

7150

Every single report to the CAA of incidents, accidents and other 'aviation related concerns' is recorded, then grouped with similar occurrences that happened in the same time period. Concentrations of risk can then be identified.

In 2016, there were 7150 occurrences reported to the CAA, making it a record year for reporting.

"We look at every report," says the CAA's Manager of Intelligence, Risk and Safety Analysis, Jack Stanton.

"Although we don't have the resources to follow up every reported one-off occurrence, each report is valuable because all trends start with a single incident.

"For instance, we may not follow up with a single Sunday flier who reports that they busted airspace. But if a second, then third, weekend pilot reports that they also busted the same piece of airspace, the third pilot may get a call to find out what happened.

"That's why the CAA may respond in different ways to otherwise similar incidents.

"Safety risk, particularly the risk of an event happening again, is what we are really looking for," says Jack. "And it might be that in this instance, the three reports are indicating the airspace boundary isn't correlated with a recognisable geographical feature."

Jack is keen to impress, however, that it's not always about the numbers. The most frequently occurring event is not necessarily the most significant safety risk.

"You can see, for example, from the 2016 graph that there was a spike of reporting in the first week of June (coloured yellow). But analysing that spike revealed that most of the reports were about insignificant single bird incidents."

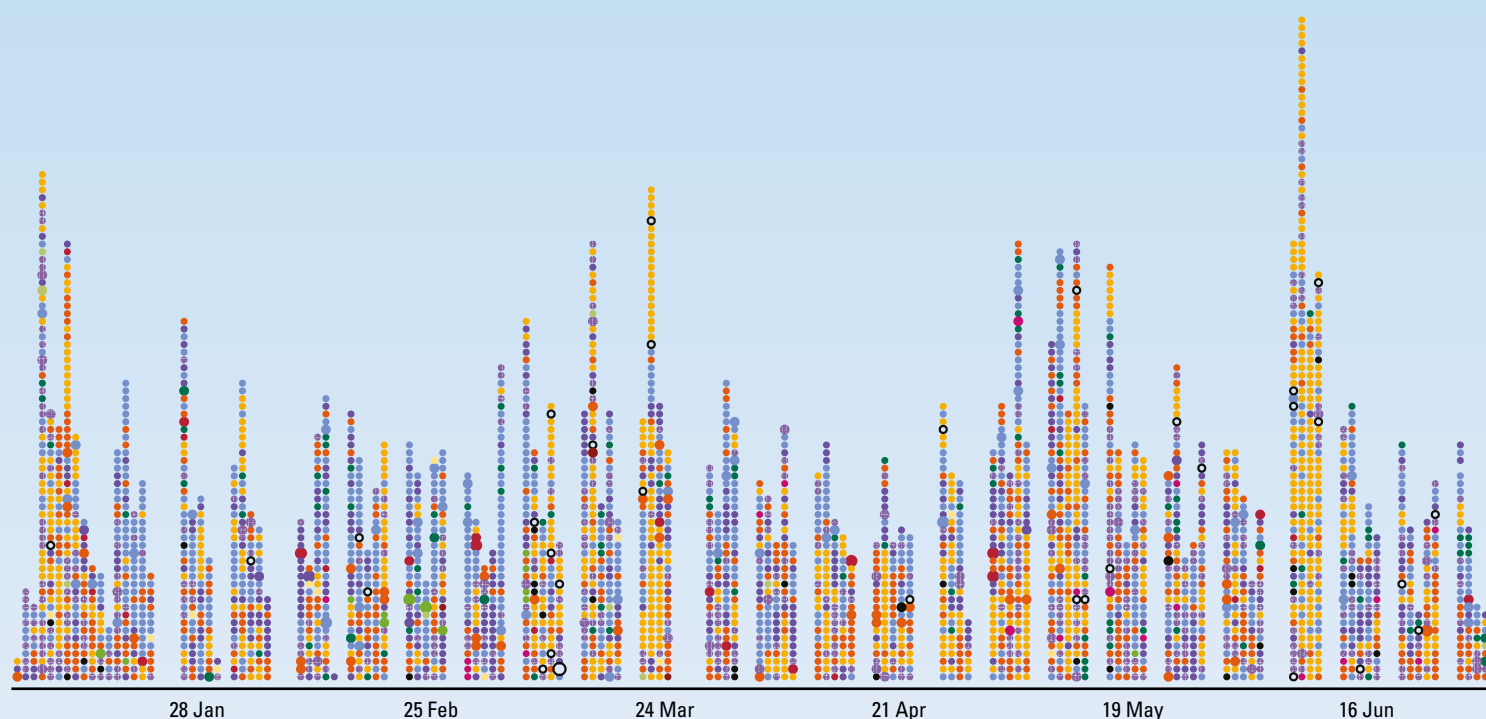
Of the 7150 occurrences reported in 2016, just 86 were accidents – the lowest number in many years – and 27 of those were in the parachute or hang gliding sectors.

