

Meteorological Notes

The following presentation is taken from the original course notes of:

John Evans 1949,

Margaret Sutherland (nee Ireland) 1950

and

Greta Clowes (nee Labistour) 1950.

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Margaret Sutherland (nee Ireland)



Greta Clowes (nee Labistour)

Land station surface reports.

999II i i i Td Td M d d f f V V W W P P P T T

N_k C_L L C_M C_H b j a x x (T R R T T) (S N₃ C_L S₃) (9 5 x x x x)

- 999 Indicator figure
- II Block number (country).
- i i i Station number.
- Td Td Temperature of the dewpoint.
- N. Total amount of sky covered, in octas ($\frac{1}{8}$).
- d. d. The direction from which wind is coming (in tens of degrees)
- f. f. The speed of the wind in knots.
- V V. Visibility in yards or sea-miles.
- W W. Present Weather.
- W. Past Weather.
- P P P. Atmospheric mean sea-level pressure in tens, units, and tenths of millibars.
- T T. Temperature of the air in whole degrees.
- N_k Amount of cloud whose height is reported $\frac{k}{10}$.
- L Height of the base of the main layer of cloud.
- C_L Type of Low Cloud.
- C_M Type of Medium Cloud.
- C_H Type of High Cloud.
- b Indicator figure that it is 6th group of report.
- j.
- a The characteristic of the tendency of the barometer for the last 3 hours.
- P P. Amount barometer has risen or fallen (tendency) in the last 3 hours in $\frac{1}{10}$ millibars.

7.
RR.
TcTc.
8.
Ns
C.
hshs
9.
Sp.Sp.
sp.sp.

Indicator figure that it is the 7th group of report.
The amount of rainfall.
Extreme temperature.
Indicator figure that it is the 8th group of report.
Amount of Significant Cloud.
Type of Significant Cloud.
Height of base of Significant Cloud.
Indicator figure that it is the 9th group of report.
Special phenomena, general.
Special phenomena, detail.

N.B. 1. 7, 8, & 9 groups are optional.
2. 7 group only sent at 0600 & 1800 hours.

PLOTTING

Symbol ///

TT ~~///~~ PP.P
VV ~~///~~ (N) P.P. - M.
T&Td ~~///~~ M/h

F.M. 15 Code

Aviation Reports (Aero)

999II iii Nddff VVwww

(8Ns(LsLs) (OTTTdTd) plus Q signals.

FM - 16 Code.

Deterioration or Improvement reports
(sent straight to GHQ)

MMMMM (Deterioration) }
BBBBB (Improvement) } W₂ G G G G { i i i }
(VQ L a l a l a l o l o l o }

N d d f f V V W W W & N s C h s h s 9 S x S x x x
O T T T d T d.

MMMMM.
BBBBB.
W₂
G G G G.
Y
Q
L a l a l a.
l o l o l o
i i i

Deterioration report to follow.
Improvement report to follow.
Cause of report.
Time in hours & minutes.
Day of the week.
Orbit of the globe.
Latitude in degrees & to of degrees.
Longitude in degrees & to of degrees.
Station index number.

—
Up to 9th group, as F.M. 11.

o
TT.
T d T d.
Indicative figure that it is 10th group of report.
Temperature in whole degrees.
Temperature of dewpoint in whole degrees.

FM-21 Code

Ship Surface Report.

Y Q hahaha lo.lolo G G N d d f f V V w w W
 P P P T T N C L h C M C H d s v s a p p 8 N s C h s h s
 9 S p S p s p s p O T S T s T d T d . 1 d w d w P w H w .

Y
 Q
 hahaha
 lo.lolo
 G G

Day of the week.
 Belt of the globe.
 Tens, units & tenths of degrees latitude.
 Tens, units & tenths of degrees longitude.
 Greenwich mean time.

—

Up to 6th group, as FM-11.

d s .
 v s .

Directions towards which ship is going
 Velocity of ship, divided by 3.

—

Up to 9th group, as FM-11.

O
 T S T S

Indicator that it is the 10th group of report.
 The difference between the air temperature
 & the sea temperature in whole degrees
 Fahrenheit or $\frac{1}{2}$ degrees centigrade.

