

DCA11MA076

Errata for Interviews of Gulfstream Personnel (October 2011)

(38 pages)

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: SHELLY BRIMMEIER  
 Tuesday, October 25, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 6 Line 7	Kay	<u>Kaye</u>
Page 8 Line 21	Mobilaje	<u>Mobolaji</u>
Page 8 Line 23	Manufacture.	<u>Manufacturer.</u>
Page 8 Line 25	Primarily working on the 650 program. And really he showed late	Primarily working on the 650 program. And really he showed <u>up</u> late
Page 10 Line 14	Team	<u>TM (telemetry)</u>
Page 11 Line 2	I wouldn't say that there formal training. From the	I wouldn't say that there <u>was</u> formal training. From the
Page 11 Line 25	IAD	<u>IADS</u>
Page 12 Line 16	Eighties of the flights that we had. So I was wondering why did	<u>Flight 80's timeframe.</u> So I was wondering why did
Page 15 Line 14	Gulf Stream's	<u>Gulfstream's</u>
Page 16 Line 1	650	<u>G650</u>
Page 16 Line 5	650	<u>G650</u>
Page 19 Line 21	Aero dynamics	<u>Aerodynamics</u>
Page 20 Line 21	Fairing's	<u>Fairings</u>
Page 23 Line 24 through Line 25	So alpha limiting turn would happen prior to stick shaker occurring on the direction of the aircraft, it would be an	So alpha limited would happen prior to stick shaker occurring on the <u>column</u> of the aircraft, it would be <u>in</u>
Page 24 Line 1	Load	<u>Mode as</u>
Page 24 Line 3 through 4	Essentially you should never really see shaker in the correction of the aircraft.	Essentially you should never really see shaker <u>activation on</u> the aircraft.
Page 24 Line 6	Maybe alpha limiting	<u>Shaker</u>
Page 24 Line 15	Predication	<u>Prediction</u>

Page 24 Line 17	It	<u>The shaker activation</u>
Page 24 Line 24	Turn	<u>Term</u>
Page 25 Line 1	Turn	<u>Term</u>
Page 25 Line 4 through 5	Stall versus a 1 knot per second approach that rate at which you are approaching stall the alpha limiter was adjusted based to a	Stall versus a 1 knot per second approach. <u>The faster the rate at which you are approaching stall, the alpha limiter automatically adjusted based on a</u>
Page 25 Line 8	Turn	<u>Term</u>
Page 25 Line 10	Turn	<u>Term</u>
Page 25 Line 17	Turn	<u>Term</u>
Page 26 Line 11	Borne	<u>Born</u>
Page 27 Line 3	Borne	<u>Born</u>
Page 29 Line 19	Brett	<u>Bret</u>
Page 30 Line 23 through 24	Brett	<u>Bret</u>
Page 33 Line 16	The testing and what we envision production, the production	The testing and what we envision the production
Page 34 Line 2	I think in air approximately 5 knots faster.	I think <u>they are</u> approximately 5 knots faster.
Page 36 Line 12	Hand-and-hand	<u>Hand-in-hand</u>
Page 38 Line 23	Mat lab	<u>Matlab</u>
Page 39 Line 15	The run. What we were going to do is pull those definition and	the run. What we were going to do is pull those <u>definition points</u> and
Page 40 Line 20	Pullers	<u>Polars</u>
Page 41 Line 8	Meant	<u>Met targets</u>
Page 42 line 20	Ration	<u>Ratio</u>
Page 42 Line 22	Engine or continued engine, a twin engine continued takeoffs.	Engine continued takeoff, <u>or</u> twin engine continued takeoffs.
Page 43 Line 5 through 6	Into one data radiation scatter plot. And then that is the data reduction piece that goes to the flight manual expansion. The	Into one data <u>reduction</u> scatter plot. And then that is the data reduction piece that goes <u>into</u> the flight manual expansion. The
Page 44 Line 1	CO	<u>CL</u>
Page 44 Line 19	Determination	<u>Determine</u>
Page 44 Line 20	An	<u>And</u>
Page 45 Line 19	Derived from that actual range of weights testing. And the	Derived from that actual range of weights <u>through the testing</u> . And the
Page 50 Line 12	Reserve	<u>Reply</u>

Page 50 Line 22	Rates	<u>Risk</u>
Page 60 Line 1	Done	<u>Do</u>
Page 60 Line 22	Agreeable to. So we thought it would have been certifiable and	Agreeable to, <u>and was repeatable</u> . So we thought it would have been certifiable and
Page 61 Line 1	48	<u>four to eight</u>
Page 61 Line 8	Ballast	<u>Balanced</u>
Page 62 Line 5	Ballast	<u>Balanced</u>
Page 62 Line 6 through 7	More than five years. I think it was a visible target to be I rating.	More than five years. I think it was a visible target to <u>engineering and management</u> .
Page 62 Line 19	Ballast	<u>Balanced</u>
Page 63 Line 1	Speeds that we started with	Speeds that we started with <u>and with this takeoff technique</u> .
Page 65 Line 7 through 8	Difficulty sort of in the flair portion they were going from the 50 foot point and then - - speed off and touching down at a target	Difficulty sort of in the <u>flare</u> portion they were going from the 50 foot point and then – speed <u>bleed</u> off and touching down at a target
Page 65 Line 13	Flair	<u>Flare</u>
Page 66 Line 16	Risk	<u>Adjust</u>
Page 67 Line 2 through 3	During the flair. It's just a straight 96 percent of the 50 feet, you know, VREF was our predicted touchdown speed.	During the <u>flare</u> . It's just a straight 96 percent of the 50 feet <u>speed (VREF)</u> , VREF was our predicted touchdown speed ( $0.96 * VREF$ )
Page 81 Line 6	Dip	<u>Tip</u>
Page 81 Line 23	Else. I do believe he shared that with the aerodynamics group.	Else. I do believe he ( <u>Reece</u> ) shared that with the aerodynamics group.
Page 85 Line 9	Bans	<u>Bands</u>
Page 86 Line 2	That's used to build up the V schedules you mentioned. Was this	That's used to build up the V <u>speed</u> schedules you mentioned. Was this
Page 86 Line 19	Vlo	Vlo (for liftoff)
Page 100 Line 6	Landing, air climb or, you know, how the aircraft cruises. We do	Landing climb or, you know, how the aircraft cruises. We do
Page 100 Line 7 through 8	Mission analysis as well, so predicting the range and cruise as ultimate cruise altitudes and ceiling data, a	Mission analysis as well, so predicting the range and cruise <u>and optimum</u> cruise altitudes and ceiling data, a

	lot of that stuff.	lot of that stuff.
Page 100 Line 24	For the same role essentially. So in something like the Vmu	For the same role <u>being</u> essentially. So in something like the Vmu
Page 105 Line 20	John Lewis	John <u>Louis</u>



