

CEN21FA215

AIR TRAFFIC CONTROL

Group Chair's Factual Report - Attachment 1

Interview Summaries

August 8, 2022

Interviewee: Austin Lenoir
Representative: Mark Tomicich
Date / Time: May 18, 2021 / 1015 mountain daylight time (MDT)
Location: Centennial Air Traffic Control Tower (APA ATCT)
Present: Tim Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview Austin Lenoir stated the following:

Austin Lenoir entered onto duty with the Federal Aviation Administration (FAA) in March 2008 reporting to the FAA training facility in Oklahoma City, Oklahoma. He graduated in June 2008 and reported to Roswell ATCT (ROW). Mr. Lenoir left ROW in August 2011 and reported to Wichita Terminal Radar Approach Control (ICT TRACON). He left ICT in June 2015 and reported to Tampa TRACON (TPA). He left TPA in August 2020 and reported to Centennial ATCT.

Mr. Lenoir maintained a current Class 2 medical certificate with restrictions for glasses in the performance of his duties; he reported he was wearing them when the accident occurred. He did not hold any other aeronautical licenses.

Mr. Lenoir was rated on all operating positions and was certified as an Operations Supervisor (OS). His regular days off were Sunday and Monday. His normal shifts were Tuesday 1230 to 2030, Wednesday a flex before 0900 to 1700, Thursday 0800 to 1600, Friday 0800 to 1600, and Saturday 0700 to 1500.

Mr. Lenoir said that on Sunday he was awake by 0800 and did family activities until going to bed between 2100 and 2200. He reported he awoke on Monday between 0700 and 0800 and did family activities and physical training and went to bed between 2100 and 2200. On Tuesday he awoke between 0700 and 0800 and did family activities before going into work. After getting off work he went home and spent time with the family before going to sleep. On Wednesday he awoke between 0700 and 0800 and went to work. He arrived at the facility, and he received the pre-duty weather brief, checked staffing, checked NOTAMs¹, and completed the normal pre-duty checklists. He stated that he checked with the other two supervisors on duty and assumed the OS position in the tower.

¹ Notice to Air Mission (NOTAM) is a notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) the timely knowledge of which is essential to personnel concerned with flight operations.

Mr. Lenoir stated that the facility was "a little light on staffing" with two other supervisors on duty and three certified professional controllers (CPC's). He spent time going through the overtime list trying to obtain more staffing and said that he was able to get a CPC and a developmental qualified on ground control (GC) to add two hours of overtime on the front side of their shift.

Mr. Lenoir reported the day was nice, good visual flight rules (VFR) type of day. He said it was sunny and the traffic started out as a normal light day with pattern work on the west runway. After assuming the OS position, he opened local control 2 (LC2) de-combining from LC1. LC2 would be responsible for runway 17 Left, and LC1 was responsible for runways 17 Right and runway 10. Mr. Lenoir reported that the GC position was getting busy, and traffic had "ramped" up to moderate to busy traffic.

Mr. Lenoir reported that before the accident the traffic had become busy with eight to twelve airplanes in the pattern on the west runway. Mr. Lenoir started working with LC1 and GC to start slowing down the amount of traffic that was permitted to work in the traffic pattern for runway 17 Left. As the LC2 traffic pattern for runway 17 Right began to slow to around six in the pattern, he remembered N416DJ, an SR22 call in from the northwest requesting a full stop landing.

Mr. Lenoir reported that as the OS, he was watching the LC2 position, and the CC was assisting the LC1 position. The LC1 position had been busy with runway 17 Right arrivals and departures as well as runway 10 departures. Mr. Lenoir said that the first time he became aware of the accident sequence was when the LC2 controller instructed the pilot of N416DJ to not overshoot the final which caused Mr. Lenoir to look to the right and observe a parachute become inflated along the final approach course. He reported that he had seen a bright metallic glare near the parachute but did not know what it was. Mr. Lenoir looked at the CC and observed him beginning the alert notifications. He looked back and saw the SR22 parachute fully enveloped. He said he watched the parachute go all the way to the ground expecting to see smoke and fire but there was none. He said the accident happened fast.

Mr. Lenoir said that he usually observed the tower display workstation² (TDW) and said he may have looked at it before the accident to make sure the airplanes were where they were supposed to be. He said that the controllers at APA did look at airplane speeds and remembered both he and an instructor speaking to his developmental controller about airplane speed in the pattern. Mr. Lenoir reported that the LC1 position is where most local control training occurred and that they trained looking at speeds in the downwind. He said that for LC2 training, they usually expect to have airplanes between 90 to 110 knots east of interstate 25 for typical airplanes. Mr. Lenoir added that he was not aware of the speed on N416DJ at the time, but that he saw it during a replay. He said that after the accident and after things had settled down in the ATCT, he heard people talking about the speed of N416DJ and that the airplane had been flying at 160 knots from base to final approach.

In addition to managing airplane speeds, APA controllers also pay attention to the proximity of the parallel runways. Mr. Lenoir said the runways were 700 feet apart at the centerlines. He said that the controllers at APA make sure that traffic was exchanged between airplanes operating on the parallel runways. Mr. Lenoir said there were usually 8 to 12 airplanes operating in the VFR pattern for runway 17 Left and that the controllers were usually concerned about the lateral spacing from the parallel runway. He added that the traffic was usually pretty good at recognizing conflicting traffic and staying in their assigned final approach course. Mr. Lenoir acknowledged there had been facility controller concerns about traffic coming into conflict on the parallel runways. Mr. Lenoir recalled an instance when he was driving down Arapahoe Road and observed two airplanes being very close to one another as they flew down the final approach courses for runways 17 Left and Right.

Mr. Lenoir was asked about mitigation efforts to address the conflicts on the parallel runways. He said that the facility had worked the traffic the same way for a long time and that this was the first accident, so he concluded that the way they worked the traffic worked. He said that traffic calls helped to mitigate the proximity of airplanes on the parallel by getting pilots to see one another. He said that he was aware of the corrective action plans involving a lack of traffic calls being made and attributed it to training. Mr. Lenoir said that since he had arrived at APA, there had been a briefing from the facility involving traffic calls. He added that some of the controllers in the facility had an issue with providing traffic calls. He said that the facility should be pulling audio data to review and correct deficiencies.

² A TDW is a radar display that projects radar information from airplanes for tower controllers to use for situational awareness.

Mr. Lenoir said that he had seen more conflict alerts (CA's)³ at APA than anywhere he had been previously. He said that some CA's were justified, and some of them were not. He said that as airplanes turn from base to final with another airplane on the parallel final approach course the CA will activate. He described the CA as "white noise" and that it was not relied on at APA; that it goes off late. He said that traffic alerts are not provided very often at APA. He said that traffic is usually given before the CA activates and if the pilot reports the traffic insight it is usually left to the pilot to maintain visual separation. He did say that the proximity of the parallels was a concern though. He added that the LC1 controller always issued conflicting traffic information to aircraft landing on runway 17 Right.

Mr. Lenoir said that the base leg turn to final is the concerning part of the parallels and that because APA was a class Delta airspace it was less restrictive and able to run simultaneous finals to the parallel. He said that wrong surface landings (WSL's) were also a concern. He said there was a lot of ATC to pilot outreach to address these concerns.

