

Thor Guard Data Reference Guide

Background: A THOR GUARD Lightning Prediction System looks at the electrostatic “charge” of the atmosphere to determine when conditions are favorable for lightning to occur. In order to have a lightning strike in your area, there must be a “build-up” of the electrostatic field. A THOR GUARD Lightning Prediction System has the following basic components:

- 1) **Energy Level:** At the top of the ThorPCX display (just below logo) will be the Energy Level indicator that displays the relative amount of positive (yellow) or negative (red) charge in the atmosphere. Under normal conditions (no rain, storms, or high wind) the energy display will only show a small amount of charge and it is normally positive (yellow). When storms approach or develop nearby, you will see a build-up of positive charge. As lightning moves in closer, or when a storm is developing close to your area, you will normally see a build-up of negative energy. Typically, when a strike occurs within the sensor range, you will see a transition from negative to positive. The faster this reversal in charge occurs, the closer the strike. During high winds, you will normally see a build-up of positive charge. As the “charge” in the atmosphere increases, the Thor Guard will give you an alert level corresponding to the threat of lightning. These levels will be displayed in the graphic display immediately below the Energy Level.

- 2) **Warning Levels:** Warning level window is located just below Energy Level

ALL CLEAR- No Threat

CAUTION- No immediate threat but situation should be monitored if storms are developing or rain is in the area. A “Caution” level is normal with rain showers.

WARNING- Thunderstorms and/or high wind are in the area. Unit should be closely monitored. Lightning is in the area or a t-storm is developing nearby or overhead.

RED ALERT- The potential for lightning is high, all activities should stop.

- 3) **Emergency Alert:** User-activated feature available on ThorPCX

NO ALERT- No active Emergency

EMERGENCY ALERT- Active Emergency

- 4) **Lightning Information Box:** Located below the Lightning Alert and Emergency Alert indication area is the Lightning Information Area that contains the following information:

LHL: Lightning Hazard Level. A number from 1-9. 1 means a 10% chance of lightning and 9 which means 90% chance of lightning within the **Sensor Range (normally 12-15 miles)**. An LHL greater than 4 indicates lightning is occurring or has the potential of occurring in your area.

DI: Dynamic Index. Number from 1.0 - 9.9 “1” means 10% chance and 9.9 means 99% chance of lightning within close proximity of your sensor location. **A DI > zero means there is lightning in the area!**

AD: Alarm Level. Any time you get a Red Alert, the AD will start at 10 which means you have at least 10 minutes until you could get an All Clear signal. The AD will reset itself to 10 until all static charge is out of the area and play can resume. The AD will count down when no “new” surges in energy have been detected.

FCC: Field Collapse Count. Basically, the FCC number gives you an idea of how many lightning strikes have occurred within the sensor range. It is helpful to watch the FCC count as the system goes from Caution-Warning-Red Alert as it allows you to see how “active” a storm is in terms of lightning strikes.

Typical readings on a THOR GUARD System during the development and/or approach of a storm are:

LHL= 6 - 9

DI= 1.6 - 4.0 (If a DI of 3 occurs, then the system will go to Red Alert)

AD= 10

FCC = 10 - 50

**The most important number is the DI!!!! If the DI is greater than zero (typically 1.5-2.8) then you have storms within the sensor range. If the DI starts at 1.5 and climbs to 2.5-2.8 and it looks like the storm is coming at you...chance are you will have lightning in your area within 8-20 minutes.

- 5) **THOR GUARD System Information Box:** Located below the Lightning Information Box, this area contains the following information regarding your THOR GUARD System

Model Type: Indicates what model type of THOR GUARD SYSTEM you are currently operating and displaying to ThorPCX.

Format: Identifies the data format of your THOR GUARD

Range: Displays the range of the THOR GUARD System. Typical ranges are 12-15 miles but may be set to lower values. For example, when the system range is set at 12 miles, this means that the sensor is “sampling” the atmosphere out to a 12 mile radius.

Settings: Displays the Front and Back settings of the THOR GUARD. The factory setting is Front=2 and Back=5 and should only be adjusted by Thor Guard employees and representatives.

Test Result: This area displays the result of the daily test automatically performed on the THOR GUARD SYSTEM. If the system is failing the test, call Thor Guard Representative at 800-571-1212. If there is a lot of dew and/or moisture in the air, the system may fail the morning test. It is advisable to wait until conditions are drier to re-test.