Shelly Brimmeier

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: PAT CONNOR  
 Monday, October 24, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 6 Line 6	650	G650
Page 6 Line 7	650	<u>G650</u>
Page 6 Line 9	650	<u>G650</u>
Page 7 Line 5	650	<u>G650</u>
Page 8 Line 25	This took place in January 2011 after our initial cut assessment	This took place in January 2011 after our initial assessment
Page 9 Line 10	Takeoff speeds and landing speeds. So we put all of that into the	Takeoff speeds and landing speeds. So we put all of that <u>data</u> into the
Page 10 Line 11 through 13	Max is going to be or scale effects when you have a model with a small Reynolds number and you are trying to extrapolate that up to full. But with the cryogenic testing we were able to essentially	Max is going to be. <u>When</u> you have a model with a small Reynolds number you <u>must</u> extrapolate that up to full <u>scale</u> . But with the cryogenic testing we were able to essentially
Page 10 Line 24	To	<u>Too</u>
Page 11 Line 21 through 22	Gulf Stream.	<u>Gulfstream.</u>
Page 11 Line 24	Leading edge of the wing, border line stall strips to improve the	Leading edge of the wing, <u>to include vortilon</u> stall strips to improve the
Page 12 Line 1 through 4	I was at Roswell, I believe, it was in March '97 when we had a Vmu incident where the airplane pitched up, rolled off touched a wing tip to the ground. I think – I can't recall	I was at Roswell, in March '97 when we had a <u>GV</u> Vmu incident where the airplane pitched up <u>and</u> rolled off. I can't recall whether it continued the takeoff or aborted the

	whether it continued the takeoff or aborted the takeoff.	takeoff. <u>After this NTSB interview, I discovered that the wing tip did not strike the ground during the abortive GV Vmu test point. Instead, an excessively high sink rate during the subsequent recovery touchdown did some minor damage to the landing gear area of the aircraft.</u>
Page 14 Line 4	Other than the SRB, you know, we have preflight, post-	Other than the SRB, you know, we have preflight, <u>and post-</u>
Page 20 Line 5	Feet. We were just a little bit above the 1.13 Vsr, which is FAA	Feet. We were just a little above the 1.13 Vsr ( <u>for the V2 speed</u> ), which is FAA
Page 23 Line 12	Various curves?	<u>Aerodynamics of the aircraft?</u>
Page 24 Line 10	V2 speed the	V2 speed. <u>The</u>
Page 24 Line 12 through 13	That level. So where did rotation and liftoff have to occur in order to get down to that target V2 speed.	That level. <u>We then set the rotation and liftoff speeds to occur in order to get to that target V2 speed.</u>
Page 24 Line 21	Over Vsr is 1.13?	<u>V2 over Vsr is 1.13?</u>
Page 25 Line 5	Doing more of the CTO data reduction, continued takeoff V/V stalls	Doing more of the CTO data reduction, --- <u>determining continued takeoff V/V stalls</u>
Page 25 Line 11	Cambric	<u>Kabureck</u>
Page 26 Line 8	Happening, just	Happening. <u>Just</u>
Page 27 Line 23	153781	153 <u>Run 7A1</u>
Page 27 Line 25	Wound up hitting 144.8, so about 8 to 9 knots higher than what our	Wound up hitting <u>a V2 speed of 144.8, so the V2 speed was about 8 to 9 knots higher than what our</u>
Page 28 Line 2 through 6	That was identified, to respond to your questions, and at that point I think a decision was what was happening, what could we do differently to get that V2 speed down but without the realization apparently at that point that the, with the	<u>Once the speed mismatch was identified, I think they must have questioned what was happening, what could we do differently to get that V2 speed down. There was no realization apparently at that point that the new pitch attitude was impacting the</u>

	new pitch attitude that had been adopted just – that was the first day with	<u>ability to achieve our target speeds.</u> <u>That was the first day with</u>
Page 28 Line 18	Hindsight it would have been good to look at the data	<u>In hindsight it would have been good to look at the data</u>
Page 29 Line 18 through 19	The 10-degree target and there we were seeing about the same level of V2 overshoot just a couple of knots relative to our target	The 10-degree target. <u>For these flaps 10 runs</u> we were seeing about the same level of V2 overshoot <u>as flaps 20-</u> just a couple of knots relative to our target
Page 30 Line 6 through 10	Vmu. I think was always set to be a flight test data reduction item, and so we deferred that to Reece Ollenburg. I think the reason they proceeded on with the Vmu testing basically what you are establishing is that here are some safe maximum pitch attitudes that we can go to.	Vmu, I think, was always set to be a flight test data reduction item, and so we deferred that to Reece Ollenburg. I think the reason they proceeded on with <u>other testing without fully reducing Vmu data</u> was because the Vmu testing basically <u>established</u> that here are some safe maximum pitch attitudes that we <u>safely</u> go to.
Page 30 Line 14 through 16	On firm ground and that was the criteria that was specified under the test technique, was to pitch up to typically flaps 20, I think a 9-degree pitch attitude and that would give you about a degree	On firm ground. <u>The</u> criteria that was specified under the test technique, was to pitch up to a 9-degree pitch attitude <u>flaps 20</u> and that would give you about a degree
Page 31 Line 2 through 3	In March. And so he had come up not only with the maximum angles but more importantly what the in-ground effect CL	In <u>late</u> March. And so he <u>determined</u> not only the maximum angles, but more importantly, what the in-ground effect CL
Page 31 Line 5 through 8	But this was finally flight test data to show what those estimates were and it was that information from that draft report that Reece had prepared that after the investigation I went back, looked at	But this was finally flight test data to <u>validate</u> those estimates. <u>This</u> information was <u>documented in the draft</u> report that Reece had prepared. <u>After</u> the investigation I went back, looked at

