NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

May 12, 2014

Group Chairman's Factual Report

AIR TRAFFIC CONTROL

DCA14IA037

A. AIRCRAFT INCIDENT

Location: Branson, Missouri

Date: January 12, 2014

Time: 1810 central standard time (CST) / 0010 coordinated universal time (UTC)[1] January 13, 2014

Aircraft: Southwest Airlines flight 4013 (SWA4013), a Boeing 737-7H4

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

B. AIR TRAFFIC CONTROL GROUP

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Washington, D.C.

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Mr. Stan Humphrey
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C. SUMMARY

On January 12, 2014, about 1810 local time, Southwest Airlines flight 4013, a Boeing 737-7H4, registration N272WN, mistakenly landed at M. Graham Clark Downtown Airport (PLK), Branson, Missouri, which was 6 miles north of the intended destination, Branson Airport (BBG), Branson, Missouri. The flight had been cleared to land on runway 14 at BBG, which was 7,140 feet long. Instead, the flight landed on runway 12 at PLK, which was 3,738 feet long. There were no injuries to the 124 passengers and 7 crewmembers and the aircraft was not damaged. The aircraft was being operated under the provisions of 14 *Code of Federal Regulations* (CFR) Part 121 as a regularly scheduled passenger flight from Chicago Midway International Airport (MDW), Chicago, Illinois. Night visual meteorological conditions prevailed at the time.

C. DETAILS OF THE INVESTIGATION

On February 10, 2014, the air traffic control group convened at the terminal radar approach control (TRACON) facility located at the Springfield-Branson National Airport (SGF), Springfield, Missouri, to review ATC procedures and interview controllers on duty when the incident occurred. The ATC group met with and was provided an in-brief by Mr. Brent Cline,

air traffic manager (ATM). Also present at the in-brief were Mr. Dan Smith; FAA Central Service Area quality control group, Mr. Robert Owens, FAA event investigations manager, and Mr. Kris Koenig, SGF NATCA facility representative.

The air traffic control group convened at the BBG air traffic control tower (ATCT) on February 11, 2014, to review ATC procedures and interview the controller that was on duty. The ATC group met with and was provided an in-brief by Mr. Steve Cavener, BBG ATM.

The air traffic control group convened at PLK and BBG on February 12, 2014, to discuss local procedures and to record and recover available evidence applicable to SWA4013. At PLK, the group met with the airport manager, Mr. Mark Parent. At BBG, the group met with Mr. Jeff Bourke, BBG airport executive director, and his staff.

D. FACTUAL INFORMATION

1. History of Flight

SWA4013 departed MDW for a regularly scheduled flight to BBG at approximately 1654 on January 12, 2014. SWA4013 was originally scheduled to depart MDW at 1545. There were no notices to airmen in effect for BBG. SWA4013 contacted SGF approach at 1752, approximately 60 nautical miles northeast of BBG and descending from 18,000 feet[2] to 16,000 feet with Automatic Terminal Information Service (ATIS) information Delta. The SGF approach controller directed SWA4013 to descend at pilot's discretion to 4000 feet and advised the pilot to expect a visual approach to runway 14 at BBG. The pilot acknowledged. The controller asked SWA4013 if he wanted to go to VUCUG, the final approach fix for the RNAV (GPS) runway 14 approach to BBG, or WUTIB, the initial approach fix for the RNAV (GPS) runway 14 approach to BBG. SWA4013 advised that either fix would work. The controller directed SWA4013 to proceed direct VUCUG. (see figure 1.)

At 1757 the controller directed SWA4013 to descend and maintain 3000 feet and to switch to frequency 126.35. SWA4013 acknowledged and checked in on frequency 126.35.

At 1800:10, the approach controller advised the BBG tower controller that SWA4013 was 20 miles northeast of BBG for the visual approach to runway 14. The BBG controller acknowledged the information. At 1802:50, the SGF approach controller advised the pilot of SWA4013 that the airport was at his 11 o'clock position and 15 miles. Radar data indicated that that the airport at SWA4013's 11 o'clock at 15 miles was PLK, not the destination airport, BBG. BBG was approximately 20 miles from SWA4013. (see figure 2.)

