



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

May 8, 2014

### **Attachment 8 – BBG Smart Pack**

# **OPERATIONAL FACTORS**

**DCA14IA037**

**Branson**  
**(BKG / KBBG)**



**Smart Pack**  
**Service Begins 03/09/13**



To Southwest Airlines Pilots:



This booklet contains a voluntarily submitted NASA ASRS report. Our intent was to present actual scenarios that provide context for your review of Branson's procedures. Due to the newness of the airport, there were very few reports to choose from. However, we wanted to publish the normal helpful information you are accustomed to receiving in a Smart Pack.

We have included notes from Southwest Airlines ATC Managers and Meteorologists as to what to expect in BKG, and some useful Station information as well as some fun facts.

Fly Safe,

Flight Ops Safety Team

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## Airport Preview

The following "Need To Know" information is compiled from talks with ATC, other airlines, and some of our Pilots that have had previous experience flying into and out of Branson Airport.

- Frequency Information
  - ATIS — 124.62
  - Clearance Delivery — 118.4
  - Springfield Approach — 126.35
  - Springfield Departure — 126.35
  - Branson Ground — 118.4 (0700L - 2100L)
  - Tower — 128.15 (0700L - 2100L)
- General Information
  - VFR/Contact Tower—Operating hours 0700-2100L.
  - Do not confuse Branson Airport (KBBG) with Springfield-Branson Natl Airport (KSGF), which is approximately 45 nm north of KBBG.
  - Branson Airport (IATA: BKG, ICAO: KBBG, FAA LID: BBG) is a public use airport located eight nautical miles south-southeast of the central business district of Branson, a city in Taney County, Missouri, United States. It is privately owned by Branson Airport, LLC.
  - Although most U.S. airports use the same three-letter location identifier for the FAA and IATA, this airport is assigned BBG by the FAA and BKG by the IATA (which assigned BBG to Butaritari Atoll Airport in Butaritari, Kiribati).
  - The airport opened on May 11, 2009. It is currently the only privately owned, privately operated commercial service airport in the United States.
  - When starting taxi out, look for Ground Crew to give an appreciative hand wave or salute. All BKG Airport Operations and ATC Personnel take great pride in their airport and truly appreciate our presence. All above and below the wing Employees are BKG Personnel.
- Approach and Landing
  - During IMC with RWY 32 in use, expect direct to CADAN for the ILS or LOC RWY 32.
  - No RVR.
  - AirTran Crews Inbound from HOU reported being held high (FL 240) on arrival, resulting in a "slam dunk" into BKG.
  - ASR-11 radar reliable down to approximately 3000 feet.

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- Ground Maneuvering
  - MU readings will be accomplished within half an hour prior to arrival (may result in dispatch delays).
  - The use of Taxiways Echo and Foxtrot to accomplish the 180° turn at the end of Runway 32 is at the Captain's discretion. If utilized, (unless cleared for takeoff or back taxi) a clearance is required prior to re-entering the runway for takeoff.
  - Utilizing the Taxiway E and F route will be less stressful on the aircraft and the tires.
- Takeoff and Departure
  - No PDC or DATIS.
  - Ground Control requests a courtesy call for pushback.
  - For RWY 32 departure expect back taxi full length and then 180 on the runway (150' wide).
  - On departure, expect initial clearance to 5000', after handoff to Departure Control expect climb to 7000'.
  - Departures headed southbound may be momentarily delayed while ATC coordinates with three ARTCCs in close proximity — ZME (Memphis), ZFW (Ft. Worth), and ZKC (Kansas City). Normally no delays for departures headed northbound.
  - Numerous Turkey buzzards observed off the approach end of Runway 14.



### NASA ASRS Report

#### **Synopsis**

*An Air Carrier Pilot reported BBG Runway 14 surface irregularities causing dips at about 5000' and 2500' remaining markers respectively, which are serious enough that they could affect safety.*

#### **Narrative**

The runway in Branson, MO has two dips in it that are starting to affect safety. On Runway 14 there is a dip at the 5000' remaining marker and a dip at approximately 2500' remaining marker. The one at the 5000' marker is the worst of the two. When landing on Runway 14, it seems as if you are being launched back in the air. On takeoff, you get the same feeling. I have advised the Branson Tower about the dips. They were only aware of the 2500' marker dip. Now they know about both.



