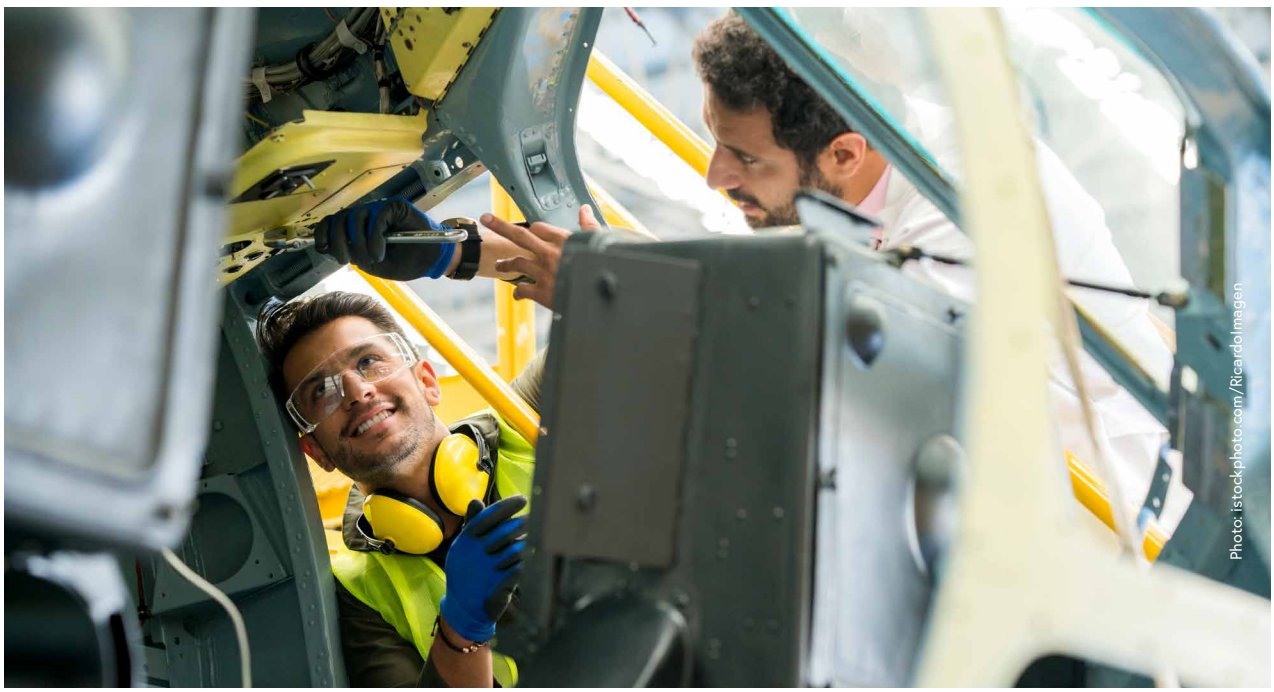


# THE VALUE OF YOUR 005D DEFECT REPORT

The CAA is *always* grateful when someone reports a defect. We're even more grateful if the 005D form is filled out correctly and with as much information as possible, because then our response can be appropriate to the issue.

It's been pointed out previously in *Vector*, but it's worth repeating. When CAA aviation safety advisor John Keyzer presents an airworthiness and maintenance workshop, he begins like this: "The person sitting on the left of the room discovers a safety-critical problem with an aircraft component.

"Wouldn't you, as the owner of a similar aircraft, and over here on the right of the room, want to know about that?"

That's the basis of reporting – sending information to a central 'library' of information where it can be gathered up, perhaps with similar data, and then circulated through the rest of the community.

The CAA very much appreciates there are time and financial costs to completing both the form and any subsequent investigation. But there's also a tangible benefit in providing defect data to a central point, particularly for operators of aircraft manufactured in New Zealand.

CA005D reports really are vital to continued aviation safety, and the more complete they are, the more valuable to everyone.

## Little information, wide response

When a relatively incomplete defect report comes in related to an item that's required for safety of flight or a critical piece of the airframe, the CAA may be forced to consider very conservative interventions.

We could issue an airworthiness directive grounding a whole fleet, meaning operators who're not actually affected by the issue are handicapped by that.

But with more information, we would realise the more appropriate response is to simply let affected operators know we're aware of a problem that may affect reliability.

## More information, targeted response

A decent amount of information on a 005D allows the CAA to make more focussed interventions.

Here are examples of the difference:

### Example A

A 005D is received by the CAA reporting a major structural attachment point failure in the empennage of an agricultural aircraft. *No information is provided on the Time in Service (TIS), no current nor historical operational information is provided, nor specific part numbers of the failed parts.*

The CAA response in this instance may be to mandate inspections prior to further flight, and then have those inspections repeated at a very short interval over all empennage attachment points for the entire fleet of that particular aircraft model.

### Example B

A 005D is received by the CAA reporting a major structural attachment point failure in the empennage of an agricultural aircraft. No information is provided on the TIS, no current nor historical operational information provided, *but the specific part numbers, names, and ATA chapter of the failed parts are provided.*

The CAA response may be to mandate inspections prior to further flight, and then have those inspections repeated at a very short interval of the partially failed parts identified for the entire fleet of that particular aircraft model.

### Example C

A 005D is received by the CAA reporting a major structural attachment point failure in the empennage of an agricultural aircraft. No current nor historical operational information is provided, *but the specific part numbers, names, and ATA chapter of the failed parts are provided, as is the total TIS of the airframe and part.*

The CAA response may be to mandate inspections of the partially failed parts identified before a certain TIS for either the part or airframe is reached, and then specify an inspection repeat interval for the entire fleet of that particular aircraft model.

### Example D

A 005D is received by the CAA reporting a major structural attachment point failure in the empennage of an agricultural aircraft. *The airframe history provided identifies that it has had mixed used between parachute operations and agricultural work. The specific part numbers, names, and ATA chapter of the failed parts are provided, as is the total TIS of the airframe and part.*

The CAA response may be to mandate inspections of the partially failed parts identified before a certain TIS for either the part or airframe is reached, and then specify an inspection repeat interval for those particular airframes that have seen mixed mission use in their service life.

## Opening up the networks

For New Zealand-manufactured aircraft, the CAA will always work with the Original Equipment Manufacturer (OEM) if there are any airworthiness concerns arising out of a 005D, regardless of how detailed the form.

But a more complete 005D report will allow the CAA to respond more quickly and more precisely than one short on details.

For non-New Zealand manufactured aircraft, we can make the entire New Zealand fleet aware of any emerging trends, or if a serious airworthiness concern is brought to our attention. We can also pass that information on to the relevant overseas national airworthiness authority overseeing the OEM, and the OEM may then well act on that information.

Again, the more complete and the more detailed the information we're passing on, the better.

## The worst-case scenario

The situation we absolutely want to avoid is a 005D without enough information to act on, and a serious airworthiness concern not addressed in time.

In the modern world of risk-based assessment and actions, safety decisions are only as good as the information they're based on.

So the more we all know, the safer we all will be.

Comments or queries?
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