S. HRG. 107–1063

S. 361, A BILL TO ESTABLISH AGE LIMITATIONS FOR AIRMEN

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

MARCH 13, 2001

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ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

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S. 361, A BILL TO ESTABLISH AGE LIMITATIONS FOR AIRMEN

TUESDAY, MARCH 13, 2001

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:10 p.m., in room SR–253, Russell Senate Office Building, Hon. John McCain, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM ARIZONA

The CHAIRMAN. Good afternoon. During the last Congress, the Aviation Subcommittee held two hearings on the issue of pilot shortages and how they impact rural air service. The Committee learned that as air travel has expanded with the economy the major airlines have been hiring record numbers of pilots over the last few years. The high demand for pilots has put a squeeze on the regional and on-demand air carriers, because the larger airlines tend to hire pilots away from the smaller ones.

Similarly, our Armed Forces have been drained of many top pilots who have been attracted to the private sector by the generous pay scale and benefits offered by major airlines.

As I have often said before, a shortage of pilots in our military can affect our combat readiness. One of the ways to ease the pressure on smaller carriers and the military is to increase the size of the pool of eligible pilots. Of course, that pool is directly affected by the Federal Aviation Administration's Age 60 Rule, which prohibits anyone from being a commercial airline pilot once they reach the age of 60.

Senator Murkowski's bill, S. 361, would increase the mandatory retirement age to 65 years. This legislation has the potential to ease the shortage of civilian pilots and reduce the pressure for military pilots to leave the service early.

Any change to the Rule should not be undertaken lightly, because of the potential impact on safety. You do not need a medical degree to recognize the physical and mental capacities do not remain the same as you get older, and the chance of sudden incapacity naturally increases, but the retirement age of 60 was established somewhat arbitrarily more than 40 years ago. Life expectancies have increased, and medical science has advanced considerably since then. In addition, those who support changing the Age 60 Rule logically point out that older pilots usually have

more experience, which can make all the difference in an emergency.

As I noted at the time of our last hearing, there are clearly divided opinions among pilots, policymakers, and others within the aviation community. After years of looking at this issue, I believe it may be time to reconsider whether the Age 60 Rule is an appropriate and fair standard. Safety is paramount, but there are certainly ways of ensuring that pilots who decide to fly beyond the age of 60 are fit and capable. It is noteworthy that 25 European nations have increased the mandatory retirement age for pilots to 65 years of age. I am sure these countries considered the safety implications of such a change and concluded that it would not harm air travelers. This may be a case where other nations are ahead of the United States in terms of balancing safety and fairness.

Senator Murkowski and Senator Hutchison and Senator Wyden, all of us are visited quite frequently by groups of pilots and their position on this issue seem to somehow, strangely enough, be directly related to their age. Those that are approaching age 60 are vehement in their allegations and protestations that their health certainly justifies them being able to remain in command of an aircraft or as a copilot of an aircraft, and then the younger ones are equally as adamant that we cannot change the Age 60 Rule.

As I grow older, I feel that perhaps there is some loss of capability, but the fact is that our men and women are arbitrarily deprived of employment with no other criteria except an arbitrary age limit. I am not sure that is good for America, and I am not sure that is good for the individuals as well.

[The prepared statement of Senator McCain follows:]

PREPARED STATEMENT OF HON. JOHN MCCAIN,
U.S. SENATOR FROM ARIZONA

During the last Congress, the Aviation Subcommittee held two hearings on the issue of pilot shortages and how they impact rural air service. The Committee learned that, as air travel has expanded along with the economy, the major airlines have been hiring record numbers of pilots over the last few years. The high demand for pilots has put a squeeze on the regional and on-demand air carriers because the larger airlines tend to hire pilots away from the smaller ones. Similarly, our armed forces have been drained of many top pilots who have been attracted to the private sector by the generous pay scales and benefits offered by major airlines. As I have said before, a shortage of pilots in our military can affect our combat readiness.

One of the ways to ease the pressure on smaller carriers and the military is to increase the size of the pool of eligible pilots. Of course, that pool is directly affected by the Federal Aviation Administration's (FAA) Age 60 Rule, which prohibits anyone from being a commercial airline pilot once they reach the age of 60. Senator Murkowski's bill, S. 361, would increase the mandatory retirement age to 65 years. This legislation has the potential to ease the shortage of civilian pilots and reduce the pressure for military pilots to leave the service early.

Any change to the Rule should not be undertaken lightly because of the potential impact on safety. You do not need a medical degree to recognize that physical and mental capacities do not remain the same as we get older, and the chance of sudden incapacity naturally increases. But the retirement age of 60 was established somewhat arbitrarily more than 40 years ago. Life expectancies have increased and medical science has advanced considerably since then. In addition, those who support changing the Age 60 Rule logically point out that older pilots usually have more experience, which can make all the difference in an emergency.

As I noted at the time of our last hearing, there are clearly divided opinions among pilots, policymakers, and others within the aviation community. After years of looking at this issue, I believe that it may be time to reconsider whether the Age 60 Rule is an appropriate and fair standard. Safety is paramount, but there are almost certainly ways of ensuring that pilots who decide to fly beyond the age of 60

are fit and capable. It is noteworthy that 25 European nations have increased the mandatory retirement age for pilots to 65 years of age. I am sure these countries considered the safety implications of such a change and concluded that it would not harm air travelers. This may be a case where other nations are ahead of the United States in terms of balancing safety and fairness.

I thank our witnesses for their participation and I look forward to a vigorous debate.

The CHAIRMAN. I want to thank Senator Hutchison, who has done a lot of work on this issue, in fact, several hearings, and brings a great deal of expertise to this issue for her Chairwomanship of the Aviation Subcommittee and her involvement in this issue, and I thank you, Senator Hutchison.

Senator Hutchison, then Senator Wyden.

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

Senator HUTCHISON. Thank you. Mr. Chairman, I will not add to all the facts that you have put on the table, because I think those facts are what has created our interest and looking into this further. It is an issue that I have certainly dealt with, even during the time that I was Vice Chairman of the National Transportation Safety Board, and there are very differing viewpoints.

I think we have to be very careful before we overturn a regulation with a law from the agency that is tasked by Congress to be the agency to promote and assure aviation safety. On the other hand, I do think we must pressure the FAA to revisit, based on today's medical science, the 60-year-old pilot rule. So, I thank the Chairman for calling the hearing, and Senator Murkowski for asking us to do so. I will certainly be listening to the viewpoints and making the determination of the best way to address the issue.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Wyden.

STATEMENT OF HON. RON WYDEN, U.S. SENATOR FROM OREGON

Senator WYDEN. Thank you, Mr. Chairman. I will be brief. You and Senator Hutchison have said it very well. It seems to me we have got to figure out a way, and this has not really been changed since 1959, to recognize there have been dramatic advances in medical technology and life expectancy and come up with a standard based on one principle, and that is, can you fly these planes with the measure of safety that the American people have a right to expect?

I mean, the Rule requiring airline pilots to retire at age 60 has been on autopilot for literally 40 years, and I think we ought to stay with this until we come up with something that takes a step toward a meritocracy that is based on ability.

As you noted in your statement, Europe has gone with one approach. We can direct the FAA to work with the various parties, the pilot's organizations, the medical experts in this area, but at the end of the day I think we need an approach that really focuses on the individual ability, and if the individual can fly these planes with the measure of safety that the American people have a right to expect, they ought to be able to do it, so I look forward to work-

ing with you and our colleagues, and hearing from Senator Murkowski.

The CHAIRMAN. Senator Stevens.

Senator STEVENS. Mr. Chairman, thank you. I will be happy to listen to my colleague present his case here.

The CHAIRMAN. Welcome, Senator Murkowski.

STATEMENT OF HON. FRANK H. MURKOWSKI, U.S. SENATOR FROM ALASKA

Senator MURKOWSKI. Thank you, Senator McCain. Thank you, Senator Stevens for giving me a great opportunity to elaborate a little further there. Thank you for the opportunity to testify on this bill.

I think your statement, Mr. Chairman, recognizing the reality that here we are today where we have men and women of health as a consequence of taking better care of themselves, better medical facilities, better examinations, that suddenly, when you become 60 you are no longer fit to fly is a little bit of an inconsistency in the manner in which we live.

This first came to my attention when I was flying on the Aleutian Islands, and the captain asked me to come up to the cockpit, and we were conversing, and he said that he was going to be retiring pretty soon and said he really felt it was a shame. He had over 30,000 hours flying in a 727, and he began to relate what it was like 30 years ago flying in an unpressurized airplane, fighting weather, not having air traffic control assistance, ground assistance, weather forecasts, and so forth.

He said: "You know, we were really busy then. We had a lot going on. The pressures were much greater. The intensity of weather, landing conditions, icing, you name it." He said, "Flying now is much easier. We have many more aids. We have much more sophisticated, reliable jets than we had in reciprocating airplanes," and he said the aircraft have advanced in technology to make it safer for the public, faster, and more convenient. But he said, "here we are living under a Rule that was established many, many years ago when conditions were different."

He said, "Now people are living longer. I have to pass a flight physical. I am willing to take my chances. I just want the option, if I want to continue my career, to have the ability to have employment as I have had before, and make a continuing contribution. To suggest somehow it is all over immediately upon reaching age 60 is unrealistic."

Now, you brought up, Mr. Chairman, the shortage of pilots in this Nation, and we certainly have a problem in my home State of Alaska. We have the problem of reducing flights in some of the small communities, not just in Alaska, but throughout America and, as a consequence—I think the figures bear out, according to the FAA—the number of pilots flying the Nation's big passenger carriers and cargo jets grew from 97,000 in 1988 to 134,000 in 1998. Yet at the same time, the smaller carriers, the air taxi, small community pilots fell from 143,000 in 1988 to 125,000 in 1997.

In my home State of Alaska, the number of pilots fell from 10,100 in 1988 to 8,700 in 1997. We are probably the most dependent State in the Union on aircraft and, obviously, pilots.

Now, another way that carriers are dealing with the shortage, and I think this is paramount in the consideration of the Commerce Committee, Mr. Chairman, is, they are lowering their entry requirements. It was reported in February 2000 that new hires at major airlines were being promoted to captain in as little as 3 years, compared with, well, sometimes 8 to 10 years in the past.

In Alaska—and we have the permission of Penn Air to use their figures, their 121 certificate—the average captain had 11,500 hours in 1996. Last year, it was 7,900 hours, and this year it is going to be lower. They lowered their minimum requirements for first officer from 1,000 hours last year to 700 hours this year. ERA Aviation, the first officers average 908 hours. Some of the pilots are with them for less than 6 months before they leave and fly for a regional carrier.

Frontier—Alaska's average pilot time is down to around 4,000 to 5,000 hours. 10 years ago it averaged 15,000 to 25,000 hours. It has been reported that pilots with 1,800 hours or less are perhaps as much as 5 times more likely to have an accident or rule violation than more experienced pilots, so experience means a lot.

Mr. Chairman, I would further ask, why does the FAA mandate that pilots retire at age 60? That is the issue. As you pointed out, 60 was selected in the pre-jet age, 1959 I think it was, because of what FAA says were, "medical uncertainties concerning pilots' health after age 60." Why not give them a more stringent examination if that is what it is going to take? I am quite willing, or if you do not like 65, take it down to 62, try a pilot program, but we need relief.

It is kind of interesting, because at that time, while public comments were accepted, no public hearing to debate the issue was ever held back in 1959. In the 42 years since the Rule was promulgated, there has not been any evidence that the pilots over age 60 are not fully capable of handling their flight responsibilities, assuming they pass the physicals and the other examinations that are necessary for all pilots, whether they are 60 or younger.

For example, the 1995 Commuter Rule made special provisions to allow pilots who were then flying over age 60 to continue to fly for 4 more years as the pilot in command. The exemption ended, however, in December 1999. Commuter airlines were also allowed to continue to hire pilots 60 and older for 15 months. There were over 100 pilots over 60 flying at that time, and a study of 31 determined that they flew without a single accident or rule violation or incident.

In 1999, 69 current and former airline captains organized and underwent extensive medical testing by a panel of national and internationally recognized experts in the field of aerospace medicine, cardiology, internal medicine, geriatrics, and neuropsychological determinations. The panel determined that they were all, every one of them, qualified to perform airline pilot duties beyond age 60, yet the FAA denied their exemption requests.

Mr. Chairman, is this really a case of age discrimination? I think it might be. Mr. Chairman, everywhere else in the developed world, pilots are flying until they reach 65 and beyond. Two years ago, the European Joint Aviation Authority raised the mandatory retirement age to 65, joining many Asian countries, who increased the

age to 63 or 65. These pilots are flying exactly the same type of airplanes that the American pilots are flying.

There is absolutely no evidence that these foreign pilots have a worse safety record than American pilots under the age of 60. At the same time, there is clear evidence that in the last 42 years the FAA has relaxed their medical requirements to allow pilots to fly with various medical problems, including hypertension, diabetes, alcoholism, spinal cord injury, defective vision. Height and weight restrictions have also been liberalized.

