

National Transportation Safety Board

Office of Research and Engineering

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COCKPIT VOICE RECORDER

Group Chair's Factual Report

April 19, 2022

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 National Transportation 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.

A. ACCIDENT

Location: Honolulu, Hawaii
Date: July 2, 2021
Time: 0145 Hawaii standard time (HST)
Airplane: Boeing 737-275C, Rhoades Aviation dba Transair, Flight 810, N810TA

B. COCKPIT VOICE RECORDER GROUP

Group Chair	Michael Portman Aerospace Engineer - Recorder Specialist National Transportation Safety Board (NTSB)
Group Member	Rich Lee Deputy Chief Pilot, Flight Technical and Safety The Boeing Company
Group Member	Patrick Lusch Air Safety Investigator Federal Aviation Administration
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C. FEDERAL CARRIAGE REQUIREMENTS

Per federal regulation, 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.

D. DETAILS OF THE INVESTIGATION

A CVR group was convened on January 5, 2022. The NTSB Vehicle Recorder Division received the following CVR:

Recorder Manufacturer/Model: Honeywell 6022

Part Number: 980-6022-001
Recorder Serial Number: CVR120-07164

1.0 Recorder Description

This model CVR, the Honeywell 6022, is a solid-state CVR that records 120 minutes of digital audio. Specifically, it contains a 2-channel recording of the last 120 minutes of operation and separately contains a 3-channel recording of the last 30 minutes of operation. The 120-minute portion of the recording is comprised of one channel that combines three audio panels sources and a second channel that contains the cockpit area microphone (CAM) source. The 30-minute portion of the recording contains 3 channels of audio information: one channel for each flight crew and one channel for a cockpit observer.

1.1 Recorder Damage

The recorder was submerged in seawater for approximately four months. The recorder arrived at the laboratory in water. External examination indicated no apparent heat or structural damage (see Figure 1).



Figure 1. The Honeywell 6022 CVR as received.

The crash survivable memory unit (CSMU) was disassembled, and the interior memory boards did not appear to have any heat or structural damage. However, the room-temperature-vulcanizing (RTV) silicone coating surrounding the memory

boards did not fully encase the boards, which allowed for seawater intrusion (see Figures 2 and 3).



Figure 2. The memory board, recovered from within the Crash Survivable Memory Unit, still encased in RTV coating.



Figure 3. The memory boards with the RTV coating partially removed.

As a result, corrosion was noted on the memory boards. The boards were cleaned with reverse osmosis water and dried using standard NTSB laboratory methods and were then connected to a Honeywell surrogate unit for download. Corrosive damage prevented data from being recovered from one of the memory chips. It was determined that this chip contained audio data from the three 30-minute channels. Therefore, the 30-minute channels were missing several minutes of audio data, interspersed throughout the recording. The 2-hour channels were unaffected and downloaded successfully.

1.2 Audio Recording Description

Each channel's audio quality is indicated in Table 1.¹ The 2-hour CAM channel contained significant electronic power noise, specifically a very strong 400Hz tone, which reduced the signal to noise ratio considerably. Laboratory filtering techniques were employed to filter out the 400Hz tone, and while the resulting audio information was sufficient for transcription, a sound spectrum study of recorded mechanical noises could not be performed.

Table 1. Audio Quality.

Channel Number	Content/Source	Quality	Duration (HH:MM:SS)
1	Captain	Good/Unusable	N/A ²
2	First Officer	Good/Unusable	N/A ²
3	Observer	Good/Unusable	N/A ²
4	Cockpit Area Microphone (CAM)	Poor	02:05:14
5	Combined Channels 1,2,3	Good	02:00:56

1.3 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 five radio transmissions from N810TA was linked to the corresponding ATC local time, and all CVR events were offset to reflect the local Hawaii standard time (HST) of the accident.

1.4 Description of Audio Events

The recording began at approximately 2340:02 and the transcript began at approximately 0039:14. The portion before the transcript began was summarized, largely containing ambient noise consistent with various preflight activities with little to no conversation. The first 40 minutes of the transcript cover a protracted discussion between the flight crew about various topics including company culture, other

¹ See attachment A for CVR Quality Rating Scale.

² Due to the aforementioned corrosive damage preventing one of the memory chips from downloading, the actual length of the 30-minute channels could not be determined. There was approximately 26 minutes and 28 seconds of recovered audio data.

company flight crew members, and previous work experience. The departure briefing was performed starting at 0114:16 and the engines were started at approximately 0120. The flight received a taxi clearance at 0123:08 and began taxiing shortly thereafter. The engine start and taxi sequences were interspersed with continuations of the previous extended discussion.

The flight was cleared for takeoff at 0132:20, began the takeoff roll shortly thereafter with the first officer flying, and became airborne at approximately 0133:37. Shortly after the positive rate and gear up calls, several unidentified noises were heard followed by the crew reacting to a loss of engine power in the number 2 engine. The aircraft continued a climb to approximately 2,000 feet and the captain took control to allow the first officer to run the appropriate checklists. At 0137:40, after reaching 2,000 feet, the crew attempted to diagnose the issues, and subsequently identified the number 1 engine as failed. The crew remained in constant communication with air traffic control during the flight. The decision to turn back towards the airport was made at 0139:10 as the aircraft continued a gradual descent towards the water. Enhanced Ground Proximity Warning System (EGPWS) callouts began at 0141:58 and continued intermittently throughout the remainder of the recording. The captain returned control to the first officer at 0144:51. Sounds consistent with impact were noted at 0145:17, and the recording ended shortly thereafter.

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. They declined the invitation.

Submitted by:

Michael Portman
Aerospace Engineer - Recorder Specialist

APPENDIX A. 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.

APPENDIX B. CVR TRANSCRIPT

The following is a transcript of a Honeywell 6022 solid state cockpit voice recorder, serial number CVR120-07164, installed on a Rhoades Aviation dba Transair B737-275C N810TA, which ditched in the Pacific Ocean, having encountered engine difficulties after taking off from the Daniel K. Inouye International Airport in Honolulu, Hawaii on July 2, 2021.

LEGEND

CAM	Cockpit area microphone voice or sound source
DISP	Radio transmission from Transair dispatch
EGPWS	Annunciation from the onboard Enhanced Ground Proximity Warning System (EGPWS)
HOT	Flight crew audio panel voice or sound source
N809TA	Radio transmissions from company aircraft N809TA
RDO	Radio transmissions from N810TA
TWR	Radio transmissions from the Honolulu airport tower controller
-1	Voice identified as the captain
-2	Voice identified as the first officer
-3	First identified ground crew member
-4	Second identified ground crew member
-A	First identified facility controller
-B	Second identified facility controller
-?	Voice unidentified
*	Unintelligible word
#	Expletive
@	Non-pertinent word
()	Questionable insertion
[]	Editorial insertion

Note 1: Times are expressed in Hawaii standard time (HST).

