

FORECASTING TERMINOLOGY



How do we interpret the forecasting terms?

Media Release



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Wednesday, 5 April 2023

Weather Forecast for the Easter long weekend



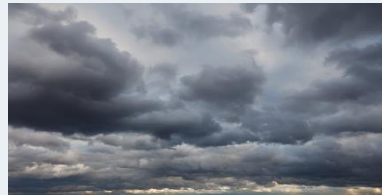

Predominantly **sunny** and **warm** to hot conditions currently dominate the southern African subcontinent. However, this is set to change dramatically in the days ahead, as a cold front arrives over Western Cape at the start of the weekend, introducing **cold**, windy and **showery conditions**, which will gradually spread eastwards and northwards during the long weekend. Cooler conditions with some showers or **thundershowers** will eventually set in over KwaZulu-Natal and Gauteng towards the end of the weekend. By contrast, Limpopo is expected to remain **hot to very hot** during the entire weekend.

At the current time, southern Africa is basking in a spell of autumn warmth and sunshine, with hot to very hot conditions being experienced over parts of the Northern Cape, Limpopo as well as over neighbouring Botswana. These conditions will persist during the first half of the coming weekend, as can be seen in the predicted 14h00 surface temperature maps below, in Figure 2.

In this presentation:

1. Cloud categories
2. Wind categories
3. Temperature categories
4. Types of precipitation
5. Precipitation percentages
6. Urban localized flooding vs flash flooding
7. Heat Waves
8. FDIs

Cloud Categories

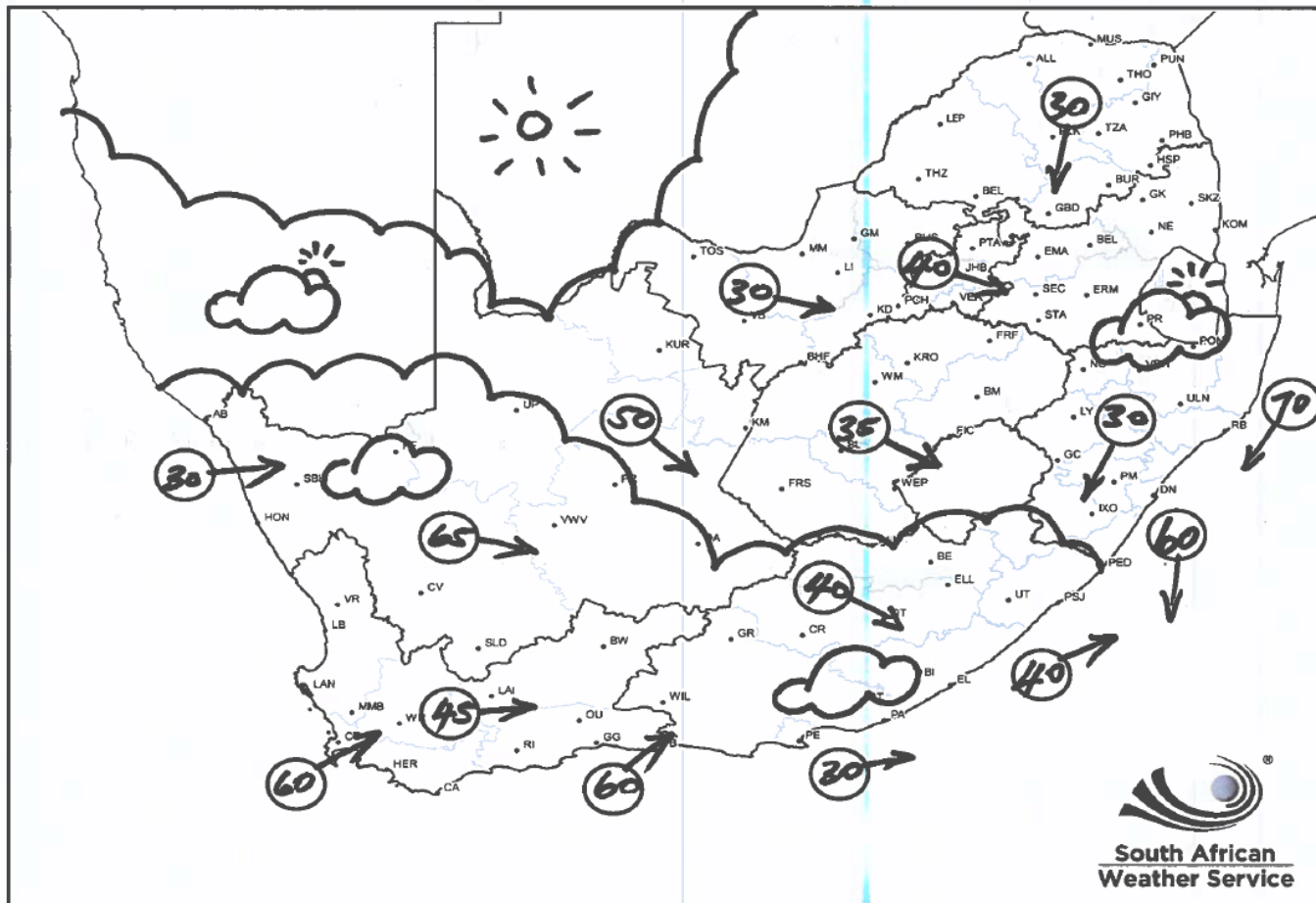
CATEGORY	WHAT IT MEANS	EXAMPLE
Sunny/Fine	Less than $\frac{1}{4}$ sky covered with cloud	
Partly cloudy	About $\frac{1}{2}$ sky covered with cloud	
Cloudy	Very little sky visible	
Overcast	No sky visible	

Cloud Map

Wind and Clouds for tomorrow

Date issued: 24/09/2023

16h00SAST



Document reference:

