"There's a host of other issues that cause accidents, and often, it's not just one thing, but a number of factors that group up to create a disaster."

"Operators also need to thoroughly understand what rigging methods best control which loads, and which type of rigging is best for different activities.

"For instance, HMPE – high-modulus polyethelene – fibre has a very low melt point. So not a good choice for fire fighting! Whereas Kevlar has a higher melting point.

"Knowledge like that ultimately allows operators to make better, informed decisions for a safer load handling operation."

Pete Gordon agrees.

"As a start, operators can be asking their rigging suppliers what to use for which activity, and how to use it properly."

Jimmy Guerin says one of the 'light-bulb' moments for him was Mike's advice to 'take charge' of external load operations.

"Often the person who contracts you will try to be helpful and set up the loads before you arrive.

"But Mike's advice was to always take a look first. Just because the person contracting you has done a reasonable job stropping up in the past, does not mean that, on this occasion, they have not given the work to someone less experienced."

Pete Gordon says that with the introduction of Safety Management Systems (SMS) and new health and safety laws, operators are expected to manage the risks in their organisation.

"Clients tend to rely on operators to manage their aviation risks and are increasingly expecting operators to show how they do that."

The largest single purchaser of commercial helicopter time in New Zealand is the Department of Conservation (DoC).

Its Director of Health and Safety, Harry Maher, says the safety of DoC staff is its highest priority.

"Obviously we want helicopter operators whose loading and flying complies with Civil Aviation Rules, and is in line with best practice.

"But more than that, they need to communicate, fully and frequently, with us, not just that they are doing that, but how they are doing that.

"For instance, working directly with our local staff to agree on who will be supplying the tested and certified lifting equipment, and agreeing on the accountabilities for day-today load rigging and management."

Jimmy Guerin says operators who did not attend Mike Gelskey's course could find out who did, and contact them about what they learned.

"People in this sector are pretty good at helping one another out, and talking to your peers is one of the best ways of learning." \blacksquare

A Safety Measure

Who would have thought something as innocent as a tape measure could provide a serious safety issue? Here is the account of one workshop manager.

ne of our engineers, doing a weight and balance on an aircraft using a particular tape measure, found the figures from a previous weighing did not match those of the more recent weighing.

To get the centre of gravity correct, we had to add 15 lbs of lead to the tail of the aircraft. But that didn't seem too far from expectation, because a heavier propeller had been installed.

When the same engineer used the same tape measure on another aircraft, he advised the numbers again didn't make sense, given what he would have expected of an aircraft of that type.

The centre of gravity on the second aircraft was measured again with a different tape, only because it was closer to hand. This time the measurements made sense.

We discovered that the tape we'd used in the first two readings had been sourced from Japan.

It had two separate scales on it: one marked in mm, and the second marked in units of "33/metre" (called a 'shaku' and approximately 30.3 cm). It was these units that were mistakenly thought to be 1 inch increments.

The original aircraft was re-weighed and the centre of gravity was found to be still within limits. The weight was removed from the tail and returned to the previous configuration.

The experience highlights the truism that when something doesn't look right, it probably isn't. ■



Additional Reading

- » Advisory Circular AC43-13 *Calibration of tools and test equipment for maintenance of aircraft.*
- » SAA/SNZ HB86.2:1998 Guide to Selection, Care, Calibration and Checking of Measuring Instruments in Industry.