Page 31 Line 13	Of	<u>As</u>
Page 32 Line 14	Flight test would assume responsibility for the Vmu and we would	Flight test would assume responsibility for the Vmu <u>data reduction</u> and we would
Page 39 Line 9	To	<u>Too</u>
Page 42 Line 16 through 17	Targets are what are safe attitudes that you can go to that you want to avoid right at liftoff. So we had established those even	Targets are what are safe attitudes that you can go to at liftoff. So we had established those even
Page 43 Line 23	To	too
Page 46 Line 15	CTOEI	<u>CTO-OEI</u>
Page 49 Line 1	Come	<u>Coming</u>
Page 49 Line 3	11.6	<u>1.6</u>
Page 50 Line 20	Exceeds	<u>Excess</u>
Page 50 Line 22	And in regards to the margins the 5 percent and 10	And in regards to the <u>Vmu</u> margins the 5 percent and 10
Page 52 Line 21	Vsm, actually	<u>Vsmin. Actually</u>
Page 52 Line 24 through 25	Less than about 1.17 VsM which was the existing stall certification stall speed criteria in effect on the GV that the	Less than about 1.17 <u>Vsmin</u> ( <u>Vsmin</u> was the existing stall certification stall speed criteria in effect on the GV), the
Page 53 Line 3	By tail power we would rotate at 1.17 and typically at a heavy	By tail power, <u>We</u> would rotate at 1.17 <u>Vsmin</u> and typically at a heavy
Page 53 Line 5	VsM.	<u>Vsmin.</u>
Page 53 Line 12	V2, not – we did hit 1.13 on a couple of runs but by and large at	<u>V2. We</u> did hit 1.13 <u>Vsr</u>
Page 53 Line 16	550	<u>G550</u>
Page 53 Line 18	Shaker events it as deemed that we would bump that up to .9 for	shaker events, it <u>was</u> deemed that we would bump that up to .9 for
Page 53 Line 20	Pre	<u>and</u>



Pat Connor



	version of notes we needed to address certain issues, and what version of SCC we needed to address	version of <u>those</u> we needed to address certain issues, and what version of <u>FCC</u> we needed to address
Page 34 Line 1	Subordinate	<u>Coordinating</u>
Page 34 Line 8	Rating	<u>Readiness</u>
Page 36 Line 5	Of that. And then he showed me a couple of plots that were really	<u>on</u> that. And then he showed me a couple of plots that were really
Page 37 Line 22	We've done, and I would expect to see FD would in the future to	we've done, and I would expect <u>CD</u> would in the future to
Page 38 Line 16	Only thing I did was I got an MSE, which is a Microsoft System Certified thing that would allow me to be a networking	Only thing I did was I got and <u>MCE</u> , which is a Microsoft System Certified <u>Engineering Certification</u> that would allow me to be a networking
Page 39 Line 3	No, sir. I was on the PDT Lead for the G650. We	No, sir. I was the PDT Lead for the G650. We
Page 39 Line 21	Instructional	<u>Structural</u>
Page 41 Line 17	Call	<u>Cognizant</u>
Page 43 Line 6 through 7	Flight and what the mission was, some results, a lifting of any engineering issues or maintenance issues and its rotation issues.	Flight and what the mission was, some results, a <u>listing</u> of any engineering issues or maintenance issues and <u>instrumentation</u> issues.
Page 44 Line 18	Going after doing a certification test, we'll plan on supporting	Doing a certification test, we'll plan on supporting
Page 45 Line 21	Thursday I had my weekly performance report review, and	<u>Wednesday was my last meeting, not Thursday.</u> I had my weekly performance report review, and
Page 48 Line 9	SCE	<u>FCC</u>

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD  
\* \* \* \* \*

Investigation of:  
AIRPLANE ACCIDENT  
ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
N652GD \*

Interview of: KURT ERBACHER  
Friday, October 28, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 7 Line 3	think Brian Durrence – are all the people that are on it	“think Brian Durrence, there are other people that are on it.”
Page 13 Line 21	the plenary design those were in specifications flow no down	“the preliminary design those were the specifications flowed down”
Page 14 Line 2	Barry lays out a person flow	“Barry lays out a personnel flow”



Kurt Erbacher

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: GARY FREEMAN  
 Thursday, October 27, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 5 Line 23	He	<u>We</u>
Page 6 Line 12	On	<u>To</u>
Page 6 Line 14	That is a CL Beta due to doing this testing with the yaw damper	That is a CL Beta <u>event</u> due to doing this testing with the yaw damper
Page 8 Line 10	Slope.	<u>Slip.</u>
Page 8 Line 19 through 20	132, can you describe in your conversations with Mr. Oldenburg after the even? Did you discuss or reach the CL Beta conclusion,	132, can you describe in your conversations with Mr. <u>Ollenburg</u> after the <u>event</u> ? Did you discuss or reach the CL Beta conclusion,
Page 10 Line 16 through 19	Event reducing the angle of attack when you have counter controls and it fits the angle of attack, the controls become more effective. CL Beta is typically reduced. In a lot of my experience reducing output can restore normal control. It could	<u>roll event, reducing the angle of attack can increase control.</u> CL Beta is typically reduced. In a lot of my experiences, reducing <u>AOA</u> can restore normal control. It could
Page 11 Line 18	looking at it, I was, look, here's the stall and here's the angle	looking at it, I was, look, here's the stall and here's the angle <u>we reached</u>
Page 13 Line 5	Angle	<u>Angles</u>
Page 16 Line 6	Need to raise the speeds, no.	Need to raise the speeds, no. <u>I did talk to the performance group member at Roswell of my concern of the slow speeds.</u>
Page 18 Line 9	I know what you're talking	<u>I don't</u> know what you're

	about.	talking about.
Page 18 Line 14	It. I was up flying the up and away flights where we reduced it	It. I was flying the up and away flights where we reduced <u>AOA</u>
Page 18 Line 22	Using that, I can't recall, but we had settings of 85 percent and	Using <u>which angle</u> , I can't recall, but we had settings of 85 percent and
Page 19 Line 2	We're subtracting this much. We're going to shake it this much,	We're subtracting this much. We're going to <u>activate shaker at</u> this much,
Page 19 Line 9	Speeds.	Speeds <u>without activating shaker.</u>
Page 23 Line 7	Don't set it toward the right angles, it's not going to be of much	Don't set it <u>to</u> the right angles, it's not going to be of much
Page 23 Line 19 through 20	Have a degree and a half, let's say into stall and you reference everything past there, the value is questionable.	have a degree and a half, let's say <u>above</u> stall and you reference everything past there, the value is questionable. <u>I think I am saying here that setting the shaker to .90 of an incorrect stall angle or .85 of an incorrect stall angle may not make much difference since .85 or .90 may already be stalled if the angle is sufficiently incorrect.</u>
Page 24 Line 2	The TM had the data and Reece and the data and those	The TM had the data and Reece <u>had</u> the data and those
Page 24 Line 23	Reviewed,	<u>Review</u>
Page 27 Line 19	Floater	<u>Flutter</u>
Page 29 Line 5	Right.	<u>Yes.</u>
Page 29 Line 10	The	<u>A</u>
Page 30 Line 12	Routing for me to that so I had an understanding of the angle of	Routine for me to <u>do</u> that so I had an understanding of the angle of
Page 31 Line 3	Restriction.	<u>Restrictions.</u>
Page 31 Line 6	Impossible	<u>Possible</u>
Page 31 Line 16 through 17	Problem was after the airplane was rapidly rotated to the target angle to the tip of the target pitch attitude, then the next event	Problem was after the airplane was rapidly rotated to the target pitch attitude, then the next event

