BUFR template 3 07 074 enables NMHSs to provide 31 daily observations consistent with national climate databases for the following elements:

- Time of observation for temperature

- Daily maximum temperature

- Daily minimum temperature

- Daily mean temperature (if it differs from (Tmax+Tmin)/2)

- Time of observation for precipitation

- Total daily precipitation

- Depth of new snowfall

- Depth of total snow on the ground

Each of these observations should be recorded at the observing time consistent with the climate reporting practices of the NMHS and should reflect conditions over the previous 24-hour period. The climate convention varies from country to country; each country should retain its traditional observing practice in reporting daily climate summaries. For example, while in the U.S. the reporting time is local midnight, in Australia it is 9 a.m. local, and in Canada it is 06 UTC. These observations can be efficiently provided via daily CLIMAT reports or other methods specifically designed for climate purposes.

It is suggested, for the trial phase, to report daily climate data from those observing stations that prepare the traditional CLIMAT report.

The following sub-sections summarize relevant procedures.

I. *Encoding in FM 94 BUFR*

(a) The BUFR template 3 07 074 (section 3) for daily climate data is defined in the BUFR Table D as follows.

3 07 074 – Supplemental daily temperature and precipitation values for monthly climate report

3 01 001	WMO block and station numbers	
0 04 001	Year	
0 04 002	Month	
3 01 021	Latitude/longitude (high accuracy)	
0 07 030	Height of station ground above mean sea level	
0 07 032	Height of sensor above local ground (or deck of marine platform)	
1 12 000	Delayed replication of 12 descriptors	
0 31 001	Delayed descriptor replication factor	Set to the number of days in the particular month for which data are being reported
0 04 003	Day	
0 04 004	Hour	
0 04 024	Time period or displacement	Typically set to -24 to denote the time to period beginning 24 hours prior to and ending at the specified time
1 02 003	Replicate 2 descriptors 3 times	

0 08 023	First-order statistics	= 2 Daily maximum temperature, = 3 Daily minimum temperature, = 4 Daily average temperature
0 12 101	Temperature/air temperature	
0 08 023	First-order statistics	Set to missing (cancel)
0 04 004	Hour	
0 04 024	Time period or displacement	
0 13 060	Total accumulated precipitation	
0 13 012	Depth of fresh snow	
0 13 013	Total snow depth	

(b)   Data category and sub-category (section 1) shall be specified.

Octet No. 11: Data category **000** = surface data – land

Octet No. 12: An international data sub-category for daily climate data will be adopted and Members will be notified through the World Weather Watch Operational Newsletter well in advance of the trial phase.

II.   *Global Telecommunication System abbreviated heading*

A Global Telecommunication System (GTS) heading ($T_1T_2A_1A_2$ii) for daily climate data will be adopted and Members will be notified through the World Weather Watch Operational Newsletter well in advance of the trial phase.

A_2 will be a geographic designator indicating the area where the observing station is located.

Instructions for the proper application of the geographical area designator

(a)   The designators specified in the following table should be used to the greatest extent possible to indicate the geographical area of the data contained within (the text of) the bulletin.

(b)   Where the geographical area of the data does not correspond exactly to the designator, the designator for the area closest to that of the data may be used.

(c)   If the table does not contain a suitable designator for the geographical area, an alphabetic designator which is not assigned in the table should be introduced and the WMO Secretariat should be notified.

Designator	*Geographical area*		*Designator*	*Geographical area*	
A	0° – 90°W	northern hemisphere	I	0° – 90°W	southern hemisphere
B	90°W –180°	northern hemisphere	J	90°W – 180°	southern hemisphere
C	180° – 90°E	northern hemisphere	K	180° – 90°E	southern hemisphere
D	90°E – 0°	northern hemisphere	L	90°E – 0°	southern hemisphere
E	0° – 90°W	tropical belt	N	Northern hemisphere	
F	90°W – 180°	tropical belt	S	Southern hemisphere	
G	180° – 90°E	tropical belt	T	45°W – 180°	northern hemisphere
H	90°E – 0°	tropical belt	X	Global area (area not definable)	