T d T d .

Temperature of the dewpoint in whole degrees.

1

Indicator that it is the 11th group of report.

d w d w

Direction from which waves are coming, in
 tens of degrees.

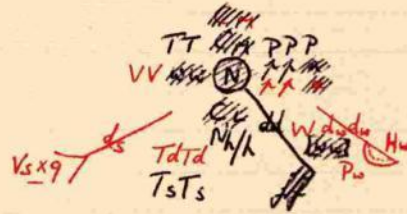
P w .

Period of waves in seconds.

H w .

Height of waves in feet.

PLOTTING.
Symbol ///



NOTES ON FM-21.

1/ When 2 half-circles on wave indicator,
2nd column of Hw is to be used.

2/ To find $T_s T_s$:-
 $^{\circ}C$

$$TT = 06^{\circ}C = 43^{\circ}F.$$

$$T_s T_s = 52 = 2 \times \frac{1}{2}^{\circ}C = 1 = 1 + TT.$$

$$= 06^{\circ}C + 1^{\circ}C = 07^{\circ}C = \underline{\underline{45^{\circ}F.}}$$

Instead:- Convert TT to $^{\circ}F$ & add
2 for $52^{\circ}C$ straight onto $43^{\circ}F$
 $= 45^{\circ}F$.

Balloon ascent Report.

PILOT	999II	iiiGG	Oddff
	1ddff	2ddff	etc: up to 9ddff
	99991	0ddff	etc:

PILOT
 999
 II.
 iii
 GG.
 oddff.
 1ddff.
 2ddff.
 9ddff.
 99991.
 oddff.
 1ddff.

Indicator that Balloon ascent report is to follow.
 Indicator that block number is to follow.
 Block number.
 Station index number.
 Time in hours.
 Surface wind speed & direction.
 Wind speed & direction at 1,000 ft.
 Wind speed & direction at 2,000 ft.
 Wind speed & direction at 9,000 ft.
 Indicator that next group is 10th group.
 Wind speed & direction at 10,000 ft.
 Wind speed & direction at 11,000 ft.

Notes on GG.

GG = Greenwich mean time.
 for hour + 15 mins add 25.
 for hour + 30 mins add 50.
 for hour + 45 mins add 75.

eg: 12-15 = 12 + 25 = 37.

F.M. 35. Code.

Upper Air Report. (Temp.)

Section I 999II i i i G G P₀P₀P₀T₀T₀ T_{d0}T_{d0}T_{x0}x₁x₂

d₀d₀d₀d₀d₀f₀f₀ P₁P₁P₁h₁h₁ T₁T₁T_{d1}T_{d1}0 d₁d₁d₁f₁f₁
P₂P₂P₂h₂h₂ T₂T₂T_{d2}T_{d2}0 d₂d₂d₂f₂f₂
P₃P₃P₃h₃h₃ T₃T₃T_{d3}T_{d3}0 d₃d₃d₃f₃f₃ etc.

Section II. 55555 n n P_nP_nP_n T_nT_nT_{d_n}T_{d_n}0
h_nh_nP_nP_nP_n T_nT_nT_{d_n}T_{d_n}0 etc.

<u>Section I</u>	
P ₀ P ₀ P ₀	Surface pressure in whole millibars.
T ₀ T ₀	Surface air temperature.
T _{d0} T _{d0}	Surface dewpoint temperature.
T _{x0}	Decimal point of the dewpoint and air temperature but in the European area coded as 0.
x ₁	Units of height, temperature & wind direction. European area code figure 2 which means ft, Fahrenheit & whole degrees. (wind direction).
x ₂	Figure indicating which winds are given. In European area we use code figure 1 which means included for levels in Section I (i i i G G - d d d f f). Winds are omitted in Section II.

dododo	Direction of wind in whole degrees at the surface.
f, f, f	Wind speed in knots at the surface.
P, P,	Pressure of next level in 10's of mbs. Usually commencing at 1,000 mbs (00) & farther on in 50 mbs intervals.
h, h, h,	Height in tens of feet of that mb (pressure) level, above sea-level.
T, T,	Air temperature at that same level.
Td, Td,	Temp of dewpoint at that same level.
d, d, d,	Direction of wind at that same level.
f, f,	Speed of wind at that same level.

