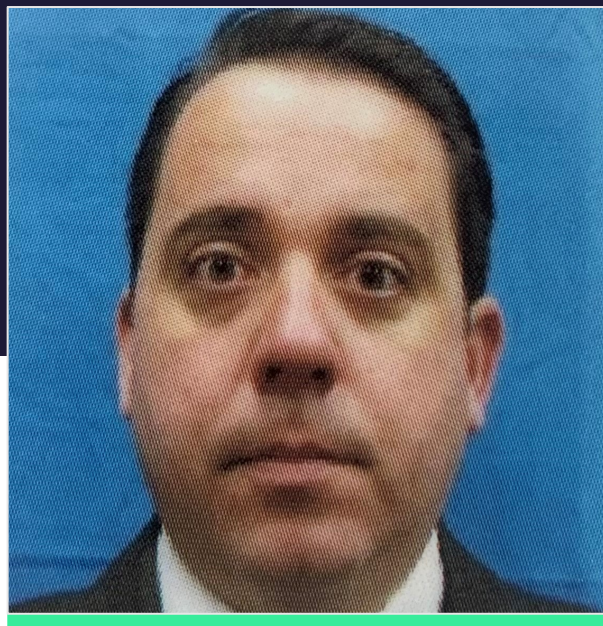


REGIONAL FOCUS

Accident and Incident Investigation for the Latin America and Caribbean Region

Wednesday 28 July and 4 August 2021

08:00 – 09:30 EDT



Mr. Jason Kufta

Event Investigations Manager

FAA



Mr. Jeffrey Hurby

Event Investigations Manager

FAA



Mr. Miguel Medina

Event Investigation Manager

FAA



Mr. Michael Strother

Event Investigation Manager

FAA

Basics of an Air Traffic Event Investigation

The key to gathering and disseminating accurate factual information is following a systematic process.

Event notification can occur several ways- potentially significant Mandatory Occurrence Report (MOR), Washington Operations Center (WOC) page, overheard on the Domestic Events Network (DEN), Quality Assurance referral, phone call, etc.

Here are some
examples

Potentially Significant MOR

MOR Alert for ATL

Number: ATL-M-2018/04/05-0005

Type: Suspected loss involving Two A/C

Date/Time: Apr 5, 2018 - 1930Z

A/C: N651DB (C340), DAL2342 (MD90)

Summary: N651DB, C340, WAS CLEARED TO LAND ON RWY 8L @ 19:28:06. DAL2342, MD90, WAS CLEARED TO LAND @ 19:29:35 FALCON REPLAY INDICATES THAT WHEN DAL2342 WAS CLEARED TO LAND THERE WAS 3.26 SM LATERAL AND A 45KT OVERTAKE BWTWEEN THE TWO AIRCRAFT. N651DB CROSSED THE THRESHOLD OF RWY 8L @ 19:30:42. FALCON REPLAY INDICATES 2.35 LATERAL AND A 76KT OVERTAKE. N651DB WAS INDICATING 98KTS ON HIS AIRSPEED. DAL 768 CHECKED ON @ 19:30:57 STATING HE WAS ON A 5 MILE FINAL. THIS AIRCRAFT IS MERELY ANOTHER AIRCRAFT CHECKING IN, NOT INVOLVED WITH THE TWO ABOVE. DAL2342 CROSSED THE THRESHOLD @ 19:31:36. N651DB WAS NOT CLEAR OF THE RUNWAY. HE WAS TURNING TO EXIT AT TAXIWAY CHARLIE. FALCON REPLAY INDICATES LATERAL DISTANCE OF 0.78 AND 146KT OVERTAKE. DAL2342 WAS TOLD TO GO AROUND @ 19:31:41. N651DB CLEARED RUNWAY 8L @ TAXIWAY CHARLIE @ 19:31:45. DAL2342 SAID HE HAD ALREADY TOUCHED DOWN AND ASKED IF TOWER WANTED HIM TO GO AROUND. LC-1 REPLIED BY SAYING NO. FALCON REPLAY INDICATES LATERAL DISTANCE OF 0.4 AND 156KT OVERTAKE.

