

**NATIONAL TRANSPORTATION SAFETY BOARD
Office of Research and Engineering
Vehicle Recorder Division
Washington, D.C. 20594**



GROUP CHAIRMAN'S FACTUAL REPORT OF INVESTIGATION

CEN111A234

**By
Bill Tuccio**

WARNING

The reader of this report is cautioned that the transcription of a cockpit voice recorder audio recording is not a precise science but is the best product possible from a Safety Board group investigative effort. The transcript or parts thereof, if taken out of context, could be misleading. The transcript should be viewed as an accident investigation tool to be used in conjunction with other evidence gathered during the investigation. Conclusions or interpretations should not be made using the transcript as the sole source of information.

NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, D.C. 20594

September 21, 2012

Cockpit Voice Recorder - 12

Group Chairman's Factual Report By Bill Tuccio

A. EVENT

Location: Akron, Ohio
Date: March 18, 2011, 0008 Eastern Daylight Time (EDT)*
Aircraft: Embraer EMB-145, N11187
Operator: ExpressJet, Flight 5916
NTSB Number: CEN11IA234

B. GROUP

A group was convened on August 9, 2012.

Chairman: Bill Tuccio
Aerospace Engineer
National Transportation Safety Board

Member: Adam Huray
Aircraft Systems Investigator
National Transportation Safety Board

Member: Eric West
Air Safety Investigator
Federal Aviation Administration

Member: Trey Ables
Manager Safety and Regulatory Compliance
ExpressJet Airlines

Member: Michael M. Shanks
Chairman, Central Air Safety Committee
Air Line Pilots Association, International

Member: Dan Ramirez
Air Safety Specialist
Embraer Aircraft Holding, Inc.

* All times are expressed in EDT, unless otherwise noted.

C. SUMMARY

On March 18, 2011, about 0008 eastern daylight time (EDT), an Embraer EMB-145XR, N11187, veered off of the left side of runway 23 while landing at the Akron-Canton Regional Airport (CAK), Akron, Ohio. There were 43 passengers and 3 crewmembers on board; no injuries were reported. The airplane sustained minor damage. The airplane was operated by ExpressJet Airlines as United Express flight 5916 under the provisions of 14 Code of Federal Regulations Part 121 as a domestic passenger flight. Visual meteorological conditions prevailed and an instrument flight rules flight plan was filed. The flight originated from the Chicago O'Hare International Airport, Chicago, Illinois, at an unconfirmed time. A solid-state cockpit voice recorder (CVR) was sent to the National Transportation Safety Board's Audio Laboratory for readout. The CVR group meeting convened on August 9, 2012 and a partial transcript was prepared for 7 minutes and 19 seconds of the 2-hour, 5-minute digital recording (see attached).

D. DETAILS OF INVESTIGATION

On March 21, 2011, the NTSB Vehicle Recorder Division's Audio Laboratory received the following CVR:

Recorder Manufacturer/Model: **Honeywell 6022**
Recorder Serial Number: **CV120-07561**

Recorder Description

Per federal regulation 14 CFR 121.359, aircraft manufactured prior to April 7, 2010 must be equipped with a CVR that records a minimum of the last 30 minutes of aircraft operation; this is accomplished by recording over the oldest audio data. When the CVR is deactivated or removed from the airplane, it retains only the most recent 30 minutes or 2 hours of CVR operation, depending on the CVR model. This model CVR, the Honeywell 6022, is a solid-state CVR that records 2 hours of digital cockpit audio. The recorded audio data is separated by the Honeywell download software into 2 sets of audio data files: a) a 2-channel recording containing the last 2 hours of recorded events and b) a 4-channel recording containing the last 30 minutes of recorded events. During the 2-hour portion of the recording, one channel contains audio information from the cockpit area microphone (CAM) and the other channel contains a mixture of three audio sources: the captain's audio panel information, the first officer's audio panel information, and the observer pilot's audio panel information. The 30-minute portion of the recording contains 4 channels of audio data; one channel for each flight crew and one channel for the CAM audio information.

