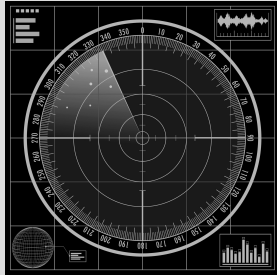


THE DIFFERENCE BETWEEN MODERN ATC TECHNOLOGY AND THE ANTIQUATED EQUIPMENT WE USE TODAY

Despite having the safest system in the world, the U.S. still relies on WWII-era technology. It is time to make ATC modernization an infrastructure priority.

STATUS QUO



Radar

sees your plane every 16 seconds

THE FUTURE WITH TRANSFORMATIONAL ATC REFORM



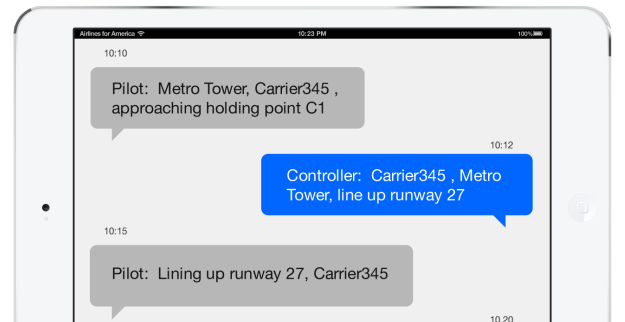
Satellite technology

sees your flight every 2 seconds



Human voice

is prone to misunderstanding



Text and data

leave no room for misinterpretation

AME548 B733/J 328	2601 P0259 350	PHX	+MAXX01 CNX+ PHX S3N3 S3N J74././DFW oNPR
AME347 A319/Q 792	4112 P1703 390	KPHX	+TFD2 TUS J92 VYLLA+ KPHX CHEZZ2 TUS J92././ MMPR
USA1161 A320/L 497	0745 P1805 320	PHX	+MAXX01 CNX+ PHX S3N3 S3N J74././DFW
INBOUND			
EJA662 2 T/CS6X/G 231	1423 FLOSI SHAFF	A1539	IFR EWR

Paper flight strips

have technological limitations

Departures			
AME548 B733/J 328	2601 P0259 350	PHX	+MAXX01 CNX+ PHX S3N3 S3N J74././DFW oNPR
AME347 A319/Q 792	4112 P1703 390	KPHX	+TFD2 TUS J92 VYLLA+ KPHX CHEZZ2 TUS J92././ MMPR
USA1161 A320/L 497	0745 P1805 320	PHX	+MAXX01 CNX+ PHX S3N3 S3N J74././DFW
EJA662 2 T/CS6X/G 231	1423 FLOSI SHAFF	A1539	IFR EWR

Advanced software

offers operational efficiencies

OVERSIGHT AUTHORITIES CONTINUE TO QUESTION PROGRESS ON NEXTGEN IMPLEMENTATION

“Although FAA is recognized for safety and relative efficiency, **its attempts to modernize the ATC system have been less successful.** We have chronicled the difficulties FAA has faced completing what it envisioned initially in 1981 as a 10-year program to upgrade and replace National Airspace System facilities and equipment. For example, in August 1995, we found **substantial cost and schedule overruns.** To address these difficulties, in the past Congress gave FAA acquisition and human capital flexibilities to improve the agency’s management of the modernization program ... However, modernization **difficulties have persisted.**”

— Air Traffic Control System: Selected Stakeholders’ Perspectives on Operations, Modernization, and Structure, U.S. Government Accountability Office, GAO-14-770, Sept. 12, 2014.

“Since the effort began almost a decade ago, we [DOT IG] have reported on longstanding challenges and barriers that have limited FAA’s progress in delivering NextGen capabilities, such as the Agency’s inability to set realistic plans, budgets, and expectations, and clearly identify benefits for stakeholders.”

— Progress and Challenges in Meeting Expectations for NextGen, Assistant Inspector General for Aviation Audits, U.S. Department of Transportation before the Senate Committee on Commerce, Science, and Transportation, CC-2014-023, June 25, 2014.

“The original vision for the Next Generation Air Transportation System is **not what is being implemented today,** and the Federal Aviation Administration should “reset expectations” ... says a new congressionally mandated report from the National Research Council.”

—“FAA Should ‘Reset Expectations’ for Next Generation Air Transportation System,” Office of News and Public Information (Press Release), The National Academies of Sciences, Engineering and Medicine, May 1, 2015.

“FAA has made changes to program costs and schedules, but **total costs and timelines remain unclear.**”

— Department of Transportation, Inspector General Audit Report, “Total Costs, Schedules, and Benefits of FAA’s NextGen Transformational Programs Remain Uncertain,” AV-2017-009, Nov. 10, 2016.

“Congress Has Provided Over \$7 Billion to FAA Through Fiscal Year 2016 To Invest in NextGen...”

“NextGen’s Completion Date Remains Unclear Due to **Shifting Priorities** and Undefined Final Requirements for Major System Acquisitions.”