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	Time and Source	Over-the-Air Communication
2340:02.1			
	START OF RECORDING		
	START OF SUMMARY		
0006:11.2	[sounds consistent with a stick shaker were noted]		
0012:38.6	[various latching and mechanical fidgeting noises were noted]		
0015:24.0	[sounds consistent with another aircraft starting up and taxiing out were noted]		
0024:44.7	[humming was noted during various preflight activities]		
0027:34.1	[the captain boarded the aircraft]		
0028:38.8	[additional various noises of preflighting were noted, however no conversation took place during this period]		
0036:10.3	[more humming was noted]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0037:12.7	[Honolulu ATIS information Juliet played in the background, issued at 0953 UTC, including winds from 50 degrees at 9 knots, visibility 10 statute miles, few clouds at 2,500 feet and scattered at 5,000 feet, temperature 26 degrees Celsius, dewpoint 18 degrees Celsius, altimeter setting 30.05 inHg]		
0039:14.4	START OF TRANSCRIPT		
0039:14.4 CAM-1	*** actuator *** it's not that much *** (we're/he's) going to check the reservoir...top it up...and we'll write it up in the morning. are you okay with that?		
0039:34.8 CAM-2	yeah.		
0039:37.1 CAM-1	if you want to...(the airplane is) (out of) *.		
0039:41.9 CAM-2	oh yeah (unless it's/that's) absolutely necessary.		
0039:44.5 CAM-1	yeah.		
0039:47.0 CAM-?	**		
0039:51.6 CAM-1	it's stuff like that...normal (day/way).		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0039:54.3 CAM-2	what's that?		
0039:55.1 CAM-1	I said stuff like that it's normal considering how often this airplane's a running you know...gear up gear down gear up gear down.		
0040:07.6 CAM-2	***.		
0040:09.2 CAM	[sounds of switching]		
		0040:31.2 RDO-2	hey good morning tower Rhoades Express eight ten juliet clearance to Hon— uh...Kahului please.
0040:53.1 CAM	[sounds of whistling]		
0040:54.9 CAM	[sound similar to fire bell]		
		0040:55.8 TWR-A	Rhoades Express eight ten Honolulu tower cleared to Kahului airport via PALAY three departure Lanai transition then as filed on departure fly heading one five five maintain five thousand expect uh one three thousand departure frequency one one eight point three squawk two one zero seven.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0041:12.5 RDO-2	PALAY three then Lanai as filed climb maintain five thousand expect one three thousand heading one five five departure eighteen point three squawk two one zero seven Rhoades Express uhh eight ten thanks.
0041:28.0 CAM	[sound similar to fire bell]		
		0041:42.7 TWR-A	Rhoades Express eight ten readback is correct.
		0041:46.8 RDO-?	[sound similar to double mic click]
0041:53.5 CAM-2	we're just gonna update a little bit so ***.		
0041:57.5 CAM-?	[unintelligible response with significant breathing noises]		
0042:12.4 HOT-?	[sounds of static]		
0042:24.7 HOT-?	[sounds of static, possibly consistent with oxygen mask test]		
0042:29.7 CAM	[sound similar to fire bell]		
0042:31.7 CAM	[sounds of switching/latching]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0043:31.7 CAM-1	* ready (for * on/to go home).		
0043:33.5 CAM-2	yep. ***.		
0043:35.0 CAM-1	what do you want to do *** (take first) (round trip/run)?		
0043:38.8 CAM-2	sure.		
0043:39.3 CAM-1	combination *** or do you want to ***.		
0043:41.1 CAM-2	sure that's fine.		
0043:43.4 CAM-1	(beautiful) (day/night/you'll be all right) ** I'll take the next one. okay.		
0043:50.0 CAM-1	***. yesterday the same (thing I do/guy who wouldn't want to) what do you want to do? ***.		
0044:08.6 CAM-2	oh right.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0044:10.3 CAM-1	and then when they got time...it would be uh...cockpit cockpit briefing and (it's decide) (who's) not flying. and if you agree...you know...you're going to do this right you did the cockpit briefing you know...and then she's like...I'm not flying anymore.		
0044:32.1 CAM-2	right...is that because of the...uh winds?		
0044:34.4 CAM-1	yeah because of them...(@ [company pilot])...and I'm like @ [company pilot] you are flying you know? and I told her okay let's do the taxi checklist and she did all the stuff she didn't do the control check (I do) and I go what about the control check * she says I'm not doing it. ***. @ [company pilot].		
0044:57.2 CAM-2	and she's not doin' it 'cause she's sayin' the book says you do it one time or something or what's her thought or...?		
0045:02.2 CAM-1	no (just the)...*** control check...control check...exactly like that...like this? like that. half way...half and left wing's it and stops it * and forward and I go no @ [company pilot] it's...you have to go all the way to the stop...all the way back...all the way to the left...all the way to the right hit the full stop. you know? she won't do that.		
0045:33.1 CAM-2	why (does/did) she say no to that?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0045:35.9 CAM-1	well...so now this is the thing...and @ @ [chief pilot] is the problem with this...I blame @ [chief pilot].		
0045:42.6 CAM-2	really?		
0045:43.2 CAM-1	because...yeah I blame @ @ [chief pilot] says in our book...you don't have to do...the book doesn't s— @ [chief pilot] is * exactly what she's saying...* @ [company pilot] is saying in the book it doesn't say you-you have to do it all the way to...to the stop.		
0045:58.5 CAM-2	like what book...the A-O-M?		
0046:00.0 CAM-1	that's where I'm going to look.		
0046:01.2 CAM-2	oh yeah.		
0046:02.2 CAM-1	you know yeah...and I and I go I remember seeing that.		
0046:05.4 CAM-2	[unintelligible overlapping response from the first officer]		
0046:05.5 CAM-1	** yeah the book says...don't slam it against the stop.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0046:11.3 CAM-2	yeah.		
0046:11.8 CAM-1	so if the book is saying don't slam it against the stop then that means the book is indirectly saying you should go all the way to the end.		
0046:17.7 CAM-2	yeah just don't slam it.		
0046:18.8 CAM-1	don't slam it.		
0046:20.1 CAM-2	yeah ***.		
0046:21.7 CAM-1	yeah...this is the way I am reading it and @[chief pilot] is saying nooo...it's it's it's just sort of right you know...the book is it's so it's vague. no no I've read this whole manual you know it's been a while but I remember studying things (for this part) you know and I go you know I saw it somewhere you (just) don't slam it against the stop. you know I'm gonna I'm gonna take a picture of it and send it to @[chief pilot].		
0046:50.2 CAM-2	I think it's like path of least resistance...I think with her it's easier than saying * you know just kind of let her go but that emboldens her just to do more and more.		
0046:59.6 CAM-1	yeah.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0047:00.7 CAM-2	and now they've got a monster–		
0047:01.6 CAM-1	yep.		
0047:01.8 CAM-2	–that they've created by not nipping this in the bud before.		
0047:04.9 CAM-1	exactly yep.		
0047:07.2 CAM-1	you know like ** everywhere I have been all the time this is the way you do flight control checks since day one... you know...you go all the way to the stops you can check complete movement and freedom of movement you can't do this until you check the flight controls.		
0047:22.7 CAM-2	yeah it doesn't say...umm...		
0047:25.4 CAM-1	(you do them/you see it there/you see it then).		
0047:27.1 CAM-2	...and this is flight controls check ailerons and elevators...and elevators...make slow deliberate inputs one direction at a time...verify freedom of movement...and controls return to center...I mean you can't–		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0047:41.0 CAM-1	yeah.		
0047:41.3 CAM-2	–verify for freedom of movement by doin' that.		
0047:43.5 CAM-1	yeah...there's another column–		
0047:45.0 CAM-2	somewhere else.		
0047:45.8 CAM-1	–yeah there is another um...another wording somewhere that talks about this...this stuff you know.		
0047:52.6 CAM-2	hmm.		
0047:53.1 CAM-1	one of the books.		
0047:56.0 CAM-1	I have to find it and–		
0047:57.3 CAM-2	yeah.		
0047:57.9 CAM-1	–bring it up to @ [chief pilot].		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0047:59.7 CAM-2	but I mean regardless...you know that said check for freedom of movement...how can you do...this doesn't...it says check the ai-aileron and the elevator for freedom of movement...you're you're not doin' that by doin' that.		
0048:12.5 CAM-1	no (way/brainer).		
0048:13.4 CAM-2	right...that's what I'm saying.		
0048:15.0 CAM-2	so it doesn't actually say to go all the way...it says to check...		
0048:17.5 CAM-1	yeahhh..but that's...		
0048:19.3 CAM-2	ah that's just stupid.		
0048:21.0 CAM-1	you know and and she's hiding behind the book...you know I...there's something else...another one somewhere that says no slamming against the stop. ***.		
0048:28.6 CAM-2	but you know...the book...so if she's saying the book doesn't say you have to do it all the way...it doesn't say you don't either.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0048:33.6 CAM-1	(yeah exactly).		
0048:35.8 CAM-2	so that's still an interpretation.		
0048:37.1 CAM-1	exactly.		
0048:38.0 CAM-2	for her saying...it doesn't say one way or the other...it says...it doesn't say do it...doesn't say don't do it. so...		
0048:42.1 CAM-1	thank you thank you.		
0048:44.7 CAM-2	then you rely on your private pilot one oh one your first flight–		
0048:47.9 CAM-1	exactly.		
0048:48.8 CAM-2	–your introductory flight and you do it that way *.		
0048:51.5 CAM-1	there ya go...***.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0048:53.9 CAM-1	and and then she (gets/just)...went on strike...complete strike...now she's not doing anything...you know and she stopped the checklist you know and she goes I'm not flying. and she just gave up...I was like @ [company pilot] what's wrong with you you know? this is very very immature you know this is...it's not right...you know I mean this is a joke...I...finish (this/the) checklist...no no no...I said finish the checklist. no? I said finish the god dang check list...you're going to finish the checklist...[chuckle]...no kidding...and then it turned into shouting and yelling you know?		
0049:34.2 CAM-2	yeah...that's a safety issue...that's not good.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0049:36.4 CAM-1	oooohhh man...if you were um...if you were like standing in the back in the jumpseat with a camera you'd be laughing man...you know...you'd be laughing and be yo-your your (purpose/focus) would be out of focus you know...you'd be cracking up...you are two little kids in the cockpit...you know...two little short brats with a fancy toy...she goes nah I'm not doing it...I'm not flying this flight...I go well you did all the briefing...you agreed you are going to fly...you are staying with that agreement...you are...but one time out of um...Maui...the same thing she's flying she did all the briefing and everything...and then we got on the runway...line up...A-T-C gave us the takeoff clearance...and I go by...the way don't forget it's one mile before the turn you know...and then she goes ugh...I'm not flying...***...she goes I'm not flying...we're cleared for takeoff and I say you have control meanwhile the airplane's inching forward and forward...we've been cleared for takeoff...you're not flying? we're cleared for takeoff. I'm not flying. okay I got it...and I do it.		
0050:50.3 CAM-2	[laughing]		
0050:51.9 CAM-1	and @ [company pilot] why are you stressed out?		
0050:53.2 CAM-2	** that's unbelievable.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0050:54.8 CAM-1	oh yeah...you know...and I told @ [Director of Operations (DO)] she (knows about it) and what does he say...he goes ehhhh you know our book really...I said @ [DO] you sent the e-mails that we should go out one mile before making the turn for noise abatement...		
0051:11.3 CAM-2	right right right.		
0051:11.9 CAM-1	don't turn over the houses.		
0051:13.5 CAM-2	yeah.		
0051:14.2 CAM-1	and he goes...yeah we still have issues...		
0051:16.7 CAM-2	yeah.		
0051:17.2 CAM-1	with the um...uhh I'll get back to you on the uhh...and I just walked out.		
0051:26.2 CAM-2	that's the problem it's just very....		
0051:28.9 CAM-1	yeah.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0051:29.5 CAM-2	...wishy washy.		
0051:30.1 CAM-1	yeah...you know and I go...she went on strike on me...just striked out on me...you know she stopped flying...you know...*** and took off.		
0051:44.0 CAM-1	and then we're comin' in...and she's comin' in low you know and I and I go ** low...and again I don't blame her too much but this is where I don't agree with her...we're coming in in the morning and the sun was in our face...you know...so I figured maybe she cannot see the the PAPI [precision approach path indicator] here...so she got below the PAPI and I told her you are low...and she goes I am not low...and I said you are low I say look at the glideslope (she said) *** glideslope...*...well I'm not using the glideslope...I'm using the the PAPI *** then get back on the PAPI you know?		
0052:20.7 CAM-2	[chuckle]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0052:21.3 CAM-1	and then it turned into an argument and I go @ [company pilot] you know just...use the glideslope...use the glideslope...screw the PAPI...and she goes I'm not going to use the glideslope if I wanted to use the glideslope I would have briefed I-L-S you know...I said god # @ [company pilot] just just (add) the glideslope. [trails off into laughter] this is the way we work when I am with her you know you have to yell at her force her to do things you know...and then she got on the glideslope and...after we landed she said I don't like the way you talk to me I said I don't like the way you do things...you know...and she goes if I wanted to use the glideslope I would have briefed the I-L-S...this turned into one hour argument in the parking lot...you know after we landed...with @ [company pilot]...and I brought this up with @ [DO] I said look at what this girl is doing you know...what...and he was like eh hh yeah...the book the book is not really clear and...I said this is not the book this is common sense you know...she is being blinded by the sun...this is what I think...you know...and she could not stay on the PAPI...I told her use the glideslope...that is what we do when you don't see anything.		
0053:39.3 CAM-2	yeah.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0053:40.9 CAM-1	you know and she's refusing to do that *** the PAPI *** and she's arguing that she's (right) *** and she's not going to ***...I go you're driving me crazy...you know either way *** @ [company pilot] you need to change your ways.		
0054:04.1 CAM-2	no and that just enables her to keep pushing and pushing and pushing and pushing 'cause nobody's telling her to stop.		
0054:10.1 CAM-1	exactly that is the thing.		
0054:12.7 CAM-2	but then this is the result of that now you have a flight to go...two flights that don't leave because you have this thing now it's gonna cost...might cost some extra money...you know...I heard the boss calling @ [chief pilot] you know and now he's jumping up and down 'cause the flight's going out late and so @ [owner] got a phone call and that's why they have a meeting with her so...		
0054:30.2 CAM-1	yeah.		
0054:33.1 CAM-2	no I don't think they're going to be too sympathetic to....her not wanting to...you know comin' back with you on * and that's not a good reason.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0054:42.3 CAM-1	if she says she doesn't want to fly with me that's fine I understand...uhh...		
0054:46.7 CAM-2	yeah **.		
0054:47.4 CAM-1	I mean I am demanding...you know...um...she has to do what she has to do and and...I– I don't touch this * I said yeah that's true if she doesn't want to do what I want then it's gonna be an issue...definitely...you know?		
0055:07.4 CAM-2	oh this is what you were saying...do not slam the flight controls–		
0055:10.5 CAM-1	yeah this is what I am saying.		
0055:11.8 CAM-2	–against the stops ***.		
0055:13.0 CAM-1	yeah.		
0055:14.3 CAM-2	so I mean she's reading that saying...so it does not say go all the way to the stops.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0055:21.0 CAM-1	yeah but this where if it says do not slam against the flight controls...well why would it say that if you're not going all the way out to get to the uhh...stops.		
0055:31.5 CAM-2	yeah it doesn't say don't don't take it to the stops...it just says don't slam it.		
0055:34.6 CAM-1	don't slam it...it's very...		
0055:36.0 CAM-2	to the stops...so...		
0055:36.9 CAM-1	yeah...(so/no) don't go boom.		
0055:39.5 CAM-2	but I mean...it doesn't it doesn't support her either.		
0055:43.1 CAM-1	no no it doesn't support her.		
0055:44.6 CAM-2	'cause it doesn't say don't do it...it just doesn't very clearly say to do it...but it suggests that you should do it cause otherwise how do you check the freedom of movement...make slow deliberate inputs...one direction at a time so...this isn't a slow deliberate input...like that...I mean slow deliberate—		
0056:05.6 CAM-1	no I mean—		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0056:07.5 CAM-1	yeah you gotta go all...all the way...all the way and all the way...um...		
0056:09.0 CAM-2	(like here).		
0056:12.3 CAM-2	but I mean she doesn't have to—		
0056:13.1 CAM-1	my interpretation of this and tell me if I am wrong...my interpretation of this is go all the way but don't slam it.		
0056:15.3 CAM-2	yeah.		
0056:20.7 CAM-2	don't slam it yeah yeah.		
0056:21.6 CAM-1	yeah. **.		
0056:22.7 CAM-2	'cause if the point was don't go to the stops it would just say don't go to the stops.		
0056:27.1 CAM-1	exactly then then **.		
0056:28.5 CAM-2	it doesn't say don't go to the stops...it says don't slam it.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0056:30.4 CAM-1	don't slam it against– exactly.		
0056:31.5 CAM-2	which sounds like...go to the stops just...		
0056:33.7 CAM-1	go to the stops but don't slam it.		
0056:35.7 CAM-2	and then...which kinda follows this slow and deliberate inputs.		
0056:39.9 CAM-1	exactly.		
0056:40.8 CAM-2	which is not slamming it.		
0056:42.2 CAM-1	exactly...this is what I want to take a picture of and send @ [chief pilot].		
0056:45.1 CAM-2	and send it...		
0056:45.8 CAM-1	you know see @ [chief pilot] read only this...the first one we read.		
0056:49.7 CAM-2	oh actually it was the same one the note was right above it I didn't notice it.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0056:53.1 CAM-1	oh okay.		
0056:53.6 CAM-2	this is * it's all the same one so he must (not) have seen that but even so I mean so I mean she could say look it does not say do it all the way but if you read all of this literally there's probably a lot of stuff that we do that it doesn't say...literally–		
0057:08.2 CAM-1	yeah.		
0057:08.5 CAM-2	–and then use common sense to ***.		
0057:10.4 CAM-1	that's what I said I said @ [company pilot] it's common sense...@ [company pilot] do you need a book to get from here to your home? you know when when you're going home you take a book and...she goes no I can do the same thing you know the same thing.		
0057:24.4 CAM-3	hello.		
0057:26.0 CAM-1	hi how are you doing (@ [ground crew])?		
0057:27.1 CAM-3	okay how are you...oh you know my name.		
0057:29.9 CAM-1	oh I've known your name for a long time.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0057:32.0 CAM-3	oh *.		
0057:32.8 CAM-1	oh you think you're hiding your face under there.		
0057:34.5 CAM-3	[chuckle]...I have a *...can you sign my load form please?		
0057:38.7 CAM-1	that'll be two dollars...one for him one for me.		
