FOR OFFICIAL USE

M.O. 329 AIR MINISTRY

METEOROLOGICAL OFFICE

DECODE

FOR USE WITH THE INTERNATIONAL CODE FOR

Wireless Weather Messages from Ships

ADOPTED BY THE INTERNATIONAL METEOROLOGICAL CONFERENCE COPENHAGEN, SEPTEMBER, 1929

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INTERNATIONAL "SELECTED SHIPS" ROUTINE WIRELESS WEATHER REPORTS.

In accordance with Article 35 of the International Convention for Safety of Life at Sea, it is intended that a certain limited number of ships, called " Selected Ships," of all nations party to the Convention shall voluntarily transmit meteorological observations by wireless telegraphy for the benefit of other ships and the various meteorological services. The messages will be in the new International Ships' Wireless Weather Telegraphy Code, issued in conformity with Article 31, paragraphs 2 and 5, of the International Radio Telegraphic Convention, 1927.

The number of " Selected Ships" of any nation which transmit observations under this scheme is to be in accordance with that nation's proportion of the World's tonnage, steam and motor, of vessels of over 100 tons.

The number of messages required for this service is comparatively small, if efficiently organized; but if not efficiently organized and limited, past experience has proved that the result is congestion of communication, wasted energy, expense, and consequent loss of efficiency.

The transmission of the messages in all parts of the world in a universal code, containing only essential information, is vital to the success of the scheme.

Before a definite schedule of times of observation and transmission of messages is adopted for international use, the British Meteorological Office has undertaken to make a trial of the schedule given below, *commencing on 1st May*, 1930. From that date and until further notice, the scheme outlined in the following pages will be worked by British " Selected Ships." It is based on the experience of British " Selected Ships " during the past few years in all parts of the world; and all concerned are asked to contribute towards the success of the scheme, " Selected Ships " by adhering to the schedule for communication, and other ships by listening for the messages at the specified times.

The names of British " Selected Ships " for the time being, are given monthly in the " Marine Observer," published by H.M. Stationery Office, price 2s. (2s. 2d. post free). Annual subscription 25s.

Scheme for British " Selected Ships " Routine Wireless Weather Reports.

This scheme provides on a voluntary basis a system by which " Selected Ships " when at sea will make meteorological observations at fixed times G.M.T., and subsequently report these observations at fixed times G.M.T. to certain coast stations and to all ships.

There are two main classes of " Selected Ships " which will operate this scheme. They are chosen from those ships in the Voluntary Observing Fleet List of the Meteorological Office, according to their

sailing schedules and trade, to provide suitable geographical distribution; according to their wireless equipment to ensure efficient communication; and according to the keenness of their officers for this voluntary work.

The two classes of " Selected Ships " are:—

" *A Selected Ships.*"—Ships fitted with long range, Type A1 (C.W.) apparatus, mostly mail liners, sailing and arriving on dates fixed by their mail contracts. These ships will address their reports to an appropriate shore station, using the wave length allotted to that station, Berne and all concerned having been notified that such reports may be intercepted and used by all ships.

" *B Selected Ships.*"—Ships fitted with short range A2 (I.C.W.) or Type B (Spark) apparatus. These will include many passenger and cargo liners sailing according to an advertised programme, also a number of cargo vessels whose movements are irregular. These ships will address their reports to C.Q. (All Ships) using the wave length 600 metres spark, shore stations within range intercepting them as required.

Times of Observations.

The standard times of observation in all parts of the world are 0, 6, 12 and 18 hours G.M.T.

Many " Selected Ships," however, of both classes have only one officer in each watch, and these ships have been asked to record routine observations only at the fixed times which fall during daylight hours.

The schedule for communication given below has been worked out for the two observations per day which generally fall during daylight in the respective zones; but ships which carry two watch-keeping officers for each watch have been asked to record and report observations at all four observation times, those observations made at the times not given in the schedule being transmitted as soon as possible.

Schedule for Communication.

" Selected Ships " will generally record and transmit their observations in accordance with the following schedule. This schedule gives the times (G.M.T.) of observation according to zone and the times (G.M.T.) of the commencement of periods for transmission of these observations. The times of transmission are based on the established periods of wireless operator watches. It should be noted that they follow immediately the S.O.S. three-minute period of silence.