Mr. Lenoir indicated that when the accident occurred, there had been a Piper Super Cub operating on runway 10. And while they rarely have issues with that operation, it does draw the attention of the LC1 controller who must look away from the parallel runways to look to the southeast to observe the traffic. Additionally, there were two departures from runway 10 which also required the LC1 controller's attention. He said the runway 10 pattern operation was a quick operation. He said that when he opened CC prior to the accident, he had asked the LC1 controller if they wanted the LC3 opened to off load the runway 10 operations or whether the CC would be able to provide assistance. He felt that opening the CC position would be less of a distraction to the LC1 controller. The total operations on runway 10 did not warrant the extra LC position.

Mr. Lenoir said that he had written "maybe less than 10" performance record of conference (PROC's)⁴ during his time so far at APA.

Mr. Lenoir said that the LC1 controller usually sits when working traffic, and LC2 usually stands when working five or more airplanes. He said that when the accident occurred, the LC1 controller had been up and down, and the LC2 controller was standing.

³ CA is an automated warning system for air traffic controllers (ATCO). It is a ground-based safety function intended to assist the controller in preventing collision between aircraft by generating, in a timely manner, an alert of a potential or actual infringement of separation minima.

⁴ A method that management uses to document a performance discussion regarding an employee's strengths or weaknesses.

Mr. Lenoir was asked if the LC1 controller should have issued traffic to the LYM970, he said "no and yes". He added that he felt no because N416DJ was 140 knots on the downwind for runway 17 Right, and LYM970 was a straight-in to runway 17 Left. He said yes, she should have called traffic because of the change in dynamics between N416DJ and LYM970. Mr. Lenoir said that the local controllers did not communicate with each other regarding their traffic reporting the other controller's traffic in sight. He said there was no assumption that if LC2 traffic had turned base, LC1 would understand the LC2 traffic had the LC1 traffic in sight. He said that the local controllers did not control when pilots turned base leg that it was a VFR pattern. He added that one way to mitigate proximity incidents on the parallel runways was to prevent the "t-bone" by staggering the runway 17 Left traffic from the runway 17 Right traffic. He said that he had seen this type of operation "one thousand times a day and there was nothing illegal about it." He stated this could be done by turning the runway 17 Left traffic on a base when they were abeam the runway 17 Right traffic, and to limit the amount of traffic in the pattern.

Interview concluded at 1154 MDT.

Interviewee: Jennifer Benjamin
Representative: Troy Hemple

Date/ Time: May 18, 2021 / 1400 mountain daylight time
Location: Centennial ATCT (APA), Centennial, CO
Present: Timothy Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview Jennifer Benjamin stated the following:

Jennifer Benjamin entered onto duty with the Federal Aviation Administration (FAA) in April of 2009 reporting to the FAA training facility in Oklahoma City, Oklahoma. She graduated in July 2009 and reported to Lincoln ATCT (LNK). Ms. Benjamin left LNK in October of 2015 and reported to Centennial ATCT (APA) in November of 2015.

Ms. Benjamin maintained a current Class 2 medical certificate with no restrictions. She held a Private Pilot certificate that she received through Sky Safety in San Antonio, Texas at Stinson Airport. She did not maintain currency or exercise her private pilot privileges.

Ms. Benjamin's regular days off were Saturday and Sunday. Her normal shift was 2 evening shifts from 1415 to 2215 (or 1230 to 2030) followed by 2 day shifts from 0630 to 1430 (or 0530 to 1330), and a mid-watch from 2200 to 0600. She had recently worked an overtime (OT) mid-watch shift 2 days after the accident but did not mention any OT shifts prior to the day of the accident.

On the Sunday prior to the accident, Ms. Benjamin stated that she did not remember that specific day but that she typically wakes up early on Sunday mornings, works out and completes family activities. She does not remember anything unusual on that Sunday.

Ms. Benjamin stated that on the Monday prior to the accident that she woke up, went on a 3-hour run, engaged in family activities, prepared for work, and went to work. She worked until 2215, drove home and went to bed. She stated her commute typically takes just under an hour.

On the Tuesday prior to the accident, Ms. Benjamin stated that she woke up, completed family activities, went on a 2-hour bike ride, prepared for work, and went to work. She then worked until 2030, drove home and went to bed.

Ms. Benjamin awoke at 0430 on Wednesday 12, 2021, and reported to the facility for a 0630 to 1430 shift. After arriving at the facility, she reported that she dropped her food and drink items off at the refrigerator, dropped her backpack off in the NATCA office, and went upstairs to the tower. She stated that the computer and internet in the tower cab had recently been malfunctioning but that she is confident that she did all required pre-duty activities to include checking the Comprehensive Electronic Data Analysis and Reporting (CEDAR)⁵, completing her weather brief, and checking the IDS-4.

Ms. Benjamin stated that she came upstairs and took the LC1 position late. The LC3 position was combined at LC1. She was eating an early lunch and the OS/CIC, Austin Lenoir, had told her to finish eating her meal at the back of the tower cab. She took the position and about 5-10 aircraft were in line for departure for Runway 17 Left. She stated the LC2 position was also open, and she described the volume on LC2 as busy. She stated she knew this session was going to be busy.

She stated her goal for the session was to get the line of departures out safely and expeditiously while mixing in arrivals. She also stated a goal of working with the LC2 controller to work all the itinerant arrivals from the west and local pattern traffic. She stated it took 20-25 minutes to "whittle down" the line of departures that were there when she took the position.

Ms. Benjamin described the traffic as heavy and complex.

⁵ CEDAR provides air traffic management with an electronic means of assessing air traffic employee performance, managing resources, and capturing safety-related information and metrics. The tool will provide a standard interface for the collection, retrieval, and reporting of data from multiple sources. CEDAR will automate the creation, management, and storage of facility activities and events; briefing items; QARs; technical training discussions; and FAA forms— such as 3120-25, OJT Instruction/Evaluation Report, and 7210-4, Daily Record of Facility Operations.

Ms. Benjamin stated that there was a Piper Super Cub aircraft requesting closed traffic to Runway 10. She stated this operation requires a more time intensive scan to the east and south to give timely clearances due to the tight close-in pattern that the Super Cub had to fly for this operation. She stated that any time she is working LC1/L2/L3 combined and there is a request for a Runway 10 operation, she always requests that LC2 be split out because it adds complexity to the operation.

About 10 to 15 minutes before the accident, Ms. Benjamin stated that the CC controller asked her if she would like to split out LC3 since there were a couple of pending Runway 10 departures as well as the Super Cub in closed traffic. She stated that she shook her head no because she was not feeling overwhelmed, and that she finds departures easier to work. She also stated staffing was a factor in her decision, as they had taken a sick leave call-out that day and only had one person on break. She stated that opening another position would have meant that she would not get a break which she stated she was concerned about after working such a heavy, complex session. She also stated that the Runway 10 departures added additional complexity to the Runway 10 operation because she had to extend the Super Cub's pattern in closed traffic since they fly such close-in, tight patterns.