If you are logged in to your CEDAR account, you may view the MOR/EOR at:

<https://cedar.faa.gov/MorEorForm.php?entryID=1133713129>

Otherwise, you may view the MOR/EOR at:

<https://cedar.faa.gov/MorEorForm.php?entryID=1133713129&rid=909964992>

For any additional information, please contact your Service Area QA Office.

Potentially Significant MOR



- The following are some examples of the types of events for which the provisions of the FAA JO 1030.3B may be invoked. Note this list is not all-inclusive. If unsure whether an event might be considered significant, facilities are strongly encouraged to report it upwards.
- (1) Significant or noteworthy aircraft accident or serious incident, any fatal accident where ATC services were provided, crash involving an air carrier, accident/incident involving a dignitary.
- (2) Significant or noteworthy loss of separation (33 percent or less of the standard), including near mid-air collision (NMAC) reports and traffic alert and collision avoidance system (TCAS) resolution advisories (RA) with evasive action or lack of positive control.
- (3) Significant or noteworthy runway incursion (e.g. aircraft rotated early to avoid a crossing tug).
- (4) Allegations of reckless operation (e.g. low-flying civilian/military aircraft, personnel performance).
- (5) Loss of aircraft and/or air traffic critical systems (e.g. simultaneous or overlapping primary and backup equipment outages).
- (6) Simultaneous loss of radar and communications with IFR aircraft or with VFR aircraft being provided flight following services.
- (7) Loss of facility operational capability, as defined in FAA Order JO 1900.47, *Air Traffic Organization Operational Contingency Plan*.
- (8) Severe turbulence where serious injuries or structural damage is reported.
- (9) Long duration delays for aircraft with passengers that exceed three hours for domestic flights or four hours for international flights between cabin door closure and takeoff, or between landing and cabin door opening to allow passenger deplaning (Tarmac-3 or Tarmac-4).
- (10) Occurrence that generates or could generate high interest from regional or national news media, Congress, the Department of Transportation (DOT), or other government agencies such as the NTSB, OIG, or GAO

N248SB GENERAL AVIATION ACCIDENT 12-09-2017

PRELIM INFO FROM FAA OPS: MONTGOMERY-GIBBS EXECUTIVE AIRPORT, SAN DIEGO, CA/GENERAL AVIATION ACCIDENT/1630P/N248SB, HAWKER BEECHCRAFT BE36, CRASHED UNDER UNKN CIRCUMSTANCES INTO A HOUSE .5 MILE WEST OF THE AIRPORT. BOTH ACFT & HOUSE ARE ON FIRE. TOTAL POB ON ACFT UNKN. EXTENT OF INJURIES DAMAGE UNKN. ATC SVCS UNKN. WX: NOT REPORTED. UPDATE TO FOLLOW. WOC 73333 JA/DN

Published on: 12/09/2017 20:15:41 (UTC-05:00) Eastern Time (US & Canada) By: EON ENS Alert.

Sent By: FAA Washington Operations Center

Quality Assurance Referral

Good afternoon,

[SLC-M-2018/04/02-0001](#)

<http://deploy.falcon.faa.gov/Falcon%20NexGen/Falcon%203.application?540565&REPLAYTYPE=Bookmark&PARENT>

This event was reported by the facility regarding a go around off runway 35 and a departure off runway 34R (the center of the three runways)

N535DT initiated a go around on short final due to a gear indication and was issued a heading of 340 with climb clearance to 9000 by the SLC LCE controller.

SKW5563 had been issued a takeoff clearance runway 34R by SLC LCC and was airborne and climbing northbound. N535DT began to drift to the left of the expected 340 track and came into close proximity with SKW5563. SKW5563 advised they had responded to an RA and appeared to level off as the Citation was overtaking from their 530 to 6 o'clock position.

Safety alerts were not issued to either aircraft. A brasher warning was not issued to N533DT.

Closest proximity 0.12 NM and 400 with TCAS assistance.

Review the MOR

- Date/time of the event
- Training in progress?
- Involved aircraft
 - Make sure call sign and type aircraft match what is on Falcon or in the narrative
- Involved positions
 - Useful for knowing what audio to pull when making a Falcon replay
- TCAS RA?
- Event summary
 - Review along with audio and Falcon replay
 - Does the narrative match what you're seeing/hearing?
 - Is the narrative telling the full story?
 - Sometimes something that reads as insignificant ends up being major.

