



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

February 9, 2016

Group Chairman's Factual Report

AIR TRAFFIC CONTROL

DCA16LA032

A. AIRCRAFT INCIDENT

Location: Nashville, Tennessee

Date: December 15, 2015

Time: 1723 central standard time (CST)/2323 coordinated universal time (UTC)¹

Aircraft: Southwest Airlines flight 31(SWA31), Boeing 737-300

B. AIR TRAFFIC CONTROL GROUP

Chairman: Mr. Daniel Bartlett
National Transportation Safety Board (NTSB)
Washington, D.C.

¹All times are expressed in central standard time (CST) unless otherwise noted.

Mr. Joseph Sharek
Air Traffic Manager (ATM)
Richmond Air Traffic Control Tower (RIC ATCT)
Federal Aviation Administration (FAA)
Richmond, Virginia

Mr. Brandon Johnson
National Air Traffic Controllers Association (NATCA)
Salt Lake City, Utah

C. SUMMARY

On Tuesday, December 15, 2015 at 1723 central standard time, a Boeing 737, N649SW, operated by Southwest Airlines as flight 31, (SWA31) departed the taxiway near taxiway T4 and came to rest in a ditch at the Nashville International Airport, (BNA), Nashville, Tennessee. The passengers evacuated via the emergency slides. The aircraft was substantially damaged and nine passengers sustained minor injuries. The flight was a regularly scheduled flight from the William P. Hobby Airport (HOU), Houston, Texas. Visual meteorological conditions prevailed at the time of the accident.

D. DETAILS OF THE INVESTIGATION

The group convened at the Metropolitan Nashville Airport Authority (MNA) on January 5, 2016 and met with the Director of Operations, Mr. Aaron Evans and his staff to discuss airfield operations related to the accident. In attendance was Mr. Patrick Rogers, lead airport certification safety inspector for the FAA Southern Region, Airports Division, based out of Atlanta, Georgia. The group reconvened at the BNA air traffic control tower (ATCT) on January 5, 2016, to review data and procedures and to interview the air traffic controllers, air traffic control (ATC) staff and airport operations personnel about the incident. The ATC group met with Mr. James Drury, the air traffic manager (ATM), and his staff to receive an ATC in-brief and provide the ATC facility information on the purpose and scope of the investigation.

1. FACTUAL INFORMATION

1.1 Weather Information

The 1653 Aviation Routine Weather Report (METAR) observation for BNA was wind 180 degrees true at 3 knots, visibility 10 statute miles with clear skies. Temperature 17 degrees Celsius (C), dew point 07 degrees C, altimeter 29.89 inches of mercury. Sunset occurred at 1634.

1.2 History of Flight

SWA31 departed from the William P. Hobby Airport (HOU), Houston, Texas at approximately 1558 on December 15, 2015 for a regularly scheduled flight to BNA. The flight was uneventful. At 1717 SWA31 reported a 7 mile right base for runway 20R at BNA to the BNA local controller and was cleared to land. At 1721, after landing, SWA31 contacted BNA ground control and was directed to taxi to the terminal ramp via taxiway B, cross runway 31 at taxiway T3, enter taxiway T4. SWA31 correctly read back the taxi instructions and advised that they were going to gate C20, which was located on the southwest side of the passenger terminal.

At 1724 SWA31 advised the ground controller that “we’ve cut the corner and are off in the grass”. The ground controller responded “SWA31, ok, what do you want me to do, you uh you’re calling the company for a tug?” SWA31 responded “we’re gonna need the trucks”. The ground controller asked the pilot if he was blocking the taxiway and if the aircraft was clear of taxiway T4. The pilot responded that he thought so. The ground controller advised that he would get someone to come out and check and decide where to go from there. SWA31 had departed taxiway T4 and was in a ravine between taxiway J and the terminal ramp. See figures 1 and 2.

There were no further communications between the flight crew of SWA31 and ATC.

1.3 Air Traffic Control

The BNA ATCT was a combined approach control and control tower, known as an up/down facility, with 41 controllers assigned. The level 9 facility operated 24 hours a day, seven days a week and conducted 350,000 to 400,000 operations a year.

The tower staffing at the time of the incident included a controller-in-charge (CIC) working the CIC position combined with the cab coordinator (CC) position, a local controller (LC), a ground controller (GC) and a flight data/clearance delivery operator (FD/CD).

1.3.1 Tower Visibility

According to controller interviews, visibility of the area of SWA31 taxiway excursion was challenging because of the distance from the tower, glare from the airport terminal, and difficulty in determining the aircraft’s location so close to the ramp/apron. See figures 2, 3, and 4.