Ms. Benjamin stated that there was a big tower team concept with the goal to have as many sets of eyes in the tower as possible. She stated that she did not know that the CC controller was monitoring her frequency or that they had been tasked by the CIC to monitor the Runway 10 operation. She stated that the CC controller was an OS and that they were the controller that asked her if she wanted LC3 split out. She said the main duty of the CC position is to keep an eye on the big picture tasks. When asked if she thinks LC3 would have been better to have staffed as opposed to CC, Ms. Benjamin stated that the OS working the OS/CIC position that determines what positions are open was the least experienced controller in the facility and that she was not even sure if he was certified on LC. She stated that due to the tower configuration, opening LC3 would also have required CC to be open and that it is not a typical configuration and comes with its own challenges. She stated there was a staffing issue and that nobody would have been on break had LC3 been opened.

After being asked if she watches the LC2 position while working LC1, Ms. Benjamin stated that she does and that she also watches the GC position. She stated that she watches the GC position traffic to see what departures are coming. She stated that she watches the LC2 traffic level to determine if she needs to take an airplane to her runway or if she needs to deny pattern traffic. She stated that this is also a duty of the CC and CIC positions. On the day of the accident, Ms. Benjamin stated that the LC2 controller informed her to "keep pattern traffic coming." She stated that the LC2 position typically manages most of the itinerant arrivals so that the LC1 position can move more IFR arrivals/departures.

Ms. Benjamin stated that the LC1 position was called for all inbounds with the airplane reporting their location and request. She stated that the LC1 controller writes a VFR flight progress strip with the aircraft type, callsign and request. She stated that as the LC1 controller, she then decides whether to keep the aircraft or to hand them off to the LC2 controller. If she decides to hand them to the LC2 controller, she stated that she will ask the airplane to ident and then to contact the LC2 controller on their designated frequency. She stated that some controllers do not use the ident procedure but will instead use location and ADSB data. On the day of the accident, Ms. Benjamin stated that N416DJ called her on LC1 and reported their position as near Bear Creek. She stated she switched N416DJ to the LC2 controller.

When asked to describe the accident sequence Ms. Benjamin stated that LYM970 checked in while a medevac airplane was on short final. She stated that she had an EJA aircraft holding short of the runway ready for departure. She stated that LYM970 was doing 130 kts and that she asked them to stay at that speed so that she could get the EJA departure out prior to their arrival. After the medevac airplane exited the runway, Ms. Benjamin stated she then launched the EJA for departure on runway heading. At this point, she stated that she was scanning Runway 10 as the Super Cub had requested right closed traffic to Runway 10. She stated this is an unusual configuration as Runway 10 was typically left closed traffic. She stated that the right versus left closed traffic meant that her scan had to change and added complexity to the operation. Ms. Benjamin then stated that she issued what she considered to be the pertinent traffic to LYM970 which was a Cessna that was on final for the parallel runway. She stated she then cleared LYM970 to land and then shifted her attention to the Super Cub on Runway 10.

Ms. Benjamin stated that she did not see the SR22, N416DJ, on base when LYM970 was cleared to land. She stated that she was scanning the radar and runway and determining her next task. She stated she was also increasing her scan for the Super Cub doing pattern work on Runway 10 and the EJA that was departing Runway 17 Left as those operations can sometimes conflict. She stated that she remembered seeing a VFR target at highway I-25 and Belleview Road and assumed that if it were a typical aircraft, such as a Cessna, its speed and performance would make it not a factor for LYM970 because it would be behind LYM970. When asked whether the position of the target at I-25 and Belleview would put the aircraft on base or downwind, she stated it could have been on either base or downwind and that all she saw was a VFR target with an altitude, and that the tag did not include history or groundspeed information.

Ms. Benjamin stated that at the time of the collision, she was looking south at the Super Cub on Runway 10. She stated LYM970 then declared an emergency for a right engine failure. She stated she looked north at LYM970 expecting to see smoke or fire because they reported an engine failure. She stated she did not see smoke or fire but instead saw a parachute to the right of LYM970. She stated she was confused by this as the picture did not match the audio. She stated she saw the CIC entering info into the digital ARFF reporting system and assumed that they were doing so for her LYM970 emergency. She stated she then received reports from other pilots and the LC2 controller stated that he thought the parachute may be his aircraft. She stated she then cleared the Super Cub to land on Runway 10 since she wanted to get him on the ground while she managed the LYM970 emergency. She stated she shipped the EJA airplane to departure since even though there is an emergency, she had to continue working. She stated that LYM970 then landed with a large hole in the side of the airplane.

She stated she did not hear any discussion from anyone after the accident regarding the speed of the SR22.

When Ms. Benjamin was asked if she had been involved with any of APA's Corrective Action Plans (CAP)⁶ regarding traffic calls, she stated that she had been briefed on them. She also stated that she does not think she has had any Performance Records of Conversation (PROCs) in the last 6 months with her current OS, Liam Clarke, because the facility is so busy that they do not have time. She stated she could not think of one time. She stated she may have had one or two PROCs when William "Brady" Flowers was her OS in 2020. Regarding team briefings/SAFE discussions/LSC briefings about the closely spaced parallels/traffic alerts, Ms. Benjamin stated that she did not remember if she had had any of those briefings.

Ms. Benjamin stated that APA does not have its own STARS position symbol or the ability to tag up aircraft. She stated that APA is not a Class C and does not have any codes to issue. She stated that they can sometimes use ADSB/Fusion data to show aircraft callsign but otherwise, they do not issue squawk codes to aircraft and that there is not anything about this topic in the SOP.

When Ms. Benjamin was asked if there was any point where she thought the SR22 may be a factor for LYM970, she stated that she did not even know it was an SR22. She stated that based on the typical performance and type of aircraft they see in that operation, she expected the airplane to have fallen behind LYM970 and did not deem the airplane as pertinent traffic for LYM970.

⁶ Collaborative activities enacted to correct non-compliance and areas of risk that have been properly identified, validated, and understood through data collection and analysis.

Ms. Benjamin stated that they always issue traffic to closed pattern aircraft for departures from the parallel as they often conflict. She stated that the LC1 and LC2 controllers will often yell out if they have a large departure or arrival due to wake turbulence considerations.

Regarding CAs, Ms. Benjamin stated that they do the best they can with them. She stated that they almost always issue traffic before the CA activates. She stated that when she heard the CA for LYM970 and N416DJ that she assumed it was for the Cessna traffic that she had already issued but that she did not really recall looking at it. She stated that if they have already issued traffic and a CA activates, that they typically are not as concerned about it. She stated that CAs happen all the time since they have such close finals. She stated that she had already issued traffic to LYM970.

When asked if she knew the difference between a traffic alert and a safety alert, Ms. Benjamin stated that a traffic alert is just an advisory with a control instruction. She stated that for a safety alert, she would issue a control instruction for evasive action since there is a potential that the aircraft may come together. She stated they do not typically issue safety alerts on their parallel finals. She stated she could not recall issuing a safety alert for an overshoot situation because the "expectation is that the airplane is going to turn on the correct final and not overshoot; especially if they had reported the other airplane in sight."

