Powerline Safety Program

AERIAL APPLICATION ASSOCIATION OF AUSTRALIA LTD.

The Issue

Powerlines have been a significant safety issue since the electrification of rural areas—and wirestrikes have been a major threat to aerial application since the late 1940s when the industry began in Australia.

While training and ongoing professional development play a significant role in preparing pilots to manage the risks associated with low level operations around powerlines, there are two key initiatives that can support and improve safety for the sector:

⇒ The provision of mapping information on powerline networks
⇒ The marking of powerlines

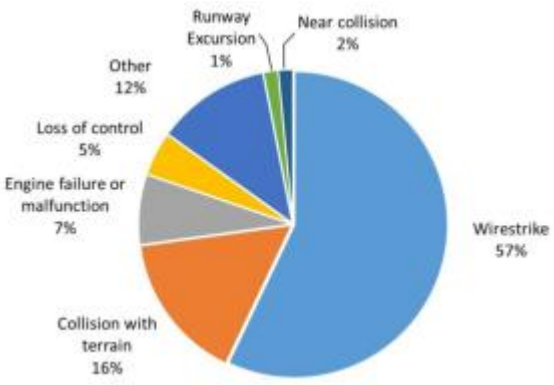
Over recent years, AAAA has worked to reshape the Australian Standard on the marking of powerlines (AS 3891 Parts 1 & 2), has developed and delivered world-leading human factor training courses, and has worked with power-line companies to develop mapping and marking systems and make them available to pilots and business owners.

AAAA has now launched its Powerline Safety Program that aims to encourage and facilitate power companies improving aviation safety, and provide a way of both aviation businesses and rural landholders engaging in meaningful safety actions to improve safety.

Wirestrikes account for approximately 57% of all aerial application accidents/incidents. While this is only a fraction of the total safety problem surrounding contact between all vehicles and farm implements with power infrastructure, it is a significant cost to the industry and a personal impact on pilots involved in wirestrikes.

AAAA is presenting a very significant pathway to improvement.

Types of accidents and serious incidents in aerial application from 2005-2016 *(ATSB, 2016)*



The Science

Thanks to a strong culture of reporting, AAAA has sound statistics from the ATSB that indicate 30% of wirestrikes occur when the pilot did not know the wires was there—something that can be addressed directly by access to better mapping and improved planning.

However, 70% of wirestrikes happen even though the pilot was aware of the wire. From AAAA research, this is likely due to a combination of poor visual acuity, working memory failure, cognitive and physical distraction, inattentional blindness and forgetting.

The most obvious remedy, in addition to training to understand focus and attention which AAAA already conducts, is to mark the wires and improve their visual prominence.

The AAAA Powerline Safety Program Prerequisites

AAAA acknowledges that not all aerial application companies will be able to participate in the program due to the following practical restrictions that are not under the control of the company or AAAA:

1. Availability of energy network mapping that is region specific, 'clean' data that is easily uploadable, useable and updateable. Availability is entirely dependent on energy companies providing the mapping in the same or similar way as Essential Energy already does.

2. Availability of an energy company marking request and action system similar to Essential Energy's system. There are a range of contributing elements including the Australian Standard rewrite, availability of good markers, and a reasonable price for fitting and installation.

Those States/Territories and energy companies that are unable to deliver the two requirements above will not be able to participate in the program, but AAAA will seek to work with them to achieve these relatively straight forward requirements.

Currently, Essential Energy in NSW is fully compliant, Ergon Energy in Queensland is working on achieving these systems and has advised it already has a marking system in place but further work is required on simplifying access and the provision of mapping.

AAAA Members' Commitment

By signing the terms and conditions of the program, AAAA members agree, once the two baseline conditions above are fulfilled and available in their operational area, to comply with the following requirements over the first 12 months of participation in the program:

- Ensure all relevant staff are trained on the human factor and related issues that contribute to wire strikes by attending the AAAA Wire Risk Management / HF / CRM Safety training course.

- Request and pay for the marking of 10 wires identified by the company as a high risk to safety

- Use powerline mapping as an integral part of job planning

- Encourage clients to undertake a farm electrical safety hazard assessment, including for bad wires for aerial application, and to mark any bad wires they identify.

- Implement a company Powerline Management System (if not already active) of collecting wire information and providing written expectations to pilots on how to treat particular wires

- Implement a Powerline Management System (if not already active) to ensure reporting, recording, and safety analysis of 'near hits', incidents and accidents involving powerlines. The system must include a process for immediate actions including reporting of any wirestrike to the relevant energy company and ATSB. In addition, the company commits to passing on reports to AAAA. Such a system must contain the original pilot's report, Chief Pilot analysis, recommended safety actions and close-out comments.

Recognition

By achieving initial commitments and any subsequent additional milestones as outlined in the terms and conditions, participants will be recognised through Bronze, Silver, Gold or Platinum accreditation status as they mark more wires.

The program will also provide encouragement and recognition for landholders that support the program by conducting aerial application hazard assessments and marking wires.

AAAA is very proud to welcome our Foundation Safety Partners to this program—QBE Aviation Insurance, Essential Energy and Ergon Energy.

QBE essential energy ERGON ENERGY

For Terms, Conditions & Information:

Ph: 02 6241 2100
admin@aerialag.com.au

AERIAL APPLICATION ASSOCIATION OF AUSTRALIA LTD.