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Radio World



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October 12, 2005

INSIDE

NEWS & ENGINEERING

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'Radio Was a Lifesaving Service'

For Many, the Medium Was the Only Contact With the World After Katrina

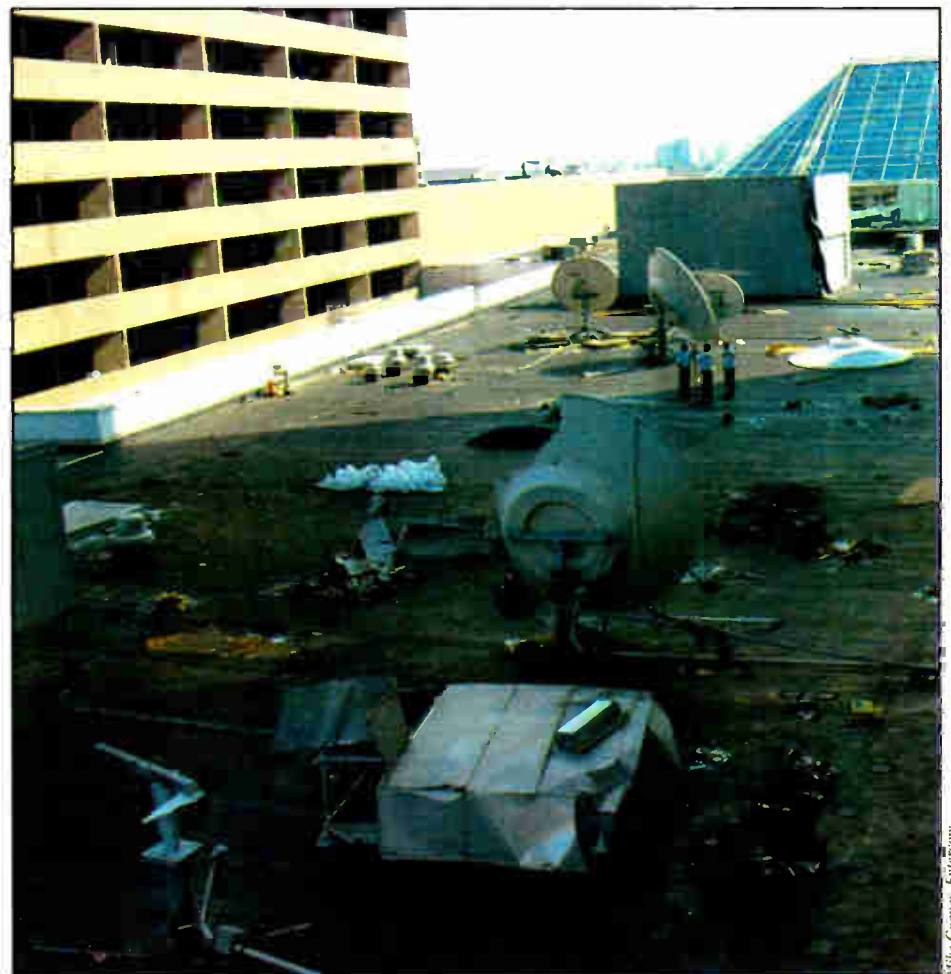
by Randy J. Stine

NEW ORLEANS Hurricane Katrina blew down buildings and homes and flooded an American urban icon, with fatal results. It also demonstrated the importance of terrestrial and amateur radio, the only means of communication for many people in the days following the disaster.

So significant was radio's contribution that the executive director of one state broadcast association is calling on the federal government to guarantee diesel fuel deliveries to transmitters sites to allow stations to remain on the air in such situations in the future.

As Gulf Coast stations worked to resume normal operations, emergency management officials say radio was a key source of information because of other communications networks failed. Communication casualties included cell phone towers, landline phone systems and two-way radio. The losses severely hampered emergency communications, according to experts.

"The best communication we have is this radio station," said Phil Capitan, mayor of Kenner, La., during an inter-
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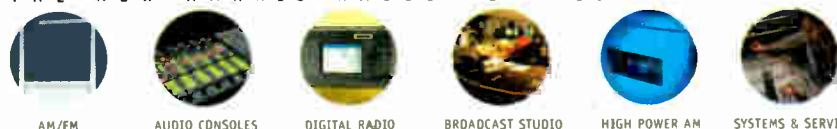
At Entercom's studios in the Central Business District of New Orleans, a view of its damaged satellite dish farm.

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FCC Rethinks Preparedness

by Leslie Stimson

WASHINGTON The FCC is taking several steps to improve communications and public safety in the areas affected by Hurricane Katrina; and it is using the storm as a starting point to determine its future disaster response as regards both broadcasters and telephone carriers.

Perhaps the biggest change is that the FCC's Office of Homeland Security, now part of the Mass Media Bureau with responsibility for EAS, will become a bureau.

It would have responsibility for coordinating public safety, national security and disaster management activities within the FCC. The commission said it

would work with Congress to complete the proposed reorganization and restructuring of functions scattered throughout bureaus and offices at the agency.

At its public meeting Sept. 15, held in Atlanta rather than Washington, Chairman Kevin Martin announced the agency would provide \$200 million in relief for victims, mostly related to telephone services such as free cell phones and free minutes for low-income evacuees and people still in the affected area without phone service.

The commission also will help pay the costs of reconnecting consumers to the telecommunications network. It will allow public and non-profit health care providers, including American Red Cross

shelters providing health services, to apply for support for advanced services used for telemedicine applications.

Dramatic testimony

The commission also is setting up a panel of experts from the public safety and communications industry to perform an independent review of the impact of Hurricane Katrina.

Commissioner Michael Copps, a former resident of New Orleans whose wife still has family there, said, "Last year, the 9/11 Commission Report described a state of communications unreadiness that seriously hindered our country's ability to respond to that attack. But it also

described a chilling picture of communications unreadiness three years later — and Hurricane Katrina has shown that to be still tragically true."

In Atlanta, commissioners heard dramatic testimony from telephony experts and broadcasters about what their employees in the hurricane-affected areas went through during and after Katrina struck the Gulf Coast.

About 40 radio stations remained off the air as of September 14, while 90 were operating — many at reduced power — in the areas of Louisiana, Mississippi and Alabama affected by Katrina. So said Ken Moran, director of the Office of Homeland Security for the FCC.

'Poseidon Adventure'

Diane Newman, operations director for Entercom's WWL(AM) in New Orleans, and Dick Lewis, regional vice president for Clear Channel Radio's Louisiana and Southern Mississippi region, offered dramatic testimony to commissioners of harrowing experiences they and their employees went through after Katrina hit the Gulf Coast.

Newman began by apologizing for her appearance, explaining she had evacuated the station with only the clothes on her back and her purse. The 24-year veteran of WWL said, "Understand that this story is huge. The humanity behind the scenes ... is heart-wrenching."

Four Entercom FMs and one AM remained on the air, even as the levees broke and the city of New Orleans filled with water, Newman said. To conserve generator fuel, Entercom later shut down two FMs after the storm and ran the remaining stations at a reduced power level.

At one point during the storm, the
See FCC, page 3 ▶

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FCC

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generator shut down and could not be started remotely. WWL News Director Dave Cohen and Engineer Dominic Michum drove to an emergency studio set up ahead of time, "waded through a snake and alligator-infested swamp to restart the generator and get WWL back on the air."

She said the experience was like "the movie 'The Poseidon Adventure,' except we were on the radio live."

Entercom Vice President of Engineering Marty Hadfield said in mid-September that one of the company's area FM stations was flooded and remained off the air.

'Camp United' formed

Though competitors before the hurricane, Newman and Lewis have become friends through trying circumstances. With other broadcasters, their employers Entercom and Clear Channel formed a "Camp United" to be able to continue broadcasting when WWL employees had to evacuate their New Orleans studios.

"We talked to Clear Channel. We needed studios. They needed news and the information capabilities of WWL," said Entercom's Newman. Lewis said perhaps the most unique response to the hurricane was these creative partnerships, "all with fierce competitors." He had not met Newman before the disaster.

So Entercom set up a WWL studio at Clear Channel's facility in Baton Rouge

and also streamed their "United Radio" programming.

Lewis said the companies were squeezing about 300 employees in Baton Rouge into a facility meant to hold 60.

Clear Channel ultimately had to abandon its New Orleans studios and turned over control to Baton Rouge.

While using a helicopter to evacuate one of its DJs, "It turned into a rescue helicopter ferrying Entercom employees who had become trapped" in the downtown New Orleans studios while Clear Channel engineers were working at a remote site that it shares with eight radio stations, four TV stations and several agencies, said Lewis.

In preparation for the hurricane, Clear Channel had secured thousands of gallons of fuel at that site and had prepared staging areas in Mobile and other areas with satellite phones, generators and fuel. Planning and response were regional in nature. In Biloxi, Miss, for example, the company's studios were severely damaged, said Lewis. Generators from Raleigh, N.C., were re-purposed for that market.

The company's facilities in different markets, such as Mobile, Ala. and Hattiesburg, Miss. suffered various amounts of damage.



CBS Radio News correspondent Cami McCormick reported from downtown as fires burned in New Orleans.

wired phone equipment submerged and knocked out of service, 911 call centers were inoperative in much of the region, experts said.

Telecommunications carriers provided tent cities for their employees in the region who lost their homes; broadcast groups provided housing, cash and vehicles for workers, some of whom lost everything yet kept working during and after the hurricane, commissioners were told.

Lewis of Clear Channel thanked the commission for securing federal protection for its transmitter sites, security clearance and passes for its employees, and for waivers and STAs "for something that has been unprecedented and something I hope is never to be seen again."

He and Newman singled out FCC Audio Division Chief Peter Doyle by name for his assistance.

Newman said Entercom had provided RVs, cash, vehicles and numerous instances of support to employees in the affected area. Both companies brought in personnel from across the country to help staff in the hurricane-affected areas.

Newman, a New Orleans native, also lived through Hurricane Betsy.

"In 1965, when I was eight years old, our neighborhood filled with seven feet of water. We were rescued by two things: my uncle Tony's fishing boat and WWL Radio. It was our only connection to the world." 🌍

the region, said more than 3 million of its phone lines were knocked out by the hurricane. It hoped to have all service restored by the end of October.

Not only were cell phone towers and

In 1965, when I was eight years old, our neighborhood filled with seven feet of water. We were rescued by two things, my uncle Tony's fishing boat and WWL Radio. It was our only connection to the world.

— Diane Newman, WWL

But the company still needed a way to get the signal from there to the WWL transmitter, which continued to operate.

"Our engineers, with police escorts, set up satellite receive capability at the Jefferson Parish Emergency Operations Center," said Newman. That center is about two miles from the WWL(AM) transmitter site.

Studio programming in Baton Rouge, Hadfield said, was fed via ISDN to the nearby Louisiana Network C-Band uplink for satellite transport; it was downloaded by C-band receiver at the emergency ops center into a local console and then fed via STL transmitter on a short tower to a receiver at the WWL site.

Clear Channel also let WWL simulcast programming on two of its FMs that remained operational.

Thus, she said, "United Radio Broadcasters of New Orleans" was born. She believes dozens of independent stations re-transmitted the companies' programming during the crisis and many continued to do so weeks after the storm, including shortwave station WHRI, serving North American listeners. Entercom and Clear Channel simulcast information

"I cannot say enough about the guys who go out and climb the towers and string the line and waded through the swamps with everything that is out there," said Lewis. "They worked tirelessly to get our generators up, to get our antennas fixed, so we could continue to provide local programming."

Clear Channel used employees of its outdoor division who have commercial truck licenses to deliver fuel for generators to keep its transmitters running. Then that became dangerous because of flooding and because people at the site were held up at gunpoint, Lewis said.

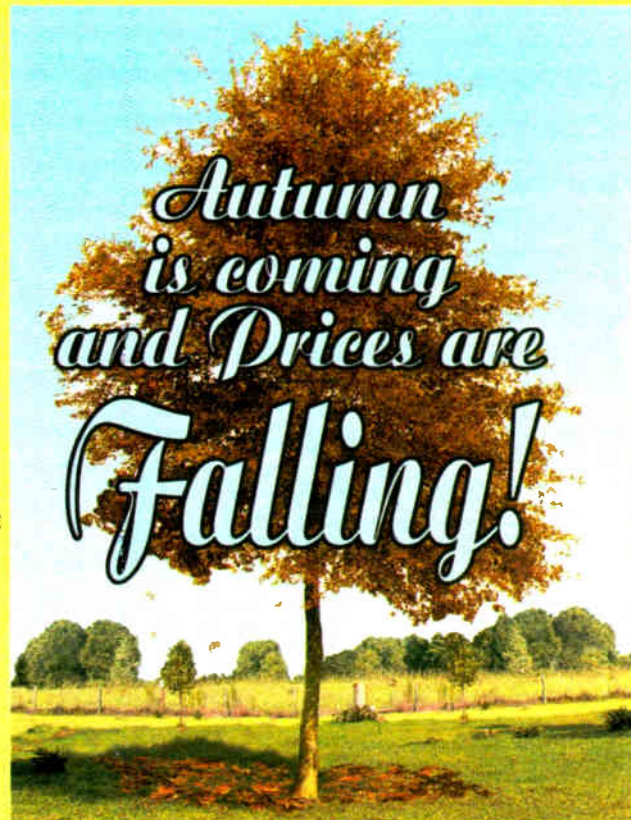
"We needed help and armed guards. One call to the FCC ... your staff contacted FEMA, and we had armed escorts from FEMA."

The FCC gave the broadcasters access to FEMA fuel at the airport, reducing the convoy's round trip from 100 miles to 40. Getting fuel delivered to operate the transmitters was so difficult that, "At one point we were down to 1-1/2 hours of fuel left," said Lewis.

Commissioners heard about the impact on telecom services as well. BellSouth, one of the largest telephone carriers in



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Katrina Put Crisis Plans to the Test

What can managers learn from the way radio reacted to Hurricane Katrina?

I spoke with engineers at the heart of Entercom's spectacularly successful, widely reported response, which centered around WWL(AM) in New Orleans. Comments here are by Vice President of Engineering Marty Hadfield. Next time we'll hear about the engineering response in the field.

sis: "In talking to our people down there, now working valiantly toward recovery, we found that it's not a bad idea to have an out-of-area crisis management team in place," Hadfield said. "It gives us a perspective they can't possibly touch. They're focused on where they are and the destruction in their surroundings, they forget they're also extremely emotionally fragile. You have to take that into account. Our engineers tell us that having

impossible to have too much fuel available," Hadfield said. How will you power generators and station vehicles if electricity is out and suppliers are unavailable? "Even if you don't use it all, someone else might need fuel. We helped another broadcaster when the FCC asked (us) to help out with gas for their generator."

Create communication networks for your employees. "The biggest challenge in this, frankly, has been keeping track of our people," Hadfield said. Entercom employs about 135 people in the region. "Some evacuated early, some stayed on the job, some were in transit. To track them down, make sure they were safe and to set some level of communication with them is a phenomenal task that, through planning, Noreen McCormack was prepared to handle."

Be prepared for poor communications into and out of the region. Weeks after, contact via cellphone remained difficult in many cases. "Sometimes Nextel Direct Connect works, in others not a chance. Somewhere else Verizon works."

"Before the Superdome was emptied, cell service in the Central Business District was terrible. But once the stranded people's cellphone batteries started going dead after about two or three days, the cell system started lighting up again." Satellite phones generally worked well, but there were some operational issues; for instance, they lose reception indoors.

Give thought to how you would communicate if your accustomed infrastructure goes down.

"Be prepared to take care of yourself and your people without reliance on anyone from the outside." Hadfield said. "No matter how well intended civil authorities are, it's a slow process, sometimes a fatally flawed process. You've gotta be prepared for the worst for your people."

WWL staff knew hurricanes were a risk and had a well-established emergency plan that included people working at its downtown studios. "So we had food and water for 15 people for many days; they were in fine shape" at first, Hadfield

someone in the 'crow's nest' really helps."

From Seattle, Hadfield eventually would be in touch with the Army Corps of Engineers, FEMA, Clear Channel, Cox, fuel suppliers, even the White House — "this whole network that, 90 percent of the time, the people in the market can't be in contact with because they don't have cellphone or telephones that work reliably. We can make the necessary contacts, and coordination is effective." In other words, stuff gets done. Having a long view also helped the company squash rumors circulating among employees in the Gulf Coast.

Put fuel reserves in place. "It's almost



The office of GM Phil Hoover at Entercom's facility in New Orleans.

Appoint a crisis team: Immediately after realizing the severity of the situation, Entercom President/CEO David Field appointed three corporate-level managers in Seattle as an emergency crisis center. Field instructed that all communication flow through Hadfield, Vice President of News/Talk Programming Ken Beck and Vice President of Human Resources Noreen McCormack.

"The three of us have been the team overseeing the actions, more or less directing everyone that's down there on where to go and how to do it," Hadfield said weeks after the storm.

Consider basing decision-makers away from the emotional core of the cri-



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From the Editor



Paul J. McLane

said. But things got dicier.

Entercom had offered to put up family members of those volunteers at the Hyatt across the street. "That was good until after the big storm and they closed the Hyatt. All of a sudden these people were saying, 'Where do we go?' They came to us." Suddenly the station had 50 people in the studio facility, including staff's loved ones, rather than 15. Fortunately the water supply held out and supplies were obtained from nearby stores.

Then Entercom had to get those people out. "It turned into some rescue efforts. It was a burden we hadn't really planned for. We sublet a helicopter, which Clear Channel had been using to ferry folks to RF sites, to get folks out of there. When we were down to the last 13 people, we got help from the National Guard, the folks at Jefferson Parish Emergency Group, even personal bodyguards of the parish president. They commandeered a parish school bus and took one of our engineers as a guide, and rescued our last people from the building.

"It was wild controlling that from 2,600 miles away and saying, 'You've got an hour to get them out of there or they have to go across the street and get in line for the Dome.'"

Also fortunate, or the result of good planning: No one among Entercom's staff was killed or seriously hurt in or after the storm. One engineer was bitten by fire ants while working at a transmitter site.

Have cash. "Be sure your people have some cash stashed, in fairly small bills.

See PLANS, page 8 ▶

Legendary AM Innovator Remembered

by Randy J. Stine

QUINCY, Ill. Friends say Hilmer Swanson came up with some of his best broadcast innovations while riding a tractor in a field tending to his gentleman's farm near here. However, it was what he did with those ideas in the lab that made him a world-renowned AM transmitter designer in the eyes of colleagues.

Swanson, 72, passed away at a nursing home near Quincy in July, after a short ill-

Hilmer's design eliminated the modulation transformer and cut the cost of operation dramatically. The efficiencies were so good," Cervon said. "I believe Hilmer considered his PDM work his greatest achievement."

During more than three decades at Gates/Harris, Swanson received many awards, including the NAB's Engineering Achievement Award in 1990 and the Harris Fellow Award.

"Hilmer had a quiet manner and was a

kilowatts," Yingst said.

Swanson authored numerous articles and technical reports and frequently delivered them at industry conferences. One of his last works was a paper, "Performance of Modern AM Modulation Methods for Linear Digital Broadcast Applications," co-authored by John Delay.

Missionary work

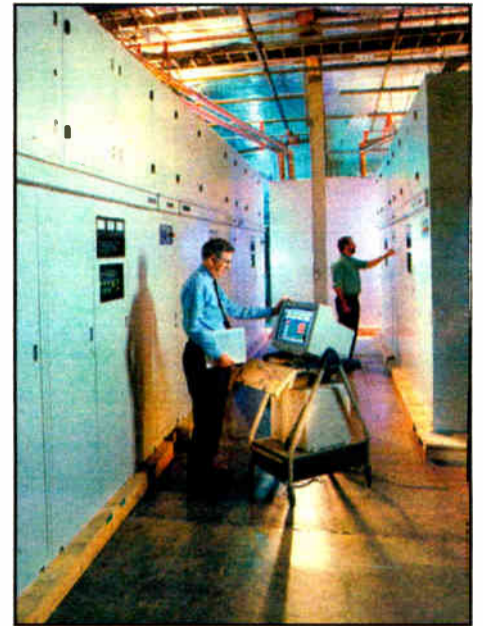
During his career, Swanson was awarded 27 U.S. patents and several international patents. Friends say his innovations not only significantly improved the sound of AM transmissions, but also dramatically lowered electric bills because of increased transmitter energy efficiency.

Harris estimated his innovations have slashed the world's AM transmitter power bill by at least \$100 million over the past 20 years.

Friends say Swanson donated many hours as a technical consultant to the design and construction of shortwave AM transmitters used by the HCJB religious ministry broadcasting from Quito, Ecuador.

After retiring from Harris in 1999, Swanson performed missionary work in places such as Palau, Chile and Estonia, putting Christian AM radio stations on the air.

After serving in the Army during the Korean War, Swanson was employed for a short time at Bendix in Davenport, where he worked on his first invention, the Ultrasonic Jewelry Cleaner. He then attended Iowa



Hilmer Swanson stands in front of a Harris DX2000, 2000 kW solid-state MW transmitter, circa 1997.



NAB Engineering Award Winners gathered for a photo at the spring NAB convention. From left, Arno Meyer, president and owner, Belar Electronics (2001 winner); Milford Smith, vice president, Engineering, Greater Media (2005); Geoff Mendenhall, vice president, Advanced Product Development, Harris Corp. (1999); and Hilmer Swanson (1990).

State University at Ames and received his Bachelor of Science degree in engineering from Valparaiso Technical Institute.

He went on to graduate school at the University of Iowa in Iowa City, where he worked as a student teacher while pursuing a Master of Science degree in electrical engineering, which he received in 1961.

Swanson was a life member of Sigma Xi, Science Honor Fraternity; an honorary member of the SBE; and a life member of IEEE.

His wife Carolyn, four children and five grandchildren survive him.

ness.

Peers at Harris credit Swanson with inventing nearly every modulation technique used in modern AM broadcast transmitters, including Pulse Duration Modulation, Progressive Series Modulation and Digital Amplitude Modulation.

"It wasn't just Hilmer's technical skills that made him great, but his ability to work outside the box. He had the talent that many creative people have to do things others couldn't," said Geoff Mendenhall, vice president of research and development at the Harris Broadcast Communications Division.

Swanson began his broadcasting career at Collins Radio in the early 1960s, then joined Parker Gates in the Gates Radio Division (which would become the Harris Broadcast Division) at Harris-Intertype Corp. in 1965.

The senior staff scientist retired after 35 years at Gates/Harris in 1999 but maintained an office at Harris and worked part-time on occasional projects.

Swanson Street

In fact, Harris had named one of its company streets at its Quincy complex after Swanson.

"Parker Gates and I recruited Hilmer to come to Quincy after Collins Radio announced it was moving its facility from Cedar Rapids (Iowa) to Dallas. Hilmer was a Midwesterner and didn't want to move," recalled Larry Cervon, former vice president and general manager at Gates/Harris.

Cervon said he allocated Swanson \$25,000 to begin the PDM program at Gates to develop an efficient, high-power MW transmitter.

