

Extract relating to codes and format from WMO documents

COMMISSION FOR BASIC SYSTEMS
ABRIDGED FINAL REPORT
OF THE
EIGHTH SESSION
Geneva, 31 January – 11 February 1983
WMO - No. 611

GENERAL SUMMARY

8. CODES (INCLUDING THE REPORT BY THE CHAIRMAN OF THE WORKING GROUP ON CODES) (agenda item 8)

Minor improvement to FM 12-VII SYNOP and FM 13-VII SHIP

8.3 The Commission considered proposed minor improvements recommended by the sixth session of the Working Group on Codes and agreed that there was a need for the proposed improvements in the regulations, notes and specifications, provided such revisions did not involve the re-training of observers or changes in computer software of data-processing centres. Recommendation 6 (CBS-VII) was adopted.

RECOMMENDATIONS

Rec. 6 (CBS-VIII) – MINOR IMPROVEMENTS TO FM 12-VII SYNOP AND FM 13-VII SHIP

THE COMMISSION FOR BASIC SYSTEMS,

NOTING:

- (1) Resolution 5 (EC-XXXI) – Common code for reporting surface observations from different types of surface station,
- (2) Recommendation 11 (CBS-VII) – Editorial revision of the structure of the Manual on Codes, Volume I,
- (3) The report of the sixth session of the CBS Working Group on Codes,

CONSIDERING that there is a need for the improvements of certain regulations in codes FM 12-VII SYNOP and FM 13-VII SHIP,

RECOMMENDS that the improvements to FM 12-VII SYNOP and FM 13-VII SHIP given in the annex to this recommendation be adopted.

REQUESTS the Secretary-General to arrange for the necessary amendments to be included in Volume I of the Manual on Codes by the end of 1983.

Annex to Recommendation 6 (CBS-VIII)
 MINOR IMPROVEMENTS TO FM 12-VII SYNOP AND FM 13-VII SHIP

1. In accordance with regulations 12.2.3.3.1, 12.2.3.4.2, 12.3.5 and 12.4.7.1.2 amend the code form to read as follows:

FM 12-VII SYNOP – Report of surface observation from a land station

FM 13-VII SHIP – Report of surface observation from a sea station

CODE FORM:

SECTION 0 MiMiMjMj $\left\{ \begin{array}{c} D...D \\ \text{or} \\ A_1 b_w n_b n_b n_b \end{array} \right\}$ YYGGiw $\left\{ \begin{array}{c} Iiii \\ \text{or} \\ 99L_a L_a L_a Q_c L_o L_o L_o L_o \end{array} \right\}$

SECTION 1 $i_R i_x h V V$ Nddff 1snTTT $\left\{ \begin{array}{c} 2s_n T_d T_d T_d \\ \text{or} \\ 29UUU \end{array} \right\}$ 3P_oP_oP_oP_o

$\left\{ \begin{array}{c} 4PPPP \\ \text{or} \\ 4a_3 h h h \end{array} \right\}$ 5appp 6RRRt_R 7wwW₁W₂ 8N_hC_LC_MC_H 9hh//

SECTION 2 222D_sv_s (0s_nT_wT_wT_w) (1P_{wa}P_{wa}H_{wa}H_{wa}) (2P_wP_wH_wH_w)
 ((3d_{w1}d_{w1}d_{w2}d_{w2}) (4P_{w1}P_{w1}H_{w1}H_{w1}) (5P_{w2}P_{w2}H_{w2}H_{w2}))
 $\left(\left\{ \begin{array}{c} 6I_s E_s E_s R_s \\ \text{or} \\ \text{ICING + plain language} \end{array} \right\} \right) (\text{ICE} + \left\{ \begin{array}{c} c_i S_i b_i D_i z_i \\ \text{or} \\ \text{plain language} \end{array} \right\})$

SECTION 3 333 (0....) (1s_nT_xT_xT_x) (2s_nT_nT_nT_n)
 (3Ejjj) (4E'sss) (5j₁j₂j₃j₄ (j₅j₆j₇j₈j₉))
 (6RRRt_R) (7....) (8N_sCh_sh_s)
 (9S_pS_pS_pS_p) (80000 (0....) (1....))

SECTION 4 444 N'C'H'H'C_t

SECTION 5 555 Groups to be developed nationally

2. Change NOTE (4) (b) as follows:

(b) The first data group of Section 2 - 222Dsvs, which is always included in the report of a sea station if data are available.

3. In NOTE (5) to FM 12-VII and FM 13-VII, change the contents of Section 1 to 5 as follows:

Section	Contents
1.	Data for global exchange...
2.	Maritime data for global exchange...
3.	Data for regional exchange...
4.	Data for national exchange...
5.	Data for national use.