<b>GATES</b> 2 and 3 PCAIR - No Electricity - YES		<b>GROUND OPS FREQ</b> 128.72
<b>PROVISIONING</b> NONE		<b>PUSH CALL</b> YES Contact Gnd. 118.4
<b>MAINTENANCE</b> NONE		<b>GROUND COMPANY CALL</b> YES
		<b>PHONE TO DISPATCH</b> At SWA Gate Area

**ITEMS UNIQUE TO STATION**

**GENERAL:**

- GATE RESTRICTIONS: None.
- Tower Operating Hours: 0700-2100 Local.
- Be careful not to confuse Branson Airport with Springfield-Branson (NSGF), which is approximately 45 nm north.
- Numerous Turkey buzzards in the vicinity of the approach end of RWY 14.
- Pilot controlled lighting instructions of HIRL RWY 14-32 MALSF RWY 32, REIL RWY 14, PAR RWY 14 and 32. F frequency 128.15

Intensity Level	Number of Mic Cycles (within 4 seconds)	Duration of Illumination
1	3	15 mins
3	5	15 mins
5	7	15 mins

If you need lights on at a desired intensity for a longer time, click mic required number for desired intensity.

**COMMUNICATIONS:** No information available.

**NOISE ABATEMENT:** No information available.

**DAMP CONTROLS:** No information available.

**DISPATCHES:**

- Ground Control requires a courtesy call prior to pushback.
- If or RWY 32 departure expect full length taxi to taxi.
- Expect initial clearance to 5000', after handoff to departure control expect climb to 7000'.

**DEICE:**

Winter Ops:

- Ice/anti-ice frequency interphone
- Deicing/Anti-icing Location: Pad
- Deice with English running: Yes
- Hot Spot: No

- Ice/anti-ice will normally use hand signals to indicate type of fluid being used.
- De-icing will be completed on the pad. The Pad is located adjacent to taxiway C and directly behind Gate # 3. The aircraft will be towed into position and will be de-iced from the pad.

**ARRIVAL:**

- Portable water and Lav service available with prior notification.
- Gate numbers are only marked on the ground, next to the A/B line.

## Branson Airport Climatology

The state of Missouri has a continental type climate. In the winter, cold and dry air masses invade from the north. In the summer, warm and moist air rises from the gulf. Spring and fall are transitional periods with abrupt changes in temperature and precipitation. Due to Missouri's location in the overall center of the United States, rather far away from large mountains and oceans, it has a very strong seasonal climate. Missouri does have regional differences in climate, but there is no obvious geographic boundary. Branson, Missouri is located in southern Missouri, 40 miles south of Springfield, Missouri. The airport and the city are located in the heart of the gently rolling Ozark Mountains.

In the summer (June-August), the average high temperatures are around 88°F, with lows around 65°F. The record high for Branson is 113°F, which occurred on July 14, 1954. On average, Branson temperatures will exceed 100°F only two to three days per year.

In the winter (December-February) the average high temperatures are around 45°F, with lows around 25°F. The record low for Branson is -17°F, which occurred on February 9, 1979. There is an average number of 18 days per year when the temperature remains below freezing (32°F) for the duration of the day.

In the spring (March-May), the average high temperatures start in the high 50s in March, and warm to the mid 70s in May. The average low temperatures warm from the mid 30s in March to mid 50s in May. In the fall (September to November) the average high temperatures range from low 80s in September to mid 50s by November. The average low temperatures decrease from the high 50s in September to the mid 30s by November.

The cloud cover in Branson is rather variable, but in general the months from November to June lean more towards the cloudy side, while cloud cover in the months from July to October trend more towards partly cloudy to clear. The state of Missouri has on average 30 tornadoes a year. The most recent tornado impact was on February 29, 2012, when an EF-2 touched down in Branson. The wind tends to blow from the south, or some component close to south, for much of the year.

An average of 42 inches of rain falls during the year in Branson, peaking in the mid spring to early summer months. In the winter, cold dry air masses move in from the north. These air masses make the air reasonably humid, and result in rain and snowfall. In the summer, warm moist air

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comes up from the gulf bringing along with it copious amounts of rainfall from either convective processes or fronts. However, in some summers a high pressure system can become stagnate over this region resulting in drought.

A 30-year summary (1971-2000) of Branson-Springfield area climate can be seen in the following table.