NFC-TV-20230924_6_PM.1

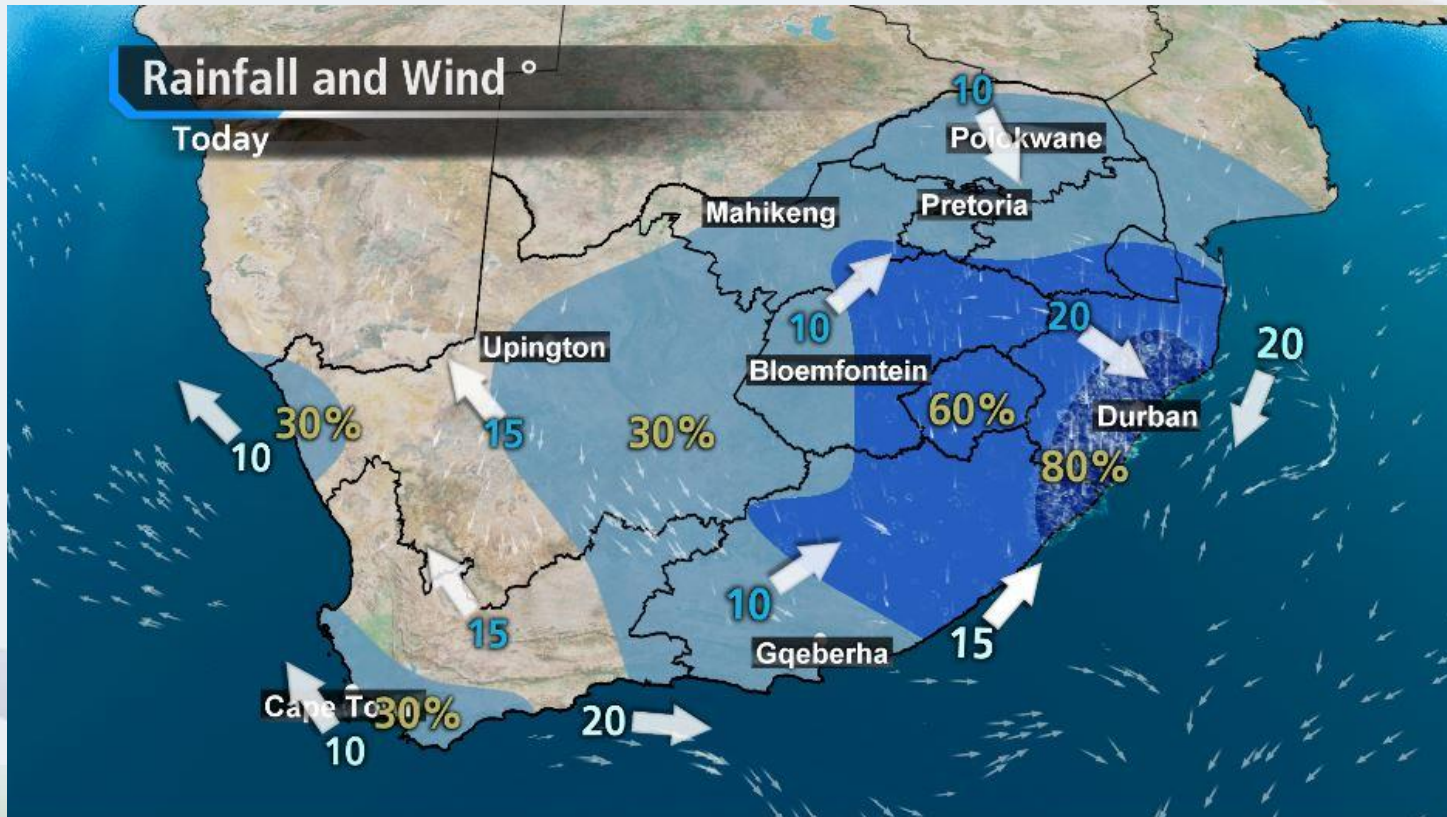
Produced by: Ishmael Moyo (SAWS NFC Pretoria)

Wind Categories: Wind Speed

Descriptor	Knots	Km/H
light	1-9	1-16
Moderate	10-13	17-24
Fresh	14-19	25-35
Strong	20-30	36-56
Gale	31-40	57-74
Strong Gale	41-47	75-87

Wind Categories: Wind Direction

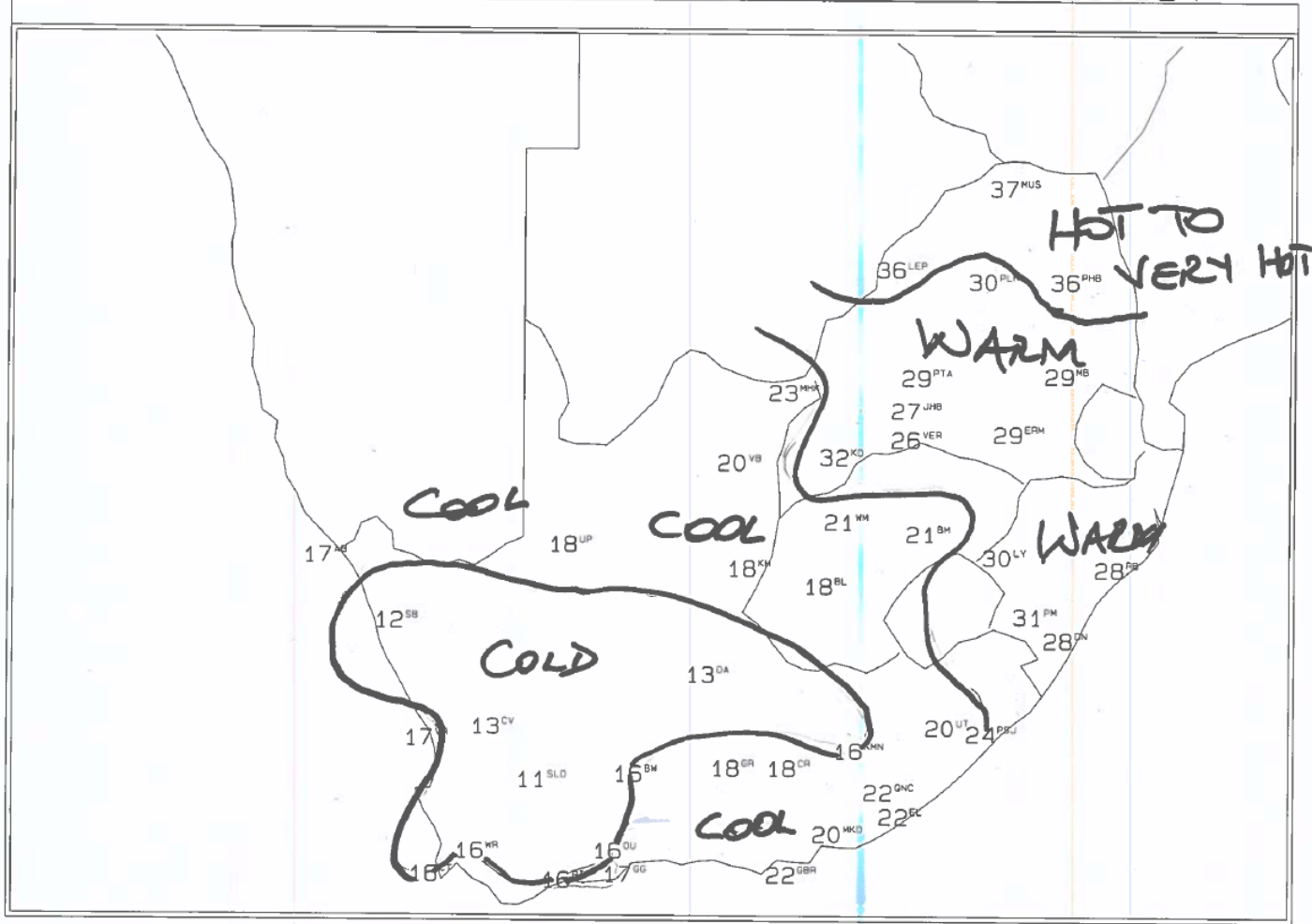
Wind direction is given according to the direction the wind is **coming from**