[2] Altitudes are expressed in feet above mean sea level

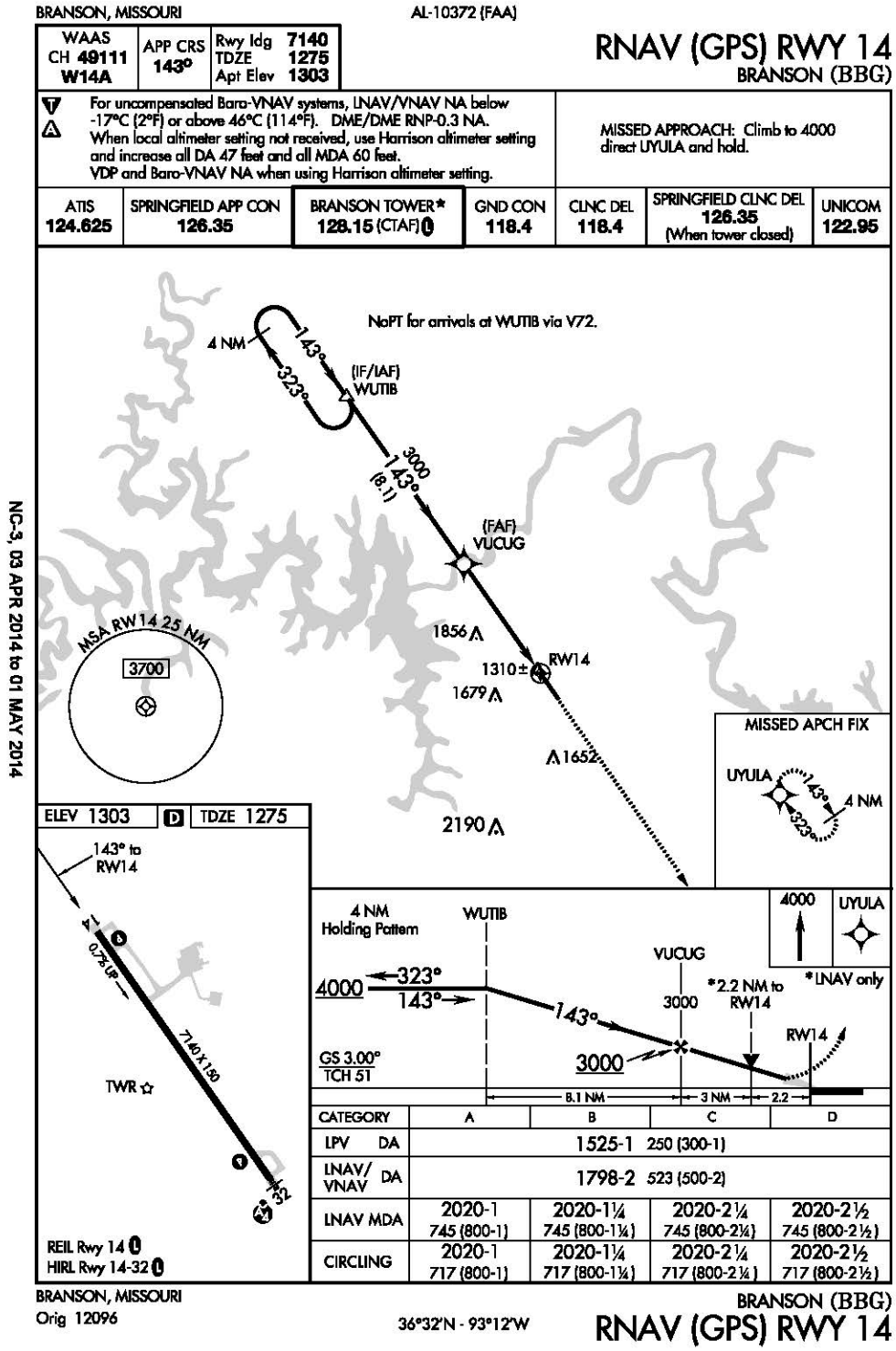

Figure 1 – RNAV (GPS) Runway 14 approach to BBG displaying the VUCUG final approach fix