Schedule.

All times are G.M.T.

Zones between Greenwich Meridians.	First Weather Report.			Second Weather Report.		
	Times of observations.	Times of reporting by Type A1 (C.W.) Ships.	Times of broadcasting by Type A2 (I.C.W.) and Type B (Spark) Ships.	Times of observations.	Times of reporting by type A1 (C.W.) Ships.	Times of broadcasting by Type A2 (I.C.W.) and Type B (Spark) Ships.
30° W.–30° E.	0600	0618 0818	0830	1200	1218	1230
30° E.–80° E.	0600	0618 0818	0630 0830	1200	1218	1230
80° E.–160° E.	0000	0018	0030	0600	0618 0818	0830
160°E–140° W.	0000	0018	0030	1800	1818 2018	2030
140°W.–70° W.	0000	0018	0030	1800	1818 2018	1830 2030
70° W.–30° W.	1200	1218	1230	1800	1818 2018	2030

It will be seen that against some of the observation times, there are two times of commencement of periods for transmitting. The second of these times is when single operator ships will report, as they will not be keeping wireless watch following the observation hour. In those "Selected Ships" which carry two or three operators, the earlier periods for transmission will be used; and they will also repeat at the second period for the benefit of ships carrying only one operator, the second or repeated message being addressed to C.Q.

Control of Reports in Congested Areas.

In those parts of the world where there is congestion "A Selected Ships" will work to the above schedule under the control of specified coast wireless stations.

In these areas, whenever there are more selected ships than are necessary to supply the number and distribution of reports required, the "A Selected Ships" from whom reports are desired, and whose approximate position is known, will be informed in what order to report.

At present the Eastern North Atlantic is the only area so scheduled under this scheme as a congested area, and reports from "A Selected Ships" in this area will be controlled by the British receiving station at Portishead (Lat. 51° 28′ 41″ N., Long. 2° 47′ 30″ W.). Portishead will be notified daily by the Meteorological Office, London, of the names of the "A Selected Ships" from whom reports are desired; and the station will call up those ships at 0430 G.M.T. and 1030 G.M.T. and indicate the order in which they should make their reports. In such congested areas "*B Selected Ships*" will not broadcast these reports, except in cases of urgency.

Shore Stations Detailed to Receive the Reports.

The only shore station at present detailed to receive reports from "*A Selected Ships*" is Portishead.

When other stations in different parts of the world are so detailed, information concerning them will be published in the "Marine Observer" as it becomes available; until this information is available "A Selected Ships" will *broadcast* their reports at the scheduled times on 2100 metres wave length.

Decoding of Ships Wireless Weather Reports.

On and after May 1st, 1930, any ship intercepting a wireless message from a British "Selected Ship" commencing "C.Q. Weather" or "Weather London" or preceded by the word "Weather," containing numbers in five-figure-groups, may decode the message according to the new International Code.

On and after dates, between 1st January, 1930, and 1st January, 1931, fixed by other countries for bringing this new code into force, similar messages may also be intercepted from ships other than British.

The messages will be in one of the two following forms:—

Key Letters.

(1) PQLLL 111GG DDFww BBVTT $3C_LC_MC_HN$ t_dKdWN_L d_sfabb.

(2) PQLLL 111GG DDFww BBVTT 6KdCN $t_dd_sAWC_H$.

The meaning of the symbols is given in the key below, in which they are arranged alphabetically. The message as received will consist of five-figure groups, the first two of which refer to Day, Position and Time, the remaining groups giving the meteorological elements observed. It will be seen by reference to the key to the symbol letters that while in many cases a single figure suffices to express a meteorological element in some cases two figures are required, for example in the case of barometric pressure. Latitude and longitude, in the first two groups, each require three figures. The figures in a group are always in the same sequence, denoted by the symbols of the specimen forms given above.

In both forms of message the first four groups are identical; these are termed the universal groups and are never omitted. A message in form No. 1 contains supplementary groups, distinguished by the figure 3 at the beginning of the fifth group. A message in form No. 2 contains supplementary groups distinguished by the figure 6 at the beginning of the fifth group. An message may be shortened by the omission of the last group or groups, but the order of the groups will always be maintained, and the form of the message after the first four groups can always be identified by the first figure of the fifth group. The number of groups in a message is thus never less than four nor more than seven.

