AUTOMATED LIGHTNING RISK ALERT SYSTEM (ALRAS)

About the ALRAS

Lightning Warning System is a mandatory system required by many countries for their **open space facilities, buildings, rooftop, construction sites, schools compounds, sport stadiums, swimming pools** etc. The ALRAS created by **Coherent Technology** provides **accurate pre-warnings messages or alerts** which protect people and life.

Benefits

- Swift and accurate lightning warning
- Decrease manpower usage
- Warning via mobile messages, on-site siren and strobe light
- Lower system maintenance cost
- Reduces human error and delay
- More certain lightning risk detection

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Specification


INITIAL PHASE -1


GROWTH PHASE -2


MATURE PHASE -3


DISIPATION PHASE-4

	Localized Probe System (Class A)	NEA Data Base System (Class B)
Capabilities	**Class A (phase 1-4)** Detector is base on measuring **Electro Static-Field (E-Field)** which can monitor the lightning from its formation until its dissipation	**Class B (phase 2-4)** is base on detecting **Electro-Magnetic (EM) Wave** which generated by lightning strikes, which is suitable to monitor nearby or approaching lightning.
Purchase Cost	High	Low
Number of Detection Probe	1 sensor (No back up when sensor fail)	4 sensors (if 1 of the sensors fail, 3 serve as back up)
System	Requires 1 standalone PC console	Back-end system maintenance by services provider, no need for computer
System Setting	Unable to set the siren sound duration. Inflexible. Radius setting is fixed at 8, 16 or 32 km	Able to set operation time (e.g. disable on time, day) and siren sound duration. Capable to set C2G , C2C and Thunderstorm Forecast from (min) 1km to 16km (max)
Interface with others system	Basic	Capable to interface with others system such as BMS, PA system, and provide a solution
Country of Original for product or services	Import	Local
Part replacement - lead time - cost - availability	Longer lead time, high cost and may face part that obsolete	Shorter lead time, low cost, and no issue to get part replace
Maintenance on the Sensor	By Customer (with additional maintenance cost) and lead time for sending back to the principal (oversea) for calibration	By NEA
Technical Support	Re-seller usually don't have technical support after sales services. Principle are station oversea, re-seller are usually not technical trained	Local technical support team after sales services. Services company (original marker) with more than 15 years of track record for lightning warning system

Area of Application

The ALRAS can accommodate the requirement of Class A, Class B and Combined A & B lightning warning detections for **open space facilities, buildings, rooftop, construction sites, schools compounds, sport stadiums and swimming pools**. It is also **fully compliance to Building and Construction Authority of Singapore (BCA) requirement and SS555:2018 standard – Code of Practice for Protection against Lightning.**

System Configuration Automatic Lightning Warning System

Telecom GSM Network 1 and 2

LWS services Provider

3rd party lightning information system (back up)

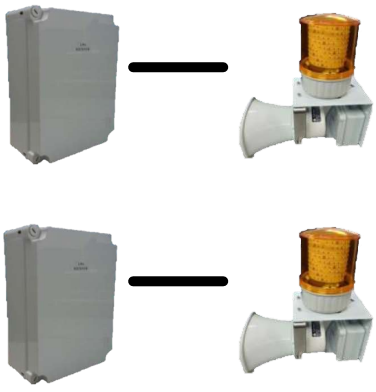
The service provider distribute the lightning warning message to ALRAS controller (SMS)

Services Provider backend: Server 1 system obtain raw data from NEA web (Singapore) and Server 2 system obtain 3rd party lightning information. After processing, convert to lighting message and send to the GSM gateway service provider.

On-Site

The ALRAS controller activate, deactivate alarm point when there is Lightning detected

The ALRAS controller will also forward warning up to 10 user hand phone



OPTIONAL :
Short Range Transmitter wireless transmitter & receiver module can be connected to ALRAS at the end user site for those area not possible by cable.