In 1999, the FAA granted medical certificates to 6,072 airline pilots under the age of 60 who had significant medical, pathological problems permitting them yet to operate in the air as air crewmen. How does the FAA derive its medical consensus? I think that is an interesting question for the Committee. How do they derive that it is medically—as a consensus that is—safe for those pilots to fly and not those who have been flying for 30 or 40 years without such medical pathology who happen to just arrive at the age of 60?

I think if the unions have a problem here with retirement, then it should be addressed in concert with the negotiations that occur between the unions and management, but I think this bill is in the public interest at this time. I think, Mr. Chairman, it is time to seriously look at raising the retirement age for Part 121 pilots to keep experience in the cockpit, and I think it is time we end this age discrimination once and for all.

I thank you, Mr. Chairman, for the opportunity to present this before the Commerce Committee.

The CHAIRMAN. Thank you very much, Senator Murkowski. We appreciate it.

Senator HUTCHISON. [Presiding.] Senator Murkowski, my major question is, do you have any concerns about mandating the FAA to go to age 65 by law?

Senator MURKOWSKI. Well, I am not sure what it is going to take. Obviously, we have a bill here, and the bill would address the issue of extending to age 65, if they wanted to do a pilot program, to age 62 or 63. I think the point is we need relief. There is no medical evidence to suggest that somehow it is unsafe for a qualified pilot to no longer be qualified at age 60 when at 59 he or she was and passed the physicals and the flight requirements and so forth. This is pretty much a union problem.

If you talk to the copilot and you talk to the pilot who is nearing retirement you get a different point of view. On the other hand, from the standpoint of the longevity of the copilot, who may want to, when he or she receives the experience, to move over to the captain's seat, would like to fly a little longer when they reach that age, but they are anxious to move up.

It is kind of interesting, at one time the Airline Pilots Association supported extending beyond age 60. They have changed that position now, and they can best explain that logic to you, but I am not fixed on how it is going to happen.

I think it is time it happened, because let's face it, if you can pass the physical, even a more stringent physical, if that is necessary as determined by the FAA, it would achieve our objective to have more experienced pilots continuing to serve at a time when the military is short of pilots, the airlines are short of pilots, and

in my State of Alaska I can cite instances where, on a rough day, if you are flying from Juneau to Skagway, or the other way around, and it is bumpy, you might have the passenger holding the airline frequency so that the pilot can twist in on the various dials to get the approach into Juneau.

I mean, these things happen, and I recognize it is different, because these are smaller airplanes that do not have copilots, but we need more experienced pilots, and if we have got them, why not use them, for heaven's sakes. The foreign airlines seem to get by very nicely, and we have got some kind of a mental mandate here that suddenly when you turn 60 you are all through.

Senator HUTCHISON. Well, I think when we are talking about safety regulations we need to be careful before we usurp the agency that is supposed to be taking care of that responsibility. I think your points are very good, and I just want to make sure that we are doing this in a careful way, and that we make sure we do not usurp the FAA's regulation without doing it in a way that is absolutely responsible.

Senator MURKOWSKI. I would only respond to that, Senator Hutchison, by suggesting that maybe it is an obligation of the FAA to come up with some statistical evidence to suggest that if you are 60 years old you are not qualified. If you pass the physical, the flight physical, and the policies associated with what it takes to be a captain, then let them prove, if you will, that age determination is a factor in the safety of operating that aircraft in the public convenience. They have not done that. They have just arbitrarily come down in 1959 with a policy that they have adhered to, and I think it is time we took a look at the policy.

Senator HUTCHISON. Senator Wyden.

Senator WYDEN. I just want to be clear on one point, because I think you touched on it and made a very helpful presentation. Your bill, Senator, just raises the age from 60 to 65 at this point?

Senator MURKOWSKI. That is correct.

Senator WYDEN. But, if I understood your testimony, you are willing to look at a variety of ways to address safety, and that is really what is on my mind today. I do believe it is time for the Age 60 Rule to change, and I think it ought to be possible to find a safe way to allow capable pilots to keep flying beyond their 60th birthday, and I think the challenge now is to get together with these various experts in the field, medical experts and people at the FAA, and stay with it until we get the job done, and I understood you to say that you are open to doing that, and even though the bill goes just from 60 to 65 you will work with us so that we can address some of those issues, is that right?

Senator MURKOWSKI. That is correct, Senator Wyden.

Senator WYDEN. I thank you. I look forward to working with you, because I do think that this Rule—I call it an autopilot, but with all of the advances in our society it is a Rule that is outdated to some extent. This is a microcosm of a debate that for me goes back to my days when I had a lot more hair and I was director of the Gray Panthers, and we would debate, how do you move forward in a time when you have these dramatic changes in health care and aging.

Now, granted, there are special circumstances here, because safety has to be paramount, and there is no United States Senator who would differ, but I have got to think, with a very helpful chair who is going to work with all of us, we can get this done, and I look forward to working with you.

Senator HUTCHISON. Thank you, Senator Wyden.

Senator Stevens.

Senator STEVENS. Well, thank you very much, Frank. I am delighted you have raised the issue, and I think it deserves to be raised, and I am sure you know the situation in our State. Most people do not.

I was told at the end of last year that 50 percent of our pilots in Alaska are over 50 years of age and half of those are over 55, and when you look at our State, where you travel—75 percent of our people who travel between points in Alaska go by commercial air.

You cited the statistics, how the numbers of pilots are decreasing, but they are going to decrease at an overwhelming rate in the next 10 years, and I have noticed here the FAA, and I hope you will stay with us and listen to this testimony, the FAA says until the FAA can be reassured that increasing the age 60 limit will not negatively impact the level of safety, we cannot support a change through legislative action.

They still license me at age 77 to fly planes, but not commercially. They are doing it in other parts of the world, raising the age limit, and we are an aging population. I think to deny the people of our country the experience of those people who are between 60 and 65, who are very competent pilots, is just bad policy, and I hope the FAA can tell us what they need to assure them that this will not negatively impact the level of safety. The level of safety is determined by health and by taking the examinations that all pilots must take. I do not see that suddenly you become impaired safety-wise when you become 1 day over 60 years old.

I hope you will join us up here and we will have a continuation of this hearing. This hearing is absolutely important, and again I thank you very much for raising the issue.

Senator MURKOWSKI. I appreciate that. As you and I know, when we fly in Alaska, the local knowledge means an awful lot, and that local knowledge takes a while to get, particularly when you are flying under visual flight rules, and the very fact that the FAA seems to have laid out the dilemma as people coming to them with proof that it is in the public interest to have the pilots fly beyond age 60, it seems to me the FAA has an obligation to make that determination.

They have the wherewithal, the capability, the background, the information sources. They do it in every matter and form of air safety. Why not conclusively do an evaluation to see if, indeed, suddenly at 60 or 61 or 62, if you meet all the other requirements, why you are not qualified to continue to fly.

I do not think that the answers necessarily are going to come across the board to the FAA. I think the FAA should be directed to gather that information and present a case, indeed, for the reality that we have a shortage of pilots, and when we have experi-

enced pilots that we are turning loose when we do not have to just does not make sense.

Senator HUTCHISON. Thank you, Senator Murkowski.

Senator MURKOWSKI. Thank you very much.

Senator HUTCHISON. I thank you for being willing to work toward the right approach, and I think we will be able to do something that will address some of the issues you have raised.

Now I would like to call the following panel: Mr. Nicholas Lacey, Director of Flight Standards Service at the FAA; Captain Duane Woerth, President of the Air Line Pilots Association; Captain Paul Emmens, Chairman of the Pilots Against Age Discrimination; and Robin Wilkening, M.D., from Johns Hopkins University School of Hygiene and Public Health.

If the four of you would take your places, we will ask you to proceed, and I would ask that your statements be no more than 3 minutes, if you could summarize, and we do have your written statements for the record as well, and I will start with you, Mr. Lacey.

STATEMENT OF L. NICHOLAS LACEY, DIRECTOR, FLIGHT STANDARDS SERVICE, FEDERAL AVIATION ADMINISTRATION

Mr. LACEY. Thank you, Senator. Certainly it is a pleasure to appear today before the Committee. By way of background, I have been Director of FAA's Flight Standards Service for a little over 2 years. I spent 24 years as a military officer and pilot, and 4 years in commercial aviation in various executive positions.

I also have along with me today Dr. John Jordan, the Federal Air Surgeon, and as you requested, I will summarize my testimony and try to bring it down to around 3 minutes.

The Age 60 Rule provides that a pilot, as we have been discussing, may not engage in what is known as airline operations if the pilot has reached age 60. Admittedly, this Rule is controversial. However, what it does represent is the FAA's best determination of the time when the general decline in health-related functions and overall cognitive capabilities have reached a level where decrements in a pilot's performance may jeopardize safety.

The Rule means that a pilot who reaches age 60 must leave airline operations, but it does not mean that he or she can no longer play an important role in aviation. Many pilots continue to work for airlines in the screening, recruitment, and training of pilots. They serve as flight engineers, or fly in non-airline operations, become flight instructors, or, fortunately for us, come to the Federal Aviation Administration as inspectors.

Since its' adoption in 1959, the FAA has reviewed the Age 60 Rule several times to determine whether new and sufficient evidence exists to warrant a reconsideration of the regulation. The most recent review was in 1993. During that review, we reviewed well over 4,000 comments, which largely made assertions and expressed opinions, but they did not provide the agency with additional facts or analysis that was sufficient to support changing the Rule.

More recently, the Senate Appropriations Committee requested that the FAA study and provide data regarding relative accident rates based upon a pilot's age. This study basically found what we are calling a U-shaped relationship, and what that means is the

rate of accidents is higher for a young person, then as a person ages and gains experience, the rate declines, levels off for a sustained period of time, and then shows an increase as the person reaches retirement age.

There seems to be little dispute that, as people age, they experience more illnesses, disorders, and suffer more cognitive decline. Cardiovascular diseases rise with age steeply, beginning with ages between 55 and 65.

Cardiovascular disease remains the most frequent cause of death in pilots and in the general population. With this increased incidence of cardiovascular disease in the older population, the risk for unexpected events that could be a threat to safety of flight is increased.

Cardiac events during flight continue to occur in low, but fairly consistent numbers over the years, and have caused general aviation accidents. Other health conditions are known to increase incidents, or to become more complicated with aging. There has been an increased awareness of the more subtle adverse conditions affecting performance, such as those related to cognitive functioning.

We know that at some age everyone reaches a level of infirmity or unreliability that is unacceptable in a pilot in commercial passenger air transportation. That age will vary from person to person, but cannot yet be predicted in a specific individual.

There are some that argue that the Age 60 Rule is arbitrary and without scientific basis, but the FAA feels that until we can be assured that increasing the age 60 limit will not negatively impact the level of safety, we cannot support a change through legislative action.

Another reason cited for raising the retirement age to 65 is that some segments of the industry may be experiencing pilot shortage. Based on our discussions with the industry experts, we understand that, while major airlines are not having difficulty meeting their pilot-hiring goals, there are signs that regional airlines and those feeding regional airlines are starting to see high turnover rates of pilot applicants and a declining degree of prior experience. This is not surprising, given the fact that major airlines can offer significantly better pay and benefits.

My full statement discusses this issue of pilot shortage more fully, and the Committee will hear from other witnesses this afternoon about how the industry will deal with this issue. I wish to emphasize that, while many of these are legitimate concerns, we need to be careful to maintain the highest safety standards possible. The FAA works hard to manage the growth-oriented aviation system, and the constraints on the system that growth imposes, in the most efficient way possible.

We construct our regulations very carefully, taking into account as many factors as we can, but ultimately always making the decision that will best enhance aviation safety.

While economic factors are certainly a part of that calculation, I am sure that the Committee and our colleagues in industry would agree that safety must be a top priority.

This concludes my remarks.

[The prepared statement of Mr. Lacey follows:]

PREPARED STATEMENT OF L. NICHOLAS LACEY, DIRECTOR, FLIGHT STANDARDS SERVICE, FEDERAL AVIATION ADMINISTRATION

Mr. Chairman and Members of the Committee: I would like to thank you for the opportunity to appear before you today to discuss the Federal Aviation Administration's (FAA) Age 60 Rule. I am accompanied today by my colleague, Dr. Jon Jordan, Federal Air Surgeon. The Age 60 Rule provides that a pilot may not engage in what are known as Part 121 operations if the pilot has reached his 60th birthday. Part 121 covers scheduled passenger operations using multiengine jet aircraft, scheduled passenger operations with multiengine propeller airplanes having a passenger seat configuration of 10 or more seats, and common carriage operations of all-cargo airplanes having a payload capacity of 7500 pounds or more.

The Age 60 Rule is controversial. However, it represents the FAA's best determination of the time when a general decline in health-related functions and overall cognitive capabilities have reached a level where decrements in a pilot's performance may jeopardize safety. Our Rule means that a pilot who reaches age 60 must leave Part 121 operations, but it does not mean that he or she can no longer play an important role in aviation. Many pilots continue to work for Part 121 airlines in the screening, recruitment and training of pilot applicants, serve as flight engineers, or fly in non-Part 121 operations, or become flight instructors, or, fortunately for us, work as safety inspectors for the FAA.