0057:40.4 CAM-3	*.		
0057:41.7 CAM-1	or three dollars one for you one for ** you know.		
0057:43.8 CAM-3	[chuckle] it's all uh consumer commodities gonna be right here good to go.		
0057:49.8 CAM-1	oh and it's all listed (right/yeah/man)...okay let's see...***. [unintelligible]		
0058:00.9 CAM-1	***.		
0058:02.2 CAM-3	no I don't (mind).		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0058:03.5 CAM-1	thank you.		
0058:04.2 CAM-3	you're welcome.		
0058:05.6 CAM-3	thank you very much.		
0058:06.5 CAM-1	all right thank you see ya.		
0058:14.7 CAM-2	sorry I was gonna hold ***.		
0058:15.5 CAM-3	no that's okay.		
0058:17.0 CAM	[unintelligible conversation between FO and ground crew]		
0058:25.2 CAM	[sounds of thinking]		
0058:33.1 CAM-2	thank you so much.		
0058:36.4 CAM	[sounds of thinking]		
0058:44.7 CAM-2	that's not good judgement though...I mean and if it's not clear...why wouldn't you err on the side of safety?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0058:50.4 CAM-1	exactly...***...no she's just ** she's just **.		
0058:55.0 CAM-2	yeah.		
0058:56.8 CAM-1	like ** she's always looking for whatever she can jump on for drama you know.		
0059:02.1 CAM-2	yeah.		
0059:02.3 CAM-1	yeah and she saw that she goes yeah...jump on it.		
0059:05.8 CAM-2	well I think that's gonna be the end of it cause she doesn't...hello...good morning.		
0059:10.8 CAM-?	hi.		
0059:13.7 CAM-1	yeah.		
0059:14.8 CAM-2	if she doesn't get fired I'm sure they're gonna make the point like she's gotta knock it off...'cause now that @'s [owner] involved I'm sure...here I mean so @ [DO] can say ohhh well you know you know @ [owner] can say # you know you know I need you to fly the airplanes or you're out.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0059:29.9 CAM-1	I hope so yeah...something has to be done...		
0059:33.5 CAM-2	yeah.		
0059:34.2 CAM-1	you have to deal with her. ***...you know...		
0059:36.9 CAM-2	I think last night was (quite/probably) over the line you know when you have to come back and now flights are late because of this...you know–		
0059:43.7 CAM-1	yeah.		
0059:44.3 CAM-2	–pissing contest.		
0059:45.7 CAM-1	it is it is you're right.		
0059:46.7 CAM-2	but that's on her 'cause she's the first officer she's supposed to say okay if that's what you want I disagree that's not what the book says but if that's what you want that's what I'll do.		
0059:55.7 CAM-1	I agree.		
0059:56.3 CAM-2	and we can talk about it later.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0059:56.7 CAM	[overlapping conversation]		
0059:57.3 CAM-2	now it's a safety issue. I feel unsafe now...of course that doesn't make me feel unsafe.		
0100:01.5 CAM-1	[chuckle]		
0100:02.4 CAM-2	we can talk about it later but you're...we're a team—		
0100:04.5 CAM-1	[groan]		
0100:05.3 CAM-2	—and you're the team leader and if that's what you want that's what we'll do...whether I agree with it or not...and that's that should have been the end of it.		
0100:11.8 CAM-1	no she got so upset...she goes turn around take (me/it) back to the ramp I'm not going...I— I don't I say (@ [company pilot]/like) if you wanna go back to the ramp...you taxi the airplane...tell A-T-C you're going back to the ramp.		
0100:23.2 CAM-2	so you guys actually came back?		
0100:24.5 CAM-1	no we didn't.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0100:25.4 CAM-2	oh okay.		
0100:25.9 CAM-1	I was like we're not gonna bring the cargo back.		
0100:27.3 CAM-2	***. [overlapping response]		
0100:29.4 CAM-1	yeah I was like...not gonna bring the cargo back...you know...		
0100:32.6 CAM-2	mhm.		
0100:32.9 CAM-1	if you want to...you you take the airplane...you have to pretty much take the airplane to the (ramp) and turn it around...and and you tell A-T-C you're going back...or better yet open the window and jump out...you know.		
0100:47.3 CAM-1	oh maybe it was.		
0100:48.5 CAM-2	so then so what...when she got back then she walked off the job?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0100:51.2 CAM-1	no so we took off and we went to Maui and then she uhh...sent a text to @ [chief pilot] that she's not doing the next flight and that she wanna get off...something to that effect...you know and @ [chief pilot] is like okay we'll have to change F-O...@ [chief pilot] called me and said @'s [company pilot] complaining about you...she doesn't want to fly with you...so when you get back...go as fast as possible...and pick up @ [company pilot]...and he...and she is gonna fly with um...what's his name with—		
0101:21.6 CAM-2	@ [company pilot].		
0101:21.9 CAM-1	—@ [company pilot] yeah...so them guys were @ [company pilot] and @ [company pilot] were flying they were paired together and they were ready to leave but then they had to take the delay and wait for us to come from Maui.		
0101:32.2 CAM-2	oh that's why they were late.		
0101:33.6 CAM-1	yeah.		
0101:34.2 CAM-2	***.		
0101:35.5 CAM-1	they had to wait for us to come.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0101:37.3 CAM-2	yeah well that's not good.		
0101:38.2 CAM-1	yeah.		
0101:38.6 CAM-2	I mean that that sounds like that's probably the right decision in the moment...you know just to like get stuff out.		
0101:44.4 CAM-1	yeah. ***.		
0101:45.0 CAM-2	but but it shouldn't have been ***.		
0101:48.8 CAM-1	but that was really the *** to be * okay...		
0101:51.4 CAM-2	yeah.		
0101:52.5 CAM-1	but she was not ready to comply with me...there's no way she's gonna do this...you know...		
0101:59.1 CAM-2	but how I mean how can you justify that @ [DO] ya know maybe says ehh you know the book...with @ [owner] that's not gonna fly...and I don't even know him but I mean the little that I do...		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0102:08.5 CAM-1	he's looking at the bottom line...it's his money you know...		
0102:11.6 CAM-2	if we lose a contract 'cause she doesn't want to...she's in a pissing contest about that...		
0102:14.0 CAM-1	yep.		
0102:16.1 CAM-2	she doesn't wanna do that...then she's not gonna ***.		
0102:20.5 CAM-1	she doesn't want me telling her anything...period.		
0102:23.3 CAM-2	well then...# upgrade and be a captain somewhere you know but you got the wrong attitude to do it... to be a captain.		
0102:29.9 CAM-1	yeah yeah.		
0102:30.8 CAM-2	you know while you're staying here that's part of the job.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0102:35.9 CAM-1	you know...you talk...to @ [company pilot] and another thing @ [chief pilot] (accused/excuse) me @ [chief pilot] is like if she doesn't want to do— you know just do it...you know umm...you don't have to butt heads to do it...I go @ [chief pilot]...you know when things don't go right...you are the one who calls...and you call me and you chew me up...you know. so if some the guys are doing something that I'm not comfortable with it is not going to fly I'm not going to let it happen...he says well...and he goes well but ** you know...I don't know *** figure out ***, my job is to get the freight from point A to point B on time...safely...you know...and and umm I'm dealing with somebody who has thinks what she wants how she wants if she wants...you know and I'm depending on her but now she's not dependable.		
0103:36.6 CAM-2	but that's that's a whole C-R-M stuff right?		
0103:39.0 CAM-1	no that's not C-R-M.		
0103:40.7 CAM-2	no I mean C-R-M is like dependent on the captain now thinking he's got and recognizing some of the team but is also relying on the subordinate of the team recognizing he is the subordinate and he you know is not the leader and is not is not sitting in the seat so...		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0103:58.9 CAM-1	I think if you were sitting here in the jumpseat you can write a book...a big book you know...each time I fly with her [laugh].		
0104:05.9 CAM-2	but I think the the saving grace for you though is uhh nobody complains about you...I mean nobody says that kind of stuff about you...except her. right I mean people grumble about you know engines and oil temperatures and that kind of stuff but I mean that's true for everybody but but nobody says stuff like that about you nobody says I don't wanna fly with @ [captain]...I hear everybody talks about everyone I always...I hear 'em...and I don't hear about you...only thing I hear about you is oh he's very he's very slow and deliberate about everything I say well yeah that's kind of the job...you know...you run...he runs the checklists...yeahhh...what's [chuckle]...		
0104:43.8 CAM-1	most people don't run the checklists (eh/huh).		
0104:46.1 CAM-2	well I mean you're very methodical about the checklists.		
0104:47.7 CAM	[sound of clank]		
0104:48.8 CAM	[sound of person shouting in background]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0104:49.3 CAM-1	*** but that's part of the job you know...		
0104:51.5 CAM-2	but I mean that's the worst thing people say about you is that...that you're very methodical.		
0104:54.1 CAM-1	* slow.		
0104:56.3 CAM-2	not so much slow maybe that's ...but it's like you're methodical you're...but that's...it's not like let's just rush to get out and we'll do checklists on the as we're...		
0105:04.6 CAM-1	no I hadn't even thought about that * me.		
0105:07.4 CAM-1	he's the cowboy.		
0105:08.5 CAM-2	yeah.		
0105:09.1 CAM-2	so you're the opposite of that...but if that's the worst thing somebody can say about you that's not bad...but nobody says like I don't wanna fly with him...you know.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0105:17.3 CAM-1	yeah I hope they see it like that you know...@ [chief pilot] doesn't catch me slacking off okay...so you know...so...one time I almost told him you know umm...that's that's okay I'm not coming in tonight I am done...I came this close to telling him that...and I guess he figured it out it you know ... *** ... you know...he doesn't cut me much slack...you know...he's always on my case...all of the little things you know...and even this **...hey man...		
0105:51.6 CAM	[sound of clang]		
0105:52.5 CAM-1	the **.		
0105:54.0 CAM-2	* except she's not flying tonight and you are...I mean she's got a meeting with the boss you don't so...		
0106:01.9 CAM-1	she's meeting with @ [owner]?		
0106:02.9 CAM-2	that's what I heard I dunno how accurate that is but she has a meeting today is what I heard with him and probably @ [DO] and @ [chief pilot] ...so I don't know if that's true.		
0106:11.1 CAM-1	I— I— I don't think they've written her up **.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0106:13.2 CAM-2	but I mean they can track the schedule so something is...*** meeting....you know and they say you're off the schedule **...and it's probably because you know @ [DO] can say well you know I understand that when... when stuff goes out late and it threatens a contract we have or affects the bottom line--		
0106:32.5 CAM	[sounds of several loud clanks]		
0106:33.5 CAM-2	--there's losses involved...and he's not gonna care about what the book says.		
0106:37.2 CAM-1	yeah that may be ** and right now @ [chief pilot] wants me to take a picture of that page and send it to him.		
0106:41.7 CAM-2	I just sent it to you.		
0106:43.4 CAM-1	oh you just sent it okay *.		
0106:44.4 CAM-2	over to you yeah.		
0106:47.7 CAM	[various sounds of background loading]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0106:48.8 CAM-2	yeah well you know I'm...one of the things @ [DO] has me doing is rewriting the manuals...so I'll ask him about that...so I'll rewrite that–		
0106:55.0 CAM-?	***.		
0106:57.3 CAM-1	yeah.		
0106:57.9 CAM-2	–and say you know per your private pilot training when you check flight controls all the way to the stops don't slam it...all the way to the stops.		
0107:01.8 CAM-1	[chuckle]		
0107:05.7 CAM-1	yeah all the way to the stops. deliberate.		
0107:08.4 CAM-2	and then...		
0107:12.1 CAM-1	all the way...		
0107:12.7 CAM-2	I mean I fly...everyone I've flown with no one has ever said oh why are you doing that? why are you...you know...comin' back so far? and I cause I always when I come back I always watch...'cause I wanna...and if I turn–		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0107:22.9 CAM-1	yeah.		
0107:23.4 CAM-2	–I wanna make sure I don't hit em or something **–		
0107:24.5 CAM-1	yeah in the belly yeah yeah.		
0107:26.5 CAM-2	–*** and I'd always do that...so like they're expecting it to come back...I mean that's just...that's...		
0107:29.3 CAM	[unidentified background conversation]		
0107:32.3 CAM-1	yeah.		
0107:33.9 CAM-2	apparently not just me but everybody does that...that's just how it is.		
0107:35.7 CAM-1	no no I would just do...real quick you know...and it's done.		
0107:40.2 CAM-2	@[company pilot] was saying umm and I hadn't heard this before that one on one of the flights...the maintenance they were working on something and left the rag like in the tail or something.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0107:50.0 CAM-1	yeah yeah yeah.		
0107:50.6 CAM-2	*** and so the flight crew when they did this it didn't go..or it didn't go somewhere.		
0107:57.3 CAM-1	when they did a control check?		
0107:58.1 CAM-2	yeah and they came back and they looked and and the cables were bound...this rag got wrapped I mean...so...and that's why you do this...and if you'd done this it might not have caught that.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0108:08.2 CAM-1	you know one time we were taking off from New York in the middle of the winter and the airplane ** one night during the night as the temperature was coming down it was raining was turning to freezing rain * and the temperature went real low...so there was frozen ice hard frozen ice all over the airplane...and in the morning we were supposed to take one airplane but that airplane had a maintenance 'cause they broke the pin...you know...all the airplanes were all frozen but that one had been de-iced...*** there were some issues *** go get us another airplane...this was a dash eight...and the guys came...and they de-iced the airplane...everything was like in a rush...***...you know...***...they did just the wing and the fuselage...they forgot all about the tail and they went to another airplane 'cause they were busy...we pushed back got passengers in and all that. and the F-O was his job to check the flight controls you know...and I could have missed it ** I do it myself too you know...** cause I didn't I didn't watch...and I don't even know if he checked...according to him he checked. that's obvious cause you have to * for takeoff ** you know...		
0109:38.7 CAM-2	it physically wouldn't come back.		
0109:39.7 CAM-1	the thing was frozen solid...you know I was like...he was like...vee one rotate...		
0109:46.8 CAM-?	[straining noise]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0109:47.6 CAM-2	** tail.		
0109:49.2 CAM-1	no something is wrong you know.		
0109:51.6 CAM-2	well good thing you found out before you left the ground I mean.		
0109:54.3 CAM-1	yeah.		
0109:54.7 CAM-2	or the airplane ***.		
0109:56.1 CAM	[background shouting]		
0109:56.6 CAM-1	and the thing too is the dash eight the props are very powerful...only **. [overlapping electronic bleedover tone]		
0110:04.2 CAM-1	so we were able to stop.... so what we did so we taxied back the * called maintenance *** so they were doing the inspection and one guy said hey guys do you wanna come see something we went up there...oh the whole tail was iced up it was like uhh Greenland you know with ice [chuckle].		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0110:28.4 CAM-2	well not even just the flight controls the tail proolly wasn't gonna fly...wow.		
0110:29.8 CAM-1	***. [overlapping conversation]		
0110:33.5 CAM-1	frozen solid.		
0110:35.5 CAM-2	I wonder how the ground crew ***. [overlapping conversation]		
0110:35.5 CAM-1	and I asked the first officer so you didn't do the flight control check and he's like I— I thought I did.		
0110:47.2 CAM-1	you know and I—		
0110:47.9 CAM-2	that's why that's why you're methodical and deliberate on checklists to make sure you don't forget stuff like that.		
0110:51.9 CAM-1	yeah.		
0110:54.5 CAM-1	so many traps you know.		
0110:55.4 CAM-2	yeah yeah well yeah.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0110:57.7 CAM-1	you know and I don't blame him because because we swapped airplanes he was rushing through everything you know we were rushing we had to brief...the flight attendants had to the preparation real quick in the back and board the passengers...** oh man.		
0111:15.0 CAM-2	well you're lucky you lived to tell that story.		
0111:17.8 CAM-1	yeah.		
0111:18.7 CAM-2	it could have been very dangerous yeah.		
0111:20.2 CAM-1	yeah and I'm telling her you know it's very important she says ** book ** it's in the book and I say screw the book you know...		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0111:23.5 ATIS	altimeter three zero zero four...landing and departing runways four and eight...expect I-L-S or visual approach...(LAHSO in effect)...advise approach on one one eight point three or one one niner point one if unable to hold short...taxiway golf closed between taxiway alpha and (interisland) ramp...multiple taxiway hold position signs and edge lights out of service...readback all control instructions...increased birdstrike hazard all runways...numerous cranes in the vicinity...Honolulu airport check NOTAM for additional information...AIR-MET tango update when valid...advise on initial contact you have information kilo. Honolulu International Airport A-TIS information kilo...one zero five three zulu...wind zero six zero at one three...visibility one zero...few clouds at two thousand five hundred...four thousand five hundred scattered...temperature two six...dewpoint one eight...altimeter three zero zero four...landing and departing runways four and eight...expect I-L-S or visual approach...***...advise approach on one one eight point three or one one niner point one if unable to hold short...taxiway golf closed between taxiway alpha and ** ramp...multiple taxiway hold position signs and edge lights out of service...readback all control instructions...increased birdstrike hazard all runways...numerous cranes in the vicinity...Honolulu airport check NOTAM for additional information...AIR-MET tango update when valid...advise on initial contact you have information kilo. [ATIS plays continuously in the background for ~6 minutes]
0111:27.3 CAM-2	common sense.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0111:28.9 CAM-1	yeah common sense you know?		
0111:34.8 CAM-1	yeah well I hope she doesn't get fired...I hope they talk to her and she changes her ways.		
0111:41.2 CAM-2	yeah that'll prolly happen I think they'll tell her this is it you know you're on thin ice...I hope I dunno...		
0111:47.5 CAM-1	no that ** she's a good pilot she flies good.		
0111:50.6 CAM-2	does she?		
0111:51.3 CAM-1	yeah that that I give to her but common sense is not there...you cannot tell her what to do...you know... lately her ego has become very big it's getting bigger and bigger you know...and I told @ [DO] hey I go ** her fly...he goes she is getting set in her ways.		
0112:13.1 CAM-2	well that makes her dangerous I mean to have this kind of an environment.		
0112:16.4 CAM-1	yeah it's not *.		
0112:17.3 CAM-2	***.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0112:18.4 CAM-1	it's not the best.		
0112:19.2 CAM-2	and that's within her control...you know I mean maybe some people don't have a lot of common sense sure okay there's not anything you can do about that I suppose but I mean you can control your behavior...and your actions and your conduct and how you choose to relate to...react to a situation you know ***.		