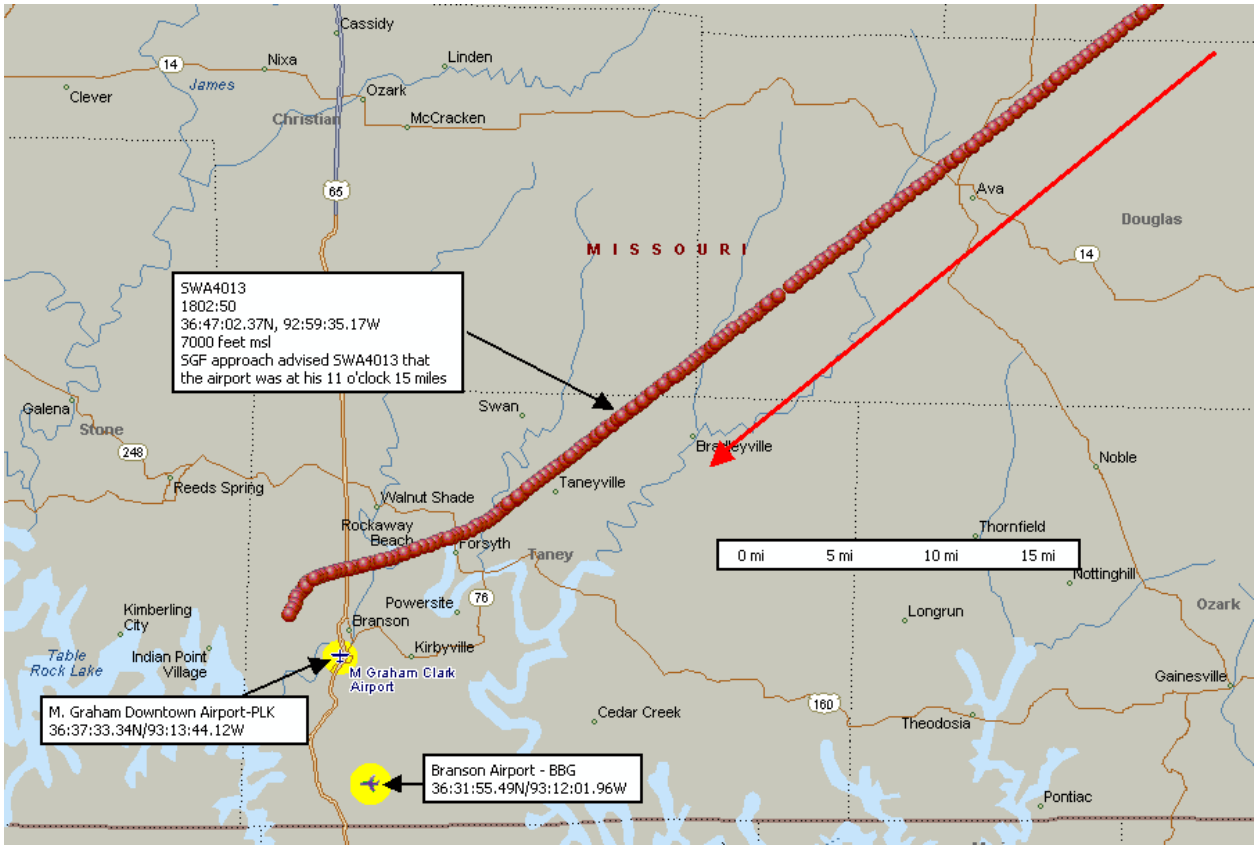

Figure 2 – Radar flight track of SWA4013 incidated by red dots. Direction of flight is indicated by a red arrow.

At 1802:58, SWA4013 reported "field in sight." The SGF controller cleared the pilot for the visual approach to runway 14 at BBG, advised that radar services were terminated, and directed the pilot to contact Branson tower on frequency 128.15. SWA4013 acknowledged. There were no further communications between SWA4013 and SGF approach. At 1803:15, SWA4013 checked in with BBG, reporting out of 6,600 feet descending to 3000 feet and going direct to VUCUG for the visual approach to runway 14. The BBG controller issued SWA4013 a landing clearance for runway 14. The BBG controller issued helicopter traffic to SWA4013 at 1804. The helicopter was transitioning the airspace to the west of Branson and was not a factor to SWA4013. At 1809:45, SWA4013 called BBG tower and stated, "I assume I'm not at your airport." The BBG controller asked if SWA4013 had landed, and after the pilot confirmed he had, the controller advised SGF approach that SWA4013 had landed at the wrong airport. SWA4013 had landed on runway 12 at PLK.

Runway 12/30 at PLK was 3738 feet long and 100 feet wide with a 300 foot runway safety area (RSA) at each end. The runway was grooved and crowned. The runway was dry at the time SWA4013 landed. Both ends of the runway ended with a severe decline/drop off. (see figures 3 and 4.) Runway 14/32 at BBG was 7140 feet long and 150 feet wide. (see figure 1.) PLK airport lighting was activated by a pilot controlled lighting system operating on the common

traffic advisory frequency (CTAF). BBG airfield lighting was controlled by the ATCT during hours of tower operation, and by CTAF when the tower was closed.

Figure 3 – The approach end of runway 12/departure end of runway 30 at PLK facing northwest.

Figure 4 – The approach end of runway 30/departure end of runway 12 facing southwest

SWA4013's left main landing gear touched down 284 feet from the displaced threshold of the approach end of runway 12. The right main gear touched down 315 feet from the displaced threshold. Visible tire marks indicated that the aircraft came to a stop in the departure end of the runway 12/approach end of runway 30 RSA, 3109 feet from the displaced approach threshold of runway 12. (see figure 5)

Figure 5 – The departure end of runway 12/approach end of runway 30 at PLK. SWA4013 main mount tire tread marks are indicated by red arrows.

2. Weather Information

The 1747 aviation routine weather report (METAR) observation for BBG was wind 150 degrees at 12 knots gusting to 23 knots, visibility 10 statute miles. Few clouds at 25,000 feet above ground level. Temperature 17 degrees C, dew point minus 2 degrees C. Altimeter 29.70 inches of mercury. The end of civil twilight occurred at 1744.

3. Air Traffic Control

The SGF ATC facility was a combined FAA ATCT/TRACON. SGF TRACON was co-located with MIZZOU TRACON. Approach control services were provided to SWA4013 by an approach controller at SGF TRACON. The BBG ATC facility was a VFR federal contract tower staffed and managed by Midwest ATC. The BBG ATCT did not have a radar monitor in the tower. Airport ATC services were provided to SWA4013 by the BBG ATCT.

PLK and BBG were located below SGF radar coverage. According to SGF controller interviews, radar coverage ceased and radar contact was lost for aircraft arriving BBG between 2200 and 2600 feet. Radar coverage limitations in the vicinity of PLK and BBG were confirmed by the FAA Terminal Surveillance Sub team, AJW-1471. Accordingly, there were no minimum safe altitude warning (MSAW) alerts associated with this event.

