

KZN FLOODS

Part 3



NATURAL PHENOMENON OR CLIMATE CONSPIRACY?

A Report by Pierre van Niekerk

... if a butterfly flaps its wings on this side of the world, it changes the weather on the other side – chaos theory ...

In this third part of our series on the KZN floods we look at SAWS mandate, measurement technologies, weather modification technologies, and weather forecasting systems.

SAWS:

Mandate. SAWS is a Section 3(a) public entity under the Minister of Environmental Affairs, in terms of the SAWS Act (8 of 2001), amended in 2013. As member of the World Meteorological Organization (WMO) it must comply with international meteorological standards and as the Aviation Meteorological Authority is designated by the State, to provide weather services to the aviation industry, marine and other clients.

SAWS Measurement/forecasting technologies: SAWS observational network includes, but is not limited to, Automated Weather Stations (AWS), Climate Stations (Gough and Marion Islands), 14 Meteorological Radar Systems (Doppler), a Global Atmosphere Watch Station, a Baseline Surface Radiation Network Station, and Lightning Detection Sensors. For weather forecasting SAWS employ Automated Weather Stations (AWS), measuring wind speed, wind gusts, wind direction, rainfall (precipitation), and %_Relative Humidity. SAWS's National Forecasting Centre does MSLP analysis and collates synoptic charts. For forecast assistance SAWS purchase in services and data: Real-time space-based Earth photography Eumetsat (afriwx.co.za). The National Oceanic and Atmospheric Administration (NOAA) Global Ensemble Forecasting System (GEFS), supplies up to four day/two week forecasting. GMU GrADS/COLA rainfall forecasting, up to four days weather maps (wxmaps.org).

Weather-modification technologies:

Weather-modification technologies often accused on social media as cause of the extreme rainfall and flooding, includes cloud seeding, chemtrails, Troposphere nano-chemical injection, HAARP and 5G.

Cloud seeding: South Africa has a well-documented and long history of cloud-seeding experimentation with small planes in the Bloemfontein and Nelspruit areas. Technical documents indicate capabilities of these effects are localised within a couple of kilometres, and not having effect hundreds of kilometres away - and within hours, not days later. Some of the chemicals utilized are silver iodide, pure fine salt, or dry ice.

Chemtrails: This refers to spraying chemicals behind planes, including passenger jets. No evidence could be found of this and what is seen is mostly explained as contrails or water vapour condensation trails. Photos of passenger planes with seats removed and fitted with big water tanks are explained as commissioning tests of planes, representing simulated weight of passengers. Various patent diagrams of spray nozzles are explained as crop-spraying nozzles or other uses.

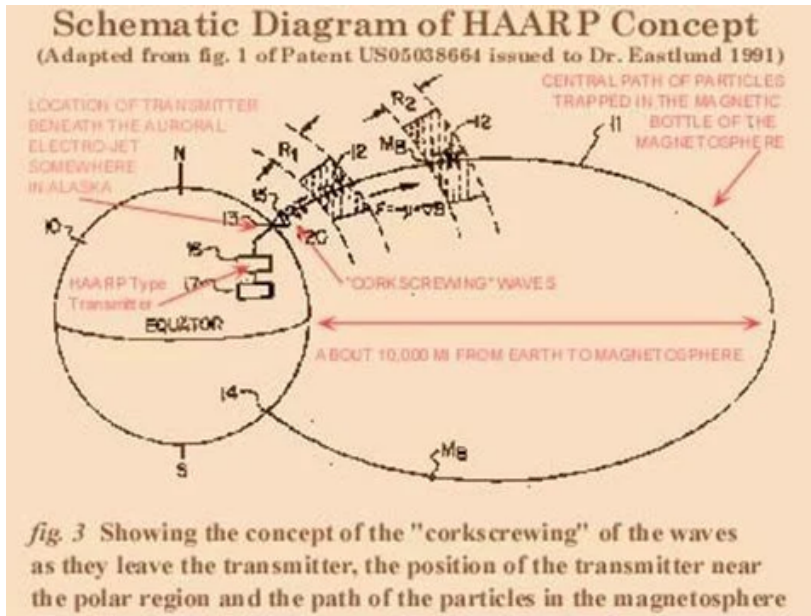
Troposphere nano-chemical injection: References in US transcripts were found indicating a couple of kilograms of nanoparticles sulphur dispersed in the upper Troposphere could linger there for decades and have wide-spread effect on lower areas of the atmosphere where clouds and weather forms. This could have long-term weather effects.

Volcanic eruptions spewing sulphur laden ash does have such effects.

5G: The range of 5G antenna radiation and types of high frequencies also have a relatively short-range effect, and could not be linked to these mesoscale events.