Figure 2 – Approximate location of SWA31 taxiway excursion (red arrow) as seen from the control tower during daylight hours.



Figure 3 – Approximate location of SWA31 taxiway excursion (white arrow) as seen from the control tower at night. (SWA31 is not in this photo)



Figure 4 – SWA31 taxi route is indicated by red arrows. SWA31 location after the taxiway excursion is indicated by a green arrow.

1.3.2 Airfield Lighting - ATC

The airfield lighting at BNA consisted of taxiway edge and taxiway centerline lights, runway edge and runway centerline lights, runway end identifier lights, approach lights, and a rotating beacon. The airfield lighting was controlled via two airfield lighting touchscreen control panels located near the LC and GC positions in the control tower. The BNA ATCT standard operating procedures (SOP), BNA Order 7111.1B, dated July 24, 2014, did not specify who had overall responsibility for the operation of the airfield lighting.

The airfield lighting panels were owned by the MNAA and were operated using software installed in 2010. The airfield lighting was operated in accordance with requirements contained in FAAO 7110.65, *Air Traffic Control*, and a letter of agreement between the control tower and MNAA dated December 16, 2013.

The lighting panel had preset intensity selections used according to current weather/day/night conditions and was operated by the tower controllers via a touch screen that selected lighting intensities as required by the current conditions. Specific airfield lighting configurations could be selected to operate independently of the pre-set conditions, such as turning off a specific taxiway lighting circuit. The touch screen control circuit that activated or deactivated the taxiway

centerline lights was located next to the touch screen control circuit that activated or deactivated the lighting for the ramp/apron and a portion of taxiway T4. See figure 5.

The lighting panels had a screensaver mode that caused the screen to go black after approximately five minutes if the panel was not accessed by a controller.

