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INTERNATIONAL CODE
FOR
RADIO WEATHER REPORTS FROM SHIPS

Revised

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INTERNATIONAL CODE FOR RADIO WEATHER REPORTS FROM SHIPS

This code book is for use in decoding ships' weather observations in the bulletins issued by the United States Weather Bureau for broadcast.

The International Code for Radio Weather Reports from Ships as contained herein was adopted in 1947 by the International Meteorological Organization (now World Meteorological Organization). It became effective for use by ships and meteorological services on January 1, 1949. Recently, the World Meteorological Organization adopted a number of changes in code specifications to become effective from January 1, 1960, and these revisions have been incorporated in this publication. Ships of all maritime countries are using this code; hence rapid translation of the message is assured, regardless of the nationality of the ship sending the report.

The code tables and explanations herein will also be useful to vessel masters and ships' officers in coding radiograms containing weather reports to be sent from ships.

DESCRIPTION OF CODE

Codes given below have been assigned FM (Form of Message) numbers for identification purposes. These identification numbers are not included in coded messages prepared for transmission by radio. It will be noted that Codes FM 22.A and FM 23.B are abridged forms of Code FM 21.A. Each item of data is given a distinctive symbol. The symbols and group arrangements are as follows:

FM 21.A: $YQL_aL_aL_a$ $L_oL_oL_oGG$ Nddff VVwwW PPPTT $N_hC_Lh C_MC_H$ D_sv_sapp ($8N_sCh_sh_s$) ($0T_sT_sT_dT_d$) ($1d_wd_wP_wH_w$)—ICE followed by plain language or (c_2KD_ire)

FM 22.A: $YQL_aL_aL_a$ $L_oL_oL_oGG$ Nddff VVwwW PPPTT $N_hC_Lh C_MC_H$ (D_sv_sxxx) —ICE followed by plain language or (c_2KD_ire)

FM 23.B: $YQL_aL_aL_a$ $L_aL_oL_aGG$ Nddff VVwwW PPXTT (D_sv_sxxx)—ICE followed by plain language or (c_2KD_ire)

Groups o[redacted] in the coded message contain five figures each. The groups enclosed in parentheses ( ) are drop-out groups which are omitted from the coded message when data therefor are not observed. The omission of any drop-out group(s) from the message will be apparent to the recipient of the message because the first figure of each of these groups is a distinct identifying figure, e. g., "0," "1," etc. There are two exceptions; some ships using Code FM 21.A do not have barographs, hence data for the group D_sv_sapp may be omitted from the message. In case the group D_sv_sapp is omitted from the report in Code FM 21.A, 30 is added to the time of observation (GG). For example, in an 0600 G. C. T. report GG would be coded as 36, i. e., 06+30. Some vessels may omit both the 6th and 7th groups of FM 21.A. If the groups $N_hC_Lh C_MC_H$ and D_sv_sapp are not reported, 60 is added to GG. Ship reports in code forms FM 22.A and FM 23.B from certain areas may have the group D_sv_sxxx added for search and rescue purposes. In code form FM 23.B, 30 is added to the time of observation (GG) when the PPXTT group is omitted.

In addition, the groups "$8N_sCh_sh_s$" and "$1d_wd_wP_wH_w$" may be repeated in the observation message when there is more than one significant cloud layer or more than one train of waves, respectively, to report. Repetition of groups in the message will be obvious since each of these groups contains the identifying figure "8" or "1," as the case may be.

Weather reports from ships at sea included in United States Weather Bureau bulletins broadcast for the benefit of merchant shipping will as a rule, contain only the first 5 groups of Code FM 21.A, plus the wave group $1d_wd_wP_wH_w$.

EXPLANATION OF SYMBOL LETTERS

a=Characteristic of barometric tendency during the period of 3 hours preceding the time of observation. (See table XVI, p. 19.)

C=Genus (type) of cloud. (See table XVIII, p. 21.)

C_H=Clouds of types Cirrus, Cirrostratus, Cirrocumulus. (See table XIII, p. 18.)

C_L=Clouds of types Stratocumulus, Stratus, Cumulus, Cumulonimbus. (See table X, p. 15.)

C_M=Clouds of types Altocumulus, Altostratus, Nimbostratus. (See table XII, p. 17.)

c_2=Description of kind of ice. (See table XXII, p. 23.)

D_l=Bearing of ice limit. (See table XXIV, p. 23.)

D_s=Ship's course (true) made good during the 3 hours preceding time of observation. (See table XIV, p. 19.)

dd=Direction (true) in 10's of degrees, FROM which wind is blowing. Scale 00–36. (See table IV, p. 8.)

d_wd_w=Direction from which waves are coming. (See table IV, p. 8.)

e=Orientation of ice limit from reporting ship. (See table XXVI, p. 24.)

ff=Wind speed in knots. (See table V, p. 9.)

GG=Greenwich civil time of observation (00=midnight, 06=6 a. m., 12=noon, and 18=6 p. m., etc.).

H_w=Height of waves. (See table XXI, p. 22.)

h=Height above ground (or sea) of the lowest cloud. (See table XI, p. 16.)

h_sh_s=Height above station (or ship) of base of cloud layer whose type is indicated by Symbol C. (See table XIX, p. 21.)

K=Effect of ice on navigation. (See table XXIII, p. 23.)

$L_aL_aL_a$=Latitude, in degrees and tenths, the tenths being obtained by dividing the number of minutes by 6 and neglecting the remainder.

$L_oL_oL_o$=Longitude, in degrees and tenths, the tenths being obtained as for latitude, $L_aL_aL_a$. The initial "1" is omitted if longitude of ship is 100 degrees or more.

N=Fraction of the celestial dome covered by clouds, in eighths. (See table III, p. 7.)

N_h=Fraction of celestial dome covered by type of cloud reported for C_L (or C_M). (See table III, p. 7.)

N_s=Fraction of the celestial dome covered by the cloud layer reported by Symbol C. (See table III, p. 7.)

PPP=Barometric pressure, in tens, units, and tenths of millibars (initial 9 or 10 omitted). The values refer to sea level and include all corrections for index errors, temperature and gravity. (See table IX, p. 13.)

PP=Barometric pressure in whole millibars, initial 9 or 10 and "tenths" omitted. (See table IX, p. 13.)

P_w=Period (in seconds) of waves. (See table XX, p. 22.)

pp=Amount of barometric change during the 3 hours preceding the time of observation expressed in units of one-tenth of a millibar. When the amount of change equals 9.9 millibars or more, an extra group "99ppp" is inserted in the message and the total amount of change coded "ppp." For example, if the amount of change is 9.9 millibars, "app 99ppp" is coded "799 99099"; 10.2 millibars is coded "799 99102." (See table XVII, p. 20.)

Q=Octant of the globe in which the ship is located. (See table II, p. 6.)

r=Distance of ice from the ship. (See table XXV, p. 24.)

TT=Temperature of the air, in whole degrees Fahrenheit.

T_dT_d=Temperature of the dew point in whole degrees Fahrenheit.

T_sT_s=Difference between air temperature and sea temperature in whole degrees Fahrenheit. If the air temperature is below the sea temperature, 50 is added to the value of the difference in coding the data. For example, if air temperature is 5° F. above sea temperature, T_sT_s is coded as 05; if air temperature is 11° F. below the sea temperature, T_sT_s is coded as 61; i. e., 11+50.

