

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)

Independent Panel Reviewing the Impact of)
Hurricane Katrina on Communications Networks)

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**COMMENTS OF THE ASSOCIATION OF PUBLIC TELEVISION
STATIONS**

The Association of Public Television Stations (“APTS”)¹ hereby submits
Comments in the above captioned proceeding.

The inherent flexibility and capabilities of digital television enable public
television stations to deliver a number of enhanced services to the public in ways that
could not be imagined in the analog world. In addition to offering a mixture of high-
definition programming and multiple standard-definition programming, many public
television stations are also transmitting critical public safety and alert and warning data
over their digital transmitters.

Public Television’s Digital Datacasting Alert and Warning Services

A fully digitized public television system offers significant new public safety
advantages. In this regard, public television’s congestion-free bandwidth can support
public alert systems as well as closed networks to enable public safety and emergency
management agencies to securely transmit critical, time-sensitive information. These

¹ APTS is a nonprofit organization whose members comprise the licensees of nearly all of the nation’s 355
CPB-qualified noncommercial educational television stations. APTS represents public television stations in
legislative and policy matters before the Commission, Congress, and the Executive Branch and engages in
planning and research activities on behalf of its members.

services are provided through a technology called “datacasting,” whereby data originating from a public safety agency would be received by a local PTV station, which then encrypts the data, inserts it into the digital TV signal, and sends the packet through its digital transmitter to personal computers or local area networks equipped with an inexpensive DTV tuner card and a small antenna. Datacasting is an IP-based open architecture system. The data can consist of video, text, audio, graphs and maps.

A datacasting system of this type provides many advantages to public safety agencies. First, transmission of the data over the digital broadcast signal is nearly instantaneous, compressing minutes of alert time and information lags to just a few seconds. Second, this infrastructure can bypass the congestion common to wireline and wireless services, such as the Internet, telephone and cellular networks. Third, the system is “addressable” so that public safety agencies can pinpoint to whom the data is sent, whether to relevant agencies, mobile units, or first responders in the field. Lastly, because public television stations reach nearly every American household, the digital infrastructure could provide nation-wide, as well as localized, warning and alert to the American public.

Public Television’s Digital EAS Pilot with DHS

On October 21, 2004, the Department of Homeland Security (DHS) signed a cooperative agreement with the Association of Public Television Stations (APTS) to conduct the Digital Emergency Alert System - National Capitol Region pilot (DEAS-NCR). This six-month pilot demonstrated how DHS can improve public alert and warning during times of national crisis through the use of the local public television (PTV) digital television (DTV) broadcasts. The pilot demonstrated how PTV’s digital

infrastructure can support the distribution of digital all-hazards Emergency Alert System (EAS) messages (such as audio, video, and/or data messages) by secure and nonsecure means to TVs, radios, personal computers, cell phones, cable and wireless networks.

The DEAS-NCR pilot is a joint venture by public television with the Department of Homeland Security's Federal Emergency Management Agency (FEMA) and Information Analysis and Infrastructure Protection Directorate. The DHS Office of National Security Coordination in FEMA serves as the Federal Government's Executive Agent for the national-level EAS, including Presidential-level messaging during times of crisis or emergency. In addition, the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) and the Federal Communications Commission's (FCC) Homeland Security Office are full participants with DHS in the pilot.

The DEAS – NCR pilot also includes a wide range of participants from the broadcast, cable television, and wireless telecommunications industries. Media industry organizations participating in the pilot include APTS; WETA-TV and FM radio (Washington, DC); Maryland Public Television; WHRO-TV (Norfolk, VA); the New Jersey Network; WTOP-AM radio (Washington, DC); WRC – TV, an NBC affiliate station (Washington DC); Comcast Cable; the Weather Channel; and XM Satellite Radio.² A number of systems and technology companies have also provided support and equipment for this project, including SpectraRep, Kencast, Logic Innovations, Triveni Digital, Hormann America, Qualcomm, and others.

² Also observing is the National Cable and Telecommunications Association. Participating telecommunications industry organizations include Cingular Wireless, Nextel, T-Mobile, Sprint, and USA Mobility. Observing for the wireless industry is the Cellular Telecommunications Industry Association.

A. Phase I of the Pilot

Phase I of the DEAS pilot focused primarily on technology demonstration and proof of concept. Phase I included the design and deployment of the basic DTV datacasting system, installation of DTV datacast receivers among participants, and development of text and audio alerting software applications that utilize the Common Alerting Protocol (CAP).³ The results of the pilot showed that digital broadcasts to media and telecommunications service providers will significantly improve and enhance the ability of Federal, State, and local governments to provide critical and lifesaving emergency messaging to the nation. Moreover, using public television's existing infrastructure, DHS is leveraging a public – private partnership to efficiently demonstrate a significantly enhanced public alert and warning message capability.

B. Phase II of the Pilot

Based on the success of the pilot, DHS extended the pilot into a Phase II. In Phase II, DHS is examining how the PTV DTV system can best provide support and enhancement to state and local activations of the alert and warning system. Phase II of the pilot includes additional testing sites beyond those included under the first phase of the pilot in the National Capitol Region, with extension to 19 additional public broadcast stations outside the National Capitol Region and CAP application development and customization.

Phase II is designed to allow DHS to identify best practices and to develop a foundation for deploying the DEAS nationally. Phase II also includes support for

³ One of the features of the DEAS – NCR pilot is that it is based entirely on commercially available “off-the-shelf” hardware and software. The CAP-based alerting software was developed for this pilot. As much as possible, the CAP software references existing EAS activation codes and processes. Successful testing was done of XML text messages, audio, and video.

coordination of the PTV DEAS with other DHS Integrated Public Alert and Warning System (IPAWS) related pilots, including supplementing the existing national EAS. Lastly, Phase II includes the development of a plan and budget for a national rollout of the public television DEAS architecture.

C. National Deployment of APTS' DEAS

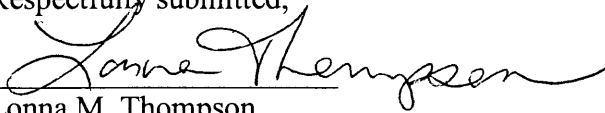
The APTS DEAS pilot program is laying the foundation for a future digitally-based federal public safety alert and warning system. Like the current national EAS, the planned Digital EAS will make provisions for state and local governments to use this digital broadcast backbone. The best practices developed during this pilot project will be used as the model for deploying the DEAS nationally. The DEAS will supplement the current Emergency Alert System (EAS) that uses 34 Primary Entry Point (PEP) radio stations to provide the President and other designated officials the capability to speak to the American public during periods of national emergency.

APTS has provided DHS with a DEAS National Deployment Plan. The DEAS National Deployment Plan includes cost and schedule estimates, macro-level work breakdown estimates, technical risk determinations and other technical implementation options. In addition, standards recommendations and certification and accreditation security issues are also included. APTS is expecting that DHS will begin the national deployment of the DEAS in the very near future.

Conclusion

APTS submits the above information in the record to provide details concerning how public television stations may transmit critical public safety and alert and warning data over their digital transmitters and to highlight the on-going pilot project between APTS and the Department of Homeland Security.

Respectfully submitted,



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