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REAUTHORIZATION OF THE NATIONAL TRANSPORTATION SAFETY BOARD

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND SECURITY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

OCTOBER 29, 2009

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ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

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REAUTHORIZATION OF THE NATIONAL TRANSPORTATION SAFETY BOARD

THURSDAY, OCTOBER 29, 2009

U.S. SENATE,
SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:04 a.m. in room SR–253, Russell Senate Office Building, Hon. Byron L. Dorgan, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. BYRON L. DORGAN, U.S. SENATOR FROM NORTH DAKOTA

Senator DORGAN. We are going to begin the hearing today. This is a hearing of the Senate Commerce Committee, the Aviation Subcommittee, on the subject of the reauthorization of the National Transportation Safety Board.

We appreciate very much our witnesses being here. It is the Honorable Debbie Hersman, the Chairman of the National Transportation Safety Board, and Dr. Gerald Dillingham, Director of Physical Infrastructure Issues, U.S. Government Accountability Office. We appreciate the presence of both of you.

The National Transportation Safety Board does unbelievably important work, and we appreciate that. All of us hear about the NTSB, especially when a tragedy occurs, and almost always the news reports that describe a tragedy in transportation also say that investigators from the NTSB are on their way.

So we understand part of the work of the NTSB, but there is another significant part of the National Transportation Safety Board work that we perhaps don't hear so much about on the news, and it is the behind-the-scenes evaluation and investigation and work to try to determine what kinds of rules should exist to promote public safety in our transportation systems.

So let me say I have great regard for NTSB. I think it does a lot of good work. I notice that it has a "most wanted" list, and that most wanted list represents a list of recommendations that it most wants to have implemented by the agencies to whom they issue the recommendations. The NTSB works with respect to railroads and buses and airplanes, all forms of transportation in our country, and that most wanted list is something I was looking at the last couple of days because it is very, very important.

Yesterday, we had a hearing in this full committee on the subject of distracted driving, the issue of the use of BlackBerrys and cell

phones and texting devices in automobiles and moving vehicles. I know that the NTSB has been involved in those discussions, and I believe the NTSB has made some decisions about the issue of the use of those devices on railroads or trains and buses and so on. I commend them for that.

One of my frustrations, as I was preparing for this hearing, is the lack of connection between the National Transportation Safety Board and those to whom they issue the recommendations. We have had hearings with the new head of the FAA to talk about the need for a review of all the recommendations that have been issued, and which of the recommendations have been adopted or implemented and which have been ignored, and the question of why have certain recommendations been ignored.

The most wanted list, as I understand it now, from the National Transportation Safety Board includes recommendations on icing, on image recorders in the cockpit, on fatigue—all of which are very important. And I believe they are on the most wanted list because these recommendations are not yet implemented.

I want to mention, as we begin today with respect to the aviation piece of this, a couple of things that I discovered in previous hearings, and then went to the Internet last evening and was doing some research. The crash in Buffalo, New York, which was an unbelievable tragedy, it was a Dash 8 airplane, and I discovered that it was 10 years ago, 1999—10 years ago—that the National Transportation Safety Board took the FAA to task for failing to establish safety procedures for operating in icing conditions.

Nearly 10 years later, the NTSB renewed its criticism over the FAA over what they called "the unacceptably slow pace of revising its recommendations on deicing." And in fact, at that time, last October, before the Buffalo crash, the NTSB said, "In general, smaller planes like the Dash 8"—the NTSB even identified the type of aircraft. "In general, smaller planes like the Dash 8, which uses a system of pneumatic deicing boots, are more susceptible to ice buildup than larger commuter planes that use a heating system to warm the wings."

I found that last evening when I was perusing these research materials. I found it astounding that the NTSB last fall, a year ago, was actually identifying the kind of airplane in which icing might be a very significant issue and on which the FAA needed to take action. And yet action hadn't been taken.

And so, this issue of connecting the NTSB, whose mission is safety, to those for whom the recommendations are made and the lack of progress is very important. I note as well that in recent days, there has been an incident in the skies in which a commercial airline flew about 90 minutes without being able to be contacted by anyone on the ground, which is pretty astounding when you think about it. And fortunately, there was not a tragedy born of those errors.

But for 90 minutes, 144 passengers are hauled across the sky at 35,000, 37,000 feet, and people on the ground are attempting to contact the airplane, and there is no contact. Well, in this day and age, given all the electronic capabilities we have, there is no excuse under any circumstances for that to be the case. And we learned from at least preliminary news reports from the NTSB—my guess

is the investigation is not complete—that the two pilots of that airplane said they were working on laptops.

Well, as I looked into that, I believe laptop computers are prohibited in that cockpit by the carrier that was involved. I am not sure, my understanding is the use of laptop computers in a cockpit is not prohibited by the FAA. That would have been a company rule rather than an FAA rule. Certainly, it should be an FAA rule.

I had not thought much about that before, but having flown some myself, I understand the need in a cockpit to constantly, constantly monitor the instruments in that plane. That is the only way you maintain a level of safety. And so, that issue has again raised the question of what needs to be done here?

Now let me just mention one other thing. The thing that is the most troubling to me about this is in the last two incidents where we have heard and seen what is going on in the cockpit. The Buffalo crash and the airliner that flew a week or so ago without contact with the ground, in both cases, it appears to me that there were violations of rules in the cockpit.

One, a violation of the sterile cockpit rule, unbelievable conversation going down into that airport in Buffalo about things that weren't related to the descent of the airplane and the impending landing. A violation of the sterile cockpit rule.

And second, if the pilots are to be believed, then violation of the use of laptops computers in the cockpit and failure to keep in touch with their instruments and so on.

So, the question is, since those are the only two circumstances I know of in which we know what happened in two cockpits in the thousands and tens and tens of thousands of flights, is this just an aberration, or do we need to know a lot more about what is happening in cockpits? Let me be the first to say that I have great admiration for the airline pilots in this country. We have an unbelievable safety record, no question about that.

But the circumstances where we have seen tragedy and the circumstances where we have seen error, suggest to me that we need to know a lot more about what is happening in the cockpit. I am troubled by the fact that there is a tape of only 30 minutes in a cockpit with an airplane that flew an hour and a half without contacting anybody or nobody able to contact them.

I am troubled by the fact that in this day and age of electronics that we don't have a circumstance in which anyone could know anything that was going on in that plane. That made no sense to me at all. So, I think this raises a lot of really important questions that the NTSB and the FAA and this committee have to address.

And having said that, I want to call on my Ranking Member, Senator DeMint, for a comment.

STATEMENT OF HON. JIM DEMINT, U.S. SENATOR FROM SOUTH CAROLINA

Senator DEMINT. Thank you, Mr. Chairman, and I appreciate your persistence on the safety issue and the hearings you have had and certainly agree with your comments.

I would like to just make a couple of comments so we can get on and hear from the real experts here.

A number of concerns that you mentioned, we have got to keep our focus on passenger safety, but there are a lot of strong interests within the system that I would like for some of you to address. Obviously, the airlines have interests—operations, profit, other things—that we need to look at.

The pilots unions are certainly involved with creating tensions here. The Chairman referenced the two pilots who flew hundreds of miles out of the way with no contact, but the Delta pilots union has disagreed with the decision to terminate these pilots. There is always that pressure from within.

And now related, not directly, but the airport security, which certainly affects safety in the air, now their new director is apparently going to move to collective bargaining, which will take away some of the flexibility to deal with safety and threat issues. As a safety board, you have to look at a lot of different variables and be very concerned.

I thank the families of Flight 3407 for their continued persistence in coming to hearings, pushing various safety proposals and keeping them in front of us so that we don't forget those who were lost because of mistakes or lack of training.

So, again, Mr. Chairman, thank you. I look forward to hearing from our witnesses this morning. I yield back.

Senator DORGAN. Thank you very much.

Unless there is objection, I would like to hear from the two witnesses, and then we will have ample time for questions and statements and so on. If there is someone that has an urgent need to leave before we finish, I would be happy to recognize them. But otherwise, I will just recognize the witnesses.

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. So no further opening remarks?

Senator DORGAN. Right. Unless someone needs to leave before?

Senator LAUTENBERG. Mr. Chairman, with all due respect——

Senator DORGAN. Could you touch your microphone, please? Thanks, mom.

Senator LAUTENBERG. In all due respect, I mean, there is a perspective, I think, an unusual perspective that follows the NTSB. Everyone can recall incidents that might have been avoided. The fact of the matter is—and I don't mean to steal time like this, but just if it was possible to kind of frame the debate a little bit in advance because it might be of assistance?

Senator DORGAN. All right. Let me suggest we will do 2-minute opening statements for those that are now in the room, and those that come later will wait until after we have heard the witnesses. I would like to get the statements on the record and then have ample time for questions today because I think—but I recognize the inquiry by the Senator from New Jersey. He is recognized for 2 minutes.

Senator LAUTENBERG. Thank you very much, Mr. Chairman.

It is just that whenever we look at the system, we are really pleasantly surprised at the safety of the system and the elegant work, excellent work, rather—also elegant—of the NTSB and related agencies. Because when you look at the volume of traffic—air

traffic, train traffic, road traffic—it is quite an incredible feat that we are able to protect our people as well as we do.

I don't live on an airfield runway, but past my window in my apartment came a U.S. Airways airplane with Captain Sullenberger at the helm, and I wasn't home at the time, to land in the river, and there we saw what happens when people are trained and ready to do the job.

But we see place after place where the result of lack of focus by the operator—the accident in Los Angeles, 25 people killed in 2008, and Buffalo and other places—and I think that something must be done in terms of pilots and training or at full standing who have modest incomes in their training years, many of whom live away from their operating base, and having to do a second job just to be able to maintain themselves and their families. And I think we have to examine that as a part of the beginning of a very serious problem.

So, Mr. Chairman, thanks for holding this hearing. It is at a critical moment, and it is important.

Senator DORGAN. Senator Lautenberg, thank you very much.

Senator Hutchison?

STATEMENT OF HON. KAY BAILEY HUTCHISON, U.S. SENATOR FROM TEXAS

Senator HUTCHISON. Well, thank you, Mr. Chairman.

As a former Vice Chairman of the NTSB, I certainly know what the Board does and what it can do. And I think that we have had a lot of Board recommendations that have made a difference. We have also had some recommendations that have not been taken and acted on by the FAA or the airlines, and they have, unfortunately, been proven to have been correct and that the measures should have been taken to avoid problems.

I am concerned about another aspect of the Colgan air crash, which we have talked about a lot, and it is a stunning development that it would be 91 minutes without contact. But the other side of that is that apparently the FAA also violated its own rules by taking more than 40 minutes to call and alert the military after it lost communications in the air traffic control tower.

So, I think we also would ask that you speak to that or look into it when you are looking at the crash because after 9/11, we know that it is supposed to be an immediate communication from the FAA, and now we had a situation in which 91 minutes passed, and it could have been something that was much more a problem, such as a potential terrorist plot.

I know there are some other areas that need to be addressed. We had a hearing yesterday here on distracted driving, but we also talked about distracted airline pilots in a cockpit. I think looking at a recommendation by the FAA that is a national rule as opposed to an airline-by-airline rule is something that we would hope you would be considering.

And also, as we are looking at this new technology with BlackBerrys as well as computers and other kinds of technology, what are the rules that we should have in buses, in airlines, in rail? We know that one rail accident happened in California because someone was texting who was supposed to be driving a train.

So these are things that I hope that the Board will be looking at. And of course, this is an authorization for the board, and we want to hear what you are doing and see if there are tools that you don't have or things that you have not yet been able to recommend that would make a difference. So we will look forward to hearing from you.

Thank you, Mr. Chairman.

[The prepared statement of Senator Hutchison follows:]

PREPARED STATEMENT OF HON. KAY BAILEY HUTCHISON,
U.S. SENATOR FROM TEXAS

Thank you, Senator Dorgan, for holding this hearing. Also, thank you to NTSB Chair Hersman and Dr. Dillingham from GAO, for your testimony.

As a former Vice Chair of the NTSB, I understand well the important role the Board plays in promoting our Nation's transportation safety.

The knowledge gained and the preventive measures taken because of the NTSB's work are crucial to the safe operation of our transportation system across all modes.

Today's hearing is our Committee's first step toward reauthorizing the NTSB, whose last reauthorization expired over a year ago. Reauthorization presents a good opportunity for Congress to review the practices of the NTSB and make improvements as needed.

It is also important that the Committee is confident proper management practices are in place at the Board, and effective use of taxpayer dollars is ensured. I look forward to hearing from Dr. Dillingham on the NTSB's progress in these areas.

Thank you, Mr. Chairman, and I look forward to hearing from our witnesses.

Senator DORGAN. Thank you very much.

Senator Klobuchar?

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Mr. Chairman, for holding this important hearing.

Unfortunately, we are usually reminded of the important work of the NTSB when a tragedy occurs. In my state, it was the I–35W bridge collapse that killed 13 people and injured hundreds others. And it was during this emergency that I experienced firsthand the professionalism of the NTSB investigators, and I really appreciated the work they did there.

But certainly infrastructure failures aren't the only concern here, and my colleagues have identified many of them. And I think the recommendations that the NTSB have made in the airline area are very helpful. We have had, as been mentioned, many tragedies recently. I know some of the family members are here from the crash in Buffalo, and just one of the most haunting things for me when we had that hearing was hearing the words of one of the pilots who said she hadn't really done deicing before. And it just was chilling for, I am sure, the family members to hear that.

The train conductor in Los Angeles who was texting, the plane that was mentioned where, luckily, there was no tragic loss of life that overflew my State of Minnesota and went into Wisconsin. Again, preliminary reports, we don't have the full and complete picture yet, but it looks like some kind of distracted pilots there.

So we really do welcome your recommendations in this area, especially I would like to hear from you about ideas that you have to prevent this from happening, for making sure that all aircraft have some kind of loud chime or something so that we know what

is happening if there is distraction in the cockpit, to this ban, as we have all been talking about, on laptops for private use in the cockpits—to make sure that is a national rule—to other obvious pilot safety issues with the training, fatigue, and other things that we have been focused on with our FAA reauthorization, as well as the passenger bill of rights.

Thank you very much.

Senator DORGAN. Thank you.

Senator Begich?

STATEMENT OF HON. MARK BEGICH, U.S. SENATOR FROM ALASKA

Senator BEGICH. Mr. Chairman, thank you very much. Thank you for holding this hearing.

I will just be very brief, just to note some statistics and just really—and just for your commentary and your comments. You know, Alaska has 6 times as many pilots and 16 times as many aircraft per capita than any state in the country.

Just in 2008, your organization investigated 110 aviation accidents in Alaska, resulting in 11 that created 24 fatalities. So we are a very high-risk state, but also have some issues, as you can imagine, with those kind of numbers. So I will look forward to the questions and answering process here.

Thank you very much.

Senator DORGAN. Thank you very much, Senator Begich.

Chairman Hersman, thank you very much for being with us. You have heard the comments of my colleagues and my comments as well.

Your entire statement will be made a part of the permanent record, and you may proceed.

STATEMENT OF HON. DEBORAH A.P. HERSMAN, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD

Ms. HERSMAN. Thank you, Chairman Dorgan and Ranking Member DeMint, and Senators Lautenberg, Klobuchar, and Senator Begich, too. I know the NTSB's former Vice Chairman, Senator Hutchison was here a little while ago, and it is great to have that kind of knowledge on this committee.

As Chairman of the National Transportation Safety Board, I am pleased to appear before you today to discuss our request for reauthorization. The members and the staff of this committee have historically been very supportive of the NTSB and its important mission. On behalf of our 391 employees, I want to thank you for your unfailing support throughout our agency's history.

Our core mission is to investigate transportation accidents to determine what happened, how it happened, and how to prevent it from happening again. Today, we continue working hard to improve safety in a transportation world that looks very little like it did when we were first created in 1967.

Our challenge today is to remain highly skilled and up-to-date with an expert technical staff and state-of-the-art investigative tools to competently conduct thorough investigations that this committee and the American public deserve.

As soon as we are notified of an accident, our investigators drop whatever they are doing, grab their go bags, and head to an accident scene, often getting there before the smoke has cleared. Some begin the meticulous work of documenting the scene in minute detail. Others seek out witnesses and survivors. Our Transportation Disaster Assistance Team reaches out to victims and their families to help them begin navigating through the shock, grief, and eventually the healing.

No one wants a serious accident to ever occur. But when one does and we send a launch team, I am always amazed and proud of the work that they perform. To give you a glimpse of what we do, let me tell you about what we have accomplished in Fiscal Year 2009.

First of all, we launched on 18 major accidents. There are too many to list for you right now, but some of them you will remember because they were so newsworthy. January 15, the forced landing of a U.S. Airways flight in the Hudson River following a multiple bird strike just after takeoff from LaGuardia. There were no fatalities.

On February 12, Continental Connection Flight 3407 crashed on approach to Buffalo, impacting a house. There were 50 fatalities.

On June 22, a six-car WMATA train struck the rear of a standing train near Fort Totten in Washington, D.C. There were 9 fatalities and 52 injuries.

On August 8, a private aircraft and a tour helicopter collided in midair over the Hudson River near Hoboken, New Jersey. There were nine fatalities.

In addition to these major accidents, we also launched to 198 smaller accidents, primarily in general aviation, as Senator Begich mentioned. We also sent accredited representatives to support 10 foreign accident investigations.

During the last fiscal year, we issued 18 major accident investigation reports, 2 summary reports, 15 accident briefs, and hundreds of regional aviation accident briefs. We conducted 13 "sunshine meetings" and held 6 public hearings in aviation, rail, and highway.

One of the busiest parts of our agency, and it is getting busier all the time, is our laboratory. Last year, our lab processed 374 cockpit voice and flight data recorders, along with digital cameras, video recordings, GPS navigation devices, cockpit displays, and engine monitoring devices.