Ms. Benjamin stated that she cannot remember ever working a wrong surface landing (WSL) at LNK or at APA. When asked if she had ever worked an aircraft that had made a mistake, she stated that "our job is to make sure they are complying with our control instructions." She stated that since APA is a busy airport, especially compared to LNK, it is a "numbers game" and that APA has more emergencies and close calls because they have more operations. She stated she had not worked a lot of close calls or emergencies but did mention that in a north flow, they do occasionally ask aircraft to verify that they were lined up for the correct runway as it is harder to see aircraft on final.

She stated that she considers the volume of traffic at APA to be the biggest problem. She stated that she would combat that problem by having more controllers so that they could open more positions and spread the workload better. She stated that the tower team concept is a great concept to mitigate heavy traffic with "the more eyes in the tower, the better." She stated that she thinks they do an excellent job when they have the resources they need.

Ms. Benjamin was asked if hindsight were 20/20, what she would change if she could do this session over. She stated that no one died and that she “built the chain of survival” so she would not change anything. She said that even if she had been staring at LYM970 with nothing else to do, she would not have been able to do anything to stop the accident. She stated that she never saw the SR22, their speed or how tight of a base they were turning.

Interview concluded at 1515 mountain daylight time.

Interviewee: Liam Clarke
Representative: Mark Tomicich
Date / Time: May 19, 2021 / 0855 Mountain Daylight Time (MDT)
Location: Centennial Air Traffic Control Tower (APA ATCT)
Present: Tim Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview Liam Clarke stated the following:

Liam Clarke entered on duty with the FAA in December 2011, reporting to the FAA training facility in Oklahoma City Oklahoma. He graduated in January 2012, then reported to Denver Centennial ATCT (APA). Mr. Clarke left APA in May 2017, then reported to Denver Terminal Radar Approach Control (D01). He left D01 in January 2019, then reported to APA as an Operations Supervisor (OS).

Mr. Clarke maintained a current Class 2 medical certificate with no restrictions. He did not hold any other aeronautical licenses.

Mr. Clarke's regular days off were Friday and Saturday. His normal shifts were Sunday 1200 to 2000, Monday 1100 to 1900, Tuesday 0830 to 1630, Wednesday 0630 to 1430, and Thursday 0630 to 1430.

Mr. Clarke said that on Sunday he awoke at 0700, ate breakfast, engaged in family activities, and then went to work. He described Sunday as a typical shift. He stated he then went home, had dinner, watched TV, then went to bed at 2300. He reported he awoke on Monday at 0700 and engaged in the same activities as the day before prior to going to work from 1030 to 1830. Upon leaving work, Mr. Clarke engaged in family activities, watched TV, and then went to bed at 2300. On Tuesday, Mr. Clarke stated he awoke at 0630, had coffee and breakfast, then went to work. After work Mr. Clarke, engaged in family activities before going to bed at 2230. On Wednesday Mr. Clarke awoke at 0530, before going to work.

Mr. Clarke described his typical 12-mile commute as lasting about 20 minutes. Mr. Clarke's work routine consisted of going into his office upon arrival, checking his email, CEDAR, weather briefing, and then going to the tower to either staff one of the desk positions, or to assume an operational position for proficiency.

On Wednesday Mr. Clarke reported nothing unusual except light staffing. He reported making calls to solicit overtime. He described having only one available employee for overtime, who did not answer. A message was left for that individual. Later in the day on a smoke break, Mr. Clarke sent the eligible individual a text message regarding overtime. Another OS secured two holdover overtime assignments for 2 hours prior to the scheduled shift for one CPC and one ground-qualified developmental.

Mr. Clarke reported the weather as VFR. He described no unusual conditions, light wind, unrestricted visibility, and did not recall any clouds. He described the traffic as three to five aircraft in the Local Control 2 (LC2) pattern. Since LC2 was stand-alone, Mr. Clarke described the workload as light to moderate. He stated traffic increased to 6 to 8 aircraft in the LC2 traffic pattern but did not get more than eight aircraft.

Mr. Clarke stated Ground Control (GC) was aware of LC2 becoming busy and began to solicit alternate requests from departing aircraft. He received a flight strip from the Local Control 1 (LC1) controller that had a request of touch and go/depart to the east, which signaled to him that LC1 knew he was getting busy. Mr. Clarke described the "east" request on the flight strip as an alternate request so that aircraft can depart the area if not allowed to do pattern work at APA. Mr. Clarke stated that particular aircraft was allowed to stay in the LC2 pattern.

Mr. Clarke then received additional itinerant traffic from LC1. He stated that most LC2 pattern traffic comes from the west or northwest. He stated itinerant traffic calls LC1 first, then LC1 decides where the aircraft go based on traffic volume and complexity. He stated pattern work typically goes to the LC2 controller. He stated aircraft inbound from the east or southeast typically are worked by LC1 prior to being worked into the local to traffic pattern.

Mr. Clarke received the N416DJ strip from LC1, then referenced TDW for the position of the airplane. He stated he then formulated a plan for pattern entry and issued instructions for N416DJ to enter a midfield right downwind for runway 17 Right. N416DJ was instructed to remain west of I-25. Mr. Clarke described this as a common practice for sequencing. He did not recall LC1 pointing to the TDW in reference to N416DJ but did recall a discussion of the airplane's position with LC1. Mr. Clarke used the ADSB information available via the TDW to confirm N416DJ identity.

Mr. Clarke stated that N416DJ joined downwind west of the interstate as instructed. Upon joining the downwind Mr. Clarke sought to determine the sequence for N416DJ. He determined N416DJ should follow the Cessna in the downwind ahead of him and east of the interstate. Mr. Clarke issued traffic to N416DJ for the Cessna. N416DJ responded that he was looking for the traffic. Mr. Clarke then instructed N416DJ to fly north towards the west shore of the Cherry Creek Reservoir. He described this as a standard practice due to the geography of the interstate and to prevent encroachment upon the inner downwind and final approach course.

Once the Cessna was in a wing up position turning a right base, Mr. Clarke made a second traffic call to N416DJ. N416DJ reported the Cessna to follow in sight. Mr. Clarke instructed N416DJ to follow the Cessna traffic. After the correct read back, Mr. Clarke issued traffic for an Metroliner straight-in for the parallel runway. N416DJ reported this traffic in sight. Mr. Clarke stated this additional traffic call was necessary for situational awareness of the pilot due to the proximity of the parallel runways. He reported no doubts that the N416DJ had the Metroliner in sight. Mr. Clarke stated he made the traffic calls in separate transmissions to avoid ambiguity. He stated that once N416DJ was cleared to land runway 17 Right that his interaction with that portion of the flight was done. He stated that N416DJ had preceding traffic in sight, parallel traffic insight, and was cleared to land on runway 17 Right.

Mr. Clarke stated he then turned his attention to traffic exiting runway 17 Right. He instructed this airplane to taxi via taxiway Bravo and hold short of runway 17 Left at Bravo 8. The aircraft gave an incorrect read back, so Mr. Clarke restated the taxi instructions including the hold short instructions. Upon correct read back, Mr. Clarke marked the flight progress strip with a red "8" to indicate said correct read back. He then stated a Cessna made a transmission, but he did not immediately recognize this airplane. Mr. Clarke then remembered this Cessna had already received taxi instructions and told that Cessna to contact GC.