Since its adoption in 1959, the FAA has reviewed the Age 60 Rule several times to determine whether new and sufficient evidence exists to warrant a reconsideration of the regulation. The last completed, comprehensive review of the Rule was in 1993. That year the FAA received the report of an independent research company, Hilton Systems, Incorporated. The Hilton Study correlated available accident data with the amount of flying by pilots as a function of age. We released the extensive study, invited public comment on the Age 60 Rule, and held 2 days of hearings. We reviewed over 4,000 comments, which made assertions and expressed opinions but did not provide the FAA with additional facts or analyses sufficient to support changing the Rule.

More recently, the Senate Appropriations Committee requested the FAA to study and provide data regarding relative accident rates based on pilot age. The FAA's Civil Aeromedical Institute (CAMI) conducted a four-part study. Two parts of the study—an annotated bibliography of the scientific literature (1990-1999), and a reanalysis of the Chicago Tribune study data (1999) relating pilot age and accident rates—were sent to Congress last July. The two remaining parts of the study were sent to Congress on March 8th. They include an analysis of the relationship between pilot age, experience, and accidents/incidents for air transport pilots (ATP) with Class I medical certificates and who are involved in Part 121 and 135 operations, and a similar analysis involving ATP and commercial pilots with Class I or Class II medical certificates. Overall, for accidents involving Part 121 or 135 operations, these analyses support the hypothesis that a "U-shaped" relationship exists between the age of professional pilots holding Class 1 medical and ATP certificates and their accident rate—meaning the rate of accidents is higher for a young person, then as the person ages (and gains experience) the rate declines, levels off for a sustained period, and then shows an increase as the person reaches retirement age.

I must emphasize that before making any change to a safety rule, the FAA must be satisfied that the regulation will maintain or raise the current level of safety. What is clear to us from reviewing public comments and relevant literature concerning the Age 60 Rule is that there is no single "right answer." What is also clear is that the question for the FAA is one of public safety and determining acceptable risk. At this time, the FAA cannot be assured that changing the Age 60 Rule will maintain or raise the level of safety.

There is little dispute that as people age, they experience more illnesses and disorders, and suffer more cognitive decline. Cardiovascular disease rises with age, steeply, beginning between ages 55 and 65, and, though mortality has dropped since 1960, cardiovascular disease remains the most frequent cause of death in pilots and the general population. With this increased incidence of cardiovascular disease in the older population, the risk for unexpected events that could be a threat to safety of flight is increased. Cardiac events (e.g., heart attacks, sudden death) during flight have continued to occur in low but fairly consistent numbers over the years and have caused general aviation accidents.

Other health conditions are known to increase in incidence or to become more complicated with aging. Many present greater difficulties of detection and risk assessment than does cardiovascular disease. Among these are cerebrovascular disease, malignancies; endocrine dysfunction; neurological disorders; psychiatric diagnoses including depression; and decline in sensory and motor capabilities. There has

been an increasing awareness of the more subtle adverse conditions affecting performance, such as those related to cognitive functioning.

Clearly there is a progressive anatomic, physiological, and cognitive decline associated with aging, albeit variable in severity and onset among individuals. We know that, at some age, everyone reaches a level of infirmity or unreliability that is unacceptable in a pilot in commercial passenger air transportation. That age will vary from person to person but cannot yet be predicted in a specific individual.

There are some who argue that the Age 60 Rule is arbitrary and without scientific basis. Proponents of raising the retirement age cite action in 1999 by the Joint Aviation Authority (JAA) in Europe which relaxed the standard, allowing a pilot in command to work until age 65, so long as the co-pilot is under age 60. We are not aware of any comprehensive or definitive study that was the basis for the JAA action. We also note that the International Civil Aviation Organization (ICAO) retains as a standard, an Age 60 limit for persons acting as pilot-in-command of an aircraft engaged in scheduled international air services or non-scheduled air transport operations for remuneration or hire and recommends that the co-pilot also be under age 60. While admittedly science does not absolutely dictate the age of 60 for commercial passenger pilot retirement, that age is within the age range during which sharp increases in disease mortality and morbidity occur. Until the FAA can be assured that increasing the Age 60 limit will not negatively impact the level of safety, we cannot support a change through legislative action.

One of the reasons cited for raising the retirement age to 65 is that some segments of the industry may be experiencing a pilot shortage. The FAA is certainly aware of the concerns of those who believe that a pilot shortage is imminent, one that could have an adverse impact on small and regional air carriers through high turnover rates. Based on our discussions with industry experts, we understand that, while the major airlines are not having difficulty meeting their pilot hiring goals, there are signs that the regional airlines and those feeding the regionals are starting to see higher turnover and pilot applicants with declining prior experience. This is not surprising given the fact that the major air carriers can offer significantly better pay and benefits. While this may be a legitimate concern, we need to be careful to maintain the highest safety standards possible.

At the end of 2000, the number of active (meaning those with valid medical certificates) airline transport pilots totaled 141,596. We forecast the number of airline transport pilots to grow at an annual rate of 3.1 percent to a total of 204,400 in 2012. It is difficult to determine whether this potential rate of growth will ultimately lead to a significant shortage of pilots. At present, many individuals with airline transport pilot certificates are not employed by regularly scheduled airlines. Some work as general aviation flight instructors while others are not employed as pilots. An airline transport pilot certificate is required for a pilot-in-command for Part 121 operations, but a pilot may act as a co-pilot or first officer with only a commercial pilot certificate in many Part 121 operations. Airlines could look to persons with commercial pilot certificates (numbering 121,858 at the end of 2000 and projected to increase to 148,800 in 2012) as potential hires. Air carrier equipage, labor agreements, routes and future changes in these factors further complicate the analysis.

In addition, military downsizing will ultimately reduce the importance of ex-military pilots as a source for civilian airlines. From World War II through the mid-1990s, approximately 80 percent of major airline new hires were military trained. Today, civilian pilots make up approximately 60 percent of all pilots hired. Non-military sources for pilots are persons with commercial pilot certificates, general aviation pilots, and the more than 200 colleges and universities that offer aviation programs.

The regional air carrier industry is both the entry level for airline transport rated pilots, and an increasingly important source of experienced new pilots for the major commercial jet operators. The most important thing for the regional airline industry and small carriers, such as commuters and on demand operators, is that there is a continuous pool of new pilots to draw upon for training and development. Regional airlines are increasingly developing "bridge programs" with aviation universities that screen and refer graduates who meet the participating airlines' minimum standards for employment. Also, many of the regional airlines are dropping their "pay for training" programs, which had required their pilot applicants to pay for their training, and reducing their company's minimum qualifications for new hires.

The general aviation industry has taken steps to increase interest in aviation. To help sustain the pool of pilots, the "BE A PILOT" program was initiated in 1996 with a goal of 100,000 new student starts by last year. This program is jointly sponsored and supported by more than 100 general aviation organizations. The program started issuing "introductory flight certificates" to interested respondents in May

1997. The certificates can be redeemed for a first flight lesson for a cost of $35. To date, over 110,000 certificates have been requested. The program has over 1,600 participating flight schools.

Through our regional offices, the FAA in partnership with State transportation officials, offer information and outreach to local communities about careers in aviation. We maintain an Aviation Education Website at *www.faa.gov/edu* where the public may find a host of career and curriculum materials, industry and educational contact listings, and community outreach initiatives.

Mr. Chairman, the FAA will develop regulations in the context of what is best for public safety. The FAA's primary mission is ensuring the safety of the National Airspace System (NAS). We work hard to manage a growth oriented aviation system—and the constraints on the system that growth imposes—in the most efficient and safe way possible. Our ongoing efforts to modernize the air traffic control system will enhance both the safety and efficiency of the NAS. The FAA also establishes, through our regulations, basic safety standards for aircraft and crewmembers that will ensure the safety of our traveling public. We construct our regulations very carefully, taking into account as many factors as we can, but ultimately, always making the decision that will best enhance aviation safety. While economic factors are certainly a part of that calculation, I am sure the Committee and our colleagues in industry would agree that safety must be the top priority.

That concludes my prepared remarks. I would be happy to answer any questions the Committee may have.

Senator HUTCHISON. Thank you, Mr. Lacey.

Captain Woerth.

STATEMENT OF CAPTAIN DUANE E. WOERTH, PRESIDENT, AIR LINE PILOTS ASSOCIATION

Captain WOERTH. Good afternoon, Madam Chairwoman, Members of the Committee. I am Duane Woerth, President of the Air Line Pilots Association, representing the professional interests of 59,000 airline pilots who fly for 49 airlines in the United States and Canada.

I am accompanied by Dr. Charles Billings, who has had a long distinguished career in the field of aviation medicine both in and out of Government, and is well-qualified to respond to your questions on the medical and performance aspects of the issue before the Committee today. I thank you for the opportunity to appear before the Committee to represent ALPA's views on the Age 60 Rule and on S. 361 to relax the Rule and establish a new mandatory retirement age of 65.

ALPA's position on the Rule and this legislation is the same as it was when I testified here 9 months ago on an identical bill. Nothing has changed during this time to warrant a change in the Rule, or ALPA's position. ALPA supports the Age 60 Rule, and opposes S. 361.

The Age 60 Rule is based on two fundamental principles that are indisputable by most medical authorities: first, the risk of incapacitation and the declines in cognitive functions increase with age, especially beginning in the mid-50s. Second, there is no adequate protocol of medical or neuropsychological tests to sufficiently and reliably determine which individual pilots will remain fit to fly as they approach and exceed age 60.

These two principles have been put to the test numerous times in a variety of forums through efforts by individuals or groups to repeal the Rule or to seek exemptions from it. The FAA has addressed these challenges on at least four separate occasions in the past 15 years, and in each case has proved conclusively that it should be upheld in the interest of air safety.

In 1986 and 1988, two separate groups of pilots, *Aman, et al.*, and *Baker, et al.*, filed petitions for exemption from the Rule, and in both cases the petitions were denied after a thorough review and consideration by the FAA and, upon appeal to the Court of Appeals for the Seventh Circuit, the denials were upheld.

In 1995, following one of the most comprehensive reviews to date, the FAA in an order known as the 1995 Disposition, denied a petition for rulemaking from a group of pilots organized to seek repeal of the Rule, denied numerous pending petitions for exemptions, and ordered the Rule to be applied to commuter airline pilots. This later action had been recommended some years earlier by the National Transportation Safety Board following several commuter airline accidents in which the age of the pilots was considered a factor.

The Disposition also stated that all future petitions for exemption would be denied unless they proposed a new, effective testing protocol for assessing individual pilot abilities and the risk of subtle and sudden incapacitation. The Disposition was upheld on appeal to the Court of Appeals for the District of Columbia Circuit, and to the United States Supreme Court, which later declined to hear the case.

Most recently the FAA, last December, denied the petitions for exemption of a group of 69 pilots, some of whom were still in their mid-50s. The fundamental claim of the petitioners in this case, *Adams, et al.*, is that each of them had undergone a new testing protocol that had been developed and administered by a panel of experts in a variety of medical fields and had been declared fit to fly. In a voluminous submission, the petitioners made numerous assertions and claims, including that these exemptions should be granted because of a significant shortage of experienced pilots, resulting in a reduction in air safety.

In its order denying the petitions, the FAA presents a comprehensive rebuttal to the claims of the expert panel as to the testing protocol, and conclusively demonstrates that the alleged new protocol was virtually identical to those that had been earlier rejected as insufficient in the *Aman* and *Baker* petitions.

The order also effectively disputes each of the assertions concerning the Rule itself. It is now subject to the review of the Court of Appeals for the Seventh Circuit, the same court that reviewed and upheld the FAA's action in the previous two cases. I submit to each of you who is interested in the substantive arguments on both sides of this issue, that you take the time to read FAA's order in this case. I believe you will agree with me that the FAA has made its case very thoroughly and persuasively that the retention of the Age 60 Rule is in the public interest, and in the interest of air safety.

I focus my remarks today on a comprehensive review of this regulation by the FAA over a period of 15 years for two reasons. First, I think it is important for the Committee to know that an enormous amount of study and research has been devoted to the issues in the debate over this one air safety regulation, and the FAA has continuously reviewed the literature and results of the research in its consideration of the challenges to the Rule by those who would seek to repeal it or be exempted from it. The agency has also spon-

sored a number of studies in an effort to understand the relationship of the Rule to the maintenence of the highest level of safety. Second, it is important for the Committee to know that the FAA has discharged its regulatory responsibility concerning this particular air safely rule in a professional, judicious, and thorough manner, and the Federal courts have affirmed the decisions it has rendered. Congress has charged the FAA with the mandate to prescribe and maintain regulations and minimum standards necessary for air safely, and in this case the agency has carried out its charge in the face of continuous and concerted challenges.

Based on this record, I urge this Committee to respect the authority of the FAA, as well as the jurisdiction of the Court of Appeals that will soon be reviewing the most recent case, and to refrain from moving legislation to overturn the Rule. This concludes my statement, and I am pleased to answer your questions, Madam Chairman.

[The prepared statement of Captain Woerth follows:]

PREPARED STATEMENT OF CAPTAIN DUANE WOERTH, PRESIDENT, AIR LINE PILOTS ASSOCIATION

Good afternoon Mr. Chairman and Members of the Committee. I am Duane Woerth, President of the Air Line Pilots Association, International (ALPA). ALPA represents the professional interests of 59,000 pilots who fly for 49 airlines in the United States and Canada. I appreciate the invitation to appear before the Committee today to present ALPA's views on S. 361, a bill to relax the FAA regulation known as the Age 60 Rule, and impose a new mandatory retirement age of 65. My testimony today on this legislation is essentially the same as that which I submitted to the Committee last July on an identical bill. Nothing has changed in the past 9 months to warrant a change in the Rule or ALPA's position. ALPA supports the Age 60 Rule, and opposes S. 361.