Page 31 Line 19	It	<u>the AOA</u>
Page 32 Line 11	Was	<u>wasn't</u>
Page 32 Line 16	Limited	<u>Limiter</u>
Page 32 Line 24	Have to say, definitely I'd have to say whether the shaker does.	<u>I don't know if the shaker does.</u>
Page 33 Line 7	Wasn't, I'd have to review it again. All that was reviewed in the	Wasn't, I'd have to review it again. All that <u>stuff</u> was reviewed in the
Page 38 Line 17 through 18	This wasn't some event that was contemplated for six months. So it was not just something that was in vacuum. There's a lot of	This wasn't some event that was contemplated <u>exclusively</u> for six months. So it was not just something that was <u>done</u> in vacuum. There's a lot of
Page 38 Line 21	Then	<u>That</u>
Page 39 Line 6	Air.	<u>Hangar.</u>

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD  
\* \* \* \* \*

Investigation of:  
AIRPLANE ACCIDENT  
ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
N652GD \*

Interview of: HAROLD "RANDY" GASTON  
Friday, October 28, 2011

**ERRATA SHEET**

**Page#/Line#**

**Existing Text**

**Should Read**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 5 Line 14	Salesman	Sales
Page 5 Line 21	An	In
Page 5 Line 24	BT	B2
Page 22 Line 14	Office	Ops
Page 26 Line 7	Filed	Found
Page 26 Line 9	An	In
Page 26 Line 20	AFE	IGE
Page 30 Line 16	But in the instant case,	But in the instance
Page 51 Line 11	In the case, we were	In the past case, we were
Page 51 Line 15	Transitional	Transition

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: PETER HENDY  
 Tuesday, October 25, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 5 Line 16 through 17	I was the lead flight test engineer for 6002 and I'm <u>not</u> know the lead flight test engineer for 6005 and I have area	I was the lead flight test engineer for 6002 and I'm <b>now</b> the lead flight test engineer for 6005 and I have <b>responsibilities in the area of</b>
Page 5 Line 22	divulged	<b>devolved</b>
Page 8 Line 23	<u>wasn't</u> directly or participate a great	<b>didn't</b> directly or participate a great
Page 11 Line 10	Need to be particularly close to a stall speed. So <u>if</u> everything	Need to be particularly close to a stall speed. So everything
Page 11 Line 14	Know, the air conditioning system know or care how fast or slow	Know, the air conditioning system <b>does not</b> know or care how fast or slow
Page 12 Line 25	Engineer who <u>is</u> in the case of 6002 was Reece. We have	Engineer who in the case of 6002 was Reece. We have
Page 13 Line 23	To happen to the airplane tomorrow, how it needed to ballast, how	To happen to the airplane tomorrow, how it needed to <b>be ballasted</b> , how
Page 14 Line 1	divulged	<b>devolved</b>
Page 15 Line 21	seed .	<b>speed</b>
Page 16 Line 10	Donavan	<b>Donovan</b>
Page 17 Line 10	A. Well, as I mentioned, <u>the</u> flight test, what is the	A. Well, as I mentioned, <b>in</b> flight test, what is the
Page 17 Line 24	since	<b>sense</b>
Page 18 Line 20	Paul Donovan	<b>Paul Donovan</b>
Page 19 Line 23	Flightworthy status by <u>an</u> engineering and/or the vendor, then it	Flightworthy status by engineering and/or the vendor, then it
Page 20 Line 22	Kurt Cromwell.	<b>Curt</b> Cromwell.

Page 21 Line 15	Development that I talked about and certification, equipment,	Development that I talked about and certification <b>of</b> equipment
Page 22 Line 14	On there had the airplane just been <u>through</u> systems work, then I	On there had the airplane just been <b>doing</b> systems work, then I
Page 22 Line 15	Had a responsibility to soundly check what he asked for and what	Had a responsibility to <b>sanity</b> check what he asked for and what
Page 22 Line 16 through 17	And if there was a <b>discipline act</b> , to set the ball rolling on getting whatever	(unintelligible?) “problem” or “new requirement”
Page 23 Line 20	On <u>their</u> yet or is that it’s not available yet. And if the	On <b>there</b> yet or is that it’s not available yet? And if the
Page 24 Line 13	Coordinator for every airplane just as their lead FTE for every	Coordinator for every airplane just as <b>there is a</b> lead FTE for every
Page 25 Line 14	Let’s say in your area, the roll software is changing.	Let’s say in your area, the <b>Rolls-Royce</b> software is changing.
Page 25 Line 25	Engine manufacturers to install new software on the engine. That	Engine <b>manufacturer</b> to install new software on the engine. That
Page 26 Line 2 through 3	Specific maintenance actions that have to occur to return to service with the software in the airplane to return to service and	Specific maintenance actions that have to occur with the software in the airplane to return <b>it</b> to service and
Page 28 Line 8	There’s not a 7:30 call routinely on Saturdays, Monday through	There’s not a 7:30 call routinely on Saturdays, <b>only</b> Monday through
Page 28 Line 25	Director of flight testing, typically.	Director of flight test, typically.
Page 34 Line 16	G-test pilot	<b>Chief Test Pilot</b>



Peter Hendy

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: JAKE HOWARD  
 Thursday, October 27, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 7 Line 2	Affects	<u>Effects</u>
Page 9 Line 6	25.9	(Delete as unintelligible)
Page 9 Line 17	Did anyone before the and after Flight 88 ever brief him	Did anyone before the <u>accident</u> and after Flight 88 ever brief him
Page 9 Line 22	I	<u>On</u>
Page 11 Line 10	Also for and so that sometimes depends on speeds, CGs and flap	for and so that sometimes depends on speeds, CGs and flap
Page 12 Line 8	That	<u>When</u>
Page 12 Line 16	Crime scene	<u>Could</u>
Page 13 Line 7	That	<u>At</u>
Page 14 Line 4	They	<u>There</u>
Page 16 Line 18 through 19	Fiber wire	<u>Fly-by-wire</u>
Page 19 Line 4	Turbulence of variations then you may accidentally trip that shaker	Turbulence <u>or</u> variations then you may accidentally trip <u>the</u> shaker
Page 19 Line 19	Reference	<u>Referencing</u>
Page 21 Line 15	Acquired	<u>Acquired.</u>
Page 22 Line 12 through 13	Alpha center	<u>Office</u>
Page 23 Line 9	You Know. It may come back and they say, well, your	It may come back and they say, well, your
Page 24 Line 14	Would Paul Donovan?	Would <u>be</u> Paul Donovan?
Page 27 Line 5	And the --	<u>Becomes</u>
Page 29 Line 13	Curt	<u>Kurt</u>
Page 35 Line 4	CO beta	<u>CL-beta</u>
Page 35 Line 8 through 9	Well, it wasn't - - There was something lateral directional occurred.	well, it wasn't - - There was something lateral- <u>directional that</u> occurred.
Page 35 Line 12	The	<u>To</u>

