

## Museum AV Takes Off

Oct 16 2009 2:01AM

URL:<http://www.governmentvideo.com/article/88340>

The Smithsonian's National Air and Space Museum is working on a new gallery in its Washington, D.C., facility that will include a raised stage for public programming, a large interactive touchscreen where visitors can help design a virtual space station, a large projection of the Earth's limb, or circular outer edge, and more.

Below the large room, expected to open around the end of the year, will be a complete television production studio and control room to serve a wide range of missions. It will have a two-way fiber connection to the NASA headquarters television control room just a few blocks away for live media exchange.

The new gallery, "Moving Beyond Earth," will include a globe-shaped screen from Global Imagination that will be illuminated from within to look like Earth and other heavenly objects. Four other projectors will show the Earth's limb along the top of one of the room's walls. The round stage, complete with speakers and footlights, will also have five video cameras that can drop down on telescopic mounts, for potential applications like distance learning and multi-site events. One wall will feature a fly-around tour of the International Space Station.

The room will also feature 15 small interfaces for quizzes. And in testing now is a large tablemounted multi-touchscreen. When finished, it will allow visitors to help design a space station; they can build on the work of other visitors' earlier in the day, and at the end the museum will e-mail participants a graphic of the completed station design.

Another special interactive installation, tentatively entitled "You Are The Flight Director," will let visitors speak with others via simulated video teleconference to help solve a space-related problem.

The new gallery is just the latest improvement at the museum. In 2008, it installed an Airbus A320 simulator that used four screens and six computers to re-enact takeoffs and landings at Washington Reagan National Airport in Virginia. (A museum worker rode the route in a helicopter, holding a camcorder out the window to capture the original video data for the project.) The simulator also provides audio, including authentic cockpit and air control chatter.



*The Airbus A320 simulator re-creates National Airport takeoffs and landings.*



*Museum videos are now powered by Flash servers.*

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## **FLASH SERVERS SURE BEAT A ROOMFUL OF VCRS**

It wasn't that long ago that the 85 or 90 screens in the Smithsonian's National Air and Space Museum got their video from regular old (pro-grade) VCRs. Running all day everyday, the machines populated a room in the museum and ate through read/write heads by the case.

Now, said Bob Curran, the museum AV supervisor, most of the displays have Flash memory media servers, right on the unit, secured in some cases by two-sided tape. Not only is the museum saving on VCR repair, but the networked boxes let curators schedule and quickly change programming. Adtec Technology and Alcorn-McBride units are used on large-format monitors and projection systems where HD video is required. The Adtecs are capable of 1080i video, but the museum found 720p actually looks better on the Sharp 65-inch monitors.

For smaller screens, the museum uses MediaWhiz players, smaller and with fewer features than the Adtecs. It's also checking out other makes.

And the 100 or so interactive computer screens are lightyears away from their sources-or up to 900 feet, anyway. Using gear from Magenta to strengthen the signals for the long ride, the museum moves the touchscreen signals back to the computer in the basement and sends the video up; users at the screens notice no latency, as if the computer were right there.