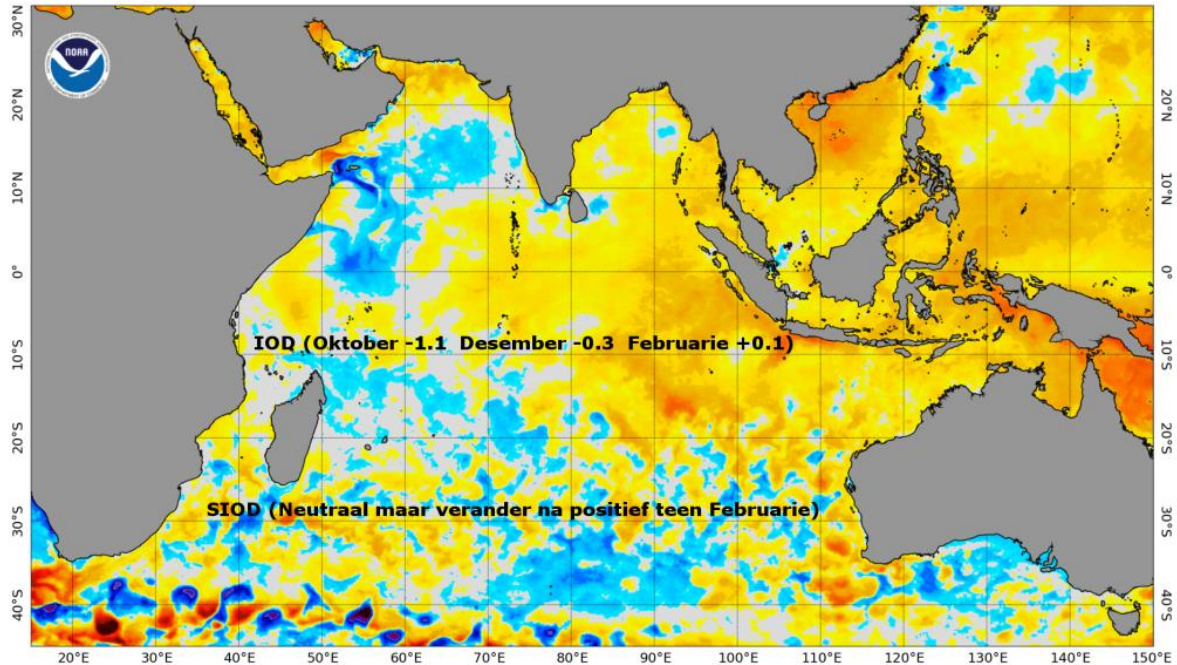
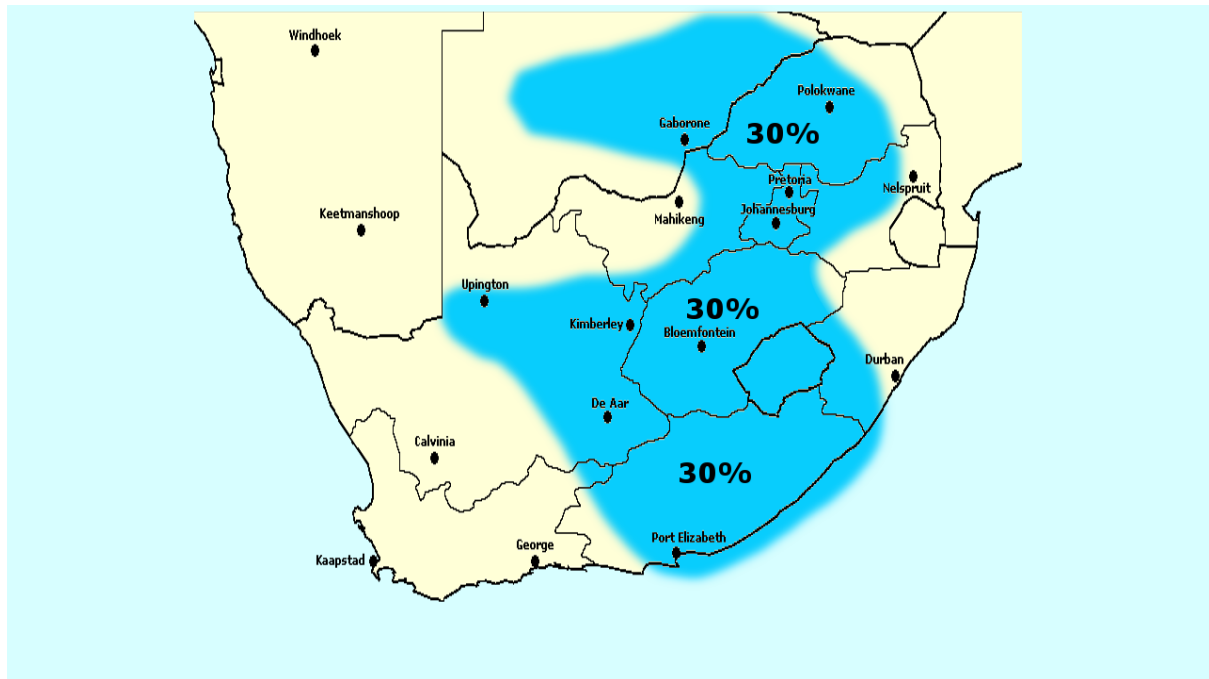