The Age 60 Rule is based on two fundamental principles of medical science that are indisputable. First, the risks of incapacitation and unacceptable decrements in performance increase with age. Second, medical science has not developed a regimen of reliable tests that can be administered effectively to identify those aging pilots who are, or will become, incapacitated, or whose performance will decline to an unacceptable level. The issues surrounding the regulation have been studied as thoroughly as any aeromedical matter affecting pilots, and after two decades of comprehensive studies and exhaustive review, these two principles are still valid as the underlying basis for the Rule. As a matter of fact, the FAA, as recently as December 13, 2000, after a comprehensive review, reaffirmed that medical science has not yet advanced to the point to adequately screen out those over-60 pilots whose on-the-job performance will in fact become inadequate and potentially unsafe due to the normal processes of aging.

In late 1979, the House of Representatives rejected a proposal to relax the Rule, and directed the National Institutes of Health to conduct a study to determine if there was sufficient medical evidence to support it. In August 1981, the National Institute of Aging Review Panel on the Experienced Pilots Study that was responsible for reviewing the study and submitting a report to Congress concluded:

"The Panel attaches no special medical significance to age 60 as a mandatory age for retirement of airline pilots. It finds, however, that age-related changes in health and performance influence adversely the ability of increasing numbers of individuals to perform as pilots with the highest level of safety and, consequently, endanger the safety of the aviation system as a whole. Moreover, the Panel could not identify the existence of a medical or performance appraisal system that can single out those pilots who would pose the greatest hazard because of early or impending deterioration in health or performance." Following completion of the NIA review, the Rule was contested in Federal Court and reconsidered by the FAA. In 1989, in response to a directive by the U.S. Court of Appeals for the Seventh Circuit, the FAA reviewed the evidence and reaffirmed its support of the Rule. In the decision, the FAA's Director of Flight Standards stated:

"Based upon all of the studies discussed, we conclude that an older pilot's edge in experience does not offset the undetected physical infirmities associated with the aging process. Notwithstanding that most pilots who are approaching or have

passed age 60 report that their health is excellent and they do not experience any physical or cognitive limitations which would prevent them from continuing their flying career, the research of aging indicates that there is often a sharp decline in physical and cognitive performance after age 60. There is substantial scientific evidence which indicates that the greater experience of the pilots who have reached or passed age 60 does not outweigh the increased risk of incapacitation or skill deterioration which accompanies seniority." Since 1994, the FAA itself has sponsored at least five studies on issues related to the Rule. The most comprehensive consideration of the Rule by the FAA occurred between 1993 and 1995. In late 1990, the FAA had initiated a statistical study on the relationship between pilot age and accident rates. Following the release of the so-called Hilton Study in March, 1993, the FAA convened a public meeting in September to solicit comments on the study and the Age 60 Rule in general. Two years later, in December 1995, the FAA concluded an exhaustive rulemaking proceeding, commonly known as the "One Level of Safety" review, in which the safety regulations governing the commuter airlines (Part 135) were harmonized with the major carrier regulations (Part 121). One component of that review and subsequent order was a reaffirmation of the Age 60 Rule and the application of it to the commuter airlines. Recognizing that this change might pose a hardship for some commuter pilots and operators, the FAA granted a 4-year phase-in of the new rule. At the time of the order, the FAA estimated that there were approximately 8,000 pilots in the commuter category, and of those, approximately 200 were over 60 years of age. The grace period expired on December 20, 1999, at which time those pilots who were over 60 years of age were required to retire. During this same timeframe (1993-1995), and again just last year, the FAA considered and denied a petition for rulemaking to repeal the Rule that was filed by a group of pilots, both active and retired, who have been fighting it for years.

As mentioned above, just last December, after an exhaustive review of the scientific literature on this issue, the FAA determined that it was again compelled to deny pilot requests for exemption from the Rule on the grounds that there was still no reliable scientific test to identify those over-60 pilots who posed potential safety risks. The FAA reiterated the fact that that there was little dispute over the principle that, as people age, they experience more illnesses and disorders, and suffer more cognitive decline, the onset of which is usually insidious and sometimes overlooked by co-workers, family and friends. Often the individuals themselves are not aware of age-related decline in memory, language, spatial orientation and judgment from previously attained intellectual levels. As the FAA noted, medical science is currently unable to identify these defects in memory, cognitive capacity and adaptive behavior, and many dementing diseases can be confirmed or denied with certainty only after death. Given the difficulty in identifying and measuring these declines, FAA concluded that it is an unacceptable risk to the public safety to allow pilots to fly until failure; therefore, some age must be selected at which mandatory retirement is indicated. Others would choose a different age; however, age 60 is within the age range during which the FAA and the medical community have found that sharp increases in disease and morbidity occur, and it has served well as a regulatory limit since 1959.

Let me conclude my statement by saying that ALPA regards the Age 60 Rule as an extremely important safety regulation that should not be overturned without the full support and confidence of the FAA—the agency that the Congress has charged with promulgating and enforcing such regulations. Unfortunately, many challenges to the Rule over the years have not been based on safety grounds, and I applaud the FAA for resisting those petitioners and their arguments until the case can be made that safety will not be diminished. As I have stated in the past, our members are often reminded that the FAA is not mandated to ensure that airline pilots enjoy a long and productive career. Rather, its mandate is to insure the highest degree of safety in air transportation. The justification for the Rule is not now and never has been to enhance the careers of pilots who want to move up the seniority list faster and it should not be changed for the sake of those who want to continue flying longer. To repeat, the Age 60 Rule is a safety regulation and should not be changed or repealed unless and until the FAA, not ALPA or any other pilot organization, is convinced, based on sufficient and conclusive evidence, that such action would not have a negative effect on safety. In ALPA's view, that case has never been made.

Thank you for the opportunity to present ALPA's view on this critical air safety issue.

Senator HUTCHISON. Thank you, Captain Woerth.

Captain Emens.

STATEMENT OF CAPTAIN PAUL EMENS, CHAIRMAN, PILOTS AGAINST AGE DISCRIMINATION

Captain EMENS. Thank you. Good afternoon, Senators. My name is Paul Emens. I am Chairman of the group known as Pilots Against Age Discrimination, PAAD. PAAD represents all pilots who believe the Age 60 Rule is discrimination, and that changing it will not only reduce the Nation's critical shortage of pilots, but will dramatically increase the level of experience brought to commercial aviation.

Supporting PAAD is the American Association of Retired Persons, the Full Employment Opportunity Commission, the Organization of Black Airline Pilots, the Professional Pilots Federation, and a group known as ALPA Pilots Against Age 60, APAAS.

As was said earlier, this Rule was brought about with no hearings, no testimony, no medical input. In one stroke of a pen the administrator created the Rule, and shortly thereafter was put on the board of directors of the airline who requested the Rule change. Can any of you even imagine that happening today? 40 years later, we still have this Rule.

It should be termed age discrimination, and it is. The AARP agrees. In its policy handbook it says the Federal Aviation Administration's Age 60 Rule should be eliminated and replaced with regulations or law that determine each individual's competency and fitness on the basis of factors related to safety, as is the case with younger pilots.

The EEOC also believes the issue to be discrimination, and has worked hard to eradicate it. Age 60 has been stamped out nationwide in all areas of commercial aviation with the exception of the airline industry. The man responsible for this is here today, Bob Unitas of the EEOC, which has submitted a brief in support of the Rule change.

Consider this double standard, if you will. Mr. Lacey here of the FAA could well have been flown here today by FAA pilots who themselves are allowed to fly over the age of 60 in the same air space that I occupy every day. It is ridiculous.

We will hear today, or we have heard, that changing the Rule will adversely impact safety. In doing so, the FAA ignores its own study, the Hilton study of 1993. That study, bought and paid for by the FAA, said unequivocally accidents decreased with age, leveling off for older pilots. Our analyses provided no support for the hypothesis that the pilots of scheduled air carriers had increased accident rates as they neared the age of 60. Most of the analysis indicated a slight downward trend in accident rates with age. Without explanation, its results were ignored.

Mr. Lacey told us that the Rule should remain as is.

However, Dr. Frank Austin, a former Federal Air Surgeon, said there is no basis for the Age 60 Rule. I believe this, and Admiral Engen, former FAA Administrator, believes this is an economic issue.

Just a few weeks ago, Dr. Austin appeared on the ABC Evening News saying this very same thing yet again. Thus far, he has been ignored.

When the Australian Supreme Court threw out Australia's Age 60 Rule the Chief Justice said this: "Given the time and effort ex-

pended in America examining the Age 60 Rule, it is remarkable to say so, but it seems to me that none of the cited studies supports any conclusion about the relationship between that Rule and aircraft safety."

Dr. Billings, who testified to maintain the Australian Age 60 Rule, was described by the Australian Supreme Court as having been a long advocate of the Age 60 Rule to the point where it must be difficult for him to give open-minded consideration to an alternative approach. I am not persuaded that he has been able to do this. I think that remains true today.

I have been told on Capitol Hill that Congress is reluctant to intrude into the domain of the FAA, particularly where safety is concerned. Yes, the U.S. air transportation system is the safest in the world, but the FAA has made many errors over the years.

There were hundreds of millions of dollars wasted in a futile effort to upgrade the air traffic control system.

There was the failure of airline oversight that led to the ValuJet disaster, and ongoing is a decade long fight to tighten pilot flight and duty time regulations. This failure to address fatigue resulted in yet another fatigue-related crash, the American Airlines jet at Little Rock.

Just as pilot fatigue is an issue, so, too, is age 60.

We cannot afford to wait another 10 years. Are we going to wait until accidents begin to occur as a result of pilot inexperience? Ms. Garvey is a fine Administrator, and she is working hard to move that giant bureaucracy, the FAA, but I will say, Senator, sometimes a bureaucracy needs a good boot in the butt to get it moving.

Congress has passed laws that impact other transportation sectors, notably duty time in trucking and maritime. It can pass a law to influence the Age 60 Rule. This Rule is an economic issue, and ALPA, with its PAC money, is its foremost defender. My father was an ALPA Pan Am pilot who once worked to overturn the Age 60 Rule. ALPA was, in my father's time, an opponent of this Rule. For 20 years, no ALPA talk was ever made of over age 60 pilots being a safety problem. Younger pilots took over ALPA. Things have changed.

Now, I would say the Age 60 Rule is unsafe, and I will wrap it up with this. There is a pilot shortage in this country. More to the point, there is a shortage of experienced pilots. This extends even into our military, as Senator Murkowski has mentioned. It is a readiness issue.

ALPA knows there is a shortage. In 1998, they said large numbers of captains will be retiring from most U.S. carriers. The effects on the air transportation system could be disastrous. The real losers will be the air taxi and regional operators that must fly their aircraft with the pilots the majors cannot attract. Fast forward to the issue, and ALPA last month in an article on the pilot shortage, ALPA briefly wrote this: "ALPA's renewed vitality rests on the bargaining advantage of this pilot shortage, not even Frank Lorenzo would try to fly through a strike today." This is economic, Senators, not safety.

Senator HUTCHISON. Captain Emens, are you concluding? Actually, Captain Emens, we have had a vote called, and I want to get Dr. Wilkening, so if you could just finish your last line, then I want

to take Dr. Wilkening, then our questioning is going to be much shorter, I am sure, than people had hoped.

Captain EMENS. Turnover rates at many regional airlines are as high as 100 percent. We are starting to see this. We are seeing this. The FAA's own data is showing that older pilots are safer, and we need to concentrate on the safety aspect of it.

This is not an attack against labor, and some folks will try and portray it as such. At least 15,000 to 20,000 who wish to see this rule change are union labor. Some 10,000 to 15,000 of those are ALPA pilots who wish to see this rule change. We can change this Rule by just raising the experience level, by raising the retirement age. We can change the tax code so that pilots are not penalized when they retire at age 60, as is the case without special tax language that is in there now, and if we guard against the FAA changing medical standards, which many pilots fear, particularly for those under age 60, we can lift that concern as well.

[The prepared statement of Captain Emens follows:]

PREPARED STATEMENT OF CAPTAIN PAUL EMENS, CHAIRMAN, PILOTS AGAINST AGE DISCRIMINATION

Good afternoon, Senators. My name is Paul Emens and I am Chairman of the group known as Pilots Against Age Discrimination (PAAD).

PAAD represents all pilots who believe that the Age 60 Rule is age discrimination and that changing it will not only reduce the Nation's critical shortage of pilots but will dramatically increase the level of experience brought to commercial aviation. PAAD is supported in its efforts by the American Association of Retired Persons (AARP), the Equal Employment Opportunity Commission (EEOC), the Organization of Black Airline Pilots (OBAP), ALPA Pilots Against Age Sixty (APAAS) and the Professional Pilots Federation (PPF).