"The very first PDM transmitter we sold was a 100,000 kW MW for Voice of America, which was sent to Thailand.

man of few words, but when he did speak he had everyone's undivided attention. He was very introspective," said Mendenhall, who considered Swanson his mentor.

In fact, Swanson was the behind-the-scenes mentor to many talented young engineers and technicians, friends say.

"He was always very approachable ... a willing teacher," said Tim Bealor, vice president of RF systems at Broadcast Electronics. "Even as recent as the NAB in Las Vegas (this past April) he was there and very visible. He was always curious about the industry and what was new."

Swanson's farm was just down the road from Broadcast Electronics' facility, also in Quincy. Bealor said BE, as a company, easily recognized Swanson's contributions to the broadcast industry.

"He was a radio guy. His interest was in radio and his goal was to find new ways to make AM transmission better and he accomplished that," Bealor said.

Design breakthrough

It was Swanson's work on tube-type AM systems for shortwave and medium-wave markets in the 1960s that caught the attention of Tom Yingst, former vice president and general manager of Harris Broadcast Division from 1988 through 1991.

"Little did I know that I would eventually join Harris in 1988 and have the privilege of working with one of the world's outstanding AM engineers," he said.

Yingst cited Swanson's work on solid-state MW transmitters as a major breakthrough "that led to the DX solid-state, digital amplitude modulation AM transmitter.

"The success of the DX transmitter design was directly related to Hilmer's concepts and allowed Harris to become a leader in the world AM transmitter market at power levels from 10 kilowatts through 2,000



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GUEST COMMENTARY

Skeie: A United HD Radio Vision

CEO of Receiver Maker Radiosophy Says Digital Radio Needs a Visionary Launch

by Richard Skeie

The author is president/CEO of Radiosophy.

Satellite radio primed the consumer awareness pump for digital radio. As a result, those companies are currently the frontrunner in public perception. They created digital excitement.

With a visionary launch, terrestrial broadcasters can coattail upon and quickly usurp that excitement.

At the CES press conference in January, HD Radio became an instant defacto standard when the top broadcast groups presented a united endorsement. To continue the momentum, this must be followed up city-by-city with a local united HD Radio front. The public perception will be set in the top DMAs, where four to 17 stations are already broadcasting in HD Radio. Major cities will swing the perception and the adoption for the rest of the country.

Satellite spokespeople push content as their primary advantage. As long as they can focus comparisons with individual stations, they win the perception game. A single station cannot compete with satellite content, but the terrestrial content of an entire city can. If railroads and trucking had viewed themselves as complimentary parts of a freight delivery system, then airfreight could not have established such a wide base.



Richard Skeie

Dad listens to Sports Talk, Mom listens to Classic Rock, Son listens to Urban, Grandma listens to Oldies, Grandpa listens to Classical, Boss listens to Political Talk and Neighbor listens to Smooth Jazz. The common denominator is terrestrial radio, in which the content is diversified and local.

As stations move to multicasting, locally oriented content will be further multiplied. By analogy, "USA Today," with its lack of local content, has not made significant inroads in local markets. The impact and buzz from a united HD Radio

front will seize the excitement that satellite has to offer and take each city by storm.

The dawn of a new paradigm is worthy of a grand launch. Moving to HD Radio is not just a station upgrade — it is the inception of a new era and everyone is in the target audience.

The local media of an entire city could be entrained with a united press conference from all the HD Radio stations announcing the arrival of this new paradigm. This can be a major public relations event for a city as it is announced on every HD Radio station, as well as on billboards, newspaper and television.

Every station and every billboard should list all the HD Radio broadcasters

NEWS WATCH

Station Seized to Get It Back on Air

COVINGTON, La. Local government officials seized a radio station in the Greater New Orleans metro to relay emergency information after Hurricane Katrina. WASO(AM) had been shut down this summer by the government for non-payment of a legal judgment, according to the New Orleans Times-Picayune.

St. Tammany Parish officials invoked emergency powers to resume broadcasting in the North Shore area, just across Lake Pontchartrain from New Orleans.

Michael Shutta, vice president of operations for Pittman Broadcasting Services, which owns seven radio stations in southern Louisiana, said engineers from his stations helped get WASO back on the air.

in the city. When presented as a unified front, it becomes a *fait accompli*.

The goal is to generate excitement, which will be received and passed along through word of mouth, which is the most effective form of advertising. Educational messages need to start with a teaser, then immediate benefits, and then begin to paint the long-term vision of digital radio.

With a united market blitz, everyone in the market will soon learn about the new standard. As always, innovators and early adopters will spread the word to family, friends and co-workers. Given the dynamics of this market, "the tipping point" could be reached very soon.

The Radiosophy Broadcast Partner Program will help pay for this innovative marketing approach through commissions and co-op advertising funds from each new MultiStream HD listener. For information visit www.radiosophy.com.

RW welcomes other points of view. 

No EAS for Katrina

NEW ORLEANS Despite the potential for major disaster, most local emergency managers chose not to activate the Emergency Alert System as Hurricane Katrina rushed ashore.

Katrina was a well-publicized event that caused massive evacuations, hence less of a need for a "blaring last minute" warning, EAS experts agreed.

"EAS is a tool for short-fused events," said Clay Freinwald, chairman of the Society of Broadcast Engineers EAS Committee. "Katrina was well publicized in advance by any number of news media outlets and therefore did not qualify" for a warning.

The question of under what conditions EAS should be activated sparked debate following the terrorist attacks of Sept. 11, 2001, in New York. That discussion led to the creation of the Media Security and

EAS is a tool for short-fused events.

— Clay Freinwald

"We basically just checked their facilities for any damage from the storm," Shutta said. He used computer equipment from his radio stations and got WASO back on from a small building next to the tower. The station's studios are in Metairie and its broadcast tower is just west of Covington High School, reported the Times-Picayune.

Failed communications hampered parish officials from getting information to residents; that's why Shutta and St. Tammany Parish President Kevin Davis seized and re-opened the station.

"People there had absolutely no means to communicate. The local agencies used it mostly to relay information on relief efforts," Shutta said.

Radio World's attempts to reach former licensee, Robert Namer, president of America's First Communications Inc., were unsuccessful. The FCC's database shows an involuntary transfer of control from the station shareholders to "Claude Lightfoot, Jr., receiver," as of July 7. The Class D station non-directional facility was back on the air as of Sept. 2, according to the database. A commission spokeswoman said the station's notification on Sept. 6 that it returned to air as of Sept. 2 was missing from the records.

Reliability Council, an FCC advisory committee, to examine public warning in this country.

In other developments, the Federal Emergency Management Agency, a former cabinet-level agency now under the U. S. Department of Homeland Security, has since taken the leading federal role on public warning.

"It's all too common a mistake to think that EAS should be used for events that are already being covered by the electronic media. Warnings are just the headline to what should be an ongoing story as the emergency unfolds," said Richard Rudman, vice chair for the California State EAS Emergency Communications Committee.

It was pretty clear that the word to "bug out got out," Rudman said.

Ken Moran, director of the FCC's Office of Homeland Security, told the House Commerce Committee in mid-September that he was not aware of any local or state EAS warning being issued.

EAS was developed in 1994 as a tool for the president and others to warn the public about emergency situations.

— by Randy J. Stine

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NEWSWATCH

WAMU2 Multicasts Roberts Hearings

WASHINGTON WAMU(FM) split its HD Radio signal into two streams and used the supplemental channel to air NPR coverage of the Senate confirmation hearings in September for John Roberts, nominated to be the next chief justice of the Supreme Court.

The pubcaster, owned by American University, used its Digasystem digital audio storage and delivery system from D.A.V.I.D. Systems to create a separate schedule for WAMU2. With the system, program-associated data will appear as text on HD Radio receivers.

WAMU's main channel continued to air in analog and digital; the confirmation hearings were carried on WAMU2 and on a Web stream.

Most HD Radio receiver prototypes display WAMU2 as 88.5-2. The station has been testing multicasting for more than a year and said it launched the initiative to raise awareness of the technology and demonstrate that HD Radio can provide enhanced community service. GM Caryn Mathes said the broadcast was a chance to demonstrate how different content can be directed to multiple delivery systems.

The station is seeking grant money to conduct research on a viable, permanent format for WAMU2 and to subsidize startup of a permanent supplemental channel.

Scherer Is Next SBE President

INDIANAPOLIS Chriss Scherer succeeds Ray Benedict as president of the SBE on Oct. 20; he'll be inducted during the SBE Annual Membership meeting in Dallas.

A trade publication editor and senior member of the society, he has been a member of the organization since 1989 and is completing a term as national vice president.

Clay Freinwald, corporate engineer with Entercom, was elected vice president. Vincent Lopez, DOE of WSYT/WNYS TV in Syracuse, N.Y., was elected secretary while Barry Thomas, VP of engineering at Westwood One, was elected treasurer.

Kenwood Ships Multicast HD Radio

LONG BEACH, Calif. Kenwood USA Corp. is shipping the KTC-HR100TR HD Radio tuner, which it says is the first designed from the start to fea-

ture multicasting. It retails for \$480. The new external HD Radio Tuner connects with most Kenwood in-dash receivers and is feature-compatible with the KTC-HR100MC.

The new unit will display the NPR Multicast logo; it is the first HD Radio receiver to gain this certification, according to the network.

The multicasting feature supports the simultaneous broadcast of three or more audio and text streams on one FM frequency; it will indicate station name, artist and song title on the head unit display.

Mike Bergman, vice president of new digital technologies for Kenwood USA,

called multicasting "the future of the FM dial" and a "revolution in broadcasting." He said the KTC-HR100TR is available in volume and shipping now.

Kenwood was one of the original Tomorrow Radio partners, along with NPR and Harris; the project explored the multicasting concept. Ibiqity Digital also was a partner.

The tuner can connect with 40 Kenwood mobile audio receivers, mobile video receivers and controllers. Models supported go back to the 2003 model year and display the "HD Radio-Ready" logo. More than 1 million cars have Kenwood head units that will work with the KTC-HR100TR, the company says.

N.Y. RF Seminar Set for January

NEW YORK SBE Chapter 15 will host an RF safety seminar in January. The venue: New York's new 4 Times Square building. As part of the seminar, visitors can tour the 4 TS transmitting facility, which has been profiled in Radio World.

The SBE 15 RF Safety Seminar is Saturday morning, Jan. 21, at 10 a.m. Richard Strickland of RF Safety Solutions will conduct the tour. Topics include the biology of RF exposure, standards, compliance, signage and personal RF monitors.

For info e-mail Tom Ray at tom-ray@wor710.com.



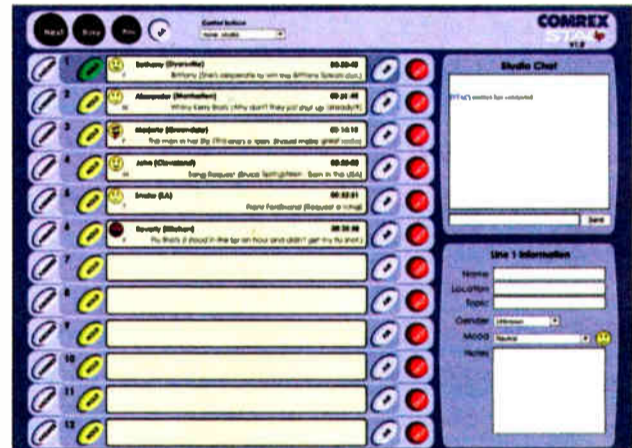
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DIGITAL NEWS

Canada Proceeds with Satellite Radio

OTTAWA XM and Sirius said their Canadian partners had won approval from the government to deliver the subscription service.

Canadian Satellite Radio, partnering with XM, and the Canadian Broadcasting Corp. and Standard Radio Inc., working with Sirius, will deliver English and French-language Canadian programming nationwide.

Canadian regulators had approved satellite radio but the decision required approval by the cabinet.

In August there were reports that the country's Heritage Minister had drafted a request for the Canadian Radio-Television Commission to reconsider approving satellite radio because some recording artists had raised concerns about the amount of Canadian content. Auto and media companies argued for the approval, saying they had already spent millions and begun hiring based on the initial approval of pay radio.

The CRTC earlier this year also approved a license for CHUM/Astral Media for a pay service using terrestrial repeaters rather than satellites. CHUM/Astral had argued against the approvals for Sirius and XM, saying they probably wouldn't be able to launch if satellite services were approved.

Sirius Shakes Up Programming

NEW YORK Sirius said it would launch several new channels Sept. 29 and revamp others. The lineup will include Howard Stern's two new channels. He is expected to start on Sirius in January; these new channels will pave the way for that arrival, the company said.

A preview channel will keep fans updated on the progress of Stern's new studio at Sirius headquarters.

Also new: Martha Stewart Living Radio, BBC Radio 1, Super Shuffle and The Coffeehouse.

Study Outlines Stern Impact

GLENDALE, Calif. Contrary to its earlier findings, Bridge Ratings & Research now believes Sirius Satellite Radio will get a subscriber boost when Howard Stern joins the company. That boost, just between now and January, will be more than 750,000 new customers, it believes.

Bridge Ratings President Dave Van Dyke said the number includes customers buying for themselves as well as others as holiday gifts. The results are based on information from 3,000 respondents, Stern core and secondary listeners who

listen to the show at least one hour per week.

The projections contradict previous figures predicting a smaller impact; Bridge says it now has enough data to begin projecting actual subscriber numbers.

XM Invests In WorldSpace

WASHINGTON XM purchased \$25 million of WorldSpace stock. The goal is to extend satellite radio's reach, said XM Chairman Gary Parsons.

The companies are headquartered in Washington; WorldSpace plans to move to Maryland this fall. The move renews a relationship between the companies; WorldSpace had owned part of XM when the latter was American Mobile Satellite Corp., and the firms shared engineering development.

WorldSpace had been an XM investor until the 1998 U.S. bombing of a pharmaceutical factory in Sudan, carried out in retaliation for terrorist attacks on American embassies. According to news reports, the factory owner was a WorldSpace investor. He denied connection to the assaults and won release of assets that had been frozen by the U.S. government; but some XM principals, Newsbytes News Network reported then, "feared the controversy about the attack could delay or endanger regulatory approvals for their project. ... To head off such complications, WorldSpace sold its interest in XM Satellite Radio" to XM's parent.

WorldSpace had told the SEC that the allegations against the investor "have never been substantiated." Other initial

backers also have been "the subject of allegations that they and/or charities they were involved in or have supported terrorism," the company noted in SEC filings reported by the Washington Post; the investors denied that, and WorldSpace has reported that none of the men now own shares in the company or has any voting control, the Post reported.

XM is active in North America; WorldSpace serves Asia, Europe, the Middle East and Africa. Now the companies said they'll cooperate to develop products, technology and distribution networks. XM will have the opportunity to acquire \$37.5 million in additional WorldSpace stock and an option to invest with WorldSpace and other partners in various countries.

Sirius Unveils Wearable Radio

NEW YORK Sirius Satellite Radio debuted its first wearable satellite radio, set for October release. The Sirius S50 allows users to capture and store 50 hours of Sirius content or a mix of Sirius programming and MP3/WMA files.

Users can carry it or attach the device to a docking station. It includes voice-assisted channel navigation.

The Sirius S50 lists for \$359.99 and includes wearable accessories, a six-hour rechargeable battery, ear buds, belt clip, armband, USB cable and AC adapter, and a car dock, which includes an adhesive mount, cigarette lighter power adapter, a remote control, low profile antenna, DC input and line output.

— Leslie Stimson

Plans

► Continued from page 4

When the AC went out, the stores can sell stuff, but can't or won't make change efficiently." When staff from out of the area arrived in RVs, they brought welcome cash.

Give people a break: If the crisis lasts more than a short time, alleviate stress on your people. Entercom instituted an engineering "recycling" program in which out-of-market engineers are "cycled in," working alongside a colleague for a day or two then taking over the task so the first person could take much-needed time away.

Be lucky ... or make your own. "There'd been several elements of good fortune throughout this bizarre situation," Hadfield said. The natural gas generator at WWL's studios continued to run and run. That allowed the station to maintain microwave links with downtown early in the crisis. Access to the Louisiana Network satellite uplink near the emergency studios in Baton Rouge was an important part of the program chain to the WWL transmitter. Another was the presence of a satellite receive dish at the emergency operating center, which in turn fed the studios for a while. "Since we (still) had the phone line to our studios downtown, we left that potted up on the console downtown," Hadfield said, "so in the early days we could keep all of our operations going through our phone line

downtown, and it went to all of our sites.

"We also were fortunate that the Jefferson Parish Emergency Ops Center is just a few miles straight north from WWL, so we have a direct STL link."

The company also thought creatively. "We even had backups by picking up WWL on an AM radio and feeding it into the other stations' transmitter inputs out at their tower sites. You had to get really creative in your thinking about how to maintain the signals."

Be a good neighbor. The joint, ad hoc effort initiated by Entercom and Clear Channel employees is one of the most gratifying stories to come out of Katrina. But you don't have to wait for a crisis to establish contacts with other broadcasters in your region and to start the dialogue about "what might...? what if...?"

Have a plan: I reminded Hadfield that WWL's Joseph Pollet had given a talk at NAB about the importance of hurricane preparedness in a city below sea level.

"What's really bizarre is that so much of the hurricane damage was actually predicted, and what we talked about came into being," Hadfield said. "Fortunately we had our plan in place. ... From a technical standpoint, even though there were bumps, we held up well."

Other lessons? "You have to think inside as well as outside of the box," Hadfield said. "Creativity, whether from a programming standpoint or an engineering recovery standpoint ... that's a huge asset." 🌐

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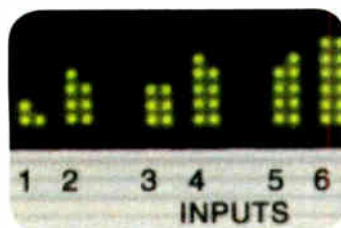
“My staff and I had spent months carefully planning new facilities, and we were more than halfway through preparations — then, the rug got pulled from under us.

“Quotes to build new studios were astronomical! I had to cut our



equipment budget *in half*. And the huge amount of syndicated, network and local programming WOR produces *demand*ed digital audio routing and consoles.

“I’d heard that the Axia IP-Audio system could give us the high-end features we needed. And they



said our budget wasn’t a problem; Axia costs less because they use standard Ethernet for audio routing instead of expensive proprietary mainframes.

“Using Ethernet for Audio was certainly new and different, and I

had some concerns. But moving from cart to PC was a big change, too — and for the better. In our industry, change is natural.

“The more I learned about Axia, the more impressed I became with their routing switcher and consoles, and how well their network topology was designed. I began thinking that this Ethernet stuff might just work!



“So I decided to break new ground and order the Axia consoles and routing setup, nine studios worth. It’s been on the air half



a year now, and we love it. Our operators keep raving about how easy things are to operate. Even our listeners tell us how good WOR sounds.

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— Thomas R. Ray III, CPBE, Vice President /
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BUSINESS PROFILE

AMS Tries to Add Value to Properties

Company Focuses on 'Movement and Improvement' of Radio Stations

by Randy J. Stine

CHARLESTON, S.C. At a time when some outside the broadcast industry are pessimistic about the future of terrestrial radio as new media delivery systems lure listeners, some companies make a living helping broadcasters increase the value of their holdings through coverage upgrades and move-ins to larger markets.

Most broadcasters consider such a move daunting. The planning and execution of a signal upgrade or move-in typically requires the expertise of an experienced engineer, the determination of a Washington attorney familiar with the FCC and lots of patience.

RW spoke to executives at American Media Services, a broker/consultant, to learn about trends in this niche. Thanks to modern technology including its own signal mapping computer software, AMS engineers say they typically uncover several signal upgrade scenarios across the United States each month. They then analyze radio markets by using the new Arbitron method of determining the total number of radio stations in a market and the total number allowed.

Several companies reportedly pursue similar "engineering approaches" to radio station improvement and development. Two others are Marathon Media and First Broadcasting. Marathon did not return calls for this story; First declined comment.

Upgrade scenarios explored

"We are constantly on the lookout for holes in markets," said Ed Seeger, president and chief executive officer of AMS. "We have software that gives us a quick thumbnail sketch of the top 100 radio markets. We

then research frequencies to help us get an idea of what could be achieved."

Once a market analysis is complete, AMS engineers review the various scenarios, which could involve move-ins or upgrades and frequency swaps, some requiring the cooperation of other broadcasters in the market.

"We then contact the owners of stations that can be upgraded. We typically form a joint partnership with them, with our staff handling all of the technical work, the negotiations with all other stations that need modification and file the FCC paperwork



American Media Services co-founders Andrew Guest, left, and Ed Seeger review a coverage map at their home office in Charleston, S.C.

for rulemaking on the project," Seeger said.

AMS claims to have pulled off the largest set of modifications in the history of FCC rulemaking involving changes to 19 radio stations to allow for the upgrade of a Dallas FM, which eventually was sold to ABC/Disney for \$18 million in 2000.

The company worked with the owners of the former KEMM(FM) to upgrade the station, which was licensed to Commerce, Texas, from Class A to Class C on a 2,000-foot tower north of the Metroplex. The sta-

tion has since changed its call letters to KESN. Prior to the sale, the station had been valued at \$500,000, according to AMS.

"It took a lot of face-to-face negotiations to pull that off. And everything was contingent on our success. Upon the completion of the project we all reap the benefit," Seeger said.

AMS also completed the move of former WIXK(FM), licensed to New Richmond, Wis., into the Minneapolis-St. Paul market. AMS approached then-owner Bob Smith in 1999 with a development scenario that included a city-of-license change and signal upgrade. The station was an 18 kW Class A FM approximately 40 miles northeast of Minneapolis.

Seeger said he stumbled upon the concept of 'movement and improvement' of radio stations while running his own stations.

"I signed a services agreement with AMS for them to explore the possibility of a move-in. I never thought it would come to pass. (AMS) did all of the legwork and we gained FCC approval for the move in 2000," Smith said.

Weak signals

The station, now a Class C2 with a tower just north of Minneapolis, was sold to Hubbard Broadcasting for \$26 million when the move was completed, Smith said. The stations calls are now KFMP(FM).

"I originally had thought the station was worth maybe \$5 million and I had been offered \$3 million for it," Smith said.

AMS has completed signal improvement projects in Philadelphia, Houston, Denver and New Orleans, Seeger said.

Weak signal strength is typically the reason development clients approach AMS.

"Most of the time people ask us to look at a specific market where they have a weak signal and want to sell that one to purchase a better signal. Or they want to look at a possible move-in. The key to any terrestrial signal is the ability to cover people," Seeger said. "If you do not have the ability for your signal to reach the overall population you will never reach your maximum potential. We offer clients the chance to maximize their operations."

AMS, which also has full-service brokerage and technical consulting divisions, was founded in 1997. It has headquarters in Charleston, with an engineering office in Chicago and two brokerage offices in Texas. Fourteen employees work in its development and brokerage offices.