VV=Visibility or horizontal distance at which objects can be seen in daylight or at which lights can be seen at night. (See table VI, p. 9.)

v_s=Ship's average speed made good during the 3 hours preceding time of observation. (See table XV, p. 19.)

W=Past weather. (See table VIII, p. 12.)

ww=Present weather at the time of observation. (See table VII, p. 10.)

Y=Day of the week. (See table I, p. 6.)

The following is an example of an observation coded using FM (Form of Message) 21.A:

Description of data	Symbol letter	Code table		Observation as coded	
Day of week	Y	I	Tuesday	3	
Octant of globe	Q	II	North latitude 0° to 90° W.	0	1st group
Latitude	$L_aL_aL_a$	-------	North 47°38′	476	
Longitude	$L_oL_oL_o$	-------	West 46°22′	463	2d group
Time of observation (G. C. T.).	GG	-------	0000 G. C. T.	00	
Fraction of celestial dome covered by clouds.	N	III	7 eighths	7	
Wind direction (true) in 10's of degrees.	dd	IV	354°	35	3d group
Wind speed in knots	ff	V	Moderate breeze	13	
Visibility	VV	VI	1 nautical mile	95	
Present weather	ww	VII	Rain showers—moderate	81	4th group
Past weather	W	VIII	Cloudy	2	

Description of data	Symbol letter	Code table		Observation as coded	
Barometric reading	P P P	IX	1,007.1 millibars (29.74 inches).	0 7 1	5th group
Temperature of air F.°	T T		42° F	4 2	
Fraction of celestial dome covered by lowest cloud.	N_h	III	5 eighths	5	6th group
Type of low cloud	C_L	X	Stratocumulus	5	
Height of base of low cloud above sea.	h	XI	2,500 feet	5	
Type of middle cloud	C_M	XII	Altocumulus and altostratus at different levels.	7	
Type of high cloud	C_H	XIII	Strands of cirrus scattered, not increasing.	1	
Ship's course	D_s	XIV	Southwest	5	7th group
Ship's speed	v_s	XV	13 knots	5	
Barometric tendency during last 3 hours.	a	XVI	Falling then rising, but lower than 3 hours ago	5	
Amount of barometric change during last 3 hours.	p p	XVII	1.2 milibars	1 2	
Identifying figure	8			8	8th group
Amount of cloud layer.	N_s	III	5 eighths	5	
Significant cloud	C	XVIII	Stratocumulus	6	
Height of cloud layer.	h_s h_s	XIX	2,500 feet	2 5	
Identifying figure	0			0	9th group
Difference between air and sea temperature.	T_s T_s		3° F. below	5 3	
Dew point temperature	T_d T_d		40° F	4 0	
Identifying figure	1			1	10th group
Direction of waves	d_w d_w	IV	350°	3 5	
Period of waves	P_w	XX	5 seconds	2	
Height of waves	H_w	XXI	3 feet (1 meter)	2	
Identifying term	ICE			I C E	
Description of kind of ice.	c_i	XXII	Drift ice	3	11th group
Effect of ice on navigation.	K	XXIII	Navigation unobstructed for steamers.	1	
Bearing of ice limit	Di	XXIV	Ice limit toward NW	7	
Distance to ice limit	r	XXV	1½ miles	1	
Orientation of ice limit	e	XXVI	Ice NE. to SW. with ice to the NW.	1	

NOTE.—As a rule, the group $8N_sCh_sh_s$ will be omitted from ships' radio messages.

TABLES FOR DECODING RADIO WEATHER REPORTS FROM SHIPS AT SEA IN INTERNATIONAL CODE

CODE TABLE I

Symbol Y—Day of the week

Day	Code figures
Sunday	1
Monday	2
Tuesday	3
Wednesday	4
Thursday	5
Friday	6
Saturday	7

CODE TABLE II

Symbol Q—Octant of the globe

Longitude	Code figures
North latitude:	
0° W. to 90° W	0
90° W. to 180° W	1
180° E. to 90° E	2
90° E. to 0° E	3
South latitude:	
0° W. to 90° W	5
90° W. to 180° W	6
180° E. to 90° E	7
90° E. to 0° E	8

CODE TABLE III

Symbol N—Fraction of the celestial dome covered by clouds

Symbol N_h—Fraction of celestial dome covered by type of cloud reported for C_L (or C_M if no C_L cloud present)

Symbol N_s—Fraction of the celestial dome covered by the cloud layer reported by Symbol C

Code figures	Cloud amount (eighths of sky covered)	*Approximate cloud amount (tenths of sky covered)*
0	None	*None*
1	1	1
2	2	2–3
3	3	4
4	4	5
5	5	6
6	6	7–8
7	7	9
8	8	10
9	Sky obscured by fog, rain, snow, smoke or other phenomena or obstruction except clouds.	

NOTES

1. "Fragments of clouds" are coded as 1.
2. "Overcast but with openings" is coded as 7.
3. The full International specification for code figure 9, is "Sky obscured or cloud amount cannot be estimated owing to darkness."

CODE TABLE IV

Symbol dd—True direction, in 10's of degrees, FROM which wind is blowing (00–36)

Symbol $d_w d_w$—Direction, in 10's of degrees, FROM which waves come

Code figures	Direction	Code figures	Direction
00	Calm.	19	185° to 194°.
01	5° to 14°.	20	195° to 204° SSW.
02	15° to 24° NNE.	21	205° to 214°.
03	25° to 34°.	22	215° to 224°.
04	35° to 44°.	23	225° to 234° SW.
05	45° to 54° NE.	24	235° to 244°.
06	55° to 64°.	25	245° to 254° WSW.
07	65° to 74° ENE.	26	255° to 264°.
08	75° to 84°.	27	265° to 274° W.
09	85° to 94° E.	28	275° to 284°.
10	95° to 104°.	29	285° to 294° WNW.
11	105° to 114° ESE.	30	295° to 304°.
12	115° to 124°.	31	305° to 314°.
13	125° to 134°.	32	315° to 324° NW.
14	135° to 144° SE.	33	325° to 334°.
15	145° to 154°.	34	335° to 344° NNW.
16	155° to 164° SSE.	35	345° to 354°.
17	165° to 174°.	36	355° to 4° N.
18	175° to 184° S.		
	Used only with $d_w d_w$		
49	Waves confused, direction indeterminate.	99	Waves confused, direction indeterminate, but higher than 14 feet (4½ meters).

NOTE.—In case a vessel is equipped with an anemometer and the true wind speed exceeds 99 knots, 50 will be added to "dd" and only the wind speed in excess of 100 knots will be coded. For example, if direction=163° and speed=121 knots, the wind will be coded as "6621" (dd=16+50; ff=121−100).