Mr. Clarke then stated his scan turned toward the Cessna on final approach. It was at this time Mr. Clarke then noticed it appeared N416DJ was going through his assigned final. Mr. Clarke then transmitted to N416DJ "do not overshoot final." As he was making this transmission, he observed a parachute deploy in the vicinity of N416DJ. Mr. Clarke then continued his transmission asking if the aircraft needed any assistance. He stated that he saw the Metroliner but did not think the two aircraft had collided. He stated it appeared that the N416DJ was passing behind the Metroliner. Mr. Clarke stated the N416DJ appeared to be in a "severe right turn" behind the Metroliner. He stated he thought the deployed parachute indicated that N416DJ had stalled. Mr. Clarke could not recall the attitude of the aircraft as the parachute deployed, but thought the aircraft was slightly left wing up facing south-southeast.

Mr. Clarke reported seeing a flash of a metallic object coming off N416DJ traveling west. He thought this object might be the parachute top popping off. As N416DJ descended with the parachute deployed, Mr. Clarke told the OS that there was an Alert 3. Mr. Clarke again asked if N416DJ required assistance. After the Alert 3 was activated, Mr. Clarke transmitted that emergency vehicles were headed towards N416DJ. There was an additional Cessna following N416DJ in the pattern for runway 17 Right. Mr. Clarke instructed this aircraft not to overshoot the final, as he believed N416DJ was east of the runway 17 Right final approach course and did not want the Cessna to overshoot in that direction.

Mr. Clarke stated that he did not know LYM970 had declared an emergency. Mr. Clarke then coordinated with the Cessna on final about the location of N416DJ to aid in rescue efforts. He stated that the alert system did not provide the location information for off airport property and must be relayed to emergency vehicles. Mr. Clarke then stated he saw emergency vehicles headed in the direction of N416DJ.

Mr. Clarke stated he first became aware of a mid-air collision when LYM970 landed. He recalled seeing yellow cargo netting coming out of the left side of the Metroliner. Mr. Clarke hypothesized that the parachute deploying from N416DJ had hit LYM970 on that side, as he did not see damage to the top of the aircraft. Mr. Clarke recalled being confused as to how the Metroliner was damaged on the left.

Mr. Clark then reported formulating a plan on what to do with the remaining pattern traffic. He concluded that remaining aircraft would be full-stop only as runway 17 Left was likely to close, and there would be a need to sequence IFR straight-in arrivals with the remaining pattern aircraft.

Mr. Clarke stated that he did not recall any tower discussion about the speed of N416DJ. He stated that he saw the airplane's speed on initial check-in, and once again on the downwind. Mr. Clarke stated that N416DJ speed was not unusual and not concerning. Mr. Clarke stated that he tries to pay attention to the other local controller's traffic and that there is plenty of verbal coordination between the two positions. Mr. Clarke stated he was unsure if he would have called traffic to LYM970 on N416DJ if working LC1. He also stated that he tries to call all pertinent traffic. Mr. Clarke thought LYM970 was pertinent traffic for N416DJ, so that was why he called that traffic. He also stated that he called the traffic because of the proximity of the two parallel finals, and that the two aircraft would be in a similar area when N416DJ turned final. Mr. Clarke stated that LC1 does not know what LC2's sequence is. He stated that LC1 will reference LC2's strip bay to assess aircraft types and to assist in issuing pertinent traffic.

Mr. Clarke stated that there is no visual reference point to determine if an aircraft is established on the correct final, and instead stated that can only be determined through experience. Mr. Clarke stated that the issue of determining if aircraft are on the correct final was discussed during training. He stated that he was unsure if there was enough time to react to N416DJ flying through his assigned final.

Mr. Clarke stated that in response to a collision alert alarm he always references the TDW to see where the conflicting aircraft are, and then correlates those aircraft to their position out the window to determine the best course of action. In the case of N416DJ and LYM970, Mr. Clarke determined that since N416DJ was cleared to land, was on base for runway 17 Right, and that he had previously called traffic, that an additional traffic call was unnecessary. He stated that that it was "probable" he would have issued a traffic call if he was working the LC1 position. Mr. Clarke also stated that upon first glance he thought N416DJ would turn base behind LYM970. Mr. Clarke stated that it is atypical to issue additional traffic after a collision alert if aircraft already have the traffic in sight. He stated he would reiterate the traffic if not previously reported insight.

Mr. Clarke stated that he did not look out the window after the collision alert alarmed between N416DJ and LYM970. He stated that he will typically look at the TDW to evaluate a collision alert. He stated he will then look out the window to further evaluate the situation, if necessary. Mr. Clarke stated that there are numerous erroneous collision alerts at APA. In the situation involving N416DJ and LYM970, Mr. Clarke stated he looked at the TDW, but does not recall looking out the window. Mr. Clarke stated he would not characterize collision alerts as "white noise." However, he did state that low altitude alerts get more attention than collision alerts.

As an OS, Mr. Clarke stated that there were times when the collision alert goes off and he will query the controller as to whether traffic had been issued. Mr. Clarke stated that traffic alerts and advisories had been an emphasis item at APA. Mr. Clarke stated that safety alerts were not commonly issued at APA. He stated that operational supervisors would ask controllers to issue traffic advisories more frequently than safety alerts. Mr. Clarke was reasonably sure he had held performance conversations with employees in the preceding 6 months in reference to traffic advisories and alerts. He stated his opinion that a traffic or safety alert was not warranted for N416DJ but was warranted for LYM970.

Mr. Clarke stated that there is no expectation for aircraft to go through final. However, he also stated that he has worked aircraft that make mistakes, but that ATC cannot prevent aircraft from making mistakes. Mr. Clarke stated that ATC should determine the best course of corrective action after mistakes. He stated that aircraft flying through their assigned final was not a common occurrence at APA. Mr. Clarke stated that the proximity of the parallel runways was an issue. He also stated that the proximity did not increase the chance of pilot mistakes but decreases the time for controllers to take corrective action in response to those mistakes.

Mr. Clarke stated that in the past APA had requested a bank of discrete beacon codes from D01 TRACON, but that request was denied for reasons unknown to him. Mr. Clarke stated that the ability to constantly display aircraft speed and altitude was available but resulted in a cluttered TDW for local controllers.

Mr. Clarke stated that he had not had a performance discussion with Jennifer Benjamin (LC1). He requested to be recused from said performance discussion, as he was working LC2 at the time of the event. That request was granted by the air traffic manager. However, Mr. Clarke stated that he was aware of an imminent performance discussion by an unknown OS with Ms. Benjamin.

Mr. Clarke stated his opinion that previous corrective action plans regarding traffic calls had improved the performance of the facility in this regard. He stated that in the past, APA had lacked specific and accurate traffic calls, but since the emphasis placed upon traffic calls and safety alerts, the traffic calls have been much more accurate, numerous, and specific.

Interview concluded at 1027 MDT.