0112:37.1 CAM-1	yeah ***.		
0112:41.4 CAM-2	well...I mean fortunately you're not the only one...everybody..everybody complains about her and she complains about almost everybody...so I mean...**-		
0112:50.6 CAM-1	she's the problem.		
0112:51.1 CAM-2	she's a problem yeah.		
0112:52.4 CAM-2	* nobody else...		
0112:55.3 CAM-1	see I hope ***.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0112:55.7 CAM-2	nobody else is complaining about you or about the other...you know people grumble sometimes about this captain or that captain...but...		
0113:02.0 CAM-1	oh she wrote me up...** she wrote me up. [overlapping conversation]		
0113:04.5 CAM-2	***. [overlapping conversation]		
0113:09.5 CAM-1	you know and my interpretation is that she got off the flight (but @ [chief pilot]) ***.		
0113:22.2 CAM-1	I was like yeah they told me you would fly with @ [company pilot] *** talk * @ [company pilot]...***...I dunno...		
0113:40.6 CAM-2	*** they let that go they let that go and then this is what happens.		
0113:44.5 CAM-1	yeah so...		
0113:47.0 CAM-2	if @ [owner] really is like having a meeting with her then that should be the end of it...that or she will get fired next time...I mean if there is a next time...I dunno.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0114:01.2 CAM-2	all right.		
0114:10.5 CAM-1	it's uhhh...what kind of a checklist we have to run a checklist.		
0114:16.9 CAM-2	uh takeoff briefing taxi route umm...charlie romeo tango romeo alpha romeo bravo may hold short of four right approach. I'll fly checklist usage standard procedures ***...callouts...EPR will be two oh one * (charts)...uhh...at one thousand it's one seventy nine.		
0114:35.2 CAM-1	one seventy nine here?		
0114:36.7 CAM-2	no no sorry two oh one now and at a thousand feet it's one seventy nine.		
0114:40.0 CAM-1	oh for the climb EPR.		
0114:41.8 CAM-2	one seventy nine go around is one ninety eight.		
0114:45.0 CAM	[sounds of latching]		
0115:12.4 CAM-2	(yeah zero four). [commenting on ATIS]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0115:16.5 CAM-2	uhh so initial heading is the standard clearance one fifty five on the heading up to five thousand.		
0115:21.9 CAM-1	*.		
0115:22.6 CAM-2	expecting thirteen thousand departure's eighteen point three and the code is in the box.		
0115:27.7 CAM-?	*.		
0115:28.3 CAM-2	uhh standard uhh takeoff procedures (see anything) below eighty knots be your call but we'll probably abort for anything between eighty and vee one again your call we'll probably abort for any fire engine failure loss of directional control windshear otherwise we'll be lookin' to fly...if we lose the engine at vee one we'll climb straight out to five hundred feet one point three D-M-E whichever comes first we'll start a right turn to two twenty up to eight hundred we'll level off we'll accelerate we'll clean up we'll coordinate A-T-C run the checklists as appropriate (if we shut the engine down) *** [unintelligible] fourteen thousand on the fuel...no A-C-Ms...** runway ***...flaps five eight right dry runway...uhh two oh one set speed are (one twenty six one twenty six one thirty two...uhh one forty/twenty seven)...you've got forty over * auto ** (normal/romeo) in the box...five point two (units) ** questions?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0116:25.0 CAM-1	no (negative) questions.		
0116:28.7 CAM-1	kay.		
0116:41.8 CAM-2	do you need a pen?		
0116:43.4 CAM-1	no...there's ink in there.		
0116:46.1 CAM-2	umm.		
0116:47.9 CAM-1	it's (being lazy).		
0116:55.8 CAM-2	it's ***.		
0117:34.1 CAM-3	kay?		
0117:35.2 CAM-1	(yep/here)...thank you.		
0117:38.6 CAM-2	thank you.		
0117:41.2 CAM-4	okayyyyy...all right @ [captain]?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0117:45.4 CAM-1	*.		
0117:45.7 CAM-4	cargo is secure nets in place and do you want the light off or on?		
0117:50.1 CAM-1	uhh leave it on.		
0117:51.1 CAM-4	okay.		
0117:51.8 CAM-1	yeah...this is * a pen gift for you...sometimes it writes sometimes it doesn't.		
0117:58.0 CAM-4	oh haha.		
0117:58.9 CAM	[collective laughing]		
0118:01.9 CAM-1	oh man.		
0118:46.1 CAM-?	(everything's) secured...		
0118:48.6 CAM-1	okay.		
0118:50.0 CAM-1	when you get the chance...(*/I'm all ears).		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0118:51.6 CAM-2	before start checklist cockpit preparation...		
0118:53.5 CAM-1	complete.		
0118:53.9 CAM-2	complete. logbook.		
0118:54.6 CAM-1	checked.		
0118:54.9 CAM-2	lights test.		
0118:55.6 CAM-1	checked.		
0118:55.8 CAM-2	oxygen masks intercom.		
0118:57.0 CAM-1	checked.		
0118:57.3 CAM-2	checked. gear pins are on board. emergency exit lights.		
0118:59.3 CAM-1	armed.		
0118:59.6 CAM-2	C-V-R.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0119:00.2 CAM-1	tested.		
0119:00.6 CAM-2	yaw damper.		
0119:01.1 CAM-1	on.		
0119:01.6 CAM-2	fuel quantity.		
0119:02.7 CAM-1	***.		
0119:03.6 CAM-2	fourteen thousand five hundred. fuel pumps.		
0119:05.0 CAM-1	are on.		
0119:05.6 CAM-2	uh anti-ice.		
0119:06.5 CAM-1	off.		
0119:07.1 CAM-2	uh ground interconnect.		
0119:08.1 CAM-1	closed.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0119:08.5 CAM-2	hydraulic pumps.		
0119:09.3 CAM-1	on.		
0119:09.8 CAM-2	pressurization.		
0119:10.7 CAM-1	set. ground.		
0119:11.8 CAM-2	uh H-S-I select...		
0119:12.8 CAM-1	NAV.		
0119:13.0 CAM-2	uhh NAV. instruments and bugs.		
0119:15.0 CAM-1	set. crosschecked.		
0119:16.4 CAM-2	auto brake.		
0119:17.6 CAM-1	don't have it.		
0119:18.5 CAM-2	oil quantity.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0119:19.6 CAM-1	checked.		
0119:20.2 CAM-2	transponder radar.		
0119:20.9 CAM-1	uhh standby.		
0119:22.0 CAM-2	nav coms.		
0119:24.9 CAM-1	set.		
0119:25.6 CAM-2	speedbrake.		
0119:26.4 CAM-1	down detent.		
0119:27.2 CAM-2	stabilizer trim switches.		
0119:28.0 CAM-1	normal.		
0119:28.5 CAM-2	rudder aileron trim.		
0119:29.2 CAM-1	free and zero.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0119:29.7 CAM-2	papers.		
0119:30.2 CAM-1	onboard.		
0119:30.6 CAM-2	departure briefing.		
0119:31.3 CAM-1	complete.		
0119:31.8 CAM-2	parking brake.		
0119:32.2 CAM-1	set.		
0119:32.9 CAM-2	and before start checklist complete.		
0119:41.6 CAM-1	engine start checklist.		
0119:43.2 CAM-2	engine start checklist. tail stand.		
0119:44.1 CAM-1	removed.		
0119:44.6 CAM-2	cargo.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0119:44.9 CAM-1	secured.		
0119:45.4 CAM-2	doors and windows.		
0119:46.2 CAM-1	cloooooosed and locked.		
0119:47.5 CAM-2	seatbelts.		
0119:48.1 CAM-1	on.		
0119:48.4 CAM-2	on. anti-collision lights.		
0119:49.7 CAM-1	on.		
0119:50.2 CAM-2	packs.		
0119:50.9 CAM-1	off.		
0119:51.6 CAM-2	start pressure.		
0119:53.7 CAM-1	***.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0119:55.2 CAM-2	** checklist and I'm sorry ***. [unintelligible conversation relating to engine start]		
0120:01.1 CAM-2	engine start checklist complete and clear right.		
0120:03.0 CAM-1	clear right.		
0120:15.5 CAM-1	(no questions/oil pressure).		
0120:32.5 CAM	[bleedover sound of igniters]		
0120:36.0 CAM	[increase in ambient noise consistent with engine start]		
0120:45.7 CAM-2	start valve closed.		
0120:47.3 CAM-1	rog'.		
0120:58.0 CAM-1	green green green.		
0121:00.1 CAM-?	*** zero.		
0121:06.2 CAM-1	go ahead start one.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0121:14.6 CAM-2	oil pressure.		
0121:19.3 CAM-?	*.		
0121:30.9 CAM	[bleedover sound of igniters]		
0121:43.1 CAM-2	and start valve closed.		
0121:45.2 CAM-1	start valve closed.		
0121:57.6 CAM-1	okay.		
0121:59.7 CAM-1	I'm gonna send this to @ [chief pilot]...oh you sent it to him already.		
0122:02.9 CAM-2	no no I sent it to you.		
0122:04.4 CAM-1	all right I'll send it to @ [chief pilot].		
0122:07.7 CAM-1	'cause I told him you know I read somewhere you know that you (reference) to the stops ***.		
0122:13.9 CAM-2	yeah.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0122:15.6 CAM-1	'cause she doesn't * the stops like that..I knew I read it somewhere.		
0122:21.0 CAM-?	* are up.		
0122:35.8 CAM-1	okay...***.		
0122:37.7 CAM-2	after start checklist. generators.		
0122:39.0 CAM-1	on.		
0122:39.3 CAM-2	window heat.		
0122:40.0 CAM-1	on.		
0122:40.7 CAM-2	pitot static heat.		
0122:41.8 CAM-1	(it's on).		
0122:42.4 CAM-2	anti-ice.		
0122:43.0 CAM-1	off.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0122:43.5 CAM-2	pressurization.		
0122:44.8 CAM-1	set flight.		
0122:45.5 CAM-2	transponder.		
0122:46.5 CAM-1	uhhh...T-A R-A.		
0122:48.1 CAM-2	recall.		
0122:48.6 CAM-1	checked.		
0122:49.2 CAM-2	after start checklist complete.		
0122:50.7 CAM-1	okay.		
0122:51.3 HOT-2	test test...test test test.		
0122:57.9 HOT-2	test test.		
0122:59.5 HOT-1	loud and clear.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0123:00.5 HOT-2	okay loud and clear...I'll call for taxi.		
0123:02.8 HOT-1	rog'.		
		0123:04.6 RDO-2	(Honolulu/hello) tower Rhoades Express eight ten taxi kilo.
		0123:08.0 TWR-B	Rhoades Express eight ten Honolulu tower runway eight right taxi via charlie romeo tango romeo alpha hold short of the runway four right final approach.
		0123:18.1 RDO-2	okay eight right charlie romeo tango romeo alpha hold short four right approach Rhoades Express eight ten.
0123:22.2 HOT-2	clear right holding short.		
0123:24.1 HOT-1	roger holding short clear left.		
0123:26.1 CAM	[sounds of various latches and levers]		
0123:49.8 HOT-2	it looks clear right again.		
0123:51.9 HOT-1	roger clear left.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0124:00.4 CAM	approaching runway two six right. [electronic female voice]		
0124:22.8 CAM-1	(flaps five...taxi check).		
0124:26.8 CAM	[sounds of lever moving]		
0124:44.8 HOT-2	taxi checklist shoulder harnesses.		
0124:46.8 HOT-1	on.		
0124:47.5 HOT-2	on. A-P-U.		
0124:48.7 HOT-1	off.		
0124:49.1 HOT-2	uhh trim...five point two.		
0124:50.8 HOT-1	five point two units set.		
0124:52.6 HOT-2	five point two units set and flaps.		
0124:56.0 HOT-1	five five green light.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0124:57.6 HOT-2	five five green light flight controls.		
0124:59.5 HOT-1	checked.		
0124:59.8 HOT-2	checked takeoff briefing.		
0125:01.3 HOT-1	umm.		
0125:01.7 HOT-2	umm right seat...uhh five thousand heading one fifty five and we're holding short of the four right approach...complete.		
0125:08.3 HOT-1	rogah...holding short.		
0125:37.8 HOT-1	at your right about *...you see this (three) little pothole here.		
0125:43.8 HOT-2	oh yeah.		
0125:45.1 HOT-1	** yeah...you kinda like have to maneuver (around).		
0125:48.1 HOT-2	oh yeah see everybody always goes around it.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0125:49.9 HOT-1	yeah **... 'cause it goes boom boom...well yesterday...with all that argument going on and yelling and shouting...so I had my left foot on the left rudder on the top you know and I was touching with my foot and working the brakes...so we got there trying to slow down a little so I had my foot on the brakes and blah blah blah and there was an odd * do you see how you jerk your body sometimes when...when you're talking and...		
0126:22.1 HOT-2	oh yeah.		
0126:23.7 HOT-1	and I went like this and it was the left foot...right over the...the pothole...on the brakes...and this...the airplane it went boom! like **.		
0126:36.3 HOT-2	maybe that's why we have a leak now.		
0126:38.7 HOT-1	hahahahahaha...oh I was like...what the...this girl is driving me crazy you know.		
0126:45.7 HOT-2	yeah safety issues.		
0126:47.2 HOT-1	yeah...and we both went like this you know?...oh what the #...and then I'm looking at her...and go I don't know what to say no more...you know?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0127:02.4 HOT-1	I mean (this/these) are the kind of women you don't wanna get married to...you know some men they lose their temper and the next thing you knows the wife is dead you know...they start punching them and kicking them and um they lost their minds you know...they kill the woman...it's the woman who can (drag/drive) you to (do/doom) crazy stuff...you know?		
0127:30.3 HOT-1	and she's got that little voice like a two year old...she's no two year old! ** [mocking voice]...no man don't let (her/that) fool you.		
0127:42.6 HOT-2	I don't know...the way it sounds like she was acting...maybe she is a two year old.		
0127:48.3 HOT-1	roger...clear left.		
0127:48.3 HOT-2	clear right.		
0127:51.8 HOT-1	you know something like yesterday...you know...I go clear left and she she is like [pause] clear left...no response ***.		
0128:05.1 HOT-1	and after a while I was like @ [company pilot] it's two of us working here you know when I say clear left you look over to the right and make sure it's clear and say something...you know...		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0128:15.0 HOT-1	and after I said that like right about here...she looked over...you know and...this was over there by the romeo uh whiskey looked over to the water and she goes clear right...there's no taxiway in the water.		
0128:33.4 HOT-2	that's terrible.		
0128:35.0 HOT-1	yeah...yeah...		
0128:36.1 HOT-2	clear right and we're holding short four right approach.		
0128:38.5 HOT-1	holding short roger.		
0129:29.2 HOT-2	we are holding short here...yeah?		
0129:30.8 HOT-1	yeah holding short.		
0129:32.0 HOT-2	okay.		
		0129:32.6 TWR-B	Rhoades Express eight ten continue via romeo alpha romeo bravo.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0129:36.6 RDO-2	continue via romeo alpha romeo bravo Rhoades Express eight ten.
0129:40.6 HOT-2	okay nevermind...clear right...cleared across.		
0129:42.5 HOT-1	clear left.		
0130:22.9 HOT-1	how are the lights anything too bright for you...want me to dim*?		
0130:26.0 HOT-2	oh no I like it like that...thank you.		
0130:27.7 HOT-1	rogah.		
0130:38.7 HOT-2	I think that's one thing @ [former company pilot] will always be remembered for...		
0130:42.2 HOT-1	oh yeah...		
0130:43.2 HOT-2	'cause you can't ever see anything.		
0130:44.1 HOT-1	* you can't see nothing man.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0130:47.4 HOT-1	oh that guy he was hard to work for...you know **.		
0130:55.8 HOT-1	** be switching the altimeters...the altitudes you know...I'll be like I can't see this can you see...he says yeah *** hahahahahaha.		
0131:07.5 HOT-2	jeez.		
0131:08.4 HOT-1	aw man.		
0131:13.1 HOT-1	he's at @ [airline] now.		
0131:15.1 HOT-2	yeah.		
0131:15.7 HOT-1	what is he flying?		
0131:17.3 HOT-2	I dunno I never heard.		
0131:19.6 HOT-1	yeahhhh...		
0131:24.4 HOT-1	all right clear left to hold short.		
0131:26.8 HOT-2	clear right hold short.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0131:33.7 HOT-1	yeah...this morning I was here you know...I go clear left [pause] clear left...[pause]..you know like...hey @ [company pilot] you gotta look to your right make sure there's nobody coming...you know...and then right about here as I made this turn right over here and then she looked off to the water you know and she goes...clear right...hahahaha.		
0132:01.4 HOT-2	man that's terrible.		
0132:02.1 HOT-1	yeah I said...@ [company pilot] you are a joke you are an absolute joke...you know...you're looking at the w-- ...oh my *...		
0132:12.2 HOT-2	just...just being belligerent.		
0132:15.8 HOT-1	yeah yeah.		
0132:16.6 HOT-2	by risking the safety of the crew...the airplane...the...cargo.		
		0132:20.2 TWR-B	Rhoades Express eight ten runway eight right cleared for takeoff.
		0132:23.5 RDO-2	runway eight right cleared for takeoff Rhoades Express eight ten.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0132:25.5 HOT-2	all right cleared to go...and clear right.		
0132:28.5 HOT-1	clear left before takeoff checklist...there's somebody else there on four...we should be going before he gets here.		
0132:33.6 HOT-2	before takeoff checklist. exterior lights on. uhh start switches low. recall is checked. uh transponder is T-A R-A. runway.		
0132:42.0 HOT-1	runway eight right confirmed.		
0132:44.0 HOT-2	runway eight right confirmed before takeoff checklist complete.		
0132:47.9 HOT-1	uhh...		
0132:49.0 HOT-2	still clear right.		
0132:50.0 HOT-1	yeah.		
0133:03.0 HOT-1	okayyyy...you have control.		
0133:05.0 HOT-2	okay I have control.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0133:08.7 CAM	[increase in ambient noise consistent with engine spool up]		
0133:12.6 HOT-1	engines stable.		
0133:20.6 HOT-2	and set reduced thrust.		
0133:22.2 HOT-1	thrust set.		
0133:25.5 HOT-1	eighty knots.		
0133:26.6 HOT-2	check.		
0133:35.1 HOT-1	vee one.		
0133:36.7 HOT-1	rotate		
0133:37.6 HOT-1	vee two.		
0133:45.0 HOT-1	positive rate.		
0133:46.0 HOT-2	gear up.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0133:52.1 CAM	[sound of (thud) noise(s)]		
0133:54.7 CAM	[sound of low frequency vibration tone decreasing in pitch from ~115Hz to ~105Hz]		
0133:55.7 HOT-2	oh #.		
0133:57.0 HOT-1	lost (an) engine you got it?		
0133:58.0 HOT-2	okay I got it yep.		
0133:58.9 HOT-1	yep...you lost number...		
0134:00.8 HOT-2	number two...yep.		
0134:01.0 HOT-1	number two.		
0134:03.2 CAM	[sound of click]		
0134:05.9 HOT-1	five hundred eight hundred.		
0134:08.3 HOT-2	flaps.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0134:08.6 HOT-1	(level off.)		
0134:11.1 HOT-1	okay turn two twenty heading.		
0134:14.0 CAM	[sound of click]		
0134:21.5 HOT-1	I'll give you flaps up.		
0134:22.6 HOT-2	yep.		
		0134:28.9 RDO-1	Rhoades uh eight ten we have emergency stand by.
		0134:33.1 RDO-1	we're on a two twenty heading.
		0134:36.6 TWR-B	Rhoades Express eight ten radar contact fly heading of uh one zero zero to join victor two resume own navigation.
		0134:43.4 RDO-1	eight twenty has emergency on a two twenty heading stand by.
0134:51.7 HOT-1	okay you can inch up to two thousand.		
0135:01.2 HOT-1	*.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0135:03.6 HOT-1	okay coming up on two thousand we'll level at two thousand...you have two twenty heading right?		
0135:08.8 HOT-2	yes *.		
0135:11.0 HOT-1	'kay level two thousand.		
		0135:16.2 TWR-B	Rhoades Express eight ten...radar contact...turn left heading zero niner zero join victor two resume own navigation climb and maintain one three thousand say altitude.
0135:22.8 CAM	[sound of click]		
		0135:26.2 RDO-1	okay Rhoaaades eight ten radio check how do you read?
		0135:29.5 TWR-B	Rhoades Express eight ten loud and clear how do you hear? turn left heading one eight zero.
0135:29.6 CAM	[various sounds of clicks]		
0135:32.7 HOT-1	two ten...two ten heading. [overlapping with preceding radio transmission]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0135:34.7 RDO-1	okay Rhoades eight ten we've lost an engine...we are on a two twenty heading...maintaining two thousand...declaring emergency how do you read?
		0135:43.3 TWR-B	* say again heading two four zero. [to another aircraft]
		0135:46.2 RDO-1	okay two four zero heading Rhoades eight ten.
0135:47.1 CAM	[various sounds of clicks]		
		0135:48.9 TWR-B	no Rhoades eight oh nine Rhoades eight oh nine left two four zero. [to another aircraft]
		0135:52.9 N809TA	[other aircraft responds]
		0135:54.8 TWR-B	Rhoades express eight ten you are cleared visual approach runway four right you can turn in towards the airport.
		0136:00.1 RDO-1	okay Rhoades eight ten we're gonna have to run a checklist if we can get a delay vector and (uh we'll/I will) let you know when we're ready to come into the airport.
		0136:08.2 TWR-B	—heading and uh...just keep me advised and maintain uh two thousand if that's the altitude you'd like. [beginning of transmission cut off by previous transmission]

