

Interpreting weather maps it is important to remember that weather fronts move from west to east across southern Australia and from east to west across northern Australia.

Latitude and longitude can be used to pinpoint the location of Sydney on the world map

Mean monthly minimum and maximum temperatures are shown by a line graph — coloured red for the mean monthly maximum and blue for the mean monthly minimum

The precipitation scale is located on the right-hand side of the graph

The letters stand for the months of the year

to show the monthly rainfall in Sydney

1b Temperature

AVERAGES

Description

Very hot
Hot
Warm
Cool
Cold
Very cold

RANGES

Description

Small
Moderate
Large
Very large

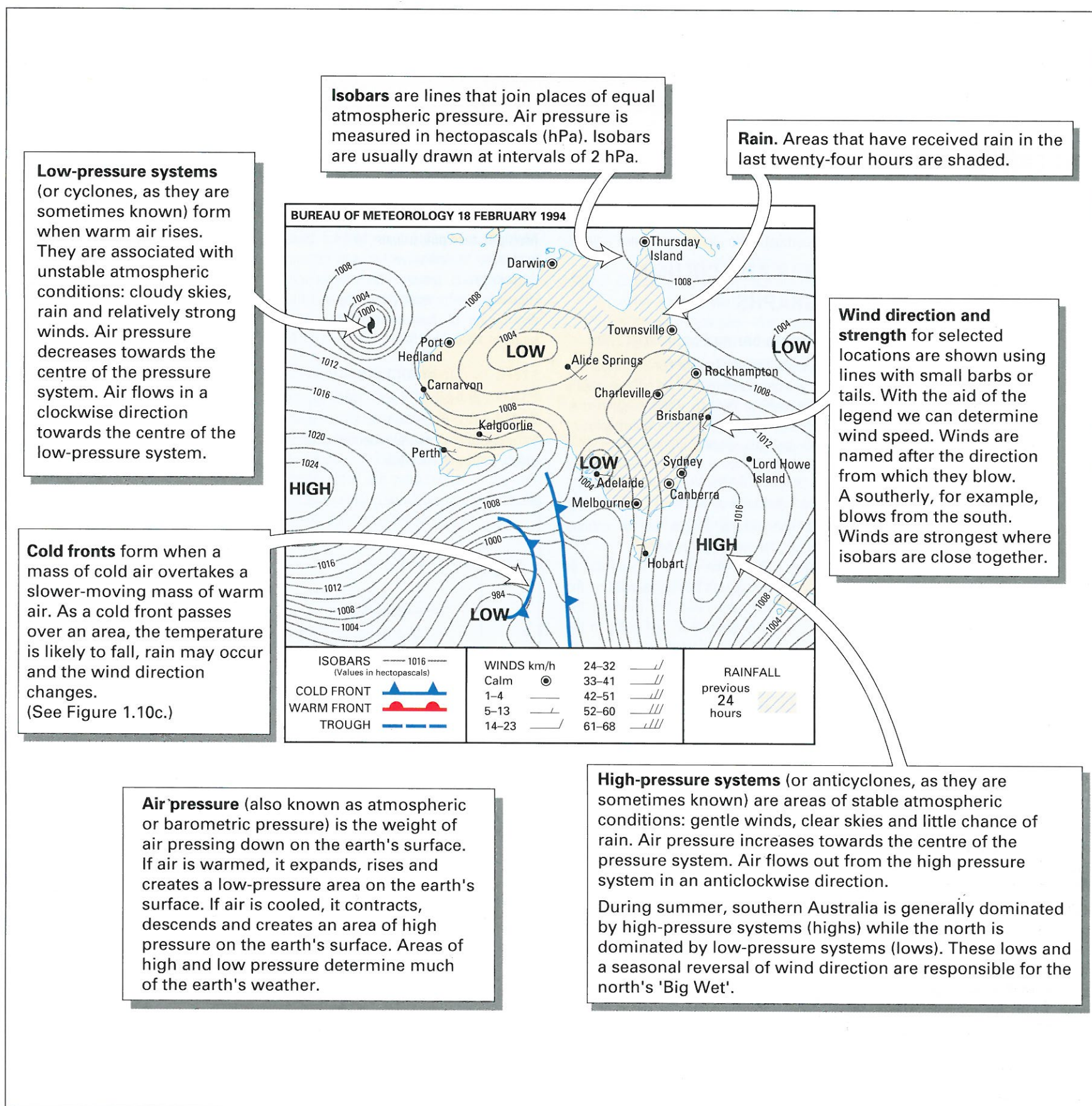


Figure 1.10b A weather map, or synoptic chart.

Predicting weather using a synoptic chart

How warm will it be?

Seasonality is the main factor affecting temperature. It is, on average, warmer in summer than it is in winter. Other factors to take into account include:

- extent of cloud cover
- frontal activity
 - after the passing of a cold front, the temperature falls
- wind direction
 - winds blowing from the south usually bring cooler weather
 - winds blowing from the north generally bring warmer conditions
- proximity to large bodies of water, which has a moderating effect on temperature, that is a smaller diurnal range.

Will it rain?

- Areas in which rainfall has occurred in the last twenty-four hours are shaded.
- Low pressure systems and fronts are associated with rising air. As it rises it cools, condenses and may produce precipitation. The passing of a cold front (see Figure 1.10c) is often accompanied by rainfall.
- Highs tend to be associated with sinking air. As the air sinks it becomes warmer and is better able to retain moisture. As a result, dry conditions prevail.
- Winds blowing from central Australia bring dry conditions.
- Winds blowing onshore are more likely to bring rain.

Will it be windy?

- The closer the isobars, the stronger will be the wind.
- Strong winds are normally associated with low-pressure systems.
- To determine wind direction:
 - Draw a dotted line through the place, parallel to the adjacent isobars.
 - Place a faint arrowhead on this line, indicating an anticlockwise direction if a high is influencing weather conditions, or clockwise if a low is present.
 - Deflect the arrow (10–20 degrees away from a high, or 10–30 degrees towards a low) and draw a new, clearer arrow to give an indication of wind direction.

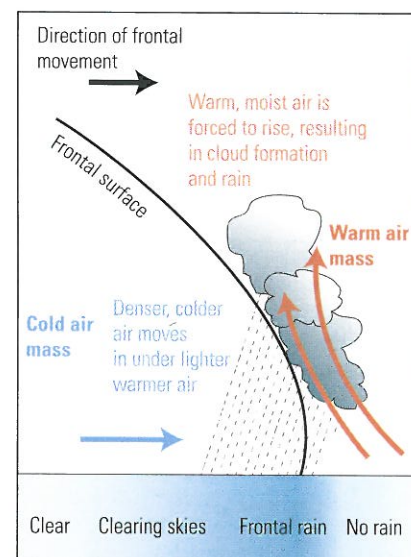


Figure 1.10c Cold front.