Interviewee: William Flowers
Representative: Mark Tomicich
Date/ Time: May 19, 2021 / 1219 mountain daylight time
Location: Centennial ATCT (APA), Centennial, CO
Present: Timothy Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview William Flowers stated the following:

William Flowers entered onto duty with the Federal Aviation Administration (FAA) in August of 2015 reporting direct to the FAA Air Traffic Control facility in Colorado Springs (COS), Colorado. In March of 2019, Mr. Flowers left COS and reported to Centennial ATCT (APA) as an Operational Supervisor (OS).

Mr. Flowers maintained a current Class 2 medical certificate with no restrictions and did not hold any other aeronautical licenses. He had prior air traffic control experience in the United States Marine Corps serving from May 2006 until June of 2015 at Marine Corps Air Station (MCAS) Futenma, Japan; Kadena Air Force Base Japan; MCAS Beaufort SC; and MCAS Miramar.

Mr. Flowers' regular days off were Thursday and Friday. His normal shift was Saturday from 1200 to 2000, Sunday from 0700 to 1500, Monday from 0700 to 1500, Tuesday from 0700 to 1500, and Wednesday from 0700 to 1500 but could flex from 0530 to 1330.

On the Sunday prior to the accident, Mr. Flowers stated he awoke about 0530 and prepared for work. He said it was a 20-minute drive into work and he would arrive to report at 0700. After getting off work at 1500, he would go home and prepare dinner for his family and have family activities until going to sleep at about 2130. Mr. Flowers stated that on the following Monday and Tuesday he had the same routine.

On the day of the accident Mr. Flowers awoke at about 0530 and reported to the facility for a 0700 to 1500 shift. After arriving at the facility, he reported that he checked email, checked weather, checked CEDAR, spoke with the ATM, and then went upstairs to the tower at about 1000. He reported the weather was beautiful and VFR with light winds. Because the LC2 controller had been on for an hour, he asked the controller if they wanted a relief; he said no. He told the OS he would take Cab Coordinator (CC) and then asked the LC1 if she wanted the LC3 position de-combined. She indicated no that she could manage the increasing traffic. Working the LC3 position would have permitted one runway and allow the LC1 controller to concentrate on the runway 17 Left final. Mr. Flowers reported the complexity was high because of pattern work that was occurring and the arrival strips that were beginning to stack up for an arrival push. He said the departures were also beginning to stack up but that was not necessarily adding to the complexity.

Mr. Flowers reported he was listening to the LC1 position with runway 17 Left arrivals and a Piper Cub in a left closed pattern on runway 10. A short time later the Cub requested right closed traffic on runway 10 and the LC1 approved the request. Mr. Flowers reported he would scan the runway 17 Left final, watch GC, and watch any takeoff clearances.

Mr. Flowers said that he observed LYM970 check in with the LC1 controller. He observed the LC1 controller place an ExecJet into line up and wait on runway 17 Left and had approved the Cob for right traffic on runway 10. He observed the ExecJet rotating at about midfield and the Cub completed one touch and go. He looked at the final for runway 17 Left and that is when he heard the LC2 controller instruct an aircraft to not overshoot the final approach course and observed a parachute begin to deploy. He saw the OS proceed to the Alert system to activate the alert 3 and Mr. Flowers picked up the handheld radio to simultaneously notify the airport operations personnel. He said that about halfway through the notification he observed LYM970 roll out on runway 17 Left with a large chunk missing from the aircraft. He informed airport operations that LYM970 was exiting the runway and that there was a midair on the finals for runway 17. Mr. Flowers said that since he was coordinating the Cirrus emergency, he did not hear the LYM970 pilot declare an emergency.

Mr. Flowers said that he was not listening to the LC2 controller and did not observe any speeds on the TDW of the Cirrus.

Mr. Flowers did not hear if the LC1 controller had issued any traffic to the LYM970 pilot on the Cirrus. He did recall that the LC1 controller had issued Cessna traffic lined up for runway 17 Right to LYM970. Mr. Flowers did not look at the TDW when the CA activated, the last time he had observed the Cirrus traffic was when the airplane was on downwind west of interstate 25 flying to the west shore of Cherry Creek prior to turning a base leg. He had heard the CA activate during the accident. Mr. Flowers added that he was not aware of the speed of the Cirrus.

Mr. Flowers said the conflict alert activated quite frequently and said it had a lot to do with the proximity of the final approach courses for the parallel runways. Mr. Flowers said that the controllers at APA would evaluate the CA every time it activated; "100% of the time". He said that it was "erroneous about 50% of the time".

When asked about the CA between the Cirrus and LYM970, Mr. Flowers said that it was active between the two airplanes. He said that traffic was not issued and that he had not seen the exact location of the Cirrus when the CA activated however it was in the downwind prior to turning base leg. He said that during the replay he observed the Cirrus flying at 160 knots. He said that he had not evaluated the CA between the Cirrus and LYM970 because he had been focused on the runway 10 operations and the ExecJet departure.

Mr. Flowers was asked how he was able to determine if an aircraft was on the appropriate final approach course and if there was a visual cue to assist. He said that controllers would learn through experience of watching the traffic out the windows.

Mr. Flowers was asked whether he would like to have LC3 split off or have the CC open. He said that the CC would provide an "extra set of eyes in the cab" and that it was a "powerful thing." He said that he worked the CC position like a supervisor position assisting the LC1 controller. As the CC, Mr. Flowers was more focused on the runway 10 Cub traffic and the ExecJet traffic.

Mr. Flowers said that if he had the opportunity to evaluate a CA, he would have looked for the location of the CA on the TDW and evaluate whether he would call traffic. He reported that the Cessna that had been called to the LYM970 pilot was more pertinent at the time when the traffic was called. He said there was no suppression of CA's in the tower. After the CA had activated, Mr. Flowers said that no one had re-evaluated the CA or the situation between the Cirrus and LYM970. He said that controllers always re-evaluated the CA but that it had not been done in this case because they believed the previously called Cessna traffic was the cause.

Mr. Flowers said that he recalled issuing PROC's and that they included calling traffic and CA's.

Mr. Flowers said that as local controller they were supposed to be familiar with aircraft performance and they have an expectation of how the aircraft will fly the pattern. He said that one way to have prevented this type of accident was to "shoot the gap" meaning turning the runway 17 Left traffic in between traffic landing on runway 17 Right. He said that he would also call traffic to all aircraft that was potentially a conflict.

Mr. Flowers said that when the TDW was displaying full data blocks it would cover the TDW when the pattern was full. He said that speeds would only be displayed when the VFR beacon code was quick looked. He said he was completely against mandating having the full data blocks displayed all the time because the TDW would be too cluttered. He said that he did not like the finals at APA because they were too close.

Mr. Flowers had been appointed as the Chair of the Local Safety Council (LSC) although he had not participated in any meetings. He indicated the closely spaced parallels would always be a topic for the LSC.

Mr. Flowers said that he had participated the SRT preparation and was there when it was conducted. He said that during the information gathering, The LC1 controller indicated that she had not called traffic because in her judgement it was not pertinent.

Mr. Flowers said the close parallel runway configuration was "inherently risky, but mitigatable (sic)."

Interview concluded at 1321 mountain daylight time.