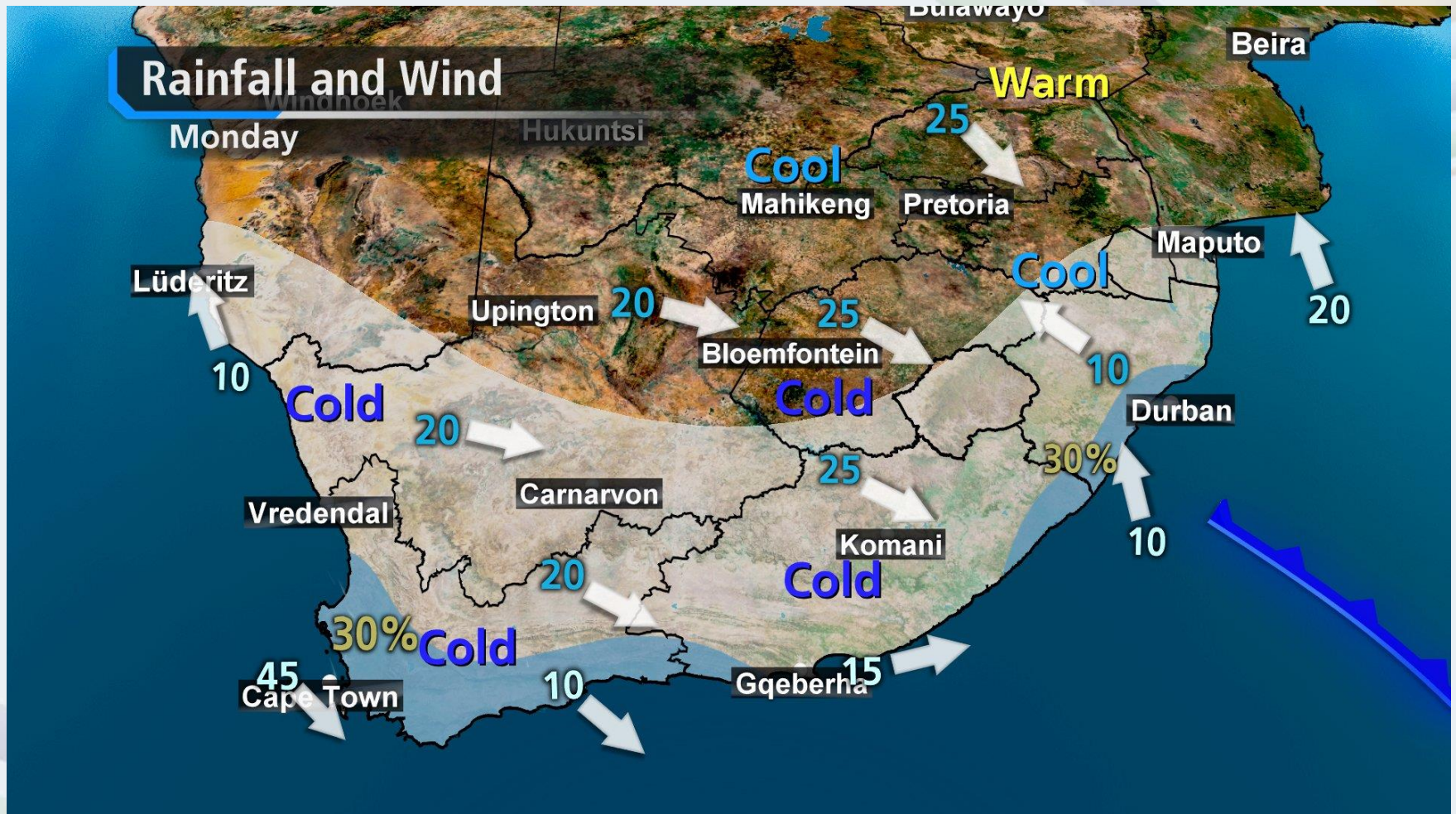
Temperature Categories

CHART: MAXIMUM TEMPERATURES

ISSUED: 230924

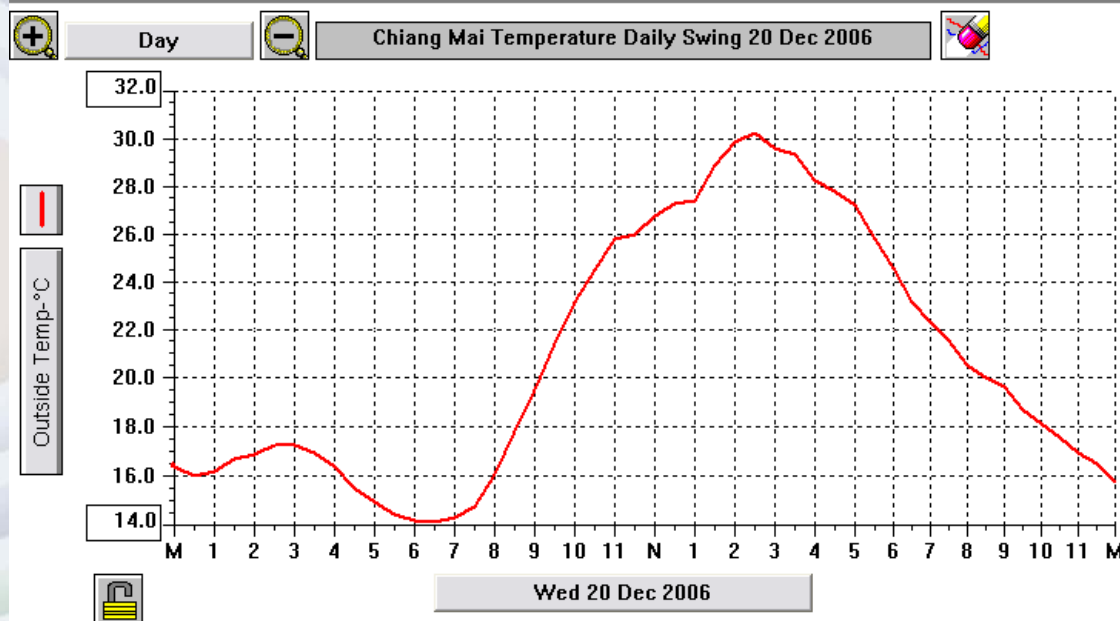


Temperature Categories



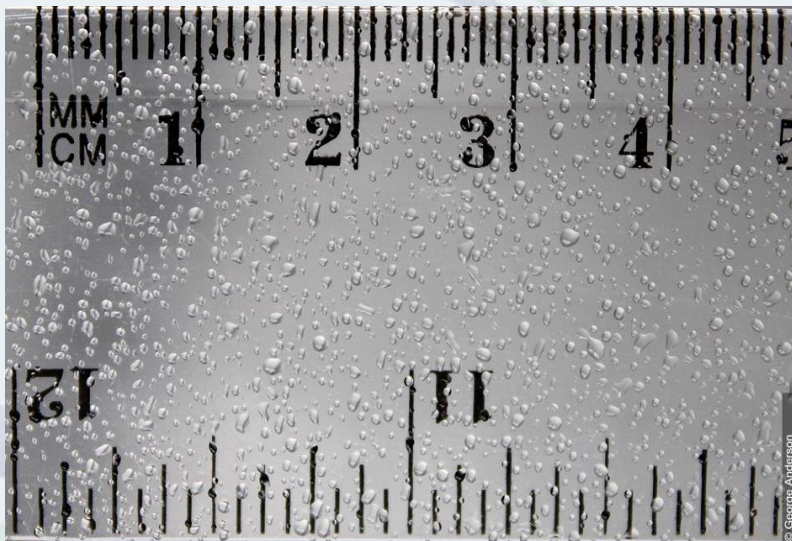
Temperatures

- Minimum Temperature = **lowest** temperature measured/expected in a 24-hour period (08h00 – 08h00)
- Maximum temperature = **highest** temperature measured/expected in a 24-hour period (08h00 – 08h00)

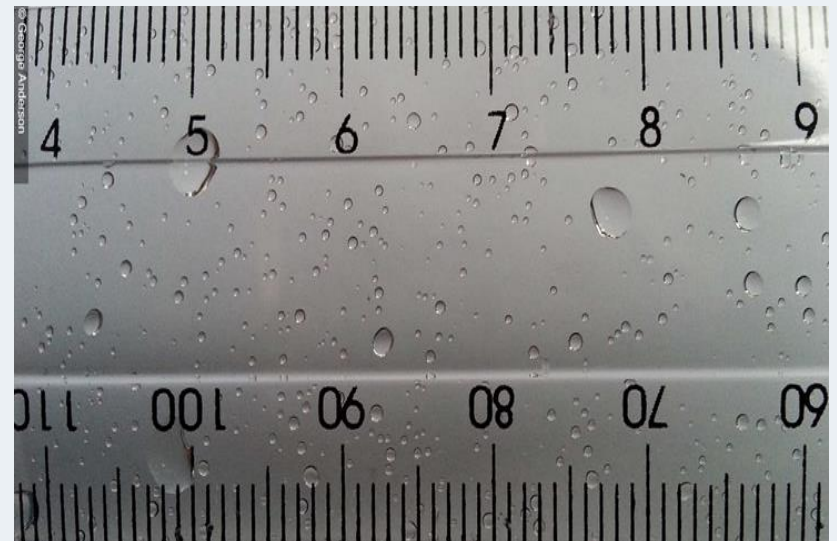


Types of precipitation

Drizzle : Precipitation in the form of liquid water drops that generally has a diameter of less than 0.5 mm, are very much more numerous, and reduce visibility much more than does light rain



Rain: Precipitation in the form of liquid water drops that have diameters greater than 0.5 mm



Weather Service

Types of precipitation

Showers: a precipitation in a form of liquid drops characterized by the suddenness with which they start and stop, by the rapid changes of intensity, and usually by rapid changes in the appearance of the sky



June 2023

Snow: Precipitation composed of white or translucent ice crystals



