



*International Migratory Bird Day (IMBD), held annually on the second Saturday in May, is an invitation to celebrate and support migratory bird conservation.*

**IMBD Information**  
web - <http://birds.fws.gov/imbd>  
phone - 703/358-2318

**IMBD Materials**  
web - <http://www.BirdDay.org>  
phone - 1-866/334-3330

**April 2005**

# The Trouble with Towers

## *A Guide to Bird Collisions at Communication Towers*

Communication towers are everywhere around us, in our cities and suburbs, along our highways, and along our countryside. They are used for broadcast purposes (TV, radio, police, fire and ambulance) and for wireless (cellular) communication (your cell phone or pager). Although the towers serve an important role in our technological society, they also pose a deadly threat to migratory birds.

### **Some facts about communication towers**

They include any structure intended to support communication antennas for wireless or broadcast purposes.

The number of communication towers is increasing at an exponential rate: there were 69,000 registered towers reported in February 2000, compared with over 138,000

reported in 2002. The number of registered towers is estimated to be 35% lower than the actual numbers of existing towers because many towers are either not reported by, or even registered with the Federal Communications Commission.

### **There are several risks factors of communication towers for migrating birds**

**Height.** Tall towers appear to be much more dangerous, especially those guyed towers over 1,000 feet.

**Lighting.** Any tower over 199 feet tall must be lit to prevent airplanes from hitting it; at night, or in bad weather birds are attracted to the lights of towers and are reluctant to leave a lighted area. Some research suggests that solid red lights are the most dangerous, whereas white strobe lights may be a safer alternative.

200 ft or less



Monopole

400 ft or less



Self-supported

Usually over 400 ft



Guyed

### **Types of towers**

**monopole:** single-pole, free standing, solid round structure; often less than 200 feet tall; these are usually used in cities and urban areas because they take up the least amount of space.

**self-supported:** multiple-column, lattice structure, reinforced by crossbeams; frequently less than 400 feet tall.

**guyed:** single-column structure, anchored with guy wires or cables; tend to be more than 400 feet tall; these take up the most amount of space, but are generally the least expensive type of tower to build.

**Guy Wires.** These cables, which help to support very tall towers, are difficult for birds to see, especially at night or in bad weather when towers are lit. Birds circling a tower can easily collide with the wires and be injured or killed by the impact.

**Weather.** Low visibility (caused by fog, low clouds, and precipitation) makes lights more attractive for birds, and makes towers and cables more difficult to see. Birds observed circling lighted towers in bad weather actually left the towers and continued on their migrations once weather conditions and visibility improved.

**Siting.** The location of new towers is important. Towers located in/near wetlands, coastlines or pathways of migration appear to be the most dangerous for birds.

**Several suggestions have been made for increasing the safety of towers for birds:**

**Support collocation** by encouraging companies to install antennae on a single tower shared with another company, or on another preexisting structure such as a water tower. This would reduce the number of towers that are being built.

**Consider lighting.** Keep towers unlit if less than 200 feet in height; choose lights which are less attractive to migrating birds, such as minimum intensity strobes. Do not use solid or pulsating red incandescent lights on towers.

**Choose safer locations** when building new towers. Their placement is crucial in areas that would be especially dangerous for birds, such as coastlines or along the routes they use for migration. Weather should be taken into account as well, and new towers should not be built in areas where clouds tend to hang low in the sky on a regular basis, especially during nighttime migration periods.

**Websites with more information**

<http://www.towerkill.com/>

(website dedicated to studying impacts of towers on birds; includes map of towers in USA and has many helpful links for more information)

<http://migratorybirds.fws.gov/issues/towers/agenda.html>

(transcripts of August 1999 workshop on birds and mortality; very interesting panel discussion of all issues involved)