Navigational Information.

Information of observed set and drift of Current, Ice, and Navigational Dangers may be added after the figure groups, as necessary, in plain language.

Key to Symbol Letters.

A = Amount and characteristic of barometric tendency expressed by a single figure. (*See* Table IX.)

a = Characteristic of barometric tendency during the period of three hours preceding the time of observation. (*See* Table X.)

BB = Pressure in whole millibars (initial 9 or 10 omitted). The values refer to sea level and include all corrections for index error, temperature and gravity. (*See* Table VIII.)

bb = Amount of barometric tendency during the three hours preceding the time of observation expressed in units of 1/5th of a millibar. (*See* Table XI.)

C = Form of predominating cloud. (*See* Table XVI.)

C_H = Form of Upper (Cirrus) Cloud. (*See* Table XV.)

C_L = Form of Low Cloud. (*See* Table XIII.)

$C_{\frac{M}{ML}}$ = Form of Middle Cloud. (*See* Table XIV.)

DD = Direction of the wind (True) near the surface. (*See* Table III.)

d = Direction (True) from which swell comes. (*See* Table IV.)

d_s = Direction of Ship's course on scale (0-8). (*See* Table IV.)

F = Force of the wind on the Beaufort Scale. (Forces above 9 are reported as 9, with the actual force in a word at the end.) (*See* Table V.)

f = Speed of ship in knots. (*See* Table XX.)

GG = Greenwich Mean Time of observation (06 = 6 a.m., 12 = noon, &c.).

K = Swell in the open sea. (*See* Table XIX.)

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

lll = Longitude in degrees and tenths, the tenths being obtained as for latitude LLL.

N = Total amount of sky covered with cloud. (*See* Table XVII.)

N_L = Amount of Low Cloud. (*See* Table XVII.)

P = Day of the week. (*See* Table I.)

Q = Octant of globe in which ship is situated. (*See* Table II.)

TT = Temperature of the air in whole degrees Fahrenheit.

t_d = Difference between Air and Sea Temperature. (*See* Table XVIII.)

V = Visibility or distance at which objects can be seen in daylight (or at which lights can be seen at night). (*See* Table XII.)

W = Past weather—the weather in the interval preceding the time of observation. (*See* Table VII.)

ww = The actual weather at the time of observation. (*See* Table VI.)

In order to facilitate the decoding of messages, a sheet similar to that shown on page 7, should be ruled up.

Write the figures of the messages in the order received down the column, taking great care to put the first figure of the fifth group in its proper place, so that the supplementary groups may be correctly decoded.

	Key Letter	Group Number	Name of Element and Table for decoding figures	Message as Rcd.	Message decoded	Message as Rcd.	Message decoded	Message as Rcd.	Message decoded	Message as Rcd.	Message decoded	Message as Rcd.	Message decoded
Universal Groups.	P		Day of Week Table I										
	Q	1	Octant of Globe Table II										
	LLL	2	Latitude										
	lll		Longitude										
	GG		G.M. Time of Observation										
	DD		True direction Wind Table III.										
	F	3	Force of Wind Table V.										
	ww		Present Weather Table VI.										
	BB		(Barometer (Absolute) Table VIII.										
	V	4	Visibility Table XII.										
	TT		Temperature of Air										
No. 3 Supplementary Groups	3		Distinguishing Figure of Supplementary Group	3	———	3	———	3	———	3	———	3	———
	C_L	5	Lower Cloud Table XIII										
	C_M		Middle Cloud Table XIV										
	C_H		Upper Cloud Table XV										
	N		Total Amount of Cloud Table XVII.										
	t_d		Difference of Air and Sea Temperature Table XVIII										
	K		Swell Table XIX										
	d	6	True direction of Swell Table IX										
	W		Past Weather Table VII										
	N_L		Amount of Low Cloud Table XVII.										
	d_s		Course of Ship Table IX										
	f	7	Speed of Ship Table XX										
	a		Characteristic of Barometric Tendency Table X										
	bb		Amount of Barometric Tendency Table XI										
No. 6 Supplementary Groups	6		Distinguishing Figure of Supplementary Group	6	———	6	———	6	———	6	———	6	———
	K		Swell Table XIX										
	d	5	True direction of Swell Table IX										
	C		Predominating Cloud Table XVI										
	N		Total Amount of Cloud Table XVII										
	t_d		Difference of Air and Sea Temperature Table XVIII										
	d_s		Course of Ship Table IX										
	A	6	Kind of Barometer Table IX										
	W		Past Weather Table VII										
	C_H		Upper Cloud Table XV										
			Ship of Origin										

DECODE TABLES FOR W.T. WEATHER REPORTS FROM SHIPS AT SEA TO ALL SHIPS AND SHORE STATIONS.

