

# Temperature and Pressure go Metric

1 September 1972





# Temperature . . . Celsius

#### Introducing Celsius

Australia is becoming a metric nation, and from September 1 this year temperature will be measured in degrees Celsius, replacing degrees Fahrenheit.

The Australian Government has decided that metric conversion should be achieved by 1980. Together with all sections of government and private enterprise, the Bureau of Meteorology is effecting the change as soon as possible.

The Celsius scale is the same as that previously called centigrade, which has been in common use for many years. Celsius is named after an 18th century Swedish astronomer and physicist.

#### What Celsius means to you

On the front cover is an illustration showing Celsius temperatures usually found in Australia.

35°C to 45°C (95°F to 113°F) represents the very hot weather which can affect the greater part of Australia in summer.

25°C to 35°C (77°F to 95°F) is typical of the warm to hot conditions experienced mainly in the summer throughout the continent except on the highest peaks of the Alps.

15°C to 25°C (59°F to 77°F) is appreciated by most people as being cool to warm.

5°C to 15°C (41°F to 59°F) is the range of temperature experienced on the colder winter days of southern Australia.

-5°C to 5°C (23°F to 41°F) represents the very cold winter conditions, commonly encountered in the highlands, and on frosty nights.

In Australia the highest temperature recorded is  $53^{\circ}\text{C}$  ( $127^{\circ}\text{F}$ ) at Cloncurry in Queensland, and the lowest is  $-22^{\circ}\text{C}$  ( $-8^{\circ}\text{F}$ ) at Charlotte Pass in the southern alps of New South Wales.

In the world the highest is  $58^{\circ}$ C ( $136^{\circ}$ F) at Tripoli in Africa, and the lowest is  $-88^{\circ}$ C ( $-127^{\circ}$ F) at Vostok, a Russian station in the Antarctic.

Below is a table showing, in Celsius, the mean maximum temperatures for

	SYDNEY	MELBOURNE	BRISBANE	ADELAIDE	PERTH	НОВАВТ	CANBERRA	DARWIN	PORT MORESBY
JAN.	26	26	29	30	30	21	28	32	32
FEB.	25	26	29	29	30	21	27	32	32
MAR.	24	24	28	27	28	20	25	32	32
APR.	22	20	26	23	25	17	20	33	31
MAY	19	16	23	19	21	14	15	32	31
JUNE	17	14	21	16	18	12	12	31	30
JULY	16	13	20	15	17	11	11	31	30
AUG.	17	15	22	16	18	13	13	32	30
SEPT.	20	17	24	19	19	15	16	33	31
ост.	22	20	26	22	21	17	19	34	32
NOV.	24	22	28	25	25	19	22	34	32
DEC.	25	24	29	28	27	20	26	33	32

each capital city. And on the back page is a conversion table from Celsius to Fahrenheit.

#### Method of conversion

Temperature reports in public advices issued by the Bureau of Meteorology, Australia's official weather service, will be only in degrees Celsius from September 1.

Reports will contain only Fahrenheit temperatures up to midnight on August 31.

The Bureau does not favour a dual system of publication because overseas experience has revealed that this makes it harder for people to adapt to the new unit

Some news media may wish to use a dual system for a limited time, but it is expected this will be discontinued from September 1

If temperature were expressed in both units every day, the public would find it difficult to learn Celsius.

To help you understand the Celsius scale the Bureau is conducting an intensive public education programme.

Besides this pamphlet, other information material has been issued, and newspapers, radio and television are coperating in explaining the new units, and how they will affect you.

One point to remember is that the actual temperature will not change — we will just be measuring it in a different way.

If you require more information about the new metric units in meteorology, write to or telephone your nearest Regional Director of Meteorology.

Sydney	28 0913	Perth	25 9299
	61 6791		
Melbourne	662 2555	Hobart	23 2834
Brisbane	21 4511	Canberra	47 0411
Adelaide	51 6801	Darwin	4 8300
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Think metric — it's becoming the universal measurement.

## Pressure . . . Millibar



As with temperature, Bureau of Meteorology public advices will use only the metric unit of atmospheric pressure — the millibar — from September 1.

At present both millibars and inches are used in newspapers and special

radio broadcasts for fishermen, yachtsmen and mariners.

To many people, pressure may seem of little concern, but the pressure of air on the earth to a large extent determines our weather.

The daily weather map (see diagram) is a simple version of the meteorologist's synoptic chart, and shows the distribution of pressure into areas where it is high and low. Lines which join areas of equal pressure are called isobars.

The aneroid (=without fluid) barometer is the most commonly used instrument to measure air pressure, and is found in many homes. Most home aneroids are graduated in millibars and inches. A conversion table is on the last page.

In Australia, pressure as low as 904mb (26.7 in ) has been recorded in a tropical cyclone off the North Australian coast, and pressure as high as 1054 mb (31.1 in ) has been recorded in an anticyclone over the south of the continent.

Further information on pressure is available from your nearest Regional Director of Meteorology.

### DEGREE CELSIUS TO NEAREST WHOLE DEGREE FAHRENHEIT

(Exact conversions are underlined)

°C	°F	°C	°F	°C	°F	°C	°F
59	138	39	102	19	66	-1	30
58	136	38	100	18	64	-2	28
57	135	37	99	17	63	-3	27
56	133	36	97	16	61	-4	25
55	131	35	95	15	59	5	23
54	129	34	93	14	57	-6	21
53	127	33	91	13	55	-7	19
52	126	32	90	12	54	-8	18
51	124	31	88	11	52	9	16
50	122	30	86	10	50	<u>-10</u>	14
49	120	29	84	9	48	-11	12
48	118	28	82	8	46	-12	10
47	117	27	81	7	45	-13	9
46	115	26	79	6	43	-14	7
45	113	25	77	5	41	<u>-15</u>	5
44	111	24	75	4	39	-16	3
43	109	23	73	3	37	-17	1
42	108	22	72	2	36	-18	0
41	106	21	70	1	34	-19	-2
40	104	20	68	0	32	20	<u>-4</u>

## MILLIBAR TO INCH (To the second decimal point)

mb	in	mb	in	mb	in	mb	in
970	28.64	1000	29.53	1010	29.83	1020	30.12
975	28.79	1001	29.56	1011	29.86	1021	30.15
980	28.94	1002	29.59	1012	29.88	1022	30.18
985	29.09	1003	29.62	1013	29.91	1023	30.21
990	29.24	1004	29.65	1014	29.94	1024	30.24
995	29.38	1005	29.68	1015	29.97	1025	30.27
996	29.41	1006	29.71	1016	30.00	1030	30.42
997	29.44	1007	29.74	1017	30.03	1035	30.56
998	29.47	1008	29.77	1018	30.06	1040	30.71
999	29.50	1009	29.80	1019	30.09	1045	30.86