Branson Airport Climatology (38.84°N, 93.22°W)												
(1971-2000)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average High Temp (°F)	41.8	47.1	57.4	67.7	76.9	82.8	86.8	86.8	81.7	70.8	58.4	48.9
Average Low Temp (°F)	21.8	26.2	34.2	43.8	51.4	57.2	60.7	60.8	57.4	48.1	38.2	28.9
24 Hr Range	19.9°F on February 6, 1995											
Average Number of Days 1.0°F or above	2.3											
Average Number of Days 32°F or above	42.8											
Average Number of Days 32°F or below	18.0											
Average Precipitation (inches)	2.1	2.3	3.8	6.2	6.8	5.0	3.8	3.4	4.8	3.8	4.8	5.2
Average Yearly Total Precipitation (inches)	48.0 in											
Average Number of Days with Precipitation (inches)	8.8	8.8	12.8	17.8	17.8	12.8	10.8	10.8	12.8	11.8	12.8	12.8
Average Yearly Total Snowfall (inches)	30.1											
Average Yearly Snow (inches)	8.1	11.8	8.8	8.8	8.8	0.0	0.0	0.0	0.0	1.0	7.8	12.7
Average Number of Days with or less than 0.1 in of snow	2.8	1.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2
Average Yearly Number of Days with less than 0.1 in of snow	3.0											

Source: National Weather Service (1971) at Branson, Missouri  
 Note: In the absence of regional National Weather Service data for Branson and the nearby location, only available data are available at Springfield, Missouri. The data are highlighted in the table as a best estimate of the climate at Branson.



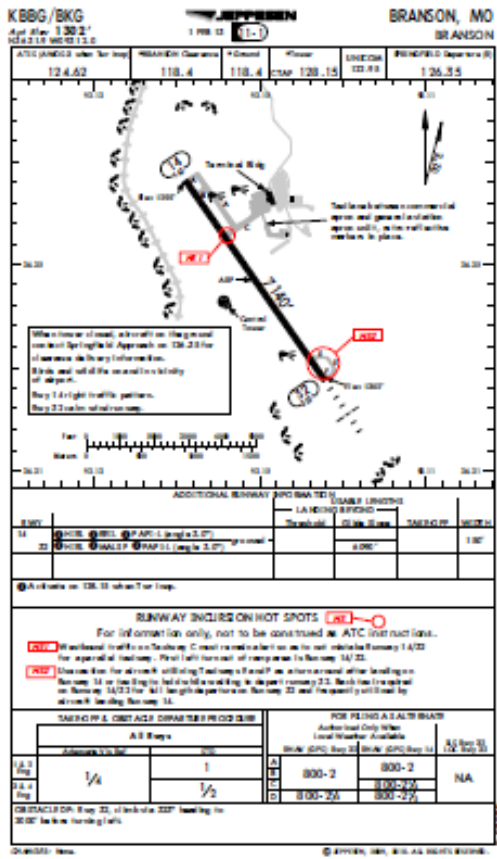
### Branson Fun Facts

- Branson has more theater seats than the New York Broadway District.
- In 1959, the Baldknobbers became the first show in Branson.
- Branson is known as the "Live Country Music Capital of the World."
- The Cathedral Room in Marvel Cave is the largest cave entrance room in the United States.
- Silver Dollar City Amusement Park was created by those making crafts while waiting outside the depths of Marvel Cave.

### Branson Station Info

- General Information
  - Southwest will initiate service from BKG to MCO, HOU, MDW, and DAL.
  - BKG was opened in 2009, and is a privately owned airport. No federal funding available.
- Ground Operations Services
  - Southwest will primarily use Gate 2 with Gate 3 as an alternate.
  - Both Gates 2 and 3 are common use gates.
  - Gates are marked only with numbers at the end of the J-line.
  - Aircraft will park at hardstands (no jetbridges).
  - Double level air stairs with "switchback" ramp is used for boarding and deplaning — pushing wheelchairs up the ramps is a major challenge.
  - Potable water and lav service available with prior notification.
  - No conditioned air available.
  - BKG has Contract Maintenance.
    - May require 30-45 minutes to arrive at aircraft.
- Deicing
  - For deicing, aircraft will normally be pushed with engines off onto the Deice Pad, which is located directly behind Gate 3.
  - If APU is inop, start at the gate then push onto Deice Pad. Continuous air ground start unit available.
  - Type I and IV deice fluids available. Iceman will normally use hand signals to indicate type fluid being used to the Flight Crew.

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*Branson Airport Runway 32*



*Branson Airport Runway 14*