CODE TABLE V

Symbol ff—Wind speed in knots

Code figures	Beaufort No.	Description	Equivalent speed in knots
00	Zero	Calm	0
02	One	Light airs	1–3
05	Two	Light breeze	4–6
09	Three	Gentle breeze	7–10
13	Four	Moderate breeze	11–16
18	Five	Fresh breeze	17–21
24	Six	Strong breeze	22–27
30	Seven	Near gale	28–33
37	Eight	Gale	34–40
44	Nine	Strong gale	41–47
52	Ten	Storm	48–55
60	Eleven	Violent storm	56–63
68	Twelve	Hurricane	64 and above

NOTE.—In case a vessel is equipped with an anemometer and the true wind speed exceeds 99 knots, 50 will be added to "dd" and only the wind speed in excess of 100 knots will be coded. For example, if the direction=163° and speed=121 knots, the wind will be coded as "6621" (dd=16+50; ff=121−100).

CODE TABLE VI

Symbol VV—Visibility

Code figures	Visibility	Code figures	Visibility
00	Less than 1/16 nautical mile.	61	6 nautical miles.
01	1/16 nautical mile.	63	7 nautical miles.
02	1/8 nautical mile.	65	8 nautical miles.
03	3/16 nautical mile.	67	9 nautical miles.
05	1/4 nautical mile.	69	10 nautical miles.
06	5/16 nautical mile.	70	11 nautical miles.
07	3/8 nautical mile.	72	12 nautical miles.
09	1/2 nautical mile.	74	13 nautical miles.
12	5/8 nautical mile.	76	14 nautical miles.
14	3/4 nautical mile.	78	15 nautical miles.
16	7/8 nautical mile.	81	20 nautical miles.
18	1 nautical mile.	83	25 nautical miles.
21	1 1/8 nautical miles.	85	30 nautical miles.
23	1 1/4 nautical miles.	87	35 nautical miles.
25	1 3/8 nautical miles.	89	More than 35 nautical miles.
28	1 1/2 nautical miles.	90	Less than 50 yards.
30	1 5/8 nautical miles.	91	50 yards.
32	1 3/4 nautical miles.	92	200 yards.
35	1 7/8 nautical miles.	93	1/4 nautical mile.
37	2 nautical miles.	94	1/2 nautical mile.
42	2 1/4 nautical miles.	95	1 nautical mile.
46	2 1/2 nautical miles.	96	2 nautical miles.
56	3 nautical miles.	97	5 nautical miles.
58	4 nautical miles.	98	10 nautical miles.
59	5 nautical miles.	99	25 or more nautical miles.

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CODE TABLE VII

Symbol ww—Present weather

ww=00-49 NO PRECIPITATION AT THE STATION AT THE TIME OF OBSERVATION

00–19: NO PRECIPITATION, FOG, ICE FOG, DUSTSTORM, SANDSTORM, DRIFTING OR BLOWING SNOW AT THE STATION (OR SHIP) AT THE TIME OF OBSERVATION, EXCEPT FOR 09 AND 17, OR DURING THE PRECEDING HOUR.

See note 2.

- 00 Cloud development not observed
- 01 Clouds generally dissolving or becoming less developed
- 02 State of sky on the whole unchanged
- 03 Clouds generally forming or developing

} Characteristic change of the state of sky during the past hour.

Haze, dust, sand or smoke.

- 04 Visibility reduced by smoke, e.g., from veldt or forest fires, industrial smoke, or volcanic ashes.
- 05 Haze.
- 06 Widespread dust in suspension in the air, not raised by wind at or near the station (or ship) at the time of observation.
- 07 Dust or sand raised by wind at or near the station (or ship) at the time of observation, but no well developed dust whirl(s) or sand whirl(s) and no duststorm or sandstorm seen.
- 08 Well developed dust whirl(s) or sand whirl(s) seen at or near the station (or ship) within last hour, but no duststorm or sandstorm.
- 09 Duststorm or sandstorm within sight of station (or ship) or at station (or ship) at time of observation or during the last hour.

- 10 Light fog, visibility 1,000 meters (1,100 yards) or more.
- 11 Patches of ---
- 12 More or less continuous

} Shallow fog or ice fog at the station (or ship) not deeper than about 2 meters (6½ feet) on land or 10 meters (33 feet) at sea (visibility less than 1,000 meters (1,100 yards)).

- 13 Lightning visible, no thunder heard.
- 14 Precipitation within sight, but not reaching ground or surface of the sea.
- 15 Precipitation within sight, reaching ground or surface of the sea, but distant [i.e., estimated to be more than 5 kilometers (3 miles) from station (or ship)].
- 16 Precipitation within sight, reaching ground or surface of the sea, near to but not at the station (or ship).
- 17 Thunderstorm, but no precipitation at the time of observation.
- 18 Squall(s)
- 19 Funnel cloud(s)* (tornado or waterspout)

} within sight during the past hour.

20–29: PRECIPITATION, FOG OR ICE FOG OR THUNDERSTORM AT THE STATION (OR SHIP) DURING THE PRECEDING HOUR BUT NOT AT THE TIME OF OBSERVATION.

- 20 Drizzle (not freezing) or snow grains
- 21 Rain (not freezing)
- 22 Snow
- 23 Rain and snow or ice pellets. (See fig. 79.)
- 24 Freezing drizzle or freezing rain

} not falling as showers.

- 25 Shower(s) of rain.
- 26 Shower(s) of snow, or of rain and snow.
- 27 Shower(s) of hail, or of hail and rain.
- 28 Fog or ice fog (visibility less than 1,000 meters (1,100 yards)).
- 29 Thunderstorm (with or without precipitation).

30–39: DUSTSTORM, SANDSTORM OR DRIFTING OR BLOWING SNOW.

- 30 Slight or moderate duststorm or sandstorm

} has decreased during the preceding hour.

- 31 Slight or moderate duststorm or sandstorm

} no appreciable change during the preceding hour.

- 32 Slight or moderate duststorm or sandstorm

} has begun or increased during the preceding hour.

- 33 Severe duststorm or sandstorm

} has decreased during the preceding hour.

- 34 Severe duststorm or sandstorm

} no appreciable change during preceding hour.

- 35 Severe duststorm or sandstorm

} has begun or increased during the preceding hour.

- 36 Slight or moderate drifting snow
- 37 Heavy drifting snow

} Drifting snow 10 meters (33 ft.) or below at sea.

- 38 Slight or moderate blowing snow
- 39 Heavy blowing snow

} Blowing snow above 10 meters (33 ft.) at sea.

40–49: FOG OR ICE FOG AT THE TIME OF OBSERVATION (visibility less than 1,000 meters (1,100 yards)).

40 Fog or ice fog at a distance at the time of observation, but not at the station (or ship) during the last hour, the fog extending to a level above that of the observer.
41 Fog or ice fog in patches.
42 Fog or ice fog, sky discernible } has become thinner during the preceding hour.
43 Fog or ice fog, sky not discernible }
44 Fog or ice fog, sky discernible } no appreciable change during the preceding hour.
45 Fog or ice fog, sky not discernible }
46 Fog or ice fog, sky discernible } has begun or has become thicker during the preceding hour.
47 Fog or ice fog, sky not discernible }
48 Fog, depositing rime, sky discernible.
49 Fog, depositing rime, sky not discernible.

50–59 PRECIPITATION AT THE STATION (OR SHIP) AT THE TIME OF OBSERVATION

50–59: DRIZZLE AT TIME OF OBSERVATION.
50 Drizzle, not freezing, intermittent } slight at time of observation.
51 Drizzle, not freezing, continuous }
52 Drizzle, not freezing, intermittent } moderate at time of observation.
53 Drizzle, not freezing, continuous }
54 Drizzle, not freezing, intermittent } heavy (dense) at time of observation.
55 Drizzle, not freezing, continuous }
56 Drizzle, freezing, slight.
57 Drizzle, freezing, moderate or heavy (dense).
58 Drizzle and rain, slight.
59 Drizzle and rain, moderate or heavy.