After SWA4013 entered SGF's airspace, the approach controller issued a descent, advised the pilot to expect a visual approach to BBG, and asked the pilot which BBG approach fix he would like to use. The approach controller stated that allowing the pilot to choose the fix allowed the pilot to perform his own navigation to set up for the visual approach, and eliminated the requirement for excessive vectors to the aircraft. The approach controller relayed inbound information to the BBG controller at 1800:05. According to the BBG controller, he activated the runway edge lights at BBG after receiving the inbound coordination from the approach controller.

FAA Order 7110.65, Air Traffic Control, paragraph 3-4-10, Runway Edge Lights, states in part:

> *3-4-10. RUNWAY EDGE LIGHTS Operate the runway edge light system/s serving the runway/s in use as follows:*
>
> *a. Between sunset and sunrise, turn the lights on:*
>
> *1. For arrivals:*
>
> ***(a)** IFR aircraft−Before the aircraft begins final approach, or*
>
> ***(b)** VFR aircraft−Before the aircraft enters the Class B, Class C, or Class D surface area, and*
>
> ***(c)** Until the aircraft has taxied off the landing runway.*

The runway lighting at BBG, as described by the BBG local controller, was operated in accordance with FAA Order 7110.65.

There were no records or airfield lighting system recording capability to determine exactly when the runway lights at BBG and PLK were activated.

After passing the inbound coordination to BBG, the approach controller advised SWA4013 that the airport was at the pilots 11 o'clock at 15 miles. At the time of the transmission, SWA4013 was approximately 15 miles from PLK and approximately 20 miles from BBG. (see figure 2.) The approach controller did not advise SWA4013 of the close proximity of PLK to BBG.

FAA Order 7110.65, Air Traffic Control, paragraph 7-4-3, Clearance for Visual Approach, states in part:

> *7-4-3. CLEARANCE FOR VISUAL APPROACH*
> *ARTCCs and approach controls may clear aircraft for visual approaches using the following procedures:*

3.g. In those instances where airports are located in close proximity, also provide the location of the airport that may cause the confusion.
EXAMPLE-
"Cessna Five Six November, Cleveland Burke Lakefront Airport is at 12 o'clock, 5 miles. Cleveland Hopkins Airport is at 1 o'clock 12 miles. Report Cleveland Hopkins in sight."

After checking in with the BBG ATCT at 1803:15, the tower controller cleared SWA4013 to land on runway 14 at BBG. The tower controller recalled observing SWA4013 maneuvering and assumed the aircraft was turning out to establish a straight in approach to runway 14. The controller did not observe the aircraft land at PLK. After SWA4013 advised BBG that they had landed at the wrong airport at 1809:45, the BBG controller confirmed that SWA4013 had landed and called SGF to ask if the approach controller had observed SWA4013 land at PLK. The approach controller advised that SWA4013 had dropped off radar near PLK. (see figure 6)