As you know, the end products of our investigations are our safety recommendations. In our 20-year history, we have issued about 13,000 recommendations. About 80 percent of those have been closed in an acceptable status. The success of our recommendations is often due to the work of our advocates in Congress, many of whom are on this committee.

Like many government agencies, the NTSB is being called upon to accomplish more goals with fewer resources. We are rising to the challenge, but it is difficult, and we will need the continued support of Congress. In 2003, we completed 18 major products and 4 public hearings with 427 employees. In 2009, we will have completed the same number of major products and conducted 6 public hearings

with 33 fewer people. This is a big number for an agency as small as the Safety Board.

So how do we accomplish what we do? We have an extraordinary staff. They are smart, curious, and they have an unparalleled passion for transportation safety. These dedicated professionals do the invaluable work that they do at at an annual cost of about 30 cents per American.

As we begin the dialogue to reauthorize the NTSB, we are asking for a few changes that we believe will clarify our authority and improve our ability to investigate significant accidents and incidents. And the right of access to critical financial and medical information related to an accident investigation is important to us as well.

The NTSB is the safety conscience and compass of the transportation industry. As an independent, nonregulatory agency, we can be a catalyst for change by sharing what we learn with others, in particular, industry leaders and policymakers such as yourselves.

As I mentioned, the transportation world is not the same as it was in 1967. With your help, we will continue to keep pace with these rapid changes that are occurring in transportation.

Thank you for giving me the opportunity to talk about this remarkable agency and its dedicated people. I will be happy to answer your questions.

[The prepared statement of Ms. Hersman follows:]

PREPARED STATEMENT OF HON. DEBORAH A.P. HERSMAN, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD

Good morning, Chairman Dorgan, Ranking Member DeMint, and members of the Subcommittee. As Chairman of the National Transportation Safety Board (NTSB), I am pleased to appear before you today to discuss our request for reauthorization. The members and staff of this Committee, and especially of this Subcommittee, historically have been champions of the NTSB and its important mission. On behalf of our current 391 employees, I want to thank you for your unfailing support throughout our history.

Our core mission is to investigate transportation accidents to determine what happened, how it happened, why it happened, and what can be done to keep it from happening again. Today, we continue working hard to improve safety in a transportation world that looks very little like it did when we began in 1967. In the 42 years since our beginning, the mission of the agency has not changed, but the world has. Transportation accidents are increasingly complex as machines and technology become more and more sophisticated. Our challenge today is to remain highly skilled and up-do-date with an expert technical staff and state-of-the-art investigative tools to competently and efficiently conduct the thorough investigations you and the American people have come to expect and deserve.

To give you a glimpse of the work we do, let me tell you what we have accomplished in Fiscal Year 2009. We issued 18 major accident investigation reports and 2 summary reports. In addition, we produced 15 brief reports, hundreds of regional aviation safety accident briefs, and a Special Investigation Report on pedal misapplications. We conducted 13 public or "sunshine" meetings on 14 separate accident reports. We also conducted 6 public hearings on accidents that are still under investigation, including:

- A 2008 fatal motorcoach accident in Victoria, Texas;
- The safety of helicopter emergency medical services (HEMS);
- The 2008 collision of a Metrolink commuter train with a Union Pacific freight train in Chatsworth, California;
- The 2009 crash of Colgan Air Flight 3407 near Buffalo, New York;
- The 2009 landing of U.S. Airways Flight 1549 in the Hudson River in New York; and
- The 2009 crash of Empire Airlines flight 8284 at Lubbock, Texas.

NTSB—FY 2009 At A Glance

Established:	April, 1967
Number of Employees: (by HQ and Regions)	HQ: 299 Regional: 92
Major Reports and Products Adopted by the Board:	18 Major Reports 2 Summary Reports 1 Special Investigation Report 15 Brief Reports
Major Accident Launches:	18
Other Accident Launches:	198
International Accident Launches:	10
Public Hearings:	6
Recommendations Issued:	174
Recommendations Closed:	87 Closed Acceptable Status 22 Closed Unacceptable Status
Vehicle Recorder Readouts:	374
Materials Laboratory Examination Reports:	110

During my tenure on the Board, I have accompanied our investigators on 17 major accident launches. I have watched them drop whatever they were doing, grab their go-bags, and head to an accident scene to get there often before the smoke has cleared. Once on scene, our investigators hardly stop to rest or eat. Some begin the meticulous work of documenting the scene in minute detail, while others seek out witnesses and survivors. While investigators begin piecing together the accident sequence, our Transportation Disaster Assistance team reaches out to victims and their families to help them begin navigating through shock, grief, and eventually, healing. No one wants a serious accident to ever occur, but when one does and we send a launch team, I am always amazed and proud of the work our investigation team performs, both on-scene and then later when they return to our offices and labs to continue solving the puzzle.

In Fiscal Year 2009, we launched to 18 major accidents, including:

- November 28, 2008: A self-propelled, unmanned shuttle train at the Miami International Airport failed to stop at the passenger platform and struck a wall at the end of the guideway. 7 injuries.
- December 20, 2008: A Boeing 737 (Continental Flight 1404) veered off the side of the runway and crashed during takeoff from Denver International Airport. No fatalities, 37 injuries.
- January 7, 2009: A 29-passenger bus crossed into the opposite travel lanes and overturned near Dolan Springs, Arizona, ejecting 13 occupants and partially ejecting 2 occupants. 7 fatalities, 10 injuries.
- January 15, 2009: An A–320 (U.S.Airways Flight 1549) made an emergency landing in the Hudson River following a multiple bird strike just after takeoff from New York's La Guardia Airport. No fatalities.
- January 27, 2009: An ATR–42 cargo aircraft (Empire Airlines Flight 8284) crashed short of the runway while landing in Lubbock, Texas. No fatalities.
- February 12, 2009: A Bombardier Dash 8–Q400 operated by Colgan Air (Continental Connection Flight 3407) crashed on approach to Buffalo-Niagara International Airport, impacting a house. 50 fatalities.
- March 22, 2009: A Pilatus PC–12 operated by Eagle Capital Leasing crashed on approach to Butte, Montana. 14 fatalities.
- April 12, 2009: An unnamed recreational vessel allided with a towing vessel *Little Man II* near Palm Valley, Florida. 5 fatalities.
- May 4, 2009: An 18-inch diameter high pressure natural gas pipeline ruptured near Palm City, Florida. 3 injuries.
- May 8, 2009: An MBTA light rail passenger train struck the rear of a stopped MBTA train in Boston. The train operator admitted that he was texting on his cell phone when the accident occurred. 51 injuries.

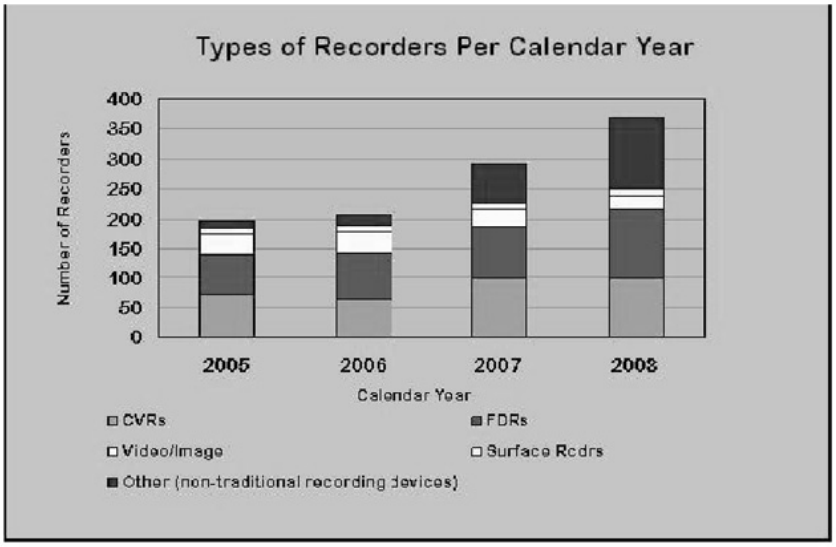
- June 19, 2009: CN freight train derailed at a highway-rail grade crossing in Cherry Valley, Illinois, causing a breach of 13 tank cars and the release of ethanol, followed by a fire that spread to vehicles stopped at the grade crossing. 1 fatality, 7 injuries.
- June 22, 2009: A WMATA train operating under automatic train control struck the rear of a standing train near Ft. Totten Station in Washington, D.C. 9 fatalities, 52 injuries.
- June 26, 2009: A minor accident between a passenger car and a truck tractor/trailer on I–44 near Miami, Oklahoma blocked the two eastbound lanes of the 4-lane divided highway, causing traffic to stop and a queue to form. Six minutes later, a truck tractor/trailer crashed into the rear of the stopped and slow-moving traffic, causing the collision of 6 vehicles. 10 fatalities, 6 injuries.
- July 1, 2009: An automobile struck a gasoline highway cargo tank trailer near Upper Pittsgrove, New Jersey, rupturing piping beneath the cargo tank (wet lines), resulting in the release of gasoline onto the automobile, which then caught fire. 1 fatality.
- July 15, 2009: A tanker truck rollover occurred as the driver of the truck swerved to avoid colliding with a passenger car which lost control on I–75 near Hazel Park, Michigan. 3 injuries.
- July 15, 2009: A cargo transfer hose ruptured while transferring anhydrous ammonia from a highway cargo tank trailer to a storage tank at an industrial facility in Swansea, South Carolina. The resulting toxic ammonia cloud expanded across a highway where a car drove into the gas cloud causing the death of the driver. 1 fatality; 7 injuries.
- July 18, 2009: A San Francisco MUNI light rail train ran into the rear of a second train at the West Portal Station. 48 injuries.
- August 8, 2009: A Piper PA–32, operated by a private pilot, and a Eurocopter AS350, operated by Liberty Helicopters, collided in midair over the Hudson River near Hoboken, New Jersey. 9 fatalities.

In addition to these major accidents, we also launched investigators to 198 accidents, primarily in general aviation, to conduct smaller-scale investigations. We also sent accredited representatives to support 10 foreign accidents including the Air France A330 crash in the Atlantic Ocean on July 1, 2009, the crash of a Sikorsky S–92 helicopter in the sea near St. Johns, Newfoundland, on March 12, 2009, and the crash of a Learjet Model 45 near Mexico City on November 4, 2008.

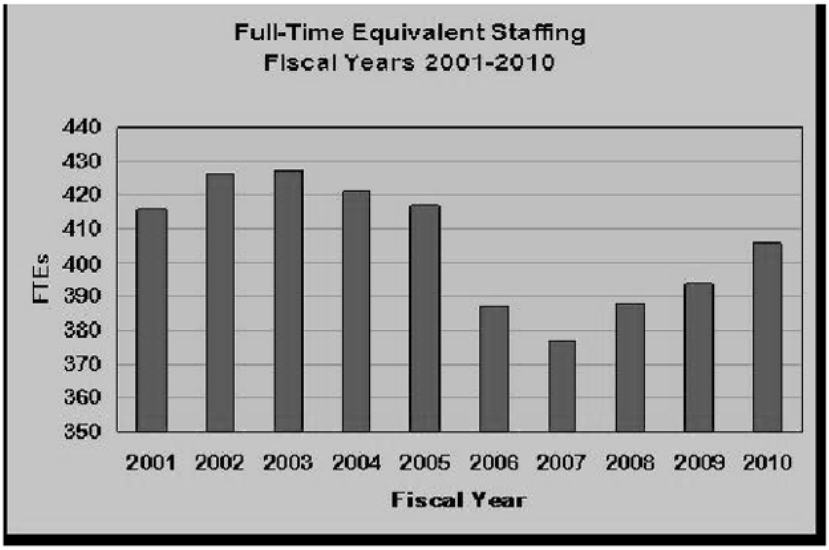
As you know, the end products of our investigations are our safety recommendations to government agencies, transportation operators, and other stakeholders to improve transportation safety. In our 40-year history, we have issued more than 12,000 recommendations, about 80 percent of which have been closed in an acceptable status. Last year alone, we issued 174 new recommendations. We also closed 109 older recommendations, 87 of those in an acceptable status. Of course, the suc-

cess of our recommendations is often directly due to the work of our advocates in Congress, many of whom are on this Committee. For example, in 2007, Congress made huge strides in advancing railroad safety with the passage of the Federal Rail Safety Improvement Act of 2007 (Public Law 110–432). This one historic bill addressed significant safety issues and long-standing recommendations directed to the rail industry, namely, hours of service and positive train control. The NTSB appreciates your listening to us regarding these recommendations.

One of the busiest parts of our agency—and it is getting busier all the time—is our laboratory. In our vehicle recorder lab, on-board vehicle recorders are downloaded and studied to support accident investigations. In FY 2009, our lab processed 374 cockpit voice and flight data recorders, along with digital cameras, video recordings, GPS navigations devices, cockpit displays and engine monitoring devices. About 30 percent of our flight data and voice recorder readouts support foreign accident investigations. The workload in the vehicle recorder lab continues to grow as the number and complexity of recording devices continually expands. In addition, our materials lab examined evidence collected at accident scenes—anything from aircraft engines to pieces of highways—in search of clues to the causes of accidents. Last year, the materials lab produced 110 separate reports.



Like many government agencies, the NTSB is being called upon to accomplish its goals with fewer resources. We are rising to the challenge, but it is difficult, and we will need the continued support of Congress. In 2003, the NTSB completed 18 major products and four public hearings with 427 employees. In 2009, we will complete the same number of major products and two additional hearings but with 33 fewer people. In addition, our hiring mix has had to change in recent years to meet regulatory standards in such areas as computer security and contracting requirements. We thus have not been able to focus all of our recent hiring on adding or replacing investigators or transportation specialists.



So how do we accomplish what we do? We have an extraordinary staff. They are smart, they are curious, they love to solve mysteries, and they have an unparalleled passion for transportation safety. This unique mixture of talent and enthusiasm is why they have been able to tell us the causes of hundreds of accidents, explaining why these tragedies happened and what should be done so that they never happen again somewhere else. These dedicated professionals do this invaluable work at an annual cost of about 30 cents per American.

As we begin this dialogue to reauthorize the NTSB, we are asking for technical changes that clarify our statute and a few modest substantive changes that we believe will improve our ability to thoroughly investigate significant accidents:

- Provide explicit authority for the NTSB to investigate incidents. While the NTSB already investigates transportation incidents that may not result in loss of life or damage to property, *e.g.,* runway incursions and near-misses, this change would allow the NTSB to begin a timely investigation of an event that might otherwise be examined first under a process internal to the owning agency or organization. One example of this is the "lost link" situation between the ground station and an unmanned aircraft system (UAS) that results in an uncontrolled intrusion into the National Airspace. Two other examples occurred just last week: the landing of a Boeing 767 on an active taxiway at Atlanta Hartsfield Airport and the 150-mile overflight of an Airbus 320 near Minneapolis. This requested change is consistent with a worldwide push by the International Civil Aviation Organization (ICAO) to its member nations to adopt a more proactive stance to preventing accidents by investigating incidents.
- Clearly articulate the NTSB's right to access critical information related to an accident during a Board investigation. Currently, the NTSB has subpoena power that is enforceable in Federal Court, but in rare instances, the Board meets with resistance to this authority with regard to medical and financial records. These records sometimes become critical to an investigation, for example, prescription records to determine the medical fitness of a ship's captain, or the credit card records to ascertain the activities of an airplane pilot hours before an accident.

In terms of resources, we are asking that the Congress authorize our staffing and funding as follows:

- 2009: 393 staff; $91,000,000;
- 2010: 406 staff; $99,200,000;
- 2011: 477 staff; $117,368,000;
- 2012: 477 staff; $120,258,000;

- 2013: 477 staff; $122,187,000;
- 2014: 477 staff; $124,158,000.[1]

The NTSB is the safety conscience and compass of the transportation industry. We are uniquely situated to think about transportation safety in the ideal and then point the way toward a safer transportation system. As an independent, non-regulatory agency, we can articulate needed safety improvements and innovations without having to prove that they are cost beneficial, profit generating, or politically feasible. Furthermore, through our recommendations, we can reach out directly to industry leaders, other government agencies, and policymakers such as the members of this Committee.

As I mentioned earlier, the transportation world is not the same as it was in 1967. With the help of Congress, we are currently up to the challenge, and with your continued support, we will keep pace with changes that are occurring in transportation, sometimes at breathtaking speed. Thank you for giving me the opportunity to talk to you about this remarkable agency and its dedicated people. I will be happy to answer your questions.

Senator DORGAN. Chairman Hersman, thank you very much for being with us today and for your testimony.

Next, we will hear from Dr. Gerald Dillingham, who is the Director of Physical Infrastructure Issues at the U.S. Government Accountability Office.

Dr. Dillingham, you may proceed.

STATEMENT OF GERALD L. DILLINGHAM, PH.D. DIRECTOR PHYSICAL INFRASTRUCTURE ISSUES U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Dr. DILLINGHAM. Thank you, Mr. Chairman, Ranking Member DeMint, and members of the Subcommittee.

We appreciate the opportunity to testify before you today as you consider the reauthorization of the National Transportation Safety Board. In 2006, we conducted a comprehensive review of management issues at NTSB, with follow-up reviews in 2008 and earlier this year in preparation for this hearing.

Following our initial review, we provided NTSB with 21 recommendations aimed at improving the efficiency of its organizational management and operations. Our reviews did not focus on the process or procedures that NTSB employs in conducting actual accident investigations.

Mr. Chairman, I want to be clear, our reviews did not yield any findings that would diminish NTSB's reputation as the gold standard for transportation accident investigations.

