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

GROUP CHAIRMAN'S FACTUAL REPORT OF INVESTIGATION

DCA17MA022

By
Bill Tuccio, Ph.D.

WARNING

The reader of this report is cautioned that the transcript 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

July 10, 2017

Cockpit Voice Recorder

Group Chairman's Factual Report
By Bill Tuccio, Ph.D.

1. EVENT SUMMARY

Location:	Fort Lauderdale, Florida
Date:	October 28, 2016
Aircraft:	McDonnell Douglas MD-10-10F, Registration N370FE
Operator:	FedEx, Flight 910
NTSB Number:	DCA17MA022

On October 28, 2016, at about 1751 eastern daylight time (EDT), FedEx flight 910, a McDonnell Douglas MD-10-10F, registration N370FE, experienced left main landing gear collapse and subsequent fire in the left wing after landing on runway 10L at Fort Lauderdale–Hollywood International Airport (KFLL), Fort Lauderdale, Florida. The two flight crew members evacuated the airplane after the airplane came to rest on the side of runway 10L and were not injured. The airplane was substantially damaged. The cargo flight was operating under 14 *Code of Federal Regulations* Part 121 and originated from Memphis International Airport (KMEM), Memphis, Tennessee. A solid-state Combined Voice and Flight Data Recorder (CVFDR) was sent to the National Transportation Safety Board (NTSB) Vehicle Recorder Division for evaluation. The CVR group meeting convened on November 17, 2016, and a partial transcript was prepared for the 2-hour digital recording (see attached).

2. GROUP

Chairman:	Dr. Bill Tuccio Aerospace Engineer NTSB
Member:	Dave Keenan Air Safety Investigator Federal Aviation Administration
Member:	Captain Chip Sieglinger Chief 717/MD/DC Technical Pilot The Boeing Company
Member:	Captain Mark Cardwell Check Airman FedEx

Member: Captain Norman Maxim
Aircraft Technical and Engineering Vice Chairman
Air Line Pilots Association

3. DETAILS OF INVESTIGATION

The NTSB Vehicle Recorder Division received the following CVFDR:

Recorder Manufacturer/Model: **GE CVFDR**
Recorder Serial Number: **0000061**

3.1 CVR Carriage Requirements

Per federal regulation, large turbine engine powered aircraft operating under 14 CFR Part 121 must be equipped with a CVR that records a minimum of the last 2 hours 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 2 hours of CVR operation.

3.2 Recorder Description

This model CVFDR, the GE CVFDR, is a combination Cockpit Voice Recorder (CVR) and Flight Data Recorder (FDR). The CVR portion records a minimum of 120 minutes of digital audio stored on solid state memory modules. Four channels are recorded: one channel for each flight crew, one channel for a cockpit observer, and one channel for the cockpit area microphone (CAM).

3.3 Recorder Damage

Upon arrival at the laboratory, it was evident that the CVFDR had not sustained any heat or structural damage and the CVR audio information was extracted from the recorder normally.

3.4 Audio Recording Description

Each channel's audio quality is indicated in Table 1.[1] Channel number two did not contain any audio information, nor was it expected to as there was no observer pilot on the flight.

Table 1. Audio quality.

Channel Number	Content/Source	Quality	Duration
1	CAM	Good	120 min
2	Observer	N/A	120 min
3	First Officer	Excellent	120 min
4	Captain	Excellent	120 min

3.5 Timing and Correlation

Timing on the transcript was established by correlating the CVR events to common events on the FDR. Specifically, four radio transmissions that the aircraft made recorded on the CVR at 6743.5, 6871.7, 6957.4, and 6985.5 seconds CVR Elapsed Time (time since the

[1] See attached CVR Quality Rating Scale.

start of the recording) were correlated to the radio transmit microphone key parameter for the same transmissions recorded on the FDR at 63828.3, 63956.3, 64042.3, and 64070.3 EDT (seconds past midnight). Each of the four radio transmissions acted as an anchor point for a linear interpolation, resulting in the following relationship:

CVR EDT = CVR Elapsed Time + 57084.0 seconds past midnight

3.6 Description of Audio Events

The recording began at 1551 EDT, when KMEM Tower instructed FedEx flight 910 "heavy" to line up and wait on runway 18L. Shortly thereafter, Fedex 910 was cleared for takeoff and commenced its takeoff roll. The recorded content was consistent with the first officer acing as pilot flying and the captain acting as pilot monitoring.

