	8	#	9
ANN	41	33	37	84	3	87	85	.19	33	100	NW	18	76 OVR	0	2	317	174	130	#	139	#	248	2	131	#	47	2	180
POR	17	17	17	17	17	15	16	16	16	16	16	16	17 13	17	17	17	17	16	16	16	16	16	17	17	16	16	16	16

NOTES:

- T - Trace amounts (< 05 inch liquid, < .5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, must included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES														
00	86	85	78	68	75	81	87	78	62	55	70	82	76	17
03	85	83	78	71	76	83	87	81	62	55	70	80	76	17
06	93	90	79	72	74	79	83	81	65	62	76	87	78	17
09	90	87	79	72	70	73	77	75	61	64	78	88	76	17
12	88	88	78	70	69	70	76	71	55	59	80	87	74	17
15	92	88	82	72	66	71	75	70	58	64	83	89	76	17
18	88	86	84	72	75	76	79	77	64	58	76	86	77	17
21	85	84	77	69	72	79	83	76	59	54	71	83	74	17
ALL	88	86	79	71	72	76	81	76	61	59	75	85	76	17
PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
00	81	83	74	66	70	80	85	75	58	51	66	78	72	17
03	82	79	76	67	74	82	86	78	59	52	66	75	73	17
06	88	86	74	69	72	78	82	78	62	57	69	83	75	17
09	86	84	76	67	69	71	74	74	59	57	71	84	72	17
12	85	86	74	67	65	69	73	68	53	53	74	84	71	17
15	89	85	78	67	64	69	72	67	56	57	77	86	72	17
18	85	82	80	68	72	74	79	73	61	53	70	82	73	17
21	80	81	72	65	69	77	81	74	56	49	66	80	71	17
ALL	85	83	75	67	69	75	79	73	56	54	70	81	72	17
PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
00	40	39	32	23	39	63	75	58	35	14	17	27	38	17
03	40	35	31	24	41	67	75	58	34	14	16	25	39	17
06	40	35	28	25	43	63	71	62	39	17	16	24	39	17
09	39	38	30	24	38	55	62	57	33	17	18	31	37	17
12	43	39	34	24	36	49	56	46	31	16	17	32	35	17
15	45	38	32	24	32	48	58	50	31	14	19	34	36	17
18	40	36	33	23	41	59	67	56	34	16	19	33	38	17
21	37	34	29	24	40	60	71	58	34	16	18	28	38	17
ALL	41	37	31	24	39	58	67	56	34	16	17	29	37	17
PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES														
00	18	15	13	9	25	53	66	48	24	7	4	9	24	17
03	18	15	12	11	28	55	65	49	26	6	5	8	25	17
06	17	14	12	10	30	50	60	50	26	5	4	6	25	17
09	18	17	14	12	24	42	49	44	23	10	7	11	23	17
12	18	20	15	10	20	33	44	37	21	9	5	13	20	17
15	21	20	15	10	20	34	46	40	22	9	6	16	22	17
18	17	18	16	12	26	46	56	47	25	9	6	12	24	17
21	16	16	12	10	24	49	60	48	26	8	6	9	24	17
ALL	18	17	14	11	24	45	56	45	24	8	5	11	23	17
PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES														
00	12	10	8	7	23	46	61	43	21	5	3	5	20	17
03	11	9	7	8	25	51	60	45	22	4	3	5	21	17
06	10	9	8	8	27	43	54	45	23	5	2	5	21	17
09	12	12	10	9	21	35	40	38	18	6	4	8	18	17
12	12	13	10	8	16	26	35	31	16	5	4	8	15	17
15	14	15	10	8	15	26	37	32	16	5	4	11	16	17
18	12	13	11	9	20	39	50	40	21	7	4	8	19	17
21	12	11	8	8	21	44	55	42	23	5	3	6	20	17
ALL	12	12	9	8	21	39	49	40	20	5	3	7	19	17