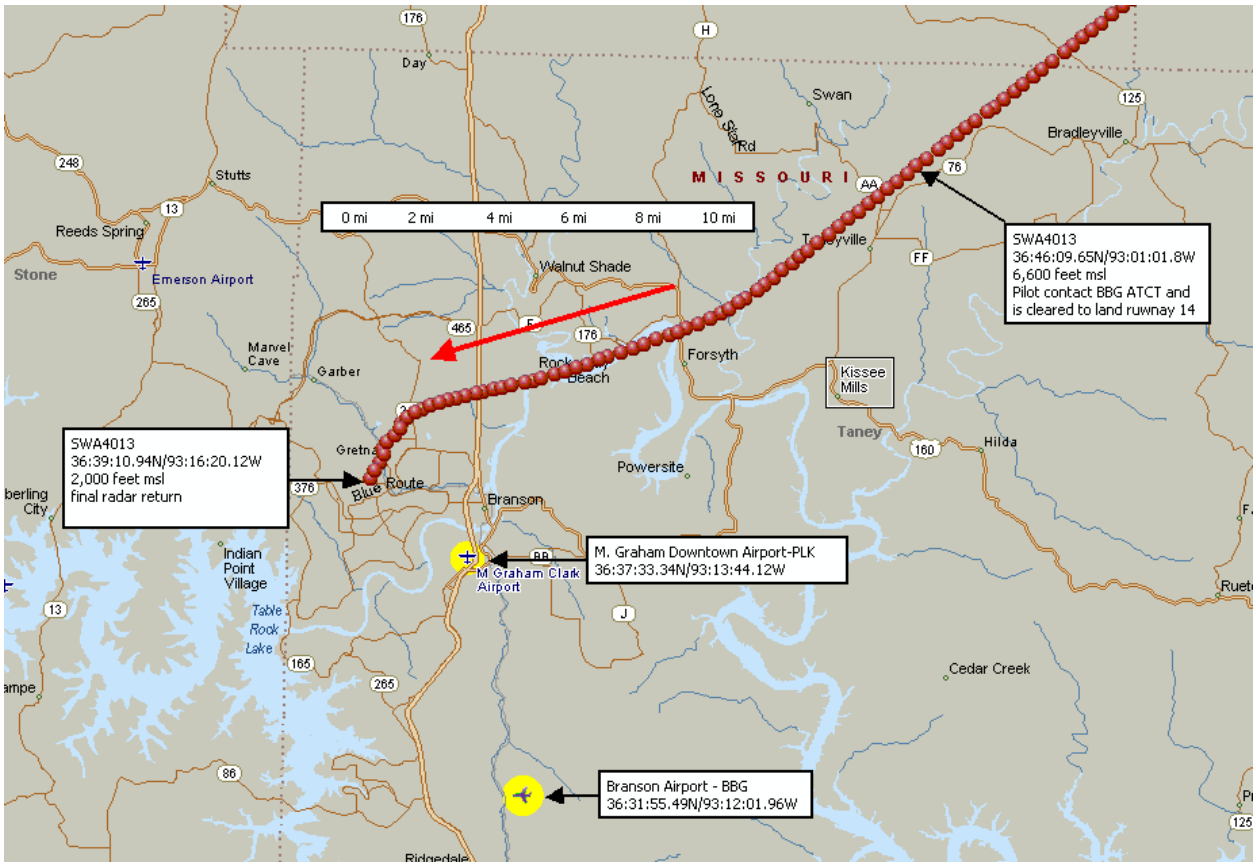

Figure 6 - Radar flight track of SWA4013. The radar flight track is indicated by red dots. The direction of flight is indicated by a red arrow.

The letter of agreement (LOA) between SGF and BBG dated May 20, 2011, states that SGF shall forward arrival information to BBG on IFR, SVFR and practice instrument approaches at least 10 flying miles from the BBG runway. During controller interviews it was revealed that SGF

controllers forward arrival information to BBG at least 10 flying miles from the BBG runway but will occasionally forward arrival information when the aircraft is much farther away from BBG. The LOA states that BBG shall forward arrival times on IFR aircraft to SGF but did not establish a time parameter for when the information must be relayed.

3.4 SGF Air Traffic Controller Interviews

3.4.1 John Hobbs - Certified Professional Controller (CPC)

The ATC group interviewed Mr. Hobbs on February 10, 2014. Mr. Hobbs was represented by Mr. Kris Koenig, NATCA facility representative. In response to questions presented by the group, Mr. Hobbs provided the following information:

Mr. Hobbs started his ATC career on November 8, 1988. His first assignment was at Salinas Tower (SNS) from 1988 to 1991, followed by Monterey TRACON (MRY) from 1991 to 1995 and Wichita TRACON (ICT) from 1995 to 2002. He had been at Springfield from 2002 to present. He was qualified on all positions in the facility and was certified as controller-in-charge and on-the-job-training instructor. Additional duties included operating the SimFast radar simulator training system for developmental controllers. He was working Springfield radar east/west approach combined position at the time of the incident.

His second class medical certificate was current without restrictions or waivers. His operating initials were YU.

Mr. Hobbs's work schedule included regular days off on Thursdays and Fridays, Saturday from 1600 to 2400, Sundays from 1300 to 2100, Mondays from 0730 to 1530, Tuesdays from 0530 to 1330 and a quick turn to 2230 until 0530 Thursday mornings. Mr. Hobbs stated he had worked 16 hours of overtime in the past year. He does not consider overtime to be a problem at the facility. Mr. Hobbs has not observed or experienced fatigue issues related to the work schedule. His supervisor for the past 18 months was Emmitt (Mark) Scully.

When asked to describe the event, Mr. Hobbs stated the he went into TRACON, was assigned to the Springfield radar east/west approach position, and relieved Mr. McKinnon. Traffic was light. There were no equipment issues or distractions. Mr. McKinnon briefed that SWA4013 was proceeding to Branson (BBG), and had been issued a pilot's discretion descent to 3000 feet direct to the GPS runway 14 final via the VUCUG final approach fix for a visual approach. Mr. Hobbs stated that a clearance to a visual approach via the approach fix was a common procedure, especially on windy days due to the challenges of vectoring. This procedure allowed the pilot to navigate versus the controller having to vector. Accordingly, he had never cleared an aircraft directly to BBG. Mr. Hobbs advised SWA4013 the airport was at his 11 o'clock and 15 miles. The pilot reported the airport in sight. He was cleared for the visual approach to runway 14 at BBG, radar service was terminated, and the pilot was directed to contact BBG tower.

Asked to describe the notification procedure for arrivals into BBG, Mr. Hobbs explained that BBG calls SGF with the down time when the aircraft lands per the SGF/BBG LOA. Mr. Hobbs did not record the down time for SWA4013 on the flight progress strip. Describing his method for identifying aircraft that have not reported landing, Mr. Hobbs explained that he identifies

airports where aircraft are past due reporting or closing out the flight plan with an electronic bubble on the radar scope over the airport. He uses this as a reminder that the airport cannot be used for IFR arrival/departures until landing is assured for the IFR aircraft. This is accomplished at non-towered airports via FSS relay, radio call from the pilot or telephone call from the pilot. He did not use a bubble in this case at BBG. BBG was very punctual about calling aircraft down times.

