

d. REGULATIONS FOR REPORTING TRADITIONAL OBSERVATION DATA IN TABLE-DRIVEN CODE FORMS (TDCF): BUFR OR CREX

B/C1 – Regulations for reporting SYNOP data in TDCF

Annex: Regional regulations for reporting SYNOP data in BUFR/CREX for RA I, RA II, RA III, RA IV and RA VI

B/C5 – Regulations for reporting SYNOP MOBIL data in TDCF

B/C10 – Regulations for reporting SHIP data in TDCF

B/C20 – Regulations for reporting PILOT, PILOT SHIP and PILOT MOBIL data in TDCF

B/C25 – Regulations for reporting TEMP, TEMP SHIP and TEMP MOBIL data in TDCF

Annex I: RA IV BUFR template for TEMP, TEMP SHIP and TEMP MOBIL data

Annex II: List of parameters for representation of additional information on sounding instrumentation

B/C26 – Regulations for reporting TEMP DROP data in TDCF

B/C30 – Regulations for reporting CLIMAT data in TDCF

B/C32 – Regulations for reporting CLIMAT SHIP data in TDCF

General features

- (i) The regulations for reporting data of traditional observations in BUFR or CREX are intended to provide a link between the Manual on Codes, Volume I.1 and Volume II, containing traditional alphanumeric codes (TAC) regulations with detailed description of reporting practices and the Volume I.2, where the code forms FM 94 BUFR and FM 95 CREX are defined.
- (ii) A BUFR/CREX template has been developed for each traditional observation that is considered suitable for migration to table-driven code forms (TDCF). Templates presented prior to the regulations are BUFR templates; if used for CREX, relevant modifications have to be introduced.
- (iii) The regulations for reporting data of each traditional observation in TDCF are numbered in the increasing order in compliance with a standard BUFR/CREX template recommended for the data type. For reference, the number of the corresponding TAC regulation is included at the end of the regulation, written in square brackets.
- (iv) BUFR/CREX templates defined for traditional observation data contain not only the elements reported in the corresponding TAC, but also other important information. The regulations for reporting traditional observations data in BUFR/CREX address also these additional entries (e.g. horizontal and vertical coordinates of the observation site, position of sensors, significance qualifiers).
- (v) With each element introduced within the regulations, the unit and the required precision are specified. If different units are used in BUFR and CREX, the unit in which the element value is reported in CREX is also mentioned. Scaling is expected to be executed by the encoding BUFR or CREX software; in case of manual encoding of a CREX message, however, the scaling shall be included in the reporting procedure.
- (vi) If the unit of the element is defined as a flag table, the element values shall be reported in octal representation in CREX.

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- (vii) Reporting practices primarily refer to the procedures relevant for producing of the data in BUFR or CREX at the observing site. When data are collected in TAC and converted into BUFR or CREX in the centre, the differences in the reporting procedures, if any, are mentioned.
- (viii) If regional or national reporting practices require inclusion of additional parameters, the regulations provide guidance for addition of the relevant descriptors.
- (ix) A NIL report shall be represented by setting all values to “missing value” except for the identification of the station or observing site and delayed replication factors.

Note: Texts in *italic* within the regulations indicate that special attention should be given to this aspect of the regulation.