1. Mark your confusion.
2. Show evidence of a close reading.
3. Write a 1+ page reflection.

The Systems Used to Keep America Flying Are Ancient. That Makes Fixing the Problem that Much More Difficult

Source: Chris Isidore, CNN.com, November 14, 2026

In some ways, America's air traffic control system performs far better than one might think — even if it would be tough to convince the more than one million passengers who had their travel plans upended in recent days. It handles a huge airspace and more than 45,000 flights a day. Yet, failures are exceedingly rare, even when its antiquated equipment breaks down.

The current system uses strips of paper with the names of flights on them to be handed off from one controller to another, floppy computer discs and copper wire to handle communications for nearly a third of the system.

Experts say that fixing a system this large is a tall order, partly because the current system is so old.

"If you own a car for 30 years, it's going to be increasingly difficult as the car gets older to find the replacement parts you need to keep it in operating condition. The same is true of any kind of technology serving any kind of industry," said Henry Harteveldt, president of Atmosphere Research Group and a travel industry analyst. "There are many parts of airline and aviation technology that are no longer fit due to their age."

And Friday afternoon, the painstaking efforts to keep that antiquated air traffic control system functioning caught up with the Federal Aviation Administration and the more than one million on-board and would-be passengers.

The problems arose when a contractor was working to replace some of the copper wire with fiber optics.

"That new equipment, new technology just was overwhelming the older system," said Secretary of Homeland Security Markwayne Mullin. "The patchwork doesn't work."

The part of the air traffic control system that monitors and communicates with planes at their cruising altitude was no longer reliable enough to keep those planes in the air or allow new planes to take off. So, the FAA ordered a rare systemwide "ground stop," leading to 9,200 canceled flights, according to tracking service FlightAware.

And even though the ground stop was lifted just after 8 p.m. ET on Friday, many flights could not be started at that point due to staffing issues or the lack of planes being in the right city. So another 6,200 were canceled on Saturday.

Transportation Secretary Sean Duffy said the problem is coming up with a modern system while keeping the current antiquated system up and running.

"I don't want to lie to anybody," he said Friday night at the same press conference. "What we're doing is hard, and it hasn't happened in the past because it is hard. But I'll tell you, by doing nothing, you inject way more risk into the system. We use 1980s technology, 1990s software, to use 1970s radar that we don't make parts for anymore."

Earlier problems from old systems

Friday's ground stop wasn't the first time the aging infrastructure has disrupted travel. Communication issues with the air traffic control systems directing flights around heavily trafficked Newark Liberty Airport in May 2025 caused the FAA to limit the number of flights and resulted in air

traffic controllers becoming so stressed from not being able to communicate with planes that some workers took trauma leave, causing a staffing shortage to worsen.

In a similar situation to Friday's grounding of flights, in January 2023, the system used to notify pilots of their route's conditions went down, grounding all flights.

Airlines also have old technology

It's not just the FAA that copes with older technology. Even the actual airlines use outdated tools.

In July 2024, an automatic update from cybersecurity software provider CrowdStrike caused massive problems on Windows computers, which impacted companies all around the world and required a restart of computers. But no company had a harder time restarting normal operations than Delta Air Lines, which had greater problems bringing its crew-tracking software back online, leaving it unable to staff airplanes.

A massive problem at Southwest Airlines during the 2022 year-end holidays resulted in 16,700 canceled flights, millions of passengers scrambling to complete their holiday travel and costing the airline at least $1 billion. Much of it was due to problems with its own antiquated crew scheduling system, which required phone calls between the airline and crew members rather than online check-ins — a system that would make it impossible for the airline to find the crews it needed to staff flights.

Southwest did not respond to a question Saturday about the state of that system, which it promised to upgrade.

Harteveldt, the travel analyst, said Southwest has spent at least $1.3 billion since then upgrading its technology, hardware, software and communications networks.

Hesitance to pay for new tech

Airlines can be reluctant to fund back-office technology upgrades when they can instead spend on ways to attract more passengers, such as better Wi-Fi, newer planes and upgraded airport lounges, said Harteveldt.

"They are risk-averse, and so they want to be sure that whatever technology they do end up investing in is a technology that will be useful long term to the airline," he said. "That's another reason why airlines tend to be technology laggards. They also just don't have the profit margins, even in the best of years, to allocate large sums to technology upgrades."

The FAA's problems are strictly political: it needs Congress to approve funding. Last year, Congress approved $12.5 billion for air traffic control upgrades, and before Friday, Duffy had asked for another $30 billion. On Friday night, he said the agency now needs $50 billion.

It's possible the mess at the nation's airports on Friday night will help win support for that greater Congressional spending. But the problems have existed for years. And even if the FAA has unlimited funds, it's clear from the problems created by Friday's attempted upgrade of existing systems that it won't be repeated in the future.

"Is this exact thing going to happen again? I don't know," Duffy said. "I think there's no better time than the present to actually give us the money and let us finish."

Possible Response Questions

- What are your thoughts about the problems with America's air traffic control system? Explain.
- Did something in the article surprise you? Discuss.
- Pick a word/line/passage from the article and respond to it.
- Discuss a "move" made by the writer in this piece that you think is good/interesting. Explain.