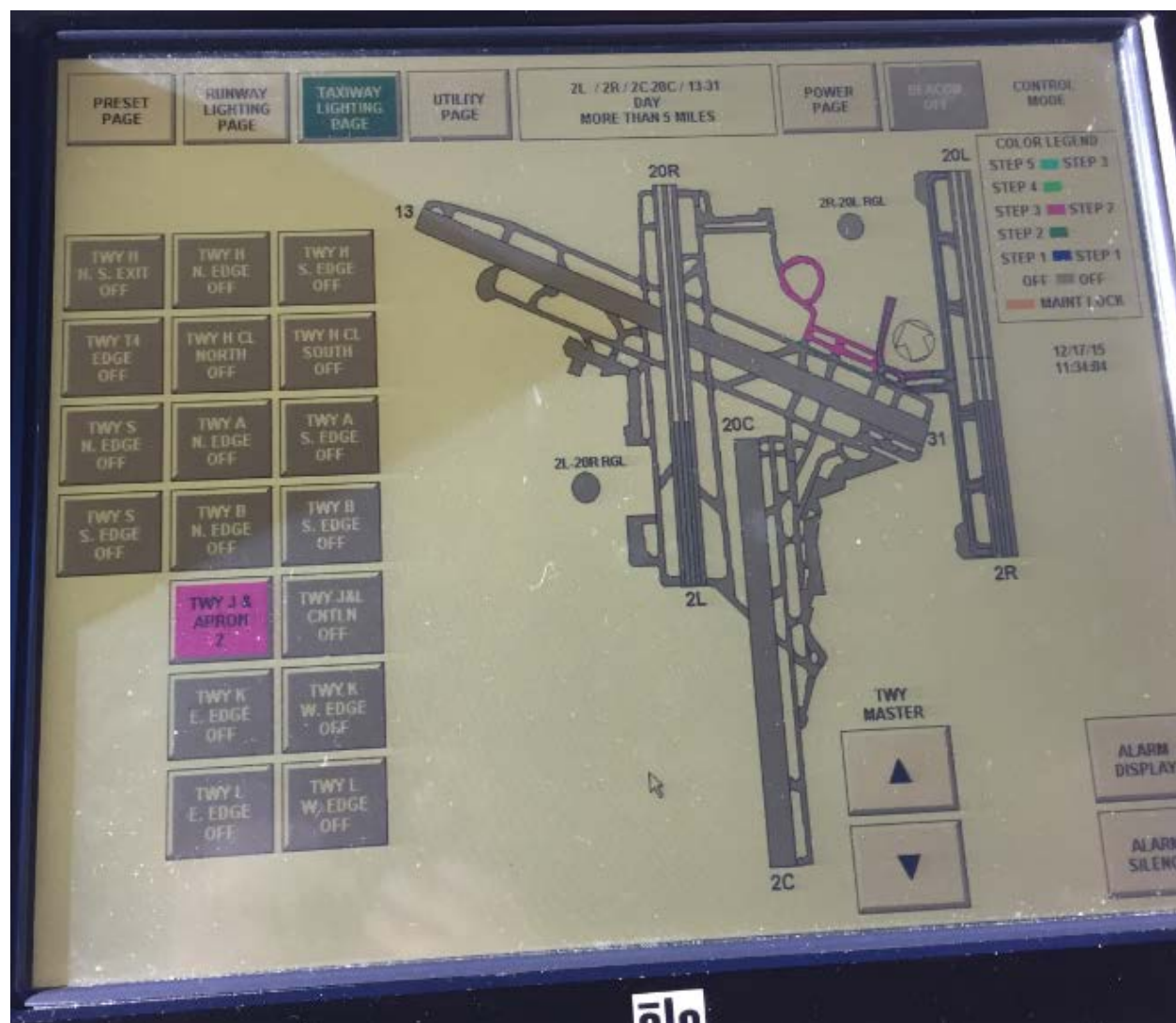


Figure 5 – The BNA ATCT airfield lighting control panel

The BNA airfield lighting system consisted of incandescent, light emitting diode (LED), and quartz halogen lighting. Quartz halogen lighting was used for the centerline taxiway lighting on taxiways H, J, L and T-6. This was the only centerline taxiway lighting at BNA and had a single intensity setting. LED lighting was used for taxiway edge lighting on taxiway B from taxiway L to taxiway B5 at the approach end of runway 20R. All other airfield lighting was incandescent.

According to controller interviews and discussion with ATC staff, operating the single setting centerline taxiway lights for taxiways H, J, L, and T-6 after sunset resulted in regular pilot

complaints that they were too bright. It had become a common practice to turn off these centerline taxiway lights after sunset. The location of the touch screen control for these taxiways was located next to the touch screen control for taxiway J, the apron/ramp, and a portion of taxiway T4. See figure 5.

FAA Order 7110.65, *Air Traffic Control*, paragraph 3-4-17, Taxiway Lights, requires controllers to operate taxiway lights as described in the paragraph except as directed by facility directive, as requested by the pilot, or as the controller deems necessary if not contrary to pilot request.

According to the BNA airfield lighting log for December 15, 2015, the quartz halogen taxiway centerline lights for taxiway H,J,L, and T6 and the incandescent taxiway edge lights for taxiway J and the ramp apron edge lights were turned on to intensity step 1 at 1617. The same taxiway lights were turned off by the CIC at 1655. The taxiway edge lights for taxiway T4, L and J were off when SWA31 taxied from taxiway T3 to T4 to the apron/ramp. According to the airfield lighting log, the taxiway edge lights for taxiway J, the ramp/apron and part of T4 were turned on at 1751.

According to ATC facility management, pilot complaints that the centerline taxiway lights were too bright at night were a common occurrence. The facility had reinstituted a practice of entering such complaints in the daily record of facility operation/tower log. While all the controllers interviewed indicated that the taxiway centerline lights were an issue, airport operations personnel stated they were not aware the problem existed. Review of the FAA Air Traffic Safety Action Program (ATSAP) database by personnel from FAA AJI-13 revealed that only one ATSAP report had been filed from BNA regarding airfield lighting. Neither the ATC staff nor airport operations personnel were aware that the centerline taxiway lights were quartz halogen. The fact that quartz halogen lights were installed on the taxiway centerlines was provided by the airfield electrician during the groups visit to the airfield lighting vaults.

BNA ATCT was in the initial stages of setting up a local safety council.

1.3.3 Emergency Handling - ATC

After an uneventful flight, landing and ground taxi to taxiway T4 at BNA, SWA31 advised the BNA ground controller at 1724 that “we’ve cut the corner and are off in the grass”. Although the crew did not specifically say so, SWA31 was resting in a ditch between taxiway L and J, south of taxiway T4.

The BNA ground controller asked SWA31 if he was going to need a tug and SWA31 responded that they were going “to need the trucks”. The ground controller asked SWA31 what the aircraft was blocking, referring to the taxiway. SWA31 responded that they were not blocking anything. When the ground controller attempted to confirm with SWA31 that taxiway T4 was not blocked, SWA31 responded that he did not think he was blocking taxiway T4. The ground controller advised that he would “get someone to come out and check and we’ll uh see what we do from there”.