Veteran broadcast engineer Frank McCoy, who served in engineering management positions at ABC Radio and AMFM, Inc., is the executive vice president of engineering for AMS.

Seeger said he stumbled upon the concept of "movement and improvement" of radio stations while running his own stations and overseeing several upgrades.

"It just seemed like there would be a lucrative market for this type of venture," Seeger said.

AMS has 30 to 40 development deals going at a given time, Seeger said. It owns four FM licenses, which it is in the process of selling. He expects AMS' niche in the "movement and improvement" market to grow as broadcasters stretch to add value to their holdings.

"Actually, we do see many opportunities ahead for terrestrial broadcasters," Seeger said. "There have been some modifications in the reclassification and spacing on the FM band that have opened up some opportunities for some stations to move even closer into larger markets. We're uncovering new ones each month."

NEWS WATCH

Balsys Picks Up SystemsStore in Web Commerce Deal

WINTER GARDEN, Fla. Balsys Technology Group purchased the assets of SystemsStore from RDA Group Inc., giving Balsys a greater presence in the online supply market niche. RDA has been operating www.systemsstore.com since 2000; it closed its other businesses in 2002.

Balsys said the site "has established itself as a premier online source of technical tools and supplies for the broadcast, professional audio, video, telecom and IT industries." CEO Larry Lamoray said it will add additional lines. He called SystemsStore.com "a pioneer of the webstore concept" and "the only convenient source for 'cable by the foot.'"

Balsys reached the deal with RDA President Rick Dearborn, who founded

SystemsStore.com. He is now a technology radio program host.

This expands the Balsys business lineup. The company also comprises Balsys Technology Group, which does studio and RF systems integrations, and Balsys Wood Arts, which makes custom studio furniture.

D&M Buys Boston Acoustics

TOKYO Boston Acoustics, maker of an IBOC radio with multicasting capability, has been acquired by D&M Holdings, parent of Denon, Marantz and other brands of consumer electronics. Terms and purchase price were not released.

In confirming the deal to Radio World, a Boston Acoustics spokesman said the transaction would not delay development and production plans for the Receptor Radio HD, set for October delivery to stores.

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Communications

► Continued from page 1
view on WWL(AM) in New Orleans.

Nearly 40 radio stations remained off the air in the affected region as of mid-September, while 90 were back on the air, although many at reduced power, according to Ken Moran, director of the FCC's Office of Homeland Security.

"One of the major themes was the failure of communications between different agencies. In many communities along the Alabama coastline, our radio stations were it as far as communicating with evacuees," said Sharon Tinsley, executive director of the Alabama Broadcasters Association.

"Local agencies, in some cases, had no other means of communicating. Radio was a lifesaving service in some cases."

Diesel fuel delivery

Tinsley hopes the Federal Emergency Management Agency will recall the value of radio during future natural disasters.

fuel," Tinsley said.

Jackie Lett, president of the Mississippi Broadcasters Association, said broadcasters in that state will approach the state legislature when it returns to session this fall to discuss "first responder" status for broadcasters.

"In this state we are not considered a first responder. That status would give us access to fuel and other commodities during state of emergencies," Lett said.

The term "first responder" typically is used by the Federal Emergency Management Agency to describe public safety and emergency services departments. According to several sources familiar with emergency management in this country, no state has given broadcasters that designation.

FEMA Public Information Officer Michael Rieger said the emergency information that broadcasters delivered was important.

"They helped fill in the communications gap and were an asset to each community. Specifically, the radio stations in

In this state we are not considered a first responder. That status would give us access to fuel and other commodities during state of emergencies.

— Jackie Lett

Mississippi Broadcasters Association

"Some of our stations had tremendous difficulties getting diesel fuel deliveries through to transmitter sites to remain on the air. Given that we were the most successful means of communication with the population, maybe FEMA or state governments will work to make sure the fuel deliveries get through more easily to keep operations running.

"The fuel situation for emergency generators was a very desperate situation — so much so that broadcasters had to run on low power to conserve

New Orleans made a huge difference of informing people and helping to keep up morale. It's extremely difficult when you can't pick up a phone and make a call," Rieger said.

The Clear Channel Radio and Entercom project in New Orleans was a good example of radio's efforts, Rieger said.

Entercom and Clear Channel joined efforts to form the United Radio Broadcasters of New Orleans, simulcasting programming generated by Entercom's WWL(AM) on a local network of radio



Radio news organizations rushed to cover the Katrina story. ABC News Radio engineer Kevin Rider works on location.

stations across the city, which at one time included as many as 15 stations.

WWL originated programming from the basement of the Jefferson Parish Emergency Operations center and the studios of Clear Channel's WJBO(AM) in Baton Rouge, La., using an ad hoc air chain of ISDN, satellite and microwave to deliver programming to the individual stations.

The impact of the loss of two-way and

cellular communications in the area was lessened with help from ham radio operators.

Lifeline

Ham radio operators across the country were a gold mine for emergency communication and played a crucial role after Katrina, said Harold Kramer, chief operating officer for the National Association for Amateur Radio.

"We helped in a lot of rescues. We organized a structured communications network very quickly. We helped to relay messages from residents to volunteers and emergency personnel. Shelters for evacuees used ham radios to communicate with other shelters to help families find missing relatives," Kramer said.

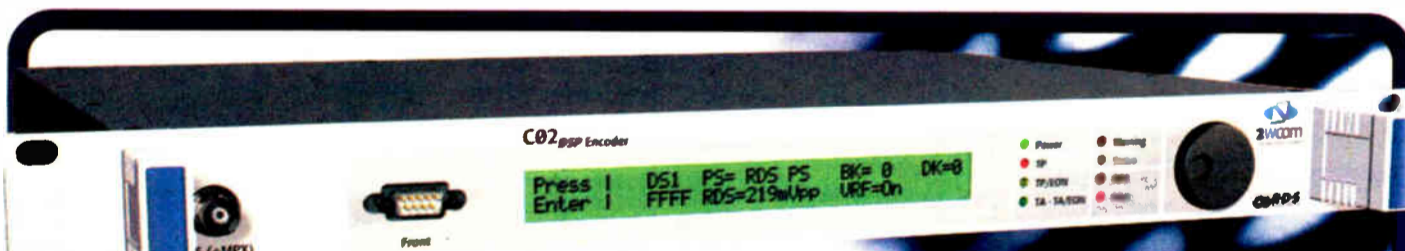
The National Association for Amateur Radio, formerly ARRL, which has nearly 150,000 members, includes many local sections or communication networks that mobilize in times of emergency, Kramer said.

The Gulf Coast shortwave radio network was mobilized quickly at the behest of the American Red Cross and Salvation Army, Kramer added.

"This is something ham operators practice almost every week. But we have never had anything of this magnitude. Once our people were activated we aided in emergency communications between shelters, hospitals, local emergency agencies and even public safety departments," Kramer said.

Ham radio emergency responders carry "jump kits" with portable radio, transceivers and portable antennas, Kramer said, enabling them to establish communications with other ham operators on a specific communication network quickly.

See related news stories, box, page 6.




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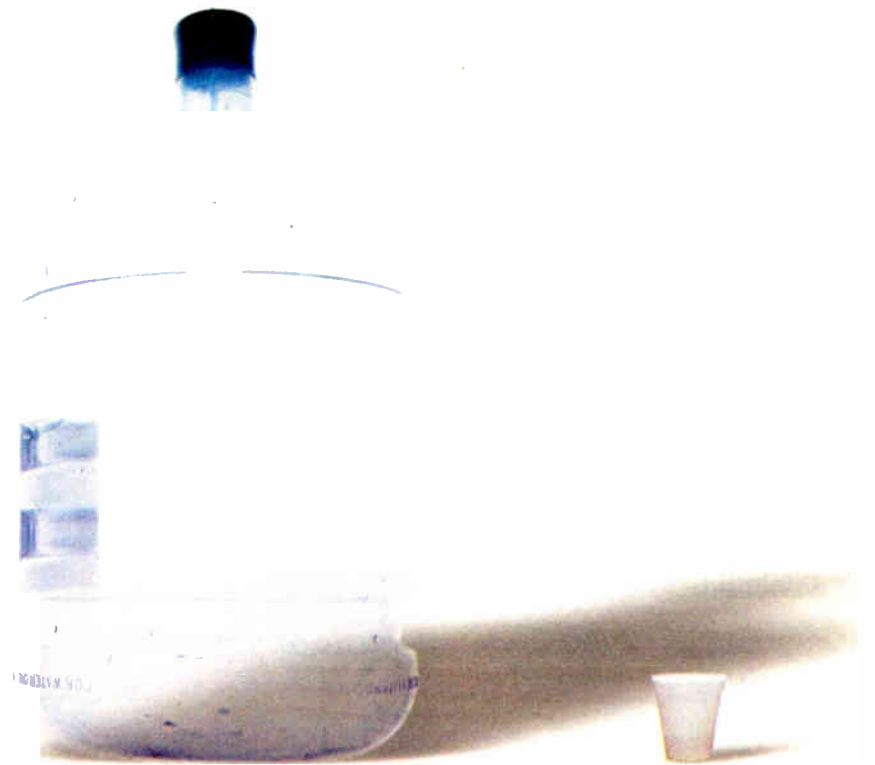




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IN THE INDUSTRY

Traditional Media Must Meet Challenges

Emmis Communications Chairman/CEO Jeff Smulyan made a case for traditional media in a letter to shareholders that accompanied the company's annual report this summer. The letter is excerpted here. The company owns 23 FM and two AM domestic stations and a radio network, with other holdings abroad and in publishing.

To see the Emmis Annual Report, go to the company Web site www.emmis.com and click on the Investors tab.

by Jeff Smulyan
Chairman and CEO
Emmis Communications

In the 1950s, Edward R. Murrow hosted a daily radio program called "This I Believe." Featuring essays by people from all walks of life, the radio show sought to combat the anxiety of the Cold War age by reminding listeners about the beliefs that unite them, and it sought to restore the nation's confidence by revealing truth and dispelling myth.

In that spirit, I offer you this letter, which is my effort to address fears, dispel myths and highlight possibilities. It's my chance to explain why I have faith in the future of traditional media. It's my chance to say, "This I believe about Emmis Communications."



Jeff Smulyan

The challenge before us

These are challenging times for traditional media, and anyone who paints a

different picture isn't being honest.

Fragmentation and emerging technology have changed our industries dramatically. But it's overreacting to say that radio, TV and print media are on a path to extinction. Remember: People said the CB radio and 8-track tape player would kill radio.

Consider this: While it's predicted that by the end of the year more than 8 million people will subscribe to satellite radio and 13 million people will own iPods, commercial radio reaches 230 million listeners every week. Emmis has as many listeners at its three New York City stations as the entire satellite radio industry.

nization that is better positioned to support their long-term success.

In addition, we have dedicated ourselves to operating more efficiently, innovating more aggressively, and putting a renewed focus on our customers.

We know that in the weeks and months ahead, we must continually emphasize the value of traditional media to listeners, viewers, readers and advertisers, reminding them that broadcast words, music and images and the printed word are integral to the future of American media, and that our industries connect advertisers with audiences in ways no other media can. ...

The case for traditional media

Radio reaches people. Radio reaches more than 90 percent of the population on a daily basis. It accounts for a third of all commercial media consumption, and usage is expected to increase as commute times increase.

Still, radio gets only 8 percent of advertising revenue. There's enormous potential, and the industry has united to make that case to advertisers. Already, analysts are talking about improvements in the radio outlook. ...

Our revenue growth beat our radio markets and the industry as a whole. As other companies experimented with inventory and rates, we reduced inventory and raised rates for eight consecutive quarters. We responded quickly to content issues in New York, and executed a transaction that gave us a legacy station in Chicago, WLUP(FM), to partner with alt-rock leader Q101. The deal also provided cash for debt reduction.

We own stations that consistently rank No. 1 in both New York and L.A. In short, we're in a position to lead the way as radio recovers. ...

International radio offers Emmis opportunities unavailable in the U.S. International radio offers many of the same advantages as domestic radio, but it offers them in markets that are, unlike the U.S. market, emerging and inexpensive

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It's overreacting to say that radio, TV and print media are on a path to extinction.

Still, traditional media must respond to these challenges. And we at Emmis have. In order to increase our ability to compete and to better equip the Emmis TV group for its future success, in May we announced our intention to explore alternative strategies for our TV stations — a decision that likely will lead to the sale of all or substantially all of our television business.

At the same time, we announced our offer to buy back up to \$400 million of our stock.

The changes in our industries have led us to two conclusions: First, for Emmis to prosper, it must lower its debt and position itself to explore new growth opportunities.

Second, in the future, the most successful TV companies will be those that are larger and more singularly focused on the ongoing challenges of American television. The plan we announced in May will address both of those challenges by allowing us to further reduce our debt and give the people at our television stations ... the chance to be part of an orga-


to enter.

As a result, they give Emmis the opportunity to play to its founding strengths: identifying underperforming operations and unfilled market niches, and then leveraging those opportunities to create success stories. ...

We outperform. Across our divisions, we outperform our peers and our markets again and again. In fiscal '05, when our radio markets were up 0.5 percent, we were up 2.6 percent.

We've addressed balance sheet concerns. We brought our leverage down to 5.9 times cash flow in fiscal 2005, and worked with our banks to lower our debt expense. But we're not done: The anticipated changes in our TV group should provide us with the capital needed to further delever, positioning us with a more flexible capital structure. ...

Yes, these are difficult times for traditional media. ... In the days ahead, when traditional media reasserts its power as a business and investment, Emmis will be positioned to grow and prosper.

RW welcomes other points of view. 

◆ NEWSWATCH ◆

News Roundup

- **Circuit Research Labs Inc.**, which makes Orban and CRL products, reported earnings for the three and six months ended June 30 of about \$2.62 million and \$2.44 million respectively. That compares to net losses of \$264,000 and \$301,000 for the same period a year ago. In the announcement, President/CEO Jay Brentlinger stated, "Finally! Patience and perseverance have prevailed, allowing us to generate a profit for the company. I feel this sets the stage for a healthier, more stable financial environment."

- Arbitron said its **Portable People Meter** system can track multicast and podcast listening, important for broadcasters seeking diary credit. In tests on digital channels of a station in a top 10 metro, separately encoded multicast channels did not conflict with the main channel's encoding, it stated, and PPM identified each of the multicast channels.

"It doesn't even matter if a listener does not know the names or slogans that broadcasters are using to differentiate analog signals from digital signals or primary digital channels from multicast sub-channels," stated Pierre Bouvard, president, Portable People Meter, Arbitron Inc.

- **NAB** again urged the FCC to sideline XM Satellite Radio's application to acquire **WCS Wireless**. The satcaster has not stated what it would do with the spectrum, NAB argued, so neither the FCC nor outsiders can tell if the deal will serve the public interest. The association argued that WCS Wireless still appears to be violating the commission's trafficking rules, saying WCS Wireless bought half of the relevant licenses just months ago.

XM told the FCC it would use the wireless frequencies to provide "new subscription mobile multimedia services." These would be paid services and therefore not broadcast services, argued XM.

- **Vermont Public Radio** shipped **Grundig** hand-cranked radios to the Madison County (Miss.) Sheriff's Department after Katrina hit. According to PD Jody Evans, the enclosed letter said: "This may be a strange offering, but as radio producers, news reporters and broadcasters, we know how much a life-line having a working radio in a powerless home or shelter can be."

- **NAB** launched www.broadcastunity.org to help broadcasters in hurricane relief efforts. It provides PSAs, BroadcastUnity Day information and other resources.

The association also said it would help the Louisiana and Mississippi broadcast associations distribute 1,300 battery-operated, handheld AM/FM/TV sets to public safety officials assisting with relief.

- **Beasley Broadcast Group** Executive Vice President/CFO **Caroline Beasley** is the newest member of the NAB Radio Board. She fills a vacancy left by Bonneville President/CEO Bruce Reese when he became joint board chair.

- **Public radio** is getting into **podcasting** in a bigger way through a six-month trial that involves a collaboration of several stations and three networks. The effort was described as NPR's first comprehensive offering of podcasts, although much of its premium content is not among the offerings. The stations are WNYC, KQED, Michigan Radio, Northwest

Radio, WGBH, KUT and WXPB; the networks are NPR, Public Radio International and American Public Media. Stations will pool local podcasts with content from the networks. Organizers see podcasting as an "unprecedented opportunity for local stations to transcend geography," one that also gives listeners more flexibility.

- **Harris Corp.** has an agreement to buy the shares of **Leitch Technology Corp.** in a \$450 million deal. Leitch makes video systems for the television industry, including routers and distribution equipment, signal processing, signal management and monitoring, servers and storage area networks, branding software

and post-production editing systems. The deal follows on the acquisition of Encoda Systems in 2004.

- **International Radio and Electronics Corp.** named **Steven K. Burns** as COO effective Oct. 1; he will also continue as chief financial officer. The announcement was made by IREC Chairman Leonard Isaacs. A spokesman told RW Online that Burns replaces Cleo Betts, who will stay on as engineering manager.

- **XM Radio** requested an STA to operate up to 5,000 **indoor signal boosters** with an EIRP of 0.0001W. The boosters would operate in XM's licensed band of 2332.5-2345 MHz to provide

reception in stores and other establishments where signals may be attenuated due to blockage from walls and ceilings. It requested the STA for 180 days or until permanent rules become effective allowing satellite repeaters. This is separate from its earlier request to operate up to 5,000 in-store boosters in conjunction with Sirius.

- **MPEG Spatial Audio Coding**, **Digital Radio Mondiale** and the performance of **CFA Antennas** are among the topics of this fall's **Broadcast Symposium**, put on by the IEEE Broadcast Technology Society. The event is scheduled for Oct. 12-14 at the Hotel Washington.

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Radio World, October 12, 2005

Past columns are archived at www.rwonline.com/reference-room

Limit Site Liability — Inspect!

by John Bisset

When was the last time you visited each of your transmitter sites when it wasn't an emergency?

During a recent discussion with a group of engineers at the Nebraska Association of Broadcasters, everyone agreed transmitter site inspections aren't as commonplace as they were, say, 10 years ago. But forcing yourself to spend a morning or afternoon just walking the site can be beneficial.

Here are some things to keep in mind.

Make a list

As you drive to the site, write down a list of clear driving directions. Include full street names, turns and mileage. Post the document at the studio control point, in the event the engineer is unable to drive to the site. Also list the "official" 911 address so emergency crews can be dispatched easily.

As you drive to an AM transmitter site, keep your eyes open for new construction, especially new towers or cellular monopoles. New construction can seriously affect directional patterns, and early detection is the best policy. That's a portable monopole erected near an AM directional in Fig. 1.

New towers are usually not an issue for FM sites unless the new tower or antennas are being erected within the FM antenna aperture. If you lease tower space for your FM, periodically view your antenna with binoculars or use a camera with telephoto lens to make sure other antennas have not invaded "your" space.

Before you even go inside the transmitter building, a thorough exterior inspection is warranted.

First, check gates and fences for security. Note the results of this inspection on the maintenance log or contracting work order. Contract engineers, this kind of inspection can be value-added or a source of additional revenue for your client.



Fig. 1: Even a temporary tower can wreak havoc with an AM directional.

Open and close all locks with keys, making sure they operate freely. Make sure no locks are missing and no gates are open. Spray WD-30 or liquid graphite into the lock, working the lock (opening and closing) and tilting it so lubricant coats the internal parts. Look for holes cut in fencing; missing chains or hinges; torn, ripped or missing razor/barbed wire — any signs of attempted intrusion. Document and take pictures of any intrusion; the pix will help document claims. Keep locks in good shape by lubricating the working parts.

Also before entering the building, conduct a visual inspection of the exterior; walk all the way around. Check for missing or broken windows, water damage, holes in walls, missing or broken flood lights, graffiti or other indications of vandalism. Notify police of problems discovered, asking for a copy of the police report, which will be useful should an

insurance claim be necessary. Make a notation in the maintenance log or contracting work order.

Make sure there are "Danger High Voltage" signs on the tower fences and that each tower has a sign affixed listing



Fig. 2: Keep locks well lubricated, especially with cold weather approaching.

the FCC-issued Tower Identification Registration Number. This is required by the commission. A secure tower fence is shown in Fig. 3.

Take your greens

Are transmitter air intakes or air conditioning condenser units clear of weeds and vegetation? Such growth not only blocks air flow, reducing efficiency, but also retains moisture and serves as shelter to rodents. The solution? Mow around the building or use Roundup or similar inhibitor to prevent weeds from growing around the building.

An alternative is to lay a 4-foot perimeter of landscape fabric up to the building and cover the fabric with clean, crushed stone. You may be able to trade these services with a local lawn or landscaping company.

Inspect the roof for missing shingles or tiles, signs of leaks or broken flashing.

Check satellite dishes for bird and bee nests in the feedhorn, loose hardware, loose anchoring bolts, anchor wires and mounts. Cap open feeds. A waterlogged feed is as useless as one hosting a bee's nest.

Look for any sign of vandalism to the dish, including attempts to tilt or move it. Mark the dish pole and the anchor pole with a Sharpie marker so any side-to-side rotational movement is obvious. Should



Fig. 3: Properly identified towers include a tower registration number.

the dish be moved by vandals, these marks will make resetting it easier; simply move the dish back till the two lines line up, one over the other.

While inspecting the satellite, check for missing sections of the dish material and for out-of-round shape caused by snow or ice buildup, which bends and deforms the dish. Deformed dishes will produce weak or nonexistent signals because the beam is no longer focused into the LNB. Remember this when it snows or the dish ices.

The brush-off

Keep your dish clear by sweeping it with a broom. Don't bang on the dish as this may deform it. Gently sweep snow and ice out.

Treat a dish with car wax to help keep snow and ice from sticking to the dish surface; a broom then will swish out the

See INSPECT, page 18 ►

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FEATURES

Inspect

► Continued from page 16
snow and ice quickly. This is something a contract engineer can offer other stations with dishes.

hardware, spray the feedhorn for bees/birds and wax the dish for easier snow removal." Any savvy station owner knows it is cheaper to prevent the problem than lose listeners and revenue when the dish is out.

As you inspect the dish, also check the coax from the feedhorn. It should not be bent, chipped or split. If the coax goes

waterproof tape? Are black wire ties used to secure all the cables? (White wire ties will break when exposed to ultraviolet radiation. Do not use them outdoors for any application.)

inspection, clip this column and pass it on to your GM or owner, giving the site a grade of A+ or providing a list of what needs to be corrected.

Your inspection demonstrates a proac-



Fig. 4: Control vegetation, especially around air conditioners.

This can be developed into a contract maintenance service: "We will mark your dish settings, inspect for loose or missing

into a pipe, seal the entry with dum-dum or expanding foam and steel wool. Is the RF connection to the LNB sealed with



Fig. 5: Inspect satellite feedhorns and cap openings.

Make a notation of utility pole numbers and the location of water meters/main shut-off valves. Combine this information with the station account numbers and emergency utility phone numbers. Keep a copy of this information at the transmitter site and station control point.