Recorder Damage

Upon arrival at the audio laboratory, it was evident that the CVR had not sustained any heat or structural damage and the audio information was extracted from the recorder normally, without difficulty.

Audio Recording Description

For the 2-hour portion of the CVR recording, each channel contained good quality[†] audio information. As shown in table 1, the 30-minute portion of the recording consisted of four channels of useable audio information. Each channel's audio quality is indicated in Table 1.

Table 1: Audio Quality

Channel Number	Content/Source	Quality
1	Observer	Excellent
2	First Officer	Excellent
3	Captain	Excellent
4	CAM	Good

Timing and Correlation

Timing on the partial transcript was established by correlating the CVR events to common events on the flight data recorder (FDR). Specifically, CVR radio transmissions initiated by the aircraft at 0148:05.8, 0149:05.5, and 0149:17.1 CVR Elapsed Time were correlated to the radio transmit microphone key parameter from the FDR at 0002:56.1, 0003:55.1, and 0004:07.1 EDT. Each of the five radio transmissions acted as an anchor point for a linear interpolation between the remaining CVR events. Using this information, CVR Elapsed Time was converted to EDT using the following equation: EDT = CVR Elapsed Time – 0145:10.5.

Description of Audio Events

The recording began at 2214:49.5 on March 17, 2012 when the aircraft was on the ground at the Chicago O'Hare International Airport, Chicago, Illinois. The crew made a passenger announcement at about 2220 informing the passengers of a delay due to maintenance activities related to an inoperative passenger seat and an aircraft light bulb. After resolving the maintenance issues and related paperwork, the aircraft began to taxi at 2310. The aircraft took off at 2320 with the captain acting as flying pilot.

The aircraft climbed to a cruise altitude of flight level 270.

After receiving a descent to 15,000 feet at 2349, the first officer received ATIS information Lima at CAK. The 0251 Zulu ATIS reported winds from 220 degrees at 14 knots gusting to 20, visibility 10 miles, few clouds at 25,000 feet, temperature 14 with the ILS runway 19 approach in use. The crew then discussed and briefed the visual approach.

At about 2357, while the first officer was making a passenger announcement, air traffic control (ATC) asked if the aircraft wanted the visual approach to runway 5. The captain denied the approach due to the wind conditions, and was told to expect the visual approach to runway 23.

At about 2359, the crew asked ATC for the winds at CAK. ATC responded with pilot reported winds at 2,800 feet from 230 degrees at 57 knots, with surface winds from 230 degrees at 14 knots. The crew then descended through a cloud layer and reported breaking out of the base of the clouds at 6,500 feet with the field in site at about 0002.

[†] See attached CVR Quality Rating Scale.

At 0003, ATC cleared the aircraft for a visual approach to runway 23 and instructed the aircraft to contact CAK Tower. CAK Tower cleared the aircraft to land, reporting surface winds from 220 degrees at 14 knots.

At 0004, the crew extended the landing gear, disengaged the autopilot, and executed the approach and before landing checklists.

The partial transcript began at 0007:39.7 and continued until 0014:50.0. The partial transcript is attached to this report.

Following the transcribed portion of the recording, the captain made a cell phone call to his union hotline followed by a cell phone call to the Director of Operations of ExpressJet. The crew then discussed pulling the CVR circuit breaker.

The recording ended shortly thereafter at 0020:01.

As part of the Safety Board's accident investigation process, the flight crew was invited to review the CVR transcript and suggest corrections or additions. The captain declined the invitation. The first officer reviewed the CVR transcript on September 21, 2012 and had no corrections or additions.