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 317700: Sovetskaya Gavan, USSR **LAT: 49°00'N** **LONG: 140°16'E** **ELEV: 72 Ft**

Period of record (hourly): 1973-1989 **Period of record (daily): 1973-1989**

	TEMPERATURE (DEG F) MEANS			EXTREME		REL HUM PERCENT (LST)	VAPOR PRESS. AM	DEW PT. PM	PR ALTI HG.	WIND (KTS) FT. PREVAIL	MAX	MAX 9Cl	SKY CVR +	TOT CLD AMT $	TEMP (DEG F) MAX >=1 90l	MAX >=1 65l	MIN <=1 32l	MIN <=1 5l	MEAN NO. OF DAYS WITH (&) PRECIPITATION FRZ R/DZ	FRZ R/DZ	HAIL SNOW	SLT	PRCP	TH STM	OBSTR TO VISION FOG *	SMOK HAZE	BLOW SNOW	DUST SAND	OBS VIS
	MAX	MIN	AVG	MAX	MIN					DIR	SPD	SPD																	
JAN	9	-5	2	32	-33	69	51	.02	-9	75	W	7	39	CLR	0	0	17	15	#	0	9	0	9	0	#	#	1	#	2
FEB	14	-2	6	41	-29	74	54	.03	-3	75	SSW	5	39	CLR	0	0	17	14	1	0	10	0	10	0	#	0	1	0	2
MAR	26	11	19	59	-17	80	60	.06	10	75	SSW	5	33	OVR	0	0	26	9	1	0	13	0	13	0	1	#	1	#	3
APR	40	27	34	73	3	85	62	.13	24	90	S	8	29	OVR	0	#	25	#	4	0	11	0	13	#	8	#	#	0	9
MAY	50	35	43	86	21	87	65	.19	34	80	NNE	9	29	OVR	0	3	9	0	12	#	4	0	15	#	14	0	#	#	14
JUN	61	44	53	93	30	92	65	.30	45	65	S	7	31	OVR	#	10	#	0	12	0	0	0	12	1	19	0	0	0	19
JUL	68	52	60	91	34	95	71	.41	54	70	S	7	29	OVR	#	18	0	0	12	0	0	0	12	1	21	#	0	#	21
AUG	70	56	63	92	36	93	69	.45	56	80	S	6	31	OVR	#	20	0	0	14	0	0	0	14	1	13	#	0	#	13
SEP	62	47	55	84	29	90	64	.32	47	65	S	7	29	OVR	0	10	1	0	11	0	#	0	11	#	5	0	0	#	5
OCT	48	32	40	81	10	76	54	.15	26	90	SSW	5	43	OVR	0	1	17	0	9	0	3	0	10	#	2	1	#	#	3
NOV	29	14	22	57	-10	68	50	.06	8	85	SSW	5	33	CLR	0	0	28	6	2	0	8	0	8	0	#	0	1	0	1
DEC	14	1	8	39	-24	65	50	.03	-4	75	SSW	5	37	CLR	0	0	20	14	#	0	9	0	9	#	1	0	1	0	2
ANN	41	26	34	93	-33	80	59	.13	23	80	S	6	43	OVR	#	63	161	58	78	#	67	0	136	3	84	1	5	1	94
POR	16	16	16	16	16	13	14	14	14	14	14	14	17	11	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16

NOTES:

- T - Trace amounts (<.05 inch liquid, <.5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, mist included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

PERCENT OF HOURS WITH
CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	11	15	25	41	53	60	63	50	35	28	18	15	34	17
03	11	15	24	44	57	65	73	54	39	26	20	16	36	17
06	12	12	28	49	57	67	76	56	42	30	19	15	37	17
09	12	14	24	41	51	53	61	44	37	30	17	16	33	17
12	12	11	21	37	47	40	48	42	41	32	19	13	30	17
15	10	13	18	37	45	42	43	45	41	34	18	14	30	17
18	13	13	23	38	43	47	46	45	41	27	18	15	29	17
21	14	16	23	38	46	55	54	46	30	28	16	16	31	17
ALL	12	14	23	41	50	54	58	46	38	29	18	15	33	17