We'll review more inspection tips next time, and we welcome yours to jbisset@bdcast.com. In the meantime, after you've conducted this outside

tive approach to protecting their investment.

John Bisset has worked as a chief engineer and contract engineer for more than 30 years. He is northeast regional sales manager for Broadcast Electronics. Reach him at (571) 217-9386, or jbisset@bdcast.com. Faxed submissions can be sent to (603) 472-4944. Submissions for this column are encouraged, and qualify for SBE recertification credit.

For Talk Radio Fans: A VCR-Style Portable Radio Recorder

The timeshifting craze has come to talk radio thanks to the iPod-ish "Radio YourWay LX" AM/FM recorder. Made by PoGo! Products, the \$199.95 Radio YourWay LX has an AM/FM tuner, MP3 player/recorder and software that lets users record their favorite radio shows, much as they do with TV shows using VCRs.

"The target market for the Radio YourWay LX is the avid talk and sports radio listener who can't always tune into their shows when they're on," said Robin McSurley, PoGo's vice president of sales and marketing. "Using the Radio YourWay LX, they can timeshift their shows as needed, listening to them later at their own convenience."

With its standard 128 MB internal memory, the Radio YourWay LX can record up to 8.5 hours of mono audio at 32 kbps, good enough to provide decent voice and mono music playback. Insert a 1 GB SD/MMC memory card and the Radio YourWay LX's recording time is boosted to 76.5 hours.

"Although the Radio YourWay LX can download and play back music MP3s in stereo, its primary function is to timeshift spoken word radio," said McSurley. "As a result, even though it can playback in stereo, it records in mono."

only." Playback can be heard using included earbuds or via the single built-in speaker.

Beyond timeshifting AM and FM broadcasts, plus capturing podcasts when connected to a Web-browsing PC, the Radio YourWay LX can record voice notes using its internal microphone. Plug a broadcast-quality external microphone into its mini-plug jack, and the unit could even be used to capture news audio.

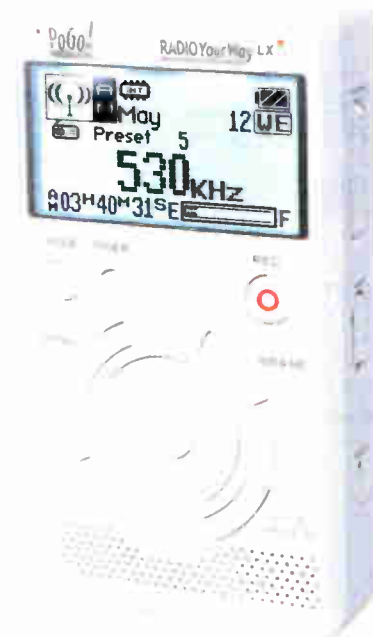
With its sleek white styling, small size and circular front-panel control wheel, the Radio YourWay LX makes one think of an Apple iPod. However, McSurley denies that this second-generation unit is an iPod wannabe: "We choose the new control interface and form factor to make the Radio YourWay easier to use," he said.

Still, PoGo! Products clearly is hoping to capitalize on the MP3 craze with this device, even though it is targeted at an older (25-60) demographic.

"We're the only ones making a product that does what the Radio YourWay LX does," said McSurley. As for seeking promotional deals with talk radio programs, and even offering specially-branded Radio YourWay LXs that these shows can sell/give away to listeners? "We're absolutely interested in making such deals," he said. "Talk radio and the Radio YourWay LX are a perfect match."

Info is at www.pogoproducts.com; the unit is sold through retailers including C. Crane and Amazon.com.

— James Careless



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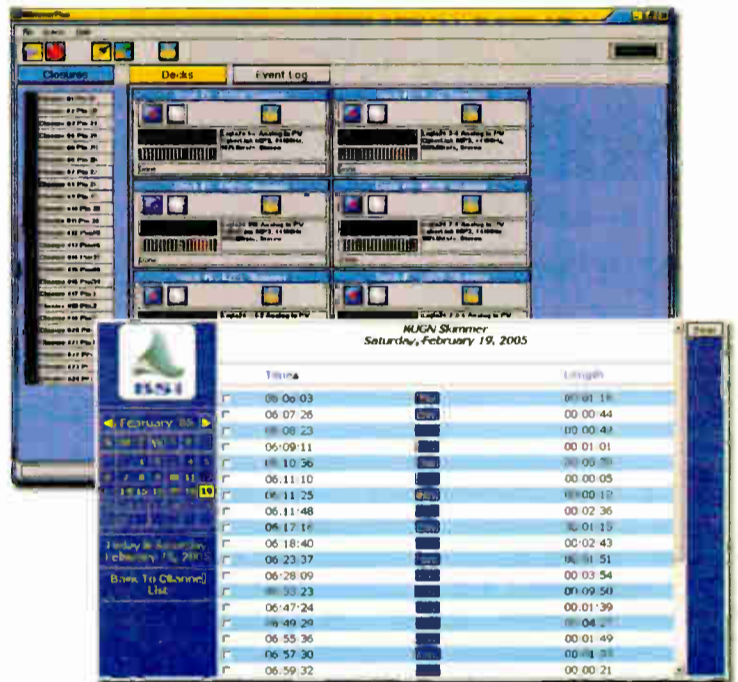
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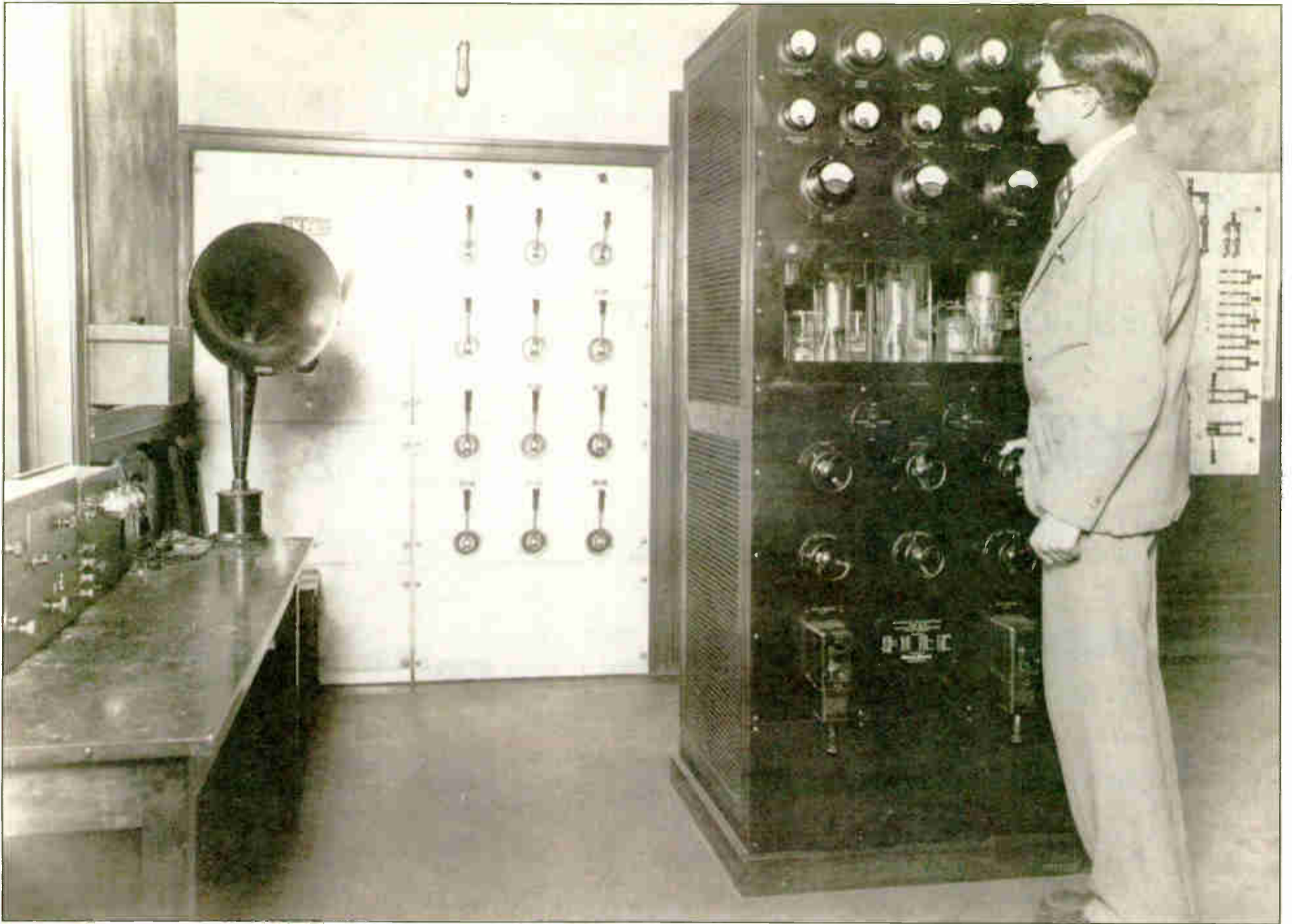
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ROOTS OF RADIO

KPO in San Francisco, 1925

by John Schneider

Radio broadcasting was just coming into its own in 1925. KPO in San Francisco was one of the more professional and better-equipped stations of the day.

KPO was owned jointly by Hale Brothers Department Store and the San Francisco Chronicle. It operated from the sixth floor of the department store building on Market Street. The 10-room suite included two studios, a control room, transmitter room, generator room, offices and a reception area. The main studio was large enough to hold a 90-piece orchestra. The flat-top wire antenna on the roof was supported by two 125-foot towers.

These excellent photos, supplied to me by Bill Ruck, show the latest in broadcast equipment in 1925.

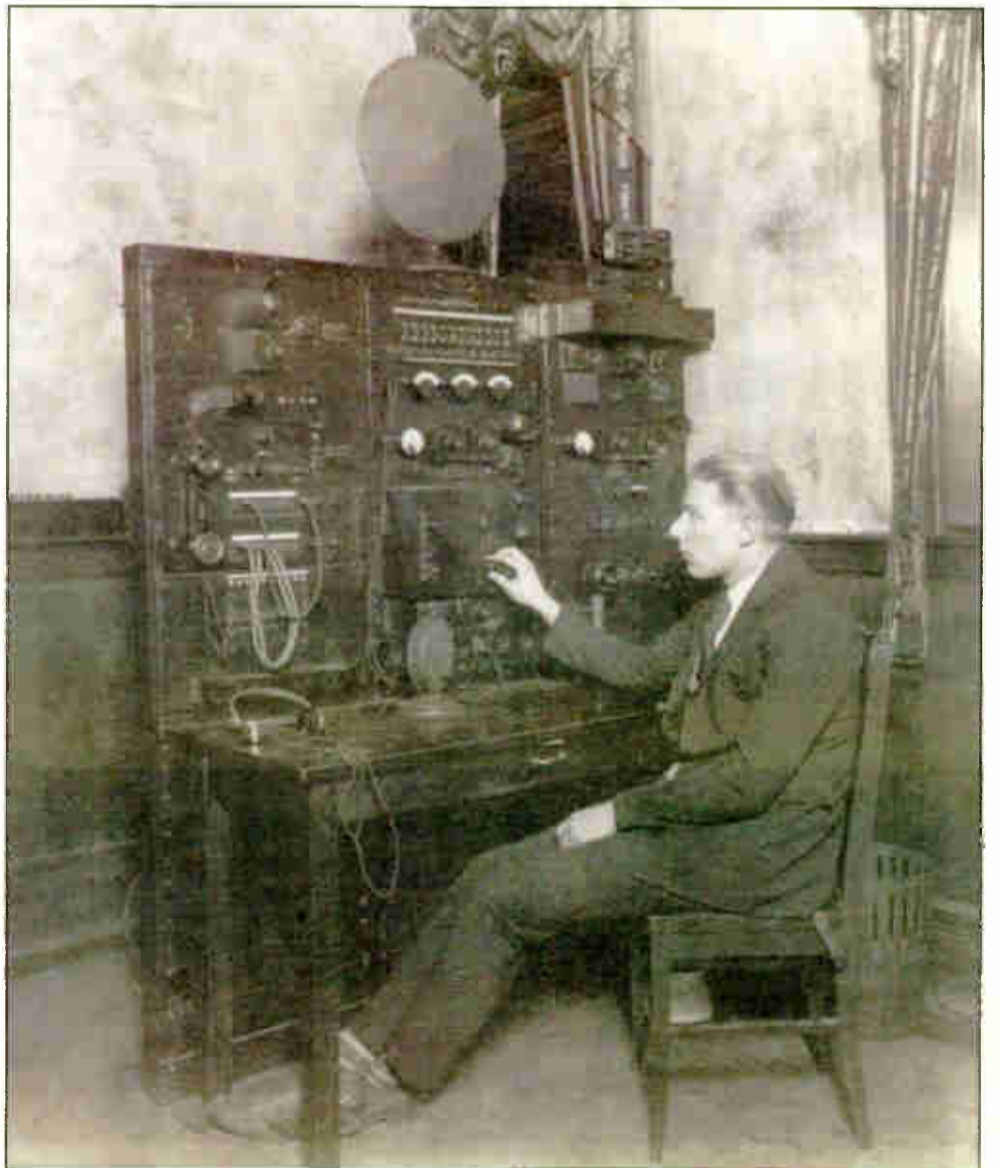
The 1,000-watt Western Electric model 6A transmitter, above, was installed in August of that year. Only the wealthiest broadcasters could afford a factory-made transmitter, and this was considered high power at that time.

The 6A was state-of-the-art, the first to feature crystal frequency control and be capable of 100 percent modulation. It used Heising modulation in the second stage, followed by a water-cooled Class "B" 228-A final tube. Behind the transmitter is a unique marble-faced electrical control panel. The Western Electric receiver and horn speaker at left was probably used to monitor for distress calls from ships at sea, an early equivalent of today's EBS system. Inspecting the transmitter is Claire Morrison, KPO's first full-time announcer.

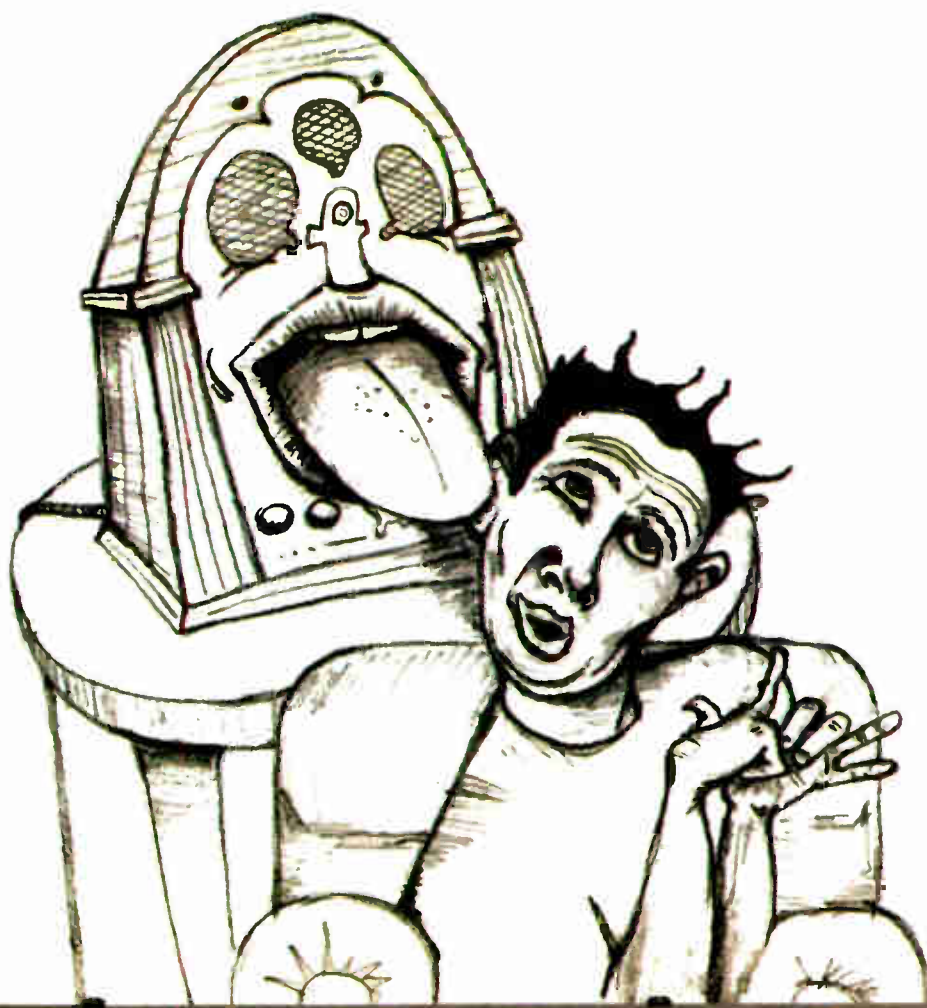
The second photo shows KPO's audio master control panel. This was before the invention of the audio console, and Western Electric's audio equipment was an outgrowth of their telephone switching and amplifier products. Here we see the patch panels and switches used to select the audio source (microphones and remote broadcast phone lines), an intercom used for communication with the studio, two VU meter panels and a Western Electric paper cone speaker. The microphone on the table is a WE double button carbon microphone. The operator is riding gain on the program amplifier, a manual task in the days before audio processing.

KPO was sold to NBC in 1932 and later became KNBR.

For more information about San Francisco Broadcasting, visit www.users.adams.net/~jfs.



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World Radio History

Making the Podcast Grade

Much of Radio's Content Is Intended for Real-Time Use. But Then What Happens to It?

by Skip Pizzi

One of the buzzwords in the radio business today is podcasting, and everyone in the broadcast industry, from programmers to equipment manufacturers, seems to be considering its impact or inclusion in their future.

In more general terms, this applies to any "on-demand" download and playback operation, but "podcasting" seems to have gained status as the catch-all term, so we'll use it here in

its broadest sense.

Much of the interest in podcasting has been stimulated by the egalitarian opportunities it seems to provide for anyone with a Web connection to become a broadcaster; and a few literally home-grown radio shows distributed via podcasting have gained some notoriety.

Of course, this is like saying that everyone who posts some text to a Web page is a published author. What makes podcasts really popular, though, is their ability to become aggregated

on central listing pages, and to be referred by "word of Web" among online users. Once subscribed to, podcasts — like any RSS (Really Simple Syndication) feed — become "sticky," and fresh content is continually downloaded to the subscriber until a subscription is canceled.

Yet it stands to reason that the chief beneficiaries of the process will be those who can provide sustainable, quality content, and direct large volumes of users to it. This implies that broadcasters ultimately could be the big winners in podcasting, thus generating the recent upswell of interest in consumer downloading of radio content

The Big Picture



by Skip Pizzi

within the industry.

This argument glosses over one of the most important elements of the equation, however. From its inception, radio has provided a real-time service, so its content has become optimized for "ephemeral consumption." This means that most radio content loses value quickly — often immediately — after it is broadcast. Given that attribute, the value of podcasting is minimal for such typical radio fare.

Perishability

Certainly not all radio content inherently fits that description, however. There is some material that lends itself well and directly to podcast application. Moreover, broadcasters also can leverage their existing production facilities easily to create variations or wholly different content from that broadcast on air, to better prepare it for podcast applications.

For a fuller understanding of these distinctions, let's examine the spectrum of possibilities for timeliness of radio content:

Most radio music services are truly ephemeral in nature. It is for this reason that the concept of song "rotation" is possible, of course. Besides, broadcasters do not typically possess or obtain podcasting rights (as unformed or unsettled as they currently are) for music that they broadcast. So this abundance of traditional, on-air radio content is off the table for podcasts.

Another class of radio content can have some degree of short-term storage value, while also avoiding rights problems. Call this "perishable, original" content, such as a station's local newscasts, ski reports or concert calendars, which may retain some worth for an hour, or a day, or a week. This content therefore is good for posting as a podcast immediately after its production or initial airing.

In many cases these broadcasts eventually will be replaced by an updated version, which is ideally suited to the podcast subscription model. Every time a new ski report is posted, for example, it will be downloaded automatically to subscribers. Depending on the settings of the subscriber's podcast client, the new feed will delete and replace the previous feed or be stored along with the previous version.

Sports broadcasts can also occupy this category, although their long-form nature may make them less flexible, and bandwidth costs for podcast delivery will necessarily be higher for the podcaster (if incremental fees are assessed). There may also be rights constraints to

See PODCAST, page 23 ►

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Podcast

► Continued from page 22
podcasting of such content.

Depending on the subject matter, some talk radio content may retain short-term value, as well, and a local station's own call-in programs typically are free from any usage limitations. At the proper length (e.g. divided in separate segments by topics or guests), such content can work well for podcasting.

Other news and talk content may have much longer-lasting value, such as documentary or news magazine pieces, particularly those that may have educational value for teachers or researchers. Call these programs "evergreen" content. Live concerts also can fit in this area, although the length and rights constraints noted above may again apply.

Alternate versions

The distinctions noted above apply to content as it would be broadcast in a station's normal on-air operations, and simply posted — perhaps with some segmentation added — as podcasts. This means that the same value gradations considered for podcasting would apply to a simple on-air "broadcasting" device, or a "personal audio recorder" (i.e., Radio TiVo), should it ever gain a similar popularity to that which podcasts are now amassing.

But as we alluded to earlier, broadcasters may wish to repurpose on-air content for its podcast version, or create completely new programming for podcast delivery. One relatively simple method of repurposing content is the "tell me more" approach, in which material that may have been gathered in preparation for broadcast production — but never used due to time constraints or excessive detail — could be inserted in the podcast version.

For example, a reporter may have recorded an entire speech given by a newsmaker, but used only a few sound-bites from it in the on-air piece. The podcast version can include longer excerpts, or perhaps the full speech can be offered as a separate podcast.

Here again, the primary attribute of repurposing or creating podcasts is making the content as robust as possible to the passage of time. Think of it like adding preservatives to on-air content. The greatest bang for the buck comes from material that can last as long as possible without refreshing. However, offering a frequently refreshed short-form info-blast via podcast is a great application of the utility, and can be perceived by users as having significant value as an on-demand service.

Is there a business model?

The most aptly compared business model to the podcast is the magazine subscription. The magazine world has established optimal frequencies of publication, and these vary with content.