Bill Tuccio
Vehicle Recorder Division

CVR Quality Rating Scale

The levels of recording quality are characterized by the following traits of the cockpit voice recorder information:

Excellent Quality	Virtually all of the crew conversations could be accurately and easily understood. The transcript that was developed may indicate only one or two words that were not intelligible. Any loss in the transcript is usually attributed to simultaneous cockpit/radio transmissions that obscure each other.
Good Quality	Most of the crew conversations could be accurately and easily understood. The transcript that was developed may indicate several words or phrases that were not intelligible. Any loss in the transcript can be attributed to minor technical deficiencies or momentary dropouts in the recording system or to a large number of simultaneous cockpit/radio transmissions that obscure each other.
Fair Quality	The majority of the crew conversations were intelligible. The transcript that was developed may indicate passages where conversations were unintelligible or fragmented. This type of recording is usually caused by cockpit noise that obscures portions of the voice signals or by a minor electrical or mechanical failure of the CVR system that distorts or obscures the audio information.
Poor Quality	Extraordinary means had to be used to make some of the crew conversations intelligible. The transcript that was developed may indicate fragmented phrases and conversations and may indicate extensive passages where conversations were missing or unintelligible. This type of recording is usually caused by a combination of a high cockpit noise level with a low voice signal (poor signal-to-noise ratio) or by a mechanical or electrical failure of the CVR system that severely distorts or obscures the audio information.
Unusable	Crew conversations may be discerned, but neither ordinary nor extraordinary means made it possible to develop a meaningful transcript of the conversations. This type of recording is usually caused by an almost total mechanical or electrical failure of the CVR system.

Transcript of a Honeywell 6022 solid-state cockpit voice recorder, serial number CV120-07561, installed on an ExpressJet Embraer EMB-145 (N11187), which exited the runway during landing at the Akron-Canton Regional Airport in Akron, Ohio.

LEGEND

CAM	Cockpit area microphone voice or sound source
HOT	Flight crew audio panel voice or sound source
RDO	Radio transmissions from N11187
PA	Passenger announcement system
TWR	Radio transmission from the Akron-Canton Regional Airport tower controller
OPS	ExpressJet operations at Akron-Canton Regional Airport
ARFF-11	Airport Rescue and Firefighting, unit 11
ACARS	Aircraft Communications Addressing and Reporting System
AWU	Aural Warning Unit
-1	Voice identified as the captain
-2	Voice identified as the first officer
-3	Voice identified as the flight attendant
-?	Voice unidentified
*	Unintelligible word
#	Expletive
()	Questionable insertion
[]	Editorial insertion

Note 1: Times are expressed in eastern daylight time (EDT).

Note 2: Generally, only radio transmissions to and from the accident aircraft were transcribed.

Note 3: Words shown with excess vowels, letters, or drawn out syllables are a phonetic representation of the words as spoken.

Note 4: A non-pertinent word, where noted, refers to a word not directly related to the operation, control or condition of the aircraft.

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

22:14:49.5[‡]
START OF RECORDING

00:07:39.7
START OF TRANSCRIPT

00:07:39.7
HOT-1 or at least close to final.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:07:39.8
TWR winds two one zero at two zero.

00:07:50.1
HOT-1 still forty knots. point six hundred feet.

00:07:52.3
HOT-2 you might. it might it might. dump off.

00:07:54.3
HOT-1 oh yeh. I'm gettin' ready for it.

00:07:55.7
HOT-2 [chuckle]

00:08:01.2
HOT-2 yeh. you're gettin' into the layer where it's kind of...

00:08:04.0
HOT-1 yeah.

[‡] The recording began on March 17, 2012 EDT and transitioned through midnight.

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:08:09.5

HOT-2 alright. cool. it's runway two three at Akron Canton.

00:08:12.0

CAM [sound of rattling]

00:08:12.3

HOT-1 three in the green. runway is clean.

00:08:13.9

AWU approaching minimums.

00:08:17.7

AWU minimums minimums

00:08:24.7

HOT-1 glideslope.

00:08:30.6

AWU one hundred.

00:08:38.6

HOT-1 aw-haw #...

00:08:39.8

HOT-2 [chuckle] a little bit of a--

00:08:40.1

HOT-1 ...come on #...

00:08:41.4

HOT-1 ...yeah.

