

# Reese's

## PIECES

RTS specializes in providing weld inspections, mappings, and condition assessment services to the tower & pole industries



## Communication Towers and Birds

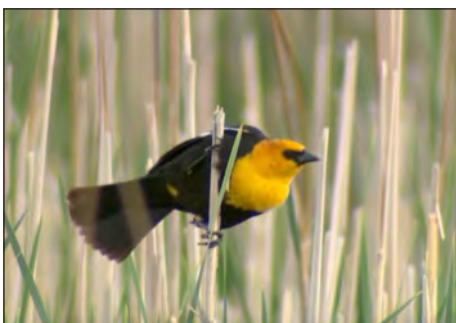
Story by U.S. Fish & Wildlife Service

There's a win-win opportunity for both communication tower owners and birds, and it's as simple as switching to flashing lights on towers.

The U.S. Fish & Wildlife Service reports that each year, nearly 7 million birds die due to night-time collisions with communication towers. By eliminating non-flashing lights on towers, we can reduce migratory bird collisions by as much as 70 percent while simultaneously reducing energy costs for tower owners.

### What Needs to be Done?

The Federal Aviation Administration (FAA) now supports extinguishing side-marker (L-810) lights on towers taller than 350 ft. above



ground level (AGL) and reprogramming non-flashing side-markers on towers 150-350 ft. AGL.

You can save maintenance and energy costs by not using L-810 lights on towers taller than

350 ft. AGL and by using programmable LED lighting systems on towers 150-350 ft.

### How to Extinguish Tower Side-markers (L-810) on Towers Taller Than 350 ft. AGL

We have experienced staff eager to help. Just email or call Joelle Gehring ([Joelle\\_Gehring@fws.gov](mailto:Joelle_Gehring@fws.gov), 989-400-0718)

#### 1. Request a Determination from FAA (typically takes 2-3 weeks for approval)

File a Marking and Lighting study with the FAA requesting to extinguish non-flashing, side-marker lights.

- Complete Form 7460-1, Notice of Proposed Construction or Alteration
- Under Structure Type enter: "Deviation from Red Obstruction Light Standards."
- When complete, send the form to your FAA contact
- Contact Joelle Gehring: ([Joelle\\_Gehring@fws.gov](mailto:Joelle_Gehring@fws.gov), 989-400-0718) if you encounter issues with this process or if the FAA doesn't respond within three weeks.

#### 2. Update the Federal Communications Commission (FCC)

Once the FAA approves your request and assigns a new FAA Study Number, update your tower FCC registration using the Antenna Registration System (ASR). Please select "MD – Modification." The FCC

typically approves applications and modifies registrations within 24 hours.

#### 3. Extinguish non-flashing tower lights

This final and typically easy step doesn't require tower climbing and results in immediate cost savings.

#### How to Reprogram Tower Side-markers (L-810) from Non-flashing to Flashing on Towers 150-350 ft. AGL

An LED light system may be necessary to reprogram non-flashing lights to flash, but ultimately LED systems reduce tower lighting costs.

#### 1. Request a Determination from FAA (typically takes 2-3 weeks for approval)

If the existing FAA determination was issued under advisory circular 70/7460-1L before September 28, 2016, you can skip steps 1 and 2.

- Complete Form 7460-1, Notice of Proposed Construction or Alteration
- Under Structure Type enter: "Deviation from Red Obstruction Light Standards."
- When complete, send the form to your FAA contact
- Contact Joelle Gehring

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## RTS Sponsors Race Car

**R**eese Tower Services announced sponsorship of **Gordie Buchman**'s number 55B Street Stock race car for this season. Racing at **Evergreen Raceway**, Gordie runs a 1978 Chevrolet Monte Carlo powered by a small block engine that generates 430 horsepower. President Brian Reese said, "We are excited to see how well Gordie does after his Rookie of the Year campaign last season and the significant changes to the car during the offseason. We wish him a fast and safe campaign behind the wheel." Evergreen Raceway ([evergreenracewaypark.com](http://evergreenracewaypark.com)) is a 1/3 mile asphalt oval located in Drums in the mountains of northeast Pennsylvania. The family-oriented speedway hosts exciting modified and stock car racing every weekend from April to November. □



## Welding Defects – Arc Strike

**O**ur series on welding discontinuities continues in this newsletter as we discuss arc strikes.

### What is Arc Strike?

Arc strike is a discontinuity resulting from an arc, consisting of any localized remelted metal, heat-affected metal, or change in the surface profile of any metal object.

### What Causes Arc Strike to Occur?

The technique of the welder - an arc strike occurs because the welder initiates his arc outside the area of the permanent weld. This could be the tower base plate, leg, adjacent stiffener, anchor bolt nut, or ice bridge post. This discontinuity results in heating and very rapid cooling. When located outside the intended weld area, they may result in hardening or localized cracking, and may serve as a potential site for initiating fracture.