Our reviews concentrated in three areas: first, an assessment of NTSB's practices against leading practices in selected management areas, such as strategic planning, information technology, and human capital; the second area was NTSB's process for selecting accidents other than aviation accidents that it chooses to investigate and the extent to which it is meeting its mandate to conduct transportation-related safety studies; and third, the cost-effective use of its Ashburn, Virginia, training center.

Recognizing that some of our recommendations could take considerable time and effort to fully implement, we classified NTSB's progress in implementing a recommendation as significant if the agency had taken steps that went beyond the early planning

[1] Assumes salaries increase by 2 percent each year beginning with Calendar 2010, and an inflation factor of .5 percent.

stages. Overall, NTSB has been very responsive to our recommendations and has fully implemented or made significant progress in implementing all of them.

With regard to the management areas, we made 15 related recommendations. Overall, NTSB has fully implemented or made significant progress in all of the areas identified in our review.

Although NTSB has shown improvement in its human capital planning and has undertaken several initiatives aimed at improving the agency's managerial and diversity profile, these efforts have not resulted in significant changes in NTSB's workforce and management diversity profile.

Currently, NTSB's workforce includes smaller percentages of women and minority group members when compared with the composition of the Federal workforce. Additionally, minority group members hold less than 10 percent of NTSB supervisory or managerial positions, and women hold slightly less than 25 percent of these positions.

At the senior executive level, there are two women and no minority group representation among the 15 member corps. This circumstance is especially important because the SES corps generally represents the most experienced segment of the Federal workforce. Our research has shown that a diverse SES corps can strengthen an organization by bringing a wide variety of perspectives and approaches to policy development and decisionmaking.

We think that NTSB may have an increased opportunity to improve its workforce and management diversity profile. This opportunity exists because within the next 3 years, more than 50 percent of NTSB's current supervisors and managers will be eligible to retire, and slightly over 70 percent of those filling critical leadership positions are at least 50 years of age.

With regard to our recommendation as to how NTSB selects accidents for investigations and conducts safety studies, NTSB has fully implemented or made substantial progress toward implementing the four recommendations that we made in this area. Since our review in 2006, NTSB has initiated three safety studies, one of which is in the final review stage.

NTSB officials have proposed broadening the kind of activities that would meet NTSB's legislative mandate to conduct safety studies. We think that reauthorization could be an ideal time to obtain input from stakeholders, including Congress, on whether the proposed broadening of what constitutes a safety study would meet NTSB's legislative requirement.

With regard to the NTSB's increased use of its training center and the decrease in the center's overall operating deficit, NTSB took several actions to address this issue. As a result of those actions, NTSB has increased the use of the center's classroom space from 10 percent in 2006 to 80 percent in Fiscal Year 2009.

NTSB also reduced the training center's annual deficit by about 50 percent, from about $4 million in 2005 to about $2 million in 2009. If circumstances do not change, the training center will continue to have about a $2 million annual deficit for the remaining 12 years of the training center lease.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions for you or the Subcommittee members.

[The prepared statement of Dr. Dillingham follows:]

PREPARED STATEMENT OF GERALD L. DILLINGHAM, PH.D. DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. Chairman and members of the Subcommittee:

We appreciate the opportunity to testify before you today as you consider the reauthorization of the National Transportation Safety Board (NTSB). NTSB is a relatively small agency that has gained a worldwide reputation as a preeminent investigator of transportation accidents. With a staff of about 400 and a budget of $91 million for Fiscal Year 2009, NTSB is charged with investigating every civil aviation accident in the United States and selected accidents in other transportation modes, determining the probable cause of these accidents, making recommendations to address safety issues identified during accident investigations, and performing transportation safety studies. To support its mission, NTSB built a Training Center that opened in 2003 and provides training to NTSB investigators and other transportation safety professionals.

As the share of Federal resources used to address the Nation's long-term fiscal imbalance and other national priorities grows, funding for increases in the budgets of individual agencies becomes more uncertain. It is therefore critical for NTSB to use its resources as efficiently as possible to carry out its mission. In 2006, we conducted a broad review of the agency's management practices, examined how it carried out its activities related to accident investigations and safety studies, and analyzed whether its Training Center was cost-effective.[1] In total, we made 21 recommendations in these areas. In addition, in recent years, other entities have conducted reviews and made recommendations to NTSB related to information security practices and financial management. Our testimony addresses NTSB's progress in: (1) following leading practices in management areas such as strategic planning, human capital management, information technology (IT), and financial management; (2) increasing the efficiency of activities related to investigating accidents, issuing recommendations, and conducting safety studies; and (3) increasing the use of its Training Center.

Our testimony is based on our analysis of policies and procedures that NTSB developed in response to our recommendations and to the recommendations of the independent auditors of NTSB's information systems. To perform our analysis, we reviewed NTSB's agencywide, IT, and human capital strategic plans; office operating plans; and other relevant documents. We also visited the NTSB Training Center; interviewed NTSB's Chief Information Officer, Chief Financial Officer, an d other agency officials; and updated information we reported in 2006 and 2008.[2] In addition, we performed limited testing of NTSB's laptop computers. In our analysis, we classified NTSB's progress in implementing a recommendation as limited when the agency was in the early planning stages and documents or milestones for actions did not exist or the agency did not follow leading practices. Recognizing that many recommendation s may take considerable time and effort to fully implement, we classified NTSB's progress in implementing a recommendation as significant if the agency had taken steps beyond the early planning stages toward addressing the concerns. For example, NTSB might have developed documents or policies that, for the most part, followed leading practices. Finally, we classified a recommendation as fully implemented when NTSB had fully implemented plans or processes that followed leading practices NTSB provided technical comments on a draft of this statement that we incorporated as appropriate. We conducted this performance audit from July 2009 to October 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings

[1] GAO, *National Transportation Safety Board: Progress Made, yet Management Practices, Investigation Priorities, and Training Center Use Should Be Improved.* GAO–07–118 (Washington, D.C.: Nov. 22, 2006).

[2] GAO, *National Transportation Safety Board: Preliminary Observations on the Value of Comprehensive Planning and Greater Use of Leading Practices and the Training Academy*. GAO–06–801T (Washington, D.C.: May 24, 2006); GAO–07–118; and GAO, *National Transportation Safety Board: Progress Made in Management Practices, Investigation Priorities, Training Center Use, and Information Security, but These Areas Continue to Need Improvement*. GAO–08–652T (Washington, D.C.: Apr. 23, 2008).

and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

NTSB Has Made Progress in All Management Areas, but Further Actions Are Needed to Fully Implement Some Recommendations

Overall, NTSB has fully implemented or made significant progress in following leading management practices in all eight areas that our recommendations addressed in 2006 and 2008—communication, strategic planning, IT, knowledge management, organizational structure, human capital management, training, and financial management. We made 15 management recommendations in these areas based on leading agency management practices that we identified through our government-wide work. Although NTSB is a relatively small agency, such practices remain relevant. Figure 1 summarizes NTSB's progress in implementing our management recommendations.

Figure 1: Implementation Status of GAO's Recommendations Related to NTSB's Management

Area	GAO recommendation	Status in 2006	Status in 2008	Current status
Communication	Develop mechanisms to facilitate communication from staff to management.	○	●	●
	Report to Congress on the status of GAO recommendations.	○	◐	●
Strategic planning	Develop a revised strategic plan that follows performance-based practices.	○	◐	◐
Information technology (IT)	Develop an IT plan that includes policies and a strategy to guide IT acquisitions.		○	●
	Encrypt information/data on all laptops and mobile devices.		○	●
	Limit local administrator privileges to those accounts that require that level of access.[a]		○	◐
Knowledge management	Develop a knowledge management plan to create, capture, and reuse knowledge to achieve NTSB's objectives.	○	◐	◐
Organizational structure	Align organizational structure to implement strategic plan.	○	●	●
	Eliminate unnecessary management layers.	○	◐	◐
Human capital management	Develop a strategic human capital plan that is linked to NTSB's overall strategic plan. This human capital plan should include strategies on staffing, recruitment and retention, training, and diversity management.	○	◐	◐
Training	Develop a strategic training plan that is aligned with NTSB's revised strategic plan, identifies skill gaps that pose obstacles to meeting the agency's strategic goals, and establishes curriculum that would eliminate those gaps.	○	○	◐
	Develop a core curriculum for investigators that addresses the specialized needs for each mode.	○	○	◐
Financial management	Correct violation of the Antideficiency Act related to purchasing accidental death and dismemberment insurance for employees on official travel.[b]	○	●	●
	Correct violation of the Antideficiency Act related to NTSB's lease of the Training Center.	○	◐	◐
	Develop a full cost accounting system to track time employees spend on each investigation and in training.	○	○	◐

○ New recommendation or limited progress
◐ Significant progress
● Fully implemented

Source: GAO analysis of NTSB data.

[a] Users with local administrator privileges on their workstations have complete control over all local resources, including accounts and files, and have the ability to load software with known vulnerabilities, either unintentionally or intentionally, and to modify or reconfigure their computers in a manner that could negate network security policies as well as provide an attack vector into the internal network. Accordingly, industry best practices provide that membership in local administrators' groups should be limited to only those accounts that require this level of access.

[b] In 2007, we issued a legal decision finding that NTSB improperly used its appropriated funds to purchase accidental death and dismemberment insurance for its employees on official travel. NTSB does not have an appropriation specifically available for such a purpose, and the expenditures cannot be justified as a necessary expense. Because NTSB has no appropriation available to purchase accident insurance, the payments NTSB made constitute violations of the Antideficiency Act. 31 U.S.C. §1341(a). We did not make a recommendation regarding this violation of the act because we reported the violation in a Comptroller General's decision, and such decisions do not include recommendations. GAO, Decision of the Comptroller General of the United States, B–309715, September 25, 2007, National Transportation Safety Board—Insurance for Employees Traveling on Official Business. NTSB remedied this violation through a Fiscal Year appropriation. Pub. L. No. 110–161, Title III, 121 Stat. 1844, 2441 (2007). A bill to reauthorize the Federal Aviation Administration, H.R. 915, 111th Cong., 2009, would provide NTSB with specific authority to purchase this insurance.

NTSB had fully implemented three of our management recommendations as of our last report in April 2008—our recommendations to: (1) facilitate communication from staff to management, (2) align organizational structure to implement a strategic plan, and (3) correct an Antideficiency Act violation related to purchasing accidental death and dismemberment insurance for employees on official travel. In addition, NTSB has made further progress on seven of our management recommendations since 2008. First, it started reporting to Congress on the status of our recommendations by including the actions it has taken to address them in its Annual Report to Congress.[3] In addition, NTSB has taken steps to implement all three of our IT-related recommendations:

- NTSB has fully implemented an IT strategic plan that addresses our comments. Moreover, in compliance with the Federal Information Security Management Act of 2002 (FISMA), NTSB has undergone annual independent audits, hiring outside contractors to perform security testing and evaluation of its computer systems.[4]
- We performed limited testing to verify that NTSB has implemented our recommendation to install encryption software. Agency officials confirmed, however, that while encryption software is operational on 410 of the agency's approximately 420 laptop computers, the remaining laptops do not have encryption software installed because they do not include sensitive information and are not removed from the headquarters building.
- NTSB has made significant progress in limiting local administrator privileges while allowing for employees to add software and print from offsite locations as necessary.

NTSB has also drafted a strategic training plan that, when finalized, would address GAO guidance on Federal strategic training and development efforts and establish the core competencies needed for investigators and other staff. In addition, two modal offices have developed core curricula that relate specifically to their investigators.

In addition, NTSB obligated $1.3 million in September 2009 to the National Business Center—an arm of the Department of the Interior that provides for-fee payroll services to Federal agencies—to develop a full cost accounting system for NTSB based on a statement of work. NTSB officials said that the first phase of the cost accounting system will be implemented late in Fiscal Year 2010. When completed to permit recording time and costing of investigations and other activities, including training, this action will fully implement our recommendation.

The remaining five management recommendations have not yet been fully implemented. However, NTSB has initiated actions that could lead to the full implementation of the remainder of the recommendations. For example, GAO offered suggestions in 2008 for improving NTSB's agencywide strategic plan, and NTSB is in the final stages of updating its strategic plan, which may address our comments by incorporating all five agency mission areas in its goals and objectives and obtaining comments from Congress or other external stakeholders potentially affected by or interested in the plan. In addition, NTSB has continued to improve its knowledge management by developing a plan to capture, create, share, and revise knowledge, and the agency is deploying Microsoft SharePoint® to facilitate sharing useful information within NTSB.

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[3] NTSB, *Annual Report to Congress 2008* (Washington D.C.: July 1, 2009).

[4] The Federal Information Security Management Act of 2002 (FISMA), Pub. L. No. 107–347, 116 Stat. 2899, 2946, codified as amended at 44 U.S.C. § 3541 *et seq.,* requires that each agency shall have performed an independent evaluation of the information security program and practices of that agency to determine their effectiveness. 44 U.S.C. § 3545(a)(1). Agencies that do not have an Inspector General, such as the National Transportation Safety Board (NTSB), shall engage an independent external auditor to perform the evaluation. 44 U.S.C. § 3545(b)(2). In Fiscal Years 2007 and 2008, NTSB contracted with Leon Snead & Company to perform the independent external audits. See Leon Snead & Company, P.C., *National Transportation Safety Board: Compliance with the Requirements of the Federal Information Security Management Act, Fiscal Year 2007* (Sept. 24, 2007), and *National Transportation Safety Board: Compliance with the Requirements of the Federal Information Security Management Act, Fiscal Year 2008* (Sept. 29, 2008). These audits, which were submitted to the Office of Management and Budget as required by FISMA, identified weaknesses in NTSB's compliance with FISMA requirements and included an assessment of the agency's actions to address recommendations in prior-year FISMA reports. Those prior reports include U.S. Department of Transportation, Office of Inspector General, *Information Security Program: National Transportation Safety Board*, Report No. FI–2006–001 (Washington, D.C.: Oct. 7, 2005); and *Information Security Program: National Transportation Safety Board*, Report No. FI–2007–001 (Washington, D.C.: Oct. 13, 2006).

In April 2008, we reported that NTSB had made significant progress in implementing our human capital planning recommendation by issuing a human capital plan that incorporated several strategies on enhancing the recruitment process but was limited in some areas of diversity management. As we have previously reported, diversity management is a key aspect of strategic human capital management. Developing a workforce that includes and takes advantage of the Nation's diversity is a significant part of an agency's transformation of its organization to meet the challenges of the 21st century. The most recent version of NTSB's human capital plan establishes goals for recruiting, developing, and retaining a diverse workforce, and NTSB provided diversity training to 32 of its senior managers and office directors in May 2009. Table 1 compares the diversity of NTSB's Fiscal Year 2008 workforce with that of the Federal Government and the civilian labor force.

Table 1.—NTSB, Federal Government, and Civilian Labor Force Diversity by Percentage, Fiscal Year 2008 [a]

	Fiscal Year 2008						
	African American	American Indian/ Alaska Native	Asian/Pacific Islander	Hispanic	White	Women	Men
NTSB	17.0%	1.0%	4.0%	2.0%	76.0%	38.0%	62.0%
Federal Government	17.9%	1.9%	5.4%	7.9%	66.6%	44.2%	55.8%
Civilian labor force [b]	10.0%	0.7%	4.3%	13.2%	70.7%	45.6%	54.4%

Sources: Federal Government and civilian labor force data are from the Office of Personnel Management's Fiscal Year 2008 Equal Opportunity Recruitment Program report. Data for NTSB are from the supplement to its strategic human capital plan.

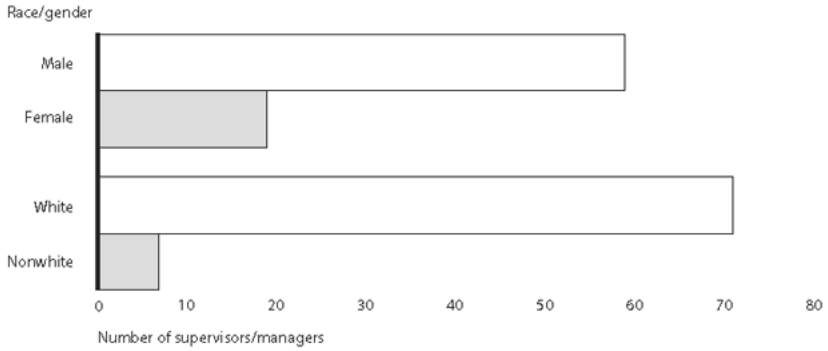
[a] This data represents the most recent data NTSB has issued on diversity.

[b] The civilian labor force is defined as persons 16 years and older (including Federal workers), regardless of citizenship, who are employed or looking for work and are not in the military or institutionalized. A minimum age of 18 years is required for most Federal employment.

As the table shows, the percentages of NTSB's Fiscal Year 2008 workforce that were women and minorities were lower than those of the Federal Government. Under the Office of Personnel Management's regulations implementing the Federal Equal Opportunity Recruitment Program, agencies are required to determine where representation levels for covered groups are lower than for the civilian labor force and take steps to address those differences.[5]

Additionally, as of Fiscal Year 2008, 9 percent of NSTB's managers and supervisors are minorities and 24 percent are women (see fig. 2). Furthermore, according to NTSB, none of NTSB's current 15-member career Senior Executive Service (SES) staff were members of minority groups, and only 2 of them were women. As we have previously reported, diversity in SES, which generally represents the most experienced segment of the Federal workforce, can strengthen an organization by bringing a wider variety of perspectives and approaches to policy development and decision-making.

Figure 2: Distribution of NTSB Supervisory or Managerial Positions, by Race and Gender, Fiscal Year 2008



Source: GAO analysis of NTSB data.

[5] The Equal Employment Opportunity Commission's Management Directive 715 provides guidance and standards to Federal agencies for establishing and maintaining effective equal employment opportunity programs, including a framework for Executive Branch agencies to help ensure effective management, accountability, and self-analysis to determine whether barriers to equal employment opportunity exist and to identify and develop strategies to mitigate or eliminate the barriers to participation.

