

Annex to Recommendation 7 (CMM-X)

MINIMUM QUALITY CONTROL STANDARDS

Note: See specification for quality-control indicators Q_1 to Q_{12} at the end of this annex
 Δ = space (ASCCI 32)

Element	Error	Action
1	$i_r \neq 0-5$	Correct manually
2	AA \neq valid year	Correct manually, otherwise reject
3	MM \neq 01-12	Correct manually, otherwise reject
4	YY \neq valid day of month	Correct manually, otherwise reject
5	GG \neq 00-23	Correct manually, otherwise reject
6	$i_w \neq 0,1,3,4$	Correct manually, otherwise $Q_5=4$
7	Q $\neq 0-3,5-8$	Correct manually, otherwise reject
8	$L_1L_2L_3 \neq 000-900$	Correct manually, otherwise reject
9	$L_0L_1L_2 \neq 000-800, 900-999$ when Q = 1,2,6,7 $\neq 000-900$ when Q = 0,3,5,8	Correct manually, otherwise reject
<u>Time sequence checks</u>		
	Change in latitude $> 0.7^\circ/\text{hr}$	Correct manually, otherwise reject
	Change in longitude $> 0.7^\circ/\text{hr}$ when lat 00-39.9	Correct manually, otherwise reject
	Change in longitude $> 1.0^\circ/\text{hr}$ when lat 40-49.9	Correct manually, otherwise reject
	Change in longitude $> 1.4^\circ/\text{hr}$ when lat 50-59.9	Correct manually, otherwise reject
	Change in longitude $> 2.0^\circ/\text{hr}$ when lat 60-69.9	Correct manually, otherwise reject
	Change in longitude $> 2.7^\circ/\text{hr}$ when lat 70-79.9	Correct manually, otherwise reject
10		No checking
11	$h \neq 0-9, \Delta$ $h = \Delta$	Correct manually and $Q_1=5$, otherwise $Q_1=4$ $Q_1=9$

Element	Error	Action
12	VV \neq 90-99, $\Delta\Delta$ VV = $\Delta\Delta$	Correct manually and $Q_2=5$, otherwise $Q_2=4$ $Q_2=9$
13	N \neq 0-9, $\Delta, /$ N < N_n	Correct manually and $Q_3=5$, otherwise $Q_3=4$ Correct manually and $Q_3=5$, otherwise $Q_3=2$
14	dd \neq 00-36, 99, $\Delta\Delta$ dd = $\Delta\Delta$ <u>dd versus ff</u> dd = 00, ff \neq 00 dd \neq 00, ff = 00	Correct manually and $Q_4=5$, otherwise $Q_4=4$ $Q_4=9$ Correct manually and Q_4 or $Q_5=5$, otherwise $Q_4=Q_5=2$ Correct manually and Q_4 or $Q_5=5$, otherwise $Q_4=Q_5=2$
15	ff > 80 knots	Correct manually and $Q_5=5$, otherwise $Q_5=3$
16	$s_n \neq 0, 1$	Correct manually, otherwise $Q_6=4$
17	TTT = Δ -25 > TTT > 40	$Q_6=9$ Control manually and $Q_6=1$, 3 or 4 and if corrected $Q_6=5$
<u>TTT versus humidity parameters</u>		
	TTT < WB [wet bulb]	Correct manually and $Q_6=Q_7=5$, otherwise $Q_6=Q_7=2$
	TTT < DP [dew point]	Correct manually and $Q_6=Q_7=5$, otherwise $Q_6=Q_7=2$
18	$s_n \neq 0, 1, 5, 6, 7, 9$	Correct manually, otherwise $Q_7=4$
19	WB < = DP WB = DP = $\Delta\Delta$	Correct manually and $Q_7=5$, otherwise $Q_7=2$ $Q_7=9$
20	930 > PPPP > 1050 hPa 870 > PPPP > 1070 hPa PPPP = $\Delta\Delta\Delta\Delta$	Control manually and $Q_8=1, 3$ and if corrected $Q_8=5$ Correct manually and $Q_8=5$, otherwise $Q_8=4$ $Q_8=9$

