

The ethics of fatigue

By Professor Sidney Dekker

Most people in ATC see fatigue as a physiological problem with psychological and physical consequences. A recent conversation with a student of mine persuaded me that fatigue is, at the limit, an ethical problem.

So we had to do this investigation", my student said. It was an occurrence in one of the units run by his ANSP, and for which he and a group of others are mandated to carry out safety investigations.

"As usual," he continued, "we asked the controllers to rate the extent to which they felt fatigued during the time of the occurrence."

Even though they had been asking this question for a while now, it seemed that controllers had only recently started coming forward with self-reports about feeling fatigued. The scale on which they could rate their fatigue was 1 to 9. Nine meant they were wide awake, one meant that they were completely worn out.

"The controller reported a 3," my student said.

don't – and grumblings about being tired are often heard on the flight deck. I can only imagine how the controller on the ground must feel – he might have another six hours to go on shift when clearing us for descent to our home base.

So I was not surprised to hear that the self-report of being fatigued to the point of a "3" was taken both as data and a partial explanation for the occurrence in that sector. It seemed to make perfect sense, and not present any problems.

"It got us in serious trouble," my student said.

I looked at him. And I wondered why. He went on to tell me that he and a colleague had produced a draft report of the occurrence, which was circulated among the members of the ANSP's safety group.

If a controller feels tired, i.e. too tired to work safely, then that controller should say so and decline to go on duty. That is the ethic.



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I didn't think this was particularly striking. After all, an early check-in for a flight that takes me to a far-flung place in the southern reaches of Europe gets me, and the other pilot, pretty tired too. It gets worse because the return flight is on the same day, carrying us back up the globe to our northern origin in the dark for almost the entire way. Yawns get stifled—or they

"They told us that ATCOs have this ethic of self-control," he explained to me. Nothing new for him, to be sure, but he and his colleague had not realised how the increase in self-reporting of fatigue would have such interesting organisational and ethical consequences.

Self-control works in supposedly very obvious ways. If a controller feels tired, i.e. too tired to work safely, then that controller should say so and decline to go on duty. That is the ethic. Why was that a problem here?

"Well," he said, "we were on our way to publishing the investigation report, even without any identifying data, showing that a controller had violated rules and regulations, not to mention his own duty ethic, in working even



when he knew he was so fatigued that it was impossible for him to work effectively."

In other words, fatigued to the point of a "three"? Then you can't work. Simple as that.

Yet this controller did. As do many, many others. Because, of course, what exactly is fatigued to the point of feeling "three" on a scale of nine? Fatigue is a hugely subjective, slippery experience with a variety and variability of consequences that is hard to pin down in any scientific way. And the very fact that you are fatigued makes estimating or even acknowledging exactly how fatigued you are very difficult.

Experience and reporting of, and regulations on fatigue put controllers in a variety of ethical dilemmas. The rules and the duty ethic say that you can't work if you are too tired to work. But if you decline to work, you put more pressure on your colleagues. Pressure that might indeed be one of the major sources of fatigue in your centre. So even if you might make it easier for yourself, you make it harder for everybody else. And in the end, all controllers

pay. Then, if something bad happens, you have to report your level of fatigue together with any other data about the occurrence. But how can you report this honestly if you know that you are not supposed to be both fatigued and working at the same time?

No wonder there might have been under-reporting of fatigue. Then, supposing that you do report that you were fatigued, the ethical dilemma gets kicked into the safety department. Should they publish a report that says that a controller violated the duty ethic, and the rules and regulations? With an increasingly litigious climate in a number of countries in Europe, and prosecutors on the prowl for easy judicial winnings, they might want to think twice before doing so.

Seeing fatigue as an ethical problem, rather than just as a physiological one, opens up new avenues for organisational and regulatory action. The standard response – trying to reduce or control fatigue as much as possible through scheduling, work hours, rosters, rotations, breaks, replacements – will never cease to be relevant and important. But what matters too is that fatigue is something that needs to be negotiated in the aftermath of occurrences.

"We decided to drop fatigue from our report altogether," my student said. "Which a lot of people thought was a good idea. But the controller thought it was very unfair, making him look incompetent without a good explanation."

So there was yet another ethical dilemma. How true, how honest, can the investigator remain to the source? And what will that do to controllers' willingness to honestly report in the future?

Data on fatigue is important, of course, even when taking into account all its subjectivity and unreliability. And raising organisational awareness about it should be seen as a good thing. But ANSPs might want to think through the perils and consequences of asking people to self-report. You would not want to be surprised by some outside party who has got wind of willing, knowing violations that really represent a simple everyday reality – that of tired controllers doing their work.

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