After communications with SWA4013 were transferred to BBG, the BBG controller called and asked Mr. Hobbs if he had watched the aircraft land at BBG. Mr. Hobbs advised that he had observed SWA4013 until about Point Lookout, which is a reference point for PLK, approximately about 6 miles from BBG. Approximately 4 to 5 minutes later BBG called and advised that SWA4013 was down safe at the wrong airport (PLK) and that PLK was considered closed. Mr. Hobbs advised the CIC of the event, who began a notification process which included calling the supervisor, Mr. Scully. Mr. Hobbs returned to working traffic.

Mr. Hobbs had once observed a similar event when an aircraft mistakenly lined up with the runway at Fulton airport, but had not seen an event like this at BBG. While working at SGF, Mr. Hobbs stated that he had applied airport close proximity advisories as defined in FAA Order 7110.65, paragraph 7-4-3g, but not with GPS equipped aircraft unless they appeared confused.

Mr. Hobbs had not seen an MSAW warning for BBG because aircraft on approach to BBG descend below radar coverage before an MSAW alert can be initiated.

When asked about staffing at SGF, Mr. Hobbs stated that it was common for the CIC to work control positions. The normal staffing for SGF was 3 CPC/CICs assigned to radar and 3 CPC/CICs assigned to the tower, with one controller on break from radar and tower at a time. The time on position was usually 60 minutes and 30 minutes on break. There were two supervisors assigned to SGF, although the facility was authorized three. The supervisors usually worked between 0630 and 2100, but their schedules varied depending on facility needs. The CIC or supervisor on watch worked a control position, usually MIZZOU approach, 80% to 90% of the time. Staffing used to require 3 controllers for the mid-shift, two in radar to work MIZZOU and SGF approach and a controller in the tower. After the FAA authorized recuperative breaks in the NAS, the SGF approach function was combined to the tower and MIZZOU remained a stand-alone radar position in the TRACON because the SGF and MIZZOU ASR feeds could not be combined. Traffic on the mid shift has decreased dramatically over the past few years. There were midnight shifts where SGF might talk to only one aircraft all night.

The SGF radar east position had been combined with the SGF radar west position for 4-5 years. There was not enough traffic to justify opening the east and west positions separately.

SGF TRACON, with both approach controls, provided ATC service to approximately 40 satellite airports. BBG was the only towered satellite airport where SGF did not have radar coverage to the surface.

3.4.2 David McKinnon CPC

The ATC group interviewed Mr. David McKinnon on February 10, 2014. Mr. McKinnon was represented by Mr. Kris Koenig, SGF NATCA facility representative. In response to questions presented by the group, Mr. McKinnon provided the following information:

Mr. McKinnon began working for the FAA on April 3, 1989, and was assigned to the Columbia, Missouri, ATCT until 1995. In 1995, Mr. McKinnon transferred to the Wichita, Kansas, ATCT (ICT) and worked there until 1997. He then worked at the Waterloo, Iowa, ATCT (ALO) from 1997 until 2000. Mr. McKinnon had been at SGF since 2000. He stated that he possessed an FAA private pilot certificate with a single engine land rating. He was qualified on all positions including SGF Tower, MIZZOU Approach, Radar West, Radar East, and CIC.

His regular work schedule was a rotating shift schedule with days off on Friday and Saturday, Mondays from 1300 to 2100, Tuesdays from 0730 to 1530, Wednesdays from 0530 to 1330, and a quick turn from Wednesday evening at 2230 to 0630 Thursday morning. His supervisor was Mr. Emmitt "Mark" Scully.

He possessed a current second class medical certificate with no restrictions or waivers. His operating initials were DK.

On the day of the incident Mr. McKinnon was working his normally scheduled shift.

Mr. McKinnon stated he was working radar west and east combined when SWA4013 appeared on the radar display. On initial contact he cleared SWA4013 direct to the VUCUG final approach fix (FAF) for the GPS approach to runway 14, and issued a pilot's discretion descent to 4000 feet. He switched SWA4013 to frequency 126.35, the frequency he used for PLK. Mr. McKinnon stated this was his last interaction with the aircraft, and he was relieved for a break before SWA4013 reported the airport in sight.

Mr. McKinnon was not in the radar room during the incident. Mr. McKinnon had observed a replay of the incident and listened to the audio, and stated that he would have done everything the same as the controller working SWA4013 did. He didn't feel that having an extra person in the TRACON would have made any difference in SWA4013 arriving at the wrong airport. He stated that in spite of the incident, he would not change how he handled arrival aircraft into BBG.

Mr. McKinnon did not believe fatigue was an issue at his facility and believed the new rules for midnight shift operation, which allows for recuperative breaks, were effective at mitigating fatigue. He stated that having a control position assigned to CIC duties is okay and not a problem. Mr. McKinnon stated that there are no defined staffing requirements or standards and expressed frustration that leave requests generally don't get approved because a lack of standardization regarding leave requests. He stated that time on position and breaks seem to be adequate.

