Case Study Comment 1
by Dragan Milanovski

This is an interesting story about a loss of separation between aircraft where so many details seemed to contribute to the incident.

If ATC training is your daily business (instructors and training managers), you probably found it realistic. If you also found it extremely familiar, it is worth answering the training manager's question: "What could they (we) have done differently?"

This incident took place as the training manager was trying to find a solution for the alarmingly poor progress of trainees that was taking resources away from the refresher training. He was under pressure: they needed the new controllers by the summer vacation period, while facing budget restrictions – no overtime allowed and having to postpone indefinitely the degraded systems refresher training. What happened to the real yoghurt? Can we blame the ATC Academy for spoiling it by applying a new concept in training?

The study involving elite sportsmen with at least 10,000hrs practice over a 10 year period required to reach a level where they could be considered "elite" has been around the ATC training "world" for a few years. I have heard many different opinions (pros and cons) on whether the same theory can be adapted to ATC training or not. An interesting fact is that I (and many others I know) have played about 10,000 hrs of football in life, over a period of 30 years; I (and certainly many others) can hardly be considered football players, let alone "elite". However, I am not in a position to dispute the results of either the study or its application to ATC training.

The "supporters" would say that there are positive examples of ANSPs with very similar training philosophy and an extremely high success rate in training. Given the time and trust, everyone can develop into a bright and young controller. Although I am not sure about the "young". Such ANSPs are usually not under any sort of pressure (budgetary or manpower), or at least not under serious pressure, and they have great flexibility in assigning controllers to less or more complex ATC units. The few failures usually take place after several years in training when the student realises that ATC is not a job for him/her. Even then, there are many non-operational support posts where the student can fit in. So the training is not a total financial loss.

The "opposers" would say that ATC training is extremely expensive. The longer a student remains in training, the greater the financial loss in the event of failure. There are ANSPs where manpower planning is very strict, with constant budgetary restrictions and with no resources to spare. The choice and complexity of assignments is not always flexible enough. Within such ANSPs, the students' training is terminated very early (the moment any doubt is raised) in order to limit the potential financial losses, regardless of the fact that they are probably losing students (and money) who would make it in the end.

So, who is right?

The situation today, where most ANSPs are facing requirements to perform efficiently and improve over time, leads me to believe that a maximum training time has to be set. If not, it is just a matter of time until you end up in a situation similar to the one described in this case study, or you cannot perform as required. The ob-

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jective of setting such a time is to find the right balance between the two options, appropriate for the ANSP. Students should be given all support, patience and trust for as long as there is a glimpse of a chance of success within the defined maximum training time. So, how do you find the right balance?

Unfortunately, there is no "one size fits all" answer and the discussion goes well beyond these comments.

The point I am trying to make is that it is not only the change of concept that created the situation from this case study. It is more the way it was implemented. One can rightly object to the ATC Academy deciding to try a new concept without taking the customers "on-board" (ATC Unit). Obviously they did not ask for an opinion, or bother to inform them. Hence, change risks were not assessed and mitigated. There is a clear lack of trust and cooperation between the ATC Academy and the ATC Unit in the story. The training manager did not think much of the ATC Academy representative, who was nervous at the meeting (he twisted his pen continuously) – maybe he was not sure about the new concept or most probably he understood the situation created by the way things were being handled.

I cannot say that a situation like this is unique to the story, on the contrary. The reality today is that there are training establishments who believe training students is their core business and they do not expect operational units to interfere with it. There are also operational units (or OJTIs) who are not completely aware of the training content provided (I thought you trained in such things at the Academy) nor appreciate the work done at the training establishments (forget everything you learned so far – I will teach you real ATC). Unfortunately, many students find this lack of cooperation and trust very difficult to deal with and their progress suffers.

Training establishments and operational training units have a common goal – licensed air traffic controllers within a reasonable training time. Therefore there has to be a common approach to training through cooperation and respect for each other, only then will the training be seamless for students and training success maximised.

Although I find the relationship between the ATC Academy and the ATC unit in the story very disturbing and probably the main reason for postponing the training for degraded modes, I do not think the incident could have been avoided if this was not the case. Postponing refresher training until further notice is definitely a mistake, but clearly, the more experienced instructor did not find it difficult to deal with the situation. The feeling that it was a minor contributor prevails.

Yes, the less experienced instructor was momentarily lost, but he did well to take over as soon as he realised the student (or himself) was overloaded. Some of you might find it completely inappropriate when he started giving orders to the other student, which is true if the other instructor was present at his working position. However in this case, I think it was necessary and it shows that the less experienced instructor had a lot more to worry about than just an emergency and degraded system.

The incident from this story could have probably been avoided if the more experienced instructor was sitting behind his trainee at the time of the emergency and the system degradation. It is not quite clear from the story whether the supervisor was aware of the situation or not. Obviously he/she has the ultimate responsibility for appropriately staffing all working positions at all times.

I must say that, unaware of possible consequences, I used to like working alone as a student (a rare opportunity given only by the most experienced instructors) – it was a real confidence booster. Later on, I was tempted as an OJTI, but never did it. Not because I did not trust the students, but because I was worried about missing a valuable training opportunity. I learned there are many other ways to boost students' confidence.

A RECOMMENDATION

The training manager / supervisor needs to take steps to ensure OJTIs are always present at the operational position while training is taking place. If a student needs to be trained he/she needs an instructor sitting behind (physically, but also mentally). I know this is easier said than done, especially with experienced instructors within certain environments where leaving a student on his/her own is part of the working culture, and, it might require more time to deal with.

If an OJTI thinks that their presence is not required while a student is handling the traffic, then they have a reason for celebration – that student is ready for check-out. Mussica...