PERCENT OF HOURS WITH
CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	11	15	23	40	49	56	60	45	29	25	16	13	31	17
03	10	14	21	42	53	60	69	50	33	23	15	14	33	17
06	10	12	25	45	54	65	72	51	38	26	15	14	34	17
09	11	13	23	38	48	51	59	41	31	24	14	15	30	17
12	11	10	20	33	42	38	44	37	33	24	16	12	26	17
15	9	11	16	34	36	40	40	38	32	26	16	13	26	17
18	12	12	20	36	38	44	43	40	30	21	16	14	26	17
21	13	15	21	37	42	51	50	41	24	23	14	14	28	17
ALL	11	13	21	38	45	51	55	43	31	24	15	13	29	17

PERCENT OF HOURS WITH
CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	6	9	15	28	31	46	48	29	13	10	8	7	20	17
03	6	9	15	33	38	52	57	35	19	9	7	7	23	17
06	7	8	18	32	42	56	60	36	18	11	8	9	24	17
09	6	10	15	27	32	39	46	29	16	12	7	10	20	17
12	9	7	11	21	24	26	33	21	13	11	10	8	16	17
15	7	6	9	22	24	31	30	21	13	9	8	9	16	17
18	8	8	13	25	25	32	32	24	13	11	7	9	16	17
21	7	11	12	27	27	41	39	25	10	10	6	8	18	17
ALL	7	9	14	27	30	41	43	28	14	10	7	8	19	17

PERCENT OF HOURS WITH
CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	1	2	5	13	18	24	28	14	3	1	2	2	9	17
03	1	2	4	15	19	31	35	16	5	1	2	2	11	17
06	2	1	4	16	21	31	32	16	5	2	2	3	10	17
09	1	2	2	6	9	7	14	5	2	2	2	3	4	17
12	2	2	4	6	3	4	7	4	1	1	4	3	3	17
15	1	2	3	5	5	4	7	4	2	1	3	3	3	17
18	2	2	4	6	9	6	11	6	2	2	2	2	4	17
21	2	2	3	11	14	16	20	9	1	2	2	2	7	17
ALL	1	2	3	10	12	16	19	9	3	2	2	2	6	17

PERCENT OF HOURS WITH
CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
00	1	2	4	12	17	22	27	13	2	1	2	2	9	17
03	1	2	4	14	17	30	34	14	5	1	2	2	10	17
06	2	1	4	14	18	30	30	15	4	1	1	3	9	17
09	1	2	2	6	6	4	10	4	1	1	2	3	4	17
12	2	2	4	5	2	4	6	2	0*	1	3	2	3	17
15	1	2	3	4	3	3	6	3	1	1	2	3	3	17
18	2	2	4	5	7	6	10	5	2	2	2	1	4	17
21	1	2	3	9	12	16	19	7	1	1	2	2	6	17
ALL	1	2	3	9	10	15	18	8	2	1	2	2	6	17

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT

STATION CLIMATIC SUMMARY

(Derived from hourly telecommunications data)

WMO NO. 474010: Wakkanai, Japan **LAT: 45°25'N** **LONG: 141°41'E** **ELEV: 36 Ft**

