


Meeting Notice

Thursday, April 8, Kansas City Emergency Management Operations Center

635 Woodland, Suite 2107; Kansas City, MO; 816-784-9042
 Gather at 11:30 a.m.; lunch served at 11:45 a.m.; meeting at 12:00 noon



Direct to Disk Video Storage. Raun Hamilton of Electronic Video Systems will discuss direct-to-disk video storage for immediate editing. Direct-to-disk storage saves time by eliminating the step to copy material from a tape to an editor. Hamilton will highlight the technology as it is used in the Fire Store products from Focus Enhancements. The company will provide a pizza lunch.

The offices for the KC EOC are on the first floor. From the front door, follow the hallway to the back of the building. A map to the center is available on the SBE59 website. 

Certification Exam Dates		
Exam Date	Location	App. Deadline
Jun 4-14, 2004	Local Chapter	Apr 23, 2004
Aug 13-23, 2004	Local Chapter	Jun 11, 2004
Nov 12-22, 2004	Local Chapter	Sep 24, 2004

Last Month's Meeting

The March meeting was held at the studios of KMXV and KSRC. Thanks to Ben Weiss for providing the location. The feature of the meeting was a barbecue lunch prepared by John Sims of RF Specialties. As always, the food was spectacular. The lunch was the highlight of the RF Specialties Broadcast Engineers Appreciation Lunch, which has become an annual event.

RF Specialties provided many door prizes again. Everyone attending won at least two company logo items, such as a t-shirt or hat. Restaurant gift certificate grand prizes were also awarded.

The main order of business for the meeting was the election of officers for the coming year. Nominations were opened and a slate of candidates was established. Once the voting was completed, the following people were elected to serve a one-year term:

- Chairman Mike Douthat
- Vice Chairman Steve Epstein, CPBE CBNT
- Secretary/Treasurer Ben Weiss, CPBE

Congratulations to the new officers of SBE59. Following the election, Douthat appointed chairmen for the standing committees. A complete list is on the last page of this newsletter. The only change is for the Programs Committee, formerly chaired by Douthat. The committee co-chairmen are Matt Kinnan, CEV CBNT (TV, video) and Mike Rogers (radio/audio).

Chairman's Chat

By Michael Douthat

A Short Introduction

As the newly elected chairman of SBE59 I thought that I would provide a brief self-introduction.

Presently, I am the supervisor of engineering at KCUR-FM, University of Missouri - Kansas City. I have three children and have been married to my wife, Sharon, for 31 years. We live in Independence having moved there from Lawrence in January 2000.

I have worked and played with electronics since I was a freshman in high school, first fixing neighbors' radios and televisions (mostly testing tubes) and then moving on to "real" television repair in college (at a whopping \$1.50/hr). After college I owned my own television sales and repair shop for a short time before taking a job in St. Joseph, MO, teaching electronics at the Hillyard VoTech School. In 1980 I began my career in radio broadcast engineering when I went to work as the assistant engineer for KXCV-FM at Northwest Missouri State University in Maryville.

I have worked as a chief engineer a total of 19 years at three different university public stations; KXCV in Maryville, KANU in Lawrence, and now KCUR. In addition to that I have been a contract engineer for a number of commercial FM and AM stations.

I am humbled at being selected by the members of SBE59 to lead this chapter. My goal for SBE59 is simply to fulfill the purposes of SBE as stated in the by-laws. These purposes are:

- To promote and stimulate interest in broadcast engineering
- To provide whatever education and training is desired and/or needed by the members

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• To provide a forum for the "meeting of the minds" in broadcast engineering

I have no special agenda and see no major changes, but I always want our chapter to be open to new ideas, or old ideas that still have merit. I solicit your ideas, your comments, and your support. Thank you.