What information is missing that you need to get from QCG or the facility?

Contact appropriate QCG specialist/Facility

- What has the QCG specialist found outside of what is in the MOR?
 - What additional information do you need to paint an accurate picture? What do you anticipate senior leadership wanting or needing to know?
- If need be, contact the facility so that you can ask questions directly.

Columbia Metropolitan Event



Potentially Significant MOR

Occurrence Report

CAE-M-2015/03/05-0001

Preliminary Data:

Facility * Event Date* and Time* (UTC) Event Time (LCL)
CAE ▼ Mar 5, 2015 2340Z 1840L

MOR Type *

-Suspected loss involving IFR A/C ▼

Reported By: *

Controller providing services ▼

Nearest Airport:

▼

Questions:

Potentially Significant Event?* Training In Progress?*

☒ Yes ☐ No **What is significant?** ☐ Yes ☒ No

Does this MOR include a possible pilot deviation?*

☐ Yes ☐ No

Did equipment outage potentially contribute to this event?*

☐ Yes ☐ No

Aircraft Involved:

Aircraft #1

Call Sign * A/C Type * Facility * Position * Frequency
ASQ5334 CRJ2 ☒ IFR ☐ VFR CAE ▼ LC ▼ 119.5

Aircraft #2

Call Sign * A/C Type * Facility * Position * Frequency
BKA732 LJ35 ☒ IFR ☐ VFR CAE ▼ LC ▼ 119.5

METAR Observation:

KCAE 052356Z 04009G16KT 10SM OVC009 11/09 A3006 RMK AO2 RAE27 CIG 008V012 SLP177 P0002 60008 T01110089 10272 20111 53045

Additional Information:

Airspace Class*

C ▼

TCAS Resolution Advisory? *

☐ Yes ☒ No

Separation:

Required Lateral * Required Minutes * Required Vertical *
3 e.g 10 Min. = 10 10

Observed Lateral * Observed Minutes * Observed Vertical *
29 e.g 10 Min. = 10 1

Summary *

FOR TAKEOFF, "TURN LEFT HEADING 050 RWY11 CLEARED FOR TAKEOFF, TRAFFIC CRJ2 SEVEN MILE FINAL". BKA732 QUESTIONS THE HEADING AND LC CONFIRMED IT THEN BKA732 DEPARTED RWY 29 WITH ASQ5224 ON 3.5 MILE FINAL RWY11. LC CONTROL THEN RECOGNIZED THE CONFLICT AND CLIMBED ASQ5224 TO 040 AND SENT HIM AROUND. LC THEN ISSUED A TRAFFIC ALERT TO ASQ5224 AND TURNED HIM RIGHT TO 180 IMMEDIATELY AND ISSUED THE TRAFFIC ALERT TO BKA732 AND TURNED HIM RIGHT TO 360 IMMEDIATELY.

791 of 3000 characters used.

Compliance:

Was there a loss of separation? *



☐ Yes ☒ No

Applicable Rule:

1-1-1

Separation type applied*

Other ▼

LoSS Information *

will validate using the linked EOR

34 of 3000 characters used.