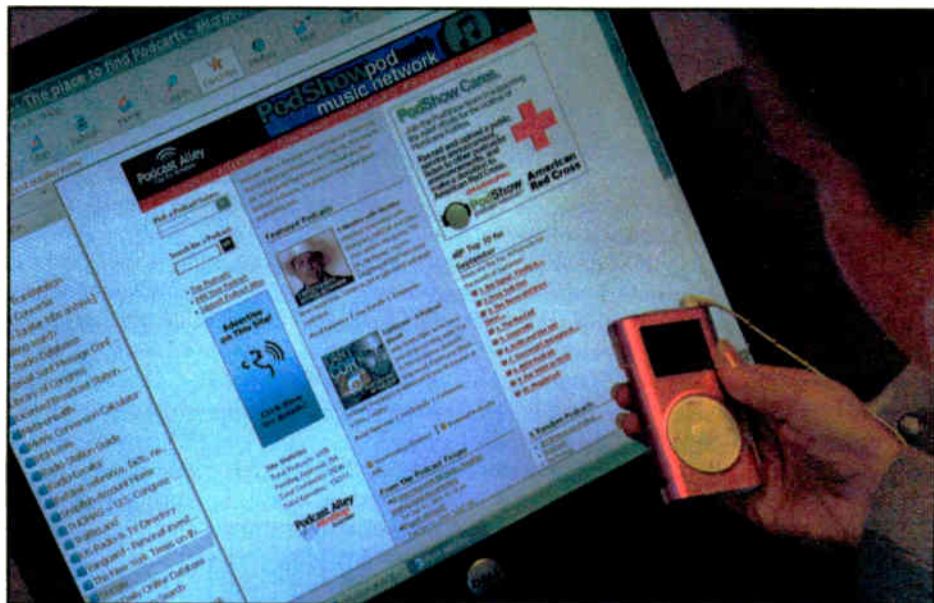
For example, most newspapers are published daily, most news/analysis magazines weekly, most special interest publications monthly (or biweekly, as in the case of Radio World), some high-end journals quarterly, and retrospective aggregations annual. Similar metrics can be used to determine how podcast subscriptions might be structured, and

perhaps eventually monetized.

Another model at which broadcasters are adept is a sponsored approach. Each podcast can include an advertiser's spot(s), which can be of any appropriate length and content. Downloading reports can be provided to the advertiser, allowing yet another new feature for a station's customers.

Podcasting provides a new level of opportunity for online radio beyond that presented by streaming, but it is only useful for the appropriate content — much of which may not fit typical broadcast content formats. Applied properly, however, podcasting can offer a good way for broadcasters to strengthen their local brands and add valuable service to their communities.


Skip Pizzi is contributing editor of Radio World.



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Stream Your Remotes — Cheaply

by Steve Freeman

Have you pondered the feasibility of Internet streaming for your remotes? My assistant and I knew there had to be a cheaper way compared to ISDN. We decided to see just how much cheaper. You can do the math after reading this article.

Requirements for radio remotes are unique. Years of experience with remotes revealed several issues:

First, if we let operating personnel perform any function more complex than turning on a light switch, we might be asking for trouble.

Second, even though the uptime for ISDN service was not substantially worse than that of DSL or cable broadband connections (using short periods of one to four hour remotes for comparison), there was a general feeling of paranoia about reliability.

Third, what about the audio quality of existing free streaming software?

After some thought, we actually started to believe it could be done.

We went down to the local discount computer store and bought a couple of cheap, used Pentium machines, one a PII, the other a PIII, with enough memory to run XP. A SoundBlaster AWE and NIC 100 card were slapped into each unit; then we dusted off an AGC that was lying around, a Behringer unit that also had peak limiting and balanced in/out.

Reliable

Now for the software. We had been playing around with the Windows Media technology since its early versions. It never really impressed us until Microsoft came out with Windows Media Encoder 7. It worked pretty well, supported features showing some technical maturity and had performed for our station's Web site.

Audio quality was as good or better than RPU or ISDN.

WME is free and now up to Version 9, which has even better codecs. XP came with a good version of Windows Media Player (WMP), and as with all versions it was also free.

(In this article the word "encoder" refers to the Window Media Encoder, or WME; the word "player" will mean the WMP.)

Running the encoder on the faster machine, we successfully tested everything over our intranet; then we repeated the tests between studio and home over the Internet. The studio had DSL, home had broadband cable.

The test failed around 250 hours later due to a lease expiration on one of the dynamic IPs. This showed us that a static IP

address is a good idea. It cost about 10 dollars more a month and came with five addresses.

We now wanted a log of whenever the stream was lost. We already had a network analyzer application with logging, so our test was run on the PII at the studio, the one that used XP's WMP.

We played around with increasing the audio buffer in the player, but it took longer to reestablish the stream because the buffer must fill before audio is played.

Also, as the buffer size is increased, the latency between the source audio and decoded audio increases. We wanted to keep it as short as possible.

configuration file ran and started WME, making the stream available over the Internet. The control program on the studio computer detected the connection, started Windows Media Player and provided the decoded audio to the on air console. We would simulate stream loss to verify the automatic reconnection of the feed.

Later we moved the studio computer to another room for security reasons; it didn't require operator involvement.

Over the next 18 months we ran about 150 remotes with this setup. Now we run

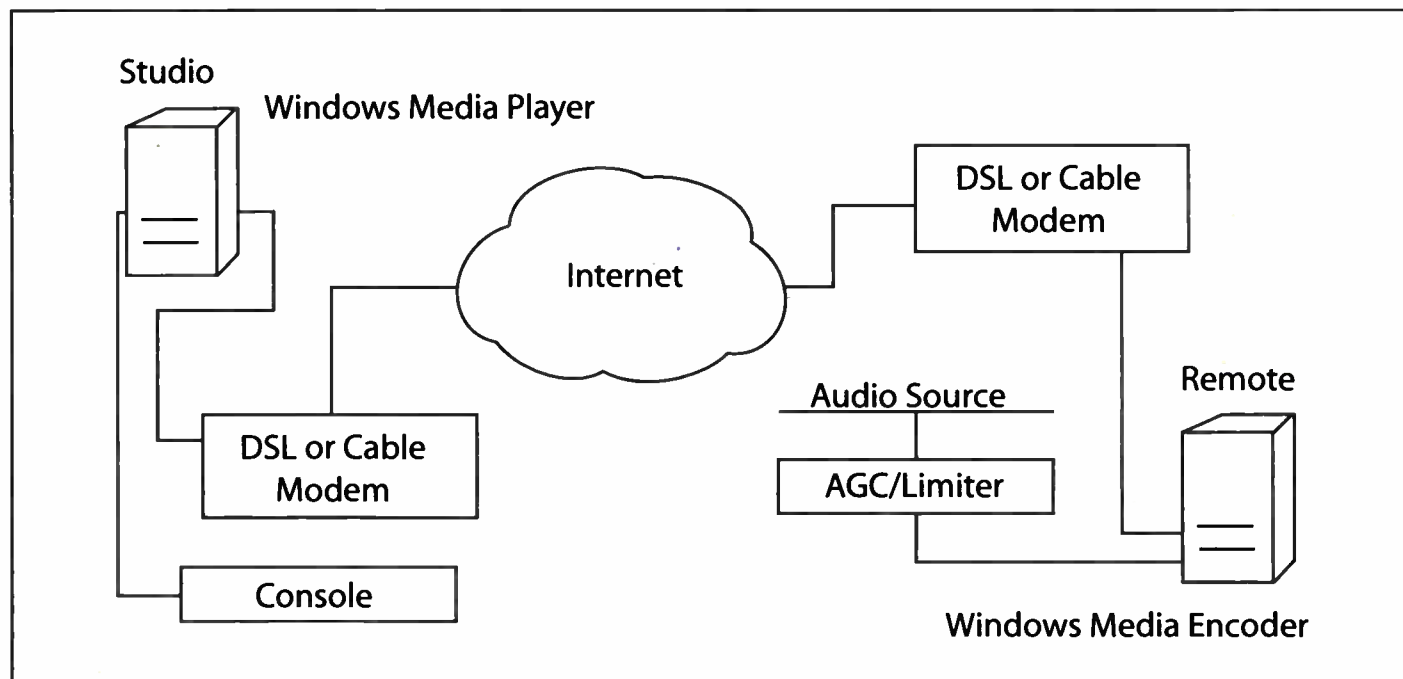


Fig. 1

The Microsoft codec that comes with the encoder was set for 128 kbps stereo. Over the next 250 hours, the player stopped once. The log showed a five-second interruption of the connection. This was a complete failure of the connection, not just a loss of the stream, which pointed to one of the broadband services.

That got us thinking. So the network analyzer program was removed. We installed another program that controlled the starting and stopping of WMP, monitored the stream rate, triggered an event if stream rate dropped below a threshold, verified the MAC address of the NIC card, tested the connection by verifying a valid IP address,

up to four per week.

In the case of major failure of the broadband service — which happened once or twice a year — we almost always knew beforehand because the studio and remote locations used it for normal Internet access by employees, an obvious warning condition. Using ISDN codecs we usually didn't find out that the service was down until feed time.

The only time a remote didn't run as scheduled was during a severe storm that took out the broadband service during the feed.

Now many remotes become feasible. Upfront costs are low, which can help in smaller markets or any instance where expense is an issue. With the wide use of broadband service, many locations are ready to go; if an installation is needed, it's usually done within days, not weeks.

For ISDN in our area, the cost for both ends ran around \$1,600 a year, and those lines were usually idle unless there was a remote. Add to that the high installation costs. This is not the case with broadband, which is used all the time by employees for their Internet connection.

From an operational point of view, having the scripts and the stream monitor/control software were critical in making the system really usable, eliminating complexity and the need for a highly trained technical staff.

As many new broadband services become available, their reliability and cost issues improve. With many new technologies, it's shown that the investment in proprietary hardware like expensive ISDN codecs and RPU transmitters are affected due to the competitive nature of those new services.

There's a lot to look forward to as these deploy, like WiFi and other wireless broadband products.

The author has been a broadcast engineer since 1972; he lives in Austin, Texas. Reach him at freemanl@io.com.

After adding everything together, we were up to around \$1,200 in hardware and software.

If normal traffic drops below a preset threshold, the network analyzer tests the condition by sending and receiving test packets. No packets were received, indicating a connection failure, which was verified because the encoder and player were working fine.

What if the interruption had occurred during an actual live remote? Someone would have to monitor the feed at each end continuously and know how to get it going again. For even a short interruption (<10 sec) the stream would be lost and the player would stop.

performed logging, and therefore, after an interruption, re-established the feed automatically.

Further testing finally convinced us to use it with a live remote from a client's club. The PIII running the encoder was taken to that location. We ran several remotes with great success.

After adding everything together, we were up to around \$1,200 in hardware and software.

Scheduled

To improve the operation, we installed scripts on the studio PII computer so that it could be used to hook up to different remote locations, which of course had different IP addresses.

These scripts set the configuration of the network connection for TCP/IP as displayed in the Windows Network Connection control panel and were run on certain weekdays at a specific time (remote schedule). Windows Task Scheduler was used for this feature. For the remote machine, auto logon was enabled; an encoder configuration file was created and placed in that machine's Startup Folder.

All the user had to do was turn on the computer's power switch. The encoder

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Hard Times in Hot Spots

Despite Unique Challenges, Radio Plays a Role in Troubled Parts of the World

by Michael Hedges

Day-to-day radio broadcast practice typically involves producing programs, maintaining equipment, managing staff, complying with regulations and sometimes selling advertising.

But in a conflict zone, where a visiting local warlord or facing a militia can be the order of the day, the typical routine is the exception.

Humanitarian agencies and those seeking peace in times of conflict revere radio as the best and most effective means of achieving their ends.

Active military conflicts are ongoing in many parts of the world, with conflicts in Chechnya, the Sudan, Afghanistan and Iraq being the highest profile.

Contentious regions

There is no standard operational model for setting up local radio stations in such regions.

Equipment, and a place to put it, is still necessary. Non-governmental organizations or NGOs, like the Switzerland-based Fondation Hironnelle, have years of experience bringing technical support and personnel into some of the most difficult of environments but every new project brings new challenges.

The United Nations acknowledges the benefits of radio broadcasting in conflict zones, particularly in Africa, where other media do not have as broad of reach.

The U.N. Committee on Information has, on several occasions, affirmed the importance of radio to its operations. "Radio remains one of the most cost-effective and far-reaching traditional media available ... and an important instrument in United Nations activities, such as development and peacekeeping," the committee stated in a 2002 report.

Internews is a U.S.-based media development organization active in many of the most contentious regions. With resident staff in more than 30 countries, it organizes, advises and trains local radio and television broadcasters.

While officially resistant to working in war zones, Internews recently set up 15 radio stations in Afghanistan, nine of which are in rural areas.

In 2002, the BBC World Service Trust received a £1 million grant from the U.K. Department for International Development to help rebuild the media in Afghanistan; the trust provided equipment for two radio studios for state broadcaster Radio Afghanistan and training for more than 350 journalists and broadcast staff. In total, nearly \$30 million has been pledged by donor governments and NGOs to support media reconstruction in Afghanistan.

PSA sponsorship

Building these stations is one part of the project, sustaining them another. The stations in the Internews network are independently owned and not funded by any government, aside from initial grants awarded by international aid agencies, notably the U.S. Agency for International Development.

Financial support comes from advertising, though little is similar to Western

commercial radio advertising. Public service announcements, paid for by international donors, are the mainstay of support for these stations.

The Joint Electoral Management Body — an Afghani organization set up to promote participation in recent elections — sponsored the PSAs on 13 local radio stations through a grant negotiated by Internews from the Asia Foundation and USAID.

The \$80,000 grant for election information PSAs will fund station operations

for four to six months, according to John West, Internews Afghanistan country director.

A similar \$25,000 PSA sponsorship from Population Services International supported a safe water campaign in conjunction with the Afghan Health Ministry's Diarrhea Prevention Week in May.

The Afghan radio stations also derive local financial support from classified advertising and personal announcements. From lost-and-found items to wedding announcements, as much as 20 percent of the operating costs of a local station can derive from these advertisements costing the equivalent of 4 to 10 cents.

Commercial advertising is also

appearing on some stations. After producing a commercial for a local motorcycle shop, Radio Azad Afghan in Qandahar gained other ad clients.

Post-conflict zones

Radio is considered the dominant medium in Afghanistan, which has a high illiteracy rate. The BBC operates several local FM rebroadcasting facilities and rents time on others. The U.S. Army distributed 200,000 transistor radios in Afghanistan in 2003 and the International Organization for Migration provided 30,000 more receivers.

Of the 15 stations affiliated with Internews in Afghanistan, one — Radio Sharq in Jalalabad — is a fully commercial station; the rest are community stations.

See WAR, page 26 ▶

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GUEST COMMENTARY

MediaFLO: Yet Another Rival?

*Maybe It's the Last Thing We Need —
Or Maybe It's Another Useful Outlet*

by Steve Church

Here comes yet another technology that could rival radio broadcasting. It also could offer broadcasters an out-of-the-ordinary opportunity.

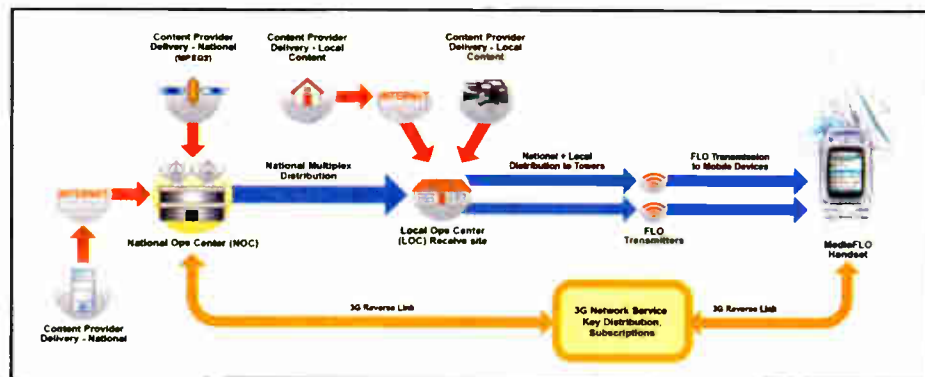
Qualcomm is planning to begin broadcasting video and audio programs to mobile phones nationwide starting October 2006 using a new system called MediaFLO. (FLO is an acronym for Forward Link Only.) They already own the frequencies, a license for UHF TV Channel 55 with coverage in almost all significant U.S. markets.

Should you doubt this is "broadcasting," consider: Qualcomm proposes to use two 50 kW transmitters with 300-foot towers to cover most cities. The modulation and multiplexing technology is borrowed from European Digital Audio Broadcasting, so it has been well proven to work in mobile application. The total bitrate will be around 11 Mbps. If you were to use it all for audio, you'd have around 230 stereo channels. Compare this to HD Radio's 96 kbps rate.

Since MediaFLO is carried on terrestrial transmitters with citywide cells, there could be a mix of national and local programming, something that is impractical with satellite-delivered radio.

could be used alongside the broadcast network to provide interactivity.

There have already been some video services for mobile phones but they are using the "2.5G" or "3G" networks that were optimized for one-to-one connection rather than one-to-many broadcasts. With these,



Qualcomm says that with a dedicated network such as that enabled by MediaFLO, operators can evolve to providing subscribers a TV-like experience on handsets. The FLO air interface delivers substantial cost advantages by requiring only two or three broadcast towers per metropolitan area, or up to 30 to 50 times fewer towers than required by traditional cellular systems.

providers must allocate network bandwidth for each user, so the cost is usually billed per-minute. With Qualcomm's MediaFLO,

essential to adapt both to the small screen size and the probable shorter time-spent-viewing/listening.

Audio, however, would seem to pose less of a challenge to user expectation. People routinely listen to their portable music via headphones. And docking stations with loudspeakers are sure to appear. Closer to home, just as iPods can be jacked into car radios, so too could these phones.

Qualcomm also has to convince both mobile phone carriers and content providers to go with the FLO. ESPN has said they will participate in trials and Sprint PCS has hinted that they might be working with Qualcomm.

Mobile phone manufacturers also have to be convinced. But assuming phone makers get on board, an advantage MediaFLO has over HD Radio is that people update their

mobile phones every two years on average, so getting the "receivers" for this new service into the hands of consumers is not likely to be an impediment.

Qualcomm is not the only game in town. Nokia and tower owner Crown Castle have started a trial in the Pittsburgh-area with a similar European-developed technology called DVB-H. Crown Castle owns a 1.6 GHz channel nationwide, so they have the potential to compete with MediaFLO with a similar integrated package of technology and bandwidth.

Motorola has announced their long-anticipated collaboration with Apple to merge iPod-like functionality with mobile phones. Add MediaFLO or DVB-H and you do have a pretty enticing package. Phone, music and podcast player, plus live and "clipcast" video and audio to go.

On the one hand, it seems this is the last thing our industry needs — yet another competitor for listeners' time and attention. On the other, perhaps some courageous radio or TV stations could contract with Qualcomm to program a local channel or two, giving them another outlet. They could become local MTVs or ESPNs.

Seems there is also the prospect of broadcast engineers finding part or full-time employment installing and maintaining the UHF transmitters and associated gear. These set-ups are going to be much more broadcast-like than cell-phone-like.

Remember Dick Tracy's wristphone? Not only has that fantasy been realized, but we're moving well beyond to wrist-sized interactive TV/radio/phone/record players — too far out for even the clever comic writers to have imagined. Come to think of it, that other staple of last century's sci-fi, the huge wall-mount television, has been finally achieved as well. Now, where are the hovercraft?

The author is founder of Telos Systems. RW welcomes other points of view.

Should you doubt this is 'broadcasting,' consider: Qualcomm proposes to use two 50 kW transmitters with 300-foot towers to cover most cities.

Since DAB was intended for car reception, the obvious question arises: Will cars be a target location for MediaFLO receivers?

Qualcomm's Rob Chandhok, vice president of engineering and market development for MediaFLO, said in an interview on the company Web site that the system would certainly work for that purpose, but that they will not be "going after that market initially."

Their main application is going to be video for small screens. Chandhok says they'll divvy up the channel space something like this: 15 national TV channels, five local TV channels, dozens of "clipcast" video and audio channels and "numerous" live audio channels. Clipcasts, he explains, are like podcasts, sent to phones in the background to be locally stored and played on demand.

Audio quality should be about on par with satellite or multicast HD Radio, since they will be using MPEG AAC+ at 48 kbps for stereo. Video will be 30 frame-per-second QVGA with a total rate of around 360 kbps per channel, quite a bit better than today's jerky phone video, but well short of even standard-definition broadcast TV. On a phone's small screen, it should look fine, and image quality should remain good on displays up to around 6 inches diagonal.

Qualcomm says they will own and operate the system in a separate company they intend to spin off and float on the stock market. The service is to be wholesaled to mobile service providers, who would in turn sell it to retail clients on a subscription basis. The existing mobile phone network

there is no incremental bandwidth cost as viewers or listeners are added, so billing is likely to be on an all-you-can-eat basis.

MediaFLO is also not at all the same as WiFi or WiMax, which operate on unlicensed frequencies, have much lower power and are probably not suitable for operation in moving vehicles.

Qualcomm looks to have the financial wherewithal to pull this off. They had \$4.9 billion sales in 2004, with \$1.7 billion net income. They are sitting on \$7.6 billion cash. They've committed \$800 million to the MediaFLO project.

They have well-honed tech chops as well, having pioneered the CDMA modulation technique. They've designed a lot of mobile phones and integrated circuits for radio frequency applications.

It appears they've put their expertise well to use in the conception of this system. The multiplexer uses a time-slot per channel scheme and the receiver essentially shuts down except when the selected slot/channel is needed. As designers of mobile phones, they are aware that battery life is an important concern.

Moving targets

While the tech looks solid, there are plenty of challenges on the user acceptance side.

Qualcomm is betting that portability trumps size and quality. In a world where 42-inch plasmas increasingly dominate living rooms, will people care to watch TV on their minuscule mobile phone screens? That probably depends on the content. New programming styles are probably going to be

War

► Continued from page 25

Radio Kallid in Kabul was the first, launched in August 2003, and now reaches more than 2 million people. Internews plans to help launch 20 additional stations by year-end.

In regional conflicts and civil wars, existing radio stations are drawn, willingly or not, into the conflicts. During the civil war in Côte d'Ivoire, militias seized several public-service FM stations.

In Rwanda, the government allowed the BBC World Service Trust and the Thomson Foundation to fund and equip several radio stations; however, once the project was complete, the stations and equipment were kept in government hands instead of being used for public-service broadcasting.

Most NGOs and media development organizations prefer working in post-conflict zones rather than taking on projects that would endanger staff or that could play into the hands of warring factions.

Post-conflict media development has a different purpose — monitoring media policy reforms and upgrading professional skills, particularly in journalism.

Once-clandestine stations

Where armies or militias are warring or preparing for war, media is limited to the forces in control. Media voices independent of partisan conflict, as well as those taking sides, are forced to broadcast from outside the regions, using high-power transmitters

and satellites. Military forces also use radio broadcasts to rally troops and to demoralize opponents.

In addition to broadcasts by military forces and international broadcasters in Iraq, several once-clandestine stations are now licensed and gaining audience.

Baghdad talk radio station Radio Dijla was founded by Ahmad al-Rikabi. He is the former London bureau chief of the U.S.-funded Radio Free Iraq. Radio Dijla was financed with a grant from an undisclosed Swedish aid organization.

"We have the BBC on FM and they talk about the U.N. all day long. People talk to us about sewage outside their homes," al-Rikabi said in a June interview with the Long Island, New York, daily newspaper Newsday.