After takeoff, FedEx 910 uneventfully retracted the landing gear, performed a standard departure, checklists, and complied promptly with all clearances and air traffic control (ATC) instructions; in one instance, the captain corrected a controller instructional error. Throughout the flight, at least one of the crewmembers monitored Guard (121.5). After a number of intermediate ATC assigned level offs, FedEx 910 climbed to a final cruising altitude of flight level (FL) 350.

During the portions of the flight above 18,000 feet, the crew engaged in social and operational conversations, including a discussion about vertical mode effects on the approach/land mode related to aircraft automation.

At about 1707:39 EDT, a tone, similar to a notification of an Aircraft Communications Addressing and Reporting System message was recorded. The crew noted they would be using gate 1 at KFLL and ground power would be available. The first officer then initiated a discussion of the arrival into KFLL followed by the approach briefing, including the following points:

- first officer discussed the arrival routing, leading to ILS[2] 10L at KFLL;
- crew confirmed the chart header for the ILS 10L was "11-1" dated "19 June;"
- first officer briefed the following items:
    - minimum safe altitude, 2,100 feet;
    - "PAPI"[3] on the left side, and "MALSR"[4];
    - altitudes and navigational fixes on the ILS and missed approach;
    - landing distance estimation of 6,400 feet;
    - no autobrakes installed;
    - 35 degrees of flaps due to gusting winds (captain agreed); and
    - autothrottle off at 100 feet.
- crew discussed wind additives for steady state and/or gusting winds, decided upon a 10 knot additive, and the approach speed would be 150 knots;
- first officer said he would hand fly after "breaking out;" get crosswind alignment in at 200 feet, and flare at 40 feet "or so;"

[2] ILS is an acronym for Instrument Landing System approach.
[3] PAPI is an acronym for Precision Approach Path Indicator.
[4] MALSR is an acronym for Medium Intensity Approach Light System with Runway Alignment Indicator Lights.

- first officer briefed the go around procedures;
- first officer noted the captain would monitor on the heads up display and the captain agreed; and
- the first officer concluded asking if the captain had any questions, and the captain responded he did not have any questions.

The arrival and approach briefing concluded about 1715 EDT.

At 1717 EDT, FedEx 910 was cleared to descend at pilot's discretion to FL 240.

At 1721 EDT, the captain reported that FedEx 910 was descending out of FL 350. Thereafter, ATC issued additional altitude clearances.

At 1728 EDT, FedEx 910 was cleared to cross the JINGL intersection at 8,000 feet and given an altimeter of "2999."

At 1729 EDT, the first officer called for the in-range checklist, and the captain performed the checklist.

At 1733 EDT, the captain first contacted Miami Approach while descending through 11,200 feet, advising he had information Yankee. Miami Approach advised FedEx 910 to expect the ILS 10L approach.

At 1734 EDT, the captain advised the first officer he put "10L" in the "fix page."

At 1735 EDT, Miami Approach cleared FedEx 910 to 6,000 feet.

At 1736 EDT, Miami Approach cleared FedEx 910 direct to the HOLID intersection to intercept the 10L localizer.

At 1738 EDT, Miami Approach gave FedEx 910 a speed restriction of 210 knots, and shortly thereafter, the first officer asked for slats extended.

At 1740 EDT, Miami Approach cleared FedEx 910 to descend and maintain 5,000 feet.

The remainder of the recording was transcribed as attached. The recording ended shortly after the gear collapse as the evacuation checklist was initiated by the crew.

As part of the NTSB's accident investigation process, the flight crew was invited to review the CVR transcript and suggest corrections or additions. The captain declined the invitation, and the first officer attended a review on April 19, 2017. The first officer had no comments.

Attachment I

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 GE CVFDR solid-state CVFDR, serial number 0000061, installed on a FedEx McDonnell Douglas MD-10-10F (N370FE), which suffered a gear collapse during landing at Fort Lauderdale–Hollywood International Airport (KFLL), Fort Lauderdale, Florida.