4. Replace Regulations 12 1.3.1 to 12.1.3.6 with the followings:

12.1.3.1

Reports from a land station shall always contain at least Section 0 and 1. When a report from a coastal land station contains maritime data, that report shall also include Section 2. The identification and position of a land station shall be indicated by means of the group Iliii.

12.1.3.2

Reports from a sea station shall always include Section 0 and 1 and, whenever the corresponding data are available, Section 2. Section 2 shall always include the maximum number of data groups consistent with observed conditions. The identification of a sea station shall be indicated by either the group D...D or the group A1bwnbnbnb. The position of a sea station shall be indicated by the group 99L_aL_aL_a Q_cL_oL_oL_oL_o.

12.1.3.3

Ocean weather stations shall include (besides Section 0, 1 and 2), whenever the corresponding data are available, Section 3 containing at least the groups with indicator figures 5, 8 and 9.

12.1.3.4

In reports from supplementary ships, Section 1 shall contain at least:

$i_R i_x h V V \quad N d d f f \quad 1 s_n T T T \quad 4 p p p p \quad 7 w w W_1 W_2 \quad 8 N_h C_L C_M C_H$

where:

- (i) i_R shall be set to code figure 2;
- (ii) i_x shall be coded as 1, 2 or 3 as the case may be.

12.1.3.5

In reports from auxiliary ships, Section 1 shall contain at least:

$i_R i_x h V V \quad N d d f f \quad 1 s_n T T T \quad 4 p p p p \quad 7 w w W_1 W_2$

where:

- (i) i_R shall be set to code figure 2;
- (ii) i_x shall be coded as 1, 2 or 3 as the case may be.

NOTES:

(1) The above mentioned version of Section 1 is considered suitable for any ship which is not supplied with tested instruments and may be requested to report in areas where shipping is relatively sparse, or on request and especially when storm conditions threaten or prevail. These ships may report in plain language if the use of code is impracticable.

(2) If the ship does not report cloud data h should be coded with a solidus (/).

(3) If the ship is not equipped with tested instruments permitting the determination of tenths of a degree in air temperature and/or tenths of a hectopascal in pressure, a solidus should be coded for the tenths of degrees and/or tenths of hectopascals, as appropriate.

5. Replace Regulation 12.1.5 with the following:

12.1.5

A fixed sea station (other than an ocean weather station or a moored buoy), which is considered by the Member operating it to be in the same category as a land station, shall report its identification and position by means of the group Iliii.

6. Replace Regulation 12.2.2.2 with the following:

12.2.2.2

Altostratus perlucidus or stratocumulus perlucidus (“mackerel sky”) shall be reported using N = 7 or less (unless overlying clouds appear to cover the whole sky) since breaks are always present in this cloud form even if it extends over the whole celestial dome.

7. Replace Regulation 12.2.3.3.1 with the following:

12.2.3.3.1

Under unusual conditions, when the dew-point temperature is not available temporarily (e.g. due to instrument failure) but relative humidity is available, the group 29UUU shall replace the group 2snTdTdTd. However, every attempt shall first be made to convert relative humidity to dew-point temperature, and the relative humidity included only as a last resort.

8. Replace Regulation 12.2.4.1 with the following:

This group shall be included only in reports from a land station in lieu of group 4PPPP whenever the following conditions apply together:

- (a) The station elevation is more than 500 metres;
- (b) Regulation 12.2.3.4.2 does not apply, i.e. group 4a3hhh is not used;
- (c) The reduction method in use does not permit the computation of station pressure from the actual SYNOP report and from information contained in WMO publications.

9. Add the following after Regulation 12.2.6.3 (b):
The indicator ix shall indicate which one of these conditions applies.

10. Replace the note following Regulation 12.2.6.4.17 with the following:
NOTE: Showers are produced by convective clouds. They are characterized by their abrupt beginning and end, and by the generally rapid and sometimes great variations in the intensity of the precipitation. Drops and solid particles falling in a shower are generally larger than those falling in non-showery precipitation. Between showers openings may be observed, unless stratiform clouds fill the intervals between the cumuliform clouds.

11. replace Regulation 12.2.6.5.5 with the following new regulation:
12.2.6.5.5

If the weather during the period has not changed so that only one figure may be selected for the past weather, then that code figure shall be reported for both W_1 and W_2 . For example, rain during the entire period shall be reported as $W_1W_2 = 66$.

12. Replace Regulations 12.2.7.3 to 12.2.7.4 with the following:
12.2.7.3

Certain regulations concerning the coding of N shall also apply to the coding of N_h .

12.2.7.3.1

(a) If there are C_L cloud then the total amount of all C_L clouds, as actually seen by the observer during

the observation, shall be reported for N_h ;

(b) If there are no C_L clouds but there are C_M clouds, then the total amount of the C_M clouds shall be reported for N_h ;

(c) If there are no C_L clouds and there are no C_M level clouds, but there are C_H clouds, then N_h shall be coded as 0.

