ONE STEP AT A TIME…

Change may involve taking away rules and giving back the power to workers to decide how the work works, letting them create the change by themselves, one step at a time, as **Sebastian Daeunert** describes.

KEY POINTS

- **People react differently to changes and at different speeds.**
- **If you want to implement change you have to find solutions with and for those affected.**
- **Constantly monitor the adaptation and adapt it again.**
- **Sometimes changes can only be made step-by-step.**
- **Adaptation has to be integrated into the working culture.**

The only constant in ATC is change. The problem is, that air traffic controllers are a conservative lot, looking at every change with a suspicious eye. The stakes are high and the question is this: *Does it affect my ability to handle traffic safely?*

Change may affect proficiency or the ability to react quickly and correctly to challenging situations. So implementing changes is a difficult task, often meeting opposition, and adapting to changes is scary. Still, controllers do it every day without realising it. Every situation they meet requires small adaptations to respond to the dynamic situation. This is the core ability of an air traffic controller and the reason why things work. We call it flexibility.

At my airport (Frankfurt Main) we started some years ago to introduce a stronger focus on human factors. We started to try to understand differences between work-as-done and work-as-imagined (see *HindSight* 25). We tried to listen to controllers about how they work. This demanded a cultural change not just with our controllers but also with our management. I thought the easy part would be the controllers, as all this was done to make things easier

for them and to have their ideas and adaptations put into something they are allowed to work 'legally'.

A major change arrives

One of the major achievements was allowing controllers to work two runways from one working position if traffic allows, instead of one controller working one runway all the time. The advantage is that complexity is greatly reduced. There is less coordination and

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aircraft no longer have to wait in front of the runway of the other controller for crossing and change the frequency to that working position – a source of constant irritation with pilots.

Some controllers had long carried out the working method 'illegally', so the time was here to talk about it, and if possible 'legalise' it in a way that was safe. After a safety assessment and a look into the regulations and

procedures, it turned out that a runway cannot be delegated but the traffic can. We involved controllers in the discussions, creating a trial period for the new method.

For me, this was about taking away rules and giving back the power to decide to our ATCOs. In short, to give back an ability we removed by making too many rules over too many years. This created a comfort zone in which to hide but at the same time we were not making use of controllers' expertise and abilities. Many controllers said this new procedure would give them much more work satisfaction.

Of course, a number of controllers were immediately unhappy. They were concerned about the frequency congestion, the workload, and some of their colleagues who might be 'overdoing it'.

Co-designing successful change

As these were safety concerns, it was impossible to ignore them. Workshops were performed where controllers were able to find a mode of operation, which would be okay for both sides. Rather than dictate a change, we let them create the change by themselves.

