

RECEIVED**DOCKET FILE COPY ORIGINAL**
SEP - 6 2006

03-187

Louis PeraertzFederal Communications Commission
Office of the Secretary

From: Gerald Winegrad [gwwabc@comcast.net]
Sent: Friday, July 14, 2006 1:43 PM
To: Donald Johnson; Jeffrey Steinberg; Jane Jackson; Aaron Goldschmidt; John Branscome; Louis Peraertz
Subject: Towers and Birds--New Data on Lighting

Thank you for your continuing interest in measures the FCC could adopt to prevent the killing of millions of migratory birds at communication towers under the FCC's jurisdiction. During our meetings, one area of concentration has been tower lighting.

The recent Michigan research conducted by Dr. Joelle Gehring over the last three years at 21 towers and other data has provided confirmation of the role of lighting in tower kills. **The Michigan research indicates that simply using strobe lighting exclusively (white FAA L-865's or red FAA L-864's) and eliminating the red steady burning lights (FAA L-810's) reduces mortality by 56% - 67%.** I have verified this finding with Dr. Gehring and Dr. Paul Kerlinger. The Michigan research compared the same size towers, in the same areas at the same times with the L-810's turned-off on some towers and the L-810's turned on others. Everything else--guy wires, other lighting--stayed the same. I can send you the Michigan research reports, if you like, but I believe you have already reviewed them. New and previous research documents that the use of strobe lighting exclusively on new and existing towers will significantly reduce avian mortality and the U.S. FWS Guidelines recommend strobe lighting.

The red steady burning lights (FAA L-810) used on many towers are responsible for the vast majority of bird kills at towers. Tall towers can be lit with up to nine L-810's and five interspersed L-864's. Simply using only red strobes--the L-864's--and eliminating the steady burning L-810's would resolve much of the problem without any increased risk to aviation safety or overall cost to the industry. Strobe lights do not burn out as quickly as the red steady burning L-810 lights, **saving thousands of dollars per tower in maintenance costs.**

Other research documents the role of steady burning lights in bird attraction and mortality. See the research and literature analysis documenting why strobe lights should be used rather than steady burning red L-810's in the attached Land Protection Partners analysis with citations to these studies. I also am attaching a brief NEW summary of the research done over the last few decades documenting the role of lighting in causing bird mortality, including mass mortality events at towers.

Strobe lights are already accepted by the FAA for aviation safety. Eliminating the use of the red steady burning lights will in no way inhibit pilot warning capabilities. All new wind turbine energy projects are now using the red strobes (FAA L-864) and the FAA has permitted the wind industry to light only some of the towers in a wind farm. Despite the fact that the wind energy structures have moving turbine blades, the FAA has acknowledged that the red strobe lighting is fully effective for aviation safety. An examination of 17 wind energy farms in North America found that these red strobe-like L-864's do not attract migratory birds and that mortality at such red strobe-lit wind turbines is not statistically different than unlit turbines in the same wind farm.

The recently published work by Dr. Sidney A. Gauthreaux, Jr. and Carroll G. Belser in the new book Ecological Consequences of Artificial Night Lighting (Dec 2005), also documents the attraction of red steady burning L-810's to migratory birds at night. As noted by the authors in the attached Land

Number of Copies rec'd 2
List A B C D E

9/6/2006

Protection Partners Analysis "The lighting scheme of communications towers is probably the most important factor contributing to bird kills at towers that can be controlled by humans....Observation of bird behavior at towers lighted with solid red (L-810) and flashing red (incandescent L-864) lights confirms that light is the stimulus that keeps birds circling the tower and thereby substantially increasing risk of mortality....The combination of solid red and flashing red lights (L-810 with incandescent L-864) attracts and disorients birds, which accumulate around towers, collide with each other, the tower, guy wires, and the ground, die of exhaustion, or deplete their fat reserves."

The Land Protection Partners Analysis authors conclude that "Reducing the attraction of birds to towers is a critical factor in minimizing bird deaths at towers. Without attraction, birds may still encounter and be killed in collisions with towers that are sited in migratory pathways, but the sum of the available scientific evidence indicates that mortality would be greatly reduced by using only strobe lights at towers. The evidence above supports the U.S. Fish and Wildlife Service tower siting guidelines." Lighting is also strongly implicated in avian mortality under the U.S. Fish and Wildlife Tower Siting Guidelines, that provide for the use of white or red strobe lights.

If the FCC would simply advise all tower applicants when they submit lighting proposals to use either white (L-810) or red (L-864) strobe lights and not use L-810 steady burning red lights AND require switching to strobes from existing L-810's when re-lamping or relicensing, bird mortality could be reduced by at least 56% to 67%, or by millions of birds.

Thanks.

Gerald W. Winegrad
American Bird Conservancy
1731 Connecticut Avenue, NW, 3rd Floor
Washington, DC 20009
Phone: 410-280-8956
Email: gwwabc@comcast.net
VISIT OUR WEB SITE: www.abcbirds.org.