Section II. (Significant Points)

55555.	Indicator figures that Significant points are to follow.
n n	Number of significant point.
P _n P _n P _n	Pressure in whole mbs of that significant point.
T _n T _n	Air temperature of that significant point.
Td Td	Temperature of dewpoint of that significant point.

Block numbers

- 01 Norway
- 02 Sweden
- 03 British Isles and Eire
- 04 Iceland; Greenland
- 06 Denmark; Netherlands; Belgium; Luxembourg; Switzerland
- 07 France
- 08 Spain; Portugal & Azores; & Gibraltar
- 10 Germany (British, American, & Russian zones)
- 12 Canada & U.S.A. Provinces
- 74 Canada & U.S.A. supplementaries

P.N.A.S. Met. Reporting Stations

- 068 Lissiemouth
- 088 Arbroath
- 140 Abbotshire
- 159 Donington
- 215 Antheim
- ~~274~~
- 328 Stratton
- 809 Culross
- 906 Eglinton
- 853 Yeovilton

Radio and Stns.

- 005 Lerwick
- 026 (~~Stornoway~~) Stornoway
- 141 Leuchars
- 476 Downham Market
- 322 Liverpool
- 743 Larkhill
- 808 Camborne
- 917 Aldergrove

STATION INDEX NUMBERS.

015	HATSTON.	334	RINEWAY.	804	SCILLY. (PENMOUTH)
056	DALWHINNIE.	321	HAWARDEN.	827	MOUNTBATTEN.
049	CAPE WRATH.	360	FINNINGLY.	556	PORTLAND ISLL.
091	DYCE.	382	DRIFFIELD.	894	GUERNSEY.
075	WICK.	302	VALLEY.	820	ST. EVAL.
068	LOSSIEMOUTH.			839	EXETER.
092	ABERDEEN.	485	BIRCHAMNEWTON	871	THORNEY ISLAND.
022	BENBECULAR.	497	FORLESTON.	895	JERSEY.
026	STORNOWAY.	48.	TURNHILL.		
003	SUMBURGH.			462	SHANNON.
005	WERWICK.	531	BIRMINGHAM.	953	VALENCIA.
011	THORSHAVEN.	578	MILDENHALL.	952	ROCHES PT.
		502	ABERPORTH.	966	BIRR CASTLE.
100	TIREE.	557	CRANFIELD.	973	BLACKSD. PT.
171	LEUCHARS.	535	HONILEY.	980	MALIN HD.
140	ABBOTS INCH.			917	ALDERGROVE.
162	ESKDALEMUIR.	601	ST. ANNES HD.	969	COLLINSTOWN.
185	ST. ABBES HEAD.	600	KETE.	906	EGLINTON.
115	OBAN.	627	ROSS-ON-WYE.	903	CASTLE ARCHDALE.
159	DONIBRISTLE.	697	FELIXSTONE.		
111	MACRIHANISH.	646	LITTLE RISSINGTON		
135	PRESTWICK.	604	PEMBROKE DOCK.		
119	WEST FREUGH.				
		725	BRISTOL.	476	DOWNHAM MARKET
262	TYNE MOUTH.	746	BOSCOMBE DOWN	743	LARKHILL.
214	SILLOTH.	711	CRAYDON.	808	CAMBORNE.
204	RONALDSWAY.	703	HARTLAND PT.	171	LEUCHARS.
266	LINTON.	795	LYMPNE.	026	STORNOWAY.
208	TURBY.	797	MANSTON.	005	WERWICK.
		714	ST. ATHAN.	917.	ALBERGROVE.
396.	SPURNHEAD.	707	CHIVENAGH.	300	LIVERPOOL.
379	CRANWELL.				
318	SQUIRES GATE.	514	WIEARD.		

TEMP. STATIONS

N. Code . (including N_s & N_a Codes)

Amount of cloud .

