ALERT FM SYSTEM INTRODUCES NEW HARDWARE, SERVICES

“Alert FM” is a personal alert and messaging system that enables state and local government and private sector officials to create and send digital alerts and messages. Developed by Global Security Systems (GSS, Jackson, MS, www.gssnet.us), Alert FM utilizes the existing FM broadcast infrastructure to provide emergency communications for both first responders and the general population, making use of the Radio Data System (RDS) FM data subcarrier. This system has the ability to provide a 128-bit encrypted information transmission medium with multiple backup and area-wide coverage, without the "nodal vulnerability" of other communication systems (see the May 15, 2006 issue of Radio TechCheck for additional information on the Alert FM system including a block diagram of the Alert FM system).

To date, broadcasters in Mississippi, Alabama, and Florida have installed Alert FM encoders and are able to transmit alert messages to Alert FM receivers, some of which are shown in the figure and available for purchase from the Alert FM web page (www.alertfm.com) starting at around $50. Newest of these is the Alert FM USB receiver which is designed for use with a personal computer. Potential alert messages include tornado warnings, homeland security notices, hurricane evacuation instructions, utility notices, plant or school closings, employee notifications and traffic alerts. First responders, school officials and citizens can receive these alerts and messages based on geographic or organizational groupings.

During The NAB Radio Show in Charlotte, NC, GSS announced that Alert FM is the first system ever to use commercial radio broadcast signals to transmit National Oceanic and Atmospheric Administration (NOAA) weather alerts and Federal Emergency Management Agency (FEMA) Presidential alerts.

"Alert FM is unique in that it supports targeted alert messaging from state and local governments as well as the private sector before, during and after a crisis," said Robert L. Adams, GSS President and CEO. “Alert FM maintains compatibility with existing warning systems, such as the current Emergency Alert System (EAS) and NOAA Weather Radio, while providing broadcast technology to strengthen the communications infrastructure using RDS subcarrier datacasting.”

GSS also recently announced that Alert FM is in compliance with the FCC’s Second Report and Order and Further Notice of Proposed Rulemaking released in July of this year regarding improvements to the EAS system which requires EAS participants to accept messages using the open, non-proprietary Common Alerting Protocol (CAP – see the July 16, 2007 issue of Radio TechCheck for additional information).
TechCheck for a summary of this Second Report & Order). The Alert FM system enables the new alerting capabilities which include state and local notifications as well as Presidential alerting.

NOAA Weather Radio All Hazards, also an EAS component, is comprised of a nationwide network of more than 975 transmitters directly linked with one of the 123 local offices of NOAA’s National Weather Service. Weather warnings and civil emergency messages transmitted by NOAA can now be received via commercial broadcast signals through the Alert FM system. For more information visit http://www.alertfm.com.

**CLARIFICATION ON FM IBOC DUAL ANTENNA OPERATION**

In a Public Notice released last Tuesday, October 2, 2007, the FCC provided a clarification of the notification procedures for stations currently operating with FM IBOC dual antenna systems under Special Temporary Authorization (“STA”). Specifically, the FCC notes that the technical information requirements for STA requests for dual antenna operation set forth in a Public Notice released on March 17, 2004, are substantially the same as those which will be required for dual antenna IBOC notifications going forward under the new rules adopted in the Second Report and Order (released in March 2007, and which became effective on September 14, 2007 – see the June 4, 2007 issue of Radio TechCheck for a summary of the IBOC Second Report and Order).

In addition, stations that commenced dual antenna IBOC operation via STA already have been designated as hybrid digital stations in the Media Bureau's Consolidated Database System (“CDBS”). For these reasons, FM stations that are currently operating digitally under STA are deemed to have provided the notification required by newly adopted 47 CFR §73.404, and such stations will not be required to file a new notification with the Commission, unless a subsequent change is made in the technical parameters of the IBOC operation or the technical contact information.


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**Don’t Miss the New NAB AM Antenna Computer Modeling Seminar**

November 15-16, 2007

NAB Headquarters

Washington, DC

This two-day seminar is your opportunity as a broadcast engineer to learn the basics needed to utilize modeling software such as MININEC and nodal analysis for designing performance-optimized AM directional antenna phasing and coupling systems and proving the performance of directional antenna patterns.

**You will learn about:**

- Moment Method Modeling Basics
- DA Proofing Using Moment Method Modeling
- Overcoming Limitations of Using Field Strength Measurements for DA Proofs
- State of the Art in Phasing System Design Nodal Analysis of AM DA Phasing and Coupling Systems
- Pattern Design Considerations for Optimum Performance

AM antenna experts Ron Rackley and Ben Dawson, along with antenna modeling software specialist Jerry Westberg, will lead the seminar demonstrating how moment method modeling makes analysis of actual tower current distributions possible and how a model can be used to proof an array provided the proper criteria are considered. All are well known in the radio industry as experts in the field of directional antenna design and maintenance. Their decades of experience...
experience offer station engineers an opportunity to learn techniques, tips and tricks that can be immediately useful.

Seminar fee: $395.00 (NAB members) and $495.00 (non-members). For more information on the curriculum, how to register or housing go to AM DA Seminar on the NAB Web site or call Sharon Devine at (202)-429-5338. Register now for the NAB AM Antenna Computer Modeling Seminar!

Deadline *Extended* to October 19!
**Call for Proposals**
62nd Annual NAB Broadcast Engineering Conference

Don’t miss your chance to submit a proposal to present a technical paper at the NAB 62nd Annual NAB Broadcast Engineering Conference in Las Vegas, April 12-17, 2008. We are seeking paper proposals on these specific topic areas:

**Radio Engineering**
- Audio over IP
- Digital Radio Opportunities
- Digital Radio for Small Markets
- New Technologies for Audience Measurement
- Alternative STL Technologies
- Radio Technology Advancements

**Television Engineering**
- DTV Broadcasting for Mobile and Handheld
- Lip Sync, Loudness and Multichannel
- Digital Television Transition - 10 Months and Counting
- HD News and Live Production

**Radio and Television Engineering**
- Monitoring and Measurements in the Broadcast Plant
- Engineering Management Panel (IT and Engineering, Recruiting and Training)
- Bandwidth Management in the Broadcast Facility
- Repurposing Content for Multiple Platforms
- Next Generation Public Alerting
- Emerging Broadcast Technologies

If you are interested in submitting a proposal, you may do so online at: [http://www.nabshow.com/2008/forms/bec.asp](http://www.nabshow.com/2008/forms/bec.asp). If you have any questions please call NAB Science & Technology at (202) 429-5346.