The Age 60 Rule was born as part of a sweetheart deal between the chairman of a major airline and the first FAA Administrator. Having lost an age dispute in court, with his lawyers advising that there were no grounds for an age change, this airline chairman asked the FAA to get this done administratively. One stroke of a pen. No hearings. No testimony. No medical input. Not long afterwards, that same administrator was placed on the Board of Directors for that airline.

Thus were thousands of pilots, for the very first time, grounded at the chronological age of 60—regardless of health or competency.

Can you imagine such a thing being done today?

It would be termed age discrimination, and rightly so. The AARP agrees: "The Federal Aviation Administration's "Age 60 Rule" should be eliminated and replaced with regulations or laws that determine each individual's competency and fitness on the basis of factors related to safety, as is the case for younger airline pilots." The EEOC also believes the issue to be discrimination and has worked to eradicate it. Age 60 has been stamped out nationwide—with the exception of the airline industry.

Consider this double standard: The Federal Air Surgeon, Dr. Jon Jordan, may well have been flown here by FAA pilots—who ARE allowed to fly over the age of 60.

It's ridiculous. It's age discrimination.

We heard today how the FAA thinks changing the Rule will adversely impact safety. In doing so it will ignore its own study, the Hilton Study of 1993. That study clearly said, unequivocally, "accidents decreased with age, leveling off for older pilots. Our analyses provided no support for the hypotheses that the pilots of scheduled air carriers had increased accident rates as they neared the age of 60. Most of the analyses indicated a slight downward trend [in accident rates] with age." Without explanation, its results were ignored.

Mr. Jordan will tell us the Rule is fine the way it is. This is the same Air Surgeon who ignored the Hilton Study. One of his predecessors has a different view, however. Dr. Frank Austin, former Federal Air Surgeon said, "There is no basis for the Age 60 Rule. I believe this and Admiral Engen [the FAA Administrator] believes this. It's an economic issue." Just a few weeks ago Dr. Austin appeared on ABC Evening News saying this very thing—yet again. Thus far he's been ignored.

I've been told on Capitol Hill that Congress is reluctant to intrude into the domain of the FAA, particularly where safety is concerned. Yes, the U.S. air transportation system is the safest in the world. But the FAA has made many errors over the years. There were the hundreds of millions of dollars wasted on a futile effort to upgrade the Air Traffic Control System. There was the failure of airline oversight that led to the ValueJet disaster. Ongoing is a decade-long fight with to tighten pilot flight and duty time regulations. This failure to address fatigue resulted in yet another fatigue-related crash, the American Airlines jet at Little Rock. Just as pilot fatigue is an issue, so too is Age 60. Are we going to wait until accidents begin to occur as the result of pilot inexperience? Ms. Garvey is a fine Administrator and she is working hard to move that giant bureaucracy, the FAA. But Senators, sometimes a bureaucracy needs a good boot in the butt to get it moving.

This Rule is an economic issue. ALPA with its PAC money is the foremost defender of the Age 60 Rule.

My father was an ALPA Pan Am pilot who once worked to overturn the Age 60 Rule. ALPA was, in my father's time, an opponent of this Rule. For 20 years was no ALPA talk of over-age 60 pilots being a safety problem. Then younger pilots took over ALPA leadership making "job progression" a "right" in place of what most people believe is one's "right to work". Younger pilots want to get into the Captain's seat, the sooner the better. In the early 1980s ALPA secured an amendment to the tax code that allowed them to take full advantage of their pensions, in spite of being forcibly retired at the age of 60.

Younger pilots' careers advanced. Older pilots' pensions secured. That is the foundation upon which opposition to changing the Age 60 Rule rests. Pilots also fear the FAA will take the opportunity of an age change and mandate new medical standards for those under the age of 60. Would the FAA be justified? Absolutely not. Yet it is something the FAA may very well attempt.

I've established the Rule is fundamentally wrong. But there is more.

The Age 60 Rule is unsafe as well.

There is a pilot shortage in this country. More to the point there is a serious shortage of experienced pilots. Not only are there fewer numbers of pilots to fill the needs of air carriers—and provide safe and reliable air service to undeserved States and cities—there is a *critical shortfall in experienced pilots nationwide.* This shortage extends even into our military and is a source of concern at the Pentagon. Taken together, our military aviation organizations are some 3,000 or more pilots short of their manning needs. Naval aviation retention rates are at an alarmingly low of 15 percent annually. This is a readiness issue. This is one reason why Senator Inhofe, himself a commercial pilot, has co-sponsored this bill.

ALPA knows there's a shortage. In May 1998 ALPA published an article that said in part: "Large numbers of Captains will be retiring from most U.S. carriers. The effects on the air transportation system could be disastrous as a sudden surge of poor-caliber pilots is dragged from the bottom of the system, perhaps all the way to the majors. The real losers will be the air-taxi and regional operators that must fly their aircraft with the pilots the majors cannot attract." ALPA's president, Captain Duane Woerth confirmed this critical problem when he stated during Senate testimony last July that "with the growth in air travel has come growth in airline employment, including pilots leaving jobs in the commuter airline industry." He called this a "natural phenomenon". What he didn't mention is that thousands of those jobs are the result of age-based forced retirement. At TWA, an airline that has shown no growth, fully half of their seniority list is due to retire within 5 years due to age-based retirements. With American Airlines acquisition of TWA, that problem will soon shift to American Airlines, whose pilot group has its own wave of age-based retirements.

Fast forward to ALPA's magazine issue last month. In an article on the pilot shortage, ALPA gleefully wrote this: "ALPA's renewed vitality rests on the bargaining advantage of this pilot shortage. Recent negotiations have inverted the troubled past. Not even Frank Lorenzo would try to fly through a strike today!" Economics, Senators. Not safety.

The fact is, Senators, the real losers are the passengers of YOUR State whose lives are placed at risk by pilot inexperience. Currently it is not uncommon for pilots to be hired straight out of aviation colleges and into the First Officer's seat of a regional airline, even a regional jet. Within a year, these novices can be promoted to Captain.

Fact: Inexperienced pilots make three times as many critical errors as more experienced pilots. A pilot with but 1 year of line-flying experience coupled with a co-pilot straight out of flight school is a recipe for disaster in commercial aviation. Today our most experienced pilots—those over 60—have been removed from the

ranks in order to make room for pilots with minimal flight time and little other than school experience. Is this the pilot you want for your family's next flight?

Senator McCain had the foresight to recognize this problem as far back as 1996. In Senate testimony he said, "One obvious way to increase the experience levels of cockpit crews would be to increase the discriminatory maximum age for pilots, which is limited by the Age 60 Rule." Turnover rates at many regional airlines range as high as 80 percent or more, as pilots move on to the major carriers, filling slots opened by expansion and an increasing volume of age-driven retirements. Service to your constituents suffers. The safety net is straining.

In 1995 the FAA elected to apply the Age 60 Rule to regional carrier pilots, who for more than four decades had been transporting the citizens of your States without a single safety problem related to the pilot being 60 years of age or older. After a 5-year phase-out of older regional pilots, the last retired in December 1999. The oldest was 71.

Fact: The FAA's own data shows that not only are older airline pilots as safe as their younger comrades, the safety record of these older pilots surpasses that of nearly every other air transport pilot group. The FAA had their study group, the regional pilots. They simply ignored it, as they ignored the Hilton Study.

Here's another absurdity: Pilots of foreign carriers in Japan, Australia, Canada and most of those of Europe such as Germany—all first-tier nations—have raised their retirement age, most to 65. In fact, over age 60 pilots of these countries may fly into American airspace, carrying U.S. citizens, while our own country's pilots may not do so. Ask the FAA to explain that anomaly!

This is not an attack against labor. I am a member of a union. At least 15,000-20,000 of those wishing to see a rule change are union labor. Many more are not. Some 10,000-15,000 ALPA pilots are among those who wish to see the Rule changed. My speech hits hard at two entrenched entities, the FAA and ALPA, that seem to be out-of-touch with today's world. Their focus is on the past. Our focus is on the present and the future.

We can make this a win-win for us all:

1. Raise the retirement age, increasing experience and thus raising the level of safety. Pilot competence and health or not fixed to an arbitrary chronological age.

2. Change the tax code so a pilot is not forced to fly over age 60 to collect his full pension. Who, after all, wants a pilot in the cockpit who doesn't want to be there?

3. Guard against changes in FAA medical standards for pilots under age 60, men and women who are already the most thoroughly tested and monitored of all professionals.

Let me end with the motto of the Air Force's 89th Airlift Wing, which flies the President as well as other top government officials. "Experto Crede"—"Trust One Who Has Experience."

Do your constituents deserve any less?

Senator HUTCHISON. I am very sorry, but we have about 7 minutes left, and I would like to hear what Dr. Wilkening has to say so we have the full record, and then see if there are questions.

STATEMENT OF ROBIN WILKENING, M.D., MPH, JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH

Dr. WILKENING. Thank you, ma'am. I am a physician specialist in occupational medicine, an aviation safety researcher, and a frequent flyer, and I am here today to tell you that the Age 60 Rule is age discrimination in commercial aviation.

You will hear over and over that the Age 60 Rule is a necessary safety standard. Do not be deceived. We already heard today, or what we did not hear from Mr. Lacey was, about the U-shaped curve, that even though it looks like there are higher accidents at the extremes of age, there is no statistically significant difference in accident age among pilots age 23 to 63, again, no statistically significant difference. The older pilots are as safe as the younger. Do not be deceived.

The truth is, if the issue was really safety, we would not even be having this discussion, because there would not even be an Age 60 Rule. Time and again, over age 60 pilots have been shown to be as safe as their younger colleagues. For decades this has been true.

Historically, there have been three hypotheses of interest about the health and fitness of the aging pilots: 1. That pilots over the age of 60 might experience incapacitation; 2. That pilots over the age of 60 might experience undetected cognitive decline; 3. That medical testing may not identify pilots over the age of 60 who may be at risk for adverse health events.

Sudden incapacitation due to cardiovascular disease was the stated reason, though not the real reason that the actual age of 60 was chosen, and 40 years ago, when ALPA still championed the rights of all pilots to remain employed, former ALPA president Clarence Sayen challenged the FAA Administrator to justify his hasty decision to enact the Rule.

Elwood Quesada responded with highly questionable documents, culled from medical archives in the 1950s, many of which were decades old at that time and, in addition to being astonishingly outdated, these articles described the characteristics of general populations and not of airline pilots, and they are not the fundamental, indisputable principles of medical science that current ALPA president, Duane Woerth, would have you believe.

The original justification for the Rule implied, incorrectly, that the health characteristics of the general population also applied to airline pilots. Wrong then and wrong now. Airline pilots are healthier and live longer than their counterparts in the general population the world over.

Moreover, concern over pilot incapacitation causing a crash is simply unjustified. International Air Transport Association data and simulator data show that the risk of incapacitation due to cardiovascular disease is only one event in more than 20 million flight hours. The calculated probability of a crash resulting from incapacitation is one event in 8.3 billion flight hours, or one event every 400 years.

Furthermore, it is well-established that in-flight incapacitation is a far less threat to safety than mishaps due to inexperienced pilot error. The truth is, 40 years of medical scrutiny show no justification for keeping the Age 60 Rule based on the fear that an airline pilot will become incapacitated regardless of age.

As far as the normal, healthy aging process, it is accompanied by decreases in cognitive function over time in all population groups, though rarely manifested prior to 70.

Airline pilots consistently demonstrate superior task performance when matched against non-pilots by age. High levels of education and training, characteristic of this population, significantly enhance their mental abilities.

Airline pilots are selected for good health when they start their careers. They are examined comprehensively every 6 months thereafter. The illnesses that might lead to cognitive decline are detected, corrected, or the pilot is discharged. They are monitored and health conscious more than any other professionals in our country. Moreover, all airline pilots undergo mandatory simulator testing

every 6 months to a year, that tests every conceivable routine and emergency situation.

They are under the constant scrutiny of other pilots, flight attendants, mechanics, load masters, gate personnel, and air traffic controllers during daily flight operations.

They are subject to the two communication rules at all times. There is simply no chance that a cognitive decline, even if it should occur, would go undetected, so the truth is, 40 years of medical scrutiny show no justification for the Age 60 Rule based on the fear that an airline pilots will have undetected cognitive impairment, regardless of age.

ALPA wants you to believe that there are no tests—that medical science has not developed a regimen of tests that can be administered effectively. I am forced to reveal that Captain Woerth, who made that statement, is either sadly uninformed, or seeks to misinform.

The truth is, sophisticated and readily available testing programs have been available and used by the FAA for more than 20 years to determine airline pilot fitness for duty and, in addition to the diagnostic value they have predictive value as well and, moreover, age does not influence the manner in which disease presents itself diagnostically. To claim that these tests, both medical and psychological, fail the day a pilot turns 60 is simply wrong.

Airline pilots under age 60 who have been removed from duty for heart attack, coronary artery bypass, alcoholism, even after relapse, drug abuse, brain injury, psychiatric illness, and a long list of other health problems, are routinely returned to flying after passing one or more of these diagnostic tests, and have been for decades. They are allowed to prove themselves fit, and without exception or justification, the FAA denies access to these same tests by pilots the day they turn 60. This is an unethical medical standard, and it is indefensible, and the truth is, it is not a safety standard, it is age discrimination.

