CALLBACK
From NASA's Aviation Safety Reporting System
ASRS
Issue 509 June 2022

Controller Training in Progress

What goes through your mind when you hear the words, "Controller Training in Progress?" Perhaps you raise your guard a little, or you're more assured knowing that an Instructor is in the background always monitoring the Trainee's performance. Whatever your bias, Controllers are humans also, and whether Trainee, Instructor, Controller in Charge (CIC), or Front Line Manager (FLM), Controllers do make mistakes like everyone else.

Complacency can occur when a Trainee is trusted and performing well. Losing focus or distractions may then lead to the Instructor not catching a Trainee error. A fine line also exists between letting a Trainee learn from trial and error versus the Instructor taking over to ensure safety or mitigate further risk. Human Factors abound, judgment is key, and the question of how far to let a Trainee proceed before intervening is ultimately an Instructor's subjective decision.

This month, *CALLBACK* presents Controller-reported incidents revealing typical problems that occurred at multiple levels while Controller training was in progress. Observe the environments, note the problems' practical natures, and enjoy the resolutions and authentic observations.

Pattern Performance

A Tower Controller Trainee gave instructions to a fighter aircraft [Aircraft F] and to a single engine high wing aircraft [Aircraft S] in the pattern. Mistakes were made, but lessons were learned.

■ *Both planes were staying in the pattern. Aircraft S requested Runway X and Aircraft F requested [Runway] Y. Aircraft S departed first, and I put him in left traffic to avoid the departure of Aircraft F. When Aircraft F departed, I put him in right traffic, at the time initially thinking that if I put him in left traffic, he would quickly catch up to Aircraft S and become an issue. I called traffic to Aircraft F about Aircraft S, but he did not have him in sight and asked the order to the field.… I told him he would be number 1 to the field with both aircraft about midfield downwind at this point and Aircraft F 500 feet above Aircraft S. I then called traffic to Aircraft S about Aircraft F, and he had him in sight. I gave Aircraft F clearance for the option at this point on Runway Y and then to give a little more spacing, I told Aircraft S to extend his downwind and that I would call his base for Runway X. As Aircraft F was descending and turning base, he flew toward Aircraft S, who was extending downwind.… Aircraft S maneuvered to the left to avoid him, and Aircraft F told me he was going around.*

After the incident, I talked to a fellow Certified Professional Controller (CPC) and FLM and found a few things I could have done better.… Putting Aircraft F in left traffic would have been the better option rather than right [traffic], which caused the planes to be going nose to nose toward each other. Also, when Aircraft S had traffic in sight, I should have told him to maintain visual separation. I also should have changed the sequence and extended Aircraft F's downwind while I let Aircraft S make a short approach and come in number 1 to keep Aircraft F on the outside of Aircraft S's flight path. I also learned more about the characteristics of Aircraft F, such as its speed in the pattern and how it descends and makes a…rounded turn from downwind to final rather than squared turns.

Taming Winds and Pilots

Strong winds and pilot-delayed turns created a problem for this TRACON Controller Trainee while vectoring a small aircraft for approach.

■ *The aircraft…was being vectored for an ILS approach. The weather was marginal and apparently had some very strong winds aloft, as the aircraft kept flying off course when given any heading. The initial heading of 115 [degrees] looked like a 125 heading. I gave him a 115 [degree] heading down to 1,800 feet for the ILS approach, but when I saw that he was heading toward the higher Minimum Vectoring Altitudes (MVAs), I asked him to turn 10 degrees left. The pilot asked if I was painting any weather, but I didn't see anything and I told him that. I also told him to advise if he wanted to deviate for weather.… The weather was clearing up, and the winds were calm enough for an approach. Since he kept getting blown off course toward the shoreline and away from the water, I asked him if he'd like an instrument or visual approach instead. He said that he had the shoreline in sight, so the visual approach might work. As he got closer to the field, I noticed that he looked like he was heading 145 [degrees], even closer to the MVA.… I told him to turn left heading 090, but he delayed his response, much like he'd been doing the whole time. He*

flew out of the 1,500-foot MVA and into the 2,100-foot MVA, and I issued a safety alert and again told him to turn left heading 090 and to climb to 2,100 feet. After what felt like forever, he finally turned left heading 090 and climbed to 2,100 feet. I then safely vectored him for an ILS approach.

Throughout the conversation there were major delays in the pilot's responses, and…that made a big difference. I could have sharply turned him much earlier though, and had I done that, I believe that this would not have happened.… He was such a small aircraft and was being so greatly affected by the winds.… It was a good learning experience. I know that pilots are quite busy, and he was probably fighting the winds more than he knew. I discussed the matter with my Air Traffic Manager, who was CIC at the time.