12.2.7.3.2

If the variety of the cloud reported for N_h is perucidus (stratocumulus perucidus for a C_L cloud or altocumulus perucidus for a C_M cloud) then N_h shall be coded as 7 or less. See Regulation 12.2.2.2.2.

NOTE: See Regulation 12.2.2.2.2.

12.2.7.3.3

When the clouds reported for N_h are observed through fog or an analogous phenomenon their amount shall be reported as if these phenomena were not present.

12.2.7.3.4

If the clouds reported for N_h include contrails, then N_h shall include the amount of persistent contrails. Rapidly dissipating contrails shall not be included in the value for N_h .

NOTE: See Regulation 12.5 concerning the use of Section 4.

12.2.7.4

The coding of C_L , C_M and C_H clouds shall be as specified in the International Cloud Atlas, Volume I, WMO-No. 407.

NOTE: It is recommended that the pictorial guides included at the end of chapter II.8 in the International Cloud Atlas, Volume I, be fully utilized in determining the priority of reporting the code figures for C_L , C_M and C_H .

13. Amend the term “low cloud” in Regulation 12.2.8 to read “lowest cloud seen” as at present in the specification of hh.

14. Replace Regulations 12.3 to 12.3.1.2 with the following:

12.3

Section 2

General

The inclusion of the group of Section 2 in reports of merchant ships shall be determined by the Member who recruits the ship. The same rule shall be applied for automatic sea stations.

NOTE: Members are recommended to encourage the inclusion of the maximum possible number of data groups in Section 2 in accordance with Regulation 12.1.3.2.

12.3.1

Group 222D_sv_s

12.3.1.1

This group shall always be included in reports from stations which have observed maritime conditions and in reports from ships being requested to include D_sv_s as a routine procedure.

12.3.1.2

This group shall be encoded as:

(a) 22200 for a stationary sea station;

(b) 222// for:

(i) A coastal land station which reports maritime conditions.

(ii) A supplementary or auxiliary ship, except when reporting from an area for which the ship report collecting centre, in order to meet a requirement of a search and rescue centre, has requested inclusion of D_sv_s as a routine procedure.

15. Replace Regulation 12.3.3.4 with the following:

12.3.3.4

(a) When the sea is calm (no waves and no swell) or P_{wa}P_{wa}H_{wa}H_{wa}, or P_wP_wH_wH_w as the case may be, shall be reported as 0000.

(b) When the estimation of the period is impossible owing to confused sea, $P_w P_w$ shall be reported as 99. When, for the same reason, the height of the waves cannot be determined, $H_w H_w$ shall be encoded as //;

(c) In a report from a station that includes instrumental wave data, if data are not available for any other reason for either period or height of waves, $P_{wa} P_{wa}$ or $H_{wa} H_{wa}$, as the case may be, shall be encoded as //. If data are not available for either period or height of waves Regulation 12.2.3.2 shall apply and the group ($1P_{wa} P_{wa} H_{wa} H_{wa}$) shall either be omitted or encoded as 1////;

(d) In a report from a station that does not include instrumental wave data, if data are not available for any other reason for either period or height of waves, $P_w P_w$ or $H_w H_w$, as the case may be, shall be encoded as //. If data are not available for both period and height of waves, the group ($2P_w P_w H_w H_w$) shall be omitted.

16. Replace Regulation 12.3.4.4 with the following:

12.3.4.4

Ocean weather stations shall always include swell data when data are available.

17. Replace Regulations 12.4.9.6 to 12.4.9.7 with the following:

12.4.9.6

If two or more types of cloud occur with their bases at the same level and this level is one to be reported in accordance with Regulation 12.4.9.1, the selection for C and N_s shall be made in accordance with the following criteria:

(a) If these types do not include Cumulonimbus then C shall refer to the cloud type that represents the greatest amount, or if there are two or more types of cloud all having the same amount, the highest applicable code figure for C shall be reported. N_s shall refer to the total amount of cloud whose bases are all at the same level;

(b) If these types do include Cumulonimbus then one group shall be used to describe only this type with C reported as 9 and N_s as the amount of Cumulonimbus. If the total amount of the remaining type(s) of cloud (excluding Cumulonimbus) whose bases are all at the same level is greater than that required by

Regulation 12.4.9.1 then another group shall be reported with C being selected in accordance with (a) and N_s referring to the total amount of the remaining cloud (excluding Cumulonimbus).

12.4.9.7

Regulation 12.2.2.2.3 to 12.2.2.2.6 inclusive shall apply.

18. Insert the following notes after the specification of t_R in Section C of the Manual on Codes, Volume I:

(1) If the duration of the period of reference is not a multiple of 6 hours or the period does not end at the time of the report t_R shall be coded 0.

(2) Members are recommended to avoid any deviations from international practices which require the use of code figure 0. The specification of code figure 0 should be indicated in Volume II under national coding procedures.