NATIONAL TRANSPORTATION SAFETY BOARD
Office of Research and Engineering
Vehicle Recorder Division
Washington, DC 20594

GROUP CHAIRMAN'S FACTUAL REPORT OF INVESTIGATION

NYC08MA090

By
Christopher Babcock

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
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April 30, 2008

Cockpit Voice Recorder - 12

Group Chairman's Factual Report
By Christopher Babcock

A. EVENT

Location:	Mt. Airy, North Carolina
Date:	February 1, 2008, 11:28 Eastern Standard Time (EST)[1]
Aircraft:	Hawker Beechcraft King Air C90A, N57WR
Operator:	Blue Sky Airways
NTSB Number:	NYC08MA090

B. GROUP

A group was convened on February 12, 2008.

Chairman:	Christopher Babcock Aerospace Engineer National Transportation Safety Board
Member:	Todd Gunther Investigator-in-Charge National Transportation Safety Board
Member:	James Dallas Production Test Pilot Hawker Beechcraft Corporation
Member:	Bob Hendrickson Air Safety Investigator Federal Aviation Administration
Member:	Paul Yoos Air Safety Investigator Hawker Beechcraft Corporation

[1] All times are expressed in Eastern Standard Time (EST), unless otherwise noted.

C. SUMMARY

On February 1, 2008, a Hawker Beechcraft King Air C90A, registration N57WR, crashed while attempting a GPS instrument approach to runway 36 at the Mt. Airy/Surry County Regional Airport in Mt. Airy, North Carolina. 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 February 12, 2008, and a full transcript was prepared for the 31-minute, 3-second digital recording (see attached).

D. DETAILS OF INVESTIGATION

On February 4, 2008, the NTSB Vehicle Recorder Division's Audio Laboratory received the following CVR:

Recorder Manufacturer/Model: **L-3 Communications FA 2100-1010**
Recorder Serial Number: **137462**

Recorder Description

Per Federal regulation, CVRs record 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 of CVR operation. This model CVR, the L-3 Communications FA 2100-1010, records 30 minutes of digital audio stored in solid-state memory modules. Four channels of audio information are retained: one channel for each flight crew, one channel for the cockpit area microphone (CAM), and one channel for PA system audio.

Recorder Damage

Upon arrival at the audio laboratory, it was evident that the CVR chassis had sustained some structural damage. The crash-protected memory unit was removed and installed on a functional chassis and the data was downloaded without incident.

Audio Recording Description

The 31-minute 3-second recording consisted of four channels of useable audio information. Each channel's audio quality[2] is indicated in the table.

Table 1 CVR Channel Contents and Quality

Channel Number	Content/Source	Quality
1	PA	excellent
2	Pilot in command	excellent
3	Private pilot rated passenger	excellent
4	CAM	fair

[2] See attached CVR Quality Rating Scale.

Timing and Correlation

Timing on the transcript was established by correlating the air traffic control recording transmission time to the corresponding CVR event. Specifically, the CVR time of the final two radio transmissions from N57WR was linked to the corresponding ATC local time, and all CVR events were offset to reflect the local Eastern Standard Time of the accident.

Description of Audio Events

The recording and transcript began at 10:57:23 EST. The recording begins prior to the aircraft's clearance for the approach and continues until impact at 11:28:26.

Christopher Babcock
Aerospace Engineer
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 L-3 Communications FA 2100-1010 solid-state CVR, serial number 58702, installed on an Blue Sky Airways King Air C90A (N57WR), which crashed during approach to landing at Mt. Airy/Surry County Regional Airport in Mt. Airy, North Carolina.