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: PRESTON HENNE  
 Friday, October 28, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 6 Line 12	Worked on C17 done some	Worked on C17. <u>I did some</u>
Page 6 Line 14	80. I was chief design engineer on what would have been an	80 <u>for a period</u> . I was chief design engineer on what would have been an
Page 6 Line 18 through 19	Well, I started here with the G-V. We did the 550. We did the 450, the 150, now 650 and 280.	Well, I started here with the G-V. We did the <u>G550</u> . We did the <u>G450</u> , the <u>G150</u> , now <u>G650</u> and <u>G280</u> .
Page 6 Line 23	Development	Development <u>and</u>
Page 7 Line 7	Test Organization. Now, since we had the accident, everybody's	Test Organization. <u>We used a Flight Test Safety Review Board</u> . Now since we had the accident, everybody's
Page 8 Line 12	Something that we set up pretty quickly. One of the things that	Something that we set up pretty quickly. <u>We stood up an aviation safety office</u> . One of the things that
Page 11 Line 3 through 5	Started talking about that, and that's what they do. So, you know, people are basically saying I'm coming up to an hour and so you got to plan the rest of the time doing that. So --	Started talking about <u>crew duty</u> , and that's what they do. So, you know, people are basically saying I'm coming up to an hour and you <u>have</u> to plan the rest of the time <u>knowing</u> that.
Page 13 Line 7 through 8	Officer position, and he has three people that reports directly to him and what we identified was we need a focal for Flight Ops,	Officer position, and he has three people that <u>report</u> directly to him. <u>What</u> we identified was <u>that</u> we need a focal for Flight Ops,
Page 14 Line 2	Ted Mindenhall	Ted Mendenhall
Page 14 Line 9	Position.	Position after Ted's

		retirement.
Page 15 Line 13	Always	Typically
Page 18 Line 25	Racks	Requisitions
Page 20 Line 8	NACO --	ACO --
Page 20 Line 13	Uh huh.	Yes.
Page 20 Line 21	A	Some
Page 21 Line 4	Things	Schedules
Page 21 Line 8	Find with at least a program is it's easy in the test world to	Find with a <u>development</u> program is it's easy in the test world to
Page 22 Line 3	Yeah.	Yes
Page 23 Line 21	Of	For
Page 25 Line 8	Yeah, it was already – my view of that is the airplane	Yeah, it was already <u>there</u> . My view of that is the airplane
Page 25 Line 18	Happen	<u>Happens</u>
Page 26 Line 2 through 4	Meeting that you brought up on speeds but it wasn't until I said, you know, all of the post-accident SRBs. Where I got concerned about it, it was clear particularly when you looked at the flaps	Meeting that you brought up on speeds but it wasn't until I <u>sat in</u> you know, <u>on</u> all of the post-accident SRBs, where I got concerned about it. <u>It</u> was clear particularly when you looked at the flaps
Page 27 Line 2	Of -	Of <u>speeds</u> ?
Page 27 Line 19 through 20	An industry or test, global test process thing. I think that coordination within us.	An industry or test, global test process thing. I think that <u>it was</u> coordination within us.
Page 28 Line 13	Reask	<u>Re-ask</u>
Page 28 Line 17	Yeah.	Yes
Page 28 Line 23	Uh-huh.	Yes.
Page 29 Line 22	Uh-huh.	Yes
Page 29 Line 25	Uh-huh.	Yes
Page 30 Line 6	On in ground effects,	On <u>in-ground-effects</u> ,
Page 30 Line 21 through 22	On the other, it has the classic loads. It has aerodynamics. It has – control. It has aircraft performance and we're probably	On the other, it has the classic loads. It has aerodynamics. It has <u>stability and</u> control. It has aircraft performance. <u>We</u> 're probably
Page 31 Line 17	Uh-huh.	Yes.
Page 33 Line 7	Months or something long.	Months or something <u>longer</u> .
Page 33 Line 16	G5	GV

Page 33 Line 18	G6	GVI
Page 33 Line 20 through 21	Uh-huh. We've heard some earlier testimony that during the G5	Yes. We've heard some earlier testimony that during the GV
Page 34 Line 3	G5?	GV?
Page 34 Line 13	G5.	GV.
Page 36 Line 3	Mr. – Augustov	Mr. Ragusa
Page 39 Line 18	Flight safety to challenge them to work with us on improving	<u>Flight Safety International</u> to challenge them to work with us on improving

- - -  


-----  
Preston Henne

Page 35 Line 22 through 25	One on board. We had stopped at that time and do an analysis to see and it's one of those where on that on that was a pilot admitted, oh, I did too much. If I had kept it within the constraints and the test is doable because we continued and all	on board. We <u>would have</u> stopped at that time and <u>did</u> an analysis to <u>determine the cause</u> . <u>It was</u> one of those where on that <u>one</u> , it was a <u>pilot-admitted</u> , " <u>oh, I did too much</u> . If I had kept it within the constraints." <u>The test is doable</u> because we continued and all
Page 37 Line 12 through 13	Engine maneuvering when you are doing an all engine out or an all engine operating case. So this really isn't too much different	engine maneuvering, when you are doing and engine out or an all engine operating case. So this really isn't too much different:
Page 37 Line 24	Flight safety	FlightSafety
Page 38 Line 17 through 18	Then I had to continue get developed with techniques and as we continue to evolve throughout the program then they may had been	Then <u>we</u> had to continue <u>developing the technique</u> . <u>As we continued</u> to evolve throughout the program, then they may had <u>had to have</u> been
Page 38 Line 20	Operation	<u>Operational</u>
Page 41 Line 14	Gradient	<u>Gradual</u>
Page 41 Line 18	Then to it to an attitude. So we weren't concentrating, in my	then to an attitude. So we weren't concentrating, in my
Page 44 Line 18	Tough	<u>Touch</u>
Page 46 Line 7	Lots	<u>Lot</u>
Page 51 Line 8	He	<u>We</u>
Page 51 Line 10	Then from that then you would have a shaker value at a certain	then from that you would have a shaker value at a certain
Page 53 Line 10	Preliminary view readiness board, PRB	<u>PRRB</u>
Page 54 Line 7 through 0	Stall maneuvers with this, but he had done some of the setting slide slips. He was with Scott Bussey when they had a, they were doing setting slide sip and had an event that was investigated but he was fully in one of the primary test pilots for the	Stall maneuvers with this, but he had done some of the <u>steady-heading</u> slide slips. He was with Scott <u>Buethe</u> when they had a, they were doing <u>steady-heading</u> slide slip and had an event that was investigated, but he was one of the primary test pilots for

		the
Page 55 Line 13	To third	<u>Two-thirds</u>
Page 55 Line 16	And then you are approaching V2 and then as you attempt to capture	and are approaching V2, and then as you attempt to capture
Page 62 Line 20	Broadcast more any abnormal flight events, even to the point where	Broadcast any abnormal flight events, even to the point where

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD  
\* \* \* \* \*

Investigation of:  
AIRPLANE ACCIDENT  
ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
N652GD \*

Interview of: HAROLD "CHIP" KING  
Thursday, October 27, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 11 Line 21	No, he didn't	No, not alone, it was collaborative as I said before.

