

Wirestrike Seminar of great value

WIRESRIKE is both a leading cause of aircraft accidents and one of the least forgiving accident types there are, resulting in an alarming number of fatalities every year around the world.

Bob Feerst, who is an internationally renowned aviation safety expert specialising in wirestrike avoidance, returned to New Zealand in July to present his seminar to an attentive audience at the Aviation Week Conferences in Blenheim. Bob has visited NZ several times now in recent years to present the seminar which he says evolves with every accident that his company Utilities Aviation Specialists Inc. is called in to investigate.

Having investigated over 200 wirestrike accidents in 25 years, Bob Feerst is well qualified to provide advice on how to avoid a wirestrike accident. Lending credibility to Bob's investigations is the fact that much of his work is post litigation and involves looking for the real root cause with adequate financial backing to get a very accurate picture of events. Bob is also a Journeyman Lineman and a commercial pilot rated in both fixed wing and helicopters. His company now employs six full time people with a large staff of consulting experts.

The need for training

Specific wirestrike training was conceived after some alarming statistics began to appear in the early 1990's. At the time, operations in North America were incurring one fatality every 17 days, with 40% of US civil helicopter fatalities being the result of wirestrike. Yet an almost negligible amount of these were attributable to utility patrol and construction operations - the one area most involved in low level wire-prone operations. This was not because these people were better at seeing or watching out for the wires (most of the time the wires are actually invisible), but rather that the professional power line control crews had developed a culture around managing the danger of low level hazards. Wirestrike safety theory has evolved from their knowledge and practices.

It is actually very important that crew understand wirestrike theory as much as pilots. Bob says that New Zealand is behind many other countries in this regard with very few crew personnel attending the seminars here. For example the ratio in Canada is 35% pilots to 65% non pilots.



Bob Feerst's wirestrike seminar in Blenheim during July was again well attended by pilots. The challenge in NZ now is to get crews to attend also, as happens in large numbers overseas.

It is also important that attendees do not treat the seminar as a one-off training session. It should be seen as a refresher course with new things always to be learned. Many overseas companies require their pilots and crew to attend the seminar on an annual basis. In New Zealand, TransPower is now requiring training for appropriate staff as well as bi-annual currency.

Finding the solutions

Although calls are often made to "mark the wires", this is unlikely to solve the problem. The solution lies as much toward situational awareness, human factors and crew resource management.

Situational awareness involves understanding the risks associated with the operating environment, leading to applied aeronautical decision making. Rather than a wrong decision, the problem is often more likely to be no decision at all. In nearly every case, something will have been present as a decision point that neither pilot nor crew have reacted to.

Crew Resource Management involves the crew being on guard that something is different, abnormal, wrong, or about to become so. Recognising and reacting to often non verbal cues in the crew environment is also a key to breaking the accident chain, with good in-flight communication being an essential component. Crew members often fail to

recognise their own roles or importance and don't speak up when they should.

The seminar covered many examples and useful techniques for improving pilot and crew awareness and communications, including actions to take when issues are identified.

Flying in the Wire Environment

Understanding the wire environment is one key to safe low level operations. There are many visual cues available for knowledgeable pilots and crew. For example, observing the insulators attached to pylons will tell you which way the wires (that you can't see) go. It is not always where you might be thinking.

Other techniques can be used to predict guy wire locations, which can easily travel overhead, upwards, or downwards.

Realising the effect that background and lighting can have on wire and structure visibility is also critical, with Bob showing many example photographs of 'now you see it, now you don't' scenarios to an often surprised audience. The seminar also covered what actions to take when wirestrike is imminent - both before and after the event.

Advancing wirestrike avoidance training

One would think that training of this nature should really become compulsory in some form. Bob points out the slightly odd situation in Australia where HUET training is compulsory yet wirestrike training is not. He is particularly keen to see flight schools moving toward offering the training and has a tailored course in this regard that teaches the hazards and how to stay out of the environment, rather than specifically how to fly in the wire environment.

For more information

Comments on Bob's seminar were universally positive with many of those present heading away to impart some of their new found knowledge on their colleagues.

Visit www.helicoptersafety.com for more information on wirestrike and other safety training subject material.