The Newsday article pointed out that al-Rikabi wants to stay "under the radar" of local radicals and keeps a submachine gun in his office.

When peace is not near, as in Chechnya, building new stations is out of the question. The Voice of Russia recently launched Radiostantsiya Chechnya Svobodnaya as high-power short-, long- and medium-wave broadcasts into the region from a safer location.

Other international broadcasters, like Radio Free Europe/Radio Liberty, have no access to frequencies or transmitter sites within the Russian Federation or Chechnya and must use shortwave to reach into the region.

Michael Hedges reports on the industry for Radio World from Geneva, Switzerland. Contact him via e-mail to hedgeswrg@gve.ch.

SUPPLY SIDE

Cyclades: OOBİ and ROI

Supply Side is a series of occasional articles about companies you don't know, or things you don't know about companies you do. This Q&A is with Glenn K. Schulke, director of strategic accounts for Cyclades Corp.

Cyclades makes products for something called OOBİ. What is that?

OOBİ stands for "out-of-band infrastructure." In-band is the production network; whereas out-of-band provides a secure alternate path to reconnect and manage network assets back to productivity should they become disconnected from the production network.

The telco industry has been using them for years to ensure that when consumers pick up our telephone, we receive that ever-precious dial tone every time. To accomplish this, they installed a separate management network aside from the production network. This ensures they always have an alternate method of to restore disconnected assets. Yes, they have substantial redundancy built into their networks; but when the primary fails over to the backup, they have to restore the primary to ensure they are still redundant.

Do your products replace systems that might be in place at radio stations?

No, they consolidate, extend and enhance any remote administration they may have.



Many companies offer products for remote control of transmitters, including being able to shut down the primary and bring up the backup transmitter. Remote control products are available for audio processors, exciters etc. through the STL or via a network connection to the remote site.

This is great when the devices are online and can be accessed through the network or STL. But if the device cannot be seen on the network, or the network to the remote site is down, that's where an OOBİ comes in to provide access through a secure alternate path.

This path allows the engineer or the technician or administrator the ability to bring the disconnected asset back into productivity, including cycling power, from a single consolidated interface including phone, HVAC, alarm and security systems — just about anything with a serial or emergency service port.

We can even provide remote administration with full keyboard, video and mouse,

just as though you're sitting in front of the remote computer or device providing BIOS-level access to the systems.

In today's broadcast environment, where extensive computer automation is used and fewer engineers are on site, remote administration is essential. Research has shown that an OOBİ recovers the asset over 60 percent of the time. If the asset cannot be restored via the OOBİ, logs can be reviewed to see what occurred just before the failure and be better prepared to know what parts or equipment to bring to the remote site. As a bonus, our logs show who accessed what, from where and when, an added piece to help meet Sarbanes-Oxley 404 compliance.

This approach is suitable for any information technology asset — server, router, switch, PBX, audio processor, exciter?

Exactly, as almost all technology assets have a maintenance port, typically a serial, KVM or USB interface. But best of all, our OOBİ architecture provides a single secure, audited Web-based user interface for all the connected assets — from serial ports, KVM over IP, intelligent power management, blade centers to service processors, regardless of location, connectivity or asset mix.

For example, the OOBİ for one of the largest Internet portal companies, based in California, Cyclades products are used to manage more than 45,000 devices like servers, routers, switches, firewalls and power.

As an example, if a router table gets lobotomized, by mistake or otherwise, in a critical router, the event is captured and logged; and since it's so critical, an alert was set up in the event of a failure so a notification is sent out via e-mail, pager, cell phone etc. to the person responsible. They can restore the router table from where ever they happen to be, even using a Web-enabled palm device such as a Blackberry or Pocket PC.

What kind of expense is involved?

As with anything like this, it depends. We offer an array of configurations, from single serial port units with dual PCMCIA slots to add dialup, WiFi, GSM or CDMA access and four-, eight-, 16-, 32- and 48-port units with single and dual

See CYCLADES, page 28 ▶

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Radio Terms of ... Endearment

There Was Somethin' About That Automation System That Made You Want to Give It a Nickname

by Ken R.

Perhaps you call your significant other "sweetie." But when it comes to automation or other equipment systems that present daily challenges, your pet

and the system would, for no reason I could ever find, start playing any deck it felt like. Everything would be going along fine, and then — click click click — multiple reels would start up, cart decks would fire, and then every-



Hank Landsberg provided this photo of 'experimental' KCHZ, circa 1984. The 'Cheese-O-Mation' is the double row of knobs in the left rack. It controlled four Ampex 440 decks and a Collins TwinTape cart machine, the white unit in the short rack.

names may not be so affectionate.

Radio World contacted engineers and equipment dealers in an effort to round up some of these nicknames and not-so-nice sobriquets for gear, wayward and otherwise. We have changed supplier names here as some of these manufacturers are still with us.

James Flinn, now CEO of 11 Software, toiled at Marquette, Mich., blowtorch WUUN(FM), "Stereo 100," back in 1982.

"The station is long gone, as is the old automation it had," he said. "But we nicknamed it 'Ralph' because it would belch smoke from fried IC chips and timer clocks from time to time.

"We even put a one-foot name plate on the front of the automation system — which made it promptly crash and wipe out the controller."

Maybe it's just something about Flinn, but he later ran into another uncooperative system, this one in Gladwin, Mich.

"It was at WGMM(FM), which stood for 'We've Got More Music,'

thing then went back to normal for a few hours."

Because this phenomenon would only occur about three or four days each month, Flinn came up with the politically incorrect moniker "PMS-601."

The bad old days

When Dave Morgan, now director of engineering for Sinclair Telecable's Norfolk cluster, worked at WTBC/WUOA in Tuscaloosa, Ala., he had an automation system that needed a lot of handholding.

"It was an electromechanical creation to behold, something that had a life of its own," he said. "Every night at midnight the jock on duty had to take the paper commercial log and move pegs up and down for scheduling spots in the carousels. Of course the jocks would sometimes forget to check the music reels, so that only spots and IDs on cart would play when the reels had run out."

Morgan called the system Max,

and tear on vehicles, gas, risk and security.

In today's world, would you purchase a TV set or audio system for your home that didn't come with a remote? Of course not. It's the same thing, only applied to technology assets. One of our customers conducted a detailed ROI before and after the OOB deployment. They found they reduced IT overtime labor costs by 92 percent while increasing the number of devices managed by 30 percent per year. Also, they were able to decrease their fault fix time by 66 percent while tightening security with built-in logging, an important feature in today's corporate governance climate.

The net ROI was under 16 months; but each customer is different. 🌐

which might have just been a friendly name — or could have stood for "Most Aggravation eXtant."

Mike McCarthy, director of engineering for Newsweb Radio Group in Chicago, mentioned a transmitter in Park Forest, Ill., which he called "Brutus," an acronym for "Blows Regularly Unannounced Trapped Ubiquitous Stuff."

Erickson Broadcast Service President Ron Erickson worked at KUGN(AM/FM) in Eugene, which had an automation system everyone referred to as "Mom."

"In the downstairs kitchen a note appeared near the sink," said Erickson. "It read, 'Please clean up after yourself; Mom only works upstairs.'"

Oh, behave!

Joe Benson is news director at KPRL(AM), Paso Robles, Calif., but when he was at WYRQ(FM) in Little Falls, Minn., he had an automation system that had been cobbled together with carts, reels and a control panel that used hexadecimal programming.

"You had to be a mathematician to figure that one out," he said. "Frequent replacements of very expensive cards and visits from company reps came with the territory. We called it 'The Dippy One' — but never in its presence out of fear that it would burn down our building."

Henry Engineering President Hank Landsberg said that he built his own automation system for his "experimental" (read: pirate) station KCHZ(FM).

"The station was called 'K-Cheese,'" he said. "And the system was called 'Cheese-O-Mation.'" The station was on the air in the mid-1970s; Landsberg assures us that the statute of limitations has run out.

Milford "Smitty" Smith, vice president engineering at Greater Media, said that at one of his locations, someone cut out a portion of a newspaper ad for a circus high wire act and posted it on the automation system. It read "Tempting Fate Daily."

And Jim Withers, chief technical officer at Koplak Communications International in St. Louis, told us, "When I was chief engineer at KPLR(TV), St. Louis, I had a transmitter we nicknamed FRED, which stood for Fix. Repair Every Day.

"Of course, our standby rig was named Ethel."

And some guys just have all the luck. James Flinn — he of "Ralph" and "PMS-601" — was at WKQS(FM) when he encountered the amazing "POS-V11," which had to be sent back to the factory for a good spanking.

We leave it to you to suss out the meaning of the initials on that one.

RW Editor in Chief Paul McLane used to work at a station with an automation system called Rocky; and he recently spotted a rack of gear labeled Mir, after the notoriously clunky Soviet space station, and also an HD Radio exciter named Glynn.

Did you work with an automation system called HAL, Satan or Aunt Bea? What were your terms of endearment for equipment, functioning or otherwise? Tell us — and send pix if you've got 'em — by writing to radioworld@inaspub.com. 🌐



Equipment users and equipment suppliers are welcome to send us their recent project and contract news. Write to radioworld@inaspub.com.

Christian Broadcasting Inc. in Anchorage, Alaska, threw the switch on a new Class A station in Palmer. It used a Crown FM500T, Jampro JLST-1 antenna, Burk ARC-16SA remote control and Andrew transmission line. The station will rebroadcast programming of KATB with a plan to convert to original programming in 2006. Walt Lowery of RF Specialties of Washington handled the equipment sale to KJLP(FM), which uses the slogan "Jesus Loves Palmer." The general manager is Tom Steigleman.

Separately, Lowery sold a Nautel XL60 package to the only 50 kW AM station serving interior Alaska. Non-directional KJNP(AM) at North Pole also installed a Kintronic Labs ATU, Altronic Research 75 kW load and Myat and Andrew transmission line. The chief engineer is Redgy Swedberg.

And Lowery was Nautel agent for the sale of the first two V20, dual-transmitter HD Radio systems shipped by the manufacturer; they were installed by FM stations WHRV/WHRO in Norfolk, Va. John Heimerl is GM; Chris Gunnulsen is DOE. (See photo, page 30.) This was a CPB-funded project. ...

Wheatstone reported that Emmis Radio Indianapolis ordered a D-4000 digital broadcast console and prewiring service for its facility that houses FM stations WNOU, WYXB and WLHK. ...

Pulsecom said it has shipped more than 3,000 Pulsecom/APT Program Channel Access Units and that the pace of shipments is increasing. The broadband audio transmission products are used by telcos to link radio stations with antenna sites. ...

Broadcast Electronics said its broadband Big Pipe is in use as a 5 GHz STL at Clear Channel in Minneapolis and weathered a summer of Midwest storms. Jess Meyer is senior engineer for the cluster, which is using the unit to transport programming of four stations from studios in St. Louis Park to a transmitter facility in Shoreview about 12 miles away. ...

dMarc said the radio division of Morris Communications will use RevenueSuite in 16 stations in four markets. RevenueSuite lets stations fill inventory after a day's logs are closed through buys generated by dMarc from advertisers; it works through Scott Studios or Maestro automation systems. The company also is using the dMarc SmartBarter service. Jay White is corporate DOE for Morris' radio division. ...

Prophet Systems said it provided NexGen Digital Broadcasting automation systems to WOBN(FM) at Otterbein College in Westerville, Ohio; WQUN(AM), a commercial station in Hamden, Conn., owned by Quinnipiac University; and WERV(FM) in Aurora, Ill. ...

Moseley said it has expanded the capability of its Starlink SL9003Q Studio-Transmitter Link to operate in international STL bands, and recent shipments include 220 MHz for an application in Mexico, 450 MHz for Armed Forces Radio and Television Service, 920 MHz for a client in New Zealand and 1.7 GHz for one in Greece. ...

See BUYING, page 30 ▶

Cyclades

▶ Continued from page 27

110-240VAC or -48VDC NEBS III certified power supplies; also optional integrated, intelligent power management and products for blade centers and service processors.

A standard 48-port console server lists for \$3,995, which is only \$83 per managed port. Consider the cost and time of physically sending someone on site and reducing site visits by 60 percent, it doesn't take many remotely resolvable problems to have the OOB paid for — let alone wear

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WHRO Director of Engineering Chris Gunnufsen steps through menus on one of his four Nautel V10s.

Buying

► Continued from page 28

Internews Network Inc. purchased three **Digital Juke Box Automation** systems for its operations in Chad, the supplier's president, James Barcus, said. Internews produces programming and trains media professionals. ...

Seattle voice talent **Russ Cimber** of KIRO(AM), production director for Entercom Seattle, produced an award-winning spot using a **Neumann U89**. The 2005 Mercury Radio News prize was for a 30-second spot called "Three Little Houses." The mic was sold by **Pacific Pro Audio**. ...

Jampro Antennas/RF Systems Inc. won a contract from **PT Indosiar Visual Mandiri**, a network in Indonesia, to provide

multiple antenna systems for the country's tallest broadcast structure, a 1,300-foot tower. This is also the highest-power UHF and FM system in Asia. For radio, the client will install a **JAHD FM** system including a high-power circularly polarized multi-frequency **FM Arrowhead Panel Antenna**, a seven-port patch panel and power splitter, dual runs of 4-inch transmission line and a **Constant Impedance Combiner**. ...

Harris is highlighting a sale of products to be used by **Clear Channel Denver** to create "closed ring audio transmission paths" for four FM's; this approach, it says, will help the cluster, located in a difficult weather market, "virtually eliminate" off-air time caused by weather or emergency situations.

The supplier said the stations will upgrade eight **Intraplex CrossConnect** servers and add four more. The ring will use a combination of telco T1 and spread-spectrum radio T1 circuits that allow any studio to feed audio to any of the four FM sites over a bi-directional, protected transmission path. Harris said the cluster will install **DCS** frames at the studio and main and aux transmitter sites to provide automated switching between multiple T1 paths. Enhanced apt-X audio cards are part of the Harris **Intraplex STL HD Plus** system. The stations are **KRFX**, **KBPI**, **KMGG** and **KTCL**. **Daren McMullin** is FM market chief.

Separately, Harris said **Clear Channel Albany** in New York bought a turnkey package that includes a **PR&E VistaMax** networked audio management system and **PR&E** digital consoles. Harris also is providing **Smoothline** studio furniture and cabinetry plus studio wiring. **Clear Channel** is relocating seven stations into a facility in **Latham, N.Y.** **David Abdo** is director of engineering. ...

National ad rep **Dial Communications-Global Media** hired **Verance Corp.** to a multi-year contract with **ConfirMedia** third-party airplay verification, the supplier said. ...

WPEN Increases Power at Night

Greater Media's **WPEN(AM)** in Philadelphia said it has begun broadcasting from a new nighttime RF site in **East Norriton, Pa.**

An increase in power to 21 kW from 5 kW and a move to the west and north means a lot more people will now be able to hear the station at night.

Vice President of Engineering **Milford Smith** called the power hike "one of the more significant nighttime AM facility improvements made in a top 10 market in recent years." He thinks listeners will note the improved signal immediately.

The hike came as the station planned a format switch from oldies to sports talk.

Burk Adds Dealers

Burk Technology said it added new broadcast dealers to represent its transmitter remote control equipment.

In the United States, the new dealers are **RTZ Systems** in Colorado, **Lubbock Audio Visual** in Texas, **VMI Audio & Visual Systems** in Missouri and **Microwave Radio Communications** in Massachusetts.

Abroad, new dealers are **Radian and Solutions Broadcast RF**, both in Canada; **KAPPA Ltd.** in Colombia; **Continental Lensa** in Chile; **Electronic Equipment Marketing Co.** in Saudi Arabia; **Interactive Digital Technologies** in Taiwan; and **Harris-Ban Communications PVT** in India.

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Will Asian Be the 'Next Hispanic'?

MultiCultural's Deal With Sirius Points Up Growth Potential in Asian-Language Programming

by Lauren Rooney

Sirius Satellite Radio is getting a Far East flavor. It may not be alone soon.

The satellite company recently entered into an agreement with MultiCultural Radio Broadcasting Inc. to provide Asian programming on its satellite network.

president of programming.

The Arbitron study was conducted in Los Angeles and New York last winter. It found 56.2 percent of radio listening by Chinese-speaking Asian Americans in those cities is to Chinese-language radio.

Arbitron estimated there are 484,500 Chinese-speaking Asian Americans age 12

and have the infrastructure that will allow us to put together a channel that will work on our platform," Clark said.

MultiCultural owns 44 stations in the top 20 markets; about half of them air Asian-language music, news and talk formats. It commissioned a new studio at its Los Angeles cluster to create programming for Sirius.

"We will be creating content for Sirius on an exclusive basis, which will be a little different from our terrestrial formats," said

Chinese Language Radio in New York and L.A.

Arbitron said the top five radio stations for Chinese-speaking Asian Americans in New York and Los Angeles are:

	Format	Weekly Audience (Chinese-American Persons 12+)	Weekly Time Spent Listening (hh:mm)	Market Share of radio listening (percent)
NEW YORK				
WZRC(AM)	Chinese Language	175,400	18:30	53.5
WINS(AM)	All News	67,200	4:45	13.9
WHTZ(FM)	Pop CHR	64,500	3:45	13.3
WLTW(FM)	Adult Contemporary	63,900	6:15	13.2
WKTU(FM)	Rhythmic CHR	29,100	3:00	6.0
LOS ANGELES				
KAZN(AM)	Chinese Language (Mandarin)	110,200	10:45	25.1
KMRB(AM)	Chinese Language (Cantonese)	90,100	14:45	28.0
KOST(FM)	Adult Contemporary	57,500	4:45	5.9
KIIS(FM)	Pop CHR	54,700	5:45	6.4
KAHZ(FM)	Chinese Language (Simulcast of KAZN-AM)	38,200	7:30	6.1

"We looked at census numbers and an Arbitron report commissioned by MultiCultural Radio. The research came out very positive. Between those two things it just made sense to do some Asian programming," said Jay Clark, Sirius executive vice-

and older in the New York Metro Survey area, and 330,000 in Los Angeles. They listen to radio an average of 16 hours each week.

"We decided to partner with MultiCultural because they own radio sta-

Sean Kim, CFO of the broadcaster. He did not specify how it would be different.

A Korean-language news/talk program began on Sirius in August, to be followed by a Chinese pop music channel next year.

Tom Barnes, founder/owner of

ARBITRON

Chinese-English Bilingual Radio Diary

Designed for the Arbitron Winter 2005 survey of radio listening by Chinese-Americans in New York and Los Angeles.



Arbitron began surveying the radio listening of Chinese-American consumers using bilingual Chinese-English diaries in Los Angeles and New York last winter. The study was done on behalf of Multicultural Radio Broadcasting.

MediaThink, a marketing and content planning agency in Atlanta, said the Sirius/MultiCultural partnership is a good use of satellite bandwidth.

"As satellite companies add channels, the smart way to go is with language-driven programming as opposed to yet another rock or country format," he said.

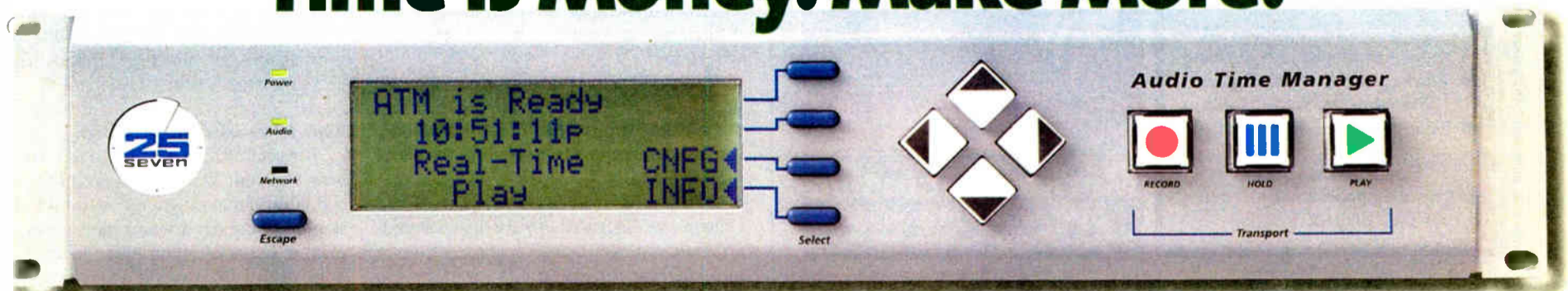
Asian speakers 35+ are the primary consumers of MultiCultural's Asian-language stations. The company is hoping to attract younger listeners with satellite.

"Younger people, many of whom are bilingual, listen to ethnic programming not because they don't have other options, but because it's more intriguing," said Kim.

But garnering younger listeners with satellite programs was not the reason MultiCultural wanted the Arbitron survey. It is hoping to use the results to attract more American advertisers to its stations.

See ASIAN, page 32

Time Is Money. Make More.



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You could put back the LOCAL features your listeners want. Make live events happen on YOUR cue. Drop breaking news into network shows, with no loss of content. Create extra ad avails when needed. Audio Time Manager gives you completely new control over time, so you can do these things and more. With audio quality so good, listeners won't know you're using it. Can you press two buttons? Congratulations - you now control time.



Help: It Doesn't Matter Why

After it became clear that much of the Gulf Coast was a disaster area, a close radio buddy of mine surprised me with a cynical, yet insightful, question: "Do radio stations get involved in relief projects just so they can toot their own horn, or do they do it because they really want to help?"

My initial reaction to the question wasn't good. In fact, I got downright depressed for an entire day, because I know in my heart of hearts that many programmers and marketing people do think of what we call "branding opportunities" first, and only later (if at all) about the reality of those in need.

I slept on it and awoke with a different, more optimistic perspective.

I concluded that it doesn't really matter why managers decide to participate in disaster aid promotions. It only matters that they do participate, as long as they do it effectively.

Why? Because the public truly is counting on radio to do good; and our industry has proven for over eight decades that we excel at it.

This altruistic talk could seem syrupy in what is typically a nuts-and-bolts column; but the question affected me deeply enough to share. I hope that once the idea comes to the surface in your mind, you'll lean more toward doing the right thing whenever possible, even if it seems that the right reasons are in the background.

Let's a review things that can be done to help those hit by natural disasters.

Your particular Katrina effort may or may not be finished; and the need for it may well exist for a long time yet.

Regardless, at some point in the future this discussion will be helpful so keep it on file.

The immediate demand after a disaster usually is for cash and blood. Most of the time, big agencies will discourage radio stations from asking for anything else.

Most of the time, big agencies will discourage stations from asking for anything but cash and blood in the days after a disaster.

Cash is wonderful because it enables relief agencies to purchase what they feel is needed right away. The materials are purchased in bulk and, still in place on shipping pallets, make a quick journey, sometimes with shipping costs included.

One simple choice is for stations to go on-air and solicit donations directly for relief agencies. We can push phone numbers and Web addresses where anyone can donate cash easily.