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: TOM LAVRISA  
 Wednesday October 26, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 6 Line 12	labs	<u>lapse rate analysis</u>
Page 7 Line 7	the work program	<u>work the program</u>
Page 8 Line 18	<u>Breaking</u>	<u>braking</u>
Page 10 Line 5	Outside	<u>The external lines of</u>
Page 10 Line 12	She was...	She was <u>the flight sciences</u> <u>lead</u>
Page 11 Line 20	The...	The ITF
Page 15 Line 5	B2	<u>V2</u>
Page 16 Line 10	I would say no.	<u>In retrospect, I would say</u> <u>no.</u>
Page 20 Line 25	Bounce	<u>Balanced</u>
Page 23 Line 2	Guide	<u>Cognizant</u>
Page 26 Line 13	DR	<u>DER</u>
Page 28 Line 14	Push or	<u>Pusher</u>
Page 28 Line 21	G650.1?	<u>G650?</u>
Page 31 Line 11	Fire	<u>FAR</u>
Page 31 Line 23	Fire	<u>FAR</u>
Page 31 Line 25	Fire	<u>FAR</u>
Page 34 Line 8	In fact	<u>Effect</u>
Page 47 Line 5	Log	<u>Law</u>
Page 47 Line 12	Brett	<u>Bret</u>
Page 47 Line 20	Dip	<u>Tip</u>
Page 47 Line 25	Logs	<u>Law</u>
Page 48 Line 3	Logs	<u>Law</u>
Page 59 Line 24	Event on 132 that it was a CL data some sort of LAU	Event on 132 that it was a CL <u>beta</u> some sort of <u>lateral</u>
Page 60 Line 8	LAU	<u>Lateral</u>
Page 60 Line 10	Auditor ??	Control law
Page 60 Line 20	25	<u>0.85</u>

Page 61 Line 1	Directional disturbance CL data, roll view to sideslip, aggravated	Directional disturbance CL <u>beta</u> , roll <u>due</u> to sideslip, aggravated
Page 61 Line 7 through 8	That particular maneuver to prove that it was CL data that caused the roll-off, prior to the accident. After the accident, Brett	That particular maneuver to prove that it was CL <u>beta</u> that caused the roll-off, prior to the accident. After the accident, <u>Bret</u>
Page 62 Line 4	Laps	<u>Lapse</u>
Page 63 Line 21	Provided based on law miles an hour wind tunnel testing or "S"	Provided based on low <u>speed</u> wind tunnel testing or other
Page 71 Line 11	Conforming	<u>Conformity</u>
Page 72 Line 21	Brett	<u>Bret</u>
Page 74 Line 19	Into account our main ground effect stall angles. We also account	<u>Into account our ground effect stall angles. We also account</u>
Page 75 Line 8	Logs?	<u>Office?</u>
Page 82 Line 17	Curt	<u>Kurt</u>
Page 82 Line 19	Plant's	<u>Plane's</u>
Page 83 Line 7	RBC 1	<u>RDC 1</u>
Page 84 Line 8	Ted	<u>Kent</u>
Page 85 Line 10	Tech	<u>Type</u>
Page 86 Line 10 through 11	Speeds were naturally higher. And now on the GVI, you've got to trim a little stab, so you can definitely rotate at an earlier	Speeds were naturally higher. And now on the GVI, you've got <u>trimmable</u> stab, so you can definitely rotate at an earlier
Page 86 Line 22	Log	<u>Law</u>
Page 87 Line 3	Log	<u>Law</u>
Page 87 Line 6	Log	<u>Law</u>
Page 88 Line 5	Ceiling.	<u>Field length</u>
Page 92 Line 23	64 to 80 feet.	<u>6480 feet.</u>
Page 93 Line 18 through 19	Implement into the EEC, which – light truck and engine control, which will allow us to get ACs (ph.) or 2 percent thrust at	implement into the EEC, which will allow us to get <u>up to 5</u> percent thrust at
Page 94 Line 3	Launch	<u>law</u>
Page 99 Line 12	RBC	<u>RDC</u>
Page 99 Line 23	Truse	<u>Trusis</u>
Page 103 Line 15	FM	<u>AFM</u>
Page 104 Line 2	Piece.	<u>TC.</u>

  
 Tom Lavrisa

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: BARRY MCCARTHY  
 Friday, October 28, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 5 Line 20	To me. So I have responsibility for the flight test engineers,	to me, <u>except pilots and support personnel such as MRB and Material.</u> So I have responsibility for the flight test engineers,
Page 6 Line 18	CEMA, CAE, Hyper, Halo	<u>SEMA, CAEW, HIAPER</u>
Page 7 Line 9	Probably in 1999,	<u>in May 1998, I</u>
Page 9 Line 25	predecessor now,	successor,
Page 10 Line 18	Out the first time. But through the 650 program, we had held	Out the first time <u>to Roswell on November 8.</u> But through the 650 program, we had held
Page 11 Line 14	Portion	<u>Version</u>
Page 12 Line 9	This exercise, it's	<u>The time since the accident,</u> it's
Page 14 Line 6 through 7	Mentioned before, people like Tim, Curt and Pres are – Tim's involved directly as the board, my boss. And Pres is extremely	Mentioned before, people like Tim, <u>Kurt</u> and Pres are <u>involved</u> – Tim's involved directly as the <u>board's management member.</u> And Pres is extremely
Page 15 Line 7	Throes	<u>actions</u>
Page 16 Line 18 through 19	Program that had happened before, but the incidents that, you know, happened prior to Flight 153 didn't get escalated to myself	Program, the incidents <u>that</u> happened prior to Flight 153 didn't escalated to myself
Page 17 Line 4	And	<u>For example</u>
Page 17 Line 6 through 7	Engineer wasn't satisfied that performance of the system was able to do what	Engineer wasn't satisfied <u>the</u> performance of the system was able to do