Jack says an accident doesn't necessarily offer more safety lessons than a more minor incident.

"Investigating an accident can give us good safety information, but it is in retrospect. The accident has happened and the damage done. Whereas, incidents, even where there's no damage done, can contain information that's just as valuable, particularly if an accident was *avoided*."

Jack says sometimes a seemingly benign incident could have potentially dire consequences.

7150 occurrences notified in 2016 by date (Bubble size represents severity).



“For instance, a report that ‘last Wednesday afternoon, two aircraft had trouble understanding the controller and as a result, they converged on to the same waypoint, but then they realised what was happening and both took avoiding action’ tells us about something that really does need looking at. Even though nothing significant happened this time, the incident has clear safety implications.”

Making Sense of It All

Jack is encouraging people who report an occurrence to include a good as possible description of what happened.

“A description is the most important part of a safety report. Obviously we want the basic details, but a good description of what happened, and the language used in that description, will also convey how risky the person making the report thought the incident was.

“For example, we might read a report saying ‘Aeroplane cut in front of me, two miles on final, I throttled back and let it land’ and we might say, ‘Ok, it shouldn’t have happened, but actually it doesn’t look like there was too much risk here’.

“But if that same pilot reported, ‘Aircraft cut in front of me and I took evasive action, and found myself faced with a turn into a confined area’ we would feel that the language used conveyed much more risk.”

Jack says if someone feels the incident they report was really significant and needs looking at, they should say so.

“Something like, ‘This was a really serious event and I’m very keen to speak to someone at the CAA about it.’

“Or conversely, ‘This event was not ideal but because of the fine conditions, it wasn’t particularly risky.’

“That gives us a really clear idea of how serious the incident was because the pilot’s opinion is clearly relevant.”

What Happens to the Information

Three CAA teams work with the ‘intelligence’ gleaned from reports. The safety information team records and categorises the reported occurrences, and rates their severity.

The safety investigators examine the more significant of the occurrences, and the CAA analysts pore over the data, looking for trends.

So what happens when an analyst does find a theme among the ‘skyscrapers’ of a yearly reporting graph?

CAA analyst, Joe Dewar, has been using such data to great effect, bringing awareness to members of the New Zealand Helicopter Association about risk in rotary activities. He’s embarked on a similar programme with Part 115 participants.

“We can provide the same information to any sector. It can be done quite quickly,” says Jack.

Or the information might be used to promote awareness through *Vector*, or a GAP booklet, or an Airworthiness Directive. The CAA’s quarterly *Aviation Safety Summary Reports* are based on the information gathered over three-monthly periods. There are also six-monthly *Aviation Industry Safety Updates*. Both can be found on the CAA web site, www.caa.govt.nz, “Aviation Info > Safety Info > Safety Reports”. The information is also sent to the CAA’s operational units, so they know where the safety of their sector is at.

“We really appreciate that reporting is increasing,” says Jack. “Eighty per cent of our intelligence work is based on reports, and good descriptions are essential to making sense of those reports.” ■