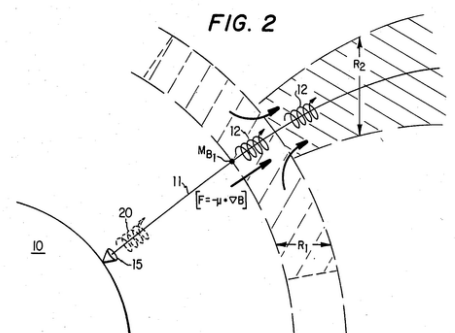
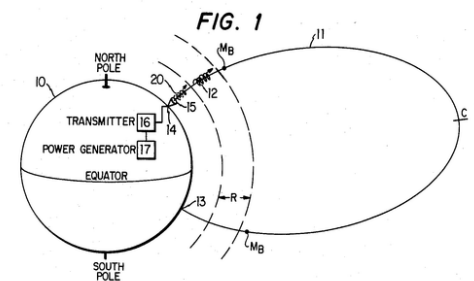
High-frequency Active Auroral Research Program:

HAARP refers to the Gakona, Alaska (US) facility to study Earth's upper atmosphere and solar-terrestrial physics and radio science. The ionosphere begins approximately 35 km above Earth's surface and extends beyond 500 km. Depending on the Earth's rotation around its own axis some areas of the atmosphere get no sunlight, as the UV from the sun plays a major role in forming the ionized particles that form the protective ionosphere layer, the height might differ between day and night, the concentration also wanes during the dark cycle. Weather balloons cannot reach these heights as the air is too thin and satellites cannot circle this low as the air is too thick. Ionospheric research is limited to sending radio signals of varying frequencies to this location and measuring the effect it causes with other instruments. The observed changes can then tell scientists more about this layer of the atmosphere which protects us all from cosmic and a lot of solar radiation.



The high-power, high-frequency (HF) phased array radio transmitter is used to stimulate small, well-defined volumes of the ionosphere, and a number of devices to measure this effect, including HF, ELF and VLF. The high-power transmitters are fed from off-grid generators. HAARP claim to have no effect on the weather, and to be experimental to heat up ionized particles in the upper ionosphere layers, similar to what cosmic and solar influences are. HAARP is designed to transmit radio signals in the 2.8 to 10MHz frequency range. The antenna array covers just over 13 hectares, there are 180 towers, 30 meters high, each tower support crossed dipole antennas, one for low band 2.8 to 8.3 MHz and the other 7 to 10 MHz. There are 30 transmitter shelters each containing six pairs of 10 kW transmitters which amount to 3600 kW available for transmission. Electric power is produced on site from five 2500 kW generators each driven by diesel engines. Four generators are required for operating the transmission. The transmitted signal diverges as it travels upwards and is partially absorbed, at altitude determined by the frequency, in volume tens of kilometres in diameter and a few hundred metres thick over the facility. The remainder of the transmitted signal either reflects back to Earth or passes though the ionosphere into space, diverging further as it does so. The HF signal intensity reaching the ionosphere is less than 3 microwatts per square cm. This is much less than the Sun's electromagnetic radiation reaching Earth, and hundreds of times less than the variations in intensity of the Sun's UV energy creating the ionosphere.

