

## Eklund Infrared Newsletter 0606RMrfi.

We are pleased to provide the following **APPLICATION NOTE**, once again showing the versatility of the **UVc DayCor® Corona Detection Camera** and the cost savings from its use.

### We Rent the Superb™ on a Monthly or Weekly basis!

A story on how a DayCor® Solarblind Camera helps solve a nasty RFI (Radio Frequency Interference) problem.

A US Government Licensed Radio Amateur Operator had been in contact with both the major electric utility and the **local EMC concerning severe radio interference** at his radio station mountain location. The receiving equipment was reading a noise level of some 30 dB over S9 (Signal strength is measured in S-units from S1 to S9) and the noise blanking system of the receiving equipment **could not eliminate the noise**.

A mobile Radio Frequency Interference Detecting System was employed to find the source of the noise. After scouting the neighborhood for some time, a particular utility pole was indicated and suggested as the culprit. No visible problem could be seen at the location. **The DayCor® Solarblind UVc Corona Detection camera and operator was called in to help locating the RFI noise source.**

When using the DayCor® camera and looking at the problem pole no indication of Corona or arcing was seen. Pointing the DayCor® camera to the two poles on the left side did not show anything. When aiming the camera to the right to view the other set of two poles, **a severe Corona indication was detected on the second utility pole.**

Moving the DayCor® camera to this location for a closer look, arcing was detected at the bottom of a lightning arrester. **The arcing strength was measured with the DayCor® Corona Camera counter and was found have a count rate of 8,000 to 10,000, extremely high!** The location of the arc was between the bottom of the lightning arrester and the support bar. A lightning strike had shorted out the lightning arrester and burnt out the grounding wire.

The **local EMC** called in one of their bucket trucks and the faulty lightning arrester was disconnected and brought down for evaluation. It had **zero Ohm** resistance and was discarded. **The Radio Amateur Operator reported that all the radio interference was now gone and the noise level was measured to be below S1. Success!**



Arcing corona seen hundreds of feet away on hazy day.

The exact corona arcing location

Lineman from EMC takes down the faulty arrester



EMC crew studies the Corona Camera image(DayCor®II)

**Our DayCor® Superb™ is the most advanced and sensitive daytime UV inspection camera of today.** EPRI and leading Power Utilities have been involved in the development of the DayCor® with ease of operation a very important parameter. The DayCor® is in use **worldwide** and by major **US Electric Utilities**. Our **DayCor® Superb** Handheld Cameras are small, lightweight and very easy to operate. They have excellent crisp high-resolution NTSC imagery. The Field Of View (FOV) is 5x3.75 degrees and the **Catadioptric** lens system is **fully auto focus**.

**We have the DayCor® Superb™ available for Rental. This is the cost-effective way to find corona problems. Save on cost of maintenance and unexpected failures on key components. Monthly or weekly!**

**EKLUND INFRARED Inc.** is your UVc Corona Detection specialist!  
Please contact us for our low **Rental and Purchase Pricing**

**EKLUND INFRARED/Eklund Innovation Inc.**  
**Rentals of 100% Solar Blind UVc Corona Detection Cameras:**  
***Innovation, Performance, Reliability, Excellence.***

We look forward to hearing from you. Sincerely Yours,

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