LEGEND

CAM	Cockpit area microphone voice or sound source
HOT	Flight crew audio panel voice or sound source
RDO	Radio transmissions from N57WR
CTR	Radio transmission from Atlanta Center
APR	Radio transmission from the Greensboro Approach controller
AWOS	Radio transmission from the Mt. Airy Automated Weather Observation System
EGPWS	Alert from onboard Enhanced Ground Proximity Warning System
-1	Voice identified as the Pilot in Command
-2	Voice identified as the Private Pilot rated passenger
-3	Voice of unidentified passenger
-A	Voice of first Atlanta Center controller
-B	Voice of second Atlanta Center controller
-?	Voice unidentified
*****	Unintelligible word
#	Expletive
@	Non-pertinent word
( )	Questionable insertion
[ ]	Editorial insertion

Note 1: Times are expressed in Eastern Standard Time (EST).

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.

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
10:57:23 **START of RECORDING** **START of TRANSCRIPT**			
10:57:49 **HOT-1**	we can always go to Winston-Salem. it's only twenty five miles from there. we'll shoot an ILS into there.		
10:58:01 **HOT-1**	do you remember how to shoot an ILS in this thing?		
10:58:08 **HOT-2**	yeah I mean I can shoot it. I think— I think I could.		
		10:58:15 **CTR-A**	november five seven whiskey romeo pilot's discretion descend and maintain one one thousand. altimeter at Greensboro two niner niner four.
10:58:24 **HOT-2**	that's us.		
		10:58:25 **RDO-1**	pilot's discretion down to one one thousand five seven whiskey romeo.
10:58:28 **HOT-1**	okay.		
10:58:28 **HOT-2**	now you can pull this # back.		
10:58:32 **HOT-1**	well now I'm thinking we'd better get our # on in there.		
10:58:35 **HOT-2**	yeah you gonna pick up a bunch of speed going down to one one thousand.		
10:58:39 **HOT-1**	oh yeah but I ain't going down right now. I'm gonna wait about—. well if I go to BURCH though—.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
10:58:45 **HOT-2**	I would. I'd go ahead and start *.		
		10:58:48 **RDO-1**	center five seven whiskey romeo's uh out of one nine oh for one one thousand.
		10:58:53 **CTR-A**	november five seven whiskey romeo roger.
10:59:20 **HOT-1**	all right its twelve fifty and five is seventeen fifty and it was twenty nine—. what was the altimeter? twenty nine ninety four?		
10:59:29 **HOT-2**	yeah.		
10:59:31 **HOT-1**	seventeen fifty is where I'm goin'...twelve fifty and five seventeen fifty.		
11:00:15 **HOT-1**	can you say IFR?		
11:00:18 **HOT-2**	yeah.		
11:00:19 **HOT-1**	[sound of laughter] we're fixin' to get in it again...this winter's been the worst flyin' I mean for me in a long time.		
11:00:30 **HOT-2**	yeah.		
11:00:45 **HOT-?**	[sound similar to sigh]		
11:00:58 **PA-1**	[sound of singing] save my life I'm going down for the last time.		
11:01:02 **HOT-1**	bum duh da da.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:01:05 **PA-1**	woman with the sweet... [sound of laughter]		
11:01:22 **PA-1**	if anybody back there on board believes in the good Lord I believe now would be a good time to hit your knees.		
11:01:38 **CAM-1**	ya'll want to take a look at the screen.		
		11:01:56 **CTR-A**	november five seven whiskey romeo contact Atlanta Center one two five point one five have a good day.
		11:02:01 **RDO-1**	twenty five one day—. hah twenty five one five good day to you.
		11:02:05 **CTR-A**	good day.
11:02:05 **HOT-1**	[sound of laughter] twenty five one day.		
		11:02:14 **RDO-1**	Atlanta Center King Air five seven whiskey romeo is at fourteen point five for one one thousand.
		11:02:19 **CTR-B**	King Air five seven whiskey romeo Atlanta Center roger uh descend and maintain niner thousand and the uh Hickory altimeter two niner niner three.
		11:02:28 **RDO-1**	down to nine thousand and two niner niner three five seven whiskey romeo.
11:02:53 **HOT-1**	* approach?		
11:02:55 **HOT-2**	yeah.		

	INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:02:57 **HOT-1**	[sound of yawn] BURCH.		
11:03:32 **HOT-1**	let's slow down a little bit Steve. want ta toggle this nose up I can't back off on the power anymore or I will scare the hell out of 'em.		
11:03:45 **HOT-1**	'fore we go into them clouds and snatch a # wing off us back er on down to at least one eighty if we can.		
11:04:06 **HOT-1**	ehhhh she comin' on down now.		
11:04:13 **HOT-1**	right here's where you toggle the nose up and down. I push it this way that way for down. 'cause you pull this thing back much less than four hundred this # light's gonna go off and that thing's gonna go beep beep beep beep beep. I do that sometimes for kicks.		
11:04:34 **HOT-1**	@ don't enjoy it but she knows what it is now but if someone's up here riding with me and that thing starts going beep beep I look at the guy beside me going what? 'cause they don't— half the time they don't even watch me even know what that # thing is.		
11:04:57 **HOT-1**	better go on down a little bit more...need to descend about a thousand. each bump's good for about uh...hundred feet.		
11:05:20 **CAM-1**	gonna get a little choppy right here boys.		
11:05:22 **CAM-3**	all right.		
11:05:27 **CAM-1**	say goodbye to the blue skies.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
		11:05:40 **AWOS**	...weather observation one six zero six zulu weather wind calm visibility three heavy drizzle ceiling six hundred overcast temperature one celsius dewpoint minus one altimeter two niner niner one. Mount Airy Surry County Airport automated weather observation one six zero six zulu weather wind calm visibility three heavy drizzle ceiling six hundred overcast temperature one celsius dewpoint minus—.
11:06:05 **HOT-2**	two niner niner one. six hundred foot ceiling. winds calm.		
11:06:08 **HOT**	[sound similar to altitude alert]		
11:06:15 **HOT-1**	we're gettin' some ice.		
11:06:20 **HOT-2**	winds calm. six hundred foot ceiling. overcast at six hundred feet.		
11:06:25 **HOT-1**	you watch 'em— you watch this ice for me. windshield's icing over too. I better put on a little bit of windshield he— heat.		
11:06:47 **HOT-2**	two niner niner one on the altimeter at— over there.		
11:06:58 **HOT-1**	it's meltin' off.		
11:07:29 **HOT-2**	you know you might want to tell them that we're set up for that GPS three six approach.		
11:07:34 **HOT-1**	they'll ask me. I can tell them but—.		
11:07:40 **HOT-2**	we could probably get direct to BURCH.		
		11:07:53 **CTR-B**	november five seven tango romeo pilot discretion maintain six thousand.