	we wanted it to do and we'd go out and do the next test	what we wanted it to do <u>for</u> the next test
Page 17 Line 12	Tilt.	<u>Tiller.</u>
Page 18 Line 5	Back	<u>Beck</u>
Page 19 Line 3 through 7	Investigate it and then address it going forward. I'm fairly sure that the outcome of that was to gain formal concurrence on the change by having multiple sign-offs on the engineering direction that goes from Gulfstream to the suppliers to make the change, which means that pilots and the engineers sign off on the change.	Investigate it and then address it going forward. The outcome of that was to <u>add</u> formal concurrence on <u>control law changes</u> direction that goes from Gulfstream to the suppliers to make the change, which means that pilots <u>were added to the sign off</u> on the change.
Page 20 Line 18	Air dynamicist	<u>aerodynamicist</u>
Page 26 Line 9	They did. Those were two test conditions where they wanted to	They did. Those <u>VMU</u> test conditions
Page 26 Line 19	Were. We're talking about 13-1/4 and 13-1/2.	Were. We're talking about 13-1/4 and 13-1/2 <u>dependent upon height above ground.</u>
Page 28 Line 21	Insert additional response to Question.	<u>I do recall now speaking with Jake a few days before F153 on F132 rolloff. We discussed:</u> <u>Pilot overrotated</u> <u>Adequate steps take to mitigate recurrence: 1- reduce pitch target 2- reduce column force, 3- rehearse in ITF, 4- use Yaw damper</u> <u>Crew selection was good with Kent and Reece</u> <u>He would speak to Kent about not exceeding initial pitch target.</u>
Page 30 Line 9	Durrence	<u>Durrence's</u>
Page 30 Line 10	Is direct report	<u>Direct reports.</u>
Page 37 Line 5	Processor	<u>Process of</u>
Page 54 Line 2	And	Parts of
Page 62 Line 17	Maneuver Andy reminded	Maneuver <u>and</u> reminded

	me that we were going to be – well, it was	me, it was
Page 62 Line 19 through 20	Me that in the go-forward plan on, they'd stop doing takeoffs until they better understood what had been done, really, to date	Me that in the go-forward plan, they'd stop doing takeoffs until they better understood what had been done, <u>using lower column forces and rotation rates</u>
Page 66 Line 9 through 10	Planning, we talked about the uncertainty around those margins. And it just wasn't addressed.	Planning, <u>I don't recall talking</u> about the uncertainty around those margins. And it just wasn't addressed <u>that I can remember. From my previous experience testing VMUs and CTOs at Douglas, I don't recall discussing the uncertainty of IGE maximum lift.</u>
Page 69 Line 15	In the incidents that we have now in Flight test, we've	<u>Given</u> the incidents that we have now <u>had</u> in Flight Test, we've
Page 71 Line 2	10	<u>20</u>
Page 71 Line 3	20	<u>10</u>
Page 76 Line 5	Revisited. We know when we went out for Flight 153 for the flap	Revisited. <u>It's not necessary the change itself, but insulting the stick shaker will provide adequate margin for the IGE portion of the takeoff.</u> We know when we went out for Flight 153 for the flap
Page 76 Line 8	Safer	<u>safe</u>
Page 76 Line 9 through 10	Procedure. But, it's also something that you normally change the pitch attitude on takeoff. We have to go back and re-look at what	Procedure. But, <u>a change to the pitch attitude on takeoff should drive re-checking</u> what
Page 76 Line 14	Accident	Same
Page 77 Line 2	Rotation and inadvertent aerodynamic stall cause a hazard. And	Rotation and inadvertent aerodynamic stall <u>were hazards.</u> And
Page 78 Line 8	Atmosphere	<u>Atmospheric</u>
Page 82 Line 16	Bufee	<u>Bueth</u>

Page 89 Line 10

Get

Exceed

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: BOB MILLS  
 Tuesday, October 24, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 7 Line 11	plane	plan
Page 8 Line 11	Life	ice
Page 8 Line 13	I had worked	I had not worked
Page 11 Line 16	McCummin	McCommon
Page 11 Line 19	Don Howell	Don Howe
Page 12 Line 3	Brian	Ron
Page 12 Line 3	Laine	Wayne
Page 13 Line 14	Shoot	Chute
Page 14 Line 12	I-Shapes	Artificial ice shapes
Page 14 Line 19	4 and 5	IV and V
Page 14 Line 21	5	V
Page 14 Line 23	G6	GVI
Page 16 Line 15	general	generally
Page 35 Line 7	and the free air have	in free air and have
Page 35 Line 18	C-alpha	Lift
Page 41 Line 11	Processes	Processors
Page 41 Line 20	Work, tran-site	Transonic
Page 42 Line 6	Reiterations	Iterations
Page 44 Line 25	From the left and the pilot holding the right <u>wing</u> down and so the	From the left and the pilot <u>was</u> holding the right <u>aileron</u> down.
Page 45 Line 1 through 5	Aircraft was <u>imbalanced</u> until it lifted off. <u>It</u> came off on its right gear and the plane just continued to go over because of the dihedral effect from the wing. And the pilot pushed forward on the stick and brought the plane down. I think it exceeded a 2G hit on the	<u>The</u> aircraft was <u>balanced</u> until it lifted off. <u>When it</u> came off its right gear the plane <u>began to roll right wing down</u> because of the dihedral effect from the <u>wind</u> . <u>The</u> pilot pushed forward on the stick and brought the plane down. I think it

	ground which required an inspection of the aircraft. But	exceeded <u>when it</u> 2G hit the ground and required an inspection of the aircraft.
Page 47 Line 8	LEI	OEI
Page 47 Line 10	LEI	OEI
Page 47 Line 13	On	One
Page 49 Line 1	With	Lift
Page 49 Line 16	Files	FAR's
Page 49 Line 19	Your V at	Your V
Page 49 Line 20	Than	Above