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:08:43.2
HOT-1 oohhh

00:08:43.2
CAM [sound of rattling, similar to aircraft on the ground]

00:08:46.3
CAM [sound of thunk and increased background noise, similar to nosewheel touchdown and spin up]

00:08:46.3
HOT [sound of chime, similar to master caution]

00:08:46.9
AWU trim

00:08:48.3
HOT-2 I got tops--

00:08:48.5
HOT-1 that was a little firmer than I like.

00:08:50.2
CAM [sound of rustling, not typical for rollout]

00:08:50.2
HOT-2 ehh.

00:08:50.7
HOT-1 oops.

00:08:51.0
HOT-2 whup. whup. # # #.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:08:51.4

HOT-1 whoa. whoa whoa whoa.

00:08:52.6

CAM [sound of high pitch sound, similar to tire squealing]

00:08:54.2

HOT-1 whoa #...what was that dude.

00:08:56.0

CAM [sound of increased rumbling, similar to aircraft leaving runway]

00:08:57.6

HOT-1 whoa whoa.

00:08:58.0

HOT-2 I'm pullin' the trigger.

00:08:58.8

HOT-1 oh #.

00:08:59.9

HOT [sound of single chime, similar to master caution]

00:09:00.7

HOT-2 what do you want to do. come to ah. we need to come to a stop.

00:09:02.0

HOT-1 stop yeh.

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:09:02.5
CAM [sound of background noise decreases, similar to aircraft coming to stop]

00:09:03.1
HOT-1 holy #.

00:09:04.4
CAM [sound of two thunks]

00:09:04.7
HOT-1 what the # was that.

00:09:05.4
HOT [sound of single chime, similar to master caution]

00:09:09.3
CAM [sound of "cha-kunk"]

00:09:10.8
HOT [sound of single chime, similar to master caution]

00:09:17.5
HOT-2 I'm gonna' tell the peep to stay seated.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:09:08.1
TWR Jetlink fifty nine sixteen...and...verify...did you uh.

00:09:14.4
RDO-1 we went off the runway fifty nine sixteen.

00:09:17.5
TWR Jetlink fifty nine sixteen say again.

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:09:19.6
HOT [sound of single chime, similar to master caution]

00:09:21.9
HOT-2 yeh remain seated [trails off to mumbling]

00:09:23.4
PA-2 folks this is your first officer speaking. please remain seated.

00:09:25.1
HOT [sound of single chime, similar to master caution]

00:09:28.9
HOT-1 alright.

00:09:42.4
HOT-1 dude what happened?

00:09:43.5
HOT-2 I don't know. I-I pulled the trigger. I pulled the quick disconnect.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:09:26.0
TWR Jetlink fifty nine sixteen tower.

00:09:30.6
RDO-1 yeh we just ah slid off the ah left side of the runway. I'm not sure what exactly happened there. uhm we're gonna need ah some assistance.

00:09:39.3
TWR roger standby.

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:09:45.7

HOT-1 I know.

00:09:47.9

HOT-1 oh my God.

00:09:48.9

HOT-2 alright we. we better.

00:09:52.1

CAM [sound of click]

00:09:54.1

HOT-1 who do we call. I don't even. oh my God.

00:09:55.4

HOT-2 well...uhm...start by calling uhm.

00:09:58.8

HOT-2 what's dispatch. and ah let's run some checklists and make sure everything's okay.

00:10:02.5

HOT-1 yeah. good call.

00:10:05.2

HOT-1 what the hell dude. do we. look out the window.

00:10:08.8

HOT-2 I'm gonna call uhm.

00:10:12.3

HOT [sound of low volume chime, similar to attendant call]

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:10:13.2
HOT-3 [sound of flight attendant on intercom] hello.

00:10:15.7
HOT-1 I don't know that the---

00:10:20.8
HOT-2 uh I'm gonna call ops...and ah we'll have to figure out how to get the people off.

00:10:25.7
HOT-1 hang on a second.

00:10:31.5
HOT-3 ***.