NTSB has undertaken several initiatives to create a stronger, more diverse pool of candidates for external positions. These initiatives include the establishment of a Management Candidate Program that has attracted a diverse pool of minority and female candidates at the GS 13/14 level. NTSB's Executive Development Program focuses on identifying candidates for current and future SES positions at the agency. Despite these efforts, NTSB has not been able to appreciably change its diversity profile for minority group members and women.

NTSB's current workforce demographics may present the agency with an opportunity to increase the diversity of its workforce and management. According to NTSB, in 3 years, more than 50 percent of its current supervisors and managers will be eligible to retire, as will over 25 percent of its general workforce. Furthermore, 53 percent of its investigators and 71 percent of those filling critical leadership positions are at least 50 years of age. Although actual retirement rates may be lower than retirement eligibility rates, especially in the present economic environment, consideration of retirement eligibility is important to workforce planning.

NTSB Has Made Its Selection of Accident Investigations More Efficient, but Reporting Can Be Improved

We previously made four recommendations to NTSB to improve the efficiency of its activities related to investigating accidents, such as selecting accidents to investigate and tracking the status of its recommendations, and increasing its use of safety studies (see fig. 3).

Figure 3: Implementation Status of GAO Recommendations Related to NTSB's Accident Investigation Mission and Safety Studies

Area	GAO recommendation	Status in 2006	Status in 2008	Current status
Accident selection	Develop agency orders for all modes articulating risk-based criteria for selecting which accidents to investigate.	○	◐	●
Recommendation close-out	Computerize related documentation and use concurrent reviews.	○	◐	◐
Report development	Identify better practices in the agency and apply them to all modes.	○	◐	◐
Safety studies	Increase use of safety studies.	○	○	◐

○ New recommendation or limited progress
◐ Significant progress
● Fully implemented

Source: GAO analysis of NTSB data.

NTSB is required by statute to investigate all civil aviation accidents and selected accidents in other modes—highway, marine, railroad, pipeline, and hazardous materials.[6] Since our April 2008 report, NTSB has fully implemented our recommendation to develop transparent policies containing risk-based criteria for selecting which accidents to investigate. The recently completed highway policy assigns priority to accidents based on the number of fatalities, whether the accident conditions are on NTSB's "Watch List"[7] or whether the accidents might have significant safety issues, among other factors (see fig. 4). For marine accidents, NTSB has a memorandum of understanding (MOU) with the U.S. Coast Guard that includes criteria for selecting which accidents to investigate. In addition, NTSB has now developed an internal policy on selecting marine accidents for investigation. This policy enhances the MOU by providing criteria to assess whether to launch an investigation when the Coast Guard, not NTSB, would have the lead. In April 2008, we reported that NTSB had also developed a transparent, risk-based policy explaining which aviation, rail, pipeline, and hazardous materials accidents to investigate.[8]

[6] NTSB also has the authority to investigate any other accident related to the transportation of individuals or property when its board decides the accident is catastrophic or involves problems of a recurring character, or the investigation would help carry out NTSB authorities for accident investigation. 49 U.S.C. § 1131(a)(1)(F).

[7] The Watch List contains accident conditions that could either support previous NTSB recommendations or sustain issues being developed in accidents currently under investigation.

[8] NTSB conducts all of its marine, rail, pipeline, hazardous materials, and highway accident investigations at the scene of the accident. In contrast, for aviation accidents, NTSB conducts on-scene investigations of major accidents and more limited investigations of accidents not designated as major. NTSB defines a major accident as one that involves an issue that is related to a current safety study or special investigation, affects public confidence or transportation safety in a significant way, or is catastrophic.

Figure 4: Two NTSB Investigators Assess Motorcoach Wreckage

Source: NTSB.

The remaining three recommendations have not yet been fully implemented. However, NTSB has initiated actions that could lead to closure of the recommendations. NTSB is deploying an agencywide electronic information system based on Microsoft SharePoint that will streamline and increase NTSB's use of technology in closing out its recommendations and in developing reports. When fully implemented, this system should serve to close these two recommendations.

NTSB has also made significant progress in implementing our recommendation to increase its use of safety studies, which are multiyear efforts that result in recommendations. They are intended to improve transportation safety by effecting changes to policies, programs, and activities of agencies that regulate transportation safety. While we, the Department of Transportation, and nongovernmental groups, like universities, also conduct research designed to improve transportation safety, NTSB is mandated to carry out special studies and investigations about transportation safety, including studies about how to avoid personal injury.[9] Although NTSB has not completed any safety studies since we made our recommendation in 2006, it has three studies in progress, one of which is in final draft, and it has established a goal of developing two safety study proposals and submitting them to its board for approval each year. NTSB officials told us that because the agency has a small number of staff, it has difficulty producing large studies in addition to processing many other reports and data inquiries. NTSB officials told us they would like to broaden the term "safety studies" to include not only the current studies of multiple accidents, but the research done for the other smaller safety-related reports and data inquiries. Such a term, they said, would better characterize the scope of their efforts to report safety information to the public. NTSB also developed new guidelines to address its completion of safety studies. Congressional reauthorization is an ideal time to obtain stakeholder input on whether a change in terminology like this would meet NTSB's legislative requirement.

NTSB Has Increased Use of the Training Center

We made two recommendations for NTSB to increase its own and other agencies' use of the Training Center and to decrease the center's overall operating deficit (see fig. 5). The agency increased use of the center's classroom space from 10 percent in Fiscal Year 2006 to 80 percent in Fiscal Year 2009. According to NTSB, it has sub-

[9] 49 U.S.C. § 1116(b)(1).

lease agreements with agencies of the Department of Homeland Security (DHS) to rent approximately three-quarters of the classroom space located on the first and second floors. The warehouse portion of the Training Center houses reconstructed wreckage from TWA Flight 800, damaged aircraft, and other wreckage. The Training Center provides core training for NTSB investigators and trains others from the transportation community to improve their practice of accident investigation. Furthermore, NTSB has hired a Management Support Specialist whose job duties include maximizing the Training Center's use and marketing its use to other agencies or organizations. The agency's actions to increase the center's use also helped increase total Training Center revenues from about $635,000 in Fiscal Year 2005 to about $1,771,000 in Fiscal Year 2009. By reducing the center's leasing expenses—for example, by subleasing classrooms and office space at the center to other agencies—NTSB reduced the Training Center's annual deficit from about $3.9 million to about $1.9 million over the same time period.

Figure 5: Implementation Status of GAO Recommendations Related to Training Center Use

Area	GAO recommendation	Status in 2006	Status in 2008	Current status
Training Center	Maximize delivery of the core investigator curriculum at the Training Center.	○	◐	◐
	Develop plans to increase use of the Training Center.	○	◐	●

○ New recommendation or limited progress
◐ Significant progress
● Fully implemented

Source: GAO analysis of NTSB data.

NTSB has made significant progress in achieving the intent of our recommendation to maximize the delivery of its core investigator curriculum at the Training Center by increasing the number of NTSBrelated courses taught at the Training Center (fig. 6). For example in 2008, 49 of the 68 courses offered at the Training Center were solely for NTSB employees.

Figure 6: NTSB Training Center

Source: NTSB.

NTSB has fully implemented our recommendation to increase use of the Training Center. NTSB subleased all available office space at its Training Center to the Federal Air Marshal Service (a DHS agency) at an annual fee of $479,000. NTSB also increased use of the Training Center's classroom space and thereby increased the revenues it receives from course fees and rents for classroom and conference space. From Fiscal Year 2006 through Fiscal Year 2009, NTSB increased other agencies' and its own use of classroom space from 10 to 80 percent, and increased revenues by over $1.1 million. For example, according to NTSB it has a sublease agreement with DHS to rent approximately one-third of the classroom space. NTSB considered moving certain staff from headquarters to the Training Center, but halted these considerations after subleasing all of the Training Center's available office space. NTSB decreased personnel expenses related to the Training Center from about $980,000 in Fiscal Year 2005 to $507,000 in Fiscal Year 2009 by reducing the center's full-time equivalent positions from 8.5 to 3.0 over the same period. As a result of these efforts, from Fiscal Year 2005 through Fiscal Year 2009, Training Center revenues increased 179 percent while the center's overall deficit decreased by 51 percent. (Table 2 shows direct expenses and revenues for the Training Center in Fiscal Years 2004 through 2009.) However, the salaries and other personnel-related expenses associated with NTSB investigators and managers teaching at the Training Center, which would be appropriate to include in the Training Center's costs, are not included. NTSB officials told us that they believe the investigators and managers teaching at the Training Center would be teaching at another location even if the Training Center did not exist. Once NTSB has fully implemented its cost accounting system, it should be able to track and report these expenses.

Table 2.—Direct Expenses and Revenues for NTSB's Training Center, Fiscal Years 2004 through 2009 (unaudited)

	Fiscal year					
	2004	2005	2006	2007	2008	2009
Expenses						
Personnel related	$1,011,717	$978,591	$688,716	$466,582	$512,525	$506,503
Travel	$24,428	$56,912	$31,009	$22,284	$35,572	$32,678
Space rental [a]	$2,521,440	$2,500,896	$2,221,430	$2,286,660	$2,516,498	$2,342,653
Maintenance/repair of buildings [b]	$706,279	$238,203	$23,151	($4,215)		
Contract services	$2,204,880	$558,540	$287,873	$330,491	$635,300	$722,187
Miscellaneous expenses [c]	$42,258	$182,136	$57,099	$19,720	$77,399	$82,482
Total expenses	*$6,511,003*	*$4,515,279*	*$3,309,277*	*$3,121,521*	*$3,777,294*	*$3,686,503*
Total earned revenue [d]	*$258,760*	*$634,800*	*$651,191*	*$817,555*	*$1,630,910*	*$1,770,996*
Overall deficit	−$6,252,243	−$3,880,479	−$2,658,086	−$2,303,966	−$2,146,374	−$1,915,507
Deficit when space rental expense is excluded	−$3,730,803	−$1,379,583	−$436,656	−$17,306	−$453,737	−$354,584

Source: GAO analysis of information from NTSB.

[a] NTSB leases the Training Center from George Washington University under a 20-year capital lease that will expire in 2021.

[b] The amount reported in the maintenance and repair category during Fiscal Year 2007 includes a refund of $28,377 to NTSB because of a reconciliation of utility costs, as required by the lease. According to NTSB officials, in recent years, maintenance and repair expenses have been reported in the contract services category.

[c] Includes expenses for items such as telephone, mail, photography services, printing, office supplies and equipment.

[d] Earned revenue includes imputed fees for NTSB students and sublease fees.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions you or other Members of the Subcommittee may have at this time.

Senator DORGAN. Dr. Dillingham, thank you very much for being with us, and we appreciate the work that the Government Accountability Office does.

As you know, I have and my colleagues have a request in to you, March 10th request to the GAO about icing, and we are specifically asking—and we expect, of course, to get the report when you complete it—what current regulations and practices are in place to the aviation industry to prevent or mitigate the aircraft icing?

What roles do the NTSB and FAA have in developing and overseeing the implementation of aircraft icing prevention practices? To

what extent has the FAA adopted recommendations to prevent icing? Has the FAA identified compliance problems and so on?

So we are asking you all to do that. That is underway, as I understand it?

Dr. DILLINGHAM. Yes, sir.

Senator DORGAN. Your discussion this morning is how does the NTSB function, and you have made recommendations. It seems to me that your evaluation is that the NTSB is a pretty good organization, doing pretty well. When you have developed approaches that you think can improve the role—the functioning and the management, they have taken steps reasonably quickly to address them. So that is heartening.

Ms. Hersman, Chairman Hersman, let me ask you about cockpit voice recorders. Obviously, that question exists all over these days because you actually put out an advisory to the press that they were able to come and take photographs of the cockpit voice recorder the other day. And I saw the front page of a newspaper of a cockpit voice recorder photograph.

Thirty minutes on the plane that was flying an hour and a half. Tell me your impression of what should be done with respect to cockpit voice recording or image recordings to enhance safety.

Ms. HERSMAN. Chairman Dorgan, the Safety Board has made a number of recommendations and, with respect to the cockpit voice recorders, I can say there are some changes that are coming. Right now, they are solid state recorders that provide 2 hours of recording time. And in fact, before we got the recorders delivered to our office, we were questioning whether or not it was a 30-minute or a 2-hour recorder.

There is a requirement that FAA has put out that in 2010, new aircraft must be equipped with 2-hour voice recorders, and by 2012, all commercial aircraft will be required to be retrofitted with 2-hour voice recorders. The Safety Board also has recommendations with respect to video recorders in the cockpit. We are interested in trying to get more information from our accident investigations, and so we have made a recommendation about video recorders as well that has not yet been acted on.

Senator DORGAN. Is there currently a prohibition by the FAA that you are aware of with respect to the personal electronic devices or personal computers while flying an airplane?

Ms. HERSMAN. I believe that the FAA has a prohibition on operating electronic devices below 10,000 feet—the sterile cockpit rule. And we do know that this company had a policy against using personal computers on the flight deck.

Now we want to be a bit careful in this area because there is a lot that is going on with technology, a lot of improvements that are happening in the cockpit, and there are also approvals for equipment such as electronic flight bags, which, in essence, really are laptops. And those electronic flight bags may be used as an alternative to a hard copy flight manual. There are also charts and other aids that might be stored in these electronic flight bags.

And so, one of the things that we are very closely reviewing with respect to this incident investigation is on what this particular airline's company policies and procedures are. For those airlines that do use electronic flight bags and other electronic equipment on the

flight deck, how do they control their use, and what are their rules and regulations with respect to electronic flight bags?

Senator DORGAN. But when I dissect your answer, it sounds to me like there is a lot that needs to be done in this area because I think what you are saying is these are individual company policies. There is not a consistent FAA policy except for the sterile cockpit rule. We understand that. I mean, that doesn't just deal with electronics. That deals with discussions and visiting about other issues and so on.

Let me ask a couple of other questions. Then I will turn to my colleagues because I will be able to stay here until the end of this and include all my questions for you, if you have the time.

Operator fatigue in a number of areas, not just airlines, but a number of areas seems to be a consistent factor in accidents across all modes of transportation. Tell me the work that you are doing in those areas and the urgency with which you think that companies and—I should say agencies first and companies second are complying with that work, dealing with fatigue.

Ms. HERSMAN. Fatigue is really an insidious issue in the transportation industry. It has been on our Most Wanted List since the List's inception. In every accident that we investigate, we look for fatigue. Unfortunately, we do find these hallmarks of fatigue all too often.

We believe that the foundation of addressing fatigue is good hours-of-service regulations, making sure that people get adequate work-rest cycles. But we also think that a multi-pronged approach needs to be taken to fatigue. We need to make sure that anybody in the cockpit or in the locomotive cab or behind the wheel is well rested and ready for duty.

That also entails dealing with prescription drugs and over-the-counter drugs that might have a sedating effect, as well as dealing with medical issues that individuals might have, such as sleep apnea, which might lead to excessive daytime sleepiness. Those things need to be addressed so that people are alert when they are on duty.

We also have recommended that companies have policies that are nonpunitive. If people are tired or fatigued, they can call in and be marked as being off duty, without fear of being penalized for it. And so, we think a multi-pronged approach is best, and we have made a number of recommendations to that end.

This committee has actually been very helpful. Last year, you passed the Rail Safety Improvement Act, revising hours-of-service in the rail industry for the first time in decades. We know you are taking a close look at it on the aviation side as well, and we are encouraged by the interest in the work that the FAA is doing.

Senator DORGAN. One of the most significant issues here is enforcement, not just recommendations, but with what enforcement do we see the agencies and also the carriers implement recommendations.

Two other quick points. One, last evening, when I was doing some research on these issues on the Internet, I came across a description of the NTSB investigation of the crash of the charter flight by our late colleague Senator Wellstone, and it was pretty

unbelievable to me to read what I read last night. I had not previously read that.

But fatigue was a direct—I mean, there were errors in addition. But I mean, this is a commercial pilot that was flying our friend around, who had worked through half the night, then a 4-hour shift at a nursing home, and then got behind the controls of an airplane. Fatigue clearly played a role.

And the question is who is enforcing all these rules? I mean, when you get on an airplane, whether it is a charter plane or a commercial plane, is there adequate enforcement? Now just one very quick question, and then I am going to turn to my colleagues.

The families of victims of accidents I understand do not have a representative that participates in any NTSB investigation, while the carriers, in fact, with respect to an airline crash, airlines and aircraft manufacturers do have participants in the investigation because of their technical expertise and capability. I fully understand that.

Some have suggested to the Committee that victims' families should be allowed to have a technical expert participate on their behalf as well. Your impression of that?

Ms. HERSMAN. Senator, one of the things that we do in our party process is really draw on resources that we think can help us with our accident investigation. The only party to an aviation accident investigation that is required by statute is the Federal Aviation Administration. And so, we designate additional parties because we think they can assist us in the investigation.

We use our parties to conduct teardowns, to do simulations, to reconstruct the equipment, and to look at exemplar equipment. For example, in the WMATA accident investigation, we were able to take an exemplar train, and run it across those same tracks at the same time of day as the accident. We need the parties to look at some of the equipment, and we need their expertise. We need to talk to people who operate that aircraft every day and under the company's policies to understand what they know.

I am very respectful of the needs and desires of the families to get more information, and that is why I have really encouraged additional transparency and accountability. We will provide factual information when it becomes available early on in the investigation. We will open our dockets earlier, and we will make all of our dockets available on our website so that this information can be accessed by anyone.

We don't want to turn our investigations into an extension of litigation. We really want to make sure that we are trying to get to the issues that we need to get to and develop them. And we hope that we can be the best advocates for the public and the families, too.

Senator DORGAN. Thank you.

I have some additional questions, but let me go to my colleagues.