CRS-CMS-PRES-001

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Types of precipitation

Rain vs Showers

Showers



- Showers come from cumuliform cloud - the puffy ones that look like they are bubbling up
- They usually begin and end suddenly, so we go from dry to downpour to dry to downpour and repeat.
- Showers are pushed around by the wind, so you only experience a particular shower if you are in its path - while surrounding areas are dry, often with blue sky.

Rain



- Rain comes from a stratiform type of cloud
- Its longer lasting and steadier, so it can start slowly, last for a while, then slowly taper off.
- Rain affects the whole area, usually in a uniform way, so all suburbs experience the wet weather.

Types of precipitation



Precipitation Percentages

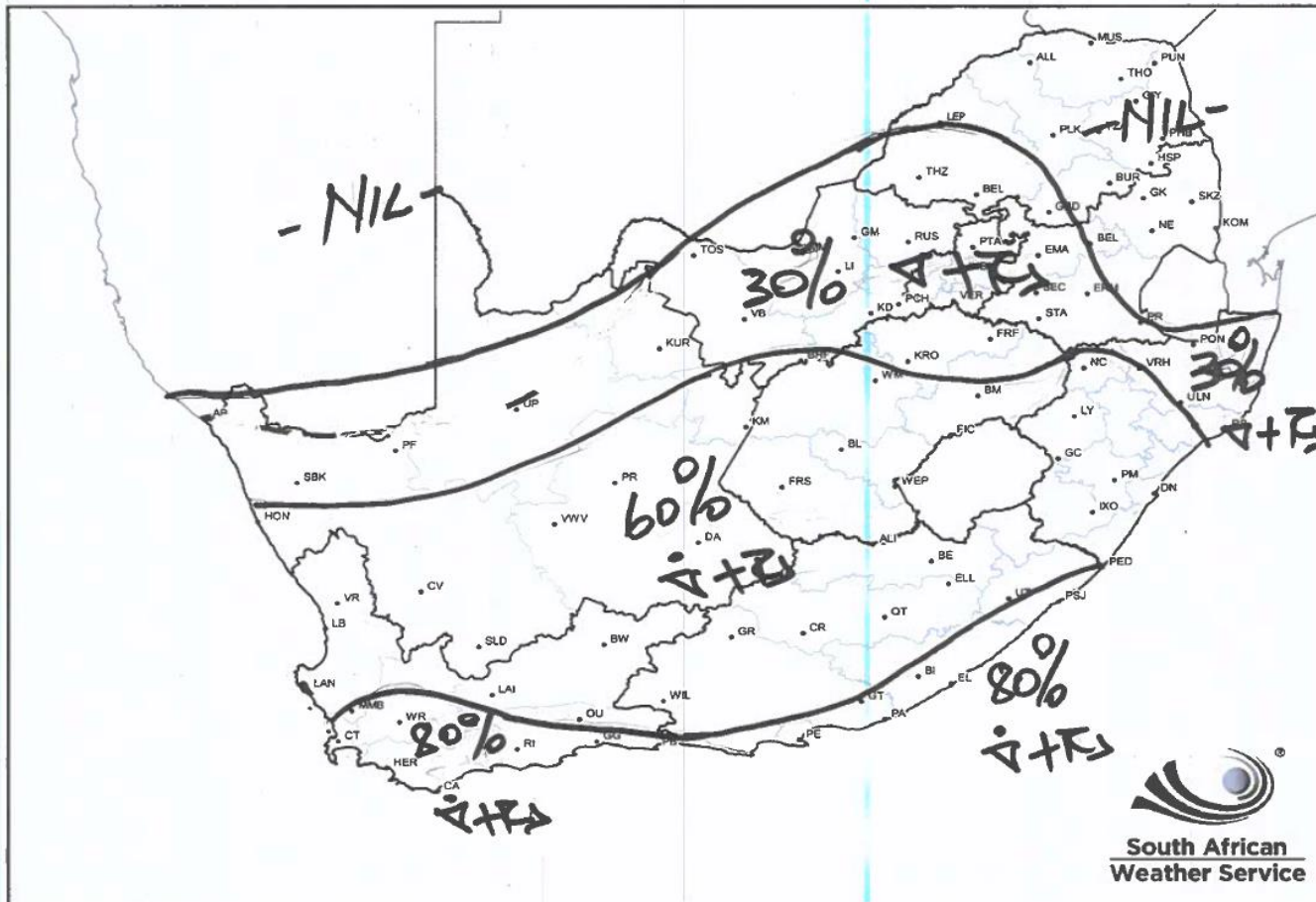
Rain/Drizzle	Showers/Thundershowers
30%	Isolated - low confidence of occurrence over a given area
60%	Scattered - high confidence in occurrence over a given area
80%	Widespread - very high confidence in occurrence over a given area
100%	