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
		11:08:01 **CTR-B**	sorry five seven whiskey romeo rather whiskey romeo pilot's discretion maintain six thousand.
		11:08:05 **RDO-1**	out of nine thousand for six thousand five seven whiskey romeo.
		11:08:29 **RDO-1**	center five seven whiskey romeo um we're gonna have to do I'm sure the uh RNAV three six for our landing uh could we go direct BURCH?
		11:08:46 **CTR-B**	yeah november five seven whiskey romeo uh I can go a little closer than that. cleared direct to DUXZU.
		11:08:51 **RDO-1**	roger that cleared direct DUXZU for five seven whiskey romeo.
11:09:08 **HOT-1**	all right let's look at everything Steve. make sure we're set up. read me off. DUXZU.		
11:09:13 **HOT-2**	EDLIF.		
11:09:14 **HOT-1**	yup.		
11:09:16 **HOT-2**	jo— jodrin. [JODRI]		
11:09:17 **HOT-1**	no there should be one before that. EFOLE.		
11:09:20 **HOT-2**	E—. no I said EDLIF.		
11:09:21 **HOT-1**	EDLIF and then EFOLE.		
11:09:24 **HOT-2**	okay. got it okay.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:09:27 **HOT-1**	and then JODRI.		
11:09:28 **HOT-2**	okay. yeah. then—.		
11:09:32 **HOT-1**	and then the runway. all right at EDLIF where can— what's my height need to be? or at de— deluxzu [DUXZU] whatever.		
11:09:41 **HOT-2**	EDLIF is four thousand.		
11:09:44 **HOT-1**	okay. all right.		
11:09:52 **HOT**	[sound similar to altitude alert]		
11:10:35 **HOT-2**	from that DUXZU to that EDLIF you only got five miles to get down.		
11:10:42 **HOT-1**	four thousand.		
11:10:43 **HOT-2**	to four thousand.		
11:10:45 **HOT-1**	okay I can do that easy.		
11:10:47 **HOT-2**	if he doesn't let you go on down shortly.		
11:11:28 **HOT-2**	do you want to go ahead and slow down a little bit?		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:11:32 **HOT-1**	well I'm at a hundred and sixty knots right now. I'm slow enough with this where where I'm at. I don't wannna get this big bellied son of a # this any slower than this with this ice on it. man in them— when you go to school you gonna see how fast the underbelly of this thing will cake up with ice. and they say don't get slower than one forty. so if they tell me one forty I raise my minimums to one sixty. [sound of laughter] I can slow her down.		
11:12:08 **HOT-1**	we're still thirty miles from DUXZU...well they got some crazy names don't they.		
		11:12:24 **CTR-B**	and november seven whiskey romeo descend and maintain four thousand three hundred.
		11:12:28 **RDO-1**	down to four thousand three hundred five seven whiskey romeo.
11:13:18 **HOT**	[sound similar to altitude alert]		
11:14:19 **HOT-1**	we're not picking up any ice right now. that's a good thing.		
11:14:22 **HOT-2**	what's the outside temperature?		
11:14:25 **HOT-1**	five degrees celsius.		
11:15:22 **HOT-2**	now will— will this go ahead and make the turn for you?		
11:15:43 **HOT-1**	uh-huh.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:15:58 **HOT-1**	now you see what you're doing right now? see how this is? this is the way it's gonna be sittin' in the plane looks just like this one for two hours at a time except it's gonna be darker. you ain't gonna be able to hardly see nothing in here it's gonna be nighttime in the clouds constantly shaking your # like this and you're trying to fly this # plane and but the— but you're gonna have a different # going off all the # time...and you're just like this. you're just you know you're just constantly you know and you gotta keep your— 'cause there's no auto—. @ said oh this is an automatic plane— automatic pilot plane. they encourage you to use automatic pilot. I used that # probably three minutes in six days.		
11:16:47 **HOT-1**	@ said well I guess it's just different every time you go to a— have a different instructor.		
11:16:53 **HOT-2**	[sound of laughter]		
11:16:55 **HOT-1**	me and him was in the— me and him was in the same class for two days. three days— for three days was in the same class. he didn't have to go thursday and friday.		
		11:17:03 **CTR-B**	King Air five seven whiskey romeo descend and maintain four thousand.
		11:17:06 **RDO-1**	down to four thousand five seven whiskey romeo.
11:17:08 **HOT**	[sound similar to altitude alert]		
		11:17:20 **CTR-B**	King Air seven whiskey romeo contact uh Greensboro approach one two four point three five.
		11:17:25 **RDO-1**	twenty four thirty five good day.

