**Lightning is a natural phenomenon (Zimbabwe)**

12 Feb, 2015 - 00:02

**Christopher Charamba Features Correspondent**

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A lightning bolt recently killed seven people in Bikita. A lot has been said as to what could have caused the bolt with others attributing it to witchcraft. But, the Meteorological Services Department says thunderstorms and lightning are a natural occurrence in Zimbabwe. Met Services Department Head Forecasting Mr Tich Zinyemba explains that “thunder and lightning are some of the most dramatic weather phenomena in Zimbabwe.

“A thunderstorm is a series of sudden electrical discharges resulting from atmospheric conditions. These discharges result in sudden flashes of light and trembling sound waves, commonly known as thunder and lightning. Thunderstorms develop when the atmosphere is unstable — this is when warm air exists underneath much colder air. As the warm air rises it cools and condenses forming small droplets of water. If there is enough instability in the air, the updraft of warm air is rapid and the water vapour will quickly form a cumulonimbus cloud. As the warm air continues to rise, the water droplets combine to create larger droplets which freeze to form ice crystals. Eventually the droplets become too heavy to be supported by the updrafts of air and they fall as hail.

“As hail moves within the cloud it picks up a negative charge by rubbing against smaller positively charged ice crystals. A negative charge forms at the base of the cloud where the hail collects, while the lighter ice crystals remain near the top of the cloud and create a positive charge. The negative charge is attracted to the earth’s surface. When the attraction becomes too strong, the positive and negative charges come together, or discharge, to balance the difference in a flash of lightning.”

Zimbabwe has the uncanny distinction of being one of lightning’s most favourite places. “It is even cited in the Guinness Book of World Records as the country where a single bolt of lightning claimed its largest number of victims. This occurred in a village near Mutare in 1975 when 21 people were killed while sheltering in a hut.”

The majority of lightning-related fatalities and injuries in the country are usually recorded in rural rather than urban areas. This is because large buildings provide protection for those within due to the metal frame of the building and specially designed lightning conductors. People in buses and cars are also safe because of the metal frames around them.

“The high lightning toll in Zimbabwe can be explained by the prevalence of granite outcrops all over the country,” Mr Zinyemba added.

The University of Zimbabwe established that granite is radioactive and discharges gamma rays up to the cloud, thus ionizing the air molecules.

Abundant granite outcrops, together with soot from the numerous kitchen huts, offer the much-needed opposite charge on the ground, while tall objects offer the easiest route for electrical discharges to steer its way to the ground.

If a storm is approaching, avoid being in, or near, high places, open fields, isolated trees, unprotected gazebos, flagpoles, light poles, metal fences, golf carts and water.

No place is absolutely safe from the lightning threat, however, some places are safer than others. Large enclosed structures are safer than smaller, or open, structures.

When inside during a thunderstorm, avoid using the telephone, taking a shower, washing your hands, doing dishes, or having contact with conductive surfaces, including metal doors, window frames, wiring and plumbing. Generally, enclosed metal vehicles, with the windows rolled up, provide good shelter from lightning.

The Zimbabwe Power Corporation has designed a simple, cheap lightning conductor to protect huts and small buildings in the rural areas.