MOR Received

Page 1

Air Traffic Mandatory Occurrence Report

CAE-M-2015/03/05-0001

1. Reporting FAC ID		2. Date UTC (dd/mm/yyyy)										3. Time UTC				4. Significant Occurrence?	
C	A	E	0	5	0	3	2	0	1	5	2	3	4	0	<input checked="" type="radio"/> Yes <input type="radio"/> No		
5. MOR reported by (select one):															6. Did equipment outage potentially contribute to this event?		
<input checked="" type="radio"/> Controller providing services															<input type="radio"/> Yes <input type="radio"/> No		
<input type="radio"/> CIC															<input type="radio"/> Internal Facility Review		
<input type="radio"/> External Facility Referral															<input type="radio"/> Electronically Detected		
<input type="radio"/> FLM															<input type="radio"/> Aircraft Owner/Operator		
<input type="radio"/> Hotline (Describe in summary)															<input type="radio"/> Other (Describe in summary)		
Training in progress? <input type="radio"/> Yes <input checked="" type="radio"/> No															Alert #: _____		
Nearest Airport: _____																	
Airborne Separation MORs																	
B1. MOR type - suspected airborne loss involving (select one):																	
<input checked="" type="radio"/> IFR aircraft <input type="radio"/> VFR aircraft (In class B or practice VFR approach) <input type="radio"/> Formation flights <input type="radio"/> Non-radar																	
B2. Aircraft #1 Information:																	
Aircraft ID			Aircraft Type/Suffix			IFR/VFR			Formation Flight								
ASQ5334			CRJ2			<input checked="" type="radio"/> IFR <input type="radio"/> VFR			<input type="radio"/> N/A <input type="radio"/> Non-standard <input type="radio"/> Standard <small>Trailing A/C beacon</small>								
Facility communicating with A/C			Position communicating with A/C			Frequency											
CAE			LC			119.5											
B2. Aircraft #2 Information:																	
Aircraft ID			Aircraft Type/Suffix			IFR/VFR			Formation Flight								
BKA732			LJ35			<input checked="" type="radio"/> IFR <input type="radio"/> VFR			<input type="radio"/> N/A <input type="radio"/> Non-standard <input type="radio"/> Standard <small>Trailing A/C beacon</small>								
Facility communicating with A/C			Position communicating with A/C			Frequency											
CAE			LC			119.5											
B3. Required separation:					B4. Observed separation:					B5. Airspace class:		B6. TCAS RA:					
Vertical <u>1000</u> Lateral <u>3</u> nm					Vertical <u>100</u> Lateral <u>.29</u> nm					C		<input type="radio"/> Yes <input checked="" type="radio"/> No					
Only include observed separation if provided by the reporting person					METAR Observation					KCAE 052356Z 04009G16KT 10SM OVC009 11/09 A3006 RMK AO2 RAE27 CIG 006V012 SLP177 P0002 60008 T01110083 10272 20111 53045							

MOR Received

Page 2

Air Traffic Mandatory Occurrence Report
CAE-M-2015/03/05-0001

Compliance			
Was this a loss of separation?			
<input type="radio"/> Yes <input checked="" type="radio"/> No	Applicable Separation Rule: _____		Separation Used: _____ Other _____
LoSS Information			
Will validate using the linked EOR			
Barrier Analysis			
Recommend for Barrier Analysis Review? <input type="radio"/> Yes <input checked="" type="radio"/> No	BAR Category	BAR Number	Justification for BAR
Approve for Barrier Analysis Review? <input type="radio"/> Yes <input checked="" type="radio"/> No	Existing Combined Safety Barrier Review	Reason for BAR denial?	
Link to an existing Combined Safety Barrier Review <input type="checkbox"/>			
NMAC			
Was this a NMAC?			
<input type="radio"/> Yes <input checked="" type="radio"/> No	NMAC Number: _____		
Summary			
<p>J1. Summary - provide a brief summary for all MORs in this section that will provide enough information for QA to understand what occurred. Include information about items that require additional information in the specific MOR you are reporting.</p> <p>ASQ5224 CRJ2 INBOUND ON THE ILS RWY 11. BKA732 LJ35 CALLED GROUND CONTROL(GC) WITH INFORMATION KILO REQUESTING TO TAXI. GC INADVERTENTLY TAXIED BKA732 TO RWY 29 WITH RWY 11 IN USE. BKA732 CALLS LOCAL CONTROL (LC)READY FOR TAKEOFF AT RWY29. ASQ5224 CHECKED IN AND LC CLEARED HIM TO LAND. LC THEN CAME BACK TO BKA732 AND CLEARED HIM FOR TAKEOFF, "TURN LEFT HEADING 050 RWY11 CLEARED FOR TAKEOFF, TRAFFIC CRJ2 SEVEN MILE FINAL". BKA732 QUESTIONS THE HEADING AND LC CONFIRMED IT THEN BKA732 DEPARTED RWY 29 WITH ASQ5224 ON 3.5 MILE FINAL RWY11. LC CONTROL THEN RECOGNIZED THE CONFLICT AND CLIMBED ASQ5224 TO 040 AND SENT HIM AROUND. LC THEN ISSUED A TRAFFIC ALERT TO ASQ5224 AND TURNED HIM RIGHT TO 180 IMMEDIATELY AND ISSUED THE TRAFFIC ALERT TO BKA732 AND TURNED HIM RIGHT TO 360 IMMEDIATELY.</p>			
QA Summary			
see above			

