

# FAA Radar Tracking Center

Clarity displays are increasing safety and efficiency  
in the nation's capitol

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**Alan Hendry**  
**Program Director, Potomac TRACON**  
**Federal Aviation Administration**

The Federal Aviation Administration (FAA) is making air travel safer and more efficient with its new Potomac Terminal Radar Approach Control (TRACON) center near Washington, D.C. The state-of-the-art facility consolidates air traffic operations for Baltimore-Washington International, Andrews Air Force Base, Ronald Reagan-Washington National, Richmond and Dulles International airports – handling 5,000 flights per day and more than 52 million passengers a year.

The centerpiece of the TRACON center is a 95,000 square-foot circular room full of radar displays and communications equipment. Fully staffed, the facility holds 300 air traffic controllers, technicians and supervisors that manage 35 operational and monitoring systems 24 hours a day.



photo credit: AVWashington

## **Lion displays selected for radar and weather tracking**

AVWashington, a Clarity partner, connected the new operations center and equipment room racks to 79 FAA computers. A matrix switcher provides 96 inputs and 32 outputs of high-resolution computer video, and connects any of the operations center sources to a Decision Support Center (DSC) on the other side of the building.

The TRACON center uses ten 67" Clarity Lion rear-projection displays with reinforced black glass screens that are individually mounted around the room at a 10-degree viewing angle. The displays show aircraft positions overlaid on national, regional and local maps, as well as current weather information. Two additional Lion displays are installed in the DSC for "war room" applications.

"This is the most advanced air traffic facility in the world and Clarity displays offer fabulous flexibility for radar, weather and air traffic control," said Alan Hendry, FAA Program Director for the Potomac TRACON.

***clarity***  
visual systems

The Lion displays help 43 controllers predict congestion up to four hours in advance, create delays on the ground, and reroute aircraft to use more efficient routes. The new system updates temperature, wind direction and wind speed every six minutes, instead of once an hour, and allows controllers to see aircraft behind weather fronts for the first time.

### High performance and reliability of Lion is critical

The high resolution and 1200:1 contrast ratio of the Lion displays allow controllers to view highly detailed flight and weather information from anywhere in the room. In addition, the redundant multi-lamp optical engine ensures Lion delivers the 24/7 uptime demanded for this critical operations control center.



photo credit: AVWashington

"The high native SXGA resolution and superb black levels of the Lion display, along with its ability to function as a flexible 67" screen made it the right choice for this demanding application," said Sidney L. Lissner, president of AVWashington.

## The solution

The FAA TRACON center solution consists of:

- 12 Lion (WN-6720-SX) 67" digital displays with Advanced Performance Liquid Crystal Display (AP/LCD™) technology
- 96 x 32 Autopatch matrix switcher (RGBHV, ultra-high bandwidth)
- Local 12 x 8 matrix in the Decision Support Center

### Project team

- Clarity Visual Systems
- AVWashington

AVWashington wrote custom software to control the entire facility from multiple touch panels or over IP from any authorized workstation on the FAA LAN.

This solved an important problem for the FAA by allowing immediate control over the sources displayed on the various Lion displays quickly, from anywhere in the building.

### Displays used in war room presentation system

"We put two Lion displays in a well-equipped conference room known as the DSC for 'war room' operations to handle a major incident or crash for immediate, after-the-fact planning," said the FAA's Hendry. These two additional Clarity Lion displays are connected to the operations center matrix switcher providing two identical displays to view operations center sources. Local room sources include video, in-room computers, and video teleconferencing.



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