Ionospheric Weather W-index thresholds

The peak electron density, NmF2, deviation from quiet median:

$$DEV(NmF2)=log(NmF2/NmF2med)$$

Total electron content, TEC, deviation from quiet median:

$$DEV(TEC)=log(TEC/TECmed)$$

Categories of the ionospheric weather W-index corresponding to the logarithmic deviation from the median:

W-index	DEV(NmF2) DEV(TEC)	Ionosphere state
4	$DEV > 0.301$	Intense positive W^+ storm
3	$0.155 < DEV \leq 0.301$	Moderate W^+ storm or substorm
2	$0.046 < DEV \leq 0.155$	Moderate W^+ disturbance
1	$0.0 < DEV \leq 0.046$	Quiet W^+ state
0	$DEV = 0.0$	Reference Quiet state
-1	$-0.046 \leq DEV < 0.0$	Quiet W^- state
-2	$-0.155 \leq DEV < -0.046$	Moderate W^- disturbance
-3	$-0.301 \leq DEV < -0.155$	Moderate W^- storm or substorm
-4	$DEV < -0.301$	Intense negative W^- storm

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