

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,

EKLUND INFRARED Inc., 2985 Gordy Parkway, Marietta, GA 30066. Your UV Corona Camera Specialists™
Jan K. Eklund, President. (jan@eklundir.com) Phone: 770-578-4435, Fax: 770-578-9899. www.eklundir.com