

STATEMENT OF TOM CAPTAIN, VICE CHAIRMAN AND PRINCIPAL, AEROSPACE & DEFENSE SECTOR LEADER, DELOITTE LLP: A COMPREHENSIVE REVIEW OF FAA'S NEXTGEN PROGRAMS: COSTS, BENEFITS, PROGRESS, AND MANAGEMENT, BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON AVIATION, OCTOBER 5, 2011.

Chairman Petri, ranking member Costello and members of the subcommittee:

Thank you for the invitation to testify today to provide input on the benefits of NextGen implementation. Deloitte published an extensive study this past May on the business case for global implementation of Air Transportation System (ATS) transformation initiatives, with particular attention to the U.S. NextGen program. My name is Tom Captain and I am the lead author of the study. That study was funded and performed independently by Deloitte and was intended to provide input to the ongoing industry dialogue regarding quantification of benefits and costs, funding, scope, timing and potential merits of these transformation and modernization initiatives. It also identifies risks and challenges associated with this complex undertaking.

In our business case, we found that conversion to a satellite based positioning, navigation and timing (PNT) system enables better pilot situational awareness, point to point and closely spaced aircraft operations, continuous descent procedures and all weather air traffic operations, resulting in significant reduction in weather and congestion related delays as well as reduced flight times. We found that successful implementation of NextGen by 2025, using reasonably conservative assumptions about future demand for travel, price increases of oil, and other factors, results in an estimated net present value (NPV) of \$281.3 billion and an internal rate of return of 44.8%. By 2026, the study found \$29 billion of 1st year net benefits, which only increases each year thereafter. This is made up of 830 million of gallons of jet fuel savings, 900 thousand hours of time saved, and 6.8 million metric tons of carbon emissions avoided.

It should be noted that we did not include several upside benefits that could make this business case potentially more positive, such as including general aviation and military aircraft operations. Nor did the scope contemplate potential consolidation of National Air Space (NAS) operations, more efficient air traffic control procedures, or reduction of legacy ground radar systems, for example.

To provide additional insights about the business case, we examined three NextGen schedule scenarios: (1) implementing as planned by 2025, (2) accelerating implementation by five years to 2020, and (3) delaying implementation by 5 years until 2030. We found that acceleration would result in an additional \$19.8 billion in NPV, and increases the IRR by 21.7%. Alternatively, delayed implementation still has a positive business case, but results in an NPV reduction of \$47.6 billion and reduces the IRR by 13.5%. Additionally, the business case found these net benefits would accrue to constituents as follows: 35.2% to airlines, 58.5% for passengers, 5.2% to the government and 19.1% to the general economy. These savings are not only in fuel costs, people's time and emissions, but in less airplane maintenance and labor costs, insurance, reduction in noise, increased airspace capacity and overall economic benefit from a much more efficient air transportation system.

As outlined in our study, to achieve these benefits there are a number of challenges and risks that must be addressed to successfully meet the implementation timetables. These include, but are not limited to funding, technology and program risk, regulatory reform, legal, air traffic control procedures, technical and certification standards and harmonization, and workforce transformation. In addition, the program continues to be impacted by program management challenges of cost overruns and schedule delays due to technical complexity, requirements creep and uncertainty as well as system verification and integration challenges. Due to the integrated

nature of these elements, success will be highly dependent on the ability to manage requirements, cost and schedule in a coordinated manner as a program. A lag in only one of these elements, could impact the ability to implement the whole program on schedule, thus the focus on interdependencies is required.

Our study highlights considerations targeted at addressing a number of these concerns, which include assessments on potential funding mechanisms to address NextGen equipage costs to close the business case for airlines, as well as improved program management to include an oversight or governance program to better ensure overall programmatic performance and accountability.

In summary, this business case study demonstrates that the return on investment for NextGen is significant for all scenarios considered. While we found there is significant financial value in accelerating NextGen, it is recognized that there are a number of challenges to realizing these benefits and that our national focus should be on solving the issues that threaten achieving any one of the implementation timetables. As we have stated publically, the business case appears to be an open and shut case. The real challenge is in its execution.

Mr. Chairman, that concludes my statement. I will be happy to answer your questions at this time.

THOMAS R. CAPTAIN

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Mr. Captain leads the Aerospace & Defense industry practice for Deloitte globally and is an experienced industry advisor, with over 30 years at Deloitte, serving clients in commercial aerospace, defense, security, space sectors. He also has significant experience serving the commercial passenger and freight airline industry.

His product experience spans from large commercial and regional aircraft, to business jets and general aviation. He also has extensive experience serving defense contractors in the military aircraft, naval platforms, land vehicles, munitions, precision strike, defense electronics, ISR and space sectors. He specializes in operational restructuring, industry strategy, investor due diligence, cost reduction, product development, engineering operations, manufacturing productivity improvement, enterprise systems and program management across multiple functions.

He provides industry perspectives to the media, such as Wall Street Journal, National Defense, Associated Press, UPI, Reuters, Jane's Defense Weekly, LA Times and Business Week. He is frequently quoted by and writes guest opinions/editorials for Aviation Week and Space Technology, and is a regular contributor on their annual "Top Performing Companies Annual Scorecard". He is the principal author of the recent Deloitte study, "Transforming the Air Transportation Systems – A Business Case for Program Acceleration", and was a keynote speaker at a recent Aviation Week & Space Technology forum on NextGen Financing and Funding.

Mr. Captain completed the Executive Education Program at the University of Pennsylvania, Wharton School of Business. He also graduated from Seattle University, with an MBA in Finance, as well as graduated from the University of Washington, with a BA in Psychology and Business.

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
Truth in Testimony Disclosure

Pursuant to clause 2(g)(5) of House Rule XI, in the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include: (1) a curriculum vitae; and (2) a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by an entity represented by the witness. Such statements, with appropriate redaction to protect the privacy of the witness, shall be made publicly available in electronic form not later than one day after the witness appears.

(1) Name: Tommy R. Captain

(2) Other than yourself, name of entity you are representing: Deloitte Consulting

(3) Are you testifying on behalf of an entity other than a Government (federal, state, local) entity?

YES

If yes, please provide the information requested below and attach your curriculum vitae.

(4) Please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by you or by the entity you are representing:

Tom Captain is a principal of Deloitte Consulting LLP (Deloitte Consulting), which is a subsidiary of Deloitte LLP. Deloitte Consulting is a large federal government contractor which, collectively with its affiliates (which include Deloitte & Touche LLP, Deloitte Financial Advisory Services LLP and Deloitte Tax LLP), performs contracts in excess of \$1 billion annually with the federal government.

In particular, Deloitte Consulting and its affiliates are currently supporting approximately \$2.3 million in contracts with Federal Aviation Administration; none of these contracts are currently related to the NextGen program. Moreover, Deloitte Consulting and its affiliates plan to potentially in the future pursue certain contracts and subcontracts that support or relate to the FAA's NextGen program. These contracts could potentially include contracts with the US Government that involve assistance with implementation or execution of the NextGen program.

Finally, certain aviation and related industry clients of Deloitte Consulting and its affiliates are likely to be impacted by the NextGen program."


Signature

October 3, 2011

Date