Precipitation Percentages

Rainfall chart for tomorrow (probability)

Date issued: 24/09/2023

16h00SAST



Document reference:

NFC-TV-20230924_2_PM.1

Produced by: Ishmael Moyo (SAWS NFC Pretoria)

Localized urban flooding vs Flash flooding

Localised Urban Flooding

Any amount of rain that could lead to inundation of land in a constructed setting, particularly in densely populated areas



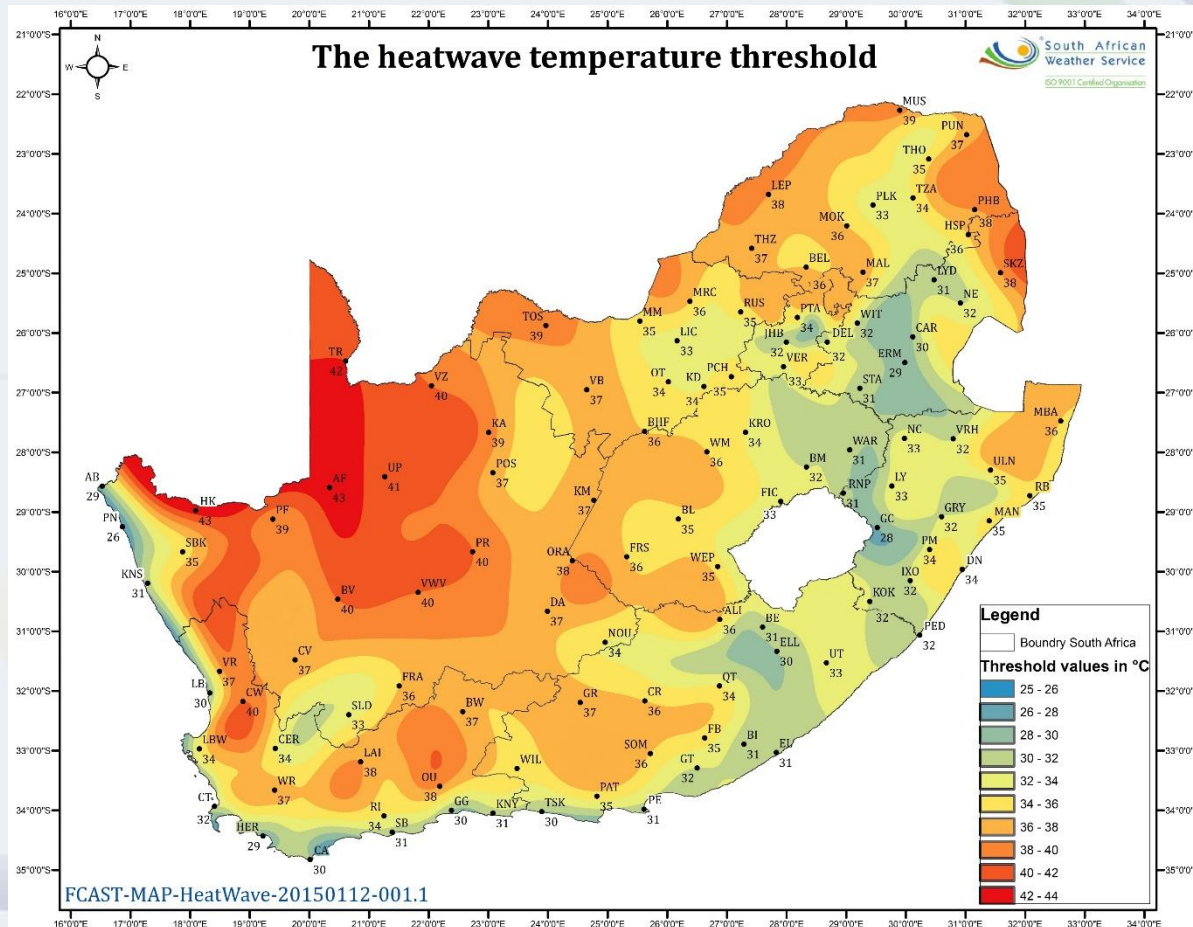
Flash Flooding

Any amount of rain that could lead to inundation of small streams as guided by the SAFFG system or any other reliable source



Heat wave

Maximum temperature is 5°C or more, above the average temperature of the hottest month of the year, for 3 consecutive days



Fire Danger Index (FDI): Veld Fire warning

Rating system that provides an indication as to the fire risk for a specific area on a specific day.