Senator DeMint?

Senator DEMINT. Thank you, Mr. Chairman.

Thank you both for your service. Chairman Hersman, just a couple of quick questions.

Often when I am calling a customer service department of a major company for some reason on the phone, before I get someone,

they will say, "this call may be recorded for quality purposes," which suggests many companies randomly review the calls to ensure the quality. And I know you made it very clear that the reason to investigate an accident after it happens is to try to keep those things from happening again.

And just for clarification for me, the current use of cockpit voice recorders, do airlines have access to randomly review cockpit conversations, or if an airline suspects problems in the cockpit, do they have access to review these recorders regularly for quality purposes?

Ms. HERSMAN. I think that would probably be a question best directed to the airline companies or to the FAA. The only way we really get involved is after an accident, and we have specific statutory guidance about how we handle cockpit voice recorders when we get them and how we protect the information they contain.

So our focus isn't necessarily on random monitoring. Our focus is more on post accident.

Senator DEMINT. So you don't know whether airlines can use the voice recorders as a way to prevent accidents. You just know it can be used once a crash occurs. Is that right?

Ms. HERSMAN. The way that the Safety Board uses them is post event, and I think it would be up to the airlines and their unions, as well as policymakers such as yourselves, to determine whether there needs to be an extension of that use.

Our position is that we want them for accident investigation purposes, and we want to be very careful not to create a chilling effect on anyone willing to discuss things in order to be helpful to our accident investigators.

Senator DEMINT. OK. All right.

Thank you, Mr. Chairman. That is all I have.

Senator DORGAN. Senator Lautenberg?

Senator LAUTENBERG. Thank you, Mr. Chairman.

I wanted to discuss several things in different modes of transportation. One of them, of course, is the problem that we find with crashes involving large trucks, and your agency estimates that between 30 and 40 percent of these crashes involve fatigue.

Now you are familiar with electronic onboard recorders and the desire to combat truck driver fatigue to make our highways safer. What is being done, to your knowledge, to implement those kinds of installations to make our roads safer?

Ms. HERSMAN. Specifically with respect to EOBRs?

Senator LAUTENBERG. The onboard computers and also to make certain that truck driver fatigue, that there is enough time between trips that makes—at least try to make certain that our people are not worn out before they start their route on a large truck.

Ms. HERSMAN. We have identified fatigue in a significant number of motorcoach and heavy truck accidents. Unfortunately, about 7 percent of drivers pulled over in random roadside inspections have violations of their hours-of-service log books. Either they are not keeping good log books or they have violated the hours-of-service requirement. Unfortunately, in accident investigations, we often find two sets of log books.

In a recent accident in Chelsea, Michigan, we found that the driver had the log books that he showed to the enforcement offi-

cials at the roadside inspections, but he also had a set of real log books where he actually kept track of his hours. We know that there are many challenges in the over-the-road trucking business. We believe, and we have commented to FMCSA that we believe, mandatory installation of electronic onboard recorders is essential for effective enforcement.

We believe that all vehicles need to be equipped with EOBRs. Unfortunately, the rule that the FMCSA has put forward is just a *de minimis* enforcement tool, where you have to be audited and get an unsatisfactory audit 2 years in a row in order to be required to have recorders.

Senator LAUTENBERG. So then might you make recommendations that would be a little more severe in terms of penalties, violations of those conditions? And also to insist that the onboard recorders be put into place, that people want to use the interstate highway system?

Ms. HERSMAN. We do have recommendations on the recorders that are on our Most Wanted List. We want them for all vehicles.

Senator LAUTENBERG. Someone is killed by a drunk driver every 45 minutes. One way to combat it is through the use of ignition interlocks, and an independent task force found that the ignition interlocks led to a decrease of 73 percent in the rearrest rate of drunk drivers when they had the device installed on their cars.

What effect might we get from mandating ignition interlocks for all of those convicted of drunk driving offenses and then to continue to reduce those repeat drunk driving incidents by having these things in place?

Ms. HERSMAN. The Safety Board recognizes that ignition interlocks are effective tools, and we have made recommendations to the states which are also on our Most Wanted List for a multi-pronged approach. Of that approach, ignition interlocks is one tool that they could use.

Senator LAUTENBERG. Yes, I know that you don't write legislation. But might we enlist your help? I wrote the law to raise the drinking age to 21. I subsequently wrote the .08 restriction for definition of driving under the influence. And we have saved 1,500 people a year. This has been going on since 1984 with the age restriction.

With that kind of a result, why wouldn't we insist that when there are opportunities to make it more difficult for those not well trained enough to make certain that we are on guard here, and the enforcement tools are really heavy, and there are penalties for not complying within states. That is how we got those two pieces of legislation into place.

Incentives didn't work, and right now, you know we are examining whether or not we go ahead and write law including incentives as opposed to punishment. And I think that the punishment side works in these cases.

Thank you. That was not a question, a statement.

Ms. HERSMAN. OK. Thank you.

Senator DORGAN. Senator Klobuchar?

Senator KLOBUCHAR. Thank you very much, Mr. Chairman.

My questions really start out—since the incident with the flyover started in Minnesota and somehow went to Wisconsin and came

back, I wondered, as you have released some preliminary investigation results here, if you have any safety recommendations that could come out of this. I know you discussed the nuances with laptops and the fact that there may be a good use for computers in the cockpit and the possibility of a ban, I suppose, on private use of laptops.

But my other question was about one of the things that may have happened here was the pilots just sort of disregarded—we are not sure because we don't have the final recommendations—disregarded the radio transmissions. Or didn't have—I don't know how that happened. They weren't responding to them. Would a chime or some kind of a loud buzzer in the cockpit have maybe alerted them so that they could have been more responsive and figured out what was going on here?

Ms. HERSMAN. This incident is still under investigation, so, I have to be careful not to comment specifically on it. But I can tell you that alerters are used consistently in the locomotive cabs of trains. We have made recommendations about alerters in trains because we have seen a lot of fatigue accidents in the rail industry.

With respect to aviation, we do know that there is technology in next-generation aircraft. I think it is really more focused on pilots who might be inattentive because they might be asleep or otherwise not paying attention.

There is alerter technology that can be used. If some of the devices are not touched within a certain period of time or there are no inputs, then a master caution or a warning light might come on to prompt them to respond.

Senator KLOBUCHAR. Right. If this was, in fact, distracted flying at 37,000 feet, I would think it would be helpful, as well, if they were not—somehow became engaged and weren't listening to those radio communications, if there were radio communications, I would think maybe some kind of a loud noise would have helped here. And I know, I am sure, for the flying public, they are thinking why would we even need this? But we are just trying to figure out ways to prevent this from happening again.

One question about the process here. And again, I have always said that I appreciate the NTSB's investigations. Is it normal to suddenly come out with preliminary—I am just used to being a prosecutor where you wait until the investigation is done, and then you put the complaint out there. And then everyone is comfortable with what the findings are.

And I know you have been doing this very quickly, which we appreciate. But is that the normal activity to do a preliminary and then do a final one a few days later or whenever you are done with it?

Ms. HERSMAN. One of the things that the Congress and the public expects from us, as Chairman Dorgan said, is whenever an accident occurs, the NTSB is on their way to investigate. And I think that people expect us to tell them what we find when we are there.

We release factual information. We don't release conclusions. We don't release probable cause. We don't release that type of information early on in the investigation. We release factual information only. The parties participate in the development of that factual information. When we launch an investigation, we have regular

meetings each day and go over the information that is collected throughout the day.

When I launched to the Hudson River midair collision in August, I did a press conference on scene within hours. I think that is what the public expects and demands from the Safety Board. We don't release conclusions, we release factual information.

I can tell you that, since becoming Chairman, I have pushed our staff for increased transparency, accountability, and integrity. What I want to see is the Safety Board release information quickly so the families and others have access to it, but also to issue timely recommendations. As soon as we find that there is a problem that we think we need to identify, we shouldn't wait a year or more to issue a recommendation.

Senator KLOBUCHAR. And along those lines, Chairman, how—and one of the frustrations that we have not necessarily with the NTSB, but just with the whole system, being here 2½ years, I think the average takes 3 to 5 years for some of these safety recommendations to be implemented. Again, we are still working some of the things that came out of the Buffalo flight and the training of regional pilots and the fatigue issue. What do you think we can to do improve that lag time?

Ms. HERSMAN. Well, actually, I think the Congress is probably one of the most important catalysts in improving the lag time for our recommendations to be implemented.

Senator KLOBUCHAR. Is that a nice way of saying the reason for the delay?

Ms. HERSMAN. Well, I would say that, frankly, the regulatory process itself, contributes greatly to the delays. We often see rulemakings take years. They send proposed rules to negotiated rulemaking committees, where they often sit for years. Sometimes they don't even come out with recommendations: they come out with no recommendations.

Senator KLOBUCHAR. Yes, I have actually heard people say it might be easier to do things legislatively than through the rulemaking process because the rulemaking process is so cumbersome. And you wish it should be the opposite, should take longer to pass a bill, I would think.

And so, you would suggest some kind of changes to the rulemaking process to make this easier?

Ms. HERSMAN. I think, given the frustration that everyone has on all sides of this issue, I think it probably would not be a bad idea to review the Administrative Procedures Act and try to understand why it takes so long for some of these rules to be completed. And it is not just at the FAA; it is across all model agencies.

Senator KLOBUCHAR. OK. Very good. Thank you very much.

Dr. DILLINGHAM. Senator, if I could?

Senator KLOBUCHAR. Oh, Dr. Dillingham, please. I am sorry.

Dr. DILLINGHAM. I just wanted to add to that that the Chairman mentioned that we were doing an icing, look at icing issues for this committee. A part of that study is to look at why it takes so long for NTSB rules to be implemented because the icing rules are 10 to 12 years old that were not implemented.

So, hopefully, as a product of the work that we are doing for this subcommittee, we will be able to add some insight into what might

be done to improve the rulemaking process and speed the action that NTSB offers.

Senator KLOBUCHAR. You said that was a 10- to 12-year delay on the deicing rules?

Dr. DILLINGHAM. It has been 10 or 12 years on the deicing rule, but it has been that long on a number of other rules as well.

Senator KLOBUCHAR. That is unbelievable. Thank you very much.

Senator DORGAN. And unacceptable. I mean, when we started, I talked about the 1999 upbraiding of the FAA by the NTSB, 10 years prior to the Colgan crash, on icing. And in fact, again, the NTSB specifically designated the Dash 8 as an example. So I mean, the Senator from Minnesota raises an important point.

Senator Begich? I am recognizing by the early bird rule. Senator Begich?

Senator BEGICH. Thank you very much. Thank you, Mr. Chairman.

I was just intrigued by the conversation that was just happening here, and I guess is there—you know, when we were looking at the amount of recommendations you all have been giving, at least our calculation, you do a fairly good job. About 82 percent of them are implemented. But there is a big chunk, which, when you tally it up, it is about 2,300, give or take a few, that have not been implemented.

With regards to the rules that are pending on regulations, is there kind of a master list that you maintain that are kind of high priority, that are ones that have been pending for a long period? I mean, is there such a document that exists that this committee can kind of review just to have a better understanding?

I know you have the Most Wanted List. I saw you grab that. But I mean of the kind of when it went into the system, why it is not out. I know you are going to do some piece of that. But is there something that—deicing is one. Of course, in Alaska, that is not only life and death, it is the way of life. We understand it very clearly, the importance of it from small planes to large planes.

But is there such a list that you have done or, Dr. Dillingham, you have done or will be doing?

Ms. HERSMAN. Senator, we have about 800 open recommendations right now, and about half of those are in the aviation area. Our Most Wanted List is a way we can prioritize for the public what recommendations we believe are important, and thus need to be implemented.

But certainly if there is an issue area, icing or another area that you are interested in, we can pull all of the accidents in that area——

Senator BEGICH. So those are available?

Ms. HERSMAN. Yes. We can get the oldest ones and get those for you, what is still open.

[The information referred to follows:]

Please see attached list of 32 open NTSB recommendations issued prior to 2000. The information includes the recommendation text, the date it was issued, the status of the recommendation, and a brief summary of the accident that prompted the recommendation.

Recommendation Report

Monday, November 30, 2009

Issue Date: 1/1/1967 –12/31/1999 Status: O* Addressee: FAA

Log Number 2392

Issue Date 3/25/1993

The National Transportation Safety Board has endorsed and strongly supported Federal Aviation Administration (FAA) and industry programs to develop and implement an airborne collision avoidance system that will function independently of, and serve as a safety back-up to, the ground-based air traffic control (ATC) system. The development program began in the late 1960s and, after undergoing many evolutionary changes in system design and technology, culminated in the FAA's committal to the current version of the traffic alert and collision avoidance system (TCAS) in 1981. The Safety Board was also supportive of the phased installation program for the TCAS II, established by regulation in April 1990, which requires that all large air carrier airplanes be equipped with the TCAS II by December 30, 1993.

	Overall Status	Priority
Recommendation # A–93–046	*OAAR*	*Class II*

The NTSB recommends that the Federal Aviation Administration: amend 14 CFR Parts 121, 125, and 129 to require Traffic Alert and Collision Avoidance System (TCAS) flight simulator training for flightcrews during initial and recurrent training. This training should familiarize the flightcrews with TCAS presentations and require maneuvering in response to TCAS visual and aural alerts.

FAA	Open Acceptable Alternate Response

Log Number 2479

Issue Date 3/2/1994

Since December 1992, there have been five accidents and incidents in which an airplane on approach to landing encountered the wake vortex of a preceding Boeing 757 (B–757). Thirteen occupants died in two of the accidents. The encounters, which occurred during visual conditions, were severe enough to create an unrecoverable loss of control for a Cessna Citation, a Cessna 182, and an Israel Aircraft Industries Westwind. Additionally, there were significant, but recoverable losses of control for a McDonnell Douglas MD–88 and a 8737 (both required immediate and aggressive flight control deflections by their flightcrews). Safety Board data show that between 1983 to 1993, there were at least 51 accidents and incidents in the United States, including the 5 mentioned above, that resulted from probable encounters with wake vortices. In these 51 encounters, 27 occupants were killed, 8 were seriously injured, and 40 airplanes were substantially damaged or destroyed.

	Overall Status	Priority
Recommendation # A–94–056	*OAA*	*Class III*

The NTSB recommends that the Federal Aviation Administration: require manufacturers of turbojet, transport category airplanes to determine, by flight test or other suitable means, the characteristics of the airplanes' wake vortices during certification.

FAA	Open—Acceptable Response

Log Number 2501

Issue Date 5/18/1994 *Guantanamo Bay CUB* *8/18/1993*

On August 18, 1993, at 1656 Eastern Daylight Time (EDT), a Douglas DC–8–61 freighter, N814CK, registered to American International Airways (AIA), Inc., d/b/a Connine Kalitta Services, Inc., and operating as AIA Flight 808, collided with level terrain approximately 1/4 mile from the approach end of runway 10, after the captain lost control of the airplane while approaching the Leeward Point Airfield at the U.S. Naval Air Station, Guantanamo Bay, Cuba. The airplane was destroyed by impact forces and post-accident fire, and the three flight crewmembers sustained serious injuries. Visual meteorological conditions prevailed, and an instrument flight rules (IFR) flight plan had been filed. The flight was conducted under 14 Code of Federal Regulations (CFR), Part 121, Supplemental Air Carriers, as an international, nonscheduled, military contract flight.

	Overall Status	Priority
Recommendation # A–94–107	*OAA*	CLASS II

The NTSB recommends that the Federal Aviation Administration: revise 14 CFR, Section 121.445, to eliminate subparagraph (c), and require that all flight crewmembers meet the requirements for operation to or from a special airport, either by operating experience or pictorial means.

FAA — Open—Acceptable Response

Log Number 2536

Issue Date 11/30/1994

The National Transportation Safety Board has had a longstanding interest in commuter airline safety and has issued safety recommendations in the past seeking various actions by government and industry to address needed safety improvements. The recommendations followed the Board's 1972 study of air taxi safety, its 1980 study of commuter airline safety, and investigations of accidents involving commuter airline operations, in response to the recommendations and through other initiatives taken by government and industry, regulatory revisions and other actions have resulted in a greatly improved safety record for scheduled passenger operations conducted under Title 14 Code of Federal Regulations (14 CFR) Part 135: the accident rate per 100,000 departures in 1993 was one-fourth the accident rate observed in 1980. In a 26-month period from December 1991 to January 1994, there were 14 fatal accidents involving scheduled commuter flights and commuter airline training flights; 56 persons were killed.

	Overall Status	Priority
Recommendation # A–94–194	*OUA*	*Class II*

The NTSB recommends that the Federal Aviation Administration: revise the Federal Aviation Regulations contained in 14 CFR Part 135 to require that pilot flight time accumulated in all company flying conducted after revenue operations-such as training and check flights, ferry flights and repositioning flights-be included in the crewmember's total flight time accrued during revenue operations.

FAA — Open—Unacceptable Response

	Overall Status	Priority
Recommendation # A–94–199	*OAAR*	*Class II*

The NTSB recommends that the Federal Aviation Administration: revise the certification standards for Part 25 and for Part 23 (commuter category) aircraft to require that a flight simulator, suitable for flightcrew training under Appendix H of Part 121, be available concurrent with the certification of any new aircraft type.

FAA — Open Acceptable Alternate Response

Log Number 2552

Issue Date 5/16/1995 — *Charlotte NC* — *7/2/1994*

On 7/2/94, about 1843 Eastern Daylight Time, a Douglas DC–9–31, N954VJ, operated by U.S. Air, Inc., as Flight 1016, collided with trees and a private residence near the Charlotte/ Douglas International Airport, Charlotte, North Carolina, shortly after the flightcrew executed a missed approach from the instrument landing system approach to Runway 18R. The captain, first officer, one flight attendant, and one passenger received minor injuries. Two flight attendants and 14 passengers sustained serious injuries. The remaining 37 passengers received fatal injuries. The airplane was destroyed by impact forces and a post-crash fire. Instrument meteorological conditions prevailed at the time of the accident, and an instrument flight rules flight plan had been filed. Flight 1016 was being conducted under 14 Code of Federal Regulations Part 121 as a regularly scheduled passenger flight from Columbia, South Carolina, to Charlotte.