Summarize the Event

Columbia (CAE) ATCT – Thursday, March 5, 2015 at 6:40

p.m. EST: (Acey) ASQ5224/CRJ2 was inbound on the ILS approach to Runway 11. The Ground Control (GC) controller mistakenly taxied (Bank Air) BKA732/LJ35 to Runway 29. The Local Control (LC) controller cleared BKA732 for takeoff from Runway 11 with a left turn heading 050 degrees and issued traffic on the CRJ2 now on a seven mile final. BKA732 questioned the heading but did not question the runway assignment. The LC controller confirmed the heading and BKA732 departed Runway 29 when ASQ5224 was on a 3.5 mile final for Runway 11. The LC controller recognized the conflict once BKA732 was airborne and issued ASQ5224 a climb clearance to 4,000 feet and go around instructions. The LC controller then issued ASQ5224 a right turn to a 180 heading and issued BKA732 a right turn to a 360 heading. Traffic was then exchanged between the aircraft. The closest proximity was 0.29 miles and 100 feet.

Still have questions?

Let's perform a Services Rendered Telephone Conference (SRT)

- What was the staffing?
- Traffic volume and complexity?
- Weather?
- Obstruction to vision or distractions?
- Equipment functioning properly?
- Did controller visually acquire the departure prior to issuing the clearance?

PLENARY SESSION

Please join us for the plenary session. You will find the link in the chat box.

A thick, white, curved line that starts from the bottom left, rises to a peak, and then curves downwards towards the right, spanning across the lower half of the slide.

REGIONAL FOCUS

Accident and Incident Investigation for the Latin America and Caribbean Region

Wednesday 28 July and 4 August 2021

08:00 – 09:30 EDT



Mr. Shayne Campbell

Safety Programme Manager

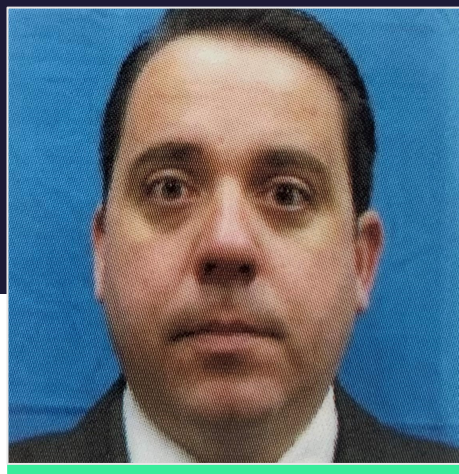
CANSO



Mr. Jeffrey Hurby

Event Investigations
Manager

FAA



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FAA



Mr. Michael Strother

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Still have questions?

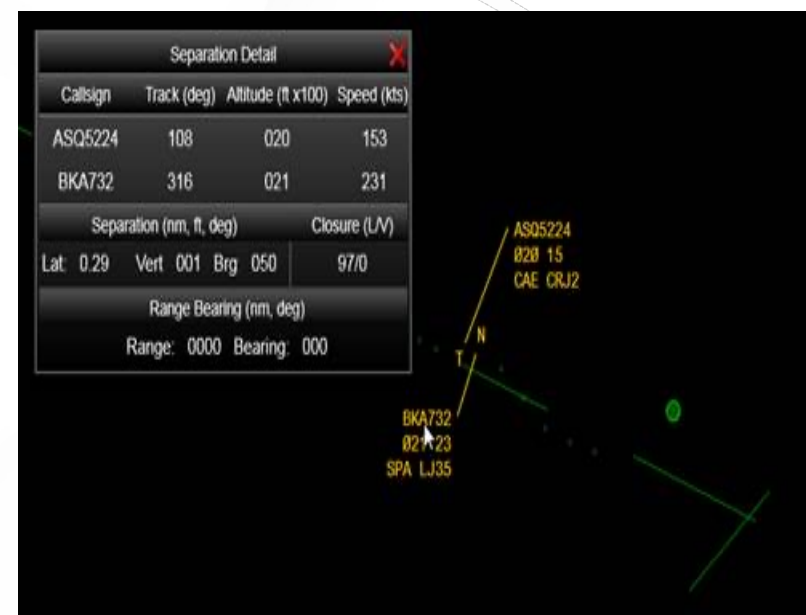
Let's perform a Services Rendered Telephone Conference (SRT)

- What was the staffing?
- Traffic volume and complexity?
- Weather?
- Obstruction to vision or distractions?
- Equipment functioning properly?
- Did controller visually acquire the departure prior to issuing the clearance?

