

Lightning Prediction System (Thor Guard)

The Thor Guard system was designed to evaluate the electrostatic field and compare the energy migration of the positive and negative ions in the atmosphere and in the ground could create an energy flow that may result in a lightning strike once a conductive cloud to ground path is available.

The coverage area for this system is calculated to provide enough time to clear a particular facility. It will give a warning eight to twenty minutes in advance of a potential strike. The primary coverage area for this system is calculated using a maximum, but adjustable, radius of 2.5 miles (five miles in diameter). The total area being monitored, however, is a range that is adjustable to a maximum radius of approximately fifteen miles.

Essentially, the way it works is there are rooftop sensors that monitor atmospheric conditions around the clock. The system consists of four components which are the sensor, air horn, strobe light and control box. The horn will sound when there is a 30% chance of a strike in the coverage area. The sound pattern is one blast for fifteen seconds. The strobe light will be on during the time the hazard is present. Once the hazard has passed, the horn will sound for five seconds on, three seconds off and repeated two more times. The strobe light will turn off indicating there is no more risk.

The following procedures are to be followed when potentially dangerous weather exists:

1. Warning Signal: one long horn will sound for fifteen seconds and strobe light is activated. This horn signal is distinctly different than any current public alarm tone.
2. Procedures: all activities in the park will end immediately, patrons must leave the field of play and seek shelter under the pavilions or in their automobiles.
3. All clear signal: three short horn blasts, two seconds apart will indicate that park patrons can resume their activities.
4. It is important to understand that this system only assesses the conditions. Neither the signal nor the system is intended to guarantee that conditions are safe. If the weather is threatening and no warning signal is heard or seen, use good judgment and take shelter.