Day and Position.

Table I.

P.—Day of the Week.

Code Figure.		Code Figure.	
1	= Sunday.	5	= Thursday.
2	= Monday.	6	= Friday.
3	= Tuesday.	7	= Saturday.
4	= Wednesday.		

Table II.

Q.—Octant of the Globe.

Code Figure.	Longitude.	
0	0° W. — 90° W.	North Latitude.
1	90° W. — 180° W.	
2	180° E. — 90° E.	
3	90° E. — 0° E.	
5	0° W. — 90° W.	South Latitude.
6	90° W. — 180° W.	
7	180° E. — 90° E.	
8	90° E. — 0° E.	

Compass.

Table III.

DD.—Compass Table for Wind Direction to points.

Code Figures.	True Direction.	Code Figures.	True Direction.
00	Calm.	17	S. by W.
01	N. by E.	18	S.S.W.
02	N.N.E.	19	S.W. by S.
03	N.E. by N.	20	S.W.
04	N.E.	21	S.W. by W.
05	N.E. by E.	22	W.S.W.
06	E.N.E.	23	W. by S.
07	E. by N.	24	W.
08	E.	25	W. by N.
09	E. by S.	26	W.N.W.
10	E.S.E.	27	N.W. by W.
11	S.E. by E.	28	N.W.
12	S.E.	29	N.W. by N.
13	S.E. by S.	30	N.N.W.
14	S.S.E.	31	N. by W.
15	S. by E.	32	N.
16	S.		

Table IV.

d and d_s.—Compass Table to Half Cardinal Points.

Code Figures.	True Direction.
0	No Sea or Swell or Ship hove to.
1	N.E.
2	E.
3	S.E.
4	S.
5	S.W.
6	W.
7	N.W.
8	N.
9	No observation or no information.

Wind.

Table V.

F.—Wind Force, Beaufort Scale.

Code Figure.		Beaufort Number.
0	Calm	Nought
1	Light airs	One
2	Light breeze	Two
3	Gentle breeze	Three
4	Moderate breeze	Four
5	Fresh breeze	Five
6	Strong breeze	Six
7	Moderate gale	Seven
8	Fresh gale	Eight
9	Strong gale	Nine
9	Whole gale	Ten
9	Storm	Eleven
9	Hurricane	Twelve

When force 10, 11 or 12, figure 9 transmitted, words "gale," "storm" or "hurricane" respectively, added at end of the message.

Weather.

Table VI.

ww.—Present Weather.

00-19 Abbreviated description of sky and special phenomena.

00 Cloudless.
01 Partly cloudy.
02 Cloudy.
03 Overcast.
04 Fog over the Sea.
05 Haze (but visibility greater than 2000 metres).
06 Dust devils seen.
07 Distant lightning.
08 Mist.
09 —
10 Precipitation within sight.
11 Thunder, without precipitation at the station.
12 —
13 Ugly, threatening sky.
14 Squally weather.

Table VI—(*continued*).

ww.—Present Weather—(*continued*).

15 Heavy squalls
16 Waterspouts seen } in last three hours.
17 —
18 Signs of tropical storm forming.
19 Signs that tropical storm has formed.

20-29 Precipitation in last hour but not at time of observation.

20 Precipitation (rain, drizzle, hail, snow or sleet)
21 Drizzle
22 Rain
23 Snow
24 Sleet } other than showers.
25 Rain shower(s).
26 Snow shower(s).
27 Hail or rain and hail shower(s).
28 Slight thunderstorm.
29 Heavy thunderstorm.

} In last hour but not at time.

30-39 Dust storms and storms of drifting snow (visibility less than 1000 metres).