No.	SYMBOL	DESCRIPTION
0	○	No cloud.
1	⊙	$\frac{1}{8}$ Sky covered.
2	⊙	$\frac{2}{8}$ Sky covered.
3	⊙	$\frac{3}{8}$ Sky covered.
4	⊙	$\frac{4}{8}$ Sky covered.
5	⊙	$\frac{5}{8}$ Sky covered.
6	⊙	$\frac{6}{8}$ Sky covered.
7	⊙	$\frac{7}{8}$ Sky covered.
8	⊙	$\frac{8}{8}$ Sky covered.
9	⊗	Sky obscured.

Visibility

x0	< 20 yds.	87	105 mls
x1	20 yds.	88	162 mls
x2	40 yds.	89	270 mls or more.
x3	60 yds.	90	< 50 yds.
x4	80 yds.	91	50 yds.
x5	100 yds.	92	200 yds.
x6	120 yds.	93	500 yds.
x7	140 yds.	94	0.5 mls.
x8	160 yds.	95	1.0 ml
x9	180 yds.	96	2.0 mls.
00	200 yds.	97	5.0 mls.
01	200 yds.	98	11.0 mls.
02	400 yds.	99	27.0 mls or more.
03	600 yds.		
04	800 yds.		
05	1000 yds.		
<p>*B. contd: to Code figure 80 in increments of 200 yds.</p>		<p><u>Notes</u></p> <p>① If the distance is between two of the distances given in the table the code figure for the lower distance is reported. eg. 350 yds. is coded as 01.</p> <p>② Decade 90-99 should <u>not</u> be used for reports in the AERO form F.M.-15.</p>	
10	1.0 mls		
50	5.0 mls.		
75	7.5 mls.		
80	8.0 mls.		
81	11 mls		
82	22 mls		
83	32 mls		
84	43 mls		
85	54 mls		
86	81. mls.		

ww code present weather

No precipitation at the station at the time of observation (00-49)

No precipitation, fog, dust storm, sands storm or drifting snow at the station at the time of observation or during the preceding hour, except for 09.

	0-00	-	Cloud development not observable
NO HYDRO-METEORS EXCEPT CLOUDS	0-01	-	Clouds generally dissolving or becoming less developed
	0-01	-	
	0-02	-	State of sky on the whole unchanged
	0-03	-	Clouds generally forming or developing
HAZE, DUST OR SMOKE	0-04	-	Visibility reduced by smoke e.g.veldt or forest fires, industrial smoke or volcanic ash.
	∞-05	-	Dry haze - visibility VV=05-09 incl.
	S-06	-	Widespread dust in suspension in the air, not raised by wind at or near the station at the time of observation
	S-07	-	Dust or sand raised by wind at or near the station at the time of observation, but no well developed dust devil(s) and no dust storm or sands storm seen.
	⊞-08	-	Well developed dust devil(s) seen at or near the station within last hour, but no dust storm or sands storm.
	(S) - 09	-	Dust storm or sands storm within sight of station or at station during the last hour
	= - 10	-	Dist - visibility VV=05-09 incl.

Patches	} == 11	Shallow fog at the station
		} == 12
Note or or or continuous	} <	Lightning visible but no thunder heard
		} ∘
	} (Precipitation within sight reaching the ground but distant (i.e. estimated to be more than 5 km) from the station.
	} (Precipitation within sight, reaching the ground, near to but not at the station.
	} (B)	Thunder heard, but no precipitation at the station
within sight during the prev. hour.	} ∨	Squalls
		} (

Precipitation, fog or thunderstorm at the station during the preceding hour but not at the time of observation (20-27)

□	20	Dizzle (not freezing)
□	21	Rain (" ")
□*	22	Snow
□*	23	Rain & snow
□	24	Freezing dizzle or freezing rain
□	25	Shower(s) of rain
□	26	Shower(s) of snow, or of rain & snow
□	27	" " of hail or of hail & rain
□	28	Fog
□	29	Thunderstorm (with or without precipitation)

Dust storm, sand storm or drifting snow (30-39)