Environmental factors used to calculate FDI are:

1. **Temperature**- the higher the air temp, the higher the risk
2. **Relative humidity**- the less moisture, the higher the risk
3. **Wind speed**- the higher the wind speed, the higher the risk
4. **Previous rain**- This is tabulated according to when last and how much fell

Blue: 0 – 20 : SAFE : Cold and wet

Green: 21 – 45 : MODERATE : Low fire risk. Care to be taken for burning operations

Yellow: 46 – 60 : DANGEROUS : Caution advised

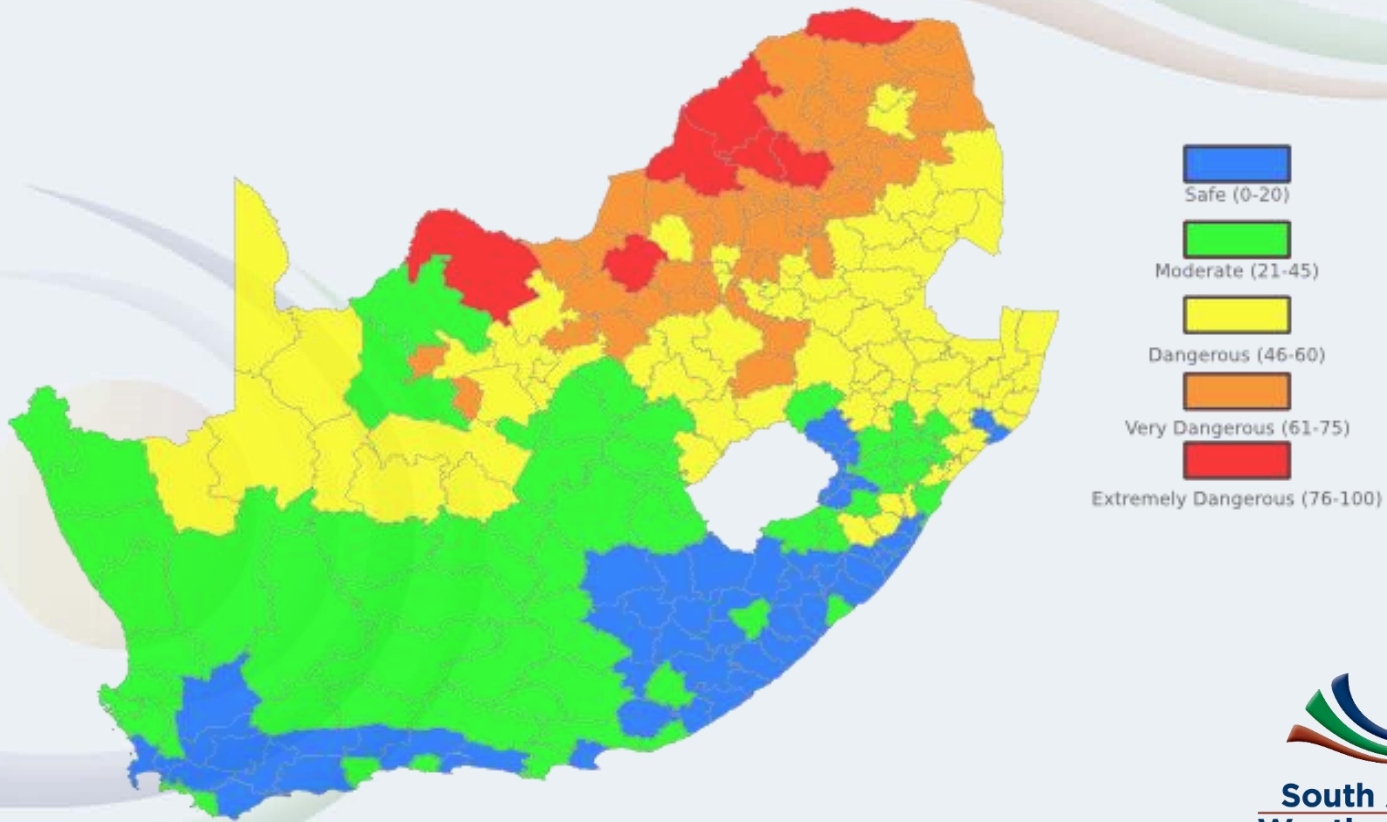
Orange: 61 – 75 : VERY DANGEROUS : Teams kept on standby.
No open flames.

Red: 76 – 100 : EXTREME. Warnings presented on radio and TV forecasts.

FDI Map

Lowveld Fire Danger Index Map (FDI)

Sunday 02 June 2024



**South African
Weather Service**

Worded Forecast

FIRE DANGER WARNINGS:

Nil.

ADVISORIES:

1. Very cold, wet and windy conditions with snowfalls are expected over the southern high-lying areas of the Namakwa District and southern high ground of the Northern Cape, the central and eastern interior of the Western Cape, the northern high ground of the Eastern Cape, and the central and southern parts of the Free State until Tuesday.

1. GAUTENG:

Cool in the north otherwise, cloudy and cold with isolated morning showers and thundershowers, becoming partly cloudy from the afternoon.

The expected UVB sunburn index: High

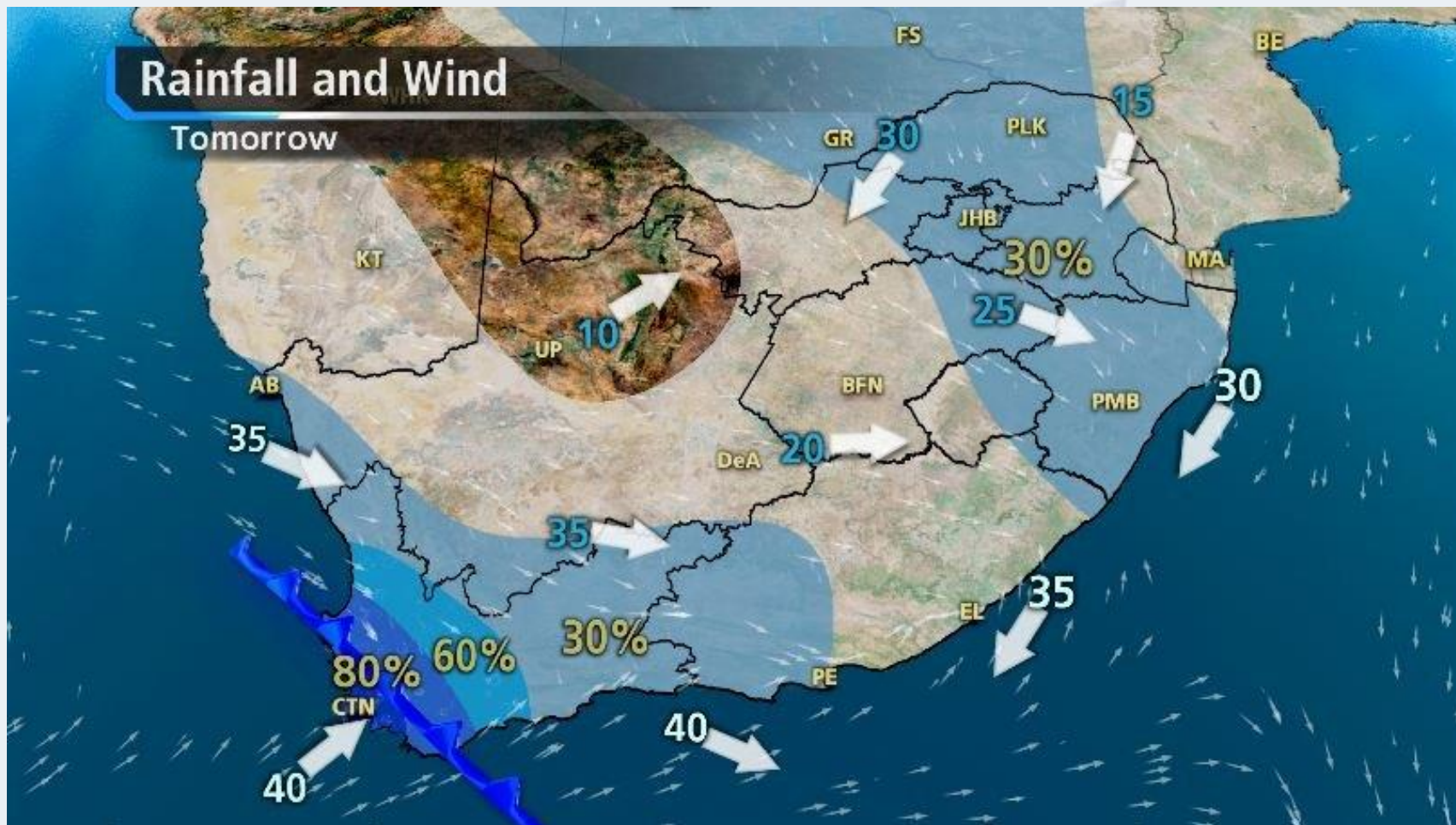
2. MPUMALANGA:

