

USING YOUR BAROMETER OR BAROGRAPH

Air pressure varies with altitude and to standardise readings all barometers are adjusted to indicate sea level pressure, irrespective of altitude. This value can be obtained from a nearby Meteorological Office or from TV or newspaper.

For barometers the adjustment is made with a small screwdriver through a hole in the back of the instrument.

For barographs have a knurled knob at the foot of the front supporting pillar.

With your barometer adjusted to sea level and securely mounted you are ready to interpret the readings. Set the moveable pointer directly over the barometer head and tap the glass lightly. The resulting slight movement indicated whether the pressure is rising or falling. However rate of change is the most important factor so observation over a period of time is required. To predict the local weather combine barometer readings with wind direction.

Because of the modifying effects of land on what would be the true wind direction the following predictions are most accurate at sea. They should be reasonably true for the west coast of New Zealand and the northern part of New Zealand and worst for the east coast and in particular central New Zealand.

Wind SW to NW, barometer 1019 to 1023 and steady - fair weather with little temperature change for one or two days

Wind SW to NW, barometer 1019 to 1023 and rising rapidly - fair, followed with two days of rain

Wind SW to NW, barometer 1023 and above and stationary - continued fair with no decided temperature change

Wind SW to NW, barometer 1023 and above and falling slowly - slowly rising temperature and fair for two days

Wind N to NE, barometer 1029 to 1023 and falling slowly - rain within 24 hours

Wind N to NE, barometer 1019 to 1023 and falling rapidly - wind increasing in force with rain within 12 to 24 hours

Wind SE to NE, barometer 1019 to 1023 and falling slowly - rain in 12 to 18 hours

Wind SE to NE, barometer 1019 to 1023 and falling rapidly - increasing wind and rain within 12 hours

Wind E to SE, barometer 1019 and above and falling slowly - light winds, rain may not fall for several days

Wind E to SE, barometer 1019 and above falling fast - rain probably within 12 hours

Wind SE to NE, barometer 1016 and below and falling slowly - rain will continue for one or two days

Wind SE to NE, barometer 1016 and below and falling rapidly - rain with high wind, followed within 36 hours by clearing

Wind N to NW, barometer 1016 and below and rising slowly - clearing in a few hours and fair for several days

Wind N to E, barometer 1009 and below and falling rapidly - severe storm imminent, followed in 24 hours by clearing

Wind E to S, barometer 1009 and below and falling rapidly - severe SE gale and heavy rain

Wind going to W, barometer 1009 or below and rising rapidly - clearing and colder

TO ADJUST THE HANDS						CONVERTING INCHES TO MILLIBARS			
Turn the set-screw (visible from the back of the case) by the amount indicated on the chart for your altitude						Inches	Millibars	Inches	Millibars
Altitude		Adjustment	Altitude		Adjustment	28.44	963	29.77	1008
Feet	Metres	Inches	Feet	Metres	Inches	28.53	966	29.86	1011
						28.62	969	29.94	1014
						28.70	972	30.03	1017
						28.79	975	30.12	1020
50	15.24	Add 0.06	550	167.64	Add 0.59	28.88	978	30.21	1023
100	30.48	Add 0.12	600	182.88	Add 0.64	28.97	981	30.30	1026
150	45.72	Add 0.17	650	198.12	Add 0.69	29.06	984	30.39	1029
200	51.44	Add 0.22	700	213.36	Add 0.74	29.15	987	30.48	1032
250	76.20	Add 0.27	750	228.60	Add 0.79	29.24	990	30.56	1035
300	91.44	Add 0.33	800	243.84	Add 0.84	29.32	993	30.65	1038
350	106.68	Add 0.38	850	259.08	Add 0.89	29.41	996	30.74	1041
400	121.92	Add 0.43	900	274.32	Add 0.94	29.50	999	30.83	1044
450	137.16	Add 0.48	950	289.56	Add 0.99	29.59	1002	30.92	1047
500	152.40	Add 0.54	1000	304.80	Add 1.04	29.68	1005	31.01	1050

Converting Celsius to Fahrenheit	<ol style="list-style-type: none"> Multiply by 9 eg 20° C Divide by 5 Add 32 $20 \times 9 : 5 + 32 = 68^\circ \text{ F}$	Converting Fahrenheit to Celsius	<ol style="list-style-type: none"> Subtract 32 eg 68° F Multiply by 5 Divide by 9 $68 - 32 \times 5 : 9 = 20^\circ \text{ C}$
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