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0136:15.1 RDO-1	okay two thousand is good for now we'll stay around fifteen miles from the airport and uhh maintaining two thousand Rhoades eight ten. [this transmission was partially blocked by ATC communicating with another aircraft]
0136:27.5 HOT-1	okay...let's uhh...		
0136:33.8 HOT-1	two forty heading *.		
0136:36.1 HOT-1	you want me to take over or you got it?		
0136:38.4 HOT-2	no I'm okay thank you.		
0136:39.7 HOT-1	okay **.		
		0136:47.4 TWR-B	and Rhoades express eight ten uhh...when you get a chance uhh can I get ya...uh the nature of the emergency I know you said an engine out which one...uhh how many souls onboard and fuel.
		0136:59.8 RDO-1	okay all that is good we'll give you all that in a little bit...in a little bit Rhoades eight ten.
		0137:04.4 TWR-B	when you're ready.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0137:05.5 HOT-1	okay so we'll plan for two...say two twenty speed eh?		
0137:09.6 HOT-2	kay.		
0137:11.3 HOT-1	let me take over briefly and you...		
0137:12.6 HOT-2	okay.		
0137:13.1 HOT-1	you set your things up I have control.		
0137:14.7 HOT-2	okay...you have control.		
0137:15.8 HOT-1	roger.		
		0137:19.2 N809TA	dispatch...eight oh nine.
		0137:22.4 DISP	eight oh nine go ahead.
		0137:24.2 N809TA	eight ten declared emergency.
		0137:30.6 DISP	okay roger uh yeah I see them turning around thanks.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0137:35.9 HOT-1	okay let's trim this up at two thousand.		
0137:39.9 HOT-1	okay let's see what is the problem...which one...what's going on with the gauges.		
		0137:41.2 DISP	eight ten uhh dispatch uhh * in...let me know what's going on.
0137:48.2 HOT-1	read the gauges and see which one...who one...which...who has the E-G-T?		
0137:51.9 HOT-2	yep so it looks like the number one.		
0137:53.6 HOT-1	number one is gone?		
0137:54.6 HOT-2	(it's/is) gone yep.		
0137:56.9 HOT-2	so we have number two.		
0137:58.1 HOT-1	so we have number two okay.		
0138:12.1 HOT-1	all right uh two forty heading so I have controls.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0138:15.7 HOT-2	okay...should we head back toward the airport though before we get too far away?		
0138:18.3 HOT-1	yeah we'll stay within fifteen...all right I have controls you run the checklist...let's do the engine failure shutdown checklist.		
0138:31.4 HOT-1	and I have the radios now.		
0138:33.1 HOT-2	'kay.		
		0138:38.4 RDO-1	'kay Honolulu Rhoades eight ten.
		0138:41.1 TWR-B	Rhoades Express eight ten Honolulu tower.
		0138:42.8 RDO-1	yeah we can take a turn to the right umm...toward the airport (I'm) not ready to land yet though.
		0138:49.3 TWR-B	Rhoades Express eight ten uhh fly a heading of two uhh five zero.
		0138:52.8 RDO-1	two five zero Rhoades eight ten.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0138:57.8 HOT-2	okay engine failure or shutdown when these occurs engine failure engine flameout or another checklist directs an engine failure.		
0139:06.1 HOT-2	we're...we're red line here we should pull the right one back a little bit.		
0139:10.2 HOT-1	okay shoot we should head towards the airport.		
0139:12.1 HOT-2	yeah we should yep.		
0139:13.3 HOT-1	all right set it up for the I-L-S...		
0139:15.1 HOT-2	okay.		
0139:15.5 HOT-1	I-L-S four.		
		0139:17.5 RDO-1	and Rhoades eight ten we'd like to come to the airport now.
		0139:21.2 TWR-B	Rhoades Express eight ten roger confirm you still have the airport in sight.
		0139:24.4 RDO-1	uhh negative we'll take your vectors.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0139:31.4 TWR-B	Rhoades Express eight ten turn right heading zero two zero confirm you still have the airport in sight.
		0139:35.5 RDO-1	negative we don't have the airport Rhoades eight ten zero two zero.
		0139:38.6 TWR-B	Rhoades Express eight ten fly heading of zero two zero and would you like to intercept the localizer or do you want vectors?
		0139:45.6 RDO-1	no...vectors straight to the airport we might lose the other engine too.
		0139:49.7 TWR-B	–four zero. [beginning of transmission cut off by previous transmission]
		0139:51.4 RDO-1	uhh gimme...uhh say again Rhoades eight ten.
		0139:54.1 TWR-B	zero four zero heading Rhoades Express eight ten.
		0140:00.3 RDO-1	zero four zero roger Rhoades eight ten.
		0140:02.4 TWR-B	and Rhoades Express eight ten is it two souls onboard and also how much fuel remaining?