Interviewee: Melissa Booth
Representative: Mark Tomicich

Date / Time: May 19, 2021 / 1412 mountain daylight time (MDT)
Location: Centennial Air Traffic Control Tower (APA ATCT)
Present: Tim Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview Melissa Booth stated the following:

Melissa Booth entered onto duty with the Federal Aviation Administration (FAA) in April 1994 reporting to the Memphis Air Route Traffic Control Center (ZME ARTCC) as an Air Traffic Control Specialist (ATCS). Ms. Booth left ZME in December 1998 and reported to Washington ARTCC (ZDC) as an Operations Supervisor (OS). She left ZDC in August 2007 and reported to Denver ARTCC (ZDV) as an OS, eventually changing position to Operations Manager (OM) and later Support Manager (SM). She left ZDV in November 2020 and reported to Centennial ATCT as an Air Traffic Manager (ATM).

Ms. Booth did not maintain a medical certificate nor was she required to. She did not hold any other aeronautical licenses.

Ms. Booth as an ATM did not hold any ratings nor was she required to. Her regular days off were Saturday and Sunday. Her normal shifts were 0700 to 1530 Monday through Friday.

Ms. Booth first became aware of the accident by receiving a phone call from the OS at about 1020. It was immediately following the weekly AJT teleconference with Jeffery Vincent. The information that was reported to Ms. Booth was "we just had an incident; a Cirrus popped his chute on final. We do not know if it was a midair." Ms. Booth started to go to the tower cab but returned to her office to notify district management via text message of a possible midair collision since she could not use her cellular telephone in the tower cab. Mike immediately called Ms. Booth, but she did not have any additional information to relay.

Ms. Booth then went to the tower cab, on her way to the tower cab she saw the controllers who were working LC1 and LC2 and spoke to them briefly. By the time Ms. Booth reached the tower cab LYM970 was already at the Signature Ramp with emergency equipment and other personnel around it. It was a mid-air collision. Ms. Booth observed and gathered information, left the tower cab, and called Mike to confirm that a mid-air collision had occurred. After speaking with district management, Ms. Booth contacted the Quality Control Group to start the Services Rendered Telcon (SRT).

Ms. Booth "divvied" up different parts of the SRT check list. At 1330 the district held a pre-SRT teleconference. Between 1440 and 1445 the SRT was conducted. After the SRT a teleconference was held to determine post-accident drug testing. It was determined that post-accident drug testing would occur. Ms. Booth spoke with the Drug Program Coordinator (DPC) to determine if testers would arrive prior to the controller reaching ten (10) hours. It was determined that testers would not be onsite until the next morning. Ms. Booth then contacted the district and the ETR to determine if she needed to have the controllers sign any paperwork stating that they would not drink alcohol until they were tested. The ETR advised Ms. Booth that she could verbally inform them not to consume alcohol.

Ms. Booth reported two concerns arose from the SRT. First, the lack of a traffic call by LC1 to the Metroliner reference the Cirrus. Second, after the Metroliner landed LC1 departed a flight of three helicopters from runway 17 Left.

Ms. Booth's initial review of the FALCON⁷ replay, nothing of significance stood out. When specifically asked about the conflict alert activating, she noted that yes, it activated, and no safety alert was given. Ms. Booth was asked about the length of time that the alert was active. She again noted that after several conversation with people that it was active for thirty-two (32) seconds.

Regarding no traffic call being made to the Metroliner post event, Ms. Booth stated the reason for the lack of a traffic call was a concern. This was pointed out during the pre-SRT. Ms. Booth at the same time expressed that "it could be said" that the Cirrus was not pertinent traffic to the Metroliner; however, hindsight being 20/20, with the traffic call the Metroliner might have seen the Cirrus.

A System Service Review (SSR)⁸ was completed post event on Friday, May 14, 2021. SSR team members included Ms. Booth, Mr. Ron Curry, Mr. Nathan Meyers, Mr. Austin Lenoir, and Mr. Troy Hemple. The process used to complete the SSR included the team reviewing the SSR check list in CEDAR. The team based on their knowledge of the event, the previous interviews with the controllers and Mr. Austin's first-hand knowledge of the event completed the check list.

⁷ A tool used to replay and review radar sessions.

⁸ An SSR is used to review the air traffic services provided in any situation at any time under any circumstances. The absence of a defined list of instances when an SSR must be conducted allows a service delivery point the latitude to use judgment and discretion in the determination of when to perform an SSR. SSRs may be specifically focused and limited in scope or may eventually evolve into a larger more in-depth review.

Ms. Booth stated after the completion of the SSR the following mitigations were identified. A Corrective Action Plan will be implemented concerning traffic calls and safety alerts. A traffic scenario will be added to the TSS. A Collaborative Work Group (CWG) will be developed to possibly manage the base leg turn to closely spaced parallel runways and limiting the number of aircraft in the traffic pattern for runway 17 Right. The CWG does not have a written scoping document, while it was not specifically discussed in the SSR, and the Local Safety Council (LSC) was not asked to be involved they may be a part of the CWG.

Ms. Booth explained that two previous CAPs were recently closed, one in February of 2021 and another in March of 2021. She was not aware of either CAP being traffic call or safety alert related. Her involvement concerned Operational Skills Assessment (OSA) and their completion.

Ms. Booth explained her expectations regarding traffic calls as there is a lot of traffic at Centennial. "I never worked in a VFR tower, you can't call traffic on every single airplane, you would be calling traffic all the time, it's a judgement call." But with two events where traffic should have been called more work needs to be done. There needs to be a more effective way to address it.

Ms. Booth also explained her expectations regarding safety alerts as, to issue safety alerts when the proximity warrants it.

Interview concluded at 1505 MDT.

Interviewee: Brian Johnson
Representative: Mark Tomicich

Date / Time: June 16, 2021 / 0730 pacific daylight time (PDT)
Location: Video Interview Via Zoom for Government
Present: Tim Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview Mr. Brian Johnson said the following:

Mr. Brian Johnson began with the FAA in October 1988 and reported to the FAA's training facility in Oklahoma City, Oklahoma. After graduating in January 1989, he reported to Theodore Francis Green State Airport TRACON (PVD), Providence, Rhode Island. In October 1991, he transferred to Salt Lake TRACON (S56), Salt Lake City, Utah, and in October 2010, he transferred Portland TRACON (P80), Portland Oregon. In July 2013 he transferred to the western service area quality assurance for duty. His prior military experience was with the Utah Air National Guard from May 1986 until October 1988 where he was an air traffic controller at Hill AFB. Mr. Johnson did not hold a current medical and was not required to for his duties.

Mr. Johnson reported he was a quality assurance specialist assigned to validate the airborne events in the Denver and Salt Lake City District. He said he was responsible for working airports in those metropolitan airports and several outside of the area. He reported that APA was one of the airports he was responsible for. Mr. Johnson said that he was a certified validator and that it was a requirement to be signed off following training.