At 1726, OPS 14, a MNAA operated vehicle, requested and was granted access to the airfield to investigate SWA31. The ground controller asked OPS 14 to confirm that taxiway T4 was clear.

At 1727, Airport 210, a first responder/airport police vehicle, requested and was granted access to the ramp area by the ground controller. At 1728, OPS14 reported that taxiway J was closed between taxiway T4 and T5. When the ground controller attempted to clarify information on the location of SWA31, OPS 14 advised that the aircraft was between taxiway J and the apron/ramp in the ravine. The ground controller asked for further clarification on which taxiways were closed and was advised that taxiway T4 was closed between taxiway L and the ramp/apron. OPS 14 then asked the ground controller to stand by because he "...had people walking around out here". The people walking around were evacuees from SWA31.

At 1733, aircraft rescue and firefighting (ARFF) unit Foxtrot 2, accompanied by other ARFF units, requested and received clearance from the GC to proceed from the ARFF fire hall to the accident site.

At 1741 Foxtrot 3 provided the ground controller with the tail number of SWA31.

At 1742, the ground controller was relieved from position. During his interview with the ATC group, the ground controller stated the he could not see that SWA31 was off the taxiway and assumed the people in the vicinity of SWA31, as reported by OPS 14, were aircraft service personnel for Southwest Airlines evaluating the nature of the taxiway excursion. The controller stated that he was not aware of the nature of the incident until he saw it on television during his break.

There were no alert notifications/declarations made regarding SWA31.

According to the BNA ATCT and MNAA Airport Emergency Procedures letter of agreement (LOA) dated June 30, 2002, in the event of an aircraft accident, emergency, or potential emergency on or in the vicinity of BNA, the ATCT shall alert the airport operations center (AOC) via interphone circuit or telephone. The same procedure shall apply when any of the following personnel request such action:

- The air traffic control specialist on duty in the tower/TRACON
- The pilot of the aircraft concerned
- The owner/operator of the aircraft or their representative
- An authorized representative of MNAA

Once the emergency had been declared by an authorized person(s), the LOA required BNA tower/TRACON to forward the appropriate alert category to the AOC. The alert categories were defined in the LOA as follows:

Alert One: Aircraft experiencing a minor in-flight difficulty, i.e overheated engine, oil leak, feathered engine on multi-engine aircraft

Alert Two: Aircraft experiencing a major in-flight difficulty, i.e., an engine failure, landing gear, hydraulic failure, etc.

Alert Three: Aircraft is involved in an accident on or near the airport.

During an Alert One or Alert Two, the LOA stated that the alert aircraft's assigned runway shall be closed as soon as the alert aircraft touches down. In the event of an Alert Three, the BNA airport will be closed until reopened by a designee of MNAA. Runway/taxiway excursions were not specifically addressed in the LOA.

As a result of this accident, the ATM issued a mandatory briefing item that clarified how runway and taxiway excursions are to be handled at BNA. Specifically, all runway and taxiway excursions are to be handled as an Alert Two. Additionally, anytime an aircraft is deplaned at other than a terminal gate, fixed base operator (FBO), hanger, or during a normal maintenance check, the tower is to call the crash/fire/rescue line with an Alert Three. The Alert Three will result in the entire airport environment being closed until MNAA operations advises BNA ATCT to resume partial or complete operations.

1.4 Air Traffic Controller Interviews

1.4.1 Charles (Chad) Joines - Local Controller (LC)

The ATC group interviewed Mr. Joines on January 5, 2016. Mr. Joines was represented by Mr. Jonathan Grimes, BNA NATCA Facility Representative (FACREP). In response to questions presented by the group, Mr. Joines provided the following information:

Mr. Joines was working the local control position during the accident.

Mr. Joines began his career with the FAA in November 2008 at the FAA academy in Oklahoma City. He was a facility rated controller at Charleston, West Virginia (CRW) from February 2009 until January, 2013. He has been at BNA from January 2013 until present. He was a facility rated controller at BNA qualified on all tower and radar positions and CIC. His supervisor for the last several months was Christian Cluff. His operating initials were CC.

Mr. Joines held no other FAA airman certificates. His Class 2 medical certificate was current with the requirement to wear corrective lenses when providing ATC services. He was wearing his contact lenses on the evening of the incident.

Mr. Joines's work schedule consisted of regular days off (RDO) on Sunday and Monday, 1430 to 2230 on Tuesday, 1230 to 2030 on Wednesday, 1230 to 2030 or 0645 to 1445 on Friday and 0645 to 1445 or 0530 to 1330 followed by a midnight shift from 2200 Friday to 0600 Saturday. On Tuesday, December 15, he had previously requested leave at the end of his shift so had worked a shortened workday. Mr. Joines was on the volunteer overtime list and had worked approximately 40 hours overtime over the last twelve months. He did not consider overtime to be excessive or the facility to be understaffed.