Summer weather forecast (October 2022)



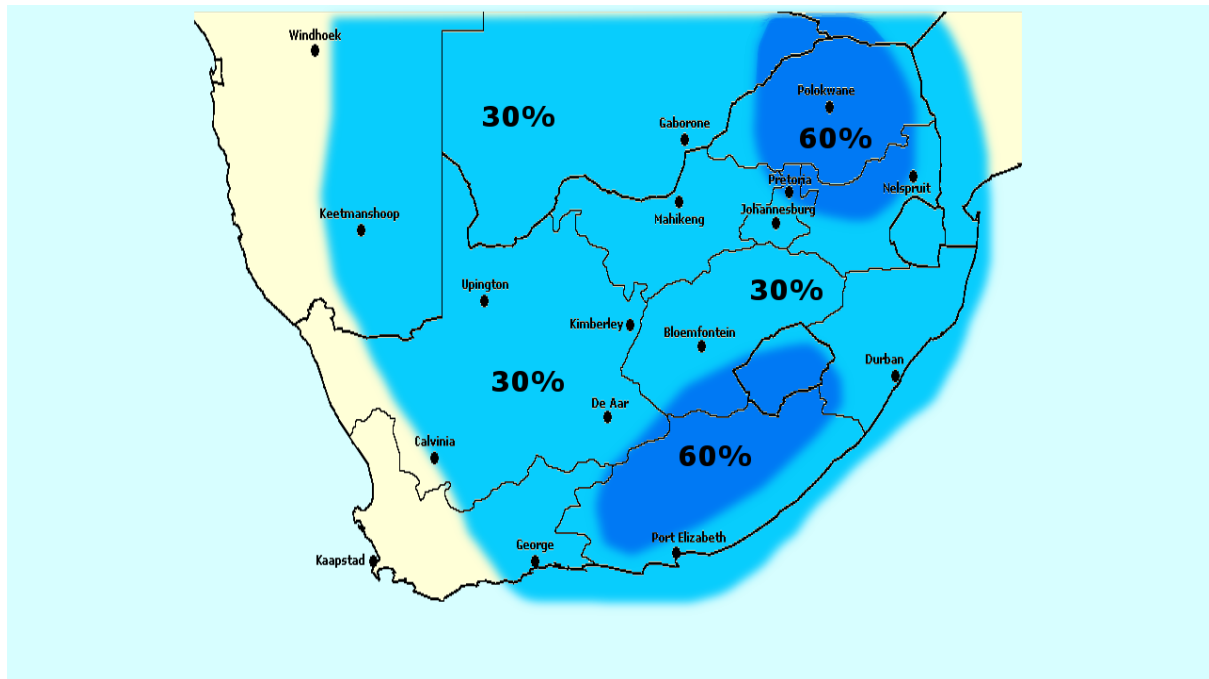
- We are currently in a La Nina phase (-1.0°C). It will change to -0.9° in December and -0.4° in February.
- The Indian Ocean Dipole (IOD) is currently in a negative phase -1.0°C and will change in December to -0.3° and February to a positive 0.1°C.
- The Subtropical Indian Ocean Dipole (SIOD) is currently neutral and should change to a positive phase at the end of the summer.
- Although our summer weather is indirectly influenced by the La Nina phenomenon, the IOD and SIOD remain the determining driving force.
- The reason is because the sea determines temperatures on either side of the land where the inland trough lies and the inland trough serves as a carrier of tropical air that brings thunder.
- Since the sea temperature on both sides of the country is currently normal, the inland trough should develop in the normal Upington - Mossel Bay line at the beginning of the summer.
- Both the IOD and SIOD change to a positive phase during the summer which means that the inland trough will firstly serve better as a carrier of tropical air and that thunderstorms will expand further east during the summer.