APA was one of the bigger workloads Mr. Johnson was responsible for. He reported that it was not the biggest but certainly took a lot of his time. He stated that the biggest APA concern was centered around arrival pairings to the parallel runways, and departure pairings from the parallel runways. He reported that when the Traffic Analysis and Review Program (TARP)⁹ was active, the system reported multiple events where the separation between two airplanes decreased below 1,000 feet and three miles and he would look at the events to determine if an actual loss of separation incurred or if there was another form of separation being applied. The new system the FAA has migrated to was called Aviation Risk Identification and Assessment (ARIA)¹⁰. Mr. Johnson advised that ARIA was much different than TARP and that the tool just began looking at IFR vs VFR operations on the 7th of June. He said the ARIA alerts have gone down because the system considers trajectories and speed much like TCAS. Mr. Johnson said that both the TARP system and the ARIA system at APA was triggered most often by the closely spaced parallel runways.

Mr. Johnson stated that when he was made aware of an electronic report from ARIA, he would look at the replay of the event to determine compliance with directives. He did not always pull the associated communications with the event since he had become familiar with airports and how they operated. He said that the decision to look at an event was based on experience as an air traffic controller and experience as a validator working with the airport.

⁹ TARP is an automated system to detect losses of separation at air traffic terminal facilities.

¹⁰ ARIA is a computer system that automatically analyzes radar and other surveillance data. ARIA utilizes algorithms that examine the geometry between aircraft and incorporates factors such as speed, altitude, and trajectory. ARIA identifies air traffic operations that represent potential safety risks, even if operations are technically deemed compliant.

Mr. Johnson stated the biggest risk at APA was the pairings of arrivals and pairings of the departures off the parallel runways. He said that ARIA reports have gone down since becoming active. He said that with ARIA they were looking at more TCAS events rather than the runway arrival or departure pairings to the parallel runways. When validating reports, Mr. Johnson stated that if the controller actions were compliant, the validator would close out the report. Non-compliant reports document the severity, and the reports are forwarded to management and to the Quality Control (QC) Group. Mr. Johnson has stated that he has raised APA concerns to management and QC in the past. Mr. Johnson stated the events that he has elevated are supported by data and that he would be happy to provide that data.

Mr. Johnson stated that the Quality Assurance (QA) department develops trends for airports and provide the trend data to QC and management as well. He stated that validators stay in their assigned districts for extended periods to develop the corporate knowledge necessary to develop trends and patterns. He said that from his experience validating APA, he has noted that the traffic volume is exceptionally high and that it was one of the busiest control towers he had seen. He said that one of the trends he had identified at APA was the misapplication of visual separation and that the controllers at APA were non-compliant and misunderstood the rules. He cited a recent event with a 3-way loss of separation with several airplanes. He added there was also data to support a trend of APA controllers not keeping pilots aware of other airplanes and opposing finals much like the accident scenario.

Mr. Johnson said that he had written a report identifying the lack of traffic calls and safety alerts at APA and on March 13, 2020, sent it to Ruth Turrel who was the senior advisor for the WSA Director of Operations Jeff Stewart. He said that he had not received a response or feedback on the risks he had identified. He acknowledged that the traffic advisories at APA from controllers had improved and that it was a "stark difference" to three years ago. He felt as if the report he submitted just sat in the "ether."

Mr. Johnson stated that it has always been the objective of QA to identify risk. He said the first barrier to safety has always been the 7110.65. He said that the QA process does not have a clearly defined path to address risk. The QA validators identify trends and forward those risks up but that there is no routine follow up as to what actions are taken to address the risk. He added that he has a lot of data to support the risks he has identified at APA and that he would be happy to provide that data to the NTSB.

Interview concluded at 1025 PDT.

Interviewee: Brian Schimpf
Representative: Mark Tomicich

Date / Time: June 16, 2021 / 1200 pacific daylight time (PDT)

Location: Video Interview Via Zoom for Government
Present: Tim Morgan, Dan Carrico, Kristen McTee
Investigator: Charles Olvis

During the interview Mr. Brian Schimpf said the following:

Mr. Schimpf began working for the FAA as a direct hire reporting to the FAA training facility in November 1982. He graduated in January 1983 and reported to Seattle ARTCC (ZSE), Seattle Washington. In May 1985, he transferred to Seattle-Tacoma International Airport ATCT (SEA), Seattle, Washington. In February 1987, he transferred to Olympia Regional Airport ATCT (OLM), Olympia, Washington in February 1988, Mr. Schimpf reported to Renton Municipal Airport ATCT (RNT), Renton, Washington. In April 1990, he transferred to Boeing Field/King County International Airport ATCT (BFI), Seattle, Washington. In July 1993, Mr. Schimpf returned to SEA and in January 2007 left to work in WSA safety assurance. In January 2009, Mr. Schimpf left and began serving as the senior advisor to the regional administrator. He also served as the manager of the ROC for the western service area. In July 2015, he became the WSA QA team manager.

Mr. Schimpf stated that the validator assigned to monitor APA was Brian Johnson. He said that Mr. Johnson was picking up events that were high risk and getting too close at APA. Mr. Schimpf felt that Mr. Johnson looked at the APA operation from a TRACON perspective and that when it involved the control tower, he would run the information through Mr. Schimpf who was certified control tower operator. Mr. Schimpf felt that Mr. Johnson had a very high standard for controller professionalism and that APA was misapplying the rules. He said that Mr. Johnson started seeing the traffic volume increase and that it was considered a high risk.

Mr. Schimpf stated that APA was class Delta airspace. He added that fundamentally, ATC provided service to pilots to keep airplanes from colliding. He said that ATC has a responsibility to prevent collisions and that Class D airspace does not preclude controllers from separating airplanes. He said controllers must manage traffic, however, it is in the culture in ATC that the only separation within class D airspace occurs at the runway and not before. He concluded that it comes down to what the controller's responsibility is for working separation. He added there was no non-compliance to FAA directives in this accident.

Mr. Johnson said that some of the issues at APA included the operations on runway 10/28 and that APA operated it like an independent operation and that the "policy makers" considered the risk as tolerable. Mr. Schimpf said that he did look at the events that supported Mr. Johnson's report on concerns at APA. He said that it was the mission of the QA office to identify the risk and get it to the policy makers for action.

Mr. Schimpf said that he had seen Jeff Stewart speaking with Mr. Johnson about APA and that he had seen an improvement in APA operations as of late. He added that it was his responsibility to "QA the QA" and that he is responsible for the products that come from his validators. He said that he was familiar with the MOR at APA and that it was factual in nature and not supposed to identify non-compliance. Mr. Schimpf said that overshoots occur all the time at APA and that he had data to support that notion.

Mr. Schimpf said that they asked to speak to the NTSB regarding this accident because they felt like they needed to be a part of the investigative process and speak to the subject matter experts. Mr. Schimpf said that Mr. Johnson had been interviewed previously regarding the EVA015 incident and that he felt like it was what he was supposed to do. After the APA accident, Mr. Johnson asked to speak to the NTSB. AJI-1, Mr. Anthony Schneider had agreed to facilitate the conversation, however, later Mr. Mike Meigs had informed Mr. Schimpf that it would not occur, and that Mr. Johnson had nothing more to offer.

Mr. Schimpf said that had APA been a Class C airspace this accident would not have occurred. He said the idea of a Class C airspace had been mentioned previously but he was not aware of any work done by policy makers to effect the change.

Interview concluded at 1316 PDT.