60–69: RAIN AT TIME OF OBSERVATION.
60 Rain, not freezing, intermittent } slight at time of observation.
61 Rain, not freezing, continuous }
62 Rain, not freezing, intermittent } moderate at time of observation.
63 Rain, not freezing, continuous }
64 Rain, not freezing, intermittent } heavy at time of observation.
65 Rain, not freezing, continuous }
66 Rain, freezing, slight.
67 Rain, freezing, moderate or heavy.
68 Rain or drizzle and snow, slight.
69 Rain or drizzle and snow, moderate or heavy.

70–79: SOLID PRECIPITATION NOT IN SHOWERS AT TIME OF OBSERVATION.
70 Intermittent fall of snowflakes } slight at time of observation.
71 Continuous fall of snowflakes }
72 Intermittent fall of snowflakes } moderate at time of observation.
73 Continuous fall of snowflakes }
74 Intermittent fall of snowflakes } heavy at time of observation.
75 Continuous fall of snowflakes }
76 Ice prisms (with or without fog).
77 Snow grains (with or without fog).
78 Isolated starlike snow crystals (with or without fog).
79 Ice pellets (i.e., frozen raindrops or largely melted and refrozen snowflakes).

80–99: SHOWERY PRECIPITATION, OR PRECIPITATION WITH CURRENT OR RECENT THUNDERSTORM.
80 Rain shower(s), slight.
81 Rain shower(s), moderate or heavy.
82 Rain shower(s), violent.
83 Shower(s) of rain and snow mixed, slight.
84 Shower(s) of rain and snow mixed, moderate or heavy.
85 Snow shower(s), slight.
86 Snow shower(s), moderate or heavy.
87 Shower(s) of snow pellets or ice pellets* with or without rain or rain and snow mixed } slight.
88 Shower(s) of snow pellets or ice pellets* with or without rain or rain and snow mixed } moderate or heavy.
89 Shower(s) of hail with or without rain or rain and snow mixed, not associated with thunder } slight.
90 Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder } moderate or heavy.
91 Slight rain at time of observation
92 Moderate or heavy rain at time of observation
93 Slight snow or rain and snow mixed or hail* at time of observation
94 Moderate or heavy snow, or rain and snow mixed or hail* at time of observation
} thunderstorm during the preceding hour but not at time of observation

95	Thunderstorm, slight or moderate, without hail* but with rain and/or snow at time of observation	thunderstorm at time of observation.
96	Thunderstorm, slight or moderate, with hail* at time of observation	
97	Thunderstorm, heavy, without hail* but with rain and/or snow at time of observation	
**98	Thunderstorm combined with duststorm or sandstorm—at time of observation	
99	Thunderstorm, heavy, with hail* at time of observation	

NOTES

1. In general, when coding ww the highest applicable figure is selected.

2. The amount of cloudiness at the time of observation is reported by symbol "N" in the group "Nddff." Code figures 00 to 03, inclusive, are used only when there is no other applicable code figure in the "ww" table to report. Code figure 00 is used when the observer has not had an opportunity to observe cloud development during the hour preceding the time of observation; 01 for clouds generally dissolving or becoming less developed; 02 for state of sky on the whole unchanged and 03 for clouds generally forming or developing. In coding 01, 02 and 03 there is no limitation on the magnitude of the change of cloud amount. ww=00, 01 and 02 can each be used when the sky is clear at the time of observation. In this case the following interpretations of the specifications will apply:

00 is used when the preceding conditions are not known.
01 is used when the clouds have dissolved during the past hour.
02 is used when the sky condition has been continuously clear during the past hour.

3. Whenever the description "intermittent" is used, precipitation has not continued without a break during the preceding hour.

CODE TABLE VIII

Symbol W—Past weather

Code figures	Description
0	Cloud covering ½ or less of the sky throughout period.
1	Cloud covering more than ½ of sky during part of period, and less than ½ during part of period.
2	Cloud covering more than ½ of sky through out period.
3	Sandstorm or duststorm or blowing snow.
4	Fog or ice fog or thick haze.
5	Drizzle.
6	Rain.
7	Snow or rain and snow mixed or ice pellets.
8	Shower(s).
9	Thunderstorm(s) with or without precipitation.

NOTES

1. In 0000, 0600, 1200 and 1800 G. C. T. reports "Past Weather" covers the preceding 6-hour period while in 0300, 0900, 1500, and 2100 G. C. T. reports, "W" covers the preceding 3-hour period.

2. The code figure for "W" is selected in order that "W" and "ww" together give as complete a description as possible of the weather in the time interval concerned. For example, if the type of weather undergoes a complete change during the time interval concerned, the code figure selected for "W" will describe the weather prevailing before the type of weather indicated by "ww" began. If however more than one code figure may be given to W with regard to past weather, the higher code figure is reported.

*Hail, ice pellets, i.e., pellets of snow encased in a thin layer of ice; snow pellets.
**In reporting code figure 98, the observer is allowed considerable latitude in the presumption that precipitation is or is not occurring if it is not actually visible.

CODE TABLE IX

Symbol PPP—Corrected barometer reading

Coded in "tens," "units," and "tenths" of millibars, initial 9 or 10 omitted. For example, 982.1 millibars is coded as 821; 1,010.9 millibars as 109, etc.