LEGEND

CAM	Cockpit area microphone voice or sound source
HOT	Flight crew audio panel voice or sound source
RDO	Radio transmissions from N370FE
APR	Radio transmission from Miami approach controller
TWR	Radio transmission from the KFLL airport tower controller
MISC-AC	Radio transmission from a miscellaneous aircraft
RAAS	Runway Awareness and Advisory System
CAWS	Crew Alerting and Warning System
-1	Voice identified as the captain
-2	Voice identified as the first officer
-?	Voice unidentified
*****	Unintelligible word
#	Expletive
@	Non-pertinent word
( )	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-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
15:51:24 EDT **START OF RECORDING**			
17:41:12 EDT **START OF TRANSCRIPT**			
17:41:20.3 **HOT-1**	approach brief?		
17:41:21.6 **HOT-2**	ah yes please.		
17:41:22.5 **HOT-1**	briefing's complete. altimeters are...two...nine nine nine.		
17:41:27.7 **HOT-2**	two nine nine nine.		
17:41:28.9 **HOT-1**	minimums are set two fifty-seven.		
17:41:31.4 **HOT-2**	set (minimum) **.		
17:41:32.0 **HOT-1**	both navaids are checked.		
17:41:33.8 **CAM-2**	(roger) thanks.		
17:41:34.6 **HOT-1**	approach checks complete.		
17:42:23.5 **HOT-1**	why don't you try that for me. hit approach land.		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:42:29.2 **HOT-1**	that should capture your localizer. alright now let's go to forty-eight hundred.		
17:42:35.9 **HOT-1**	hit your vertical speed let's see if it comes out.		
17:42:43.1 **HOT-1**	didn't.		
17:42:46.4 **HOT-2**	huh.		
17:42:46.4 **HOT-1**	still land arm.		
17:42:47.5 **HOT-2**	huh.		
17:42:48.4 **HOT-1**	I don't know I--		
17:42:49.3 **HOT-2**	I hey I don't that's interesting.		
17:42:56.0 **HOT-2**	very interesting.		
17:43:02.4 **HOT-1**	ah we can't come out of ahh. what do you--		
		17:43:04.2 **APR**	FedEx nine ten heavy reduce speed to one seven zero.
		17:43:06.6 **RDO-1**	slow to one seventy for FedEx nine ten heavy.

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:43:09.0 **HOT-1**	you don't need to follow the glideslope down now though so how-how do we get out of that?		
17:43:11.5 **HOT-2**	I'll take ah.		
17:43:16.0 **HOT-1**	there you go.		
17:43:17.6 **HOT-2**	I'll take ah flaps fifteen.		
17:43:19.9 **HOT-1**	flaps fifteen [grunt].		
17:43:21.3 **CAM**	[sound of three clicks, similar to flap handle]		
17:43:26.8 **HOT-1**	you want me to arm it?		
17:43:27.8 **HOT-2**	arm the localizer.		
17:43:30.9 **HOT-1**	loc's armed.		
17:43:31.7 **HOT-2**	thank you.		
17:43:32.4 **HOT-1**	it's captured.		
17:43:41.8 **HOT-1**	I'm gonna try and get you lower so we don't get all balled up here.		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:43:44.4 **HOT-2**	yeah yeah thanks.		
		17:43:47.5 **RDO-1**	FedEx nine ten's looking for lower.
		17:43:49.5 **APR**	FedEx nine ten heavy descend and maintain tree thousand.
		17:43:52.0 **RDO-1**	down down to three thousand FedEx nine ten heavy.
17:44:44.2 **HOT-1**	approaching four thousand for three thousand.		
17:44:51.2 **HOT**	[sound of c-chord, similar to altitude alert]		
17:44:52.5 **CAWS**	altitude.		
		17:45:19.6 **APR**	niner tango alpha roger you're too high for the approach ahhh I'll just take you out.
17:45:23.5 **HOT-2**	d'oh.		
		17:45:45.8 **APR**	FedEx nine ten heavy reduce to final approach speed.
		17:45:48.2 **RDO-1**	okay (we'll) (slow'in) (and) we're looking for lower also for FedEx nine ten.
		17:45:51.8 **APR**	FedEx nine ten heavy you're one-- correction five miles from NOVAE cleared I-L-S one zero left approach.