	Overall Status	Priority
Recommendation # A–95–048	*OAA*	*Class II*

The NTSB recommends that the FAA: in cooperation with the National Weather Service, reevaluate the central weather service unit program and develop procedures to enable meteorologists to disseminate info about rapidly developing hazardous weather conditions, such as thunderstorm and low altitude windshear, to FAA TRACON's and tower facilities immediately upon detection.

FAA — Open—Acceptable Response

Log Number 2577

Issue Date 11/14/1995 — *Kansas City MO* — *2/16/1995*

On Thursday, 2/16/95, at 2027 Central Standard Time, a Douglas DC–8–63 N782AL, operated by Air Transport International (ATI), was destroyed by ground impact and fire during an attempted takeoff at the Kansas City International Airport, Kansas City, Missouri. The three flight crewmembers were fatally injured. Visual meteorological conditions prevailed, and an instrument flight rules flight plan was filed. The flight was being conducted as a ferry flight under Title 14 Code of Federal Regulations (CFR) Part 91.

	Overall Status	Priority
Recommendation # A–95–113	*OUA*	*Class II*

The NTSB recommends that the FAA: finalize the review of current flight and duty time regulations and revise the regulations, as necessary, within 1 year to ensure that flight and duty time limitations take into consideration research findings in fatigue and sleep issues. The new regulations should prohibit air carriers from assigning flightcrews to flights conducted under 14 Code of Federal Regulations (CFR) Part 91 unless the flightcrews meet the flight and duty time limitations of 14 CFR Part 121 or other appropriate regulations.

FAA — Open—Unacceptable Response

Log Number 2581

Issue Date 12/1/1995

The NTSB has had a longstanding interest concerning aviation safety in Alaska. One segment of Alaska aviation, the air taxi industry, was the subject of a special study published in September 1980. The Board concluded in the study that three factors contributed most to the high air taxi accident rates in Alaska: (1) the "bush syndrome," defined as an attitude of air taxi operators, pilots and passengers ranging from their casual acceptance of risks to their willingness to take unwarranted risks: (2) inadequate airfield facilities and inadequate communications of airfield conditions; and (3) inadequate weather observations, inadequate communications of the weather info, and insufficient navigation aids.

	Overall Status	Priority
Recommendation # A–95–124	*OUA*	*Class II*

The NTSB recommends that the FAA: require, 12/31/97, operators that conduct scheduled and nonscheduled services under 14 CFR Part 135 in Alaska to provide flightcrews, during initial and recurrent training programs, aeronautical decisionmaking and judgment training that is tailored to the company's flight operations and Alaska's aviation environment, and provide similar training for FAA principal operations inspectors who are assigned to commuter airlines and air taxi in Alaska, so as to facilitate the inspectors' approval and surveillance of the operators' training programs.

FAA — Open—Unacceptable Response

	Overall Status	Priority
Recommendation # A–95–125	*OUA*	*Class II*

The NTSB recommends that the FAA: develop appropriate limitations on consecutive days on duty, and duty hours per duty period for flightcrews engaged in scheduled and nonscheduled commercial flight operations, and apply consistent limitations in Alaska and the remainder of the United States.

FAA — Open—Unacceptable Response

Log Number 2529A

Issue Date 8/15/1996 — *Roselawn IN* — *10/31/1994*

On October 31, 1994, about 1600 Central Standard Time a Simmons Airlines Avions De Transport Regional ATR–72–210, operating as American Eagle Flight 4184, crashed into a soybean field 3 miles south of Roselawn, Indiana. The flight was on an instrument flight rules flight plan from Indianapolis, Indiana, to O'Hare International Airport, Chicago, Illinois, and had been placed in a holding pattern over Roselawn because of weather delays being experienced at O'Hare. The airplane's primary and secondary radar returns disappeared from the air traffic control radar shortly after the flight was cleared to continue the holding pattern and to descend from 10,000 to 8,000 feet. Witnesses observed the airplane descend out of a low overcast and strike the ground in a steep nose-down attitude. All 64 passengers and 4 crewmembers were killed in the accident. The Safety Board investigated one such event that occurred on December 22, 1988, at Mosinee, Wisconsin.

	Overall Status	Priority
Recommendation # A–96–051	*OAA*	*Class II*

The NTSB recommends that the FAA: revise the existing aircraft icing intensity reporting criteria (as defined in the Aeronautical Information Manual (AIM) and other FAA literature) by including nomenclature that is related to specific types of aircraft, and that is in logical agreement with existing Federal Aviation Regulations (FARS).

FAA Open—Acceptable Response

	Overall Status	Priority
Recommendation # A–96–054	*OUA*	*Class II*

The NTSB recommends that the FAA: revise the icing criteria published in 14 Code of Federal Regulations (CFR), Part 23 and 25, in light of both recent research into aircraft ice accretion under varying conditions of liquid water content, drop-size distribution, and temperature, and recent development in both the design and use of aircraft. Also, expand the Appendix C icing certification envelope to include freezing drizzle/freezing rain and mixed water/ice crystal conditions, as necessary. A–96–54 supersedes Recommendations A–81–116 and 118.

FAA Open—Unacceptable Response

	Overall Status	Priority
Recommendation # A–96–056	*OUA*	*Class II*

The NTSB recommends that the FAA: revise the icing certification testing regulation to ensure that airplanes are properly tested for all conditions in which they are authorized to operate or are otherwise shown to be capable of safe flight into such conditions. If safe operations cannot be demonstrated by the manufacturer, operational limitation should be imposed to prohibit flight in such conditions and flightcrews should be provided with the means to positively determine when they are in icing conditions that exceed the limits for aircraft certification.

FAA Open—Unacceptable Response

	Overall Status	Priority
Recommendation # A–96–058	*OAA*	*Class II*

NTSB recommends that the FAA: develop an icing certification test procedure similar to the tailplane icing pushover test to determine the susceptibility of airplanes to aileron hinge moment reversals in the clean and iced-wing conditions. Revise 14 CFR Part 23 and 25 icing certification requirements to include such a test.

FAA Open—Acceptable Response

	Overall Status	Priority
Recommendation # A–96–060	*OAAR*	*Class II*

The NTSB recommends that the FAA: revise 14 CFR Parts 91.527 and 135.227 to ensure that the regulations are compatible with the published definition of severe icing, and to eliminate the implied authorization of flight into severe icing conditions for aircraft certified for flight in such conditions.

FAA Open Acceptable Alternate Response

Log Number 2612

Issue Date 10/16/1996 *Buga COL* *12/20/1995*

On 12/20/95, about 2142 Eastern Standard Time, American Airlines (AAL) Flight 965, a regularly scheduled passenger flight from Miami, Florida, to Cali, Colombia, struck trees and then crashed into the side of a mountain near Buga, Colombia, in night, visual meteorological conditions, while descending into the Cali area. The airplane crashed 33 miles northeast of the Cali (CLO) Very High Frequency Omnidirectional Radio Range (VOR) navigation aid. The airplane was destroyed, and all but four of the 163 passengers and crew on board were killed.

	Overall Status	Priority
Recommendation # A–96–095	*OAA*	*Class II*

The NTSB recommends that the FAA: develop a controlled flight into terrain training program that includes realistic simulator exercises comparable to the successful windshear and rejected takeoff training programs and make training in such a program mandatory for all pilots operating under 14 CFR 121.

FAA Open—Acceptable Response

Log Number 2304A

Issue Date 10/18/1996 *Colorado Springs CO* *3/3/1991*

On March 3, 1991, at 0944 Mountain Standard Time, United Airlines Flight 585, a Boeing 737–291 airplane, crashed during an approach to the Colorado Springs, Colorado, airport. The crew of 5 and the 20 passengers were killed. The airplane was destroyed by the impact and a post-crash fire. The weather was clear with unlimited visibility. There were windshear reports during the day. At the time of the accident the surface winds were reported to be out of the northwest at 20 knots gusting to 28. The Safety Board has not determined the cause(s) of the accident and an investigation of airframe, operational and weather factors is continuing.

	Overall Status	Priority
Recommendation # A–96–120	*OUA*	

The NTSB recommends that the FAA: require 14 CFR Part 121 and 135 operators to provide training to flightcrews in the recognition of and recovery from unusual attitudes and upset maneuvers, including upsets that occur while the aircraft is being controlled by automatic flight control systems, and unusual attitudes that result from flight control malfunctions and uncommanded flight control surface movements.

FAA — Open—Unacceptable Response

Log Number 2654

Issue Date 9/9/1997 — *Miami FL* — *5/11/1996*

On 5/11/96, about 1415 Eastern Daylight Time, a McDonnell Douglas DC–9–32 crashed into the Everglades swamp shortly after takeoff from Miami International Airport, Miami, Florida. The airplane, N904VJ, was operated by Valujet Airlines, Inc., as Valujet Flight 592. Both pilots, the three flight attendants, and all 105 passengers were killed. Before the accident, the flightcrew reported to air traffic control that it was experiencing smoke in the cabin and cockpit. Visual meteorological conditions existed in the Miami area at the time of the takeoff. The destination of the flight was Hartsfield International Airport, Atlanta, Georgia. Flight 592 was on an instrument flight rules flight plan.

	Overall Status	Priority
Recommendation # A–97–071	*OUA*	

The NTSB recommends that the FAA: review the issue of personnel fatigue in aviation maintenance; then establish duty time limitations consistent with the current state of scientific knowledge for personnel who perform maintenance on air carrier aircraft.

FAA — Open—Unacceptable Response

Log Number 2653

Issue Date 8/29/1997 — *Flushing NY* — *10/19/1996*

About 1638 Eastern Daylight Time, on 10/19/96, a McDonnell Douglas MD–88, N914DL, operated by Delta Airlines, Inc., as Flight 554, struck the approach light structure and the end of the runway deck during the approach to land on Runway 13 at the LaGuardia Airport, in Flushing, New York. Flight 554 was being operated under the provisions of 14 Code of Federal Regulations (CFR) Part 121, as a scheduled, domestic passenger flight from Atlanta, Georgia, to Flushing. The flight departed the Williams B. Hartsfield International Airport at Atlanta Georgia, about 1441, with two flightcrew members, three flight attendants, and 58 passengers on board. Three passengers reported minor injuries; no injuries were reported by the remaining 60 occupants. The airplane sustained substantial damage to the lower fuselage, wings (including slats and flaps), main landing gear, and both engines. Instrument meteorological conditions prevailed for the approach to Runway 13; Flight 554 was operating on an instrument flight rules flight plan.

	Overall Status	Priority
Recommendation # A–97–092	*OUA*	

The NTSB recommends that the FAA: expedite the development and publication specific criteria and conditions for the classification of special airports; the resultant publication should include specific remarks detailing the reason(s) an airport is determined to be a special airport, and procedures for adding and removing airports from special airport.

FAA — Open—Unacceptable Response

	Overall Status	Priority
Recommendation # A–97–093	*OUA*	

The NTSB recommends that the FAA: develop criteria for special runways and/or special approaches giving consideration to the circumstances of this accident and any unique characteristics and special conditions at airport (such as those that exist for the approaches to runways 31 and 13 at Laguardia Airport) and include detailed pilot qualification requirements for designated special runways or approaches.

FAA — Open—Unacceptable Response

	Overall Status	Priority
Recommendation # A–97–094	*OUA*	

The NTSB recommends that the FAA: once criteria for designating special airports and special runways and/or special approaches have been developed as recommended in Recommendations A–97–92 and –93, evaluate all airports against that criteria and update special airport publications accordingly.

FAA — Open—Unacceptable Response

Log Number 2610B

Issue Date 4/7/1998 *East Moriches NY* *7/17/1996*

On 7/17/96, about 2031 Eastern Daylight Time, a Boeing 747–131, N93–119, operated as Trans World Airlines Flight 800 (TWA800), crashed into the Atlantic Ocean, about 8 miles south of East Moriches, New York, after taking off from John F. Kennedy International Airport (JFK), Jamaica, New York. All 230 people aboard the airplane were killed. The airplane, which was operated under Title 14 Code of Federal Regulations (CFR) Part 121, was bound for Charles de Gaulle International Airport (CDG), Paris, France. The flight data recorder (FDR) and cockpit voice recorder (CFR) ended simultaneously, about 13 minutes after takeoff. Evidence indicates that as the airplane was climbing near 13,800 feet mean sea level (MSL), an in-flight explosion occurred in the center wing fuel tank (CTW); the CWT was nearly empty.

	Overall Status	Priority
Recommendation # A–98–036	*OAA*	

The NTSB recommends that the FAA: conduct a survey of fuel quantity indication system probes and wires in Boeing 747s equipped with systems other than Honeywell Series 1–3 probes and compensators and in other model airplanes that are used in Title 14 Code of Federal Regulations Part 121 service to determine whether potential fuel tank ignition sources exist that are similar to those found in the Boeing 747. The survey should include removing wires from fuel probes and examining the wires for damage. Repair or replacement procedures for any damaged wires that are found should be developed.

FAA Open—Acceptable Response

	Overall Status	Priority
Recommendation # A–98–038	*OAA*	

The NTSB recommends that the FAA: require in Boeing 747 airplanes, and in other airplanes with fuel quantity indication system (FQIS) wire installations that are co-routed with wires that may be powered, the physical separation and electrical shielding of FQIS wires to the maximum extent possible.

FAA Open—Acceptable Response

	Overall Status	Priority
Recommendation # A–98–039	*OAA*	

The NTSB recommends that the FAA: require, in all applicable transport airplane fuel tanks, surge protection systems to prevent electrical power surges from entering fuel tanks' fuel quantity indication system wires.

FAA Open—Acceptable Response

Log Number 2706

Issue Date 7/10/1998 *Miami FL* *8/7/1997*

On 8/7/97, at 1236 Eastern Daylight Time, a Douglas DC–8–61, N27UA, operated by Fine Airlines Inc. (Fine Air) as Flight 101, crashed after takeoff from Runway 27R at Miami International Airport (MIA) in Miami, Florida. The three flightcrew members and one security guard on board were killed, and a motorist was killed on the ground. The airplane was destroyed by impact and a post-crash fire. The cargo flight, with a scheduled destination of Santo Domingo, Dominican Republic, was conducted on an instrument flight rules flight plan and operated under Title 14 Code of Federal Regulations (CFR) Part 121 as a supplemental air carrier.

	Overall Status	Priority
Recommendation # A–98–044	*OAA*	

The NTSB recommends that the FAA: require all 14 Code of Federal Regulations Part 121 air carriers to provide flightcrews with instruction on mistrim cues that might be available during taxi and initial rotation, and require air carriers using full flight simulators in their training programs to provide flightcrews with special purpose operational training that includes an unanticipated pitch mistrim condition encountered on takeoff.

FAA Open—Acceptable Response

	Overall Status	Priority
Recommendation # A–98–047	*OAAR*	

The NTSB recommends that the FAA: requiring training for cargo handling personnel and develop advisory material for carriers operating under 14 Code of Federal Regulations Part 121 and principal operations inspectors that addresses curriculum content that includes but is not limited to, weight and balance, cargo handling, cargo restraint, and hazards of misloading and require all operators to provide initial and recurrent training for cargo handling personnel consistent with this guidance.

FAA Open Acceptable Alternate Response

Log Number 2681

Issue Date 8/11/1998 *Najran SAU* *9/6/1997*

On 9/6/97, a Saudi Arabian Airlines (Saudia) Boeing 737–200, powered by two Pratt & Whitney (P&W) JT8D–15 engines, experienced an uncommanded acceleration of the No. 2 (right) engine during takeoff roll at Najran, Saudi Arabia. The captain reported that he noticed that the exhaust gas temperature (EGT) overtemperature light for the No. 2 engine was illuminated during the takeoff roll at approximately 110 knots. The captain reduced thrust on the No. 2 engine, but the EGT indication remained at the maximum EGT limit. The takeoff was rejected and the thrust levers were retarded to idle; however, the No. 2 engine remained at a high power level. Further attempts to retard the power were unsuccessful and the airplane departed the left side of the runway, resulting in damage to the landing gear and separation of the No. 2 engine. Four of the 79 passengers sustained minor injuries during the evacuation, and the airplane was destroyed by a post-crash fire. The NTSB is participating in the Presidency of Civil Aviation of the Kingdom of Saudi Arabia's investigation in accordance with provisions of Annex 13 to the Convention on International Civil Aviation.

	Overall Status	Priority
Recommendation # A–98–070	*OAA*	

The NTSB recommends that the FAA: in conjunction with representatives from engine and airframe manufacturers and pilot groups, address the issue of automatic engine response following the loss of inputs such as the N2 signal by studying events in which uncommanded and uncontrollable engine power excursions have occurred and, based on the results of the study, make appropriate recommendations that address the following: (1) automatic engine response following the loss of certain inputs; and (2) crew operating and training issues related to uncommended engine power excursions in which the throttle is ineffective.

FAA Open—Acceptable Response

Log Number 2726

Issue Date 11/4/1998 *Asheville NC* *7/31/1997*

On 7/31/97, the Atlanta Air Route Traffic Control Center (ARTCC) reported an operational error resulting from its issuance of a clearance to Atlantic Southeast Airlines Flight 805 to descend below the minimum instrument altitude (MIA) applicable to the area southwest of Asheville, North Carolina. The pilot received a ground proximity warning and climbed back to safe altitude, reporting the incident to Atlanta ARTCC after landing. The NTSB requested info on this incident including a copy of the Atlanta ARTCC MIA chart for the Asheville area. Inspection of this chart, used by controllers to determine safe operating altitudes for aircraft operating under instrument flight rules (IFR), revealed apparent noncompliance by the Atlanta ARTCC with various FAA handbooks and orders.