30 Dust or sand storm.
31 Dust or sand storm has decreased.
32 Dust or sand storm no appreciable change.
33 Dust or sand storm has increased.
34 Line of dust storms.
35 Storm of drifting snow.
36 Slight storm of drifting snow
37 Heavy storm of drifting snow } generally low.
38 Slight storm of drifting snow
39 Heavy storm of drifting snow } generally high.

40-49 Fog or thick dust haze (visibility less than 1000 metres).

40 Fog.
41 Moderate fog in last hour.
42 Thick fog in last hour.
43 Fog, sky discernible
44 Fog, sky not discernible } has become thinner during last hour.
45 Fog, sky discernible
46 Fog, sky not discernible } no appreciable change during last hour.
47 Fog, sky discernible
48 Fog, sky not discernible } has become thick during last hour.
49 Fog in patches.

50-59 Precipitation at time of observation.

50-59 Drizzle (precipitation consisting of numerous minute drops).
50 Drizzle.
51 Intermittent
52 Continuous } slight drizzle.
53 Intermittent
54 Continuous } moderate drizzle.
55 Intermittent
56 Continuous } thick drizzle.
57 Drizzle and fog.
58 Slight or moderate
59 Thick } drizzle and rain.

Table VI—(*continued*).

ww.—Present Weather—(*continued*)

60-69 Rain.

60 Rain.
61 Intermittent
62 Continuous } slight rain.
63 Intermittent
64 Continuous } moderate rain.
65 Intermittent
66 Continuous } heavy rain.
67 Rain and fog.
68 Slight or moderate
69 Heavy } rain and snow.

70-79 Snow.

70 Snow or sleet.
71 Intermittent
72 Continuous } slight snow in flakes.
73 Intermittent
74 Continuous } moderate snow in flakes.
75 Intermittent
76 Continuous } heavy snow in flakes.
77 Snow and fog.
78 Granular snow.
79 Ice crystals.

80-89 Shower(s).

80 Shower(s).
81 Shower(s) of slight or moderate
82 ,, ,, heavy } rain.
83 ,, ,, slight or moderate
84 ,, ,, heavy } snow.
85 ,, ,, slight or moderate
86 ,, ,, heavy } rain and snow.
87 ,, ,, granular snow.
88 ,, ,, slight or moderate
89 ,, ,, heavy } hail, or rain and hail.

90-99 Thunderstorm.

90 Thunderstorm.
91 Rain at time
92 Snow or sleet at time } thunderstorm during last hour, but not at time of observation.
93 Thunderstorm, slight, without hail or soft hail, but with rain or snow
94 ,, slight, with soft hail
95 ,, moderate, without hail, but with rain (or snow)
96 ,, moderate, with soft hail
97 ,, heavy, without hail, but with rain (or snow)
98 ,, combined with dust storm
99 ,, heavy, with hail

} at time of observation.

Table VII.

W.—Past Weather.

Code Figure.	
0	Fair (clear or slightly clouded).
1	Variable sky.
2	Mainly overcast.
3	Fog or thick dust haze (visibility less than 5 cables).
4	Drizzle.
5	Rain.
6	Snow or sleet.
7	Showers.
8	Sandstorm or duststorm.
9	Thunderstorm.

Barometer.

Table VIII.

BB.—Decode Table for corrected barometer readings in millibars and inches.