Inches	Millibars	Inches	Millibars	Inches	Millibars	Inches	Millibars
27. 50	931. 3	28. 06	950. 2	28. 62	969. 2	29. 18	988. 2
27. 51	931. 6	28. 07	950. 6	28. 63	969. 5	29. 19	988. 5
27. 52	931. 9	28. 08	950. 9	28. 64	969. 9	29. 20	988. 8
27. 53	932. 3	28. 09	951. 2	28. 65	970. 2	29. 21	989. 2
27. 54	932. 6	28. 10	951. 6	28. 66	970. 5	29. 22	989. 5
27. 55	933. 0	28. 11	951. 9	28. 67	970. 9	29. 23	989. 8
27. 56	933. 3	28. 12	952. 3	28. 68	971. 2	29. 24	990. 2
27. 57	933. 6	28. 13	952. 6	28. 69	971. 6	29. 25	990. 5
27. 58	934. 0	28. 14	952. 9	28. 70	971. 9	29. 26	990. 9
27. 59	934. 3	28. 15	953. 3	28. 71	972. 2	29. 27	991. 2
27. 60	934. 6	28. 16	953. 6	28. 72	972. 6	29. 28	991. 5
27. 61	935. 0	28. 17	953. 9	28. 73	972. 9	29. 29	991. 9
27. 62	935. 3	28. 18	954. 3	28. 74	973. 2	29. 30	992. 2
27. 63	935. 7	28. 19	954. 6	28. 75	973. 6	29. 31	992. 6
27. 64	936. 0	28. 20	955. 0	28. 76	973. 9	29. 32	992. 9
27. 65	936. 3	28. 21	955. 3	28. 77	974. 3	29. 33	993. 2
27. 66	936. 7	28. 22	955. 6	28. 78	974. 6	29. 34	993. 6
27. 67	937. 0	28. 23	956. 0	28. 79	974. 9	29. 35	993. 9
27. 68	937. 4	28. 24	956. 3	28. 80	975. 3	29. 36	994. 2
27. 69	937. 7	28. 25	956. 7	28. 81	975. 6	29. 37	994. 6
27. 70	938. 0	28. 26	957. 0	28. 82	976. 0	29. 38	994. 9
27. 71	938. 4	28. 27	957. 3	28. 83	976. 3	29. 39	995. 3
27. 72	938. 7	28. 28	957. 7	28. 84	976. 6	29. 40	995. 6
27. 73	939. 0	28. 29	958. 0	28. 85	977. 0	29. 41	995. 9
27. 74	939. 4	28. 30	958. 3	28. 86	977. 3	29. 42	996. 3
27. 75	939. 7	28. 31	958. 7	28. 87	977. 7	29. 43	996. 6
27. 76	940. 1	28. 32	959. 0	28. 88	978. 0	29. 44	997. 0
27. 77	940. 4	28. 33	959. 4	28. 89	978. 3	29. 45	997. 3
27. 78	940. 7	28. 34	959. 7	28. 90	978. 7	29. 46	997. 6
27. 79	941. 1	28. 35	960. 0	28. 91	979. 0	29. 47	998. 0
27. 80	941. 4	28. 36	960. 4	28. 92	979. 3	29. 48	998. 3
27. 81	941. 8	28. 37	960. 7	28. 93	979. 7	29. 49	998. 6
27. 82	942. 1	28. 38	961. 1	28. 94	980. 0	29. 50	999. 0
27. 83	942. 4	28. 39	961. 4	28. 95	980. 4	29. 51	999. 3
27. 84	942. 8	28. 40	961. 7	28. 96	980. 7	29. 52	999. 7
27. 85	943. 1	28. 41	962. 1	28. 97	981. 0	29. 53	1, 000. 0
27. 86	943. 4	28. 42	962. 4	28. 98	981. 4	29. 54	1, 000. 3
27. 87	943. 8	28. 43	962. 8	28. 99	981. 7	29. 55	1, 000. 7
27. 88	944. 1	28. 44	963. 1	29. 00	982. 1	29. 56	1, 001. 0
27. 89	944. 5	28. 45	963. 4	29. 01	982. 4	29. 57	1, 001. 4
27. 90	944. 8	28. 46	963. 8	29. 02	982. 7	29. 58	1, 001. 7
27. 91	945. 1	28. 47	964. 1	29. 03	983. 1	29. 59	1, 002. 0
27. 92	945. 5	28. 48	964. 4	29. 04	983. 4	29. 60	1, 002. 4
27. 93	945. 8	28. 49	964. 8	29. 05	983. 7	29. 61	1, 002. 7
27. 94	946. 2	28. 50	965. 1	29. 06	984. 1	29. 62	1, 003. 1
27. 95	946. 5	28. 51	965. 5	29. 07	984. 4	29. 63	1, 003. 4
27. 96	946. 8	28. 52	965. 8	29. 08	984. 8	29. 64	1, 003. 7
27. 97	947. 2	28. 53	966. 1	29. 09	985. 1	29. 65	1, 004. 1
27. 98	947. 5	28. 54	966. 5	29. 10	985. 4	29. 66	1, 004. 4
27. 99	947. 9	28. 55	966. 8	29. 11	985. 8	29. 67	1, 004. 7
28. 00	948. 2	28. 56	967. 2	29. 12	986. 1	29. 68	1, 005. 1
28. 01	948. 5	28. 57	967. 5	29. 13	986. 5	29. 69	1, 005. 4
28. 02	948. 9	28. 58	967. 8	29. 14	986. 8	29. 70	1, 005. 8
28. 03	949. 2	28. 59	968. 2	29. 15	987. 1	29. 71	1, 006. 1
28. 04	949. 5	28. 60	968. 5	29. 16	987. 5	29. 72	1, 006. 4
28. 05	949. 9	28. 61	968. 8	29. 17	987. 8	29. 73	1, 006. 8

Inches	Millibars	Inches	Millibars	Inches	Millibars	Inches	Millibars
29. 74	1, 007. 1	30. 06	1, 018. 0	30. 38	1, 028. 8	30. 69	1, 039. 3
29. 75	1, 007. 5	30. 07	1, 018. 3	30. 39	1, 029. 1	30. 70	1, 039. 6
29. 76	1, 007. 8	30. 08	1, 018. 6	30. 40	1, 029. 5	30. 71	1, 040. 0
29. 77	1, 008. 1	30. 09	1, 019. 0	30. 41	1, 029. 8	30. 72	1, 040. 3
29. 78	1, 008. 5	30. 10	1, 019. 3	30. 42	1, 030. 1	30. 73	1, 040. 6
29. 79	1, 008. 8	30. 11	1, 019. 6	30. 43	1, 030. 5	30. 74	1, 041. 0
29. 80	1, 009. 1	30. 12	1, 020. 0	30. 44	1, 030. 8	30. 75	1, 041. 3
29. 81	1, 009. 5	30. 13	1, 020. 3	30. 45	1, 031. 2	30. 76	1, 041. 7
29. 82	1, 009. 8	30. 14	1, 020. 7	30. 46	1, 031. 5	30. 77	1, 042. 0
29. 83	1, 010. 2	30. 15	1, 021. 0	30. 47	1, 031. 8	30. 78	1, 042. 3
29. 84	1, 010. 5	30. 16	1, 021. 3	30. 48	1, 032. 2	30. 79	1, 042. 7
29. 85	1, 010. 8	30. 17	1, 021. 7	30. 49	1, 032. 5	30. 80	1, 043. 0
29. 86	1, 011. 2	30. 18	1, 022. 0	30. 50	1, 032. 9	30. 81	1, 043. 3
29. 87	1, 011. 5	30. 19	1, 022. 4	30. 51	1, 033. 2	30. 82	1, 043. 7
29. 88	1, 011. 9	30. 20	1, 022. 7	30. 52	1, 033. 5	30. 83	1, 044. 0
29. 89	1, 012. 2	30. 21	1, 023. 0	30. 53	1, 033. 9	30. 84	1, 044. 4
29. 90	1, 012. 5	30. 22	1, 023. 4	30. 54	1, 034. 2	30. 85	1, 044. 7
29. 91	1, 012. 9	30. 23	1, 023. 7	30. 55	1, 034. 5	30. 86	1, 045. 0
29. 92	1, 013. 2	30. 24	1, 024. 0	30. 56	1, 034. 9	30. 87	1, 045. 4
29. 93	1, 013. 5	30. 25	1, 024. 4	30. 57	1, 035. 2	30. 88	1, 045. 7
29. 94	1, 013. 9	30. 26	1, 024. 7	30. 58	1, 035. 6	30. 89	1, 046. 1
29. 95	1, 014. 2	30. 27	1, 025. 1	30. 59	1, 035. 9	30. 90	1, 046. 4
29. 96	1, 014. 6	30. 28	1, 025. 4	30. 60	1, 036. 2	30. 91	1, 046. 7
29. 97	1, 014. 9	30. 29	1, 025. 7	30. 61	1, 036. 6	30. 92	1, 047. 1
29. 98	1, 015. 2	30. 30	1, 026. 1	30. 62	1, 036. 9	30. 93	1, 047. 4
29. 99	1, 015. 6	30. 31	1, 026. 4	30. 63	1, 037. 3	30. 94	1, 047. 8
30. 00	1, 015. 9	30. 32	1, 026. 8	30. 64	1, 037. 6	30. 95	1, 048. 1
30. 01	1, 016. 3	30. 33	1, 027. 1	30. 65	1, 037. 9	30. 96	1, 048. 4
30. 02	1, 016. 6	30. 34	1, 027. 4	30. 66	1, 038. 3	30. 97	1, 048. 8
30. 03	1, 016. 9	30. 35	1, 027. 8	30. 67	1, 038. 6	30. 98	1, 049. 1
30. 04	1, 017. 3	30. 36	1, 028. 1	30. 68	1, 038. 9	30. 99	1, 049. 5
30. 05	1, 017. 6	30. 37	1, 028. 4				