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
		17:45:55.7 **RDO-1**	cleared the I-L-S ten left FedEx nine ten thanks and we'll slow to final approach speed.
17:45:59.5 **HOT-2**	alright flaps twenty two. gear down. before landing checklist.		
17:46:00.9 **HOT-1**	flaps twenty two. landing gear down [straining]. yep.		
17:46:02.8 **CAM**	[sound of two clicks, similar to gear handle]		
17:46:03.9 **HOT-1**	before landing checklist. roger that.		
17:46:08.1 **HOT-1**	you got it.		
17:46:13.7 **HOT-1**	alrrright. let's see. we got our lights. ah. your spoilers are armed.		
17:46:19.5 **HOT-2**	checked.		
17:46:20.4 **HOT-1**	autobrakes are not installed. but your gear is down in and three green.		
17:46:24.0 **HOT-2**	roger thank you checked. and ah flaps thirty-five.		
17:46:28.1 **HOT-1**	flaps coming to thirty-five.		
17:46:28.2 **CAM**	[sound of two clicks, similar to flap handle]		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:46:31.8 **HOT-1**	missed approach altitude is two thousand. I'm gonna stick that in the pre-selector.		
17:46:34.1 **HOT-2**	roger.		
17:46:35.6 **HOT-2**	alright thank you.		
17:46:47.3 **HOT-1**	this--		
17:46:51.4 **HOT-1**	this guy...		
17:46:55.1 **HOT-1**	...he's not doin' a real good job I don't think.		
17:47:01.0 **HOT-2**	this guy's about.		
17:47:03.8 **HOT-2**	five miles ahead of us.		
17:47:11.7 **CAM-2**	***.		
		17:47:17.3 **APR**	FedEx nine ten heavy contact Lauderdale Tower one one niner point three. thanks. goodday.
		17:47:21.4 **RDO-1**	okay no- ah no problem nineteen three FedEx nine ten heavy so long.

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
		17:47:37.2 **RDO-1**	Lauderdale Tower FedEx nine ten heavy ah we're approaching NOVAE inbound ten left.
		17:47:42.6 **TWR**	FedEx nine ten heavy Fort Lauderdale Tower good evening the wind zero five zero at one eight gusts two three. runway one zero left. cleared to land.
		17:47:49.5 **RDO-1**	cleared to land on ten left FedEx nine ten heavy.
17:47:50.0 **HOT-2**	[sound of exhale]		
17:47:52.0 **HOT-1**	alright man.		
17:47:53.1 **HOT-2**	cleared to land.		
17:47:55.0 **HOT-1**	[sound of snap] you wanted a challenge.		
17:47:56.9 **HOT-2**	yep. I got it.		
17:47:57.9 **HOT-1**	[laughter]		
17:48:04.4 **HOT-2**	around a thousand feet or so I'll click 'er off there.		
17:48:08.0 **HOT-1**	alright.		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:48:12.6 **HOT-1**	@ if I-- if I didn't have confidence in ya' I wouldn't have given ya' the leg.		
17:48:16.3 **HOT-2**	yeah right.		
17:48:50.5 **HOT-1**	before we start gettin' all the calls. let me ju-- let me say this. you're in the approach box. fully configured. your'e looking good.		
17:48:57.7 **HOT-2**	thank you.		
17:48:58.9 **HOT-1**	you bet.		
17:49:07.1 **CAWS**	one thousand.		
17:49:09.7 **HOT-2**	autopilot's comin' off.		
17:49:12.0 **HOT-1**	roger that.		
17:49:12.8 **CAM**	[sound of warbling high pitch tone, similar to autopilot disconnect]		
17:49:13.9 **CAWS**	autopilot.		
17:49:26.6 **RAAS**	approaching one zero left.		
17:49:41.1 **HOT-2**	high (and) correcting.		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:49:49.7 **CAWS**	five hundred.		
17:49:51.7 **HOT-1**	you're stable. cleared to land.		
17:49:53.7 **HOT-2**	landing.		
17:49:53.9 **HOT-1**	one zero left.		
17:49:59.2 **HOT-1**	'er you go. little slow. just a touch.		
17:50:06.4 **HOT-1**	lookin' good.		
17:50:16.2 **HOT-1**	there you go. a little more left rudder. I mean right rudder. there you go. there you go. lookin' good. right in there (man).		
17:50:20.6 **CAWS**	one hundred.		
17:50:23.9 **HOT-1**	don't let 'er get too slow...		
17:50:25.2 **CAWS**	fifty.		
17:50:25.3 **HOT-1**	…slow on yah.		
17:50:26.0 **CAWS**	forty.		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:50:26.2 **HOT-1**	alright.		
17:50:27.1 **CAWS**	thirty.		
17:50:28.0 **CAWS**	twenty.		
17:50:29.3 **HOT-1**	a little flare.		
17:50:29.5 **CAWS**	ten.		
17:50:30.0 **HOT-1**	a little more flare.		
17:50:31.1 **CAM**	[sound of thunk, similar to touchdown]		
17:50:31.8 **CAM**	[sound of two squeeks and a click, similar to autospoiler deployment]		
17:50:31.8 **HOT-2**	ahh'k.		
17:50:34.7 **HOT-1**	whoa baby.		
17:50:37.0 **CAM**	[sound of thunk, similar to nosewheel touchdown]		
17:50:38.1 **HOT-1**	spoilers deployed.		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:50:39.9 **HOT-1**	go ahead and start brakin' 'er down @.		
17:50:42.6 **CAM**	[sound of multiple thunks, similar to gear collapse]		
17:50:43.8 **HOT-2**	#.		
17:50:44.1 **HOT-1**	oh 'jeeeeeze.		
17:50:48.9 **HOT-1**	I have the airplane [straining].		
17:50:49.8 **HOT-2**	you got the airplane.		
17:50:50.5 **RAAS**	three thousand remaining.		
		17:50:51.7 **TWR**	Delta seventeen fifty-three ah if you can hold short-hold short ten left.
17:50:53.7 **HOT-1**	tell him we've got an emergency. had a gear collapse.		
		17:50:55.4 **MISC-AC**	yeah we're holding short we see that.
17:50:56.3 **HOT-2**	#.		
		17:50:56.9 **TWR**	[Southwest 2789 cancel approach clearance climb and maintain 2000. maintain heading 095.]