SRT Findings

A Services Rendered TELCON was conducted and the event was color-coded Yellow with an Event Response Team launch.

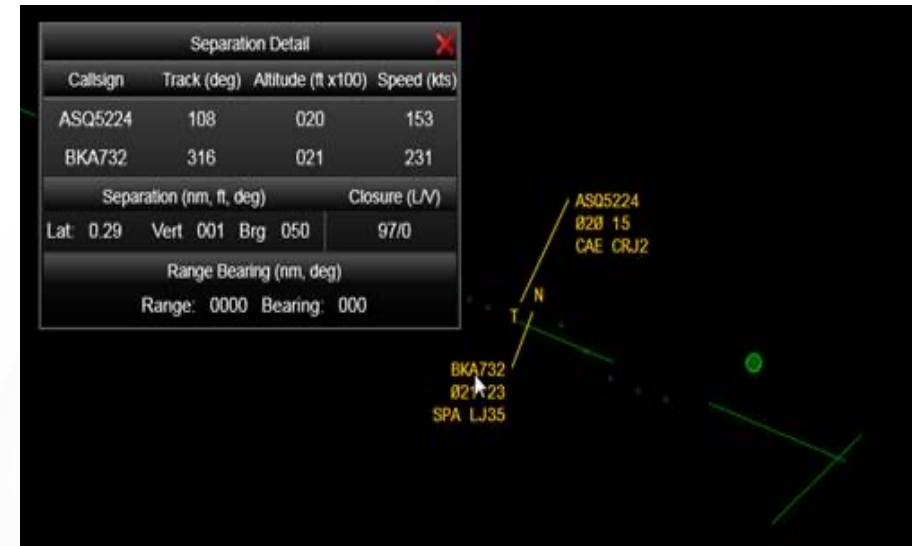
- CAE facility management provided a briefing of the event that included a review of voice recordings for the Local Control (LC) and Ground Control (GC) positions.
- Staffing in the Tower included a LC controller and a GC controller (combined with CIC). The FLM in the facility was monitoring operations in the radar room. Traffic was described as light, and there were no reported distractions in the tower.
- The reported weather from ten minutes after the incident was; wind 010 at 9 knots, visibility 9 miles with light rain, ceilings broken at 800 feet and overcast at 1,500 feet.
- The facility briefed that there were no obstructions to visibility from the tower to the runway environment and no anomalies with the tower radar display.



SRT Findings

- The facility briefed that when the controller assumed the GC position, Runway 29 was the active runway. The airport configuration was changed while the controller was on the GC position
- The GC controller then prepared two consecutive ATIS broadcast that both advertised Runway 11 and 5 as the active runways. When the GC controller issued BKA732 taxi clearance to runway 29, the pilot did not read-back the assigned runway
- BKA732 subsequently taxied to Runway 29 and contacted the LC controller for takeoff. ASQ5224 reported inbound on the approach and was cleared to land Runway 11 by LC.
- After ASQ5224 read back his landing clearance, the LC controller cleared BKA732 for take-off, Runway 11. BKA732 read back the takeoff clearance but did not specify the departure runway

- BKA732 became airborne and was in immediate conflict with the opposite direction traffic
- The LC controller recognized the conflict once BKA732 was airborne and instructed ASQ5224 to initiate a go-around
- The LC controller provided multiple vectors to both aircraft in an attempt to increase separation
- The LC controller then called the radar room to advise of ASQ5224 going around, and to pass the heading assigned to BKA732



SRT Findings

- The flight crew from ASQ5224 contacted CAE tower later that day to discuss the event.
- The pilot advised the facility they would be filing an ASAP report.
- CAE management conducted an SSR of the event and will train the facility on lessons-learned



QUESTIONS AND ANSWERS



Mr. Shayne Campbell

Safety Programme Manager

CANSO



Mr. Javier Vanegas

Director Latin America and Caribbean Affairs

CANSO



THANK YOU