I suggest you supplement this approach with something unique that will make listeners respond with larger sums. Auctions on morning shows work great. I've seen front-row seats and backstage passes to a concert go for \$10,000 in less

than an hour.

If you don't have access to seats, try something else that money can't buy, like an hour as a guest DJ on your station, or lunch with the morning show, or golf with a sports celebrity, or autographed items like signed guitars.

Auctions should last no longer than one hour. I've tried auctioning an item for two, three, even four hours, but surprisingly, the donation did not significantly increase just because we kept at it.

For big money, you'll end up with two or three people who bid each other up, a scene that doesn't change with the length of time you stay on-air with that item. If

Promo Power



by Mark Lapidus

you feel compelled to go for more than an hour, keep things moving and do a second item.

Team up

Another terrific way to raise money is to partner with a TV station.

Gather your personalities and their news people for a remote at a bank or grocery store, with plenty of satellite drop-off locations where listeners/viewers can bring checks and cash. TV stations enjoy working with radio in these situations because radio usually has more experience and better contacts to execute this type of relief effort.

See HELP, page 33 ▶

Asian

▶ Continued from page 31

Late last year, when Arbitron announced it would begin surveying radio listening of Chinese-Americans using bilingual diaries, Multicultural CEO Arthur Liu described the

have been very favorable."

Clark said the appeal of Asian programming on satellite is that Asian-speaking listeners will be able to take the programming with them when they travel or move out of big cities into areas that don't have Asian-language radio.

"There are all sorts of ways of looking at this to prove it's a profitable model," he

Asian Metros

The top 10 radio metros for Asian Americans by population, according to Arbitron, are:

Market	Asian Persons 18+ Population	Total Persons 18+ Population	Asian % of Total Persons
1 Los Angeles	642,345	9,443,800	6.8%
2 San Francisco	577,945	5,448,300	10.6%
3 New York	530,880	13,840,900	3.8%
4 Honolulu	287,660	696,500	41.3%
5 San Jose	209,990	1,324,600	15.9%
6 Chicago	183,805	6,798,300	2.7%
7 Washington	144,385	3,638,800	4.0%
8 Seattle	130,090	2,836,500	4.6%
9 Boston	104,435	3,522,500	3.0%
10 San Diego	104,095	2,230,900	4.7%

Chinese-American community as a "a significant up-and-coming niche market for advertisers."

Comparing it to the Hispanic market 20 years ago, he said the Asian population in this country is growing at an extraordinary rate," with unparalleled education and income levels.

Arbitron found 53.6 percent of the Chinese-speaking Asian Americans attended some college and 23.1 percent live in households with incomes greater than \$75,000.

"It costs a lot of money to come to this country from Asia, so a lot of Asians coming here are well-off financially," said Kim. "We've been showing the report to American businesses and American advertising agencies, and the initial responses

said. "The 20-something may get Sirius for all the other programming and the Asian formats will be something perhaps his parents or grandparents will listen to."

The face of Asian radio

The start of Asian-language radio mirrors how Hispanic stations began: block news and information programming on small AM stations in big cities with a large ethnic population. Information on Asian-language stations ranges from world and national news to how to navigate the bureaucracy of immigration.

MultiCultural has Asian programming in New York, Boston, Los Angeles, San Francisco, San Jose, Calif., and Houston.

Salem Radio Network airs Vietnamese talk and Korean Christian programming on

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Help

► Continued from page 32

Another donation needed after a disaster is essentials like food, water, clothing and toiletries. And it's as true as your blood type; there are many folks who will never open their wallets to donate cash, but will gladly bring you a six-pack of water or a bag of diapers.

Many people feel that donating "stuff" rather than cash is better because it's tangible and they'll know exactly how their money was spent. And physically getting stuff to you makes the donator feel more involved. This is fine; after all, this thinking comes naturally to our individualist and/or generous culture. So, the big issue is making absolutely sure that whatever items your station is going to collect are needed, and that logistics are in place.

This isn't something you should decide on your own. You need advice from a real relief agency, like a food bank that's directly involved in the larger effort.

The first thing you'll learn is that collection is just part of the process. The more difficult part is sorting into categories, putting into containers appropriate for the food or materials, and making sure those containers will fit into the trucks or trains that will eventually deliver the goods.

KXXM(AM) in Orange County, Calif. Terry Fahy is vice president and general manager of Salem's Los Angeles cluster. He said KXXM has aired Asian programming for at least nine years. While he doesn't think Asian will get as big as Hispanic programming, he anticipates it will continue to grow.

"These Asian formats are based on a broker model. My impression is Hispanic radio was more advertising-driven because there were Hispanic interests who bought stations," Fahy said. "I think Asian programming can become advertiser-driven, but it's going to take Asian people buying stations to get there."

Robert Unmacht, partner/consultant iN3 Partners in Nashville, agrees that Asian-language radio can get bigger, especially in cities with large Asian-speaking populations. As it grows, there will be competition for American advertising dollars.

"Most of the advertising now is Asian businesses, but some are American businesses who know the value of the Asian dollar," he said. "This format services a pretty important need; giving information in a language listeners are comfortable with."

He said one of the hurdles for Asian radio is the potential for listeners. "I don't think we'll ever have the Asian-speaking population in the U.S. that rivals Hispanics," he said.

There are also language barriers with which Asian formats must deal. Korean is different than Japanese, which is different from Vietnamese. China has several languages alone.

But no matter how big Asian-language programming gets, Kim feels Asian and English radio can coexist.

"We have a younger generation that is bilingual, so they will consume both Asian and English programming," he said. "And we have people who are not fluent in English so they probably won't be able to consume so much of the American stations."

"I don't think it'll be a competitive situation."

What happens when you realize it's time for your station to move away from disaster relief and back to business as usual? Consider continuing public service announcements and running relief information on your audio streams and on Web sites. Help will be needed long after the disaster has left the front page of the newspapers; those in our business with a true conscience can find many ways to contribute.


It's during times of disaster that we owe it to everyone to use the power of radio to do good. Do the right thing, be effective — and it'll always be for the right reasons.

The author is president of Lapidus Media. Write him at marklapidus@yahoo.com.

RW welcomes letters to the editor on this and all stories. Write to radioworld@imaspub.com.

WE GIVE YOU COLE

Name: Harry Cole
Profession: Attorney
Favorite station growing up: WICE, 1290 in Providence. I won the "Save Batman" contest in 1966.
Biggest court cases: Briefed and argued one side in the 1990 Metro Broadcasting case involving affirmative action in federal decision-making, and member of the briefing team on behalf of Pacifica Foundation in the 1978 "Seven Dirty Words" case, both in the U.S. Supreme Court
Radio experience: Member of the "Think Tank," music and TV trivia buffs who were part of Howard Stern's show on DC-101 in Washington, 1981-82. I'm mentioned in "Private Parts" but my name is misspelled
Other interests: Writing Cole's Law for RW, guitar playing, baking, crossword puzzle construction and solving



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People News



We're particularly interested in hearing news about radio engineers and managers. Send via e-mail to radioworld@imaspub.com.

John W. Matthews was promoted to

VP of engineering for **Radio One Inc.** He had served as director of engineering since February 2000.

Myron Fanton joined the RF engineering division of **Electronics Research Inc.** as senior RF engineer. He had held senior engineering positions at Andrew Corp.

Kent Aschenbrenner was promoted to director of engineering for the Great Lakes region for the **Journal Broadcast Group's** Lansing, Mich., Green Bay, Wis., and Milwaukee locations. He had been director of engineering for the Milwaukee radio and television operations.



Myron Fanton

Broadcast Engineering promoted **Jay Linderer** to director, RF engineering. He had been head of the company's Technical Services department, established in July.

Bruce Young joined **Radio-sophy** as chief technology officer. He had been CTO for Digital 5 Inc. Prior to Digital 5, he served as director of engineering for the consumer solutions group at Gateway Computers.

Andy Laird was promoted to VP, chief technology officer for the **Journal Broadcast Group.** He replaces Randy Price, who retired in May. Laird had



Jay Linderer

served as VP, engineering for the last seven years.

Thomas R. Ray III was named VP/corporate director of engineering for **Buckley Broadcasting.** He had been corporate director of engineering.

APT appointed **Art Constantine** VP, North America operations. He held a senior marketing position with Musicam USA.

Greater Media Philadelphia Assistant Chief Engineer **John Arndt** was certified with the SBE's AM Directional Certification during the organization's June

See PEOPLE, page 35 ▶



John Arndt

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People

► Continued from page 34 certification process.

National Association of Shortwave Broadcasters board member **Donnie Dempsey** left his job as director of engineering at EWTN Worldwide Catholic Radio, and is now working for **Turner Broadcasting**. He had provided technical support for the recent HFCC conference in Mexico City, which NFSSB sponsored.

The Society of Broadcast Engineers named the winners of its 2004 SBE National Awards. The Engineer of the Year award went to **Theodore "Ted" H. Szypulski, CPBE**, director of engineering special projects for ESPN in Bristol, Conn. ... Educator of the Year went to **Lawrence "Larry" B. Bloomfield** for Florence, Ore., who has served as a TV station chief and contributing writer for industry publications, built an AM radio station and published the Tech-Notes electronic newsletter since 1997.

Steven K. Burns was appointed chief operating officer for **IREC (Crown Broadcast)** by its board of directors, and continues as its chief financial officer.

Willie Mae McIver, national program director for **ABC Radio Networks'** 24-hour gospel music format Rejoice! Musical Soul Food, was named Radio Executive of the Year by the National Association of Black Female Executives in Music and Entertainment. ... **ABC News Radio** promoted **Jeff Fitzgerald** to director, operations. He joined the company in 1995 as a technical support technician, and has since served as associate and senior producer.

Joe Di Scipio joined the law firm of **Fletcher, Heald & Hildreth** as special counsel. He had worked in private practice for several years after leaving the FCC, where he served as an attorney in its Compliance and Information Bureau, and the Common Carrier Bureau.

The board of directors of **Radio Free Asia** appointed **Libby Liu** as the organization's new president. She had been VP for administration and finance. She succeeds founding president **Richard Richter**, who retired in July.

Broadcast innovator and longtime **Harris Corp.** employee **Hilmer Swanson** died in July in Mendon, Ill. He was with the company's Broadcast Communications Division for 35 years and



Hilmer Swanson

is credited with the invention of AM modulation types such as Pulse Duration, Progressive Series and Digital Amplitude. ... **Harris' Broadcast Communications Division** appointed **Les Wyatt** VP and general manager of its Software Systems business unit. He had been group VP and general manager of EnterpriseOne at PeopleSoft.

Beasley Broadcast Group announced the winners of its Annual Operating Awards. **Brad Beasley** was named Market Manager of the Year. He is market manager of the company's five-station cluster in Fort Myers/Naples, Fla. **Robert Hallman** was named Sales Manager of the Year. He serves as general sales manager for

the Fort Myers/Naples cluster. **Jeff Anderson**, program director of **WZFX(FM)** and **WUKS(FM)** in Fayetteville, N.C., was selected as Program Director of the Year. ... Additionally, **Beasley Broadcast Group** Executive VP and CFO **Caroline Beasley** was appointed to the NAB Radio Board. She fills the vacancy created following the election of Bruce Reese as NAB Joint Board Chairman.

Pierre Bouvard, Erica Farber and **Dawson "Tack" Nail** were elected to the Library of American Broadcasting Foundation's board for a three-year term. **Bouvard** is president of Portable People Meter & International for Arbitron Inc. **Farber** is publisher/CEO of Radio & Records. **Nail** is the executive editor, Emeritus of Communications Daily.

Al Casazza was named market man-

ager for **Infinity Broadcasting's** stations in Rochester, N.Y., and also serves as vice president and general manager of FM stations **WCMF, WRMM, WZNE** and **WPXY**. He had been general sales manager of **WRMM** and **WCMF** since 2004. ... **Steve Cottingim** was named senior VP and market manager for **Infinity Sacramento**. He had been general manager of **KNCI(FM)** and **KHWD(FM)**, and the SVP of sales for the company's six-station cluster in the city.

Gloria Kestenbaum joined **Katz Media Group** in New York as director, corporate communications. She had been manager of marketing communications for Arbitron Inc.

Clear Channel Communications named **Michael Rapino** CEO of **Clear Channel Entertainment**. He replaces

Randall Mays, who was named interim chairman and CEO earlier this year.

Washington's **WWDC(FM)** appointed **Rick Schmidt** program director. He had been program director for **WDCG(FM)** in Raleigh, N.C.

Jennifer Betka joined **Sirius Satellite Radio** as VP, interactive. She had been VP, global marketing for **Time Warner**.

Bob Huntley was appointed general manager of **Clear Channel Radio's** Columbia, S.C. cluster. He was director of sales there.

Premiere Radio Networks appointed **Alissa Pollack** VP, music initiatives. She continues to represent **Premiere Radio's** entertainment programming services to major market stations. Prior to joining the company, **Pollack** worked as a producer for the nationally syndicated **Love Phones** call-in show. 🌐

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COLE'S LAW

Who Owns What, and Where

Calculation of Compliance Can Be Tricky In Current Multiple-Station Ownership Rules

by Harry Cole

Now that the proverbial dust has had a year to accumulate on "new" radio ownership rules — actually, the dust motes have had more than two years to settle, but the rules were stayed for 14 months, so we won't count that time — let's revisit the rules to remind ourselves how compliance is calculated.

It is not a simple, intuitive process.

The rules impose no overall limit on the number of radio stations a commercial operator may own on a nationwide basis. But the number of commercial stations that may be owned in any particular market is limited.

The theory is that undue concentrations of control will have their primary adverse effect locally; so the rules are set up to operate locally, on a market-by-market basis.

Interestingly, despite the hoopla attending their adoption in 2003, the new rules did not alter the maximum numbers of stations a licensee could hold in any market. (See chart for a summary of the numerical limits.) But they did alter the way "markets" were to be identified.

Figuring it out

To a degree the rules make life a bit easier for many folks because the commission decided to rely on existing, non-FCC sources for some of the heavy lifting.

Those sources are the nice folks at Arbitron, the audience measurement company, and BIA, a broadcast consulting service.

Where Arbitron has defined Metro Survey Areas (or "Arbitron Metros"), those areas define local markets for FCC multiple ownership purposes.

If you happen to be in an Arbitron Metro, the analysis is easy, although not necessarily as easy as you might think.

Once you know you're in an Arbitron Metro market, you have to fire up BIA's Media Access Pro database. BIA will be

happy to sell you a copy of the program; also, most communications attorneys and consultants have copies.

will give you the total number of stations in the relevant market. You can use that number to determine what limits apply to local commercial radio ownership in that market.

And if you're not happy with the numbers that BIA gives, you have the option

CALLS	AM or FM	Format	Market Name	Market Rank	Revenue Rank-Market
WALY	FM	Oldies	Altoona, PA	263	222
WBRX	FM	Clisc Rock	Altoona, PA	263	222
WBRQ	FM	Clisc Rock	Altoona, PA	263	222
WFBG	AM	Talk	Altoona, PA	263	222
WFGY	FM	Country	Altoona, PA	263	222
WGMF	FM	CHR	Altoona, PA	263	222
WRKY	FM	Rock AC	Altoona, PA	263	222
WJSM	FM	Christian	Altoona, PA	263	222
WJSM	AM	Christian	Altoona, PA	263	222
WJMC	AM	Adult Hits	Altoona, PA	263	222
WWO1	FM	Top 40	Altoona, PA	263	222
WRTA	AM	News/Talk	Altoona, PA	263	222
WTRN	AM	AC	Altoona, PA	263	222
WWAM	AM	Sports	Altoona, PA	263	222

BIA Media Access Pro showing the results of a search for stations in Altoona, Pa., market.

BIA's stats and market analyses tend to be considerably more detailed than Arbitron's. Where Arbitron includes in its Metro markets only commercial stations that meet certain minimum reporting standards, BIA tends to include all commercial and noncommercial stations licensed in the Arbitron Metro, along with some stations licensed to communities outside the Arbitron Metro and foreign stations.

As far as the FCC is concerned, the universe of stations in a market includes commercial, NCE and foreign stations designated by BIA as "home" to (or "above-the-line" in) the Arbitron Metro, along with any other licensed stations (commercial or NCE) whose communities are located within the boundaries of the Arbitron Metro.

The BIA Media Access Pro program

of trying to convince Arbitron and BIA to change the market listings, moving one or more stations into or out of the market. If you do happen to succeed in getting

If you're not happy with the numbers BIA gives you, you have the option of trying to convince Arbitron and BIA to change the market listings.

Arbitron and/or BIA to alter their databases, you will have to wait two years before the FCC will recognize the change for multiple ownership purposes.

The other guys

What if you don't happen to be in one of the 287 Arbitron Metros? After all, those markets cover only about 60 percent of the commercial radio stations (and 30 percent of the counties) in the country, which obviously leaves out a bunch of folks.

The FCC wasn't quite sure what to do about such non-Arbitron areas, and it's still thinking about that problem in the context of an on-going rule making proceeding.

But in the meantime, non-Arbitron markets are to be calculated using a modified version of the "contour overlap" method that was used by the commission before the "new" rules were adopted in 2003.

The new, improved contour overlap method defines the number of stations in a market as the total of:

(a) the stations with overlapping city-grade contours owned by the entity being

analyzed, and

(b) all other stations whose city-grade contours overlap any part of the contours of any of that entity's stations included in (a) above, but *not* including any stations owned by the entity being analyzed whose contours do not overlap the "common overlap area" of the stations being analyzed, and also *not* including any stations with transmitter sites more than 58 miles from the edge of the "common overlap area" of the stations being analyzed.

That sounds complicated because it is — another good reason competent engineering consultants are well paid.

While it is theoretically possible for a layperson with a modicum of knowledge to put together a reliable contour overlap analysis, it is equally possible that a bunch of armadillos with typewriters will produce the complete works of Shakespeare. If you have to submit a multiple ownership study based on contour overlap, you are well advised to rely on your consultant from the get-go.

And for those deals involving any station listed by BIA as home to an Arbitron Metro but whose community of license is outside the boundaries of that Metro, you will have to demonstrate compliance with both the Arbitron/BIA method *and* the contour overlap method.

Time to file

Multiple ownership showings must be included with many, if not most, radio-related applications (new construction permits, facilities modifications, assignments and transfers).

If you are planning on filing any such application, you should be sure to factor

prep time for the multiple showing analysis into the overall time necessary to put the application together.

Applicants for assignments or transfers may have such an analysis in the can. That's because it is prudent, if not contractually required, to have that piece of homework in the *finito* file even before the contract is signed, because the buying party often is expected to warrant and represent that the buyer is qualified to purchase the station(s) in question.

As noted, the FCC is at this writing still thinking about possible alternatives to the contour overlap methodology. We cannot predict with certainty when a decision may be reached. The question of multiple ownership remains politically sensitive, so it is possible that further tweaks may not be adopted and implemented for a year or more. The current system may be with us for the foreseeable future.

If you have questions about market calculations, contact your communications counsel and/or consulting engineer.

Harry Cole is a member of the law firm of Fletcher, Heald & Hildreth PLC. He can be reached at (703) 812-0483 or on the Internet at cole@fhllaw.com.

Number of full-power station (commercial and NCE) in the market	Number of commercial stations that may be commonly owned
45 or more	No more than 8 total, no more than 5 in the same service
30-44	No more than 7 total, no more than 4 in the same service
15-29	No more than 6 total, no more than 4 in the same service
14 or fewer	No more than 5 total, no more than 3 in the same service (but no person or entity may hold cognizable interests in more than 50% of the full-power stations in the market, unless the combination of stations comprises no more than one AM and one FM station)

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Studio Decisions
Michael Ring works out the implications of digital radio in a smaller market
Page 16

Multicasting at WFAE
A North Carolina public station splits its FM signal three ways
Page 14

and Long Hours — at the Top

Wing for Radio Is Not ... Might Think

Research Shows Fractured Audiences

by Ken R.

You got your FM. You got your AM. But now you also can get satellite radio, Internet stations and soon music from your cell phone. We won't even mention iPods, portable CD players and other ways to listen to pre-recorded material.

Gracious, Harriet! Bar the doors!

Sometimes it's hard for a radio person to know what to make of all these competing media.

For instance, with new choices competing for attention, are people spending less time with traditional radio? You bet. Especially teenagers.

A Jupiter Research Consumer Survey Report earlier this year found that media consumption in 2004 was dominated by TV and the Internet, each of which commanded about 10 hours of a typical consumer's week. For the Internet, that of course was up from 0 hours just a few years ago.

By comparison, radio got about five hours, which was down from 11 hours per week in 2003. But radio didn't take as big a hit as activities such as watching TV or reading books, magazines and newspapers, all of which dropped off more precipitously (books checked in at three hours, magazines and newspapers one hour each).

Teens lead the way

Alternative and CHR are big formats on the Internet, heard by at least 26 and 24 percent of the participants, respectively, in a 2005 Arbitron/Edison Media Research study. That implies that young'uns are among the most common early adapters. While some of what they are listening to is repurposed FM, new Internet-only stations are popping up every week. You can see www.live365.com for a sampling.

The National Association of Broadcasters took note of this trend and in response created the promotional campaign "Radio: You Hear It Here First." Group owners such as ABC, Clear Channel, Cumulus, Entercom, Infinity and others agreed to air spots in which genre luminaries such as Ludacris (rap), Alicia Keys (soul) and Brad Paisley (country) explained why radio is important to them.

"Research is great, but it's choked the radio business," said consultant Bill Hennes, president of North Carolina-based Bill Hennes & Associates.

"It gets back to taking a chance on new music. You can't base everything on 'playing it safe,' which is what programmers have done. That's why formats like 'Jack' and now 'Hank' in Indianapolis, WLHK(FM), are on the air. They play a bigger variety.

"The hits will always be the key, but many program directors are not interested in being creative and playing more than just the top 10."

Perhaps a broader playlist will bring lis-

teners back to traditional radio. But the lure of commercial-free satellite brands is tough compete with. While XM or Sirius Satellite Radio still reach only a small percentage of Americans, XM alone has netted 4.4 million subscribers since it launched in early 2002. More car manufacturers are installing satellite-ready radios every year, which encourages subscriptions. XM and Sirius offer more than 130 channels, covering everything from world music to big band standards to talk.

Meanwhile, as of this writing, New York, the largest market in the United States, had no oldies, big-band standards or country stations. Perhaps group owners feel these formats are not viable, but NYC listeners can

get their fix on satellite in multiple varieties.

And with wider availability of affordable broadband, don't expect people to give up their online experience. Web sites allow listeners to interact with their favorite stations and personalities in ways they never could. And folks can hear stations and formats that don't exist on the dial in their cities.

All is not lost

A glint of hope for terrestrial radio came in a study released in August of this year, prepared by Paragon Media Strategies, which interviewed 400 respondents between the ages of 15 and 64. One finding is that radio is still the primary source for listening to music,

above purchased CDs, television, music downloads, satellite and Internet.