NOTE.—1 inch = 33.86395 millibars; 1 millibar = 0.02952993 inch; 1 millimeter = 0.039370 inch; 1 inch = 25.40005 millimeters; 1 millibar = 0.7500616 millimeter; 1 millimeter = 1.33322387 millibars.

Symbol PP—Corrected barometer reading. Coded in "tens" and "units" of millibars, initial 9 or 10 omitted. For example, 982 millibars is coded as 82. See Code Table IX.

CODE TABLE X

Symbol C_L—Clouds of types Stratocumulus, Stratus, Cumulus, and Cumulonimbus

Code figures	Technical language specifications	Plain language specifications
0	No C_L clouds	No Cumulus, Cumulonimbus, Stratocumulus or Stratus.
1	Cumulus humilis, or Cumulus fractus other than of bad weather, or both.	Cumulus with little vertical extent and seemingly flattened, or ragged Cumulus other than of bad weather, or both.
2	Cumulus mediocris or congestus, with or without Cumulus of species fractus or humilis, or Stratocumulus; all having their bases at the same level.	Cumulus of moderate or strong vertical extent generally with protuberances in the form of domes or towers, either accompanied or not by other Cumulus or by Stratocumulus; all having their bases at the same level.
3	Cumulonimbus calvus, with or without Cumulus, Stratocumulus or Stratus.	Cumulonimbus the summits of which, at least partially, lack sharp outlines, but are neither clearly fibrous (cirriform), nor in the form of an anvil; Cumulus, Stratocumulus or Stratus may be present.
4	Stratocumulus cumulogenitus	Stratocumulus formed by the spreading out of Cumulus; Cumulus may also be present.
5	Stratocumulus other than Stratocumulus cumulogenitus.	Stratocumulus not resulting from the spreading out of Cumulus.
6	Stratus nebulosus or Stratus fractus other than of bad weather, or both.	Stratus in a more or less continuous sheet or layer, or in ragged shreds or both, but no Stratus fractus of bad weather.
7	Stratus fractus or Cumulus fractus of bad weather or both (pannus) usually below Altostratus or Nimbostratus.	Stratus fractus of bad weather or Cumulus fractus of bad weather or both (pannus) usually below Altostratus or Nimbostratus.
8	Cumulus and Stratocumulus, other than Stratocumulus cumulogenitus, with bases at different levels.	Cumulus and Stratocumulus, other than those formed from the spreading out of Cumulus; the base of Cumulus is at a different level than that of the Stratocumulus.
9	Cumulonimbus capillatus (often with an anvil), with or without Cumulonimbus calvus, Cumulus, Stratocumulus, Stratus or pannus.	Cumulonimbus, the upper part of which is clearly fibrous (cirriform) often in the form of an anvil; either accompanied, or not by Cumulonimbus without anvil or fibrous upper part, by Cumulus, Stratocumulus, Stratus, or pannus.
X	Clouds C_L not visible owing to darkness, fog, blowing dust or sand, or other similar phenomena.	No Cumulus, Cumulonimbus, Stratocumulus or Stratus visible owing to darkness, fog, blowing dust or sand, or other similar phenomena.

NOTE: "Bad Weather" denotes the conditions which generally exist during precipitation and a short time before and after.

CODE TABLE XI

Symbol h—Height above sea of base of the cloud

Code figures	Feet	Meters
0	0 to 150	0 to 50.
1	150 to 300	50 to 100.
2	300 to 600	100 to 200.
3	600 to 1,000	200 to 300.
4	1,000 to 2,000	300 to 600.
5	2,000 to 3,500	600 to 1,000.
6	3,500 to 5,000	1,000 to 1,500.
7	5,000 to 6,500	1,500 to 2,000.
8	6,500 to 8,000	2,000 to 2,500.
9	8,000 or higher or no clouds.	2,500 or higher or no clouds.

NOTES

1. Symbol "h" reports the height of the base of the lowest cloud layer of C_L or C_M clouds. When only fragments of clouds are present, "h" indicates the height of the fragments.

2. If the height of the cloud base is exactly equal to a height given in the table, the higher code figure is used. For example, a height of 600 feet is coded as 3.

3. When the sky is obscured by rain, snow, fog, smoke, or other phenomena so that cloud cannot be observed, "h" is coded as 0 and "N_h" as 9.

4. If the height of the cloud base cannot be reported owing to darkness or any reason not covered by Note 3, an X is reported for "h".

CODE TABLE XII

Symbol C_M—Clouds of types Altocumulus, Altostratus, and Nimbostratus

Code figures	Technical language specifications	Plain language specifications
0	No C_M clouds	No Altocumulus, Altostratus or Nimbostratus.
1	Altostratus translucidus	Altostratus, the greater part of which is semitransparent; through this part the sun or moon may be weakly visible as through ground glass.
2	Altostratus opacus or Nimbostratus.	Altostratus, the greater part of which is sufficiently dense to hide the sun (or moon), or Nimbostratus.
3	Altocumulus translucidus at a single level.	Altocumulus, the greater part of which is semitransparent; the various elements of the cloud change only slowly and are all at a single level.
4	Patches of Altocumulus translucidus (often lenticular), continuously changing and occurring at one or more levels.	Patches (often in the form of almonds or fishes) of Altocumulus, the greater part of which is semitransparent; the clouds occur at one or more levels and the elements are continually changing in appearance.
5	Altocumulus translucidus in bands, or one or more layers of Altocumulus translucidus or opacus progressively invading the sky; these Altocumulus clouds generally thicken as a whole.	Semitransparent Altocumulus in bands or Altocumulus in one or more fairly continuous layers (semitransparent or opaque) progressively invading the sky; these Altocumulus clouds generally thicken as a whole.
6	Altocumulus cumulogenitus (or cumulonimbogenitus).	Altocumulus resulting from the spreading out of Cumulus (or Cumulonimbus).
7	Altocumulus translucidus or opacus in 2 or more layers, or Altocumulus opacus in a single layer, not progressively invading the sky, or Altocumulus with Altostratus or Nimbostratus.	Altocumulus in two or more layers usually opaque in places and not progressively invading the sky; or opaque layer of Altocumulus not progressively invading the sky; or Altocumulus together with Altostratus or Nimbostratus.
8	Altocumulus castellanus or floccus.	Altocumulus with sproutings in the form of small towers or battlements, or Altocumulus having the appearance of cumuliform tufts.
9	Altocumulus of a chaotic sky, generally at several levels.	Altocumulus of a chaotic sky generally at several levels.
X	Clouds C_M not visible owing to darkness, fog, blowing dust or sand, or other similar phenomena, or because of a continuous layer of lower clouds.	No Altocumulus, Altostratus or Nimbostratus visible owing to darkness, fog, blowing dust or sand, or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