Code Figs.	Mb.	In.	Code Figs.	Mb.	In.	Code Figs.	Mb.	In.	Code Figs.	Mb.	Ins.
25	925	27·32	60	960	28·35	95	995	29·38	25	1025	30·27
26	926	27·35	61	961	28·38	96	996	29·41	26	1026	30·30
27	927	27·38	62	962	28·41	97	997	29·44	27	1027	30·33
28	928	27·41	63	963	28·44	98	998	29·47	28	1028	30·36
29	929	27·44	64	964	28·47	99	999	29·50	29	1029	30·39
30	930	27·46	65	965	28·50	00	1000	29·53	30	1030	30·42
31	931	27·49	66	966	28·53	01	1001	29·56	31	1031	30·45
32	932	27·52	67	967	28·56	02	1002	29·59	32	1032	30·48
33	933	27·55	68	968	28·59	03	1003	29·62	33	1033	30·51
34	934	27·58	69	969	28·62	04	1004	29·65	34	1034	30·53
35	935	27·61	70	970	28·65	05	1005	29·68	35	1035	30·56
36	936	27·64	71	971	28·67	06	1006	29·71	36	1036	30·59
37	937	27·67	72	972	28·70	07	1007	29·74	37	1037	30·62
38	938	27·70	73	973	28·73	08	1008	29·77	38	1038	30·65
39	939	27·73	74	974	28·76	09	1009	29·80	39	1039	30·68
40	940	27·76	75	975	28·79	10	1010	29·83	40	1040	30·71
41	941	27·79	76	976	28·82	11	1011	29·86	41	1041	30·74
42	942	27·82	77	977	28·85	12	1012	29·89	42	1042	30·77
43	943	27·85	78	978	28·88	13	1013	29·92	43	1043	30·80
44	944	27·88	79	979	28·91	14	1014	29·94	44	1044	30·83
45	945	27·91	80	980	28·94	15	1015	29·97	45	1045	30·86
46	946	27·94	81	981	28·97	16	1016	30·00	46	1046	30·89
47	947	27·97	82	982	29·00	17	1017	30·03	47	1047	30·92
48	948	28·00	83	983	29·03	18	1018	30·06	48	1048	30·95
49	949	28·03	84	984	29·06	19	1019	30·09	49	1049	30·98
50	950	28·05	85	985	29·09	20	1020	30·12	50	1050	31·01
51	951	28·08	86	986	29·12	21	1021	30·15	51	1051	31·04
52	952	28·11	87	987	29·15	22	1022	30·18	52	1052	31·07
53	953	28·14	88	988	29·18	23	1023	30·21	53	1053	31·10
54	954	28·17	89	989	29·21	24	1024	30·24	54	1054	31·13
55	955	28·20	90	990	29·24						
56	956	28·23	91	991	29·26						
57	957	28·26	92	992	29·29						
58	958	28·29	93	993	29·32						
59	959	28·32	94	994	29·35						

Note.—It will be seen that the code figures may represent two values of barometric pressure, but this only takes place with a very high or a very low barometer, so that recipients of a message will be able to decide which value is intended.

Table IX.

A.—Barometric Tendency.

Code Figure.	
0	Barometer steady. (The barometer has not fallen or risen more than ½ millibar in 3 hours.)
1	Barometer rising slowly. (The barometer has risen 1 to 1½ millibars (.03-.04 in.) in last 3 hours.)
2	Barometer rising. (The barometer has risen 2 to 3½ millibars (.06-.10 in.) in last 3 hours.)
3	Barometer rising quickly. (The barometer has risen 4 to 6 millibars (.12-.18 in.) in last 3 hours.)
4	Barometer rising very rapidly. (The barometer has risen over 6 millibars (.18 in.) in last 3 hours.)
5	Barometer falling slowly. (The barometer has fallen 1 to 1½ millibars (.03-.04 in.) in last 3 hours.)
6	Barometer falling. (The barometer has fallen 2 to 3½ millibars (.06-.10 in.) in last 3 hours.)
7	Barometer falling quickly. (The barometer has fallen 4 to 6 millibars (.12-.18 in.) in last 3 hours.)
8	Barometer falling very rapidly. (The barometer has fallen over 6 millibars (.18 in.) in last 3 hours.)

Barograph.

Table X.

a.—Charactertistic of changes of the Barometer in the last three hours.

(Adapted for British Ships.)

Code Figure.	Description of Changes.	
0	Barometer rising at first, then falling by a smaller or like amount.	Net result, Barometer same or higher.
1	Barometer rising at first, then steady or rising less quickly.	
2	Barometer unsteady; but generally rising or stationary.	
3	Barometer steady or rising.	
4	Barometer falling or steady at first, then rising by the same or larger amount. Barometer rising, at an increasing rate.	
5	Barometer falling at first, then rising by a smaller amount.	Net result, Barometer lower.
6	Barometer falling at first, then steady or falling less quickly.	
7	Barometer unsteady, but falling.	
8	Barometer falling.	
9	Barometer steady or rising at first, then falling by a larger amount. Barometer falling, at an increasing rate.	

Note.—These changes are generally only given by ships which have special barographs on board.

For illustration of these characteristic changes and guidance, see Marine Observers' Handbook, 5th Edition.

Table XI.

bb.—Amount of Rise or Fall of the Barometer in the last three hours. (In fifths of Millibars.)