He stated that he has never had an aircraft land at the wrong airport during his watch. However, he recalled an incident when he was working MIZZOU approach and he prevented an aircraft from descending into the wrong airport by calling the tower and having them cancel the aircraft's approach clearance. He stated that if a pilot was unfamiliar with the destination airport or flying a visual approach in a non-GPS-equipped aircraft, he would verify the pilot had the correct airport in sight if it was in close proximity to another airport and/or the aircraft was far away from the landing airport.

Mr. McKinnon stated he felt the LOA with BBG was adequate. He passed inbound arrival aircraft information to BBG as soon as the aircraft appear on his radar display. His radar range was usually set to 60 miles. He hadn't observed an MSAW alert in the vicinity of either BBG or PLK. Mr. McKinnon stated that when aircraft were on approach to BBG, radar contact was usually lost between 2200 feet to 2500 feet and approximately 2 miles from the end of the runway.

He stated that if he did not hear from BBG tower concerning the arrival of the aircraft within a couple of minutes, he would call the tower to confirm the status of the arriving aircraft. He stated that a five-minute delay for BBG to call an arrival would be an unusually long time.

Mr. McKinnon stated the basis for terminating radar service on an inbound aircraft into BBG would depend on the type of approach to the airport as well as any conflicts with other aircraft.

3.4.3 Gina Shuler (CPC)

The ATC group interviewed Ms. Shuler on February 11, 2014. Mr. Kris Koenig, NATCA facility representative, represented Ms. Schuler. In response to questions presented by the group, Ms. Shuler provided the following information:

Ms. Shuler started her career in 1990 under the FAA co-op program at Springfield (SGF) and Kansas City ARTCC (ZKC). She attended the FAA Academy in the spring of 1993. Her first assignment was at Spirit of St. Louis ATCT (SUS) from 1993 to 1995, followed by SGF from 1995 to present. She was qualified on all positions at SGF, and was also certified to act as CIC and take weather observations. Ms. Shuler did not hold any other FAA ratings, endorsements, or restrictions.

Ms. Shuler's second class medical certificate was current with no restrictions or waivers. Her operating initials were GZ.

Her work schedule included regular days off on Thursdays and Fridays, work Saturday from 1600-2400, Sunday 1300-2100, Monday 0630-1430, Tuesday 0530-1330, and a quick turn from 2230-0630 Wednesday. She did not work overtime. For the past month, her supervisor was Emmitt "Mark" Scully.

At the time of the incident, Ms. Shuler was providing air traffic services for MIZZOU Approach combined with the CIC position.

When asked to describe the event, Ms. Shuler stated she heard a call from BBG over the loud speaker asking if the SGF approach controller saw SWA4013 land. This piqued her interest, and she recalled the SGF approach controller said yes. She stated she moved closer to the SGF position to gain more information. She remembered overhearing another call from BBG stating that SWA4013 landed at the wrong airport, PLK. Ms. Shuler stated the FLM had left the facility about 10 to 15 minutes before the incident. She called the FLM, notified him of the incident, and asked him to return to the facility. She also recalled another controller back from break, and was relieved from the MIZZOU position so that she could gather other information such as the flight progress strip and weather. She used the incident/accident binder and notified the Domestic Events Network and Regional Operations Center of the event. Ms. Shuler did not suspect an approach controller error. She described it as a routine visual approach clearance. When asked about leaving her sector to observe the incident, she said it did not happen often and that the traffic volume was very light. She would not have left the position if she had been working aircraft in her sector.

She stated the facility was a little short on controllers and not as fully staffed as they were accustomed to. Ms. Shuler described the breaks as adequate. She stated that controllers and managers shared a good working relationship.

Ms. Shuler did not recall observing an MSAW alert near BBG, nor had she previously ever observed aircraft attempting to land at the wrong airport. She stated that she expected a downtime call from BBG within 5 minutes of losing radar contact with the inbound aircraft. Ms. Shuler felt the BBG LOA was adequately worded.

When asked about applying the requirements of FAA 7110.65 paragraph 7-4-3 (airports within close proximity), she had not typically applied it unless there was reason to believe a pilot was off course. She has no knowledge of other controllers at SGF applying 7110.65 paragraph 7-4-3. However, she explained she was much more aware of the required procedure and more likely to apply it since this incident took place.

She typically calls inbounds to BBG and includes ETA and position 10 miles from BBG airport. When questioned about observing MSAW alerts at other airports, she recalled seeing an aircraft inbound to SGF a few days ago that was on a practice ILS approach to runway 2, was low inside the outer marker, and caused an MSAW alert. She did not recall the aircraft type. She stated they lose radar from at a point about 5 miles north of BBG and 2-3 miles south of BBG at altitudes around 2500 to 2600 feet. She explained SGF radar coverage at BBG was not the best. She could not recall what radar map the SGF controller was utilizing. Ms. Shuler was unaware the PLK airport is not depicted on the GPS approach plate into BBG. She believed a third person would have made no difference in preventing SWA4013 landing at the wrong airport. When questioned about fatigue, she described it to be commonplace at her facility simply due to the nature of a 24-hour air traffic facility.