When asked to describe the incident Mr. Joines stated that he had relieved the local controller, Mr. Brandfast, at 1656, conducted a recorded position relief briefing, and after the briefing was completed, he noticed on the tower lighting panel that the apron/ramp taxiway lighting and centerline lighting for taxiways H, J, and L were off. The light circuit that powered the apron/ramp also powered the taxiway lights on taxiway T4 from taxiway L to the apron/ramp. He asked Mr. Brandfast if there was a reason the apron/ramp taxiway lighting was off and Mr.

Brandfast replied that the lights were blinding the pilots. Mr. Joines stated that the tower routinely received pilot complaints regarding the brightness of the green centerline lights on taxiways H, J, and L to T6 but he was not aware of any pilots complaining about the taxiway centerline lights on the evening of December 15. Mr. Joines stated that the ultimate responsibility/authority for airfield light settings rests with the CIC. Mr. Joines did not know if anyone else in the tower cab was aware that the apron/ramp lights were off.

Mr. Joines heard the ground controller mention that Southwest [SWA31] had an issue and that he was stuck. Mr. Joines, using the tower binoculars, observed SWA31 did not appear to be level indicating to him that one side of the aircraft's main landing gear was off the taxiway. Mr. Joines could not tell that SWA31 was off the taxiway without using the binoculars. Additionally, due to the glare from terminal lighting taxiway lights in the vicinity of SWA31 airport lights were difficult to see without using binoculars. The ground controller did not seem to be too excited and Mr. Joines continued to work traffic. Approximately 10 minutes later the situation had escalated. Mr. Joines did not recall if someone had mentioned that SWA31 had deployed evacuation slides or if he took it upon himself to observe SWA31 once again using the binoculars. He observed SWA31 with evacuation slides deployed and people milling about the aircraft on the taxiways. He assumed they were deplaned passengers.

Mr. Joines did not consider this an emergency, but rather an incident that did not warrant calling an alert that would have required an airport fire and rescue response. Mr. Joines felt that an alert 1, 2, or 3 was to be used for developing potential accidents/crashes. Accordingly, the taxiway excursion of SWA31 did not qualify as an alert 3, which was defined as an aircraft involved in an accident on or near the airport.

As the situation progressed, the CIC was busy with communications and coordination. When the CIC had a free moment, Mr. Joines pointed out to the CIC, via the airfield lighting panel, which had gone into screensaver mode and was not visible until the touch screen was touched, that the circuits for the ramp/apron/taxiway T4 and the centerline lights for taxiways H, J, and L were off. The CIC seemed surprised at this information. Mr. Joines suggested to the CIC that he not activate the apron/ramp/T4 lights because of the potential hazard to the passengers in the vicinity of the aircraft. Approximately 5 minutes later, at the request of airport operations, the CIC activated the apron/ramp/T4 taxiway lights. Mr. Joines did not recall if the centerline lights for taxiway H, J, and L were reactivated at that time as well.

1.4.2 James Bond - Ground Control (GC)

The ATC group interviewed Mr. Bond on January 6, 2016. Mr. Bond was represented by Mr. Jonathan Grimes, BNA NATCA FACREP. In response to questions presented by the group Mr. Bond provided the following information:

Mr. Bond was working the ground control position during the accident.

Mr. Bond began his career with the FAA in November 1987 as an air traffic assistant in the FAA co-operative program at Jacksonville ARTCC. He attended the FAA Academy in Oklahoma City in 1990, and reported to McGee-Tyson (TYX) on April 1, 1990. He transferred to BNA in

September of 1990. He had been at BNA since 1990 and was qualified on all control positions and as a CIC. He held no other FAA ratings. His supervisor for the last 4 or 5 years had been Robin Rutherford. His operating initials were OO.

Mr. Bond's work schedule consisted of a RDO on Sunday and Monday, Tuesday from 1430 to 2330, Wednesday from 1130 to 2030; a 9 hour alternate work schedule (AWS) shift; Thursday from 0645 to 1445 or 0530 to 1330 or 1230 to 2030, Friday from 0530 to 1330 and Saturday from 0530 to 1230, a 7 hour AWS, or Friday evening from 2200 to 0600 Saturday morning. Mr. Bond had not worked a midnight shift in over a year, having been able to swap his shifts with other controllers. He was on the volunteer overtime list and had worked approximately 30 hours of overtime during the previous 12 months.