Slight or moderate dust storm or sand storm

- 30 - S → Has decreased during the preceding hour
- 31 - S → no appreciable change during the preceding hour
- 32 - | S → Has increased during the preceding hour

Severe dust storm or sand storm

- 33 - S → Has decreased during the preceding hour
- 34 - S → no appreciable change during the preceding hour
- 35 - | S → Has increased during the preceding hour

- 36 - ↓ Slight or moderate drifting snow } generally low.
- 37 - ⇄ Heavy drifting snow }
- 38 - ↑ Slight or mod. drifting snow } generally high
- 39 - ⇄ Heavy drifting snow }

Fog at the time of observation (40-49)

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

Precipitation at the station at the time of observation
(52-54) (50-99)

Drizzle 50-59

50	•	Drizzle, not freezing, intermittent	} slight at time of observation
51	••	Drizzle " " continuous	
52	•••	" " " intermittent	} mod. at time of observation
53	••••	" " " continuous	
54	•••••	" " " intermitt.	} thick at time of observation
55	••••••	" " " cont.	
56	∞	" freezing slight	
57	∞	" " , moderate or thick	
58	••	" or rain slight	
59	•••	" " " mod. or heavy	
60			

Rain (60-69)






60	•	Rain, not freezing, intermitt.	} slight at time of observation
61	••	" " " cont.	
62	•••	" " " intermitt.	} mod. at time of observation
63	••••	" " " cont.	
64	•••••	" " " intermitt.	} heavy at time of observation
65	••••••	" " " cont.	
66	∞	" freezing slight	
67	∞	" " mod or heavy	
68	•••	" or drizzle or snow slight	
69	••••	" " " " mod. or heavy	

Solid Precipitation - not in showers (70-79)

- 70 * Intermitt. fall of snow flakes } slight at time of
 71 * * Contin. " " " } observation
 72 * Intermitt. " " " } mod. at time of
 73 * * * Cont. " " " } observation
 74 * * * Intermitt. " " " } heavy at time of
 75 * * * Cont. " " " } observation
 76 ↔ Ice needles (with or without fog)
 77 ←△ Granular snow " " "
 78 × Isolated starlike snow crystals (with or without fog)
 79 △ Ice pellets

Showery Precipitation (80-99)

- 80 ▽ Rain shower(s) slight
 81 ▽ " " mod. or heavy
 82 ▽ " " violent
 83 ▽ Shower(s) of rain & snow mixed, slight
 84 ▽ " " " " " mod. or heavy
 85 ▽ Snow shower(s), slight
 86 ▽ " " mod. or heavy
 87 ▽ ^{light or} Shower(s) of soft or small hail, }
 slight } with or without rain or rain & }
 snow mixed }
 88 ▽ ^{mod.} do. (heavy)
 89 ▽ Showers of hail, with or without } slight
 rain or rain & snow mixed, not } or mod.
 associated with thunder }
 90 ▽ do. (heavy)
 91 [B] • slight rain at time of observation }
 92 [B] : Mod. or heavy rain " " " } thunder
 93 [B] %/△ slight snow or rain & snow mixed or } storm during
 hail at time of observation } the period in
 94 [B] %/△ Mod. or heavy snow, or rain & } not at
 snow mixed or hail } time of
 observation

95		Thunderstorm, slight or moderate without hail at time of snow at time of observation	} Thunderstorm at time of observations.
96		Thunderstorm, slight or mod. with hail at time of observ.	
97		Thunderstorm, heavy, without hail but with rain and/or snow	
98		Thunderstorm combined with dust storm or sandstorm	
99		Thunderstorm, heavy, with hail at time of observation.	

- NOTES:-
- (1) The expression "at the station", refers to a land station, a ship or an aircraft
 - (2) In general, the highest applicable figure should be selected
 - (3) Whenever the description "intermittent" is used, the fog or precipitation has not continued without break during the preceding hour.










