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Remarks by
Jim Albaugh, President & CEO, Boeing Commercial Airplanes
to the National Aeronautic Association
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Good afternoon and thank you Steve [Callaghan] for that kind introduction. I really am pleased to be here at the NAA today, because this organization has such a long and distinguished history in aviation.

The Aero Club of America—the pre-cursor of the National Aeronautic Association—was started back in 1905, near the beginning of controlled, powered human flight…and eleven years before a guy named Bill Boeing built his first two B&W airplanes. This group has always championed aviation and that is something we can all be grateful for.

As we've learned throughout the first century of human flight, what we do isn't easy. But the legends of our industry have never taken the easy route. Quite the contrary. They've made a habit of doing what others said couldn't be done.

Consider this editorial from the December 10, 1903 edition of *New York Times,* written after Samuel Langley's first unsuccessful attempts to launch his powered, experimental aircraft into flight from a catapult in the Potomac River. The *Times* said…

"We hope that Professor Langley will not put his substantial greatness as a scientist in further peril by continuing to waste his time and the money involved in further airship experiments. Life is short, and he is capable of services to humanity incomparably greater than can be expected to result from trying to fly."

Those of you who know your aviation history have already figured out that the Times' editorial appeared just one week before the Wright Brothers' historic flight in Kitty Hawk, NC. Good thing the Wrights didn't listen to them.

If they had, we wouldn't be here today. And we wouldn't have had a generation of Collier Trophy winners, all of whom did things that had never been done before. We're talking about people like Langley, the Wright brothers, and countless others who shaped the history of our industry and showed us how to persevere in the face of tough challenges.

Today, I want to focus on the future of the aerospace industry -- and the challenges we face in building that future. We have a tremendous opportunity before us, in defense, space and commercial. The question is: "Can we seize this opportunity." The commercial aviation market has been roaring back in recent months, despite the impact of the worst economic downturn since the Great Depression.

At Boeing, we have a 7-year commercial airplane backlog, which grew even larger with the $22 billion in orders and commitments we booked at last month's Paris Air Show.

Air traffic generally increases at a rate 1.5 times world GDP, and going forward, we expect world GDP to grow at about 3 to 4 percent over the next few years. While not discounting events in Northern Africa, and the potential impact on the price of oil, the future looks good from a macro standpoint.

Over the next 20 years, we see a need for 33,500 new airplanes. That's a $4 trillion dollar market—one that many countries and companies covet. I feel very fortunate to be at a company like Boeing, where customer-focused innovation puts us in a good position to capture a large part of that $4 trillion market I just mentioned… and

where excellence in engineering and systems integration will help us achieve great things in the defense, space and security sectors.

When I think about how much our company has done in the aerospace industry, I think of people like:

- Howard Hughes
- James McDonnell
- Don Douglas
- Dutch Kindleberger
- T. Wilson
- and Bill Allen …all of whom won the NAA's prestigious Collier Trophy, by the way.

These are the folks who set our standard of achievement at Boeing – and it's a mighty high standard. I'm proud to have worked on many programs after they were recognized by the Collier… and been part of several Collier-winning teams, including the International Space Station, the F-22 and the B-1.

I know I don't have to tell you that the Collier Trophy is the highest award you can get in aerospace. It rewards:

- great technology
- great engineering
- excellence and innovation… and
- teams that create things that never existed before.

It's the Gold Standard of achievement in aerospace. Winning the Collier is like winning the Super Bowl. It assures your place in history. And making history is something we know a little bit about at Boeing. Over the last couple of years, we've had some historic days.

December 15, 2009, the first flight of the 787 Dreamliner, was one of them. On that day, everyone in our company felt the same emotions:

- Anticipation
- Apprehension
- Concern …
- And then … as the 787 lifted off the runway in Everett for the first time … we all felt great joy and pride.
- Engineers, machinists, accountants, management… it didn't matter. We all felt the same.

Twenty years from now, I believe that rainy day in December will be viewed as one of the most important in the history of our company and commercial aviation. It will be remembered as a day that fundamentally changed the way airplanes are built and the way people travel. And it will be seen as a day when Boeing once again proved the kind of company it is.

- a company of vision, innovation and achievement…

- a great company that does great things.

We had another day like that on February 8, 2010, when the largest airplane ever built by Boeing – the 747-8 Freighter -- took to the sky. That historic flight will continue the legacy of Boeing's 747 for decades to come.

Both of those achievements were made possible by teams focused on innovation -- which is a driving force for my company and for the future of our country. Studies show that technological innovation fuels more than half the growth of America's GDP.

Looking ahead, innovation will determine the strength of our economy for decades to come. Just imagine some of the things we might see…

Imagine advanced composite materials that are light, strong, and “smart” too. Materials that will morph in flight to be optimal… wings that imitate nature.

Imagine most fuel for aircraft being made from plants. It will be cleaner and perform better than today’s petroleum-based fuel – and with less C02.

Imagine a hypersonic aircraft that skims over the top of the atmosphere.

All these things, and more, are possible. But it will take investment and innovation. If we don’t do it, someone else will. At the same time, we’ve got to address some near-term risks.