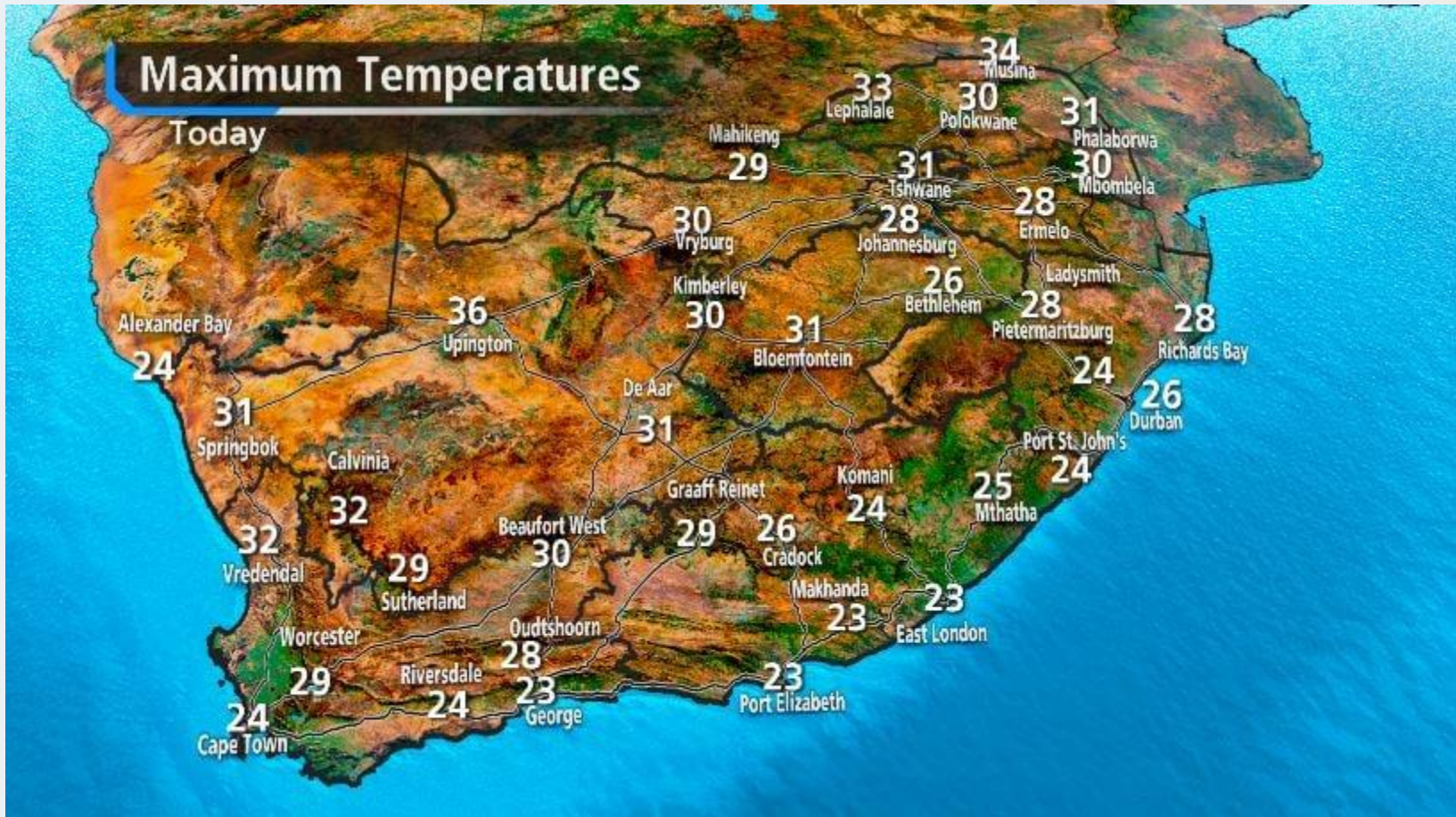
Cloudy and cool to cold with isolated showers and thundershowers, but scattered in the south-east, clearing from the west in the late afternoon.

THANK YOU!

