



Fact Sheet on the Danger of Towers to Low-Level Aviators

Importance of the Aerial Application Industry

- Aerial applicators treat 127 million acres of cropland per year; 28% of the treated commercial cropland nationwide.
- Aerial applicators also control mosquitos, fight fires, and protect the environment from invasive species.

Tower History

- Unmarked towers are extremely difficult for aerial applicators to see, as their work is conducted while flying at over 100 mph just 10 feet off the ground.
- From 2008 – 2018, there have been 22 agricultural aviation accidents from collisions with METs, communication towers, towers supporting powerlines and wind turbines resulting in nine fatalities. For all of general aviation, there have been 40 tower related accidents and incidents resulting in 36 fatalities over the same 11-year period
- In 2013, the National Transportation Safety Board recommended guidance for marking certain towers below 200 ft.
 - These recommendations included creating and maintaining a database for the required registration of certain towers and a requirement to mark and light (where feasible) certain towers.
- In 2014, a milestone settlement was reached on a wrongful death action filed by the family of Steve Allen, an agricultural aviator who was tragically killed by an unmarked tower. The settlement awarded \$6.7 million to the aviator's family, which was to be paid by the tower manufacturer, land owner, farmer, and others for not marking or making known the location of the tower.
- Tower marking has also been mandated in 15 states including Kansas, North Dakota, Idaho, Missouri, Mississippi, California, Colorado, Montana, Nebraska, North Carolina, Oklahoma, South Dakota, Texas, Washington, and Wyoming.

Latest Tower Developments

- The FAA Extension, Safety, and Security Act of 2016 required towers between 50 and 200 feet tall and ten feet in diameter in rural areas to be both marked and logged into a database accessible to aerial applicators.
- To accommodate cost concerns of the telecommunications industry, the 2018 FAA Reauthorization required only the marking or logging of these towers, but not both. Meteorological Evaluation Towers or METs must still both be marked or logged.
- In November 2018, shortly after the 2018 FAA Reauthorization was passed, the NTSB issued newly revised Safety Alert SA-016 titled "The Hazards of Unmarked Towers," urging pilots to be vigilant for unmarked meteorological evaluation towers (METs) and other unmarked towers such as GPS functionality and telecommunications towers.
 - The original safety alert issued 7 years ago warned of only unmarked METs
 - The SA reads, in part, "FAA published AC 70/7460-1L, which recommends the marking of METs and provides marking guidance. However, the NTSB is concerned that the application of the AC is voluntary and, without mandatory application and marking requirements for METs and other kinds of towers less than 200 feet tall, many of these towers will continue to be constructed without notice to the aviation community and will fail to be marked appropriately."

Fact Sheet on the Danger Low-Level Obstacles Pose to the Aerial Application Industry

- In light of the NTSB's updated recommendations, NAAA has proposed several alternatives to address the cost concerns of the telecommunications industry. These include alternatives to the painting requirement such as installation of lights and ball markers, which, while not ideal for pilots, are more cost-effective; and having the new marking rules only apply to towers erected in the future, not existing towers. The number of wind-energy, meteorological evaluation towers and communication towers to broadcast broad-band and the like is expected to grow significantly in the next decade and beyond, thereby exacerbating the risks for aerial applicators. In 2000 there were 60,000 towers for wireless in the U.S. Today there are 150,000; by 2025 200,000 are expected.
- Additionally, the guywires supporting towers need to be marked as well; In the summer of 2018 alone, two ag pilots were killed from crashing into unmarked guy-wires.
- Wind farms and towers near airports can also interfere with radar services and require atypical takeoff and landing procedures. The net results of these effects can make these airports less safe, especially for pilots unfamiliar with the area.

Bottom Line

- Unmarked towers between 50 and 200 feet with a small diameter are dangerous for aviators and have resulted in fatal injury.
- Congress must ensure the FAA develops the marking requirements and the database required for the logging of unmarked towers as it has been mandated to do since the FAA Extension, Safety, and Security Act of 2016 and 2018 FAA reauthorization became law, especially considering the marked growth for these type of towers over the next few years and the danger they pose to low-flying aircraft. After many years of delays the FAA is expected to issue a NPRM on this in April 2020.
- Congress should accept the NTSB's updated recommendation to require the marking of unmarked telecommunication towers.
- For the safety of low-altitude pilots, Congress should include in any infrastructure package marking requirements for any infrastructure subsidies granted to tower manufacturers and/or funding for the marking of towers between 50 and 200 feet in rural areas as they develop a comprehensive infrastructure bill.

NAAA represents approximately 1,800 members in 46 states. NAAA member operator/pilots are licensed as commercial applicators that use aircraft to enhance food, fiber and bio-fuel production, protect forestry, and control health-threatening pests. Furthermore, through its affiliation with the National Agricultural Aviation Research & Education Fund (NAAREF), NAAA contributes to research and education programs aimed at enhancing the efficacy and safety of aerial application.

For more information please contact Andrew Moore, NAAA's Chief Executive Officer (admoore@agaviation.org), or Frank Taylor, Coordinator of Government & Public Relations (ftaylor@agaviation.org) at 202-546-5722.

Updated January 2020