Case Study Comment 1 by Dragan Milanovski

This story offers a little ambiguity about what happened and how the loss of separation could have been prevented...

At the first glance it seems obvious that if the controllers at the centre (Ann and Alexander) were a bit more vigilant during the handover/takeover, if the supervisor was in position or if Stan was not distracted by reading a newspaper this incident would have probably been prevented in time. After a while, you realise although they all contributed to the event, they have not done anything terribly wrong. One would argue that errors like these are part of the job and most of the time nothing happens before the system "catches" and corrects them. So, what made it different this time?

I am sure the idea behind the new automatic back-up system for the upper airspace radar positions was good, but I am even more convinced that getting the system up and running at any cost without involving the controllers as the final users of the system was not the best option. Little did Brent and Sid know that the highlight of the week is still ahead of them!

ATC systems are continuously evolving and they become more and more complex with time. A lot of automatic features are designed to help us do our job and continue to provide a safer service with ever increasing capacity. System changes are now taking place more often. Some of these changes are more visible to controllers, but many go unnoticed as they do not make a huge difference to the "front end". We all understand that drawing a line between the two is not always easy especially when under pressure to perform, but we also know that just adding automation without changing the way we as humans operate the system does not always bring benefits. Being humans, usually we are very quick to get used to the new features that make our life easier. After a while we even start to wonder how we used to do the job without them. Where we usually fail is in the speed at which we integrate the less "exciting" changes to the routines that automation brings. Unfortunately, sometimes it takes an incident to learn that.

In this story we cannot be sure if the controller on duty could have done something different to prevent the incident had he known about the automatic back-up system which had been installed and that the symbols for the aircraft would continue moving even when the feed of radar data has stopped. Maybe there was no time for an action to take an effect. It is not a surprise that Stan did not react at all when the screen froze for a short period of time and he also never considered the possible reasons and/or system limitations at that time. Not only that he did not know about the new feature, but he also was not competent to handle its "down side" i.e. misleading the controller in case the radar data failure is not immediately identified.

A RECOMMENDATION

The correct application of complex automated features is not always as obvious as it usually seems. The service provider from the story needs to review how system changes are implemented in the future. Early involvement of the controllers and a detailed analysis of changes of operational competencies induced by automation followed by appropriate training are likely to prevent incidents like this in the future.

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