Period of record (hourly): 1973-1988 **Period of record (daily): 1973-1988**

	TEMPERATURE (DEG F) MEANS			EXTREME		REL HUM PERCENT (LST)		VAP PRESS IN. HG.	DEW PT.	PR ALT FT.	WIND (KTS) PREVAIL DIR	SPD	MAX	SKY COVR	TOT +	TEMP (DEG F) MAX >=90	MAX >=65	MAX <=32	MIN <=32	MIN <=0	MEAN NO. OF DAYS WITH (&) PRECIPITATION FRZ RN	HAIL	TH	OBSTR TO VISION FOG	SMOK	BLOW SNOW	DUST SAND	OBS VIS
	MAX	MIN	AVG	MAX	MIN	AM 05	PM 17			$	DIR	SPD	SPD															
JAN	25	19	22	41	1	73	72	.08	14	80	W	9	42	OVR	0	0	0	31	1	1	0	30	0	30	0	#	#	#	0	#
FEB	24	18	21	41	0	75	72	.07	13	80	NNW	12	45	OVR	0	0	0	28	1	1	0	26	0	26	0	#	0	#	0	#
MAR	32	25	29	55	7	73	69	.10	20	75	N	9	37	OVR	0	0	0	29	0	3	0	25	0	25	0	2	#	0	0	2
APR	43	36	40	61	23	78	73	.18	31	80	SSW	11	32	OVR	0	0	0	8	0	13	0	9	0	18	0	6	#	0	#	7
MAY	52	43	47	70	30	81	75	.24	40	70	SSW	12	35	OVR	0	1	#	0	0	16	0	1	0	17	#	8	#	0	#	8
JUN	59	50	55	76	37	87	81	.35	49	55	E	8	28	OVR	0	5	0	0	0	15	0	0	0	15	#	12	#	0	#	12
JUL	66	58	63	84	45	89	83	.48	57	55	SSW	11	29	OVR	0	18	0	0	0	17	0	0	0	17	#	13	#	0	0	13
AUG	71	63	68	85	53	86	81	.55	61	60	SSW	9	36	OVR	0	26	0	0	0	16	0	0	0	16	1	9	0	0	0	9
SEP	66	57	62	77	43	78	73	.40	53	55	WSW	9	34	BRK	0	19	0	0	0	15	0	0	0	15	2	2	0	0	0	2
OCT	54	46	51	68	32	68	64	.23	38	75	W	10	42	BRK	0	1	#	0	0	19	0	2	0	20	2	2	1	0	0	2
NOV	41	33	37	59	13	67	66	.14	26	85	W	10	42	OVR	0	0	0	14	0	14	0	16	#	25	#	1	0	0	#	1
DEC	31	25	28	50	8	70	69	.10	19	75	W	10	37	OVR	0	0	0	28	0	4	0	27	0	29	#	#	0	#	0	1
ANN	47	40	44	85	0	77	73	.21	35	75	SSW	10	45	OVR	0	71	137	2	134	0	136	#	253	5	55	1	#	#	57
POR	16	16	16	16	16	16	16	16	16	16	16	16	16	13	16	16	16	16	15	15	15	15	15	16	16	15	15	15	15	

NOTES:

- T - Trace amounts (<.05 inch liquid, <.5 inch frozen)
- # - Mean number of days < .5 days
- $ - Pressure altitude in tens of feet (i.e., 50 = 500 feet)
- @ - Navy stations reported hail as snowfall
  NWS stations reported hail as snowfall for the period July 1948-December 1955
- + - The predominant sky condition
- * - Visibility is not considered, mist included when reported
- & - Annual totals may differ from the sum of the monthly values because of rounding
- - - 24 hour maximum precipitation and snowfall are daily total values (mid-night to mid-night totals)
- **** - Indicates data not available
- I - Insufficient number of available observations for computation