Mr. Bond's class 2 medical certificate was current with a requirement to have reading glasses in his possession while working air traffic control. He had glasses in his possession on the evening of December 15.

When asked to describe the incident, Mr. Bond stated that he took the GC position between 1600 and 1630. Sunset occurred at 1633. Airport operations were normal. SWA31 landed on runway 20R and was given taxi instructions from taxiway B2, B, T3, T4 to the ramp. The route required Mr. Bond to coordinate with LC to prevent infringement into the approach critical area for runway 20C when aircraft were landing on runway 20C. When he completed the coordination, Mr. Bond's attention was diverted to a general aviation aircraft that had landed on runway 20L. The pilot was unfamiliar with the airport and required semi-progressive taxi instructions to the general aviation ramp on the south side of the airport.

Looking back at SWA31 using binoculars, Mr. Bond observed SWA31 had stopped taxiing between taxiway T4 and T5. Mr. Bond wondered why SWA31 had stopped but did not voice his concern. The aircraft appeared to be on the ramp in the non-movement area. Its position lights looked strange but otherwise the aircraft looked okay. SWA31 called GC and stated that he had cut the corner. Mr. Bond assumed he had a main mount stuck in the mud. When asked if he need a tug, the pilot responded that he needed the trucks. Mr. Bond assumed that he needed tow trucks/heavy equipment to extricate the aircraft out of the mud. A similar incident had occurred several years ago when an American Eagle flight clipped the corner of a turn, had one of its main landing gear get stuck in the grass, and had to be pulled out.

Mr Bond advised the CIC that he should call airport operations because SWA31 had a wheel off the pavement. The CIC did so. Ops 14, the airport operations vehicle, came out of the fire hall/ARFF station and proceeded to SWA31. Mr. Bond did not suspect SWA31 was in the ditch. Ops 14 reported that people were milling about but Mr. Bond assumed the people were SWA ground crew personnel checking out the aircraft. Ops 14 advised that taxiway T4 and J were closed but did not report that an aircraft evacuation had occurred. An alert was not called because Mr. Bond did not know what had happened. He did not observe the slides deployed and the pilot did not report an evacuation. Mr. Bond observed people in the vicinity of the aircraft silhouetted by the lights from the terminal but they were few in number and he did not realize or assume they were deplaned passengers. Mr. Bond was not aware that the slides had been

deployed from SWA31 until he saw it on the local news 30 minutes after the incident during a break.

Mr. Bond did not recall the airfield lighting settings but overheard a discussion in the tower that the apron/taxiway T4 circuit may have been off. After hearing the discussion, Mr. Bond observed that the taxiway lights at taxiway T4 to the ramp were in fact off. The CIC, who had overall responsibility for airfield lighting, asked Mr. Bond if he should turn the lights back on. Mr. Bond responded that he did not know when they should be turned back on.

There had been no reports by any pilots of taxiway lights being out. Mr. Bond did not recall referring to the light panel to verify/validate the taxiway lighting. Mr. Bond was not sure but guessed the airfield lighting panel would go into screensaver/sleep mode about five minutes after it was last accessed. He did not know if there were any LED lights in the airfield lighting system.

Mr. Bond expressed some concern about the lack of guidance for how to handle a situation such as a taxiway excursion. He acknowledged the December 18 BNA mandatory briefing material stating that all runway and taxiway excursions should be handled as an Alert Two and anytime an aircraft is deplaned at other than a terminal gate, FBO and hanger, an Alert Three will be called. However he was not aware of the differentiation between when an Alert Two and when an Alert Three had to be called.

Mr. Bond was relieved by Daniel Brandfast but during the debrief did not advise him that the taxiway lights at T4/ramp were off.

1.4.3 Eric Johnson - Controller-in-Charge/Cab Coordinator (CIC/CC)

The ATC group interviewed Mr. Johnson on January 6, 2016. Mr. Johnson was represented by Mr. Jonathan Grimes, BNA NATCA FACREP. In response to questions presented by the group; Mr. Johnson provided the following information:

Mr. Johnson was working the combined controller-in-charge/cab coordinator position during the accident.

Mr Johnson began his career at the FAA academy in Oklahoma City on June 25, 2009. He arrived at BNA in August of 2009 and had been at BNA since then. He was qualified on all operating positions in the facility and was a CIC and on-the-job-training-instructor (OJTI). He held a private pilot's license with a multi-engine land rating and an aircraft dispatcher license, neither of which were current. His class 2 medical certificate was current with no waivers or restrictions. His supervisor for the last month had been Christian Cluff. His operating initials were EJ.