Code Figs.	Amount of Rise or Fall.		Code Figs.	Amount of Rise or Fall.		Code Figs.	Amount of Rise or Fall.		Code Figs.	Amount of Rise or Fall.	
	Mbs.	Ins.		Mbs.	Ins.		Mbs.	Ins.		Mbs.	Ins.
01	0·2	·01	23	4·6	·14	45	9·0	·27	67	13·4	·40
02	0·4	·01	24	4·8	·14	46	9·2	·28	68	13·6	·41
03	0·6	·02	25	5·0	·15	47	9·4	·28	69	13·8	·41
04	0·8	·02	26	5·2	·16	48	9·6	·29	70	14·0	·42
05	1·0	·03	27	5·4	·16	49	9·8	·29	71	14·2	·43
06	1·2	·04	28	5·6	·17	50	10·0	·30	72	14·4	·43
07	1·4	·04	29	5·8	·17	51	10·2	·31	73	14·6	·44
08	1·6	·05	30	6·0	·18	52	10·4	·31	74	14·8	·44
09	1·8	·05	31	6·2	·19	53	10·6	·32	75	15·0	·45
10	2·0	·06	32	6·4	·19	54	10·8	·32	76	15·2	·46
11	2·2	·07	33	6·6	·20	55	11·0	·33	77	15·4	·46
12	2·4	·07	34	6·8	·20	56	11·2	·34	78	15·6	·47
13	2·6	·08	35	7·0	·21	57	11·4	·34	79	15·8	·47
14	2·8	·08	36	7·2	·22	58	11·6	·35	80	16·0	·48
15	3·0	·09	37	7·4	·22	59	11·8	·35	81	16·2	·49
16	3·2	·10	38	7·6	·23	60	12·0	·36	82	16·4	·49
17	3·4	·10	39	7·8	·23	61	12·2	·37	83	16·6	·50
18	3·6	·11	40	8·0	·24	62	12·4	·37	84	16·8	·50
19	3·8	·11	41	8·2	·25	63	12·6	·38	85	17·0	·51
20	4·0	·12	42	8·4	·25	64	12·8	·38	86	17·2	·52
21	4·2	·13	43	8·6	·26	65	13·0	·39	87	17·4	·52
22	4·4	·13	44	8·8	·26	66	13·2	·40			

Visibility.

Table XII.

V.—Visibility.

Code Figure.	
0	Dense fog. Objects not visible at 50 yards.
1	Thick fog. Objects not visible at 1 cable.
2	Fog. Objects not visible at 2 cables.
3	Moderate fog. Objects not visible at ½ mile (nautical).
4	Mist or haze, or very poor visibility. Objects not visible at 1 mile (nautical).
5	Poor visibility. Objects not visible at 2 miles (nautical).
6	Moderate visibility. Objects not visible at 5 miles (nautical).
7	Good visibility. Objects not visible at 10 miles (nautical).
8	Very good visibility. Objects not visible at 30 miles (nautical).
9	Excellent visibility. Objects visible at more than 30 miles (nautical).

Clouds.

Table XIII.

C_L.—Form of Low Cloud.

Code Figure.	Form of Cloud.
0	No low clouds.
1	Cumulus of fine weather.
2	Cumulus (Large, without anvil).
3	Cumulo-Nimbus.
4	Strato-Cumulus (spread from Cumulus).
5	Stratus or Strato-Cumulus (in layer).
6	Nimbus.
7	Cumulus **and** Strato-Cumulus of fine weather.
8	Cumulus, large (or Cumulo-Nimbus) **and** Strato-Cumulus.
9	Cumulus, large (or Cumulo-Nimbus) **and** Nimbus.

Table XIV.

C_M.—Form of Middle Cloud.

Code Figure.	Form of Cloud.
0	No middle cloud.
1	Alto-Stratus, typical thin.
2	Alto-Stratus, typical thick (Sun or Moon invisible).
3	Alto-Cumulus or high Strato-Cumulus, single layer.
4	Alto-Cumulus, in bands, decreasing.
5	Alto-Cumulus, in bands, increasing.
6	Alto-Cumulus, spread out from Cumulus.
7	Alto-Cumulus with Alto-Stratus; or Alto-Stratus with parts resembling Alto-Cumulus.
8	Alto-Cumulus Castellatus (Alto-Cumulus in ragged fragments).
9	Alto-Cumulus in several layers, generally with fibrous veils and chaotic appearance of sky.