CODE TABLE XIII

Symbol C_H—Clouds of types Cirrus, Cirrostratus, and Cirrocumulus

Code figures	Technical language specifications	Plain language specifications
0	No C_H clouds	No Cirrus, Cirrostratus or Cirrocumulus.
1	Cirrus fibratus, sometimes uncinus, not progressively invading the sky.	Cirrus in the form of filaments, strands or hooks, not progressively invading the sky.
2	Cirrus spissatus, in patches or entangled sheaves, which usually do not increase and sometimes seem to be the remains of the upper part of a Cumulonimbus; or Cirrus castellanus or floccus.	Dense Cirrus in patches or entangled sheaves which usually do not increase and sometimes seem to be the remains of the upper parts of Cumulonimbus; or Cirrus with sproutings in the form of small turrets or battlements or Cirrus having the appearance of cumuliform tufts.
3	Cirrus spissatus cumulonimbogenitus.	Dense Cirrus often in the form of an anvil, being the remains of the upper parts of Cumulonimbus.
4	Cirrus uncinus, or fibratus, or both, progressively invading the sky; they generally thicken as a whole.	Cirrus in the form of hooks or filaments or both, progressively invading the sky; they generally become denser as a whole.
5	Cirrus, often in bands, and Cirrostratus, or Cirrostratus alone, progressively invading the sky; they generally thicken as a whole, but the continuous veil does not reach 45° above the horizon.	Cirrus, often in bands converging towards 1 point or 2 opposite points of the horizon and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole, but the continuous veil does not reach 45° above the horizon.
6	Cirrus, often in bands, and Cirrostratus, or Cirrostratus alone, progressively invading the sky; they generally thicken as a whole, but the continuous veil extends more than 45° above the horizon, without the sky being totally covered.	Cirrus, often in bands converging towards 1 point or 2 opposite points of the horizon, and Cirrostratus, or Cirrostratus alone; in either case they are progressively invading the sky, and generally growing denser as a whole; the continuous veil extends more than 45° above the horizon, without the sky being completely covered.
7	Cirrostratus covering the whole sky.	Veil of Cirrostratus covering the celestial dome.
8	Cirrostratus not progressively invading the sky, and not entirely covering it.	Cirrostratus not progressively invading the sky, and not completely covering the celestial dome.
9	Cirrocumulus alone, or Cirrocumulus predominant among the cirriform clouds.	Cirrocumulus alone, or Cirrocumulus accompanied by Cirrus or Cirrostratus or both, but Cirrocumulus is predominant.
X	Clouds C_H not visible owing to darkness, fog, blowing dust or sand or other similar phenomena, or because of a continuous layer of lower clouds.	No Cirrus, Cirrostratus or Cirrocumulus visible owing to darkness, fog, blowing dust or sand, or other similar phenomena, or more often because of the presence of a continuous layer of lower clouds.

CODE TABLE XIV

Symbol D_s—Ship's course (true) made good during the 3 hours preceding the time of observation

Code figures	True direction	Code figures	True direction
0	Ship hove to.	5	SW.
1	NE.	6	W.
2	E.	7	NW.
3	SE.	8	N.
4	S.	9	No information.

CODE TABLE XV

Symbol v_s—Ship's average speed made good during the 3 hours preceding the time of observation

Code figures	Speed	Code figures	Speed
0	Ship stopped.	5	13 to 15 knots.
1	1 to 3 knots.	6	16 to 18 knots.
2	4 to 6 knots.	7	19 to 21 knots.
3	7 to 9 knots.	8	22 to 24 knots.
4	10 to 12 knots.	9	More than 24 knots.

CODE TABLE XVI

Symbol a—Characteristic of changes of barometer in the last 3 hours

Code figures	Description	
0	Rising, then falling. Barometer the same or higher than 3 hours ago.	
1	Rising, then steady; or rising then rising more slowly.	Barometer now higher than 3 hours ago.
2	Rising, steadily or unsteadily.	
3	Falling or steady, then rising; or rising then rising more quickly.	
4	Steady. Barometer the same as 3 hours ago.	
5	Falling, then rising. Barometer the same or lower than 3 hours ago.	
6	Falling, then steady; or falling then falling more slowly.	Barometer now lower than 3 hours ago.
7	Falling, steadily or unsteadily.	
8	Steady or rising, then falling; or falling, then falling more quickly.	

CODE TABLE XVII

Symbols pp—Amount of barometric change in the last 3 hours

Coded in units of 1/10 of a millibar. For example, 1/10 millibar is coded as 01; 1.2 millibars as 12.

Amount of rise or fall		Amount of rise or fall		Amount of rise or fall		Amount of rise or fall	
Millibars	Inch	Millibars	Inch	Millibars	Inch	Millibars	Inch
0. 2	0. 005	4. 4	0. 130	8. 6	0. 255	12. 9	0. 380
0. 3	. 010	4. 6	. 135	8. 8	. 260	13. 0	. 385
0. 5	. 015	4. 7	. 140	9. 0	. 265	13. 2	. 390
0. 7	. 020	4. 9	. 145	9. 1	. 270	13. 4	. 395
0. 8	. 025	5. 1	. 150	9. 3	. 275	13. 5	. 400
1. 0	. 030	5. 2	. 155	9. 5	. 280	13. 7	. 405
1. 2	. 035	5. 4	. 160	9. 7	. 285	13. 9	. 410
1. 4	. 040	5. 6	. 165	9. 8	. 290	14. 1	. 415
1. 5	. 045	5. 8	. 170	10. 0	. 295	14. 2	. 420
1. 7	. 050	5. 9	. 175	10. 2	. 300	14. 4	. 425
1. 9	. 055	6. 1	. 180	10. 3	. 305	14. 6	. 430
2. 0	. 060	6. 3	. 185	10. 5	. 310	14. 7	. 435
2. 2	. 065	6. 4	. 190	10. 7	. 315	14. 9	. 440
2. 4	. 070	6. 6	. 195	10. 8	. 320	15. 1	. 445
2. 5	. 075	6. 8	. 200	11. 0	. 325	15. 2	. 450
2. 7	. 080	6. 9	. 205	11. 2	. 330	15. 4	. 455
2. 9	. 085	7. 1	. 210	11. 3	. 335	15. 6	. 460
3. 0	. 090	7. 3	. 215	11. 5	. 340	15. 7	. 465
3. 2	. 095	7. 5	. 220	11. 7	. 345	15. 9	. 470
3. 4	. 100	7. 6	. 225	11. 9	. 350	16. 1	. 475
3. 6	. 105	7. 8	. 230	12. 0	. 355	16. 3	. 480
3. 7	. 110	8. 0	. 235	12. 2	. 360	16. 4	. 485
3. 9	. 115	8. 1	. 240	12. 4	. 365	16. 6	. 490
4. 1	. 120	8. 3	. 245	12. 5	. 370	16. 8	. 495
4. 2	. 125	8. 5	. 250	12. 7	. 375	16. 9	. 500

CODE TABLE XVIII

Symbol C—Form of significant cloud

Code figures	Form of cloud	Abbreviation
0	Cirrus	Ci.
1	Cirrocumulus	Cc.
2	Cirrostratus	Cs.
3	Altocumulus	Ac.
4	Altostratus	As.
5	Nimbostratus	Ns.
6	Stratocumulus	Sc.
7	Stratus	St.
8	Cumulus	Cu.
9	Cumulonimbus	Cb.
X	Cloud not visible owing to darkness, fog, dust-storm or similar phenomena.	