Mr. Johnson's work schedule consisted of a RDO on Sunday and Monday, Tuesday from 1430 to 2230, Wednesday from 1230 to 2030, Thursday from 0645 to 1445 or 1230 to 2030, Friday from 0530 to 1330 or 0645 to 1445 followed by a Friday night midnight shift from 2200 to 0600 Saturday morning or a Saturday shift from 0530 to 1330. On Tuesday, December 15, Mr. Johnson worked a regularly scheduled shift from 1430 to 2230.

When asked to describe the event, Mr. Johnson stated that he arrived in the tower shortly after sunset but there was still dusk light on the horizon. The airfield lights had already been activated. When he signed on position, someone, possibly GC, was working the airfield lighting panel going through various intensity steps with the intention of turning off the taxiway H centerline lights. Shortly thereafter, Mr. Johnson turned off the centerline taxiway lights for taxiways J, L, and T6. Everything that needed to be turned off was turned off after which Mr. Johnson confirmed the lighting at the lighting panel and visually verified that the centerline lights for taxiway J, L, and T6 were turned off. In hindsight, Mr. Johnson suspected that he may have also inadvertently turned off the taxiway lights for taxiway T4, J and the apron/ramp area.

There had been no complaints of taxiway lights being too bright or of any pilot reported taxiway lights being out during the shift.

About 30 minutes later Mr. Johnson noticed that SWA31 had stopped prior to reaching the gate area and GC advised him that the aircraft had a main landing gear stuck off the taxiway edge. Mr. Johnson called airport operations and the front line manager (FLM) and reported the event. The FLM mentioned a mandatory occurrence report (MOR) that was later submitted.

There was no sense of urgency communicated by the pilot or GC, so the event was initially handled as a disabled aircraft with airport operations being the appropriate agency to address the issue. Airport operations arrived at the scene of SWA31 and advised at some point that the aircraft was in the ditch and had notified ARFF. It wasn't until Mr. Johnson saw the incident on the local news during a break that he was aware of the nature of the accident.

After airport operations arrived on the scene the LC advised Mr. Johnson that the taxiway lights on T4/J were not turned on. Mr. Johnson wasn't sure if a circuit breaker had tripped, so he decided to keep the taxiway lights off until he received a call from airport operations asking that they be turned back on.

In Mr. Johnson's judgment, there was no apparent emergency. There was no urgency conveyed by the pilot or GC; it was just a disabled aircraft that could not or would not power out of the situation. After the emergency vehicles responded there was nothing left to do. He felt it was unnecessary to call an alert as all the emergency responders were already in place or enroute.

Mr. Johnson stated that there were LED lights on taxiway B at the north end of the airport near taxiway T1/T2, and suspected that the green centerline lights were LED but was not sure.

Mr. Johnson was relieved from position a short time later. To the best of his knowledge the FLM did not come to the tower from the radar room. He was aware that the FLM had unsuccessfully tried to contact the pilot of SWA31.

1.4.4 Michael Webb - Clearance Delivery/Flight Data (CD/FD)

The ATC group interviewed Mr. Webb on January 7, 2016. Mr. Webb was represented by Mr. Jonathan Grimes, BNA NATCA FACREP. In response to questions presented by the group, Mr. Webb provided the following information:

Mr. Webb was working the clearance delivery/flight data position during the incident.

Mr. Webb started his career with the FAA in April, 1985 after serving 4 years in the Air Force as an air traffic controller. He worked at Memphis ARTCC (ZME) from 1985 to 1990, San Juan CERAP (ZSU) from 1990 to 1993, Nashville (BNA) from 1993 to 1998, ZME from 1998 to 2014 and BNA from 2014 to present. He was qualified on all operating positions at BNA and was a CIC. He held no other FAA airman certificates.

Mr. Webb's class 2 medical certificate was current with a requirement to have glasses in his possession while performing ATC duties. He had his eyeglasses in his possession on December 15, 2015. His supervisor for the last 18 months had been Mr. Robin Rutherford. His operating initials were MW.

Mr. Webb's work schedule consisted of a RDO on Saturday and Sunday, Monday from 1430 to 2230, Tuesday from 1230 to 2030, Wednesday from 0645 to 1445 or 1230 to 2030, Thursday from 0645 to 1445 or 0530 to 1330, and Friday from 0530 to 1330 or Thursday evening from 2200 to Friday morning at 0600. He was on the volunteer overtime list but had not worked overtime since arriving at BNA.