[The prepared statement of Dr. Wilkening follows:]

PREPARED STATMENT OF ROBIN WILKENING, MD, MPH, JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH

Mr. Chairman and distinguished Members of the Committee: Thank you for allowing me the opportunity to speak. My name is Dr. Robin Wilkening. I am a physician specialist in Occupational Medicine, an aviation safety researcher, and a frequent flyer. And I am here today to tell you that the Age 60 Rule is age discrimination.

For the past 40 years the Age 60 Rule has purposely and systematically excluded highly trained pilots from employment based on age alone, thus exemplifying the very definition of age discrimination. That our most experienced pilots are forced prematurely from positions of command has the frightening potential to render the skies more hazardous for all travelers and thus represents a serious public health concern.

Legitimate historical documents reveal all too clearly that the Age 60 Rule was not based on safety principles. The Age 60 Rule's conception followed the unethical professional coupling of the CEO of American Airlines and the first Administrator of the FAA, resulting in an economic windfall for the airline and a post-retirement job for the administrator.[16,17,18,19] Even then the FAA knew "it was not yet possible to establish a retirement age for civil airline pilots based on scientifically determined facts."[1] Though some would claim that the Rule is "justified on its merits as a sound and effective safety regulation,"[30] it is abundantly clear that the Rule cannot be justified—because it simply has no merit.

Historically there have been three major hypotheses of interest in the medical arena regarding the employment of older pilots.

1. Pilots aged 60 and older might have a greater likelihood of experiencing incapacitation, either sudden or subtle, which would place the aircraft and passengers at risk.

2. Pilots aged 60 and older might experience decrements in cognitive performance resulting in dangerous judgment errors that could compromise safety.

3. Medical and psychological testing procedures may not identify pilots aged 60 and older who might be at risk for adverse health events.

INCAPACITATION

Sudden incapacitation secondary to underlying cardiac or cerebrovascular disease was the stated reason the actual age of 60 was chosen. Far from being based on indisputable, fundamental principles of medical science, as its proponents claim, the Rule's initial medical underpinnings were 41 questionable articles culled from the medical and psychological archives of the 1950s, the majority of these having been published decades earlier. In addition to being astonishingly outdated, these articles described the physical and mental health characteristics of general populations and not of airline pilots.[20] The original justification for the Rule implied, incorrectly, that the health characteristics of the general population of white males in the United States applied also to the population of air carrier pilots. It remains incorrect to assume the same today. Airline pilots are still healthier and live longer than their counterparts in the general population the world over.[3,4,7,12,13,14,22]

Moreover, simulator data have estimated the risk of incapacitation due to cardiovascular disease as only one event in more than 20 million flight hours, with a calculated probability of an accident occurring as a result of incapacitation once in every 8,307,082,800 flight hours (or, stated another way, *one episode every 400 years*) assuming that all incapacitations occur in a critical point in the flight.[8] Furthermore, it is well established that sudden in-flight incapacitation is a far less threat to aviation safety than are mishaps due to inexperienced pilot error.[11] Forty years of medical scrutiny reveals nothing that justifies maintaining the Age 60 Rule based on the fear that the pilot of a multi-crew aircraft will compromise passenger safety due to his or her sudden or subtle incapacitation, regardless of age.

COGNITIVE PERFORMANCE

The normal, healthy aging process is accompanied by decreases in cognitive function over time in all population groups, though airline pilots consistently demonstrate superior task performance when compared to age-matched non-pilots.[26] High levels of education and training (characteristics of commercial aviators) significantly enhance the retention of mental abilities.[24] Airline pilots, selected for good health at the start of their careers and subjected to comprehensive medical examinations every 6 months thereafter, are among the most monitored and health-conscious of all professionals. Mandatory simulator time that tests every conceivable routine and emergent situation, constant scrutiny during routine flight operations, and unannounced flight checks further assure that cognitive decrements will not go unnoticed.

Illnesses leading to cognitive decline are detected and corrected, or the pilot is removed from the work force.[9] Once again, nothing justifies maintaining the Age 60 Rule based on the fear that the pilot of a multi-crew aircraft will compromise passenger safety due to problems with cognitive performance, regardless of age.

IDENTIFICATION OF PILOTS AT RISK FOR ADVERSE HEALTH EVENTS

Those who assert that "medical science has not developed a regimen of reliable tests that can be administered effectively to identify those aging pilots who are, or will become, incapacitated, or whose performance will decline to an unacceptable level"[30] are sadly uninformed—or seek deliberately to misinform. Sophisticated and readily available testing programs have been used for more than 20 years to determine the medical and psychological fitness of airline pilots. In addition to the diagnostic value of these ever-improving tests, they are widely accepted to have predictive value.[2,6,21] The FAA's claim that these tests—both medical and psychological—fail right at age 60 is simply not valid. The medical literature shows that age does not influence the manner in which disease manifests itself diagnostically.[28] Airline pilots under age 60 who have been removed from duty for reasons of myocardial infarction, coronary artery bypass surgery, cardiac pacemaker implantation, alcoholism (including some after a third relapse), drug abuse, brain injury, psychiatric disease, and other life-threatening maladies, are routinely returned to flying duties upon passing one or more diagnostic tests, and have been for decades.[10,22,29] Without exception or justification, the FAA denies access to these same tests by demonstrably healthy pilots the day they turn 60. This unethical double standard in med-

ical evaluations based on age alone is not defensible! Continuing to deny over-60 pilots the opportunity to demonstrate their health and fitness amounts to blatant age discrimination.

FLIGHT PERFORMANCE DATA: THE GREATEST SIGNIFICANCE TO PUBLIC SAFETY

Most importantly, decades of actual flight performance data, the measure of greatest significance to public safety, show that for nearly every age group, older pilots surpass younger in terms of safety. The FAA's 1993 Hilton Study brought a new level of statistical sophistication to the discussion of over-60 pilot performance. This exhaustive and carefully conducted study demonstrated conclusively that there was simply no diminution in flight performance with age, and showed, further, that over-60 pilots were actually safer than pilots in most younger age groups.[15] These findings were echoed in yet additional data provided by the FAA and analyzed by statisticians for the Chicago Tribune in 1999, revealing that air transport pilots over age 60 were significantly safer than most of their younger counterparts.[24] Shocked into rebuttal mode by the Tribune's research, the FAA re-analyzed the data and deliberately excluded these over-60 pilots from the analysis. The FAA works hard spending passenger tax dollars to prevent discovery and dissemination of safety information contrary to their antiquated and entrenched position! Among pilots aged 20-59, the FAA re-analysis demonstrated no difference in risk by age, validating the 1993 Hilton Study.[5] How many times does this information need to be repeated for it to be believed? Internationally, the safety and reliability of over-60 pilots is accepted without question by nearly every other industrialized nation. The United States stands with a small minority of nations in maintaining this arbitrary standard.

Though the Age 60 Rule has enjoyed a long, and protected reign, its claim as a safety standard remains unsubstantiated by medical science. Attempts at medical justification of the Rule have been disingenuous ploys to divert attention from the Rule's obvious exclusionary economic premise. Opportunities for thorough study of actively employed over-60 airline pilots have been neglected in favor of maintaining an antiquated and potentially dangerous regulation.

The increasingly traveled skies of our Nation demand the most experienced and highly motivated pilots in the cockpit—now forced out of work by the Age 60 Rule—to mentor their younger and less experienced, but upwardly ambitious partners. The FAA clings irrationally to the notion that age of 60 alone represents an appropriate single standard for the evaluation of older pilot fitness. If any one of you were to undergo cardiac surgery or bone marrow transplantation tomorrow you would naturally want your life be in the hands of the most knowledgeable and skilled doctor, regardless of his or her age. When I fly—when my children fly—I want that very same level of professional ability and experience in the Captain. The archaic and discriminatory Age 60 Rule prohibits our most experienced pilots from performing the work they know and do better than anyone else in the business, thereby compromising your safety, my safety, and the safety of all passengers. Thank you.

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17. Letter from C. R. Smith to Clarence N. Sayen, April 3, 1959. From Reighard files.
18. Letter from Clarence N. Sayen to C. R. Smith, April 14, 1959. From Reighard files.
19. Letter from C. R. Smith to General Elwood Quesada, 30 April 1959. From Reighard files.
20. Letter from Elwood R. Quesada to Clarence N. Sayen, August 5, 1959. From Reighard files.
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Senator HUTCHISON. Senator Stevens.

Senator STEVENS. Mr. Lacey, I would like you to give to the Committee a breakdown of pilots that are licensed by the FAA by age who are flying commercially. I would like to see how bad this problem is. We know how bad it is in Alaska.

Second, in your statement you indicate that, until you can be assured that it will not negatively impact the level of safety. I do not understand that statement, in view of the fact that you take the position that the burden of proof is on anyone who protests the Rule. What are your standards?

Please give us a statement for the record. What will it take to assure the FAA that increasing the Age 60 Rule limit will not negatively impact the level of safety? What will it take, OK?

Mr. LACEY. Senator, I would be glad to do that.

[The information provided is in the appendix.]

Senator STEVENS. We have got to go for two votes. There is no reason to keep you here.

Senator HUTCHISON. That is why I wanted to make sure that we have everything on the record, because the two votes will take 30 minutes, and I appreciate the time and effort you have made to come and I appreciate that we got both sides, I think, fully brought into the record.

I would just like to ask Mr. Lacey as well to do one other thing, and that is, if you assume that Congress was going to raise the age, I would like to know how you would approach it responsibly? What kind of added testing or experience level would you require, and do you think that we should go in smaller steps if we decided that the evidence was more the other way?

Should you go to 62 or 63 before you go to 65, and allow the FAA to then have the ability to go to 65 after a period of testing? Is that a reasonable approach? If you could answer that for the record, I would appreciate it.

Thank you very much.

[Whereupon, at 3 p.m., the hearing adjourned.]

APPENDIX

RESPONSES TO QUESTIONS SUBMITTED BY SENATOR TED STEVENS TO L. NICHOLAS LACEY

Question 1. Give the Committee a breakdown of pilots that are licensed by the FAA by age who are flying; commercially?

Answer: The attached Table shows the numbers of pilots, by age group, who hold Airline Transport Pilot (ATP) certificates, and Commercial (COM) certificates. The groups are subdivided into ATP and COM pilots who MAY hold 1st and 2nd class medical certificates. A pilot who serves as pilot-in-command (i.e., Captain) for flight operations conducted under Title 14, Code of Federal Regulations (14 CFR), Part 121 is required by the regulation to have an ATP certificate and valid 1st class medical. A pilot who serves in the capacity of second-in-command (i.e., First Officer) for operations conducted under 14 CFR Part 121 must have at least a commercial certificate and valid 2nd class medical certificate.

The attached data indicate that most pilots holding ATP and COM certificates with 1st and 2nd class medical certificates, respectively, are employed in airline operations. The age group from 35 to 40 years of age is typically the time period when many first officers upgrade to Captain. This trend is reflected in the significant increase in the number of ATPs in the 35 the 45 age groups.

The sharp decline in ATPs with 1st class medicals in the age group from 55 to 60 also indicates that the majority of pilots holding these qualifications fly for airlines operating under 14 CFR Part 121.

The FAA does not keep records on the numbers of pilots employed by individual airlines. However, industry associations such as the Air Transport Association (ATA) may keep these records.

Question 2. Given the FAA position that the Age 60 Rule should not be changed until we can be assured that it will not negatively impact levels of safety, and the burden of proof is on anyone who protects the Rule. What are the standards?

Answer: In 1959, when the Age 60 standard was established for transport category aircraft of a specified passenger configuration, FAA regulators were acting on the best medical information available. Since then, in the last 2 decades, the FAA has had the question of the appropriateness of the Age 60 Rule studied several times. Each study has not provided the FAA with strong enough conclusions to warrant rescinding the Rule or extending the age limit. In addition, the Age 60 Rule has survived multiple legal challenges since its implementation.

Medical examinations required by the regulations for pilots serving in 14 CFR Part 121 operations assess the suitability of the airman to perform flight duties for the duration of the medical certificate issued. The medical standards are detailed in 14 CFR Part 67. However, the required medical examination cannot always predict whether a pilot will experience an incapacitating event nor is it an absolute determinant of a pilot's continued state of health. It appears that air carrier safety has been well served by the Age 60 Rule. Since the FAA has no evidence that changing the Rule would not adversely effect safety the burden of proof must be on the opponents of the current Rule and not the reverse.

Question 3. What will it take to assure the FAA that increasing the Age 60 Rule limit will not negatively impact the level of safety?

Answer: The FAA has stated publicly, and continues to take the position that, if sufficient data could be provided that would show that rescinding the Rule or extending the age limit beyond age 60 would not have a negative impact (e.g. an increase in the accident or incident rate) on the current level of flight safety, the FAA would consider modification of the regulation.

Question 4. If you assume that Congress was going to raise the age, I would like to know how you would approach it responsibly, what kind of added testing or experience level would you require, and do you think that we should go in smaller steps if we decided that the evidence was more the other way? Should you go to age 62

or 63 before you go to 65, and allow the FAA to then have the ability to go to 65 after a period of testing? Is that a reasonable approach?