Beginning of summer (Oct – Nov)



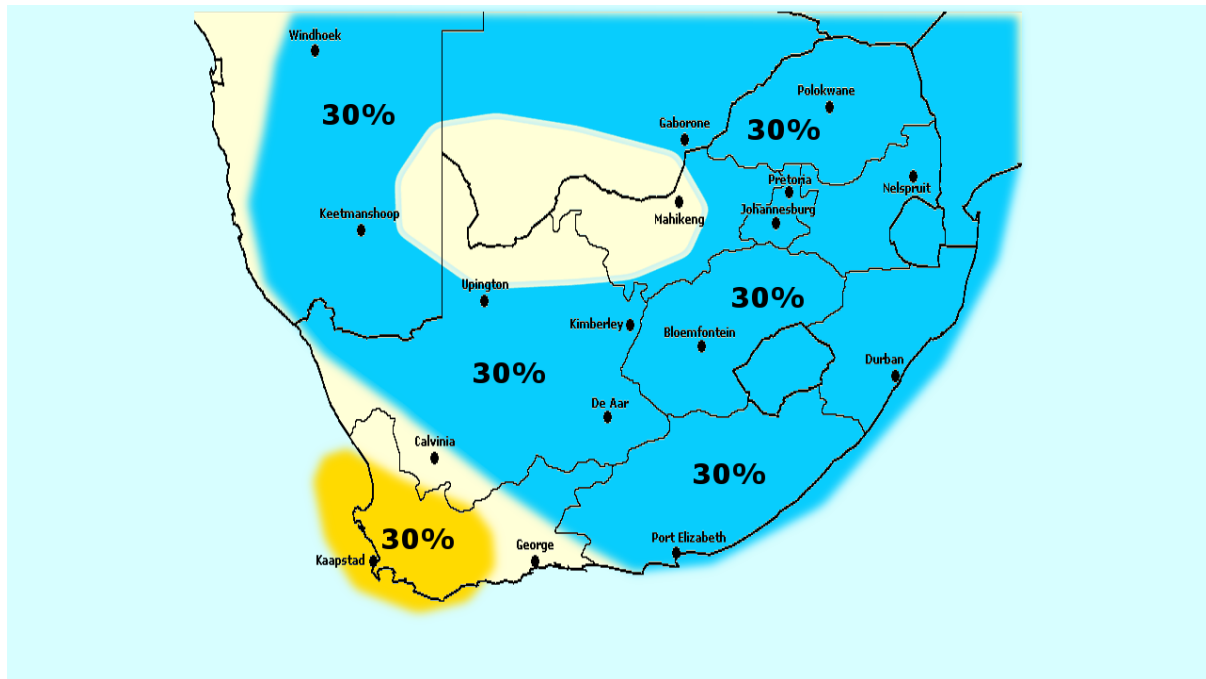
- Tropical air moving South along the Eastern wall of the inland trough will contribute to a 30% chance of above normal precipitation over the central and northern interior.
- This will be a repeating pattern with thunder initially beginning to fall over the Western interior after which the entire band in which thunder occurs gradually moves to the Free State and further North.
- Apart from thunderstorms, which are associated with the inland trough, high pressures lying South of the country will contribute to more than normal rain in the Eastern Cape.