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
		11:17:32 **RDO-1**	Greensville approach King Air five seven whiskey romeo with you at four thousand.
		11:17:37 **APP**	* five seven whiskey romeo Greensboro altimeter's two niner eight eight. * maintain four thousand til EDLIF cleared uh GPS runway three six approach Mount Airy.
		11:17:47 **RDO-1**	okay maintain four thousand to EDLIF and we're cleared for the GPS three six five seven whiskey romeo.
11:17:57 **HOT-1**	I thought EDLIF was something else. is that right? EDLIF?		
11:17:59 **HOT-2**	right there that's it.		
11:18:00 **HOT-1**	okay.		
11:18:38 **HOT-1**	and when I get to EDLIF what can I go down to Steve?		
11:18:41 **HOT-2**	from EDLIF to the next one * thirty four hundred.		
11:18:45 **HOT-1**	'kay.		
11:19:45 **CAM-1**	listen I don't want to worry nobody but can anybody tell where the hell we're at? [sound of laughter]		
11:21:44 **HOT-1**	what's the final approach fix John uh...		
11:21:48 **HOT-2**	is that jord— jordri? [JODRI]		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:21:51 **HOT-1**	jo— jod— okay.		
11:21:52 **HOT-2**	JODRI.		
11:21:56 **HOT-2**	we can go down to thirty four hundred after we hit this EDLIF.		
11:21:59 **HOT-1**	okay.		
11:22:17 **HOT-1**	have that ready approach—. I mean have that missed approach thing ready.		
11:22:24 **HOT-2**	okay.		
11:22:26 **HOT-1**	all right we're going down to thirty four hundred now right?		
11:22:29 **HOT-2**	yeah.		
11:22:29 **HOT**	[sound similar to altitude alert]		
11:22:32 **CAM**	[sound similar to flap handle movement and flap extension to approach setting]		
11:22:38 **HOT-2**	that should put us on a heading of three six zero.		
11:22:56 **HOT-1**	okay what can I go to?		
		11:23:05 **APP**	five seven whiskey romeo change to advisory frequency is approved. uh cancel as soon as you can when you get on the ground or in the air er uh go missed approach just call me up on this frequency.