SBE59 Meets with AES and IEEE

On April 15, 2004 the KC Chapter of the IEEE Computer Society and the KC Section of the Audio Engineering Society have arranged a joint meeting and tour. A social hour and dinner will be held at the Wyndham Garden Hotel at I-435 and Metcalf in Overland Park. The social hour begins at 5:30 p.m. Dinner will be served at 6:30.

At 7:30 the group will head to the Sprint Visual Communications Center for a tour and mini-presentations related to video and audio technologies. The Sprint VCC is at 6300 Sprint Pkwy. The building is also called Carver B. Park in Garage P in the spaces marked Sprint Experience. Enter the campus by taking Lamar off 119th Street, then turn right to the garage.

An RSVP is required to april@ieee-kc.org. Include your name, daytime phone number and the names of those attending. If you register by April 12 dinner costs \$18 for members and guests, and \$10 for students. After April 12, dinner costs \$20 for members and guests, and \$12 for students.

Nebraska Convention Announced

The Nebraska Broadcasters Association Convention and SBE Engineering Conference will be held on August 12. It will be held at the Embassy Suites in downtown Lincoln, NE. Look for details at www.sbe74.org. The 2003 event was very successful, and the convention organizers expect an even better show this year.

The technical sessions are being arranged by SBE74 chapter chairman Bob Drake and John Sims of RF Specialties.

Computer Connection

By Steve Epstein, CPBE CBNT
CBNT Review, Part 1

Last month, Kirk Chestnut mentioned in the Chairman's Chat his goal of obtaining his CBNT this year. As I was one of the first to take the CBNT test, I thought that this column would be a good place to cover the information in a tutorial. I welcome your feedback; send it to me via e-mail at steve@broadcastbuyersguide.com.

Reviewing the sample material for the test, several areas

of knowledge are covered: general electronics, x86 PCs, the DOS/Windows OS and networking. Rather than jump right into networking we will start with the basics and move quickly into the other areas over the next few months.

Starting with the PC, let's look at some basics. First, PCs in a broadcast or mission-critical environment need to be protected from surges, spikes, brownouts and complete power failures. The best way to do this is with a UPS (uninterruptible power supply) that offers surge and spike protection. At a minimum, UPSs need to be sized so that upon complete loss of power the PC can be properly shut-down. Better yet, size the UPS such that you have about five minutes before shutdown is required. That way, if the power returns in a few minutes, you can avoid the shutdown completely. UPS capacity is measured in volt-amps. A 500VA unit might keep a small PC going for 10 minutes or so. Don't try to keep two small computers going for 5 minutes, as you will likely overload the UPS. When sizing a UPS look carefully at all the specifications. For maximum reliability, ensure that you are within specs on all parameters. As mentioned in a previous column, include UPSs in your PM routines—it is easy to forget about them.

A basic PC consists of a power supply, motherboard, memory and one or more disk drives. Most also include a monitor, keyboard and mouse. Power supplies are straightforward. As they are usually switching supplies, replacement is often more cost-effective than repair. Test them with an oscilloscope or digital meter. Newer units may require connection to a motherboard before they will power up.

One item that can easily be replaced is the cooling fan. Fan quality varies, but I have found it best to use only high quality (ball bearing) replacement fans, and put the installation date on the outside of the power supply where it is easily read. Often the replacement fan will outlive the supply. If you know its age, you can make a determination on whether the fan is worth keeping. The same holds true for the other fans found in cases and on CPUs. New and clean fans normally run quieter. Clean fans with compressed air. Avoid "spinning them" with the air by sticking your finger in the blade area (while the blade is stationary). It is not as much fun, but much easier on the bearings. Better still are cases that provide filters.

Once you are sure the power supply is operational, you can test the motherboard. With nothing more than a single

Next EAS Required Monthly Test: April 27
The RMT is sent on the last Tuesday of the month



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stick of RAM and a CPU, most motherboards will offer a series of beeps to let you know they are functional. One short beep usually means everything in the POST (power-on self test) is OK. Check your motherboard documentation for additional info. Adding a monitor card and monitor will provide visual details.