U.S. Patent Aug. 11, 1987 Sheet 1 of 3 4,686,605



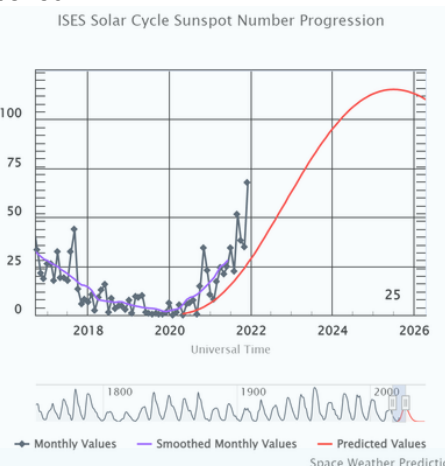
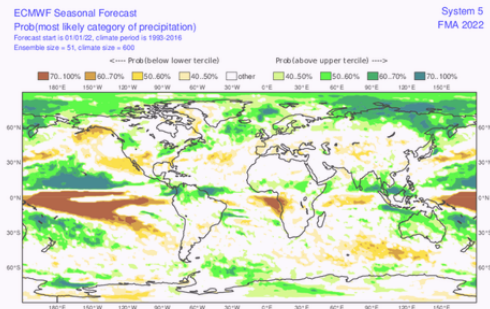
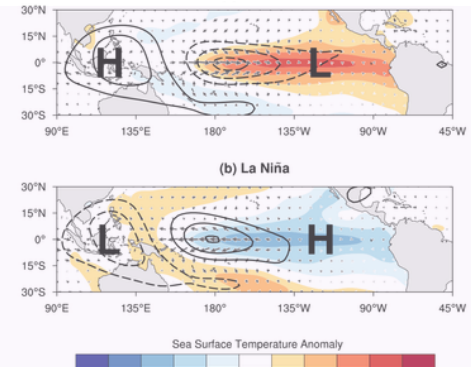
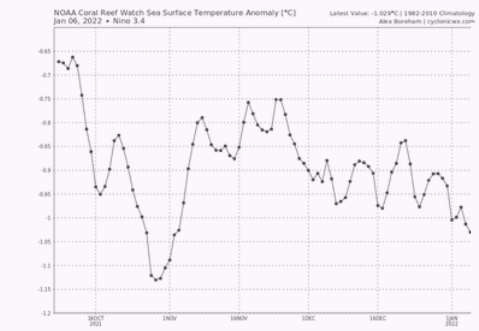
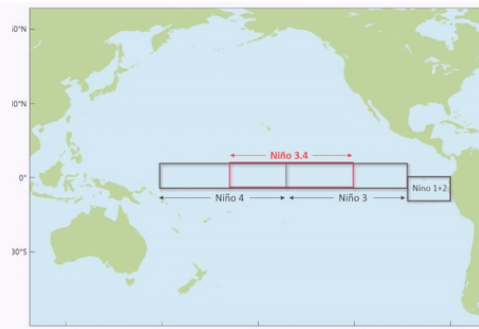
Patent information on HAARP shows a return to Earth to complete the path of the high-frequency waves. Other ionosphere research facilities/sites include US sites in Puerto Rico and Fairbanks, Alaska. These sites have active and passive radio instrumentation, similar to the HAARP facility. A five-country consortium runs a facility near Tromso (Norway); other facilities are located in Jicamarca (Peru), Nizhny Novgorod (SURA), Apatity, (Russia), Kharkov (Ukraine), and Dushanbe (Tadzhikistan). All employ capability to stimulate the ionosphere to a varying degree. HAARP's own website says it has not been operational since 2019.

Sulphur nanoparticles in exhaust fumes from power stations: Coal-fired power stations on the Highveld spew excessive sulphur contamination into the atmosphere which could have an effect on down-range increased precipitation, but again this could not affect these mesoscale events. It could cause more immediate close-range precipitation. The sulphur in precipitation would also have a pH-altering acid-rain effect.

Weather forecasting system comparison: The ECMWF supposedly has slightly higher forecast accuracy than NOAA GEFS, but can only forecast 10 days versus the 14 days of the US system.

What happened?

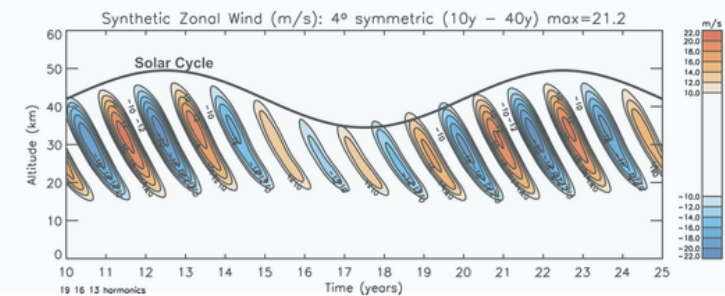
The butterfly on the other side of the world, the El Niño/La Niña System and South Pacific Oscillation system, that measures sea level temperatures west of the South American coast provide insight into weather changes, severe weather events around the world and here in SA. The areas demarcated Niño 1 – 4, are areas where sea surface water temperatures play a role in the weather affecting us here in SA. The ECMWF seasonal forecast for Feb – Apr 2022 did not indicate severe weather anomalies or deviations for this period.



Other effects having an effect on our weather is sunspot activity, affecting zonal wind speeds affecting our weather in turn

Sources:
www.haarp.alaska.edu
 SAWS website

- Abbreviations:
- SAWS - South African Weather Services
 - SAFFG – South African Flash Flood Group
 - MSLP - mean sea level pressure (hPa)
 - NOAA GEFS - National Oceanic and Atmospheric Administration Global Ensemble Forecasting System (US)
 - GrADS/COLA – Grid Analysis and Display System
 - EUMETSAT – European weather satellite
 - GMU – George Mason University (US)
 - ECMWF - European Centre for Medium-Range Weather Forecasts
 - HAARP - High frequency Active Auroral Research Program
 - ELF – Extremely low frequency 3-30 Hz
 - VLF – Very low frequency 3-30 kHz
 - HF – High frequency 3-30 MHz



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