

## WEB FINAL

Michael Huerta

NEXTOR remarks – “Knowing the Right Questions”

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Remarks As Prepared For Delivery

Thanks, David. I’m glad to be here. Around 70 years ago, the great American writer James Thurber was just making his mark in the *New Yorker* magazine. He was known for writing short stories and drawing cartoons. He said something that really has passed the test of time: “It is better to know some of the questions than all of the answers.”

I think he was onto something. There’s a satisfaction that comes from the process of inquiry. Certainly, the scholars in the room know this very well.

If the world had all of the answers, then we would have nothing to strive for. And if we kid ourselves into thinking we have all the answers, then we’re just being complacent—something we can’t afford in aviation.

For nearly 20 years, NEXTOR universities have helped us answer key research questions in aviation. It started out as a group of four universities and now it's doubled to eight.

Today, scholars will present work on aviation safety, ADS-B, performance modeling and analysis, and traffic flow management.

NEXTOR research brings a level of objectivity and proof that helps guide the FAA's investment decisions and strategic efforts. This work is especially important as we work on four strategic initiatives that require us to rely on data more than ever before to target and prioritize our efforts.

Let me briefly touch on these initiatives.

We're making aviation safer and smarter by developing a risk-based decision making system. We collect data, identify areas that pose higher risk, and then direct resources to those areas.

We're delivering benefits to the aviation community through technology and infrastructure.

We're committed to enhancing our global leadership by using data to determine where we should focus our international efforts.

And we're recruiting and developing a highly-skilled workforce to meet the demands of the future.

In developing these four initiatives, we recognized that aviation is becoming increasingly complex and globalized. We have to be more nimble in addressing challenges while still meeting the industry's rapidly changing needs in a budget-constrained environment.

This is where NEXTOR comes in. I know we can lean on you to help us achieve these objectives.

I'm confident of this because NEXTOR has a great track record.

You provided us with safety analysis that demonstrated the need for the ASDE-X program—which has helped ensure runway safety at our busiest airports. We're now building off this deployment to provide surface visualization tools at some terminal approach facilities so controllers can get a better picture of what's happening on the surface of ASDE-X equipped airports. This is helping them use airspace more efficiently.

NEXTOR provided important operational research for ADS-B, dating back to our early efforts with the Capstone program in Alaska. These early studies gave us insight into the benefits of providing pilots with traffic and weather data in the cockpit. We are now well on our way toward meeting our goal of completing the transition to ADS-B by 2020.

NEXTOR conducts the *Total Delay Impact* study – a product that quantifies the total cost of delays in the airspace system for stakeholders and society in general. The information from this study has been cited widely in

other industry papers, as well as in congressional testimony.

In addition, NEXTOR is continuing its research on Wake Vortices. These studies have the potential to expand capacity by helping us safely reduce wake separation standards around the country.

And lastly, let me note that NEXTOR recently completed a report that details how better predicting flight time could reduce airline operating costs. They'll be presenting this research today.

These are just a few examples of NEXTOR's contributions. Their efforts are helping us make aviation more efficient and greener, while still ensuring safety.

We can all take pride in past accomplishments. But as Thurber suggested, there's a danger in thinking we have all of the answers. With progress comes a new set of questions.

So what do we research next?

We can certainly benefit from continuing research to support our NextGen activities, particularly the priority areas we've identified for the near term. These include: expanding the use of performance-based navigation, improving surface operations, making multiple runway operations more efficient, and implementing data communications.

Perhaps NEXTOR can help us capture and better understand the benefits of NextGen. In doing so, you can help us persuade airspace users about the value of investing in NextGen avionics. And perhaps NEXTOR can help us see how the innovations we're implementing today can be enhanced to provide even more benefits tomorrow.

Earlier this year, the FAA proposed rules permitting the use of small unmanned aircraft—those that weigh less than 55 pounds—for non-recreational purposes. The proposed rule would allow these aircraft to operate during daylight, as long as the operator maintains visual contact and meets a few other requirements.

The FAA received more than 4,000 public comments on the proposal, and we're working to address them before finalizing the rule. This, however, takes time—so we're actively looking for other ways to expand the use of unmanned aircraft in the meantime.

We're receiving valuable information from our six national test sites, including our Virginia Tech test site—a NEXTOR university. We're also accommodating requests for some commercial operations. And this month, we announced two additional steps – the Pathfinder program and UAS Center of Excellence (CoE).

With the Pathfinder program, we're partnering with three leading U.S. companies—CNN, BNSF and PrecisionHawk—all who committed extensive resources to perform research that will help us determine if and how we can safely expand unmanned aircraft operations in the United States.

The CoE is a world-class, cost-sharing, public-private partnership between 15 of the nation's leading unmanned aircraft and aviation universities that have already proven

their commitment to this research. The CoE will focus on research, education and training in areas critical to safely and successfully integrating these aircraft into the nation's airspace.

We're also working to safely integrate the growing commercial space industry. We're looking to reduce the amount of airspace that must be blocked to support the launch and reentry of space vehicles. We're also studying how to more efficiently release that airspace to reduce delays incurred by traditional airspace users that are otherwise rerouted miles out of their way.

Perhaps NEXTOR research can help us safely and efficiently address these issues.

Let me close by saying that aviation has always moved forward because of American zeal and ingenuity. All of that begins, as Thurber said, by asking the right questions: We've driven down safety risk to an exceedingly low level. How can we drive it down even further?

We're delivering benefits through NextGen. How can we build on this progress and deliver even greater benefits?

The United States is a leader in global aviation. How can we enhance our leadership role even more?

As we continue to answer these questions, others will pop up. That's just what we need. Through this process, we'll positively shape the future of aviation.

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