Midsummer (Dec – Jan)



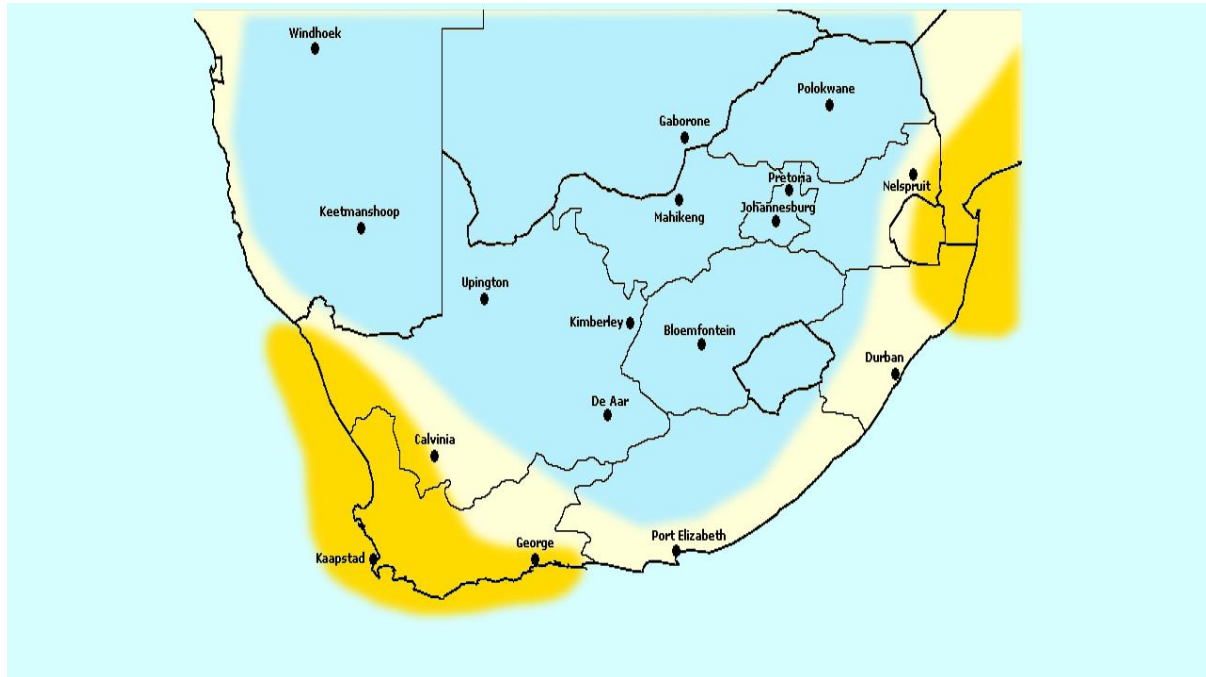
- From December to January, the influx of tropical air from the North will increase, which means that a larger part of the country can expect more than normal rain. It also includes the Eastern part of Namibia.
- However, the pattern remains the same. It starts in the West after which the entire strip in which rain occurs moves further East.
- Apart from this, mixing of tropical and humid Indian Ocean air will contribute to a 60% possibility of more than normal precipitation over the Eastern Cape plateau as well as in Limpopo.

Last part of summer (Feb – Mar)



- From February, inflow of tropical air from the North will begin to decrease, but there is still a 30% chance of more than normal rain over a large part of the country.
- At the same time, there is a 30% possibility of drier than normal conditions in the South West.

Temperatures during summer (Nov – Mar)



- Although we expect warmer than normal daytime temperatures inland, the “much warmer weather” will bring enough clouds and rain to force the average summer temperature below normal.
- However, persistent offshore airflow will bring warmer than normal weather to the southwest as well as the northeast.

Additional information: Sea temperatures on either side of Africa at the equator will be warmer than normal during the summer, which means that there will be stronger than normal upwelling of air. This means that the oven where tropical air is brewed will work very well this year. During the past summer, overland temperatures in the Northern Hemisphere were much warmer than normal and we expect the same for the Southern Hemisphere. This warmer weather will contribute to the inland trough developing deeper along the length of Africa with stronger inflow of air from north to south. As far as the south is concerned, the Indian Ocean High Pressure has been lying further south than normal all winter. It happened because slower rotation of air around the South Pole and we don't expect that to change anytime soon. We therefore have two factors that will exert an influence on each other. Firstly... a deeper inland trough over land and secondly... a high pressure lying east of the country. This will narrow the inland trough which means that the channel in which inflow of air comes in from the north will be much stronger than normal. Furthermore, the Indian Ocean High Pressure will continue to bring moist air from the east over land. Apart from that, we still expect low pressure in the upper air from the west to move in over the country. These are all ingredients that, if mixed in the right way... will yield a proper summer brew.

Compiled by: Giel Hugo (Independent Weather Forecaster)

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