W Code

Past Weather

No	Symbol	DESCRIPTION
0	○	Fine. (Clear or few clouds).
1	◐	Variable
2	◑	Very cloudy or overcast.
3	S/A	Sandstorms, duststorms or drifting snow.
4	≡	Fog or thick dust haze.
5	☉	Drizzle.
6	•	Rain.
7	*	Snow or Sleet.
8	▽	Showers.
9	⚡	Thunderstorms, with or without precipitation.



C_u Code

- 0 No low clouds
- 1  (Cumulus little vertical development, seemingly flattened)
- 2  Cumulus, considerable development, generally towering, with or without other Cu or Sc; bases all at same level.
- 3  Cumulonimbus, tops backing clearcut outlines but distinctly not cirriform or anvil shaped; with or without Cu, Sc, or St.
- 4  Stratocumulus, formed by spreading out of Cu; Cu also after present
- 5  Stratocumulus not formed by the spreading out of Cumulus
- 6  Stratus or fractostratus or both, but not of bad weather
- 7  Fractostratus and/or fractocumulus of bad weather ("scud") usually under Lo and Hs ("bad weather" means conditions before, during or after precipitation)
- 8  Cumulus or Stratocumulus other than those formed by the spreading out of Cu bases at different levels
- 9  Cumulonimbus, chiefly fibrous (uniform top, often anvil shaped, with or without Cu, Sc, or "scud".)

900 - 901
 900 - 901
 920 - 29
 50 - 54

h Code
Height of Cloud indicated by "Ni"

No	DESCRIPTION.
0	< 150 feet.
1	150 - 300 feet.
2	300 - 600 feet.
3	600 - 1,000 feet.
4	1,000 - 2,000 feet.
5	2,000 - 3,000 feet.
6	3,000 - 5,000 feet.
7	5,000 - 6,500 feet.
8	6,500 - 8,000 feet.
9.	> 8,000 feet.

Cm-Code

- 0 No medium clouds
- 1 \angle Altostratus, thin (semitransparent everywhere)
sun or moon seen dimly as thro' ground glass
2. \llcorner Altostratus, thick or N_s (thro' portions
of the sheet the position of the sun or moon
may be indicated by a light patch)
3. \cup Alto cumulus, thin (semitransparent),
cloud elements not changing much at a
single level.
4. \cup Alto cumulus, thin (semitransparent), in
patches (often almond or fish-shaped); cloud
elements continuously changing and/or
occurring at more than one level.
5. \cup Alto cumulus, thin (transparent) in bands
or in a layer gradually spreading over the
sky & usually thickening as a whole; it
may become partly opaque.
6. \times Alto cumulus, formed by the spreading
out of C_u .
7. \cup Alto cumulus, a double layer usually
opaque in parts not increasing or, a thick
(opaque) layer not increasing; or A_s or A_c
Both present at the same or different
levels.
8. M Alto cumulus, in the form of
 C_u -shaped tufts or A_c with tufts.
9. \llcorner Alto cumulus, chaotic sky; generally at
different levels; dense C_u in patches is
usually also present.

— is used when clouds of the respective types
are not visible owing to darkness, fog, rain or snow
etc. owing to the existence of a complete
layer of lower cloud.

Ch - Code

- 0 No high clouds
- 1 → Cirrus, filaments or strands, scattered & not increasing (often "flakes & tufts")
- 2 → Cirrus, dense, in patches or twisted pleaves usually not increasing; possibly but not certainly the remains of the upper part of Cb.
- 3 → Cirrus & often anvil shaped; either the remains of the upper portions of Cb or part of a distant Cb the rest of which is not visible. (If Cb origin is doubtful, code figure 2 should be reported)
- 4 → Cirrus, (often hook shaped) gradually spreading over the sky & usually thickening as a whole.
- 5 → Cirrus & Cirrostratus, often in bands converging toward the horizon; or Cs alone; in either case gradually spreading over the sky & usually thickening as a whole, but the continuous layer not reaching 45° altitude.
- 6 → Cirrus & Cirrostratus etc. as $C_H = 5$, but with the continuous layer exceeding 45° altitude.
- 7 → Cirrostratus, covering the whole sky
- 8 → Cirrostratus, not increasing & not covering the whole sky. Ci & Cc may be present
- 9 → Cirrocumulus, alone or with some Ci or Cs, but Cc is the main cirriform cloud present (Cc may be present in $C_H = 1$ to $C_H = 8$)

"a" Code.