	Overall Status	Priority
Recommendation # A–98–082	*OUA*	

The NTSB recommend that the FAA: review all en route minimum instrument altitude charts and associated National Airspace System adaptation to ensure that air traffic control (ATC) facilities comply with FAA orders 7210.3, 7210.37,8260.3, and 8260.19 and that pilots comply with 14 Code of Federal Regulations Part 91.177 when operating at ATC-assigned altitudes.

FAA Open—Unacceptable Response

Log Number 2630A

Issue Date 11/30/1998 *Monroe MI* *1/9/1997*

On January 9, 1997, an Empresa Brasileira de Aeronautica, S/A (Embraer) EMB–120RT, operated by COMAIR Airlines, Inc.. crashed during a rapid descent after an uncommanded roll excursion near Monroe, Michigan. The flight was a scheduled, domestic passenger flight from the Cincinnati/Northern Kentucky International Airport, Covington, Kentucky, to Detroit Metropolitan/Wayne County Airport, Detroit, Michigan. The flight departed Covington with 2 flightcrew, 1 flight attendant, and 26 passengers on board. There were no survivors. The airplane was destroyed by ground impact forces and a post-accident fire. IMC prevailed at the time of the accident, and the flight was operating on an IFR flight plan. The probable cause of this accident was the FAA's failure to establish adequate aircraft certification standards for flight in icing conditions.

	Overall Status	Priority
Recommendation # A–98–089	*OAA*	

The NTSB recommends that the FAA: require principal operation inspectors (POIs) to discuss the information contained in airplane flight manual revisions and/or manufacturers' operational bulletins with affected air carrier operators and, if the POI determines that the information contained in those publications is important information for flight operations, to encourage the affected air carrier operators to share that information with the pilots who are operating those airplanes.

FAA	Open—Acceptable Response	
	Overall Status	Priority
Recommendation # A–98–096	*OUA*	

The NTSB recommends that the FAA: require the manufacturers and operators of all airplanes that are certificated to operate in icing conditions to install stall warning/protection systems that provide a cockpit warning (aural warning and/or stick shaker) before the onset of stall when the airplane is operating in icing conditions.

FAA	Open—Unacceptable Response	
	Overall Status	Priority
Recommendation # A–98–102	*OAA*	

The NTSB recommends that the FAA: require air carriers to adopt the operating procedure contained in the manufacturer's airplane flight manual and subsequent approved revisions or provide written justification that an equivalent safety level results from an alternative procedure.

FAA	Open—Acceptable Response	

Log Number 2547B

Issue Date 4/16/1999	*Aliquippa PA*	*9/8/1994*

On 9/8/94, about 1903:23 Eastern Daylight Time, USAir (now U.S. Airways) Flight 427, a Boeing 737–3B7 (737–300), N513AU, crashed while maneuvering to land at Pittsburgh Int'l. Airport, Pittsburgh, PA. Flight 427 was operating under the provisions of 14 Code of Federal Regulations (CFR) Part 121 as a scheduled domestic passenger flight from Chicago-O'Hare Intl. Airport, Chicago, IL, to Pittsburgh. The flight departed about 1810, with 2 pilots, 3 flight attendants, and 127 passengers on board. The airplane entered an uncontrolled descent and impacted terrain near Aliquippa, PA. All 132 people on board were killed, and the airplane was destroyed by impact forces and fire. Visual meteorological conditions prevailed for the flight, which operated on an instrument flight rules flight plan.

	Overall Status	Priority
Recommendation # A–99–022	*OAA*	

The NTSB recommend that the FAA ensure that future transport-category airplanes certificated by the FAA provide a reliably redundant rudder actuation system.

FAA	Open—Acceptable Response	
	Overall Status	Priority
Recommendation # A–99–023	*OAA*	

The NTSB recommend that the FAA: amend 14 Code of Federal Regulations Section 25.671(c)(3) to require that transport-category airplanes be shown to be capable of continued safe flight and landing after jamming of a flight control at any deflection possible, up to and including its full deflection, unless such a jam is shown to be extremely improbable.

FAA	Open—Acceptable Response	

Total Number of Recommendations for Recommendation Report: 32

Senator BEGICH. I guess that is where I would like to go, and I don't know, in your study in regards to the deicing, I would be curious kind of what that batch of the oldest are, just to get an understanding. But it is outrageous that it takes that long, and part of me says give us the list and let us figure out how to legislatively change it.

The system needs to be changed. There is no question about it. I mean, based on just this brief conversation here, it is clear to me that the process is overburdened, and it is basically putting people at risk because the business you are in, in the sense of making recommendations to make transportation in all modes safer, it would be logical that we would want those implemented faster.

So let me, if I can, go to the cockpit recorder. I am just—if I can put that comment, then let me go to the question first on the—I am not as familiar with the technology that is utilized for truckers and what you are trying to mandate there. Can you explain that

onboard computer system? What does it track? Just so I understand.

Ms. HERSMAN. The electronic onboard recorders for the trucking industry are really meant to monitor hours-of-service, how many hours drivers are working——

Senator BEGICH. So the vehicle is in motion?

Ms. HERSMAN. Yes, when the vehicle is in motion. There are some algorithms that account for time if they are stopped in traffic and such.

Senator BEGICH. Sure.

Ms. HERSMAN. But the recorder is on.

Senator BEGICH. OK. And then back to the cockpit recorder, is there—I mean 2 hours seems, and maybe it is just because I fly a little more distance than most, 2 hours seems to be such a short period when you include time on the ground when you land, time on the ground when you take off, and then the in-between travel time. And I think you said it is about a 3-year, what was the timetable before it starts being implemented to upgrade the system?

Ms. HERSMAN. For new aircraft, 2010. And for retrofit, 2012.

Senator BEGICH. It seems, now maybe I am wrong, the technology seems so easy to get. I mean, I just know what equipment I get just for my own personal use and business use, why for the retrofit it takes long, that period of time. I understand the new ones. That is easier. That is next year, which is great. Why longer for retrofitting?

Then the second piece is why not longer than 2 hours? I mean, my little video camera can do a lot of stuff for hours and hours. My police officers, when I was mayor, the amount of capacity they could record was unbelievable on a simple DVD that we used multiple times for court cases.

Ms. HERSMAN. It is amazing, and I think it changes every day. Every year we have better technology available to us. We used to only record eight parameters on the flight data recorders. Now we have hundreds or thousands every time we pull a flight data recorder.

Senator BEGICH. Right.

Ms. HERSMAN. So the capacity is there. I think for our investigators, we have operated with a maximum of 30 minutes recording time for so long that 2 hours really seems like a great deal to us. We were very excited to get 2 hours, and frankly, for most accident situations, 2 hours will give us what we need.

Senator BEGICH. Enough information?

Ms. HERSMAN. What we need, yes. Because usually when we are looking at an accident, we are not necessarily always looking at the taxi time back to the gate and things like that.

Senator BEGICH. Got you.

Ms. HERSMAN. But in this situation, yes, that 30 minutes was eaten up by that approach to Minneapolis.

Senator BEGICH. Right.

Ms. HERSMAN. So the actual event period wasn't recorded.

Senator BEGICH. So 2 hours seems adequate at this point, based on what you are trying to accomplish?

Ms. HERSMAN. Yes, sir.

Senator BEGICH. Let me end on this question, and this is on a whole—and if you don't have an answer right away, I would be interested in this for the record. And that is, as laid out by Dr. Dillingham, the age of your workforce, which is not uncommon for most Government agencies, but specifically yours is a highly trained, sophisticated, and technical workforce, I would be curious. And you don't have to do it right now if it is a prolonged answer, and that is what are the steps you are taking to start bringing in a new workforce to replace that, which may require overlapping workforce, which may mean your budgets may have to be adjusted up for a period of time to require that overlap period while you are transitioning out of one group that is retiring to a new group that is in?

Because the way budgets usually work is you budget them for a certain amount of personnel. When those personnel leave, then you hire new ones. The problem here is 50 percent of your workforce, you want to transition that technology, that knowledge to a new workforce. So does your budgets reflect that, and do you have a robust training program to deal with that?

Ms. HERSMAN. I will try to answer you quickly, but if you want more detail, we can get back to you in writing.

[The information referred to follows:]

The NTSB has included 20 student positions in its optimum staffing level of 477. These positions would be used to bring in graduate students to our lab and our modal offices to "learn the business" as part of our long-term staffing strategy. NTSB also needs to be able to hire more senior staff to bring in expertise in newer technologies from industry and academia.

The NTSB has made steady progress in building our staffing level since 2007. Prior to that, level funding combined with across-the-board rescissions, pay raises, and inflation required reductions from the 427 on-board staff level in early 2003. The NTSB does not have the flexibility to offset mandatory cost increases or funding reductions by cutting programs. Approximately 90 percent of our budget covers salaries, benefits and infrastructure costs. The NTSB also anticipates a significant increase in our rent when the headquarters lease expires in 2010.

Appropriations that fail to cover mandatory pay raises and inflation can only be accommodated through staffing reductions. Strategies under consideration to deal with Federal deficits include reductions to appropriation requests for Fiscal Year 2011, which may have a negative impact on NTSB's succession planning efforts.

Senator BEGICH. Good. Great. Thank you.

Ms. HERSMAN. We do have plans for succession planning and, in fact, I think we are working very actively on those right now because many of our senior staff have plans to retire soon. So, we really have to think about that.

We are trying to have more diverse recruiting, too. But we have to follow Federal hiring rules, and also we can't double encumber those positions. And so, as a former mayor, you probably understand that I am not allowed to hire someone for a slot until the person who is holding that slot leaves.

Senator BEGICH. Unless you get budgetary authority to do that?

Ms. HERSMAN. Well——

Senator BEGICH. OK. That is all. I understand. Because without that, you are not going to be able to transition that knowledge.

Ms. HERSMAN. Yes. We have real traditional challenges because we can't begin the hiring process to replace our subject matter experts until they are gone. And so, we are at a loss until their replacements are hired and in place.

Senator BEGICH. Thank you very much.

Thank you, Mr. Chairman.

Senator DORGAN. Thank you, Senator Begich.

Senator Hutchison?

Senator HUTCHISON. Thank you, Mr. Chairman.

I just want to ask Ms. Hersman, the Board has recommended that Congress expand the Board's responsibilities by explicitly authorizing the Board to investigate incidents as well as accidents. I have a press release from the Airline Pilots Association in which the Airline Pilots Association says, "The NTSB is an independent Federal agency charged with determining the probable cause of transportation accidents and promoting transportation safety. They are not charged with prematurely releasing self-disclosed information to be sensationalized in the press."

Now this is in response to the Minneapolis airport incident about which we have all heard. Do you feel like your request from the Board to investigate incidents would give you the authority to acknowledge something like this incident where the pilots apparently were distracted? Would the NTSB be able to go in and make a recommendation even though there was no accident?

Ms. HERSMAN. Thank you for that question, Senator, because I think there has been a lot of confusion in the press this week. And I do think that Congress's original intent for the Safety Board was for us to look at any accident or incident that could help prevent loss of life or improve transportation safety.

And in our statute, it is not explicit, and I think that is why we are asking for this authority. There are references to accidents and incidents and drug testing provisions and the cockpit voice recorder provisions in the Safety Board statute, as well as a requirement for us to establish what is defined as an accident or an incident.

And so, it is clear that there was some intent to include incidents. We think if it were included in our general authority, it would make it clear to everyone. Historically, we have investigated incidents. This past week, we launched on two incidents that didn't result in fatalities or damages. One was the Minneapolis incident that you all are talking about. The other was a 767 that landed on a taxiway in Atlanta.

And so, we are investigating incidents. We do that all the time. That is how runway incursions came to be included on our Most Wanted List. While they may not result in an accident, we no the less investigate them, whether they are near misses in midair or on the ground.

We think that it is important that we continue to investigate incidents. We can learn so much more by talking to people who witnessed the incident than by having to try to piece it together from CVRs.

Senator HUTCHISON. I see that point and I appreciate it, and I think that we should be more clear because, of course, we want to prevent the accidents before there are fatalities. And so, that should be a clear part of your goals.

Let me ask you this. You also have said that you are recommending, that the Board's responsibility to investigate rail accidents be limited only to those accidents in which there are numerous fatalities or significant accident involving a passenger train.

Now, with that proposal, you are looking at maybe taking away some of the responsibility that doesn't give you flexibility. Could you expand on why you are asking for that responsibility to be lessened, and what is causing that? Do you have too many employees having to go to accidents that you don't think are accidents in which you can make a recommendation? Tell me why you are doing that.

Ms. HERSMAN. We don't know whether we are going to find an issue until we go. Our biggest challenge is really resources. Right now, we are not going to all of the statutorily required launches on rail accidents. We just don't have the resources.

We have 13 rail investigators, and they are investigating transit accidents from the WMATA crash to the Chatsworth crash. They are looking at freight train accidents as well as transit property events.

And so, we just don't have the resources to go to every rail accident. Right now we are required to report to Congress on all of the rail launches that we don't go on that are statutorily required. We are simply asking for more flexibility in deciding which accidents we do go to, like we have in the highway arena. But certainly, it is up to the Congress in our reauthorization to give us your direction and priorities.

Senator HUTCHISON. Thank you.

Thank you, Mr. Chairman.

Senator DORGAN. Thank you.

Senator Snowe?

STATEMENT OF HON. OLYMPIA J. SNOWE, U.S. SENATOR FROM MAINE

Senator SNOWE. Thank you, Mr. Chairman.

And thank you both for being here today.

To get back to the Most Wanted List, Chair Hersman, because I think that really that underscores some of the fundamental issues we are facing. And first of all, I agree with you about shortening the timespan between the accident and providing recommendations, if it is at all possible. I think that that is important.

But second, what concerns me is the sort of culture that has emerged where the FAA doesn't seem to be responsive or need to be responsive to the recommendations that are made by the NTSB. I know you probably get a return letter saying thank you very much for your recommendation, and that is about the size of it.

That is disconcerting when you think about your Most Wanted List of which there are six unacceptable responses, several of which obviously have been fundamental to key accidents, aviation accidents and, tragically, in recent times.

So, can you give me an idea of what occurs between the NTSB and the FAA in this regard? I mean, for example, Senator Boxer and I have introduced legislation as part of the FAA reauthorization to require a response on the part of the FAA to specifically respond to each and every recommendation and to make it public, which I think at the very least needs to occur.

But there needs to be accountability and responsibility for each of these recommendations and how the FAA either responds to them or doesn't respond to them. But what can you tell me from

your experience, having been on the Board, I know just most recently as Chair, about what is the relationship between the NTSB and the FAA in that regard?

Ms. HERSMAN. I think it is always challenging for us. We have to have a good tension between us asking them to do things and their having to prioritize what we ask them to do. And we have about 400 open recommendations to the FAA. So, they really have to prioritize, and that is up to them.

We try to prioritize on our Most Wanted List and say we know you have got a lot to do, but do these first. So it is a challenge for the FAA, and I think probably you may want to ask them how they prioritize.

But I think for us, we really have appreciated the accountability that the Congress has provided by holding the FAA's feet to the fire. I can say that we have had good interaction with Administrator Babbitt thus far. He has taken quick action on a number of issues that we have brought to his attention. We would like to see that continue.

Senator SNOWE. Well, I think it is important, and I do agree with you. I think we have to assume some of the responsibility for that as well to make sure it happens and require them to be responsive to those——

Senator DORGAN. Senator Snowe, would you yield on that point?

Senator SNOWE. Yes, I would be glad to.

Senator DORGAN. As you know, Administrator Babbitt has been in front of us in these safety hearings, and he has made representations about what he is going to do. He is new to this.

Senator SNOWE. Right.

Senator DORGAN. But we are going to call him back in front of the Committee in the near future and ask, all right, you have made certain representations about what you are doing. Let us find out what you did. We do want to keep pressure on the agency here with respect to these recommendations. I just wanted to alert you that we will be having that hearing.

Senator SNOWE. I appreciate that. No, that is excellent. I think we do have our role to play, and I appreciate the vigorous oversight that you are providing, Mr. Chairman, because I do think it is crucial. If you think that two of the four recommendations we include in our legislation, they were the potential causes of the previous fatal accidents that were so tragic.

And so, we have to be very proactive in that regard and make sure that you have the resources. Do you have the level of resources necessary to do the investigations, for example? I notice that on the report, your predecessor testified before this committee in June and commented there were no resource issues surrounding the investigation of the Buffalo crash, 3407. And yet this report isn't coming out until March.

And I understand that the reason for that delay is because there is a lack of resources. Is that true? Do you have sufficient resources to do what you need to do?

Ms. HERSMAN. I think we could certainly use more resources. We are down 33 employees from where we were just a few years ago. For an agency our size—we only have 390 people right now—that is almost 10 percent of our employees, and we have more and more

to do every year. The investigation of accidents is increasingly more complex, and technical.

In the 5 years that I have been at the Safety Board, the number of recording devices that have been read in our lab has doubled, and our lab has fewer staff to do that work now. And so, we have significant challenges.

Senator Snowe, I want to let you know that one of the priorities that I have is to complete the Buffalo accident investigation within a year. And so, our staff and our management team are working very hard to reallocate resources and support to accomplish that.

And so, but what that means is that means other investigations may have to move to the back burner as we pull some staff on to push this one forward.

Senator SNOWE. Well, I appreciate that very much, and we appreciate the work that you are doing. And also I think being emphatic about what are the key priorities because that is always difficult to do when you are talking about the numerous recommendations.