00:10:35.4
HOT-1 * is everybody alright back there?

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:10:16.5
TWR * sixteen when you say assistance just like a tug or are you stuck in the grass or *** like crash and fire rescue?

00:10:27.1
RDO-1 uhm probably like fire and rescue. we slid off the runway.

00:10:31.5
TWR okay and they are on they're way out.

00:10:33.6
RDO-1 thank you.

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:10:36.9

HOT-3 yeah.

00:10:37.6

HOT-1 I don't know what happened. we just all the sudden it just swerved.

00:10:42.3

HOT-3 okay. so you want me to just sit here and wait for a minute or?

00:10:45.0

HOT-1 yeh. we're not gonna. we're gonna wait for a-ah second here.

00:10:47.9

HOT-3 okay.

00:10:48.9

HOT-1 uhm.

00:10:50.8

HOT-3 I'll. I'll take a walk through and make sure everybody's okay. and then...

00:10:52.7

HOT-1 okay.

00:10:53.3

HOT-3 --okay.

00:10:53.8

HOT-1 alright thank you.

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:10:54.8

HOT-3 call me as soon as you know what's goin' on.

00:10:57.2

HOT-1 alright will do.

00:10:58.0

HOT-3 thank you.

00:10:58.7

HOT-1 thanks.

00:10:59.4

HOT [sound of flight attendant leaving intercom]

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

00:11:00.7

ACARS [sound of beep, similar to ACARS chirp]

00:11:02.1

HOT-2 I'm gonna lift the flaps up. well let's just leave everything the way it is.

00:11:05.2

HOT-1 ughhh.

00:11:06.8

HOT-2 dude. sorry man. what what.

00:11:08.2

HOT-1 I don't know. I-I.

00:11:08.2

HOT-2 what happened there. somethin' broke.

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:11:09.7
HOT-1 somethin' snapped yeh.

00:11:11.3
HOT-2 yeh.

00:11:12.1
HOT-1 I mean uh. I uh.

00:11:13.2
HOT-2 I-I grabbed. dude as soon as you were goin' I hit the right
brake.

00:11:13.2
HOT-1 fought it with right rudder. yeah.

00:11:16.3
HOT-1 and I. and I. wh---

00:11:16.3
HOT-2 and I and I started hittin' quick disconnect.

00:11:18.7
HOT-1 I appreciate that and I went full--

00:11:22.3
HOT-1 oh my God dude.

00:11:23.9
HOT-2 just relax. just relax man.

00:11:26.8
HOT-2 uhm I would call the chief pilot if you could and uhm.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:11:31.8
HOT-2 the next we. do you have your union badge?

00:11:33.9
HOT-1 yeah.

00:11:35.3
HOT-2 uhm. I'm gonna call ops.

00:11:37.0
HOT-1 okay.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:11:37.6
TWR rescue eleven. ground.

00:11:41.1
RDO-2 hey ah Akron ops Jetlink fifty nine sixteen.

00:11:41.7
TWR *** we had a regional jet he ah actually slid off the side of the runway and it's in the grass * left side * short of fox two.

00:11:54.2
OPS fifty nine sixteen this is Akron Ops.

00:11:56.6
RDO-2 hey ah I'm ah I'm really sorry to report this but ah we ran off the runway and uhm we're going to have to figure out what happened uhm we're not sure what happened actually but uh we ran off the runway at and uhm we're gonna have to probably do something with the people and call the authorities ah the tower is working on it as well.

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:12:24.4
CAM-1 dude let's do the ah what-chya-ma-call it.

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

00:11:57.0
TWR [tower gives instructions to ARFF-11 to transit the airport to the aircraft]

00:12:20.7
OPS copy that.

00:12:24.3
OPS ah fifty nine sixteen is anyone injured?

00:12:28.3
RDO-2 no no we don't believe so sir. we're we're stoppin and uh. we're gonna run some checklists here and uhm. I just don't know how we're gonna get the passengers and people and uhm take care of this. so if you can call whatever appropriate needs. I believe at this time everybody is safe and sound and we definitely are.