Answer: The Age 60 Rule is the FAA's best determination of the time when the general decline in health-related functions and overall cognitive capabilities have reached a level where decrements in a pilot's performance may jeopardize safety. In the absence of favorable scientific, medical and accident data, we believe that extending the age 60 limit beyond age 60—either incrementally or in one step—cannot, with confidence, be justified.

If Congress decides that the evidence shows that the Age 60 Rule can be amended to provide for an increase in that age, the FAA would of course amend the current regulation to comply with a congressionally mandated age limit. However, the FAA has no additional testing, experience requirements or medical protocols that would predict or measure a pilot's performance or state of health beyond what is now used, so we do not anticipate requiring any additional measures.

PREPARED STATEMENT OF THE ALLIED PILOTS ASSOCIATION (APA)

Mr. Chairman and Members of the Committee. I am John Darrah, President of the Allied Pilots Association (APA), which represents the 11,000 pilots who fly for American Airlines. On behalf of the Allied Pilots Association, I thank you for the opportunity to submit written testimony regarding S. 361, a bill that would raise the mandatory retirement age for commercial airline pilots from the current age 60.

Safety must always be the government's and the airline industry's first concern. For that reason, the Allied Pilots Association opposes not only S. 361 but any proposal to allow U.S. commercial airline pilots to continue flying past the current mandatory retirement age.

The Age 60 Rule has remained unchanged for 42 years. The reason for that is simple. It works. Before Congress changes the status quo, please consider some of the critical issues that surround the Age 60 Rule.

A higher retirement age will not make commercial air travel safer. The argument that the rule change might not threaten passenger safety is not reason enough to take the risk. We have no means of determining how long past age 59 a pilot can continue to fly effectively. The FAA established the Rule in 1959 based on a study that indicated pilots approaching 60 become more susceptible to heart attacks, strokes and other physical and mental effects of aging. Although Americans are living longer and healthier lives today than they did in 1959, and medical testing has advanced considerably, medical technology still cannot determine with certainty which pilots should fly and which should retire.

Is the Rule unfair to older pilots? We don't think so. Both the U.S. Court of Appeals and the U.S. Supreme Court have denied challenges to the Rule, finding that mandatory retirement is legitimate when age is a bona fide occupational qualification.

Other professions responsible for guarding the public's safety, such as police, firefighters and air traffic controllers, impose a mandatory retirement age. For the controllers, the age is 56. It is simply good judgment for individuals in safety-sensitive professions to conclude their careers before the natural process of aging becomes a problem.

A vast majority of commercial airline pilots back the existing policy. More than 80 percent of our members supported the Age 60 Rule in a survey we conducted a few years ago. The Air Line Pilots Association (ALPA) also has endorsed the existing Rule.

The notion currently being advocated by some is that, as we get older, our increased experience compensates for known degradation of physical and cognitive functions. In other words, their premise is that "the older a pilot becomes, the safer he or she is." If this premise is valid, both the flying public and the National Transportation Safety Board should be clamoring for older and older airline pilots.

It is appropriate for the aviation industry to develop measures to increase its pilot hiring pool, such as increasing the availability for pilot-training scholarships. However, we do not believe that part of the solution is to alter the Age 60 Rule. The Age 60 Rule represents the FAA's best determination of the point when a general decline in health-related functions and overall cognitive and performance capabilities may begin and reach a level where a pilot's judgment and physical ability could compromise safety.

The Allied Pilots Association reiterates its belief that any discussion of the Age 60 Rule should center on safety, not economics. We strongly believe that any decision to alter the current Rule must be based solely on solid research and conclusive findings from respected neutral scientific bodies.

The reality of airline flying today is far different from the public perception. The most senior pilots typically fly the largest aircraft, and those aircraft are used to fly long-haul domestic and international routes. Most of these flights require all-night flights, either one or both ways, and these senior pilots fly as many as 8 to 10 all-night flights per month. The resulting circadian rhythm disruption is severe, and the associated cumulative physical effects are both unpleasant and exhausting.

NASA has conducted research proving that the effects of circadian upsets, sleep disruption and fatigue become increasingly acute with advancing age. NASA has reported that the negative effects are increasingly severe after the age of 50. These facts have been common knowledge to airline pilots for decades.

Our position is firm. The Age 60 Rule is a well-established safety regulation that has been substantiated by medical science, has been reaffirmed repeatedly by the FAA and has worked effectively for more than 40 years.

The justification for the Rule is not now and never has been to enhance the careers of pilots who want to move up the seniority list faster, and it should not be changed for the sake of those who want to continue flying longer. Nor should it be used as a regulator of the pilot-supply pool for regional economic purposes. The Age 60 Rule is a safety regulation and should not be changed or repealed unless there is sufficient evidence to prove conclusively that such action would not have a negative effect on safety. That case has never been made.

Since the Rule was established, commercial airlines in this country haven't experienced a single age-related accident. Congress should not eliminate a regulation that has served us well. For safety's sake, we should keep the retirement age for pilots at 60.

PREPARED STATEMENT OF THE AIRLINE PROFESSIONALS ASSOCIATION, TEAMSTERS LOCAL 1224

Mr. Chairman and Committee Members, thank you for taking the time to review the pilot retirement age issue. I am Captain Richard Lawhorn, the Legislative Affairs Chairman for Airline Professionals Association Teamsters Local 1224. My Local represents some 900 pilots who fly for Airborne Express.

While the Local 1224 Executive Board has not taken a position concerning this proposed change, there are numerous related issues that you must consider when debating legislation that would raise the mandatory retirement age for pilots from 60 to 65.

When one decides to become a professional pilot, it is not only a career choice but also a lifestyle that affects the pilot and his or her family. During the average pilot's career, he will spend approximately half of his life at work. A normal airline schedule will be comprised of a minimum of 15 days per month working as few as eight or as many as 16 hours per day. For example, some domestic schedules approach 8 hours of flight time, while internationals approach 12 hours of time in the air. Some flight crewmembers can work this grueling schedule 6 days in a row.

Obviously working in this rarefied environment places additional stress on the body from a physiological standpoint. An article in the Tuesday, March 6, 2001 edition of *USA Today*, explores the lack of oxygen in the aircraft cabin at cruise altitudes (see attached article). Low oxygen levels have been directly linked to decreasing the body's performance levels. This weekend, when you fly home, it won't be such a mystery as to why so many passengers are sleeping.

Moreover, pilots work in conditions similar to those of working at a desk on top of a 7,000- or 8,000-foot mountain everyday. Consider too the level of radiation pilots are exposed to during each work day and those who work on the backside of the clock. These conditions, over a period of several years, will take their cumulative toll on a pilot's body.

Airline pilots are the most closely regulated work force in the world: physical examinations and continued aircraft training are required every 6 months. It is well documented that as humans age, our reflexes begin to slow—this is no different for pilots. However, a pilot's level of experience tends to offset this factor. Nevertheless, we must not forget the Age 60 Rule was originally passed to ensure the continued safety of the aviation industry.

As pilots approach age 60, for some, it becomes much more challenging to maintain excellent health and top-notch flight abilities. However, others may be able to pass required exams and continue flying many years after reaching age 60. Both the Federal Aviation Administration and NASA have conducted studies into aging, and depending on your view of this issue, it is not difficult to find a study in support of both sides of this issue.

Beyond health considerations, a move to raise the pilot retirement age also has serious implications for pension benefits. Should Congress opt to change the mandatory retirement age, a pilot who has pursued a career since his or her mid-20s, should be able to retire at the current retirement age of 60 without incurring any financial penalty. This is especially true if the pilot's health should dictate retirement as the best option for both the pilot and his or her employer.

The Internal Revenue Code contains an important provision that affects pilot pensions, and the benefits provided by this section should continue to be available to pilots, regardless of a change in the mandatory retirement age. Under Section 415 of the Internal Revenue Code, the maximum amount a worker can receive from a defined benefit pension plan is actuarially reduced for retirement before Social Security retirement age. Commercial airline pilots, however, are covered by a special exception under Section 415(b)(9). In recognition of the special circumstances under which pilots work, Congress wisely mitigated the actuarial reduction in the limits that would otherwise have been imposed on pilot pension for retirement prior to Social Security retirement age. If Congress is to consider increasing the mandatory retirement age, then the protections currently provided by Section 415(b)(9) must be preserved in order to ensure that pilots are not penalized for "early retirement." While Local 1224 maintains a neutral standpoint on this issue, some pilot groups ardently support the opportunity to secure 5 additional years of compensation and pension credits. For example, carriers thought of as the backbone of American aviation, such as the now defunct Pan Am and Eastern airlines, left pilots who were long-term employees with little or no pension plans or financial security. Obviously, these pilots, while not a majority, have a particularly keen interest in these hearings and special concerns about preservation of the pension benefit level currently promised to them by their current pension plan and by current Federal law.

While experience has shown that pilots are capable of maintaining their health and flight skills to the age of 60, the what-ifs of 60 and above are unknown and could have implications for flight safety. If Senate Bill 361 is, in fact enacted, retirement before age 65 must be an option that is available without pilots having to accept a financial penalty that was not a factor when they were planning and structuring their finances for retirement.

Once again, Mr. Chairman thank you for the opportunity to submit the views of Local 1224 on this issue. We look forward to working with you as this legislation proceeds through Congress.

[From USA Today, March 6, 2001]

DO PASSENGERS GET ENOUGH OXYGEN? EXPERTS EXAMINE A THREAT THAT AFFECTS EVERYONE WHO FLIES

(By ROBERT DAVIS)

As the number of reported heart attacks, faintings and other medical emergencies aboard airlines continues to soar, the government is considering changing the way cabins are pressurized to provide more oxygen to passengers.

The Federal Aviation Administration and scientists across the industry are reevaluating a standard that was set decades ago and based on studies of healthy servicemen in altitude chambers. The modern airline cabin looks very different, as aging baby boomers—many with health problems that can worsen suddenly and sometimes fatally—fly farther and longer than ever before.

There is plenty of oxygen in the air inside airline cabins. But because the barometric pressure is lower—equivalent to standing on an 8,000-foot mountain—not as much oxygen reaches the bloodstream to be carried to vital organs. Much of the focus on cabin air quality has been on the spread of viruses such as the common cold. But a new focus is emerging as scientists and doctors learn more about the threat that affects every airline passenger: hypoxia, the term for too little oxygen.

This lack of oxygen usually causes little more than a headache and a feeling of fatigue in the average healthy flier. But passengers who have an underlying breathing, heart or circulatory problem—even one they don't yet know exists—can suffer serious medical emergencies when the oxygen level drops. Heart attacks are among the more serious problems that hypoxia could cause during airline flights.

"People are traveling to all ends of the earth and very little attention has been given to the impact and the insult on the human body during flight," says Marian Sides, a vice president of the Aerospace Medical Association. As a military researcher, she has studied the drop in oxygen levels at cruising altitudes.

"Ten to 15 years ago, we were concerned about smoking on airlines. Now this is the next level of concern," Sides says. "Going on an aircraft does in fact compromise

one's rate of oxygenation. The oxygen deficits are significant." While aviation experts reconsider—sometimes skeptically—the cabin pressure standards, the National Academy of Sciences has appointed a panel of medical experts to determine the exact health risks of breathing cabin air. The effort, which is expected to be completed this year, comes as the number of reported medical emergencies aboard airliners is increasing.

The FAA does not track the number of medical emergencies in the air, but MedAire, a Phoenix-based company that connects doctors with flight crews and ill passengers in flight, says medical emergencies are at an all-time high. In the mid-1980s, there were about 10 deaths each year on U.S. airliners.

Now, industry officials estimate, as many as 100 people a year die because of medical problems during flights. MedAire hears about many of them: The company helps 35 airlines around the world and took 8,500 medical calls last year.

Aviation experts say in-depth studies would be needed to determine if the hypoxia at cruise altitude is to blame for the medical emergencies. But doctors at MedAire are suspicious. They say that 21 percent of the calls they get are for passengers who pass out. Heart and breathing problems accounted for 12 percent and 11 percent, respectively. "The issue of hypoxia is really significant for people with heart or lung disease, and no one knows it," says Brent Blue, a doctor and pilot who sells oxygen-measuring devices.

A DROP IN OXYGEN

Here's why the body begins losing oxygen within minutes at cruising altitudes: As the plane soars, extremely hot air is drawn from the jet's engines, cooled and piped into the cabin. This constant flow of very dry air keeps a life-sustaining pressure in the cabin. But because the plane is designed to be as lightweight as possible, it can only withstand so much pressure. The thin aluminum shell of most jets expands like a balloon—as much as an inch—as the pressure inside increases and the outside pressure decreases at high altitudes.

There is just as much oxygen in the cabin air at cruising altitude as on the ground, but because the atmospheric pressure is lower than at sea level, it is more difficult for the body to absorb the vital gas. With less pressure, fewer oxygen molecules cross the membranes in the lungs and reach the bloodstream.

The result is a significant drop in the amount of oxygen in the blood—anywhere from 5 percent to 20 percent depending on the person, the plane and the length of the flight.

With less oxygen in the bloodstream, the vital organs soon get deprived.

The reduced oxygen supply to the brain is why some suffer headaches while in flight, one of the symptoms of hypoxia. When oxygen levels fall in the brain, the heart tries to compensate by beating harder and faster. Another symptom of hypoxia is fatigue.