3.5 BBG Air Traffic Controller Interview

3.5.1 Garry Evans (CPC)

The ATC group interviewed Mr. Evans on February 11, 2014. Mr. Evans represented himself. In response to questions presented by the group, Mr. Evans provided the following information:

Mr. Evans started his career in ATC with the US Marine Corps in 1985. After 20 years as a Marine controller, Mr. Evans was hired by Midwest ATC as the ATM at their contract tower at Waterbury, CT. (OXC). In 2006, he transferred to Detroit City, MI. (DTE) as a CIC until 2009. Mr. Evans had worked at BBG since the airport opened in 2009.

His second class medical certificate was current, with a restriction to wear corrective lenses while performing ATC duties. His operating initials were GE.

Mr. Evans's work schedule included regular days off on Fridays and Saturdays, Sundays and Mondays from 1315 to 2115, Tuesdays from 1000 to 1800, Wednesday and Thursdays from 0645 to 1445. Mr. Evans had worked overtime on several occasions due to staffing. He does not consider overtime to be a problem at the facility. Mr. Evans had not observed or experienced fatigue issues related to the work schedule. His supervisor for the past nine months was Steve Cavener.

Mr. Evans was working a 1315 to 2115 shift on the day of the event.

When asked to describe the incident, Mr. Evans stated that at 1800 he received an inbound call on SWA4013 from SGF stating that the aircraft was 20 miles northeast of BBG. He then turned on the runway edge lights and set them to step 3. Approximately 3 minutes later SWA4013 checked in at 6,600 feet descending to 3000 feet direct to VUCUG. Mr. Evans then cleared SWA4013 to land on runway 14 at BBG. Mr. Evans stated he saw the landing light of the aircraft and had no doubt it was SWA4013.

Lifeline 1, a locally based helicopter, called BBG and reported 8 miles northwest of BBG at 2000 feet, requesting to transition through the Class D airspace to Harrison Airport. Mr. Evans approved the transition and provided traffic information on SWA4013 to the helicopter. One minute later Lifeline 1 reported SWA4013 in sight. Lifeline 1 stated that SWA4013 was no factor. SWA4013 appeared to turn northwest. Mr. Evans lost sight of the landing light and never saw SWA4013 again. He expected SWA4013 to turn toward or outside of VUCUG to set up for a straight-in approach to runway 14 at BBG. He looked for SWA4013 five miles from BBG. The pilot of SWA4013 then called BBG on the frequency and stated he had landed at PLK. Mr. Evans asked the SGF approach controller if he had watched the aircraft land at BBG. During the hour after SWA4013 landed at PLK, phone calls regarding the incident that substantially increased the tower workload were made to/from BBG on both regular lines and the BBG crash phone. He was by himself and nobody else was coming in to help him. A call was made to the ATM but he had been advised by Midwest ATC that the ATM had been directed not to come in.

In hindsight, Mr. Evans stated that he would have looked out the window more towards VUCUG.

Asked about the local airport lighting procedure, Mr. Evans stated that he keeps the runway lights off to save money because he heard the airport is always financially strapped. However, the precision approach path indicators (PAPIs) and runway end identifier lights (REILs) were left on. Mr. Evans stated it is common at BBG to turn runway edge lights on for arrivals and departures and turn them off when no longer required. There was no facility directive that required the runway edge lights be kept on. This was his personal technique. In this case, only the PAPI and REIL lights were on before he turned on the runway lights.

Mr. Evans stated that it was normal for aircraft approaching BBG from the northeast to turn to the NW about half the time. He again stated that he saw the SWA4013 turning NW, which many pilots routinely did, and was waiting for the aircraft to turn an extended downwind.

He stated that he only gave the winds to pilots if it differed a lot from the ATIS. In the military, he was required to ask landing aircraft to check wheels down and give the wind. However, the same requirement did not exist in the current environment.

Mr. Evans could not see arrivals and departures into PLK at night from the tower. When BBG first opened in 2009, there were several A/C that got BBG and PLK mixed up and landed at BBG instead of PLK, but hadn't happened in a while.

Mr. Evans felt that proposed inbound calls from SGF should be standardized. Down times to SGF are given upon landing at BBG.

Mr. Evans said that the BBG ATCT had an obstruction chart posted in the tower cab used to correlate the location of aircraft in relation to PLK but did not have communication capability with PLK.

Mr Evans stated that he had no personal issues that were affecting his work.

To improve performance or possibly assist with similar events in the future, Mr. Evans felt that it would have been beneficial to increase post-incident staffing to assist with the administrative requirements, withhold the landing clearance until the aircraft was closer to the airport, increase his visual scan, leave the runway edge lights on after sunset when the airport is open, verify aircraft position on initial contact, issue wind with the landing clearance and install a FIDO and tower radar display.

Dan Bartlett
Senior Transportation Specialist
AS-30