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0140:02.8 HOT-1	(it shows/ensure) we are clean right?		
0140:04.6 HOT-2	okay.		
0140:05.0 HOT-2	just have to watch this though...the number two.		
0140:08.0 HOT-1	#.		
		0140:09.1 RDO-1	uhh Rhoades eight ten stand by.
0140:11.0 CAM	[sounds possibly similar to momentary stick shaker, approximately 1.8 seconds duration]		
0140:11.2 HOT-1	(what's this?)		
0140:13.0 HOT-1	hey man we're going...we can't keep going down.		
0140:16.8 HOT-2	we're descending.		
0140:17.2 CAM	[sounds of increasing pitch, consistent with increasing engine thrust]		
0140:21.6 HOT-1	okay see...see if you can see the airport now...(***)		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0140:24.4 HOT-2	uhh we're descending...we have to climb.		
0140:29.6 HOT-1	double check the airplane is cleaned up.		
0140:32.0 HOT-2	yeah...flaps are up...speedbrakes...		
0140:36.5 HOT-1	how is the E-G-T?		
0140:38.3 HOT-2	it's max it's beyond max.		
0140:41.4 HOT-1	okay...we're barely holding altitude...okay see what you can do in the checklist finish as much as possible.		
0140:56.7 HOT-2	this says uhh...		
0140:59.0 HOT-2	uhh airframe vibrations abnormal engines exist...it says do the engine shutdown only when flight conditions— we have to fly the airplane though.		
0141:07.7 HOT-1	okay.		
0141:09.8 HOT-1	#.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0141:10.4 HOT-2	we're losing altitude.		
0141:11.5 HOT-1	yeah.		
0141:18.6 HOT-1	fifteen miles out **. [overlapping radio transmission]		
		0141:19.9 TWR-B	Rhoades Express eight ten fly heading of zero five zero.
		0141:22.3 RDO-2	zero five zero Rhoades Express eight ten.
0141:30.3 CAM	[sound of click]		
0141:45.6 HOT-2	do we go flaps...flaps one?		
0141:47.6 HOT-1	no no not yet. ***.		
0141:48.8 HOT-2	'kay we're...we're very slow though.		
0141:54.0 HOT-1	shoot...okay flaps one.		
0141:56.6 CAM	[sound of click]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0141:58.2 EGPWS	five hundred. [electronic voice]		
0141:59.5 EGPWS	too low gear. [electronic voice]		
		0142:04.9 RDO-1	okay Rhoades eight ten uh situation we've lost number one engine and um...we're coming straight to the airport...we're gonna need the fire department there's a chance we're gonna lose the other engine too it's running very hot. and umm speed is umm we're pretty low on the speed it doesn't look good out here...you might want to let the Coast Guard know as well.
		0142:28.8 RDO-1	and we don't have any hazmats and umm fuel is about two hours of fuel.
0142:36.1 EGPWS	too low gear. [electronic voice]		
0142:37.4 HOT-2	just fly the...fly the airplane please.		
0142:37.8 EGPWS	too low terrain. [electronic voice]		
		0142:38.5 TWR-B	and Rhoades Express eight ten how many people are onboard?
		0142:40.7 RDO-1	uh two of us.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0142:40.9 EGPWS	too low gear. [electronic voice]		
		0142:42.3 TWR-B	Rhoades Express eight ten roger do you have the airport in sight?
0142:43.7 EGPWS	terrain terrain. [electronic voice]		
0142:45.2 HOT-1	do you have the airport?		
0142:45.8 EGPWS	pull up. [electronic voice]		
0142:46.3 HOT-2	pull up we're low. [spoken urgently]		
0142:47.6 EGPWS	pull up. [electronic voice]		
0142:48.8 EGPWS	pull up. [electronic voice]		
		0142:49.6 TWR-B	Rhoades Express eight ten do you have the airport in sight?
		0142:52.1 RDO-2	negative.
		0142:53.1 TWR-B	and Rhoades Express eight ten low altitude alert... uh low altitude alert...are you able to climb at all?