But doctors say the body's efforts to compensate can hurt people who fly with underlying medical conditions.

"Many papers report that the rate of in-flight medical emergencies is higher in cases with cardiovascular or cerebrovascular disorders," says Makoto Matsumura, of the Heart Institute at Saitama Medical School in Japan, who presented new details about the issue at last year's American Heart Association meeting. "The hypoxia is related to the cabin environment. Therefore, it is important to draw attention to the aged and the patients with hypertension who potentially have a vascular disorder." Joan Sullivan Garrett, who runs MedAire, suspects that many of their medical emergencies are from passengers whose bodies are already weakened by diseases struggling to compensate for a shortage of oxygen.

"In a lot of these, the impetus is some sort of hypoxia," she says. "When you step back and look at the average traveler, they are older and many have health problems before they ever step on a plane."

TIME FOR A NEW STANDARD?

Because the pressure in an airliner is easy to control, the industry is considering whether it should change the minimum pressure standards to try to prevent medical emergencies.

An FAA rule requires pilots to keep jets pressurized to the level that is equivalent to an 8,000-foot mountain or lower. The rule, FAA officials say, is based on altitude chamber tests performed on healthy airmen decades ago.

But the FAA says it does not monitor planes to see how they are pressurized while carrying passengers.

One study performed by doctors in the 1980s found pressurization differences across the fleet.

Each plane must meet the same strict standard to go into service. But once it is in use, everyday wear and tear can change the way the air flows in the cabin. Even small dents in the floor by the door, where heavy carts are dragged aboard, can make it more difficult to maintain cabin pressure.

The more air the pilot takes from the engines to pressurize the cabin, however, the more fuel it takes to fly. The air also reduces the engine's thrust.

"These planes are flying up to 42,000 feet," says Stanley Mohler of Wright State University School of Medicine in Dayton, Ohio, who has studied the health effects of flight. "When you get up to that area, it takes a lot of fuel to keep the cabin pressurized." As engineers consider whether the atmosphere inside the cabin could be required to be kept at pressurization equal to 6,000 feet, for instance, to increase passenger oxygenation, the airlines want proof that a change is needed.

"The airlines are going to resist," Mohler says. "If you lower the cabin pressure on many of their airline flights, you're going to burn a lot more fuel." The aviation industry says that while it is worth studying, there is not yet any proof that changing the pressure will help passengers.

"You have to have some evidence that it's going to be salutary to the passengers," says Russell Rayman of the Aerospace Medical Association.

He calls the FAA's 8,000-foot rule "rather arbitrary" and "a best guess," but he says there is no proof that lowering it would help. "There is no evidence and I think it will be very difficult to get it." Some people in the industry balk at the idea of changing the rules to meet the needs of people with health problems.

"I feel sorry for somebody who has vascular problems or breathing problems, but maybe they shouldn't be flying," says Dave Heekin, an airline captain. "If you are going to make it comfortable for the most susceptible passengers you're going to have an airplane that you're not going to be able to fly.

"I have compassion for them but you can't do everything to the lowest common denominator."

WHO'S RESPONSIBLE?

Heekin hopes his passengers begin to take more responsibility for their health. "I'm tired of the flight attendants telling me we have a passenger with breathing problems and we may have to land in Omaha," Heekin says.

Garrett of MedAire says the responsibility shouldn't rest with the airlines, which can't know their passengers' medical baggage.

"I feel sorry for the airlines," she says. "There is no way the airlines can possibly prepare to deal with the kinds of problems and the critical nature of the problems travelers have today. How can they be responsible? They don't know that my Aunt Agnes smokes." Doctors who have studied the problem agree.

They say two common factors that cause hypoxia are often launched on the ground as passengers prepare to board the plane.

When people drink too much alcohol, the body does not use oxygen as efficiently, leading to what is known as histotoxic hypoxia. And cigarette smoke damages the fragile membranes in the lung where oxygen is exchanged.

People who have smoked for years and who smoke several cigarettes before a flight can suffer what is known as hypemic hypoxia before they board the plane.

Flight attendants say they keep an eye on the "runners" who drink and smoke in the airport bar until the last moments of boarding, then run to catch the plane before it leaves the gate.

"When they get on board they decompensate," says Garrett, who was a flight nurse before starting MedAire. "They get chest pain and in some cases they will have a cardiac arrest." Blue, a Jackson Hole, Wyo., physician and pilot, says alcohol is a major reason for so many medical emergencies in flight.

"Alcohol should not be served on an airplane," he says. "I can't think of anything worse you could do on an airplane than drink." Blue has a Website—*Aeromedix.com*—with information about hypoxia in flight. And he sells fingertip devices that measure oxygen level in the blood. He began selling to pilots so they could monitor themselves while flying their private planes. But he says thousands of airline travelers have bought the devices, which cost $380, in recent years.

If a healthy passenger suffers any ill effects from hypoxia, it may be anything from a headache to tingling lips to weakness or other annoyances. "But if they have a bad cold or upper respiratory infection, walking pneumonia, coronary artery disease, emphysema, a lot of those things, they'll notice it," Blue says. "Especially with coronary artery disease they will be at significant risk." He says the airlines should not be "let off the hook" because they do not give any warning to their passengers today about hypoxia or cabin pressurization.

"They can say this flight will be 8,000 feet or 7,500 feet," he says. "Then you could make a choice."

Rayman, a physician on the National Academy of Sciences committee on cabin air quality, offers this perspective: "People with coronary artery disease are flying every day. The great majority reach their destination none the worse. Those with advanced or significant coronary artery disease are at increased risk and should accordingly consult their physicians before planning to travel by air."

PREPARED STATEMENT OF THE FEDEX PILOTS ASSOCIATION (FPA)

Mr. Chairman and Members of the Committee, thank you the opportunity to submit written testimony. I am David Webb, President of the FedEx Pilots Association (FPA), which represents the 3,800 pilots who fly for Federal Express Corporation. The FPA joins the vast majority of pilots in opposition of S. 361, which would raise the mandatory retirement age for commercial airline pilots from the current age 60.

The Age 60 Rule is one of the FAA's most thoroughly studied regulations. For more than 40 years, it not only has worked well, but has weathered numerous challenges.

A safety regulation should not be changed for economic reasons. S. 361 would not enhance safety. Further, proponents of raising the age have never proved that raising the retirement age will not be detrimental to aviation safety.

There is no doubt that people are living longer and healthier lives then ever before. Yet medical science has not found a way to predict which pilots' performance will decline to unsatisfactory levels.

Why experiment with safety and put people at risk?

It is imperative that Congress weigh all of the risks faced by commercial airline pilots in an already stressful working environment and the potential for a negative impact on aviation safety when considering any change in the pilot retirement age.

U.S. cargo jets carry millions of pounds of hazardous cargo each day, taking off and landing at airports in highly populated areas and in proximity to passenger aircraft. In addition, our pilots fly the most demanding route structure in the world. It is common for us to fly into non-radar environments with foreign controllers. Fatigue is also a risk for commercial pilots. There is a strong body of evidence that people are at their greatest risk of fatigue during circadian lows, from 2 a.m. to 6 a.m. Cargo pilots are especially vulnerable because we primarily fly at night, often on lengthy routes that cross multiple time zones, during those hours when the human body is most susceptible to fatigue.

Because of seniority, it is generally our most senior pilots who fly the most demanding of these routes. Raising the pilot retirement age will only compound the risks faced by FPA's pilots. It would keep pilots in the cockpit beyond the time in their lives when there is likely to be a degradation of their physical capabilities and flying skills.

Federal court decisions have made it clear that the Age 60 Rule does not constitute discrimination. The FAA has not only the authority, but the responsibility to create regulations to protect the safety of the flying public. A mandatory retirement age for pilots is not without precedent. In the interest of public safety, air traffic controllers, police officers and firefighters all must retire well before reaching the age of 60.

S. 361 actually could lessen aviation safety and is contrary to the public interest. The FedEx Pilots Association, therefore, is strongly opposed to its enactment.

PREPARED STATEMENT OF THE NATIONAL AIR TRANSPORTATION ASSOCIATION (NATA)

INTRODUCTION

NATA represents nearly 2,000 aviation businesses that own, operate and service aircraft. These companies provide for the needs of the traveling public by offering services and products to aircraft operators and others such as fuel sales, aircraft maintenance, aircraft parts sales, airline servicing, aircraft storage, flight training, Part 135 non-scheduled air charter, aircraft rental, and scheduled commuter operations in smaller aircraft. NATA members are the vital link in the aviation industry that provides services to the general public, airlines, general aviation, and the military.

Almost 3,000 businesses are certificated by the Federal Aviation Administration (FAA) as Part 135 on-demand air charter air carriers. The majority of companies in the industry are small businesses providing a vital transportation link for medical services, important cargo needed to promote commerce, and personal travel sup-

porting the growth of the economy. These companies use smaller aircraft to meet the customized needs of the traveling public for greater flexibility in scheduling and access to almost every airport in the country. In passenger service, flights are planned according to the customer's schedule, not the operator's. Likewise, air charter serves a vital role for commerce across the country and the world, providing short notice delivery of parts, important documents, supplies and other valuable cargo. On-demand air charter saves lives as air ambulance operators are ready at a moment's notice to fly to an accident scene or remote area to transport those in need to hospitals that can provide necessary care. In addition, on-demand air charter flights transport vital organs for those requiring transplants. All of these services are contingent upon the ability to respond quickly to the needs of customers.

NEED FOR RAISING MANDATORY RETIREMENT AGE

The Association supports the legislation introduced by Senator Frank Murkowski (R-AK), S. 361, as a means to modernize an outdated regulation and potentially slow the attrition rate for airline pilots that affects the hiring of many NATA member employees, while at the same time ensuring safety. NATA does not believe that any safety concerns exist by extending the age from 60 to 65 provided pilots maintain good health.

NO EFFECT ON SAFETY

This legislation also recognizes the lack of safety relevance with the current mandatory age 60 retirement age for airline pilots. NATA questions the validity of this 40-year-old rule that simply does not apply to modern day aviation. Since the Age 60 Rule was instituted in the 1960s, the FAA has conducted several studies on the correlation between age and accident rates with results identifying no safety risks. The Association supports Senator Murkowski's claim that with modern medical science "there is no reason why we can't continue to utilize the experience and sound judgment of older pilots, provided they are in good health." While the pilot unions continue to advertise that extending the age of pilots from 60 to 65 will jeopardize safety and be done for economic gain, NATA believes quite the contrary. All Part 121 certified pilots are subject to first class medical testing to ensure safety. Several organizations and noted medical specialists have agreed that there is simply no scientific basis indicating that the move of age from 60 to 65 will affect safety, including the Civil Aviation Medical Association's recent assessment that pilots should not be forced to retired based solely on age. For the unions, safety is not the issue; pilot advancement, including abridged paths to seniority and increased pay, is.

RAISING RETIREMENT AGE GOOD FOR TRANSPORTATION

NATA's members have seen the historical turnover rates for on-demand air charter operators to be about 5 to 10 percent annually. Each company may experience different rates based on variables such as equipment operated (piston, turbo-prop or jet engine), pay and benefits, and hours of operation. During the last 2 years, these rates have climbed to 50 percent or higher. One member in particular suffered a 70 percent turnover in their pilots last year. Whatever the actual rate, most of the Association's members have reported a doubling in their pilot turnover.

As Members of the Committee may know, there is a typical career path in the aviation industry for developing and training pilots. While this may not hold true for all, it certainly is the path followed by many pilots. An individual will begin by taking flight lessons and, after obtaining a pilot's license, build up enough hours to become a Certified Flight Instructor (CFI). After working as a CFI and accumulating flight time, the pilot may then seek a position with a regional airline or begin flying for an on-demand air charter operator. Subsequently, based on the pilot's skill and total hours, a position with the major airlines may then become available to them. Of course, not all pilots want to work for a major airline, but for most this is the ultimate goal. It is this "pilot supply line" that has been and is expected to continue to be at an all time low.

The uncertainty over whether a company's pilots employed today will be there tomorrow is stifling many air charter operators from expanding their services to meet the growing demand for air transportation. This disproportionately impacts on the less populated areas of the country that receive little airline service.

The shortage of pilots becomes critical when you consider the need for medical access provided by emergency medical services that may be the only link for smaller communities to medical specialists. The shortage threatens the expansion of medical services to smaller and rural communities. For example, one of our members regularly flies doctors to areas outside of Denver, Colorado, as the means for smaller

communities in Colorado, Kansas and Wyoming to get access to specialty health care.

Commerce and the economic viability of communities are likewise dependent upon access to air transportation. If qualified pilots are not available for air charter operators, this link is severed. Finally, the high value cargo, mail and express package services provided to communities across the country by companies like ours are directly affected by the ability to have pilots able to safely operate our aircraft.

CONCLUSION

While the aviation industry attempts to bring the pilot supply and the demand for their services into balance, Congress should consider whether the current requirement for airline pilots to retire at age 60 is still necessary. As you can imagine, allowing pilots to continue working for an airline past 60 would decrease the demand for new pilots. Likewise, it would provide for these pilots with thousands of hours of accumulated flight time experience to continue serving the traveling public.

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