When asked to describe the accident, Mr. Webb stated he had signed on the CD position about 1720. It was nighttime. About five minutes after signing on, he heard the ground controller, Mr. Bond, state that SWA31 had a wheel stuck in the grass. Mr. Webb observed SWA31 through the binoculars and noticed a lot of people on the ramp. He said that the aircraft was evacuating and asked why it was so dark out there. The taxiway lights for taxiway J/apron were off. He could not see the evacuation slides.

Support vehicles and tractors proceeded to SWA31's location and lights were set up around the nose of the aircraft. Because of the position of the aircraft, the lights were pointed at the tower, making it hard to see what was happening with SWA31. Mr. Webb observed one of the pilots open the right rear emergency exit and then go back into the aircraft. Mr. Webb had no idea that the aircraft was in the ditch or why the aircraft was being evacuated. After emergency vehicles started arriving, police first, then crash and fire, did it dawn on Mr. Webb that a serious event had occurred.

Pilots always complained about the centerline taxiway lights, so they are always turned off by ATC. The light panel control button for the taxiway J and L centerline lights was next to the control button for taxiway L/apron. It would be easy to inadvertently turn off one in addition to turning off the other. After the accident, the CIC admitted to the FLM that he had turned off the taxiway J/apron taxiway lights.

Mr Webb stated that he could not determine the seriousness of the event from the tower. The pilot called and stated that he had a wheel in the grass, which he did not consider serious. If the

pilot had provided more information about the situation to the tower, ATC would have had a better clue to the nature and seriousness of the event.

The FLM, one of 6 at BNA, was in the radar room and did not come to the tower. The Domestic Events Network (DEN) and the Atlantic Operations Control Center (AOCC) called the tower about the crash and were told that it wasn't a crash but a disabled aircraft. No calls were made to the DEN or AOCC from the tower.

According to Mr. Webb, it is normal practice to turn off the centerline taxiway lights when the weather is clear. It is not normal to turn off the taxiway edge lights at night.

1.4.5 James Tollett - Front Line Manager (FLM)

The ATC group interviewed Mr. Tollett on January 7, 2016. Mr. Tollett was represented by telephone by Mr. Andy Dilk, AJC-430, Litigation. In response to questions presented by the group, Mr. Tollett provided the following information:

Mr. Tollett was working the FLM position from the TRACON during the accident.

Mr. Tollett began his career with the FAA on January 7, 2007. Prior to the FAA, he served in the Marine Corps, and was certified at Cherry Point (NKT) from 2000 to 2005. From 2005 to 2006 he worked as a contract tower controller at Danbury, Connecticut (DXR). In January 2007, he reported to Cincinnati (CVG), in March, 2011, Mr. Tollett moved to CLT, and in March of 2015 he came to BNA. Mr Tollett was qualified on all positions and remained current on all positions except for local control. To maintain currency, he worked 4 hours in the tower, and 4 hours in the TRACON. His class 2 medical was current with no waivers or restrictions. He held no other FAA licenses. His supervisor had been Rick Downing since he arrived in BNA. His operating initials were TC.

Mr. Tollett's work schedule consisted of a RDO on Tuesday and Wednesday, Thursday 1300 to 2100, Friday 1000 to 1800, Saturday 1000 to 1800, Sunday 0630 to 1430, Monday 0530-1330. On Tuesday December 15, he worked an overtime shift from 1300 to 2100.

When asked to describe the event, Mr Tollett stated that the tower called him and informed him that SWA31 went into the grass and they weren't sure how bad it was. He told them to keep him informed. He then called airport operations, who informed him that SWA31 was off the apron and in the ravine. This was when he realized the extent of the problem. He stated that there was about 15 to 20 minutes from the time the tower made the initial call to him and when he became aware of the extent of the accident. He spent the remainder of the night on the phone with various offices concerning the accident.

Mr. Tollett first learned that the taxiway lights at T4/J/apron were turned off when the CIC came downstairs on break.

He had heard rumors that there were problems with taxiway lights being too bright, but did not have any firsthand knowledge.

Mr Tollett attempted to reach the accident aircraft pilot by having GC contact him. When the pilot did not respond on the ground control frequency, Mr. Tollett had airport operations find the pilots and ask him to call the tower. The pilot reportedly told operations that he was not going to talk to Mr. Tollett. He then attempted to get the registration/tail number from the local SWA dispatch and was told that the information for that flight was already deleted. When he asked to talk to the SWA dispatch manager, he was told that the manager would call him back. Mr. Tollett never received a phone call from SWA.

Dan Bartlett
Senior Transportation Specialist
AS-30