Next, a drive can be used to boot an operating system. In the past all systems had a floppy drive that could be used for this, but today CD drives are often used for this role. Floppy drives can be plugged into the floppy controller found on most motherboards, and CD drives can be attached to either the primary or secondary hard drive controller. Needless to say, maintain a bootable disk in every format (3.5" floppy, CD, etc.) required in your facility. They are indispensable for troubleshooting. Even with this small amount of hardware, configuration is required.

The computer's CMOS can usually be accessed using the F1 or delete key at startup. If you are using the onboard drive controllers, ensure they are enabled. Disable them if you have a card-mounted controller plugged into the motherboard. Floppies are normally selected by the cable, The A floppy is connected with the connector after the twist. Hard drives and CDs are set as either master or slave using drive-mounted jumpers. The first or only drive is set as the master, with the second drive set as the slave. Most CMOS settings today can be left in auto, as the drives provide the necessary information to the motherboard.

The information above should be sufficient to determine the basic condition of any PC. Often a completely dead PC is the result of either a power supply or motherboard failure. However, I have seen card failures as well as RAM failures that have left a system in a seemingly dead state. Although I dislike disturbing multiple components during troubleshooting, I have found that after a few cursory checks of basic connections and the power supply, taking a dead system down to the minimum is often the quickest way to determine the failed component. Next month we will cover what is needed to get a system booted up and on a network.

New EAS Event Codes Take Effect in June

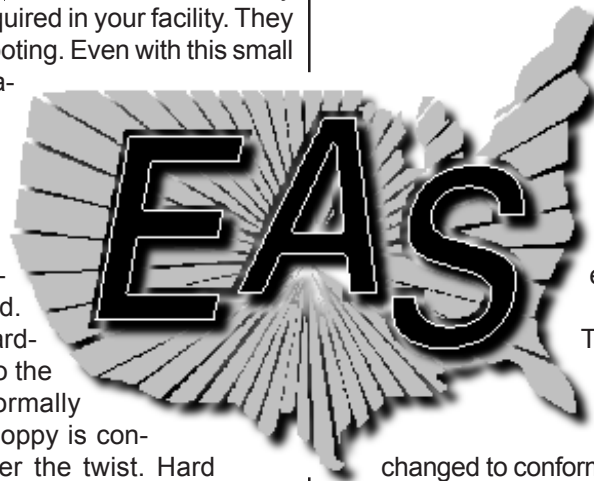
On Feb. 26, 2002, the FCC issued a Report and Order amending the Emergency Alert System (EAS) rules. The R&O became effective May 16, 2002. As part of the R&O, the FCC adopted numerous new civil emergency, weather

and natural disaster event codes and National Weather Service's (NWS) marine area location codes. The complete list of EAS event codes (also known as NWR-SAME Codes) is on page 5.

The reason for the delay between the effective date of the R&O and the NWS implementation of the new codes is that broadcasters needed time to upgrade their EAS encoder/decoder equipment to implement many of the changes in this R&O. If EAS equipment is not upgraded, the new event codes being implemented by NWS on June 30 will cause unknown event code alarms.

The R&O establishes naming conventions for the new and future EAS event codes. In most cases, and for all future codes to be approved, the third letter of all hazardous state and local event codes is will be limited to one of four letters: "W" for warnings; "A" for watches; "E" for emergencies; "S" for statements.

The existing event codes for Tornado Warning (TOR), Severe Thunderstorm Warning (SVR) and Evacuation Immediate (EVI) will not be changed to conform to this naming convention.




A Successful Tornado Drill

By Kirk Chestnut, CSRE

On March 16, the National Weather Service tested the Emergency Alert System by transmitting a test using the tornado warning (TOR) code. This was part of Tornado awareness week

One purpose of the test was to simulate an EAS activation with a real code. For broadcast stations, relaying a TOR message is not mandatory, however, most stations have their EAS units set to automatically relay the messages.