Characteristic of Barometric tendency during last 3 hours

No	Symbol	DESCRIPTION.
<u>Barometer now higher or the same as 3 hours ago.</u>		
0	↗	Rising, then falling.
1	↗	Rising, then steady, or rising the rise more slowly.
2	⋈	Unsteady.
3		Steady or rising.
4	✓	Falling or steady, then rising, or rising the rising more quickly.
<u>Barometer now lower than 3 hours ago.</u>		
5	↘	Falling, then rising.
6	↘	Falling, then steady, or falling the falling more slowly.
7	⋈	Unsteady.
8		Falling.
9	↘	Steady or rising then falling, or falling then falling more quickly.



C. Code

Types of Significant Cloud.

No.	Symbol		<u>DESCRIPTION.</u>
1	7	Ci	Cirrus.
2	2	Cs	Cirrostratus.
3	2	Cc	Circumcumulus.
4	U	Ac	Alto cumulus.
5	L	As	Altostratus.
6	v	Sc	Stratocumulus.
7	K	Ns	Nimbostratus.
8	D	Cu or Fe	Causalis or Fracto-cumulus.
9	B	Cb.	Cumulo-nimbus.
0	—	Str or Fs	Stratus or Fracto-stratus.



Highs Code.
Height of significant Cloud layer

No	DESCRIPTION.
00	< 100 ft
01	100 ft.
	<i>From 01-80 code figure is equal to height in hundreds of feet.</i>
80	8,000 ft.
81	9,000 ft
82	<i>"82" not used.</i>
83	10,000 ft
84	13,000 ft
85	16,000 ft
86	20,000 ft
87	23,000 ft
88	26,000 ft.
89	30,000 or higher.
90	> 150 ft.
91	150 - 300 ft.
92	300 - 600 ft
93	600 - 1,000 ft.
94	1,000 - 2,000 ft
95	2,000 - 3,000 ft.
96	3,000 - 5,000 ft
97	5,000 - 6,500 ft.
98	6,500 - 8,000 ft.
99.	8,000 ft or more or no low clouds.

W₃ Code

Deterioration Causes

Improvement Causes

<u>No.</u>	<u>DESCRIPTION</u>
3	Visibility
4	Cloud (low) [Height or Amount].
5	Precipitation.
6	Wind Force.
7	Squall or Thunderstorm.
8	Sandstorm.
9.	Sea or Swell.

Beaufort Letters.

b	Blue sky (0- $\frac{1}{4}$ cover)
bc	sky partly cloudy ($\frac{1}{4}$ - $\frac{3}{4}$ cover)
C	cloudy (more than $\frac{3}{4}$ cover)
d	drizzle
f	Fog
fs	Fog over sea (Coast Station)
Fg	Fog over ground (Inland Station)
g	Gale (Beaufort force 8 or 9 for period not less than 10 mins)
G	" " " 10 or more " " " " "
h	Hail
jp	Precipitation in sight.
Kg	Line squall.
Ks	Storm of Drifting snow.
Kz	sandstorm or duststorms
L	lightning.
m	mist
O	Overcast
P	Passing Showers
q	Squally weather
r	Rain
r. s.	Sleet
S	Snow
t	Thunder
t/r or Hs	Thunder or Thunderstorm with rain or snow
U	Ugly threatening sky.
V	Unusual Visibility
W	Dew
X	Hoar Frost

Office Routine

(#) Midnight (10 part hr) — midnight chart to plot
0045 begin 0100 observation (completed
by 0055) Continue plotting chart.
0145 begin 0200 observation. — cont. plotting
midnight chart.
0245 0300 obs.
0340 begin 0300 chart
0340 B.I. & weather slip temps
0345 0300 obs.
0400 cont. plotting 0300 chart & temp.
0430 baratic & prebaratic
0445 0500 obs.
0500 cont. plotting — all cleared up by
0600 Begin all over again



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