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:23:07 **HOT-2**	get it down.		
		11:23:17 **RDO-1**	roger that five seven whiskey romeo.
11:23:24 **HOT-1**	that the frequency right there?		
11:23:26 **HOT-2**	yeah.		
11:23:26 **HOT-1**	just leave yours on where you can hear him.		
11:23:28 **HOT-2**	okay.		
		11:23:29 **RDO-1**	Mount Airy's traffic King Air five seven whiskey romeo's on final for runway three six five seven whiskey romeo.
11:23:39 **HOT-1**	all right EFOLE what can I go down to?		
11:23:42 **HOT-2**	you need to be at thirty four hundred which you are then after that you can go down to thirty two hundred.		
11:23:48 **HOT-1**	at EFOLE?		
11:23:49 **HOT-2**	yeah.		
11:23:59 **HOT-2**	down to thirty two hundred.		
11:24:02 **HOT-1**	then from EFOLE what to?		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:24:03 **HOT-2**	then once we hit this jordi [JODRI].		
11:24:05 **HOT-1**	yeah.		
11:24:05 **HOT-2**	we can go down to sixteen eighty.		
11:24:07 **HOT-1**	all right jordi's [JODRI] the final approach fix.		
11:24:09 **HOT-2**	yup that's it we're gettin' GPS.		
11:24:10 **CAM**	[sound similar to landing gear extension]		
11:24:18 **HOT-2**	here we go.		
11:24:24 **HOT-2**	sixteen hundred not fifteen.		
11:24:26 **HOT-1**	I know but I'm— I'm gonna bust it.		
11:24:29 **HOT-2**	uh no we're not.		
11:24:30 **HOT-1**	I mean I don't wanna— I'm gonna bust it this way. I'm not gonna— I'm not going to uh—.		
11:24:36 **HOT-2**	pull back a little.		
11:24:37 **HOT-1**	yeah.		
11:24:37 **HOT-2**	you're back as about as far as you can now.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:24:39 **HOT-1**	yeah I'm doin' all right.		
11:25:00 **HOT-2**	we're centered up.		
11:25:06 **HOT**	[sound similar to altitude alert]		
11:25:10 **HOT-1**	I'm just not going to full flaps. I'm just not gonna do it until I can see.		
11:25:14 **HOT-2**	I understand.		
11:25:28 **HOT-2**	come on down.		
11:25:29 **HOT-1**	huh?		
11:25:30 **HOT-2**	you need to bring it on down.		
11:25:51 **EGPWS**	five hundred.		
11:25:55 **HOT-2**	should be comin' out of it.		
11:25:57 **HOT-1**	it's lookin' better.		
11:25:58 **HOT-2**	yeah.		
11:26:03 **HOT-2**	keep bringing her on down.		
11:26:05 **HOT-2**	there you go.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:26:05 **HOT**	[sound similar to autopilot disconnect tone]		
11:26:07 **HOT-1**	we're way high Steve.		
11:26:08 **HOT-2**	I know.		
11:26:08 **HOT-1**	we're gonna have to circle.		
11:26:10 **HOT-2**	keep bringing it.		
11:26:11 **HOT-1**	we can't— we can't land.		
11:26:13 **HOT-2**	*.		
11:26:16 **HOT**	[sound similar to altitude alert]		
11:26:18 **EGPWS**	sink rate. sink rate.		
11:26:23 **HOT-2**	all right you want the flaps up?		
11:26:24 **HOT-1**	yeah.		
11:26:25 **CAM**	[sound similar to flap handle movement and flap retraction]		
11:26:32 **CAM**	[sound of click]		
11:26:34 **HOT-2**	what altitude are we hmm?		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:26:36 **HOT-1**	we're not— we're we're low.		
11:26:39 **HOT-2**	fourteen hundred feet.		
11:26:41 **HOT-1**	yup.		
11:26:44 **HOT-1**	I've got to climb to four thousand and try that again...unless you want to just circle right here. I don't know how safe this is Steve what I'm doing.		
11:26:56 **HOT-2**	I don't either.		
11:27:01 **HOT-2**	circle to land is seventeen hundred stay at eighteen hundred feet.		
11:27:13 **HOT-1**	can you see the airport?		
11:27:14 **HOT-2**	yeah but we're gonna get mis—. you need to circle around and go missed.		
11:27:18 **HOT-1**	huh?		
11:27:19 **HOT-2**	you need to go missed. circle back around and go missed.		
11:27:23 **HOT-1**	you sure?		
11:27:24 **HOT-2**	I'm positive because I can't see the ground now.		
11:27:27 **HOT-1**	okay.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:27:42 **HOT-1**	I don't know which way I'm going now.		
11:27:45 **HOT-2**	you need to turn back to a heading of three six oh.		
11:27:48 **HOT**	[sound similar to stall warning horn lasting 0.2 seconds]		
11:27:48 **HOT-1**	huh?		
11:27:48 **HOT-2**	and climb to four thousand feet.		
11:27:49 **HOT-1**	oh #.		
11:27:50 **HOT**	[sound similar to stall warning horn lasting 0.1 seconds]		
11:27:51 **HOT**	[sound similar to autopilot disconnect tone]		
11:28:00 **HOT-1**	Steve ya * help me level this plane up.		
11:28:07 **HOT**	[sound similar to stall warning horn lasting 1.1 seconds]		
11:28:11 **HOT**	[sound similar to stall warning horn lasting 1.2 seconds]		
11:28:11 **HOT-1**	I have no idea where we're at.		
11:28:12 **HOT**	[sound similar to stall warning horn lasting 4.1 seconds]		
11:28:13 **HOT-2**	don't worry abou—. give it some power. power.		

INTRA-COCKPIT COMMUNICATION		AIR-GROUND COMMUNICATION	
TIME and SOURCE	**CONTENT**	**TIME and SOURCE**	**CONTENT**
11:28:17 **HOT**	[sound similar to stall warning horn lasting until end of recording]		
11:28:17 **CAM**	[sound of increasing engine noise]		
11:28:17 **HOT**	[sound similar to autopilot disconnect]		
11:28:19 **HOT-2**	oh # *.		
11:28:21 **HOT-?**	[sound of grunt]		
11:28:23 **EGPWS**	sink rate. pull up.		
11:28:23 **HOT-?**	[sound of grunt]		
11:28:25 **HOT-1**	we're goin' we're goin' Steve.		
11:28:25 **EGPWS**	pull up.		
11:28:26 **END of TRANSCRIPT** **END of RECORDING**			