00:12:35.7
ARFF-11 Akron Canton Tower Rescue Eleven.

00:12:37.3
TWR Rescue eleven tower.

00:12:39.1
ARFF-11 * roger making sure I had radio contact. everyone on the aircraft seem to be okay? and what's the situation with it.

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:13:07.0
CAM-2 do you want shut down the engines (and) all?

00:13:09.0
CAM-1 yeh uhm.

00:13:14.3
CAM-1 yeah. yeah we did.

00:13:20.9
HOT [sound of decreasing whine, similar to engine spool down]

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

00:12:45.0
TWR uh. Rescue eleven. we're * just callin' a code green and trying to get you guys out here. but uh. they did request ah crash and fire so. uhm as far as the ah everyone on the aircraft. I * just assume they do need assistance.

00:12:51.7
OPS copy that we're ah we're on it.

00:13:01.5
ARFF-11 okay sir. when able get ah radio contact with 'em. and uh. give me a report on how many people are injured if any so I can let green know how many squads we need.

00:13:10.2
TWR Jetlink fifty nine sixteen did you copy that?

00:13:18.9
RDO-2 alright say again for fifty nine sixteen.

**TIME and
SOURCE**

INTRA-AIRCRAFT COMMUNICATION CONTENT

00:13:23.2

HOT [sound of single chime, similar to master caution]

00:13:26.2

CAM-1 nobody's nobody's injured.

00:13:28.7

HOT [sound of single chime, similar to master caution]

00:13:31.7

CAM no ambulance. no injuries that we know of.

00:13:59.5

HOT-2 alright so. uhm.

**TIME and
SOURCE**

AIR-GROUND COMMUNICATION CONTENT

00:13:21.3

TWR yeh and ah just uh they're trying to get idea on how many people might be injured on the plane if anybody's injured or. and how many ambulances that they need to send over.

00:13:32.7

RDO-2 uhm at this time believe there are no injuries. uhm the aircraft should be it's all intact and ah. uhm everybody's in their seats as far as I know. we're checking on that right now. we're securing the aircraft per some checklists.

00:13:47.7

TWR Jetlink fifty nine sixteen roger as soon as you do get a number or any ah updates if you just pass it along. appreciate it.

00:13:55.2

RDO-2 will do.

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:14:00.7
CAM-1 do the uhm.

00:14:02.9
HOT-2 aborted take-off?

00:14:04.4
CAM-1 no I don't even know what checklist to do here.

00:14:06.0
HOT-2 let's do a ah a park-- ah after-- well I don't want to touch anything right now.

00:14:10.9
CAM-1 yeh no.

00:14:11.3
HOT-2 just in case something's damaged.

00:14:12.8
CAM-1 yeh I know. I agree.

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:14:13.7
ARFF-11 Akron Canton Tower Rescue eleven.

00:14:14.6
HOT [sound of single chime, similar to master caution]

00:14:14.6
HOT-2 and so.

00:14:17.0
CAM-1 oh #.

TIME and SOURCE **INTRA-AIRCRAFT COMMUNICATION CONTENT**

00:14:17.5
HOT-2 I say we. I'm just kind'a gonna look over the after landing checklist.

00:14:21.8
HOT [sound of single chime, similar to master caution]

00:14:21.9
HOT-2 I got the gust lock set.

00:14:35.3
HOT-2 ah gust lock. the flaps I'm gonna leave there.

00:14:50.0
HOT-2 parking brake.

00:14:59.1
END OF TRANSCRIPT

00:20:01.3
END OF RECORDING

TIME and SOURCE **AIR-GROUND COMMUNICATION CONTENT**

00:14:23.9
TWR Rescue eleven tower.

00:14:25.1
ARFF-11 [advises tower they can go to a runway 1-19 operation closing runway 5-23]

00:14:38.0
**TWR/
ARFF-11** [Tower and Rescue Eleven verify airport is open on runway 1-19 and 5-23 is closed]