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0142:58.5 RDO-2	no negative.
		0142:59.8 TWR-B	Rhoades Express eight ten roger proceed direct to the airport and you are cleared to land any runway.
		0143:04.9 RDO-2	we need a heading.
		0143:06.2 TWR-B	Rhoades Express eight ten heading zero six zero.
		0143:08.4 RDO-2	zero six zero.
0143:08.6 EGPWS	too low terrain. [electronic voice]		
0143:11.1 EGPWS	(three) hundred. [electronic voice]		
0143:12.3 EGPWS	too low gear. [electronic voice]		
		0143:14.1 TWR-B	Rhoades Express eight ten the trucks are rolling.
		0143:16.3 RDO-1	roger you wanna–
0143:17.6 HOT-2	zero six zero on the heading.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0143:18.8 RDO-1	you wanna let the Coast– Coast Guard know as well?
0143:21.4 HOT-2	zero six zero on the heading.		
		0143:23.0 TWR-B	say that again?
		0143:24.0 RDO-1	uhh can you let the Coast Guard know...we cannot maintain altitude.
		0143:28.1 TWR-B	we will.
0143:31.4 HOT-2	hold that please it's climbing hold that hold that.		
0143:34.8 HOT-2	pull back we've got a climb.		
0143:37.2 HOT-2	pull back to the stick shaker.		
0143:40.6 HOT-1	shoot three hundred feet.		
0143:41.9 HOT-2	it's okay we're climbin'– oh we're not climbing #.		
0143:44.9 HOT-1	how's the E-G-T?		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0143:46.5 HOT-2	hot...way over.		
0143:46.7 EGPWS	too low terrain. [electronic voice]		
0143:48.7 EGPWS	too low gear. [electronic voice]		
0143:50.6 EGPWS	too low gear. [electronic voice]		
0143:55.2 EGPWS	too low gear. [electronic voice]		
		0143:56.5 TWR-B	Rhodes Express eight ten the Coast Guard is on their way.
		0143:59.3 RDO-1	roger thank you...thank you very much 'preciate it.
		0144:02.2 TWR-B	Rhodes Express eight ten if you want to land eight right uh if you can get to the runway any runway you are cleared to land.
0144:06.8 EGPWS	too low gear. [electronic voice]		
0144:08.5 EGPWS	too low terrain. [electronic voice]		
0144:09.7 HOT-2	pull back please.		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
		0144:11.2 TWR-B	Express eight ten if you can get to runway eight right or Kalaeloa do you want Kalaeloa?
		0144:17.2 RDO-2	we'd like the closest airport runway please.
0144:19.2 HOT-1	anything we can land on.		
		0144:20.9 TWR-B	–port is three miles north of you uh uh off your nine to ten o'clock.
0144:27.0 HOT-2	wanna go there?		
0144:28.0 CAM	[sound similar to stick shaker, approximately 1.7 seconds duration]		
		0144:28.5 TWR-B	can you get that Rhoades Express eight ten it's three uhh...to your left about three miles northwest of you.
0144:33.9 EGPWS	too low gear. [electronic voice]		
0144:35.9 EGPWS	too low gear. [electronic voice]		
		0144:36.0 RDO-1	okay give me a heading.