Rainfall and Wind

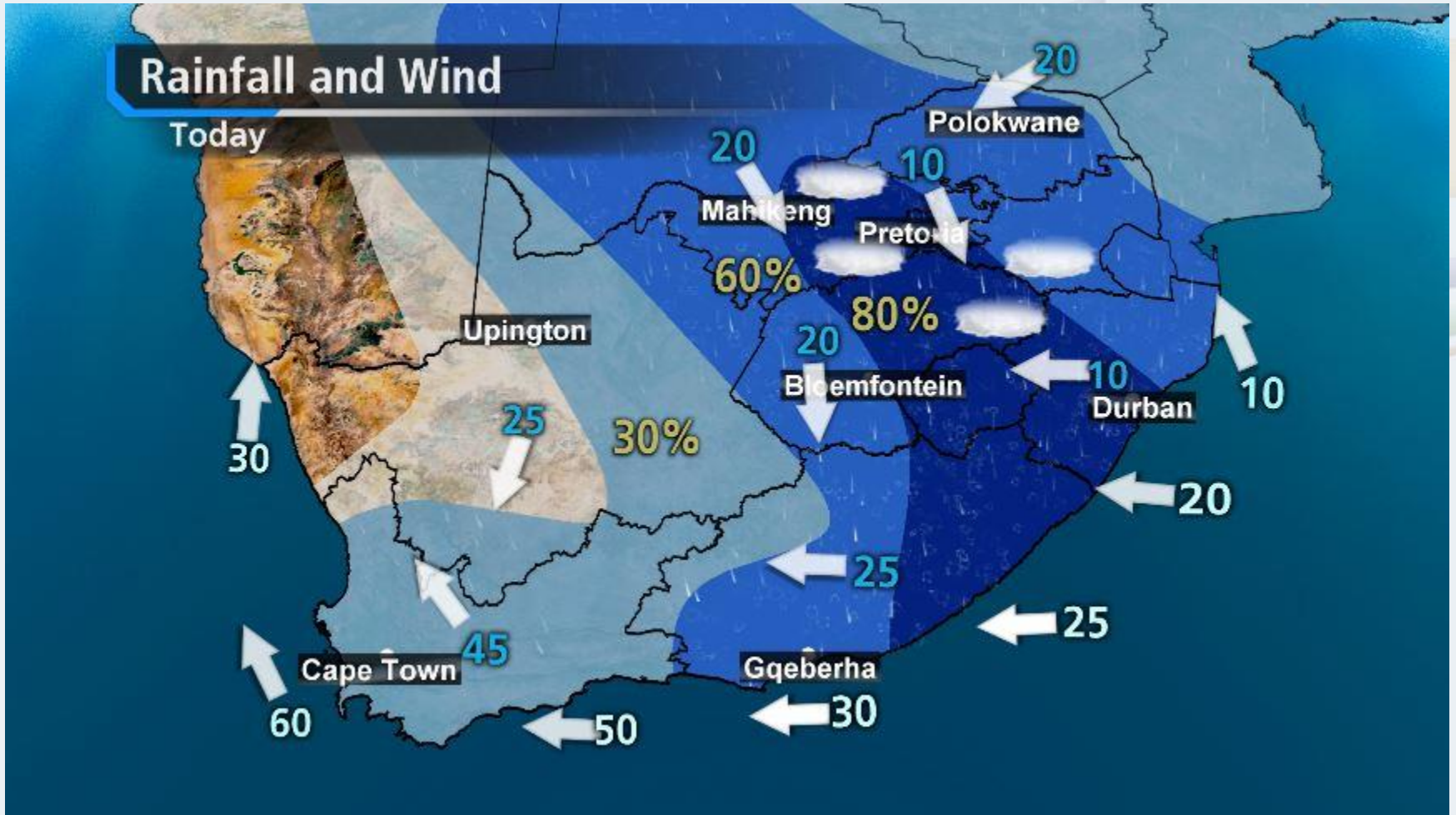
Tomorrow

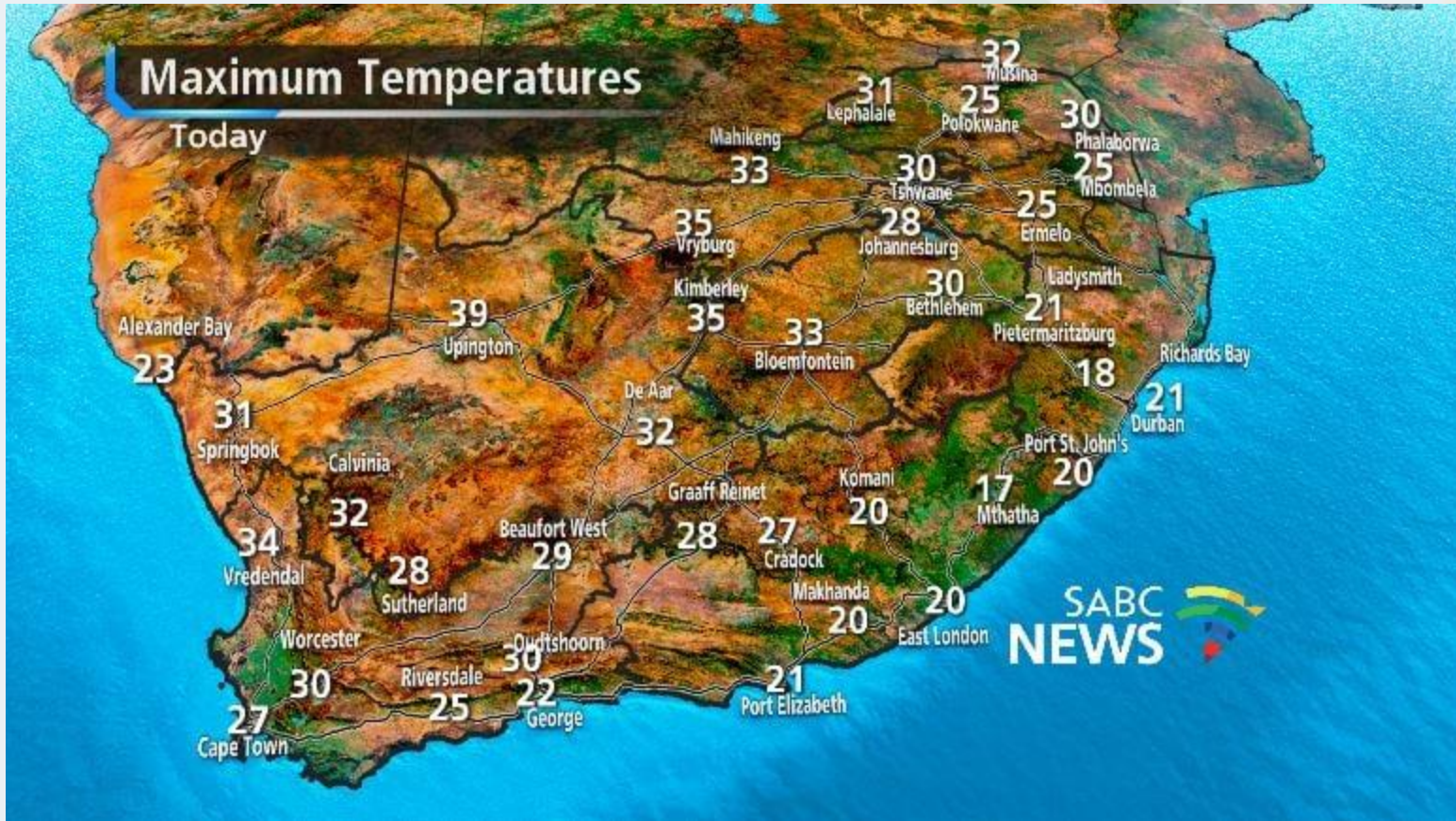




Rainfall and Wind

Today





Rainfall and Wind

Today