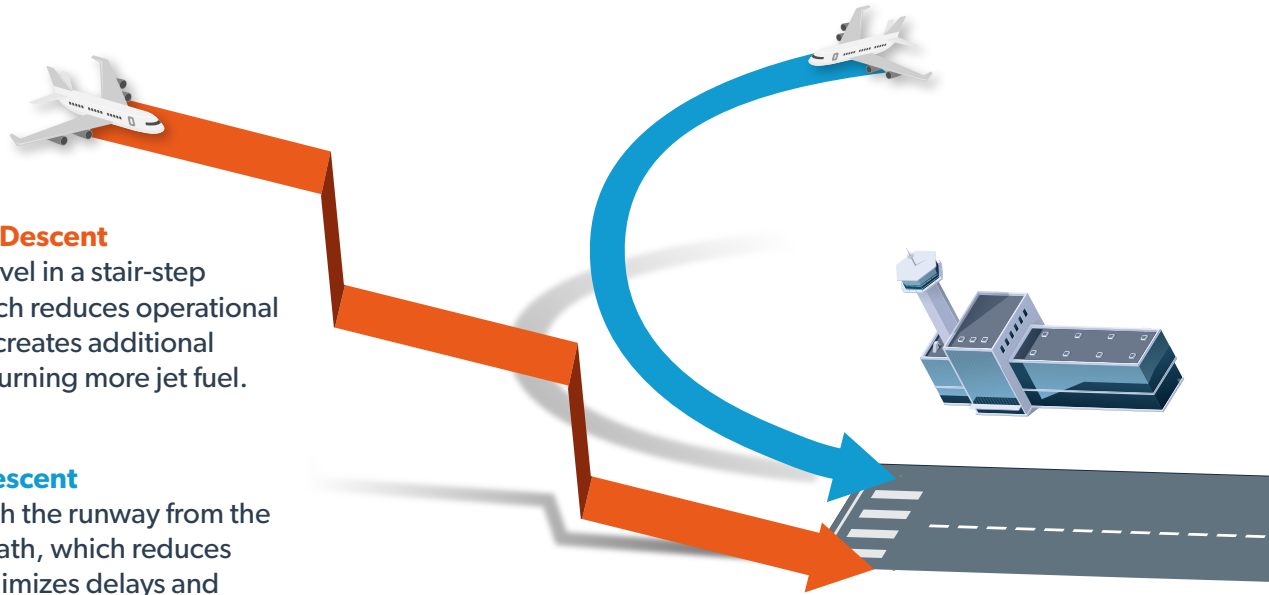
—Calvin Scovel III, Inspector General, Department of Transportation to Senator Bill Shuster, Sept. 30, 2016.

TRANSFORMATIONAL ATC REFORM WILL ACCELERATE THE BENEFITS OF NEXTGEN

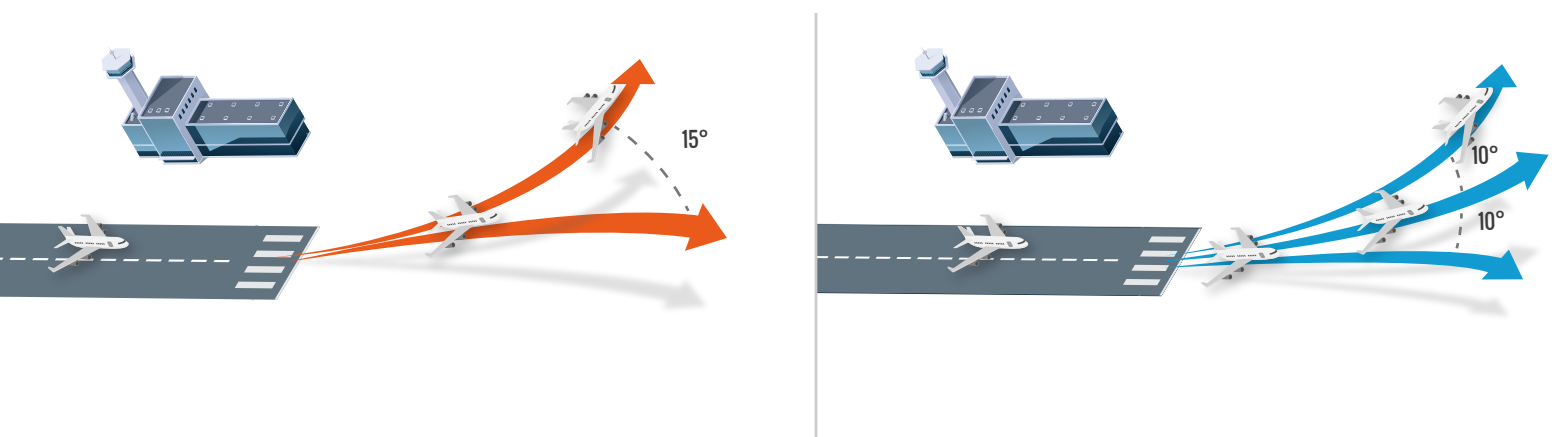
NextGen allows for more precise takeoffs and landings, which ease airspace congestion, reduce flight time and lower emissions.