The key suggestion was that if one person – any person, in the ops room – would say "enough", the positions would be separated again without discussion. Also, after much discussion and concern, a guiding value of a set number of departures with start-up clearance (a number that can be read on the screen) was determined. If this value was exceeded, positions were to be split. This guidance value or limit was something I disliked. Why should a controller not decide what is enough for them?
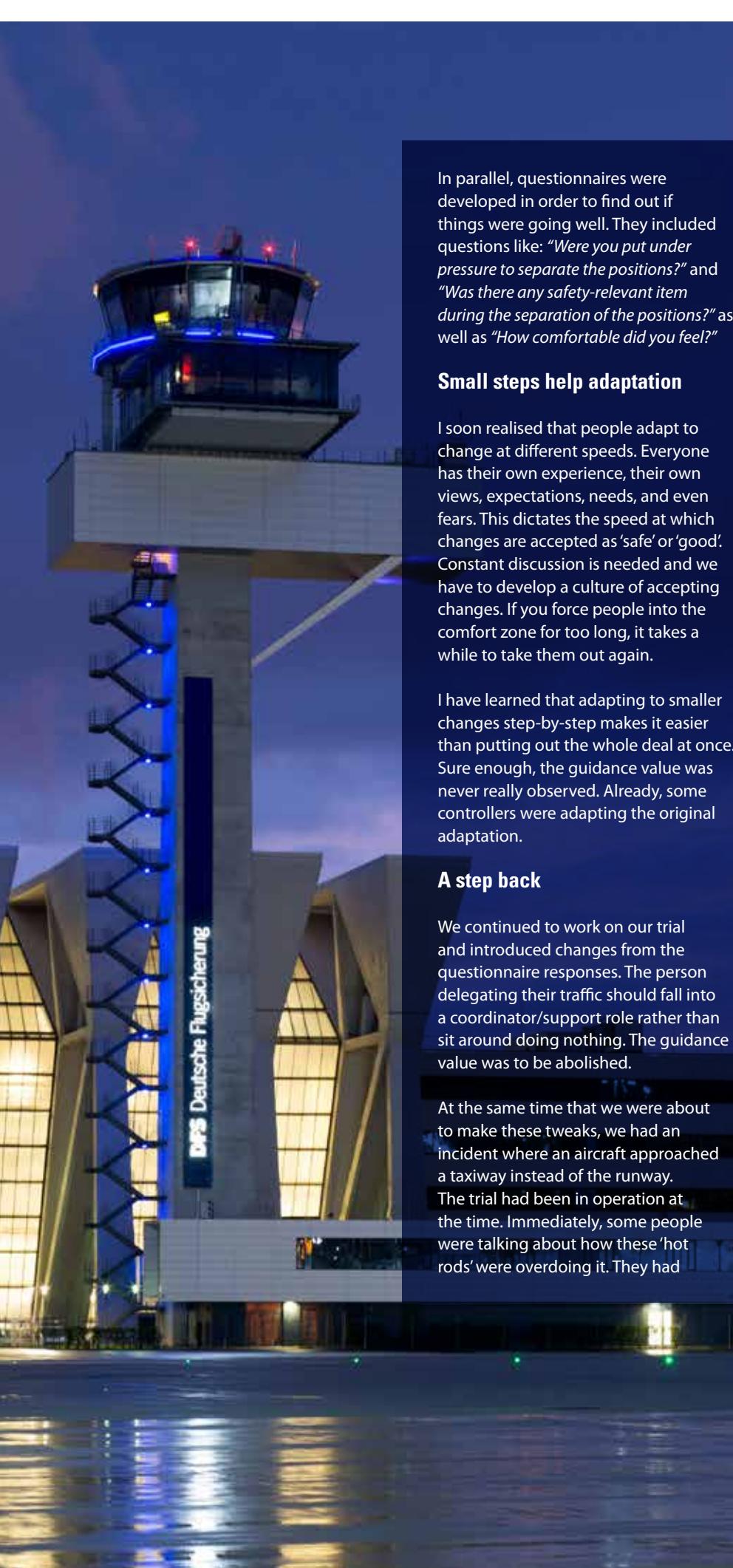
In parallel, questionnaires were developed in order to find out if things were going well. They included questions like: *"Were you put under pressure to separate the positions?"* and *"Was there any safety-relevant item during the separation of the positions?"* as well as *"How comfortable did you feel?"*

Small steps help adaptation

I soon realised that people adapt to change at different speeds. Everyone has their own experience, their own views, expectations, needs, and even fears. This dictates the speed at which changes are accepted as 'safe' or 'good'. Constant discussion is needed and we have to develop a culture of accepting changes. If you force people into the comfort zone for too long, it takes a while to take them out again.

I have learned that adapting to smaller changes step-by-step makes it easier than putting out the whole deal at once. Sure enough, the guidance value was never really observed. Already, some controllers were adapting the original adaptation.

A step back

We continued to work on our trial and introduced changes from the questionnaire responses. The person delegating their traffic should fall into a coordinator/support role rather than sit around doing nothing. The guidance value was to be abolished.

At the same time that we were about to make these tweaks, we had an incident where an aircraft approached a taxiway instead of the runway. The trial had been in operation at the time. Immediately, some people were talking about how these 'hot rods' were overdoing it. They had

told the controller concerned several times before to split positions but no, the controller would not listen. This was 'proof' that the whole trial was hazardous, and taking away the guidance value was dangerous. I immediately sensed the concern about taking away that sacred guidance value. Why else were so many people suddenly saying the new method was unsafe when for months everyone said it was fine?

During the investigation I found out that exactly three airplanes had been on the frequency, well below the guidance value and what any controller can handle. The trial was in no way connected to the incident. It would have happened anyway. After the investigation had been completed, we reintroduced it again.

Again, it showed the different speeds of adapting to the new method. Things quickly calmed down but there had been a spike, a scare, that stirred emotions.

We are continuing on our way, but we are learning everyday how to make change easier and more acceptable. We are doing many steps to monitor the small changes, the events where the non-standard becomes the standard and trying to learn from these adaptations in order to create something better from them.

Funnily though, turning adaptations that are already in regular use into a new method sometimes makes it hard for people to adapt to their own adaptations! ⑤

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