You know, about half of Boeing’s engineers will be able to retire by 2015. The same is true for other aerospace companies. And we are not producing enough engineers in this country, with the right skill sets, to take their place.

It’s contributing to what I call the “intellectual disarmament” of our nation. Along with reduced R&D spending, I believe this puts us at risk. If we continue along this path, America could lose its lead in aerospace and break a long-standing continuum of capability in our industry.

Our economy would lose an important engine of growth, and our country would be more vulnerable and less secure. Companies like Boeing will survive, but could be forced to go outside the U.S. -- to where the engineers and capabilities are.

Let me talk about this continuum of capability a little more…in the context of our 747.

The first flight of the 747 was on February 9, 1969. That aircraft—one of our Collier Trophy winners—made history when its team of Incredibles, some 50,000-strong, built the largest civilian airplane in the world in just 16 months.

In March of that year, the Concorde made its first flight and, of course, in July, there was still another aerospace milestone when Neil Armstrong walked on the moon. The sad irony is that today, just as the new 747-8 is about to enter service, the U.S. is about to park the Space Shuttle, halting our nation's 60-year effort in space flight.

Think about what that means. Tens of thousands of experienced engineers will lose their jobs in the gap between the Space Shuttle's last mission and the start of the next program.

I was at the last shuttle launch Friday. It was one of the most devasting days of my professional career, thinking that for the first time since 1962, we no longer have access to space… just another country hitchhiking a ride to low earth orbit.

When the Russians were penniless, they kept their program alive…the irony is that we helped them, but today we are walking away from our own program. For the first time in years we have:

- No mission
- No dream
- No leadership
- And no remorse

I fear for this country as we are no longer a space-faring nation. Our investment in defense continues to be cut. We have no defense industrial base policy. I fear we are in danger of falling into a downward, self-perpetuating spiral. Without enough capable

scientists, engineers and technologists, our nation won't be able to maintain its position as the world's aerospace or technology leader.

And without exciting programs to work on, companies won't be able to attract the best engineering talent to create the next great innovation.

I was fortunate enough to join our industry in the final quarter of a remarkable century. To me, aerospace and Boeing defined the 20th Century. It helped win World War II. It brought the world closer together with commercial air travel. It changed the way we communicate with commercial satellites. And ... of course ... aerospace changed forever how we look at the world around us when Armstrong took those first steps on the Moon.

We need to provide that same kind of inspiration for the next generation of American scientists and engineers. If we don't, who will we nominate for awards like the Collier in the years ahead?

How will we use innovation and technology to address increasing competition in both the commercial and defense markets?

In the commercial aviation market, we have a number of new entrants – including China, Russia, Canada and Brazil. And we have new defense entrants such as China. Many saw the J-20 – China's new stealth fighter -- as a military threat. I saw it as another competitor in the global defense market.

The way to win in the face of increasing competition – even heavily subsidized competition – is through better innovation and technology.

At Boeing, we always want to be building tomorrow's airplane while the other guys are building today's. The 787 Dreamliner will be the first new airplane of the 21st century, based on 21st century composites and innovations. It will use 20 percent less fuel per passenger than today's airplanes of the same size. It will be 60 percent quieter than

aircraft it replaces. And the 787-10 stretch… will be the most efficient airplane in the world.

Some companies build an airplane and see if they can sell it. At Boeing, we sell the airplane and then we try to build it. While that may put more pressure on our engineers, it ensures we're delivering what our customers want -- the best, most capable airplanes in the world.

Right now, we're working with our customers on what our next narrow-body aircraft will look like. It's a very deliberate and disciplined process, driven – not by our competitors – but by our customers.

Meanwhile, our competitors have responded to the 737s current value advantage with an option for a different engine. The choice makes sense for them, because they need to close the gap between their plane and ours. And in 2016, they'll come close to what we offer today.

That brings me to the final point I wanted to make – about the challenges individual companies face as they design and develop new products. Whenever you're working on the kinds of products we work on at Boeing, there is inherent risk.

On the 787, we may have reached too far. We used technologies that weren't as mature as they should have been… and a new global supply model that hadn't been sufficiently thought through. We've learned from these mistakes.

Despite those challenges, we will deliver an airplane that will revolutionize air travel … a plane that will be the first new aircraft of the 21st century. And although we are late, I believe that once our customers see how transformational the 787 really is, they will forgive us for the delay.

We've learned lots of lessons from the 787, and I'm happy to talk about those during the Q&A if you'd like. But for now, I'll just say that we are applying those lessons across our business so we are always providing customers with more value than the competition in every market we serve.

As I noted at the beginning of my remarks, the U.S. aerospace industry has both enormous opportunity and challenges ahead. The question is: Will we rise to the challenges or watch as other companies and other nations seize both the opportunity and the mantle of aerospace leadership?

Keeping our lead won't be easy. Some may think it unlikely…. even impossible. But we have a long history of proving the naysayers wrong… Remember what the NY times said about flight back in 1903.

Now it's time for us to prove that the U.S. aerospace industry can lead the second century of human flight just as we led the first.

Thank you for your attention, and I'm happy to take your questions now.