CODE TABLE XIX

Symbol h_sh_s—Height above station (or ship) of base of cloud layer whose type is indicated by Symbol C

Code figures	Feet	Meters	Code figures	Feet	Meters
00	Lower than 100	Lower than 30.	79	29,000	8,700.
01	100	30.	80	30,000	9,000.
02	200	60.	81	35,000	10,500.
03	300	90.	82	40,000	12,000.
04	400	120.	83	45,000	13,500.
05	500	150.	etc.	etc.	etc.
06	600	180.	89	over 70,000	over 21,000.
07	700	210.	90	0 to 150	0 to 50.
08	800	240.	91	150 to 300	50 to 100.
09	900	270.	92	300 to 600	100 to 200.
10	1,000	300.	93	600 to 1,000	200 to 300.
etc.	etc.	etc.	94	1,000 to 2,000	300 to 600.
50	5,000	1,500.	95	2,000 to 3,000	600 to 1,000.
51 to 55	Not used	Not used.	96	3,000 to 5,000	1,000 to 1,500.
56	6,000	1,800.	97	5,000 to 6,500	1,500 to 2,000.
57	7,000	2,100.	98	6,500 to 8,000	2,000 to 2,500.
etc.	etc.	etc.	99	8,000 or more or no clouds.	2,500 or more or no clouds.
78	28,000	8,400.			

NOTES

1. For each code figure 01 to 50 inclusive, in the above table, the height increases 100 feet (30 meters). For each code figure 56 to 80 inclusive, the height increases in steps of 1,000 feet (300 meters). For each code figure 81 to 89 inclusive, the height increases in steps of 5,000 feet (1,500 meters).

2. Code figures 90–99: If the base of cloud is exactly equal to a height given in the table, the higher code figure is used. For example a height of 600 feet is coded as 93.

CODE TABLE XX

Symbol P_w—Period of waves

Code figures	Period
2	5 seconds or less.
3	6 to 7 seconds.
4	8 to 9 seconds.
5	10 to 11 seconds.
6	12 to 13 seconds.
7	14 to 15 seconds.
8	16 to 17 seconds.
9	18 to 19 seconds.
0	20 to 21 seconds.
1	Over 21 seconds.
x	Calm or period unable to be determined.

CODE TABLE XXI

Symbol H_w—Height of waves

Code figures	Height
0	Less than 1 foot (¼ meter).
1	1½ feet (½ meter).
2	3 feet (1 meter).
3	5 feet (1½ meters).
4	6½ feet (2 meters).
5	8 feet (2½ meters).
6	9½ feet (3 meters).
7	11 feet (3½ meters).
8	13 feet (4 meters).
9	14 feet (4½ meters).
x	Height impossible to determine.
	(When 50 is added to $d_w d_w$, the height of waves is as follows):
0	16 feet (5 meters).
1	17½ feet (5½ meters).
2	19 feet (6 meters).
3	21 feet (6½ meters).
4	22½ feet (7 meters).
5	24 feet (7½ meters).
6	25½ feet (8 meters).
7	27 feet (8½ meters).
8	29 feet (9 meters).
9	30½ feet (9½ meters).
x	Height impossible to determine.

NOTES

1. Each code figure except "zero" covers a range of ½ meter; e. g., code figure 1=¼ meter to ¾ meter, code figure 2=¾ meter to 1¼ meters.
2. If the wave height is exactly between the heights corresponding to 2 code figures, the lower code figure is reported.
3. For wave heights greater than 31 feet (9¼ meters), the code figure for 30½ feet (9½ meters) is reported followed by the word "WAVES" and the actual height of the waves in feet or meters; e. g., "WAVES 37."

CODE TABLE XXII

Symbol c_2—Description of kind of ice

Code figures	Description
0	No ice. ("0" will be used to report "ice blink," and then a direction must be reported.)
1	New ice.
2	Fast ice.
3	Pack ice/drift ice.
4	Packed (compact) slush or sludge.
5	Shore lead.
6	Heavy fast ice.
7	Heavy pack ice/drift ice.
8	Hummocked ice.
9	Icebergs.

CODE TABLE XXIII

Symbol K—Effect of the ice on navigation

Code figures	Description
0	Navigation unobstructed.
1	Navigation unobstructed for steamers; difficult for sailing ships.
2	Navigation difficult for low-powered steamers; closed to sailing ships.
3	Navigation possible only for powerful steamers.
4	Navigation possible only for steamers constructed to withstand ice pressure.
5	Navigation possible with the assistance of icebreakers.
6	Channel open in the solid ice.
7	Navigation temporarily closed.
8	Navigation closed.
9	Navigation conditions unknown (e. g., owing to bad weather).

CODE TABLE XXIV

Symbol D_r—Bearing of ice limit

Code figures	Description
0	No ice limit can be stated.
1	Ice limit towards NE.
2	Ice limit towards E.
3	Ice limit towards SE.
4	Ice limit towards S.
5	Ice limit towards SW.
6	Ice limit towards W.
7	Ice limit towards NW.
8	Ice limit towards N.
9	Ice limit in several directions.

NOTE.—If more than 1 ice limit can be stated, the nearest or most important is reported.

CODE TABLE XXV

Symbol r—Distance to ice limit from reporting ship

Code figures	Distance
0	Up to 1 mile.
1	1 to 2 miles.
2	2 to 4 miles.
3	4 to 6 miles.
4	6 to 8 miles.
5	8 to 12 miles.
6	12 to 16 miles.
7	16 to 20 miles.
8	More than 20 miles.
9	Unspecified or no observations.

NOTE.—If the exact bounding distance for the ice limit corresponds to 2 code figures, the lower code figure is reported.

CODE TABLE XXVI

Symbol e—Orientation of ice limit

Code figures	Orientation of ice limit
0	Orientation of ice limit impossible to estimate—ship *outside* the ice.
1	Ice edge lying in a direction NE. to SW. with ice situated to the NW.
2	Ice edge lying in a direction E. to W. with ice situated to the northward.
3	Ice edge lying in a direction SE. to NW. with ice situated to the NE.
4	Ice edge lying in a direction S. to N. with ice situated to the eastward.
5	Ice edge lying in a direction SW. to NE. with ice situated to the SE.
6	Ice edge lying in a direction W. to E. with ice situated to the southward.
7	Ice edge lying in a direction NW. to SE. with ice situated to the SW.
8	Ice edge lying in a direction N. to S. with ice situated to the westward.
9	Orientation of ice limit impossible to estimate—ship *inside* the ice.

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