Airport approaches **before** and **after** NextGen

- **Conventional Descent**
Planes must travel in a stair-step approach, which reduces operational efficiency and creates additional emissions by burning more jet fuel.
- **Continuous Descent**
Planes approach the runway from the most optimal path, which reduces flying time, minimizes delays and lowers emissions.



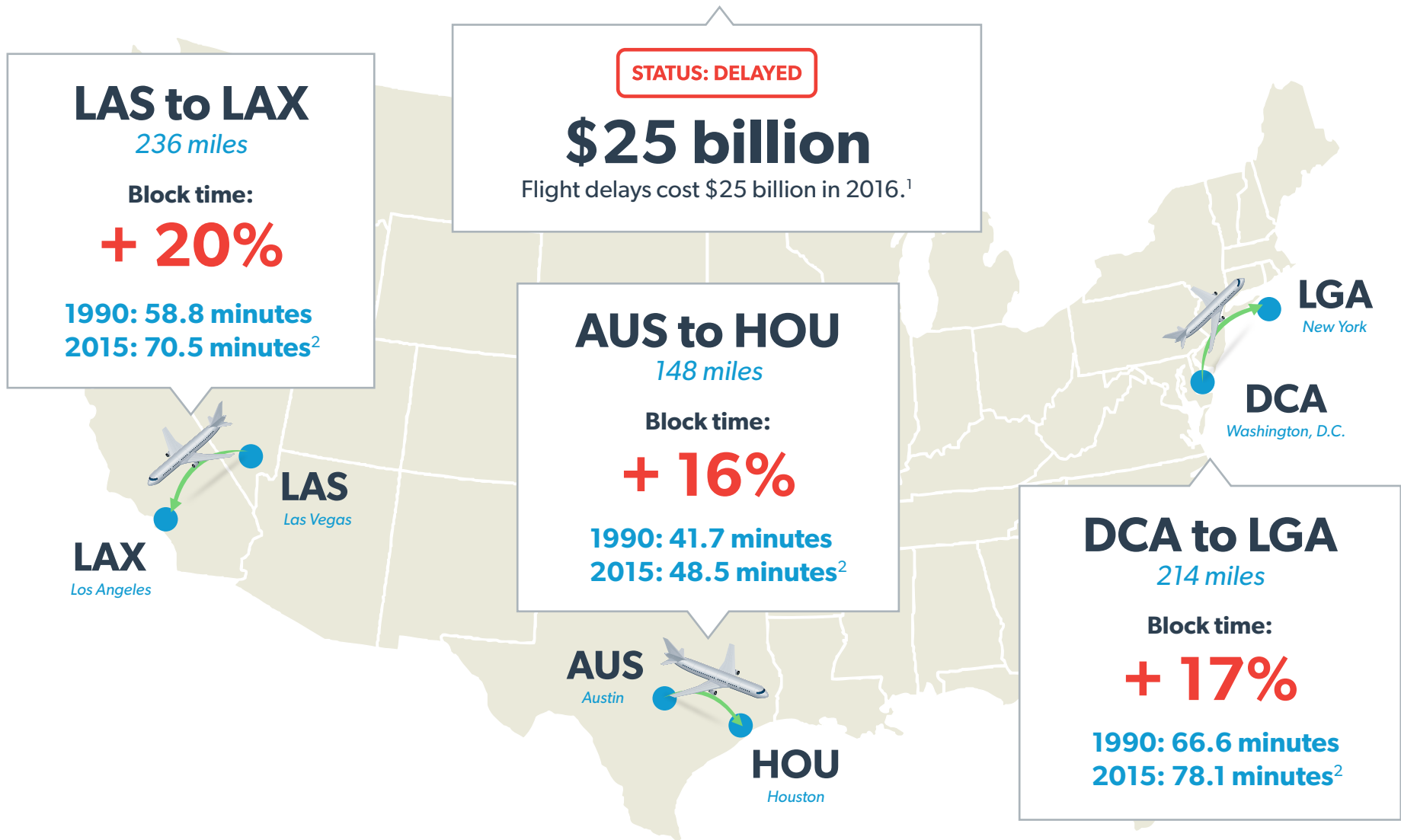
Airport departures **before** and **after** NextGen



With NextGen, more planes can depart at smaller angles between flight paths, increasing operational efficiency, reducing congestion and enhancing safety.

CITIES ARE NOT GETTING FARTHER APART, BUT FLIGHT TIMES ARE GETTING LONGER DUE TO CONGESTED AIRSPACE

Block times, the total amount of time a flight takes from pushing back at the gate to arriving at its destination, have expanded to accommodate congested airspace. Flights are getting longer when they should be getting shorter, and it is a nationwide problem.



THE U.S. MUST MAINTAIN LEADERSHIP IN AVIATION

More than 40 countries have reformed their air traffic control (ATC) systems, resulting in improved efficiency and enhanced safety. Transformational reform ensures that our system keeps pace with the speed of technology and will not be interrupted by Congressional politics.

