Hurricanes Essay, Research Paper

Hurricanes

In this essay I am going to be talking about hurricanes. I am going to tell you how they form, the location, the size and force of hurricanes, the damage they do and also about the air masses and fronts. I will also tell you some simple information that many people don t know about, this will include things like how many hurricanes develop every year and what to expect when a hurricane hits also which area will get hit the hardest by the hurricane.

Location

Hurricanes start over the warm tropical water of the north Atlantic ocean near the equator between five degrees and twenty. Most hurricanes start in the late summer or early fall when sea temperatures are at their highest. Hurricanes do not start within five degrees of the equator because the coriolis effect is too weak to initiate the necessary rotary motion.

Formation

Hurricanes form when the warm waters heats the air above it and the updrafts of warm, moist air begin to rise. Day after day the cumuli form atop the updrafts. The cloud tops rarely rise higher than about 6,000 feet. At that height in the tropics, there is usually a layer of warm, dry air that acts like an invisible ceiling or lid. Every now and then something happens in the upper air that destroys this lid. This is the first step in the birth of a hurricane. After this lid is broken warm moist are rises higher and higher. heat energy, released as the water vapor in the air condenses, as this happens it drives the upper drafts to heights of 50,000 to 60,000 feet. Outside the storm area, air moves in over the sea to replace the air going upwards in the thunderheads. The air begins swirling around the storm center. As it swirls over the sea it soaks up more water vapor. At the storm center the new water vapor gets pulled into the thunderhead updrafts, releasing more energy as the water vapor condenses and in a few days the hurricane will be greatly larger in size. The hurricane also takes it shape at this time which is a donut shape.

Size and Force

Hurricanes are very large and usually are around 600 km in diameter with a center or eye of the hurricane of 20 km in diameter. For a hurricane to actually be counted as a hurricane it has to have a wind speed of 119 km per hour but some hurricanes will reach a wind speed of 300 km per hour. Hurricanes can cause huge waves that are 50 feet high. When a hurricane hits land the intensity does diminish quickly because their is not enough water vapor so condensation and release of laten heat diminishes also. The intensity of the hurricane also diminishes when it moves over ocean where waters cannot supply warm moist tropical air.

Damage

Hurricane cause a lot of damage because of the high speeds of the wind and the huge waves that hit the land. The coast is where things get hit the hardest because the intensity has not slowed down and because 50 foot wave crash against it causing flooding and extensive loss of life. A lot of damage happens to the coast also because 50% of the U.S. population lives 75km from the coast so that puts millions at risk. A while back a lot more people were killed off by hurricanes because before a hurricane hits their are clear sky s so it was unexpected. But now their is technology that helps locate hurricanes a lot sooner so people have a chance to evacuate, so less people are killed but still their is a lot of damage done. The winds in a hurricane are so fierce that the can rip tiles and shingles right of the roof of your house and can be very dangerous.

General information

Surrounding the center of the hurricane is the eye wall here is the place where the greatest winds generate and the heaviest rainfall happen. The very center of the hurricane is the eye it is 20 km in diameter it is here where precipitation ceases and winds subside it is the warmest part of the storm. Hurricanes form from smaller storms called tropical storms here wind speed is between 61 and 119km per hour. It is during tropical storms when names are given for example hurricane Mitch and Andrew. 80 to 100 tropical storms accur a year only half of these become hurricanes.

Well doing this essay I have learned that hurricanes are very dangerous storms that I would never like to be caught in. I have also learned what to expect when a hurricane happens and how hurricanes form. I really enjoyed doing this essay and learning about hurricanes and hope to learn more as I get older.