Table XV.

C_H.—Form of Upper Cloud (Cirrus Cloud).

Code Figure.	Form of Cloud.
0	No upper clouds (cirrus type).
1	Cirrus, fine, not increasing: scarce.
2	Cirrus, fine, not increasing: plentiful, but not a continuous layer.
3	Cirrus, anvil.
4	Cirrus, fine, increasing.
5	Cirrus or Cirro-Stratus increasing, below 45° altitude.
6	Cirrus or Cirro-Stratus increasing, and reaching above 45° altitude.
7	Cirro-Stratus, veil covering whole sky.
8	Cirro-Stratus, not increasing, and not covering whole sky.
9	Cirro-Cumulus predominating, and a little Cirrus.

Table XVI.

C.—Predominating Form of Cloud.

Code Figure.	Form of Cloud.
1	Cirrus.
2	Cirro-Stratus.
3	Cirro-Cumulus.
4	Alto-Cumulus.
5	Alto-Stratus.
6	Strato-Cumulus.
7	Nimbus.
8	Cumulus or Fracto-Cumulus.
9	Cumulo Nimbus.
0	Stratus or Fracto-Stratus.

Table XVII.

N. and N_L.—Amount of Cloud.

Code Figure.	Proportion of Sky covered, in tenths.
0	0.
1	Less than 1.
2	1.
3	2 to 3.
4	4 to 6.
5	7 to 8.
6	9.
7	More than 9, but with openings.
8	10, completely covered.
9	Sky obscured by fog, duststorm or other phenomenon.

Temperatures.

Table XVIII.

t_d.—Difference between Air and Sea Surface Temperatures.

Code Figure.	
	Air Temperature **higher** than Sea Temperature.
0	More than 9° Fahrenheit.
1	6° to 9° ,,
2	3° to 6° ,,
3	1° to 3° ,,
4	0° to 1° ,,
	Air Temperature **lower** than Sea Temperature.
5	0° to 1° Fahrenheit.
6	1° to 3° ,,
7	3° to 6° ,,
8	6° to 9° ,,
9	More than 9° ,,

Swell.

Table XIX.

K.—Swell.

Code Figure.	
0	No swell.
1	Low swell, short or average length.
2	Low swell, long.
3	Moderate swell, short.
4	Moderate swell, average length.
5	Moderate swell, long.
6	Heavy swell, short.
7	Heavy swell, average length.
8	Heavy swell, long.
9	Confused swell.

Speed.

Table XX.

f.—Speed of Ship.

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

Coded Reports of Weather Observations Contained in Wireless Weather Bulletins for Shipping.

In order to obtain uniformity in coded weather reports from the shore to ships at sea it is intended that the tables of the International Ships' Wireless Weather Telegraphy Code should be used whenever possible.

In order that, where possible, the arrangement of the figures in the groups of these messages should be the same as for "Selected Ships," the International Meteorological Committee has recommended that when two groups of figures are used in Weather Shipping Bulletins from the shore the third group of the ships' code (DDFww) shall constitute the second group of the Bulletin. Also that when three groups are used in Weather Shipping Bulletins the fourth group of the ships' code (BBVTT) shall constitute the third group of the Bulletin.

On and after May 1st, 1930, the station reports given in code in the British Wireless Weather Shipping Bulletin will therefore be given in the following form:—

InABBV DDFww.

"In" at the beginning of the first group given above is used to indicate the index number of the coast station referred to. The meaning of the other key letters is given on page 6. As information regarding the forms and other particulars of Wireless Weather Bulletins issued to ships in other parts of the world becomes available it will be published, in geographical order as far as possible, in the monthly numbers of "The Marine Observer." For full information regarding the system of routine wireless weather reports from "Selected Ships," see "The Marine Observer" for January 1930 and each succeeding January number.

For information and guidance as to the use in navigation of the observations received in ships at sea Mariners are referred to "Wireless and Weather an Aid to Navigation," published by H.M. Stationery Office, price 5s.

(6760—13) Wt. 28737—1676/2330 1750 4/30 P. St. G. 4.