



WHAT IS SMART?

Strategic Management of Airspace, Routes and Trajectories

SMART is a modern tool to manage air traffic in the 21st century. It centralizes diverse data streams – weather patterns, flight paths, arrival/departure statistics, controller staffing metrics – into one platform to help the FAA better visualize the airspace and take action before problems arise.



Think of it as:

SMART is a digital one-stop shop: synthesizing all of this data to provide a clearer picture of where planes are going, how much traffic the system can handle and where congestion or weather could cause problems. Critically – it also incorporates time – allowing FAA experts to predict the future.

This Means

- ✓ Fewer delays and cancellations
- ✓ More efficient routes and more airspace capacity
- ✓ More predictable airline schedules
- ✓ Less time spent waiting on the ground
- ✓ Less stress for controllers
- ✓ Lower operating costs

HOW WILL SMART BE USED?

The Department of Transportation, FAA, and ASI have built the world's **most advanced** air traffic center in the world to facilitate a slow, staggered rollout of SMART.

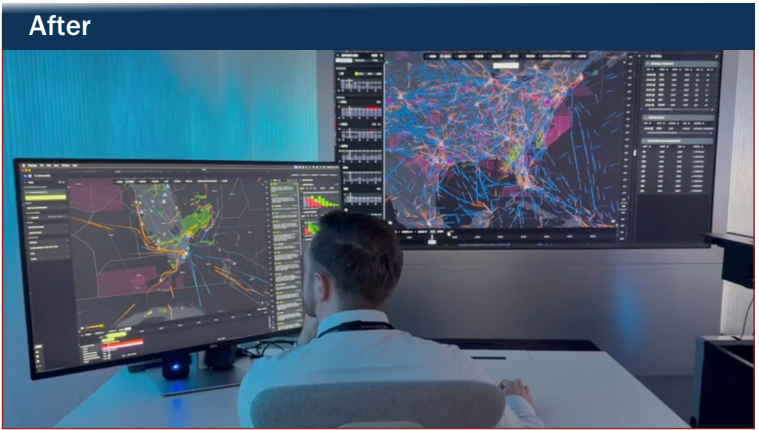
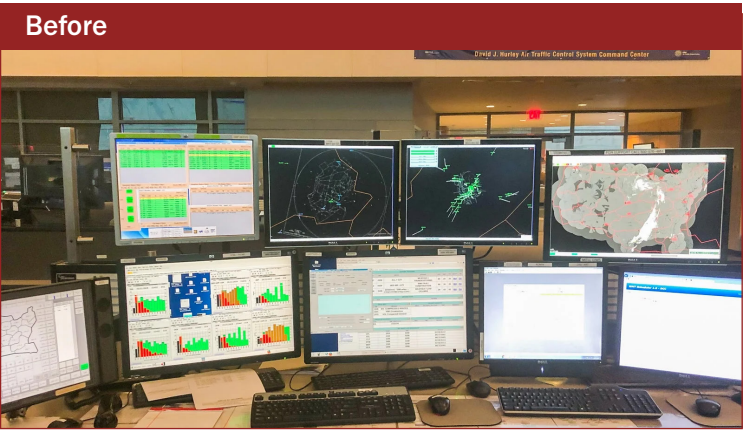
Over the next few months, a team of FAA specialists will man the center 24/7 – analyzing the data and providing scheduling recommendations to the agency's Air Traffic Control System Command Center. These recommendations will then be routed to air traffic control facilities for consideration by local leadership.

As the agency continues to test SMART, train employees, and assess how the program is working, additional solutions will be rolled out.



HOW WILL SMART HELP?

There's so much SMART can help improve compared to how we do things today.



Example 1: Prevent congestion before it happens

Problem:

Across the country, each section of the airspace has set capacity. If too many planes are scheduled to fly into that section at a time, your plane gets delayed.

Solution:

SMART can predict where too much traffic is headed and identify other routes before an area becomes too congested. Instead of waiting for congestion to build, the FAA will now be able to move flights to available airspace.

Example 2: Route around weather

Problem:

The way the FAA navigates weather hasn't kept up with modern technology. Currently, the agency blocks off portions of the weather-affected airspace as large, rectangular boxes. These don't reflect how weather actually looks – thunderstorms can move quickly, weather can be calm at higher altitudes, and storm systems are often irregular in shape, with narrow gaps or corridors that aircraft could safely fly through.

Solution:

SMART gives the FAA and airspace operators a clearer picture of how weather will affect air traffic over time.

This allows air traffic controllers to plan around storms and use available airspace instead of shutting down large areas of airspace unnecessarily.

Example 3: Get flights back online faster

Problem:

Ground stops need to be implemented when there is severe weather and that means your flight can't or take off or might have to divert.

Solution:

SMART gives the FAA an early look at traffic and weather around airports. This helps the FAA identify when airspace that was temporarily restricted can safely reopen.

Reopening airspace sooner can allow more flights to depart, reducing delays and congestion on airport taxiways and ramps.

Example 4: Better manage arrivals

Problem:

Flight arrivals stack on top of each other, forcing controllers to decide which aircraft should land first. This work is labor-intensive and taxing.

Solution:

SMART eases controller workload by sorting out landing times hours ahead of time, allowing the system to determine the order of arrivals rather than leaving controllers to make those decisions in real time.