According to the National Weather Service office in Pleasant Hill, overall response to the test has been good. Most stations received and rebroadcast the TOR during the drill.

KMZU in Carrollton discovered that its recently repaired EAS unit was sent back with TOR messages not set to auto-forward. This has been corrected. Another station in Moberly does not auto-forward anything despite the station's LP-1 status, which resulted in a delay in the Moberly service area. Otherwise, rapid dissemination was achieved during the test. 

Revised EAS Event (NWR-SAME) Codes

Weather-Related Events	NWR-SAME Code
Blizzard Warning	BZW
Coastal Flood Watch	CFA *
Coastal Flood Warning	CFW *
Dust Storm Warning	DSW *
Flash Flood Watch	FFA
Flash Flood Warning	FFW
Flash Flood Statement	FFS
Flood Watch	FLA
Flood Warning	FLW
Flood Statement	FLS
High Wind Watch	HWA
High Wind Warning	HWW
Hurricane Watch	HUA
Hurricane Warning	HUW
Hurricane Statement	HLS
Severe Thunderstorm Watch	SVA
Severe Thunderstorm Warning	SVR
Severe Weather Statement	SVS
Special Marine Warning	SMW *
Special Weather Statement	SPS
Tornado Watch	TOA
Tornado Warning	TOR
Tropical Storm Watch	TRA *
Tropical Storm Warning	TRW *
Tsunami Watch	TSA
Tsunami Warning	TSW
Winter Storm Watch	WSA
Winter Storm Warning	WSW

Non-Weather-Related Events

National Codes - Required	NWR-SAME Code
Emergency Action Notification	EAN
Emergency Action Termination	EAT
National Information Center	NIC
State and Local Codes - Optional	
Avalanche Watch	AVA *
Avalanche Warning	AVW *
Child Abduction Emergency	CAE *
Civil Danger Warning	CDW *
Civil Emergency Message	CEM
Earthquake Warning	EQW *
Evacuation Immediate	EVI
Fire Warning	FRW *
Hazardous Materials Warning	HMW *
Law Enforcement Warning	LEW *
Local Area Emergency	LAE *
911 Telephone Outage Emergency	TOE *
Nuclear Power Plant Warning	NUW *
Radiological Hazard Warning	RHW *
Shelter in Place Warning	SPW *
Volcano Warning	VOW *

Administrative Events

NWR-SAME Code	
Administrative Message	ADR
National Periodic Test	NPT
Network Message Notification	NMN *
Practice/Demo Warning	DMO
Required Monthly Test	RMT
Required Weekly Test	RWT

Codes marked with an asterisk (*) take effect on June 30, 2004.

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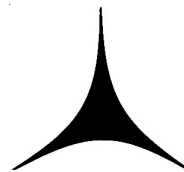
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Upcoming Meetings and Events

April 8 - Focus Enhancements
 Digital Video Direct to Edit

April 15 - Sprint Voice and Communications Center Tour
 Joint meeting with the KC IEEE Computer Society and the KC Audio Engineering Society.

April 20 - SBE Membership Meeting
 at NAB2004, Las Vegas

May 13 - Topic TBA

June 10 - MSDC IOTs
 L-3 Communications Electron Devices

SBE Celebrates 40th Anniversary

At NAB2004, the SBE membership meeting, held on Tuesday, April 20 at 5 p.m., will celebrate 40 years of the Society's growth and service to broadcast engineering. A commemorative souvenir will be given to the first 100 members attending the meeting and a digital camera will be awarded to one lucky winner. Other door prizes will also be given. The meeting will take place in Room N110 of the Las Vegas Convention Center.

Membership Renewals Were Due April 1

Membership renewals for regular, associate and student members were due by April 1. Renewal information was mailed in February. If you did not receive yours, contact Angel Bates at the SBE National Office at 317-846-9000 or abates@sbe.org. The chapter receives a rebate for each current member, so help the chapter and please pay your dues ASAP if you haven't done so already.



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