"And That's the Way It Is"

– W. Cronkite

This CPC encountered several real-world situational problems and assessed them after the fact but was unaware that the Trainee had placed an aircraft in jeopardy.

■ *The aircraft entered an MVA of 10,500 feet while at 10,000 feet. I, as [Front Line Manager], was conducting training on Approach Control, and a standalone CIC was present. We had recently implemented STARS [new radar software], and I was sitting on the "B" scope adjacent to the "A" scope, where training was being conducted. I was making new preference settings, watching from the "B" scope,…familiarizing myself with some of the STARS features, and suggesting alternate courses of action to the Trainee regarding the expected arrival traffic.*

The Trainee issued a 30-degree left turn, which is a routine clearance for this aircraft and has always been safe because the 10,500-foot MVA had not come into play for this aircraft prior to this event. Unfortunately, the aircraft was south of its normal route, hence, closer to the 10,500-foot MVA. I heard the Trainee issue the climb but thought it was so he could tunnel a medevac aircraft underneath him. The Minimum Safe Altitude Warning (MSAW) did not activate, and I was unaware that the aircraft entered the MVA too low. The Trainee Controller's shift ended, and after he left work, he called me back and advised me of the situation. That's when I became aware of it and filed a Mandatory Occurrence Report (MOR). I asked the CIC what she remembered, and…she thought the aircraft had been climbed. I reviewed the radar replay, and the aircraft was issued a climb prior to the MVA, but the time was insufficient to clear the MVA.

The Trainee was…close to certification, and my attention to detail waned.… At various times, the three Controllers were discussing ATC questions and may have been distracted. I had been on sick leave earlier in the shift, and…it's possible that my ailments affected the performance of my duties.

The Trainee noticed the event at the time but did not advise me or the CIC of the issue. I don't know why he didn't speak up. Fear of not getting certified? Lack of trust? It's possible that the situation could have been fixed. I asked him later why he didn't say anything at the time, and he said he didn't know why. I encouraged him to always say something in the future. The CIC is a new CIC, rated less than 2 weeks. Does an [FLM] in the room mean that others believe everything is under control when it may not be? Reiterate our safety culture to say something when you see it. Again, light traffic and distractions created a trap for three of us to step in.

Guaranteed Separation

This Controller Trainee perceived a conflict and had a plan for resolution in mind. The Instructor intervened when it became apparent that separation would be inadequate.

■ *I am currently a…Controller in training and was training on radar. I had just taken the position from a previous Controller and saw that Aircraft X was departing off SFF on a heading of 300 [degrees], restricted at or below 3,500 feet (this is a built-in procedure for VFR aircraft coming off SFF). I was briefed that Aircraft Y was cleared on the [Spokane] RNAV Z RWY 21 approach and had been switched to Tower. I recognized that the two aircraft were going to be a conflict and was trying to formulate a solution. Aircraft Y was descending out of…4,500 feet when Aircraft X checked on level at 3,500 feet.… The two aircraft were pointed right at each other approximately 3 miles apart. I knew that aircraft on the RNAV Z RWY 21 approach were allowed to descend to 3,500 [feet], which is the exact altitude that Aircraft X was restricted at. When Aircraft X checked on, I told him, "Altitude, your discretion, proceed on course," followed by a traffic call. My initial plan was to have Aircraft X climb above the descending Aircraft Y, then issue a northerly heading if necessary. My Instructor keyed over me at that point, gave a traffic alert, and told Aircraft X to fly northbound. Tower then called saying Aircraft Y was responding to a TCAS alert and was coming back to Radar for resequencing. Aircraft X continued on course below Aircraft Y. The session continued without further incident.*

It was poor control judgment on my part to not issue an immediate turn to Aircraft X and to think that an altitude swap alone was going to resolve the situation. I was slow to see how quickly the situation was developing.… Imminent traffic situations can develop very quickly and at any time.

ASRS Alerts Issued in April 2022	
Subject of Alert	**No. of Alerts**
Aircraft or Aircraft Equipment	4
Airport Facility or Procedure	4
Hazard to Flight	1
TOTAL	**9**

509

A Monthly Safety Newsletter from

The NASA Aviation Safety Reporting System

P.O. Box 189 Moffett Field, CA 94035-0189

https://asrs.arc.nasa.gov

April 2022 Report Intake	
Air Carrier/Air Taxi Pilots	4,593
General Aviation Pilots	1,324
Flight Attendants	729
Controllers	433
Military/Other	342
Mechanics	250
Dispatchers	162
TOTAL	**7,833**