### What Does the Code Say?

Per 7.28 of AWS D1.1 Structural Welding Code – Steel (2020), arc strikes outside the area of permanent welds should be avoided on any base metal. Cracks or blemishes caused by arc strikes should be ground to a smooth contour and checked to ensure soundness. This can be accomplished by a visual inspection and magnetic particle non-destructive examination. □

### 2. Update the Federal Communications Commission

Once the FAA approves your request and assigns a new FAA Study Number, update your tower FCC registration using the Antenna Registration System (ASR). Please select "MD – Modification." The FCC usually approves applications and modifies registrations within 24 hours.

### 3. Reprogram non-flashing tower lights to flash

LED lighting systems are easily reprogrammed, low maintenance, and use less energy than incandescent lights. Typically, light manufacturers don't recommend reprogramming incandescent lighting systems.

### How do communication towers endanger migratory birds?

Communication towers are important for our cell phones, radios, TVs, and public safety. Currently, the United States has more than 160,000 registered communication towers taller than 200 ft. AGL, and more towers are built every year.

Approximately 6.6 million migratory birds collide with communication towers in the United States every year. Most of the birds that collide with towers are night migrating songbirds on their journeys to and from warmer climates for the winter. Scientists documented 54 bird species of Conservation Concern as tower fatalities. Given that our bird populations have decreased by three billion birds since 1970, we need to reduce bird losses in as many ways as possible. The Service's Migratory Bird Program first focused on bird collisions with towers after a large fatality event in 1998 when 5,000-10,000 Lapland Longspurs and other songbird species died at 3 towers in western Kansas.

Since then, we have partnered with bird biologists, the tower industry, and key federal agencies, including the Federal Communication Commission (FCC) and the Federal Aviation Administration (FAA). As a team we developed and implemented actions that help avoid and minimize impacts to migratory birds from towers and other tall tower-like structures.

### Why do birds collide with communication towers?

We don't know why birds collide with towers; however, research determined that the risk to birds increases when towers:

- Are lit with non-flashing lights at night
- Have guy wires for support
- Are taller than 350 feet
- Are located in areas with inclement weather
- Are located in areas with high densities of migrating birds flying nearby
- Are located along ridgelines, which brings migrating birds closer to tall towers

Night-migrating songbirds are either attracted to or disoriented by tower lights, especially during overcast, foggy, or other low visibility conditions. Birds congregate in larger numbers at towers with non-flashing lights compared to those tower with only flashing lights. Birds may also congregate at flashing lights during the "on" phase but disperse during the "off phase." Lights on associated buildings and parking lots can also attract birds to the tower area and increase their risk of collision.

### Are there ways to reduce the risk of bird collisions with towers?

Extinguishing or reprogramming non-flashing lights is the best way to reduce bird collisions with existing towers. Tower owners can save money while reducing bird collisions by as much as 70%. You can make the

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# Reese's MINIATURES

IN

## RUNNIN' CIRCLES 'ROUND THE COMPETITION



A BRIAN REESE PRODUCTION



FROM MANUFACTURING TO INSTALLATION, FIELD MODIFICATIONS TO ENHANCING STRUCTURAL CAPACITY, RTS DIFFERENTIATES ITSELF FROM OUR COMPETITION BY THE QUALITY OF OUR WORK AND THE ACCURACY OF OUR DELIVERABLES.



OUR HIGHLY TRAINED NETWORK OF PROFESSIONALS MOVES QUICKLY - BENEFITTING YOU!

WHETHER YOUR MOTIVATION IS STRUCTURAL OPTIMIZATION OR EXTENDING THE LIFE OF YOUR



STRUCTURES, RTS WELCOMES THE OPPORTUNITY TO EARN YOUR TRUST AND BUSINESS.

### REESE TOWER SERVICES: DRIVEN TO HELP YOU FINISH FIRST.

We have the experience, the attention to detail, the quality work and the speed that does not sacrifice safety. For more information on the expert services RTS offers, including weld inspections, mappings, and condition assessments, visit us at:

[www.reesetowerservices.com](http://www.reesetowerservices.com)



WORDS & PICTURES by Scott and Kari Dolash

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world safer for birds by connecting with tower owners using the American Bird Conservancy's resources. The Communication Tower Lighting Fact Sheet provides information about the new lighting standards.

Since December 2015, when the FAA released a revised Advisory Circular, new tower construction includes bird-friendly lighting and existing towers are encouraged to reduce lighting and operating costs by updating to the new Advisory Circular. We work closely with the Federal Communications Commission (FCC) and the Federal Aviation Administration (FAA) to ensure that lighting and communication tower development and maintenance practices continue to work toward avoiding and minimizing impacts to migratory birds. Tower owners can use the FCC's

Opportunities to Reduce Bird Collisions with Communication Towers While Reducing Tower Lighting Costs which provides guidance on applying the new lighting standards, and reducing construction and maintenance costs.

We all have opportunities to reduce collisions with towers and make the world a safer place for birds. For more information about measures and guidance for avoiding and minimizing impacts to migratory birds, please visit the Conservation Measures and Guidance Documents webpages. □



To view the video click the YouTube icon or copy and paste the url: <https://www.youtube.com/watch?v=pLHNROmSS2U&t=1s>