Element	Error	Action
21	$ww = 22-24, 26, 36-39, 48, 49, 56, 57,$ $66-79, 83-88, 93, 94$ and latitude $< 20^\circ$	Correct manually and $Q_9=5$, otherwise $Q_9=4$
22,23	$W_1 = W_2 = 7$ and latitude $< 20^\circ$ $W_1 < W_2$	Correct manually and $Q_9=5$, otherwise $Q_9=4$ Correct manually and $Q_9=5$, otherwise $Q_9=2$
24,25, 26,27	$N = 0, \Delta, 9$ and $N_b C_L C_M C_H \neq \Delta$	Correct manually and $Q_3=5$, otherwise $Q_3=4$
28	$s_n \neq 0, 1$	Correct manually, otherwise $Q_{10}=4$
29	$T_w T_w T_w = \Delta \Delta \Delta$ $-2.0 > T_w T_w T_w > 37.0$	$Q_{10}=9$ Control manually and $Q_{10}=1,$ 3 or 4 and if corrected $Q_{10}=5$
30	Indicator $\neq 0-7, \Delta$	Correct manually, make it Δ if not correctable
31	Indicator $\neq 0-9, \Delta$	Correct manually, make it Δ if not correctable
32	$20 < P_w P_w < 30$ $P_w P_w > 30 \neq 99$ $P_w P_w = \Delta \Delta, //$	$Q_{11}=3$ $Q_{11}=4$ $Q_{11}=9$
33	$35 < H_w H_w < 50$ $H_w H_w = > 50$ $H_w H_w = \Delta \Delta, //$	$Q_{12}=3$ $Q_{12}=4$ $Q_{12}=9$
34	$d_{w1} d_{w1} \neq 00-36, 99, \Delta \Delta$ $swell_1 = swell_2 = \Delta$	Correct manually and $Q_{13}=5$ otherwise $Q_{13}=4$ $Q_{13}=9$
35	$25 < P_{w1} P_{w1} < 30$ $P_{w1} P_{w1} > 30$ and $\neq 99$	$Q_{13}=3$ $Q_{13}=4$
36	$35 < H_{w1} H_{w1} < 50$ $H_{w1} H_{w1} = > 50$	$Q_{13}=3$ $Q_{13}=4$
37	$I_s \neq 1-5, \Delta$	Correct manually, otherwise Δ
38	$E_s E_s \neq 00-99, \Delta \Delta$	Correct manually, otherwise $\Delta \Delta$
39	$R_s \neq 0-4, \Delta$	Correct manually, otherwise Δ
40	Source $\neq 0-6$	Correct manually

Element	Error	Action
41	Platform \neq 0-9	Correct manually
42	No call sign	Insert manually
43	No country code	Insert manually
44	Q \neq 0-6,9	Correct manually
45,46		No quality control
47	$i_R \neq 1-4$ $i_R = 4$ and RRR = $\Delta\Delta\Delta,///$ $i_R = 3$ and RRR $\neq \Delta\Delta\Delta$	Correct manually and $Q_{14}=5$, otherwise $Q_{14}=4$ $Q_{14}=9$ Correct manually and $Q_{14}=5$, otherwise $Q_{14}=2$
48	RRR \neq 001 - 999 and $i_R = 1,2$	Correct manually and $Q_{14}=5$, otherwise $Q_{14}=2$
49	$t_R \neq 0-9$	Correct manually and $Q_{14}=5$, otherwise $Q_{14}=4$
50	$s_n \neq 0,1,5,6,7,9$	Correct manually, otherwise $Q_7=4$
51	$W_B > = TTT$ or $DP > TTT$	See element 17
52	$a \neq 0-8,\Delta$ $a = 4$ and $ppp \neq 000$ $a = \Delta$	Correct manually and $Q_{15}=5$, otherwise $Q_{15}=4$ Correct manually and $Q_{15}=5$, otherwise $Q_{15}=Q_{16}=2$ $Q_{15}=9$
53	$ppp > 150$ $ppp > 250$ $ppp = \Delta\Delta\Delta$	Correct manually and $Q_{16}=1,3$ and if corrected $Q_{16}=5$ Correct manually and $Q_{16}=5$, otherwise $Q_{16}=4$ $Q_{16}=9$
54	$D_s \neq 0-9, \Delta$ $D_s = \Delta, /$	Correct manually and $Q_{17}=5$, otherwise $Q_{17}=4$ $Q_{17}=9$
55	$V_s \neq 0-9, \Delta$ $V_s = \Delta, /$	Correct manually and $Q_{18}=5$, otherwise $Q_{18}=4$ $Q_{18}=9$
56	$d_{w2}d_{w2} \neq 00-36,99$	Correct manually and $Q_{13}=5$ otherwise $Q_{13}=4$

Element	Error	Action
57	$25 < P_{w2}P_{w2} < 30$ $P_{w2}P_{w2} > 30$ and $\neq 99$	$Q_{13}=3$ $Q_{13}=4$
58	$35 < H_{w2}H_{w2} < 50$ $H_{w2}H_{w2} = > 50$	$Q_{13}=3$ $Q_{13}=4$
59	$c_1 \neq 0-9, \Delta$	Correct manually otherwise Δ
60	$S_1 \neq 0-9, \Delta$	Correct manually otherwise Δ
61	$b_1 \neq 0-9, \Delta$	Correct manually otherwise Δ
62	$D_1 \neq 0-9, \Delta$	Correct manually otherwise Δ
63	$z_1 \neq 0-9, \Delta$	Correct manually otherwise Δ

Specifications for quality-control indicators Q_1 to Q_{18}

- 0 - No quality control (QC) has been performed on this element
- 1 - QC has been performed; element appears to be correct
- 2 - QC has been performed; element appears to be inconsistent with other elements
- 3 - QC has been performed; element appears to be doubtful
- 4 - QC has been performed; element appears to be erroneous
- 5 - The value has been changed as a result of QC
- 6-8 - Reserve
- 9 - The value of the element is missing