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: KEN OBENSHAIN  
 Tuesday, October 25, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 10 Line 11	Thorn	Thorne
Page 12 Line 25	Has got	Was
Page 13 Line 10	I believe it was Lee Johnson, or Eric, it might have	I believe it was Lee Johnson or it might have
Page 13 Line 14	Attempts to	Attempts - to
Page 14 Line 15	Out	Aft
Page 16 Line 23	Contracts	Contractors
Page 17 Line 4	I remember	I don't remember
Page 22 Line 23	Doesn't it	It doesn't
Page 23 Line 17	4	Forward
Page 24 Line 5	Were ballast at aft to the forward	Ballasted to the aft
Page 27 Line 8	BSS	Because
Page 31 Line 20	Re—initial	Re-initialize
Page 36 Line 15	Small	Stall
Page 53 Line 12	Pit	Pitch
Page 53 Line 14	Tracing	Tracking
Page 54 Line 16	On when to transition pitch attitude to air speed.	On when to transition from pitch attitude to air speed.
Page 55 Line 8	Stick pusher or upland.	Stick pusher.
Page 70 Line 16	Turnable	Trimmable
Page 70 Line 25	Drastically	Dramatically
Page 71 Line 17	Courses	Forces
Page 76 Line 23	Fiberwire	Fly-by-wire
Page 78 Line 9	Form	From
Page 87 Line 6	Slides of angles	Angles of sideslip
Page 88 Line 11	Length	Weight
Page 88 Line 24	Sticker show up	Stick pusher schedule

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: JOHN O'MEARA  
 Thursday, October 27, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 6 Line 9	GIV -S	<u>GIV-X</u>
Page 10 Line 16	Posttest	<u>Post test</u>
Page 11 Line 11	Guessing. I don't recall the event and recall the meeting and	Guessing. I don't recall the event and <u>I do recall the meeting and</u>
Page 11 Line 17	Bussey	<u>Buethe</u>
Page 12 Line 1	New term	<u>Near term</u>
Page 12 Line 17	OAMs	<u>OEM's</u>
Page 13 Line 23	McCummin	<u>McCommon</u>
Page 14 Line 2	McCummin	<u>McCommon</u>
Page 14 Line 12	Post-process	<u>Post-processed</u>
Page 16 Line 15	Manger	<u>Main gear</u>
Page 16 Line 17 through 18	Brake aware	<u>Brake-by-wire</u>
Page 17 Line 8	Bless	<u>Blessed</u>
Page 20 Line 8 through 9	Mid cabin demo, and parts and they would review incidents and they would also look at data that came from the - program. On the	Mid cabin demo, and <u>parts airplane</u> and they would review incidents and they would also look at data that came from the <u>FOQA</u> program. On the
Page 21 Line 14	Lombardo and J. Johnson who is the chairman of the board and CEO,	Lombardo and <u>Jay Johnson</u> who is the chairman of the board and CEO,
Page 22 Line 1	Meeting	<u>Meetings</u>
Page 23 Line 19	Engineer	<u>Engineering</u>
Page 25 Line 19	Sub	<u>Saab</u>
Page 25 Line 23	Sub	<u>Saab</u>
Page 26 Line 18 through 19	Still around. He did leave for a short time. He went to DR for the 727 - program	Still around. He did leave for a short time. He went to <u>Dee Howard</u> for the 727 <u>re-</u>

	and he came back when that was over. So he is	<u>engin</u> ing program and he came back when that was over. So he is
Page 29 Line 2	Vum	<u>Vmu</u>
Page 30 Line 6	Veins	<u>Vanes</u>
Page 30 Line 22	Flap 7.	Flap <u>setting</u> .
Page 35 Line 23	Skill	<u>Stall</u>
Page 42 Line 19	Manufactures	<u>Manufacturers</u>
Page 42 Line 22	Oms	<u>OEM's</u>
Page 43 Line 20	OMs	<u>OEM's</u>




---

John O'Meara

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD  
\* \* \* \* \*

Investigation of:  
AIRPLANE ACCIDENT  
ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
N652GD \*

Interview of: BILL OSBORNE  
Wednesday, October 26, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b>	<b><u>Existing Text</u></b>	<b><u>Should Read</u></b>
Page 24 Line 22	FTM	FTE

UNITED STATES OF AMERICA  
 NATIONAL TRANSPORTATION SAFETY BOARD  
 \* \* \* \* \*

Investigation of:  
 AIRPLANE ACCIDENT  
 ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
 N652GD \*

Interview of: NATHANIEL RUTLAND  
 Monday, October 24, 2011

**ERRATA SHEET**

**Page#/Line#**                      **Existing Text**                      **Should Read**

Page 6 Line 4	CAW and CEMA	<u>CAEW and SEMA</u>
Page 11 Line 9	Program	<u>Programmed</u>
Page 12 Line 2	Control log	<u>Control law</u>
Page 13 Line 22	9.0	<u>0.90</u>
Page 15 Line 13	Control log	<u>Control law</u>
Page 16 Line 11	Made	<u>MAID</u>
Page 18 Line 9	In-flight restriction	<u>Interim Flight Restriction</u>
Page 18 Line 14	2.9, the	<u>To, 0.9, the</u>
Page 26 Line 8	Squashed	<u>Swashed</u>
Page 26 Line 16	Made	<u>MAID</u>
Page 27 Line 3	Made	<u>MAID</u>
Page 27 Line 8	Program	<u>Programmed</u>
Page 31 Line 6	Control log	<u>Control law</u>
Page 32 Line 3	Tails	<u>Thales</u>
Page 34 Line 18	Flight tests	<u>Flight test</u>
Page 34 Line 21	Flight tests	<u>Flight test</u>
Page 36 Line 22	Made	<u>MAID</u>
Page 37 Line 11	Made	<u>MAID</u>
Page 37 Line 20	Tails	<u>Thales</u>
Page 43 Line 23	Control log	<u>Control law</u>
Page 44 Line 4	Performing but it involved a significant amount of rollover pitch	Performing but it involved a significant amount of <u>roll and pitch input</u>
Page 48 Line 8	Larry Dallard	Larry <u>Dowler</u>

  
 Nathaniel Rutland

UNITED STATES OF AMERICA  
NATIONAL TRANSPORTATION SAFETY BOARD

\* \* \* \* \*

Investigation of:  
AIRPLANE ACCIDENT  
ROSWELL, NEW MEXICO \* Docket No.: DCA11MA076  
N652GD \*

Interview of: ERIC UPTON  
Monday, October 24, 2011

**ERRATA SHEET**

<b><u>Page#/Line#</u></b> <b><u>Read</u></b>	<b><u>Existing Text</u></b>	<b><u>Should</u></b>
Page 5 Line 10	Guess and the	Guess in the
Page 6 Line1	IFM	AFM
Page 6 Line 16	Engineer	Engineering
Page 11 Line 2	Auto	All
Page 14 Line 7	Tears	Tares
Page 14 Line 12	Thrust and weights	Thrust to weights
Page 20 Line 13	Iads	IADS
Page 26 Line 4	And 10 was we're done.	And 10 was "we're done."
Page 37 Line 3	Cast	Gas
Page 38 Line 16	Brian, Eric	Brian Ehret
Page 40 Line 16	Jeff	Chip
Page 46 Line 7	Plan	Plane
Page 47 Line 13	Real	Wheel
Page 47 Line 14	Real	wheel



Eric Upton