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0144:37.8 EGPWS	too low gear. [electronic voice]		
0144:39.6 EGPWS	too low gear. [electronic voice]		
0144:39.8 CAM	[sound similar to stick shaker, approximately 1.6 seconds duration]		
		0144:40.0 TWR-B	Rhoades Express eight ten uh the airport is about a three one zero heading from you.
0144:41.6 EGPWS	terrain terrain. [electronic voice]		
0144:43.1 EGPWS	pull up. [electronic voice]		
0144:44.7 EGPWS	pull up. [electronic voice]		
		0144:46.1 RDO-1	three one zero thank you.
0144:46.2 EGPWS	pull up. [electronic voice]		
0144:47.8 EGPWS	pull up. [electronic voice]		
0144:49.3 EGPWS	pull up. [electronic voice]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0144:50.8 EGPWS	pull up. [electronic voice]		
0144:51.6 HOT-1	you have control and you have control.		
0144:52.3 EGPWS	pull up. [electronic voice]		
0144:53.3 HOT-2	okay.		
0144:53.9 HOT-1	shoot this is the water we in the water.		
0144:54.0 EGPWS	pull up. [electronic voice]		
0144:55.3 CAM	[sound similar to stick shaker, approximately 2.6 seconds duration]		
0144:55.4 EGPWS	pull up. [electronic voice]		
0144:57.0 CAM	[sounds of heavy breathing]		
0144:57.2 EGPWS	pull up. [electronic voice]		
0144:58.4 EGPWS	pull up. [electronic voice]		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0144:59.9 CAM	[sound similar to stick shaker, approximately 3.3 seconds duration]		
0145:00.1 EGPWS	pull up. [electronic voice]		
0145:01.7 EGPWS	pull up. [electronic voice]		
0145:03.2 EGPWS	pull up. [electronic voice]		
0145:04.9 EGPWS	pull up. [electronic voice]		
0145:06.4 EGPWS	pull up. [electronic voice]		
0145:06.4 CAM	[sound similar to stick shaker, approximately 4.1 seconds duration]		
0145:07.9 EGPWS	pull up. [electronic voice]		
0145:09.6 EGPWS	too low terrain. [electronic voice]		
0145:11.4 HOT-1	oh man we're in the water we're in the water we can't go...		

Time and Source	Intra-Aircraft Communication	Time and Source	Over-the-Air Communication
0145:12.0 CAM	[sound similar to stick shaker, remained active throughout the duration of the recording]		
0145:12.4 EGPWS	terrain terrain. [electronic voice]		
0145:13.7 EGPWS	pull up. [electronic voice]		
0145:14.9 EGPWS	pull up. [electronic voice]		
0145:15.9 HOT-1	#.		
0145:16.3 EGPWS	pull up. [electronic voice]		
0145:17.0 CAM	[sounds consistent with impact]		
0145:17.3 END OF TRANSCRIPT END OF RECORDING			