FLYING WEATHER - PERCENT OF HOURS

HOUR (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	# YRS
PERCENT OF HOURS WITH CEILING LESS THAN 5000 FEET &/OR VISIBILITY LESS THAN 5.00 MILES														
02	0#	0#	7	17	34	57	68	39	6	4	0#	0#	27	16
05	0#	0#	13	34	53	70	79	63	11	9	0#	0#	42	16
08	0#	0#	9	26	36	53	61	47	10	6	0#	0#	31	16
11	0#	0#	8	20	29	38	51	33	7	7	0#	0#	23	16
14	0#	0#	6	21	26	36	45	30	7	7	0#	0#	22	16
17	0#	0#	11	18	29	41	53	36	9	5	0#	0#	25	16
20	0#	0#	8	15	27	45	56	36	7	6	0#	0#	24	16
23	0#	0#	7	14	22	52	60	37	7	3	0#	0#	24	16
ALL	0#	0#	8	20	32	49	60	41	8	6	0#	0#	27	16
PERCENT OF HOURS WITH CEILING LESS THAN 3000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
02	0#	0#	7	15	31	57	67	39	5	4	0#	0#	26	16
05	0#	0#	11	26	48	66	77	58	9	6	0#	0#	38	16
08	0#	0#	9	21	34	51	60	46	8	4	0#	0#	29	16
11	0#	0#	7	17	28	38	50	31	6	4	0#	0#	22	16
14	0#	0#	4	18	24	36	43	29	7	5	0#	0#	21	16
17	0#	0#	9	15	26	40	51	33	9	4	0#	0#	23	16
20	0#	0#	6	13	25	44	54	36	7	5	0#	0#	22	16
23	0#	0#	4	12	22	50	59	36	7	2	0#	0#	23	16
ALL	0#	0#	7	17	30	48	58	39	7	4	0#	0#	26	16
PERCENT OF HOURS WITH CEILING LESS THAN 1000 FEET &/OR VISIBILITY LESS THAN 3.00 MILES														
02	0#	0#	7	15	31	57	66	39	5	4	0#	0#	26	16
05	0#	0#	11	26	47	66	77	58	9	6	0#	0#	38	16
08	0#	0#	9	20	34	51	59	45	8	4	0#	0#	29	16
11	0#	0#	7	17	28	38	49	31	6	4	0#	0#	22	16
14	0#	0#	4	18	24	34	42	29	6	4	0#	0#	21	16
17	0#	0#	9	14	25	40	50	32	9	4	0#	0#	23	16
20	0#	0#	5	13	25	44	54	35	7	5	0#	0#	22	16
23	0#	0#	4	12	21	50	59	36	7	2	0#	0#	23	16
ALL	0#	0#	7	17	29	48	58	38	7	4	0#	0#	25	16
PERCENT OF HOURS WITH CEILING LESS THAN 500 FEET &/OR VISIBILITY LESS THAN 1.00 MILES														
02	0#	0#	5	12	24	48	56	31	3	2	0#	0#	22	16
05	0#	0#	4	19	35	54	62	37	5	1	0#	0#	28	16
08	0#	0#	3	14	23	37	43	28	4	1	0#	0#	19	16
11	0#	0#	3	13	19	28	34	22	2	1	0#	0#	15	16
14	0#	0#	2	12	16	24	33	18	4	2	0#	0#	14	16
17	0#	0#	5	9	19	30	37	23	6	3	0#	0#	16	16
20	0#	0#	3	9	20	36	45	26	4	1	0#	0#	17	16
23	0#	0#	3	10	15	44	48	27	4	1	0#	0#	18	16
ALL	0#	0#	4	12	21	38	46	27	4	2	0#	0#	19	16
PERCENT OF HOURS WITH CEILING LESS THAN 200 FEET &/OR VISIBILITY LESS THAN 3/4 MILES														
02	0#	0#	1	3	3	7	8	3	0	0	0#	0#	3	16
05	0#	0#	1	2	3	7	7	5	0	0	0#	0#	3	16
08	0#	0#	1	1	2	3	1	4	0	1	0#	0#	1	16
11	0#	0#	0	1	0*	0*	1	1	0	0	0#	0#	1	16
14	0#	0#	0	0	0	1	1	0*	0	0	0#	0#	0*	16
17	0#	0#	0	0*	2	3	2	0*	0	0	0#	0#	1	16
20	0#	0#	1	0*	3	5	4	1	0	0	0#	0#	2	16
23	0#	0#	0	0*	2	5	6	1	0	0	0#	0#	2	16
ALL	0#	0#	0*	1	2	4	4	2	0	0*	0#	0#	2	16

NOTE :
* = VALUE > 0 AND < 0.5 PERCENT
# = INSUFFICIENT NUMBER OF OBSERVATIONS