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:50:57.4 **CAM**	[sound of two thunks]		
17:50:59.5 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:00.7 **CAWS**	landing gear.		
17:51:01.4 **RAAS**	--two thousand remaining.		
17:51:02.4 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:03.6 **CAWS**	landing gear.		
17:51:05.4 **CAM**	[sound of steady tone, similar to gear warning]		
		17:51:05.4 **MISC-AC**	[acknowledges missed approach]
17:51:06.6 **CAWS**	landing gear.		
17:51:07.9 **HOT-1**	I'm on 'em [exhale].		
17:51:08.6 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:09.5 **CAWS**	landing gear.		
17:51:11.2 **CAM**	[sound of steady tone, similar to gear warning]		

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:51:11.3 **HOT-1**	goooolly.		
17:51:12.6 **CAWS**	landing gear.		
17:51:12.7 **HOT-2**	#.		
17:51:14.5 **CAM-?**	***.		
17:51:17.1 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:17.2 **HOT-2**	(ah'right). you wann'a. [exhale]		
17:51:18.3 **CAWS**	landing gear.		
		17:51:19.3 **RDO-2**	Tower FedEx nine ten request emergency equipment. (we've) had a gear collapse.
17:51:20.0 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:21.3 **CAWS**	landing gear.		
17:51:23.0 **CAM**	[sound of steady tone, similar to gear warning]		
		17:51:23.1 **TWR**	FedEx nine ten we're rolling the ah trucks now. we see that.

TIME and SOURCE	INTRA-COCKPIT CONTENT	TIME and SOURCE	AIR-GROUND COMMUNICATION CONTENT
17:51:24.1 **CAWS**	landing gear.		
17:51:24.7 **HOT-1**	(hey) we gotta evacuate.		
17:51:25.8 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:27.0 **CAWS**	(landing gear).		
17:51:27.1 **HOT-1**	give me the evacuation checklist.		
17:51:28.9 **CAM**	[sound of steady tone, similar to gear warning]		
17:51:29.7 **CAM**	[sound of click and electrical noise]		
17:51:30.0 **CAWS**	landing--		

END OF TRANSCRIPT
END OF RECORDING
17:51:31 EDT