For example, in aviation, out of the 800 recommendations across all modes of transportation, half of them are related to aviation. That is substantial. So that is why this is very helpful and at least identifying the crucial ones, and of the six, I mean, they are all unacceptable responses in terms of the FAA taking aggressive steps to accommodate and to respond to that. So that is unfortunate.

But we appreciate your work. Thank you.

Ms. HERSMAN. Thank you.

Senator DORGAN. Senator Snowe, thank you very much.

Senator Begich, do you have additional questions?

Senator BEGICH. Just very quick ones, if I could? One to follow up on Senator Snowe's question regarding the requirement that we are putting into—which they have put into the FAA bill regarding that they need to respond in detail. Do you think we should do the same thing with the Coast Guard, the motor carrier safety, national highway safety pipeline, have the same thing?

In other words, should we have that same requirement to know what they are doing?

Ms. HERSMAN. Anything that you can do to help get our recommendations implemented would be appreciated.

Senator BEGICH. OK. And the last question for me at this point, and that is a follow-up again on the resources. I always view resources two points. One is financial resources, and then you may have those financial resources, but do you have the capacity to ensure that you have the people to do the work?

So, in other words, first, on the financial resources, to follow up and make sure I am clear on that. Do you believe the numbers that I have seen in the documents here, do you believe that amount is what you need? Or do you have higher requests? I understand OMB and all that stuff. I am looking at you from an agency standpoint.

Do you need additional cash resources? And then do you believe you can get the talent in the marketplace to fill those spaces that that money would buy?

Ms. HERSMAN. On the first question, the Safety Board is very fortunate. We have a dual report. We get to report to the Congress

and to the Executive Branch. I can tell you that our request for funding this year was $20 million higher than the OMB passed back to us. And so, for financial purposes, we need more money. We are down 33 staff from where we were a few years ago. We need more money.

As for attracting new talent, I can tell you that we have posted for positions to be filled and received many responses. For one position, we have hundreds of applications. So, we have no problem attracting talent. People want to come work for the Safety Board. For many of them, it is their life's goal to come work at the Safety Board.

We are so fortunate. We have such an incredible staff who love what they do and are so perfectly suited to do those jobs. We can get the people if we get the money.

Senator BEGICH. OK, and your delta was about $20 million. Is that right?

Ms. HERSMAN. Yes, in the passback that we got from OMB. But our House and Senate appropriations marks were higher than the President's budget this year. So we are waiting for the conference.

Senator BEGICH. But not the full $20 million?

Ms. HERSMAN. No.

Senator BEGICH. OK. Thank you very much.

Thank you, Mr. Chairman.

Senator DORGAN. Senator Begich, thank you very much.

I think the resource question is really very important because we have more people traveling, more complex transportation systems out there, and there are plenty of reasons and ways to save money here at the Federal level. Lord knows there is plenty of waste. But it seems to me scrimping on the issue of safety is a pretty unwise selection, and so we want to work with you on that.

Describe for me the history of when the NTSB employment was reduced, that the FTEs were reduced and why. Do you have some notion of that?

Ms. HERSMAN. I do, and we can provide you a chart on that.

[The information referred to follows:]

The following chart provides staffing by Fiscal Year since our staffing high point in 2003:

FY 2003	427
FY 2004	421
FY 2005	417
FY 2006	387
FY 2007	377
FY 2008	388
FY 2009	393

I think it is just that, over time, our FTE numbers have not been able to keep pace because the dollar amounts have not increased. All of our budget is really for salaries. We don't do grants. We don't have a research budget.

And so, because the majority of our budget is salaries, the years, when we were flatlined, resulted in a reduction in employees for us.

Senator DORGAN. Let me ask about the area of airline parts and the issue of counterfeit parts, which is, of course, a significant concern and safety issue, and also the issue of repair stations in Third

World countries. Is that something that the NTSB looks at, or is that something left to others?

Ms. HERSMAN. We have not yet looked at it. But if there were an accident where that was an issue, you can be sure we would follow through on it. But generally, our investigations follow whatever the issues are that develop within that investigation.

The last time we had an issue with a third-party maintenance operation was in the Charlotte accident, where there was some maintenance done at a repair station. But it was a domestic one. They misrigged the elevator cables, and we addressed that in that. But it was a domestic repair station.

Senator DORGAN. I asked the question not to imply that foreign repair stations necessarily are of lesser quality than domestic repair stations, but in a book I wrote some while ago, a few years ago, I pointed out that one of our carriers flies empty 320 Airbuses to El Salvador for their maintenance. Then they fly them back empty. And presumably, the purpose of that is they can get much lower cost maintenance.

And the question is in some of those areas where you have that kind of outsourcing to Third World countries, is the supervision, is the attentiveness to the same quality workforce, and so on, is it what we would expect if it were done in this country?

And I don't know who is looking at that. I guess I am just asking the question is that something that you all take a look at?

Ms. HERSMAN. It is not something that we have looked at yet. But as I said, if it becomes an issue in an incident or an accident that we investigate, we will take a look at it. I have read——

Senator DORGAN. Who does look at it then?

Ms. HERSMAN. The DOT IG has done some work on that, and I have reviewed their work. But we have not yet done anything on that.

Senator DORGAN. In the transportation systems—trucking, bus, railroads, airlines, and so on—what do you think from a safety standpoint at this point needs the greatest attention? Is there one area of transportation that you think has less attention paid to it from the standpoint of safety and needs more attention from you and from us?

Ms. HERSMAN. You are talking about from mode to mode?

Senator DORGAN. Mode to mode.

Ms. HERSMAN. Absolutely. About 40,000 people are killed on the highways every year. Ninety-five percent of our transportation fatalities occur on the highways, yet we get a lot of attention for an aviation accident. Many more people are killed on our Nation's highways, yet we hear little about those accidents.

Highway accidents are preventable. Senator Lautenberg was just talking about drunk driving, seatbelt use, making sure that children are restrained appropriately in size and age-appropriate restraints are among so many things that can be done. Distractions, those are issues that Congress is addressing, which is very important.

We need to keep the pressure on highway safety because that is the mode in which we lose the most people; these deaths occur one or two at a time, so people don't pay much attention to it. I heard on the radio recently that we lost two people in Baltimore to the

H1N1 virus. But how does that compare to the many people we have lost in highway accidents this year, and no one is talking about that.

Senator DORGAN. But you are not going out investigating highway accidents, are you, at the NTSB?

Ms. HERSMAN. We can, and we do. But that is a mode where we don't have a lot of resources. We could do more if we had more. We have about 14 highway investigators, but we have investigated everything from the Minneapolis bridge collapse in Senator Klobuchar's state to a 17-fatal motorcoach accident that occurred in Sherman, Texas, last year. On Tuesday, we approved the report on that accident.

We have too few people to address those issues, but we have done things like forums on motorcycle safety and others.

Senator DORGAN. With respect to the 90 minutes of an airplane flying at 37,000 or whatever its altitude, the country, the authorities were all deaf and blind for an hour and a half with respect to a commercial carrier, which is just unforgiveable. I mean, we are going to have to make some changes with respect to cockpit recordings and so on because that doesn't make any sense.

We had, on 9/11, as you know, airplanes were turned around once they were hijacked, and they were flying through that sky without any communication. And I understand the other day that jets were about to be scrambled, fighter jets were about to be scrambled. Will your report also include some evaluation of what happened with respect to the carriers, the air traffic controllers, and the communications with the DOD with respect to the scrambling of military jets?

Ms. HERSMAN. Mr. Chairman, I think probably that is a challenging issue for us. Our focus is safety and not security, and there are others who are better suited to look at the security issue. We have to be careful to stay in our lane a little bit.

But we will certainly be looking at the air traffic control and the company response and to see if they complied with the procedures and the expectations that they had. But you might want to ask the FAA about the security side.

Senator DORGAN. That is a fair response, but it seems to me if you were one of the 144 people on an airplane where there was a prospect of scrambling fighter jets because it flew deaf and blind to us, at least we were deaf and blind for an hour and a half, there is a safety issue with respect to the folks on that plane when fighter jets are scrambled to intercept it. But——

Ms. HERSMAN. Yes. Well, we will certainly make our best effort to coordinate with the military and FAA as we move forward in our investigation.

Senator DORGAN. The only reason I ask about that. This is a very unusual circumstance since 9/11 of a large commercial airplane flying out of contact for an hour and a half, which I suspect caused substantial alarm among those who were supposed to be identifying what is this in the air. Or they knew which plane it was because a transponder, I am sure, was bleeping on a groundways radar, but they didn't know what had become of that plane or what was happening to the plane.

With respect to resources, Senator Begich I think, asked the appropriate questions. I think it would be useful perhaps if you would, if you can, submit to us that which you requested from OMB so that we can understand what the agency request was and what you think your needs are.

[The information referred to follows:]

Copies of the NTSB's 2010 and 2011 requests to OMB will be provided. For 2011, the Administration requested agencies to present requests: (1) at the level for Fiscal Year 2011 that was contained in the President's 2010 budget; (2) at the same level as the President's budget for Fiscal Year 2010; and (3) at a 5 percent reduction to the 2011 level contained in the President's 2010 request. In addition to these three discretionary funding levels requested by OMB, NTSB submitted funding scenarios for the following targets:

- Authorized staffing level, plus 2 FTE positions to support the Rail Passenger Disaster Family Assistance Act of 2008 ($117.4M; 477 FTEs)
- Projected FTE level for Fiscal Year 2010 plus 10 critical positions to assist with succession planning efforts ($103.7M; 416 FTEs)
- Projected FTE level for Fiscal Year 2010 ($101.5M; 406 FTEs)

The NTSB request to OMB provides all six scenarios for purposes of comparison.

Senator Hutchison asked the question about investigating incidents. My own view of that is I think you do have and certainly should have the authority to investigate incidents. And the question of what is your lane, I would want that lane to be wide enough so that you don't have to wait until there are casualties and fatalities to investigate the safety issues.

You should be able to investigate the safety issues and make recommendations with respect to incidents that could have caused casualties as well. So I think that is important.

We, as I said, are going to have Administrator Randy Babbitt to come before the Committee to tell us what progress he has made on implementing recommendations. It may be the case that not every single recommendation by the NTSB is something that is practical or achievable in the short term.

But I come back to what I started with, this issue of my going back last evening and finding that in 1999, the NTSB upbraided the FAA for essentially ignoring the recommendations on icing, and then last October, once again, being upset with the FAA and actually identifying the Dash 8 as one of the kinds of planes that will have problems with icing before the Buffalo crash.

I mean, that is unacceptable. It is just not acceptable for a government to work that way. There should not be a right hand and a left hand. There ought to be a handshake between agencies to do the best we can to improve safety in every respect.

And in circumstances where we have an agency whose job it is to investigate with respect to safety issues, make recommendations with respect to safety issues, it is not acceptable that we have the enforcement agency or the other agency that should implement recommendations by and large ignoring them. Or if not ignoring, operating so slowly.

I don't—you mentioned, Chairman Hersman, that sometimes it takes a long, long time. Well, you know what? I understand that. But sometimes it takes way too long. And a process that takes 10 years, I am thinking of a process right now that I am going to hold a hearing on soon that takes 25 and 30 years, which is obscene for

a government to have a process—this isn't a safety process—but for the Government to have a process to make a decision in which they can't make a decision for decades. It is outrageous.

In this case, the icing issue was a decade old, and people died. And this Government has got to do better than that, and we owe it to the American people to do better.

Senator Snowe, did you have a final comment?

Senator SNOWE. I had another question, and I couldn't agree with you more, Mr. Chairman. And you are looking at the Most Wanted List, in fact, on crew fatigue, that is about two decades old, practically speaking. So it is amazing that these types of issues can languish for decades. It can obviously have a profound impact on life and death matters.

I wanted to follow up one other issue. I know that the NTSB has issued regulations with respect to air ambulances, which was unprecedented in the sense that some of them were addressed to the Centers for Medicaid and Medicare, and there were 21 of them in total. And I have been working with Senator McCaskill and Senator Cantwell on this issue.

In fact, Senator Cantwell and I had attempted to offer an amendment during the healthcare reform markup in the Finance Committee, and unfortunately, there was some resistance. And I know the FAA, as I understand, also objected to the inclusion of these recommendations that basically would require Medicare accreditation contingent on achieving certain safety measures, that these air ambulances would have to achieve certain standards.

We have seen a nearly 500 percent increase in Medicare reimbursement costs with respect to air ambulances. Last year was the worst year on record for fatalities. There were more than 29. Could you comment on this and give me any insights with respect to this issue? And hopefully, we will attempt to explore it on the floor when we are addressing healthcare reform.

Ms. HERSMAN. Senator Snowe, thank you very much for your interest in this issue and your efforts to try to advance it. I think that a lot of the work of the members of this Committee is actually what brings the issues to the forefront for us.

We made recommendations. Frankly, our investigation on EMS accidents goes back to a special study we did in 1988. Throughout the years, we have continued to work on it. In 2006, we released four recommendations based on 55 accident investigations, and those four recommendations now reside on our Most Wanted List. And the reason why they are there is because since 2006, those recommendations have not been implemented.

And so, last year, we thought they were so important, especially given the number of accidents last year—29 fatalities in 9 accidents—that we put those on our Most Wanted List. We continue to push in an effort to raise the profile of these recommendations. In fact, we did a 4-day public hearing this past year on HEMS issues.

At that public hearing, we heard testimony that the number of helicopters involved in EMS operations has increased by 80 percent in the last 10 years, and we believe that that is directly attributable to the reimbursement they get from Medicare now. In investigating these accidents, we really need it to follow the money.

FAA is not going to require operators to conduct risk assessment before they go to assess. Is the weather good? Is there a good landing site? What do we need? What are the conditions? Is it VFR? Is it IFR?

Operators need to do an assessment before they leave, so that they don't leave and get into a bad situation. These recommendations are not rocket science. They can be done.

But FAA was not accomplishing them. And so, we believed that if we followed the money and we said to Medicare and Medicaid, "Before you pay these people, at least make sure they have good safety standards which yield a high level of safety." The people that are getting transported via HEMS deserve that.

We have seen this be effective in other modes or other situations. The Department of Defense relies on many air carriers for lift. They give them an audit to make sure that they are meeting the DOD standards. The same thing for DOD contracts on motorcoaches.

We are asking for the same with HEMS. Use the money to raise the standard of safety. If we can't get it done through regulation, there might be other ways to accomplish the task. That is what we asked, and we appreciate you following up on it.

And thank you all for sharing in our passion for these issues.

Senator SNOWE. Oh, absolutely. Thank you.

And we will follow up. I can assure you of that. Thank you very much.

Senator DORGAN. Thank you very much.

Let me just make a final comment that I think I should make, and that is public transportation in this country is very, very important. And we talked about airplanes and buses and railroads, the trains today. And I expect even as I speak, and I know that there are pilots, there are engineers, there are bus drivers out there doing a terrific job every day. They are professionals. They care a lot about meeting the tests of all the rules and regulations.

I want to say that because while we have had some tragedies with respect to aviation and other modes of transportation, our record is really quite an extraordinary record. Aviation, for example, we have had quite an extraordinary safety record on. But I do want to say even as we talk about all these things, I recognize there are a lot of folks that go to work every morning and are professional and want to do the best job they can in public transportation.

I do think, though, that we have not always done the best job we can in our agencies to make sure that we understand what needs to be changed and how do we make sure it happens. That is why I asked earlier about enforcement. It is one thing to say here is what we should do. The question is how is it enforced?

I want to just make one final statement, and that is I don't know what happens in the cockpits. I assume in most cockpits, all of the rules are followed. That is the reason we have a system that has relatively few accidents with respect to aviation.

But I am wondering how do we know what happens? Is there some mechanism enforcement? Do the individual carriers from time to time listen to the cockpit voice recorder to see is that sterile cockpit rule being monitored?

I don't know the answer to that, and Chairman Hersman, you indicated you don't know the answer either. I guess that means that at the Federal level, perhaps the NTSB and the FAA are not engaged in that sort of thing. But I do think there should be some mechanism of trying to understand are these rules enforced? How are they enforced?

So let me thank the Government Accountability Office. Dr. Dillingham, we have not asked you a lot of questions today, largely because I think your evaluation of what the NTSB does is a pretty commendable evaluation. I think the NTSB is an agency with a fairly strong reputation and apparently good management, and we appreciate very much the work the NTSB does.

This hearing, I think, raises questions about a number of things that we will be addressing and perhaps will allow us to even alter the FAA reauthorization bill that has now passed this committee but waiting further action.

So I thank Chairman Hersman very much, and Dr. Dillingham, thank you for being at this hearing.

The hearing is adjourned.

[Whereupon, at 11:38 a.m., the hearing was adjourned.]

A P P E N D I X

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. BYRON L. DORGAN TO HON. DEBORAH A.P. HERSMAN

Question. What is your assessment of provisions contained in S. 1451, The FAA Modernization and Safety Improvement Act, to mandate the Aviation Safety Action Program (ASAP), the Flight Operational Quality Assurance (FOQA) program, and the Line Operational Safety Audit (LOSA) program for all air carriers?

Answer. The NTSB believes that safety programs such as ASAP, FOQA, and LOSA have contributed greatly to the safety of air transportation. While these programs are voluntary, they have been adopted by most of the large air carriers and some of the regional air carriers. The NTSB believes that all air carriers could benefit from such programs. However, there needs to be some flexibility in the adoption of these programs as some of the smaller air carriers, typically those operating under 14 CFR Part 135, have aircraft that cannot be economically equipped with the data recorders necessary to support a FOQA program. Additionally, some of these carriers have only a few pilots such that it may not be practical or economically feasible to have an ASAP or LOSA program. The NTSB is aware that these programs are largely based on trust between air carrier management and their unions. Therefore, it is imperative that trust be established between all of the parties to ensure that the maximum benefit is developed from the creation of these programs at an air carrier.

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