

Meteorological Satellite Applications

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Meteorology is a hard subject to study, but it would be even more difficult if meteorologists did not have access to satellites. Satellites are one of, if not the most important tool in meteorology. Meteorologists use them to gain insight of the severe weather approaching their way to be able to warn people about storms in their area. Even though satellites are very costly, they are well worth the expense to understand weather patterns and save lives.

Weather satellites have been around since the 1960s and have become more advanced throughout the years. Satellites are the most vital technology in meteorology because of the amount of information it supplies. They provide measurements that are used for daily forecasts like wind speed, precipitation, and temperature. Through satellite imagery, meteorologists are able to obtain information such as cloud amount and height, precipitation, wind speed and direction, and surface temperature (Satellite Applications 1). Events such as dust storms, tropical cyclones, rainfall accumulation, and snow depth are all satellite analyses that are conducted by the METSAT Applications (AFWA Meteorological Satellite Applications Branch 1).

Weather balloons are rarely used now because satellites have taken their place. In an instant, computers can receive information and data from satellites, where as, it could take minutes or even hours to get the same information from the balloons. There are five meteorological satellites in a geostationary orbit that are spaced evenly around the equator, and two satellites are in near-polar orbits (The Global System of Operational Meteorological Satellites 1). These satellites circle the earth at the same speed as the planet itself spins on its axis (The Global System of Operational Meteorological Satellites

1). Since these particular satellites are able to cover the entire earth, meteorologists should have the ability to detect any type of weather system.

Using the applied technology of satellites can save numerous lives. As the years pass by the technology will only grow and strengthen our understanding and knowledge of the weather and environment around us. Satellites play a significant role in meteorology by providing measurements and weather patterns in the atmosphere. Through the use of satellites, meteorology just got a little easier!

Works Cited

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