"Despite the recent proliferation of music sources, radio continues its stronghold as the leading source of hearing music and finding new music," stated Mike Henry, CEO. "Radio accounts for roughly half of the responses to both questions: 'What is your primary source for listening to music?' and 'What is your primary source for learning about new music?'"

Details of this study are at www.paragonmediastrategies.com.

So will people be listening to Britney Spears on their cell phones soon? While that possibility may sound revolting to some, it may come to pass. But we can be sure that the radio audience will demand options, and they will go wherever they can to find them.



Paragon Media Strategies CEO Mike Henry says despite the proliferation of music sources, radio continues its stronghold as the leading source of hearing music and finding new music.



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Pod2Mob Streams Podcasts to Cellphones

by James Careless

Will consumers pay to stream podcasts to their cellphones? Pod2Mob is betting that they will. The Los Angeles company has launched www.pod2mob.com, a subscription service — free for now — that lets users select the podcasts they want to hear from an ever-updated list of thousands, then streams their selections to their cellphones as wireless data.

“Our concept is based on the fact that people have cellphones with them all the time,” said co-founder Brad Zutaut. “Why shouldn’t they get content on them?”

Practical questions

At first glance, the logic behind Pod2Mob seems, well, illogical. Although it is true that people carry cellphones with them, most of these units lack the capability to reproduce stereo sound. As a result, sending podcasts to these units would be akin to watching movies on a cellphone’s tiny LCD display: You could do it, but would you?

Zutaut said, “A lot of podcasts are based on voice, not music. For instance, [podcasting inventor] Adam Curry has the leading show in podcasting, and its mostly spoken word.” As such, audio quality isn’t a big issue, since telephones handle spoken word sound as a matter of course. Moreover, Zutaut asserted that the audio provided by single-ear, hands-free headsets and regular handset earpieces is good enough for spoken word listening.

“In fact, a lot of talk sounds great on most existing handsets,” he told Radio World.

But why stream the audio, rather than send the podcast out as a complete data file? The problem is that most current cellphones



lack storage capacity, Zutaut said. As a result, the most practical solution is for Pod2Mob to access the podcast, then stream the audio over the wireless Web to the user’s handset.

“We provide these feeds to WAP and Java-enabled cellphones,” he said.

The reliance on streaming audio might set off alarms. Surely this would run a cellphone’s monthly airtime bills through the roof?

Zutaut acknowledged this but argued that major cellphone carriers such as Sprint PCS, Cingular and T-Mobile now provide unlimited data downloads for a set monthly fee. In this way, they act like wireless ISPs,

allowing users to stream as much audio as they please without racking up obscene airtime charges.

“I believe there’s nothing magical about my mobile phone: It’s just a little computer with a wireless data connection,” Zutaut said.

“As a result, I don’t expect to be charged for every little kilobit: I want to pay one monthly fee for unlimited access, as I do with my ISP.”

Early days

Given that wireless carriers are selling packages of streamed audio and video channels, Pod2Mob’s notion that podcasts could

pay doesn’t seem off the mark.

However, one might wonder where the podcast money is for Pod2Mob in particular: How will it turn a profit on their efforts?

“We have a lot of different business models,” said Zutaut. Once Pod2Mob has built a large base of free subscribers — what Zutaut calls “our crowd” — the company will try charging a fee, either for the entire package or for certain premium channels.

“We also have the ability to interject visual commercials into our cellphone feeds — they would show up on the user’s handset screen — and we believe advertisers will pay to access this service,” he said. “We could also charge podcasters to upload their services to cellphones through Pod2Mob.”

With Pod2Mob having launched on Aug. 22, it is too soon to predict how well the service will do. Certainly the fact that it is being offered for free should make a difference; as long as cellphone subscribers are willing to consume airtime by streaming podcasts to their phones.

To bolster its credibility, Pod2Mob’s introductory news release made much of the fact that, “According to Gartner Research, sales of mobile phones are set to hit 1 billion annually by 2009, when nearly 40 percent of the world’s population will own a mobile handset.”

The accuracy of such optimistic predictions aside — there were lots of them right up to the bursting of the dot.com bubble — what really matters is whether this population will actually use their handsets to hear podcasts.

Perhaps wireless carriers will adopt low-cost flat-rate data packages as a matter of course, and podcasting will move beyond being a counter-culture media darling and become a mass market phenomenon. If this happens, the company’s market strategy could pay off big time. And after all, who initially thought that Napster would become a major player? 📱

Satellite: ‘Unprecedented Expansion’; Broadcast: Tempered Growth

Broadcast radio spending has lagged growth in the U.S. gross domestic product for two years and likely will continue to grow only slowly in coming years, says Veronis Suhler Stevenson.

“We believe the broadcast radio sector is transitioning from a growth business to a mature one, as a result of near-term pricing issues due to overcapacity, the lack of a sophisticated local sales management system and increased competition from local cable and satellite radio,” the investment firm stated in its annual “Communications Industry Forecast.”

“Additionally, we don’t foresee a significant event similar to the Internet advertising boom of the late 1990s. Therefore, we expect the growth of broadcast radio advertising to be more in line with, if not trailing, that of GDP over the next five years.

“As a result, broadcast radio will perform only slightly better in 2005 vs. 2004, with advertising increasing 2.7 percent to \$20.55 billion.”

It said the impact of digital radio and Internet podcasts, and the efforts to reduce ad clutter, could help radio exceed its expectations. On the other hand, it cited several more troubling developments including a slowdown in national spot advertising and the departure of Howard Stern.

Outlook

The company projected spending on terrestrial radio advertising to grow at a compound annual rate of 4 percent from 2004

to 2009, reaching \$24.34 billion in 2009, driven by 4 percent compound annual growth in local ad spending, 3.8 percent growth in national spot and 4.8 percent growth in network.

Overall, it found, spending on radio — broadcast plus satellite, including subscriptions and ads — increased 3.1 percent in 2004 to \$20.31 billion, “mainly on the strength of consumer spending on satellite radio subscriptions.”

As a result of a weak advertising market during the recession and decelerating growth, spending on broadcast and satellite grew only at a compound annual rate of 2.8 percent over the past five years.

“Broadcast radio advertising expenditures increased 2.1 percent to \$20.01 billion in 2004, accelerating only slightly over the growth pace in 2003 despite faster GDP growth, record spending on political and Olympics advertising, and additional advertising related to a plethora of new car launches.”

Local advertising, which accounts for more than three-fourths of broadcast radio spending, grew 2.5 percent to \$15.48 billion in 2004; national spot declined 0.5 percent to \$3.45 billion and network spending increased 4.6 percent to \$1.08 billion.

Satellite radio spending, including subscriptions and advertising, rose 208.6 percent in 2004 to \$293 million. Subscription expenditures grew to \$284 million and ad spending increased to \$9 million. Subscriptions accounted for 96.8

Percent Change in Spotload at Major Radio Groups in Top 9 Markets, 1Q 05 vs. 1Q 04

Owner	YoY Change in :30 Inventory	YoY Change in :60 Inventory	YoY Total Change In Inventory
Clear Channel	153.6%	-17.2%	-19.1%
Infinity	-3.3	0.4	1.1
Cox	21.5	-0.4	0.9
Emmis	5.0	-0.3	13.5
Salem	-28.7	1.2	-17.8
Beasley	-5.0	0.4	-13.5
Univision	-13.6	1.3	5.5
ABC/Disney	24.1	-3.7	-2.4
Radio One	45.7	-4.8	-10.7
Susquehanna	53.5	-3.3	3.1
Mount Wilson	27.6	-1.3	-4.3
Bonneville	-7.4	0.5	0.4
Total	40.7	-4.7	-4.3

Sources: Veronis Suhler Stevenson, PQ Media, Harris Nesbitt, Media Monitors

Chart excerpted from Veronis Suhler Stevenson’s ‘Communications Industry Forecast’ notes efforts to reduce ad clutter.

percent of spending.

“With a cadre of OEM, licensing and retail deals already completed or in negotiation, and a subscriber churn rate in the low single digits, we anticipate the number of subscribers to satellite radio will continue to grow at strong rates in 2005 and throughout the forecast period,” Veronis Suhler Stevenson said.

It predicts subscription and ad expenditures would again climb at triple-digit rates in 2005. Growth likely will decelerate but “the expansion will outpace all other media segments” in the coming five years, with radio subscription spending growing at a compound annual rate of 59 percent to \$2.88 billion in 2009, while ad expenditures will increase at a compound annual rate of 88.2 percent to \$222 million.

The company projects broadcast and satellite radio spending will grow at a compound annual rate of 6.2 percent from 2004 to 2009, reaching \$27.45 billion.

Beyond radio, it said the average American is expected to spend 10 hours a day with media by 2009, with highest hourly gains in home video, consumer Internet, and wireless content and interactive television.

It thinks digital-based media will drive average annual consumer spending on media over the \$1,000 threshold in 2009 for the first time.

And the communications industry as a whole is expected to top \$1 trillion in spending by 2009, becoming the fourth-largest and -fastest growing sector of the U.S. economy. 📱

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◆ READER'S FORUM ◆

Dispelling Myths About TDM Routing

"Building and Running a TCP/IP Audio Plant" by Tom Vernon (Sept. 1) spoke of the benefits of using a TCP/IP audio infrastructure in a broadcast facility, and included quotes by Mike Dosch regarding TDM routing systems that are simply not accurate and must be addressed.

Mr. Dosch states, "With an IP audio system, the differences in setup between stereo and surround are minimal. A traditional TDM system doesn't have this flexibility." While I can't speak for other TDM router manufacturers, the Logitek Audio Engine was surround sound-capable when it debuted in 1997. For us, the setup is the same regardless of the number of channels being used.

Just as you would link two sources together to create a stereo source, you can link six or eight channels to make a surround source. We have always featured that flexibility and there is no difference in the setup of surround vs. stereo.

Mr. Dosch goes on to say, "An IP audio system can be installed one studio at a time, while TDM requires the entire plant to be converted at once, usually at a significant expense." I'm not sure how he came to these conclusions, as they are not true for our equipment.

Logitek has many customers that have installed one or two studios' worth of equipment, or have converted their facilities in steps spanning several budget cycles. With either system, IP or TDM, the flexibility gained is proportional to the percentage of your facility using the system.

As for expense, every customer and application is different, but a Logitek system has not been proven to be significantly more expensive than putting in an IP-based system; our experience shows it to be less expensive than an IP system in many cases.

Mr. Dosch continues, saying "simplified wiring ... reduces cabling and labor costs." The Logitek TDM system uses the same cabling architecture as an IP-based system so the costs between the two systems are equal. You need to run a cable from each audio source to an IP or TDM box. The boxes connect together with a CAT-5 or fiber cable. There is no magical cost savings because you run IP data instead of audio over the same copper.

Finally, Mr. Vernon writes about cost savings by comparing a \$750 Ethernet switch to a \$50,000 TDM router. First, I'd already be retired and on my yacht if I was charging these prices: \$50,000 is about five times the price of a typical networked Logitek Audio Engine.

Second, \$750 just buys you an inexpensive, single Ethernet switch. What about all the converter boxes you need? I've yet to see anyone successfully wire a CD player, microphone or hybrid into an Ethernet switch. This is a silly and invalid comparison.

There are advantages to an IP-based audio system just as there are advantages to a TDM-based system, but to try to extol the benefits of an IP audio system by misrepresenting the facts about TDM systems is wrong. TDM router technology works and is cost effective, scalable across large and small systems and easy to install, manage and troubleshoot.

If you want to write an article about TCP/IP audio plants, great — everyone could read it and learn something. Keep the rubbish and misinformation from others out of it. This is not marked as an advertisement, editorial or a product review. As an article covering a developing technology, the author has a responsibility to check his facts instead of cluttering his piece with untruths about an established technology.

Cam Eicher
Director of Sales
Logitek Electronic Systems
Houston

Needle in a Haystack

The Pappas Museum of Broadcasting being established at KTRB in Modesto, Calif., is looking for cactus needles and equipment to play back aluminum disc recordings made in the early 1930s.

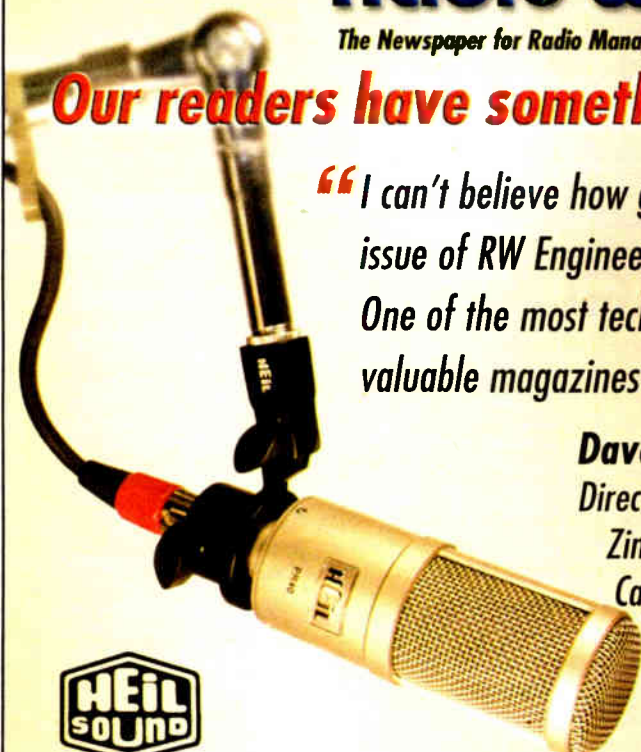
The recordings, embossed on soft aluminum discs in much the same manner as Edison's first tin foil cylinder phonograph, featured KTRB's first live talent show, the Swanee Cowboys. The museum is being established as a hometown legacy of KTRB, which went on the air in California's central valley in 1933 but is now preparing to move to San Fran under reassignment authorization of the FCC. KTRB operates on the Clear Channel frequency of 860 kHz, 50 kW. The local Modesto service is being replaced with a new station, assigned on 840 kHz, to operate with lower power under the call letters, KPMP. Harry Pappas, whose holdings include several radio and TV properties in California and the West, owns both KTRB and KPMP. Call letters of the latter were chosen to honor his twin brother broadcasters, Pete and Mike Pappas, now deceased.

The museum and library are intended as a legacy honoring the founder of KTRB, Bill Bates, who established the station as a pioneer in the central California valley in 1933, and continued to operate the station for the first half of its 70-year lifespan. There have been only two owners, the second being the Pappas family who acquired the facility in 1973.

A wing of the KPMP studios is being developed to house artifacts that will include hand-built early transmitters, wire recorders, teletypes and advancing technology of the past century. The library will have available stories and materials dating from the first California experimental broadcasting in 1913, with transmissions from San Jose to the Pan Pacific Exposition in San Fran Bay. Modulation at that time was accomplished by shouting into a water-cooled microphone, which was part of the antenna circuit. Unique to this library is a collection of 200 16-inch acetate discs of live KTRB programs recorded during war years 1941-1945.

Contribution of artifacts is welcome. In particular, old tone arms and fiber needles are needed to play the old soft aluminum discs, which will be dubbed onto CD for preservation. Complementary copies will be sent to those helping in this Herculean effort. Anyone interested may phone Mike Angelos at (559) 733-7800.

Cecil Lynch
Cecil Lynch Consulting Engineers
Modesto, Calif.



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◆ READER'S FORUM ◆

Radio World, October 12, 2005

HD Stands for Highly Destructive

The commission should immediately approve nighttime IBOC AM. Then, to encourage the digital conversion of all AM stations, it should waive 2006 regulatory fees for those stations that obtain an Ibiqity license before January. We must all convert, for a digital wind is coming, and the non-believers will be swept away — leaving the entire band a graveyard.

The commission might as well waive fees for remaining AM stations as well. Within two years after the widespread implementation of IBOC, half of these stations will be off the air — or might as well be, for no one will be able to hear them.

IBOC true believers claim digital interference is a problem with fringe-area signals. AM stations can no longer expect reception outside their "protected contours," sayeth the prophets of Ibiqity — a sacrifice on the road towards a bright digital future. Buy a license now, or become roadkill on the information highway.

For most daytime stations, FCC rules protect the .5 mV/m contour against harmful interference from first-adjacent-channel stations. The problem is IBOC consists of multiple carriers transmitted on the adjacent channels of the analog station. All legal, if you use a warped interpretation of FCC rules on AM spectrum occupancy.

As we analog RF engineering types know, the performance of most AM antennas, especially AM directional arrays, often is quite different + or -15 or 20 kHz away from the main channel. So adjacent-channel IBOC signals create on-channel digital interference to other stations.

On these first-adjacent channels, IBOC hash is a white noise, much like the sound of an open car window at 60 mph. Listen to Infinity's WWJ(AM), Detroit 950 in Findlay, Ohio. On WWJ's main channel, a deep null protects Forever Broadcasting's WLJM(AM), 940 in Lima, Ohio, by reducing WWJ's 950 signal to a whisper.

Indeed, WWJ's audio is badly chopped up by WLJM's adjacent-channel splatter, as it should be, for Findlay is inside WLJM's .5 daytime contour. But tune to 940, and all you hear is white noise from WWJ's digital signal.

Or try listening to the second-adjacent of an IBOC station. It's like the sound of 1,000 demonic cicadas — worse than a Cuban jammer with an open mic aimed at the diesel generator. Such as the reported interference inside the city-grade contour of WLBY(AM) 1290 in Saline, Mich., only about 25 miles from Infinity's WXYT(AM) 1270 in Detroit.

Not to pick on Infinity. IBOC on Clear Channel's WTPG(AM) 1230 in Columbus, Ohio makes similar rude noises, interfering with WHIZ(AM) in Zanesville, Ohio; while WOSU(AM) 820 Columbus did quite a number on WKNR(AM) 850 Cleveland when they tested IBOC. But this is daytime.

We've already had a taste of nighttime interference during last winter, as signals began to skip in advance of the 6 p.m. IBOC curfew. An example is IBOC interference from WBZ(AM) 1030 to KDKA(AM) 1020 Pittsburgh — interference heard inside the Pittsburgh's Arbitron

metro counties, as reported by a former KDKA AE, who knows KD's coverage day and night.

Ibiqity's response to claims of interference is to deny the problem, or claim that dramatically reduced AM analog coverage is the sacrifice we must make to reach the digital promised land. Notice, of course, it is not the IBOC station making this sacrifice.

During the Cold War, the nuclear powers recognized the doctrine of mutually assured destruction. Despite the temptation to take out the enemy with a decisive first strike, each side knew that enough nuclear missiles would survive to allow for a massive

retaliatory second strike. So the missiles were never fired.

Nighttime IBOC on AM is M.A.D.D. — Mutually Assigned Digital Destruction. Put enough digital signals on the air and we can, after 85 years, finally kill off "ancient modulation" once and for all. The future is digital! Digital satellite, digital iPods and digital CDs.

The Federal Radio Commission came into existence in the 1920s to bring order to the chaos of the AM bands. Ordering stations off the air, cutting powers, the FRC ended destructive interference between stations. The present FCC commissioners

either do not understand the concept of interference, or are determined to define it away by regulatory fiat. Witness BPL; witness the reckless expansion of FM translators.

Nighttime AM IBOC will surely be approved. But the commission cannot define away the laws of physics. Will we see the death of AM? Will there be Mutually Assured Digital Destruction? Perhaps there is one real broadcaster left to tell the Emperors of the Air they have no clothes.

Tom Taggart
Part-owner
WRRR(FM), WXCR(FM)
St. Marys, W.Va.



Chuck Lontine, circa 1986

Blast From the Past

Do you still look for old timers in old photos?

Here's one, circa 1986 from the photo archives of Infinity Broadcasting's KOME(FM) San Jose/San Francisco, Calif.

Featured in the 1986 photo is me, sales executive Chuck Lontine, at age 25 in front of the massive KOME Rock Bus. The KOME/Rock Bus was a Lontine idea that became a joint venture of Bay Area Rapid Transit and Santa Clara County to promote youth ridership in the south Bay. The KOME/Rock Bus rolled on for many years and Lontine rolled on to WLS(AM) in Chicago in 1989.

Chuck Lontine
Managing Director
Marconi Media Ventures
Denver

Moonlighting

Recently I was catching up on my back reading and was going through the Aug. 17 issue of Radio World. The issue spotlights a weird intersection of my broadcasting life and my second career as a photographer.

When I started reading, I hadn't noticed the teaser on the cover, nor the photograph in the upper right corner. Imagine my surprise to turn to page 34 and see one of my photographs displayed.

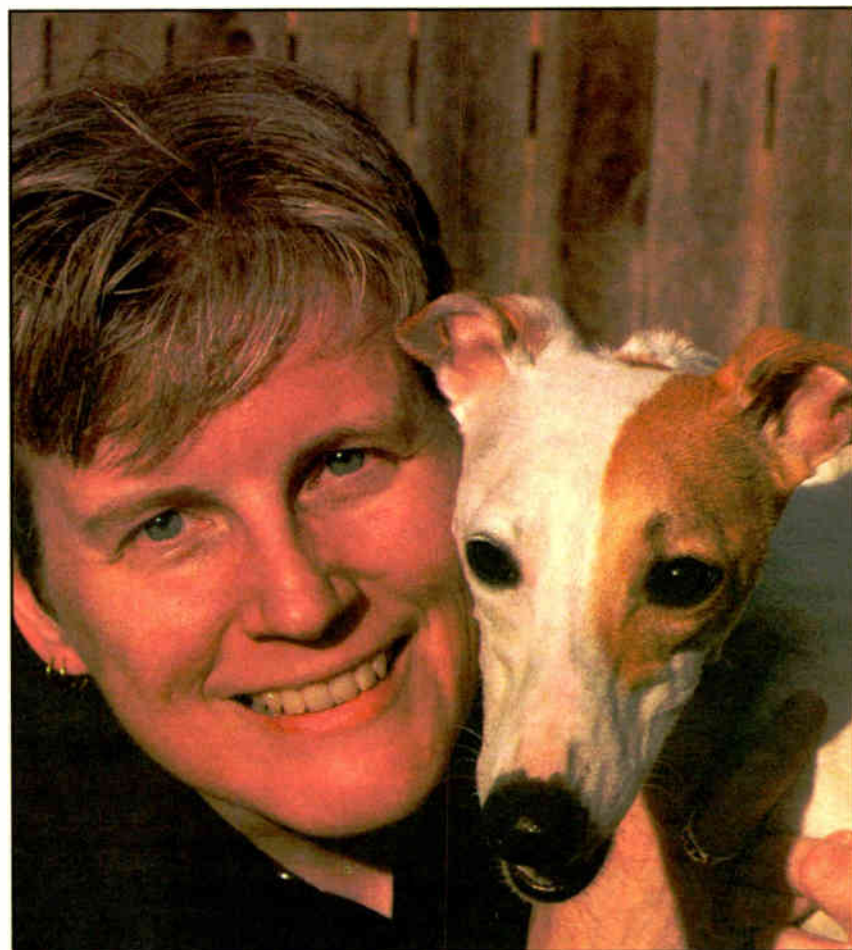
Then I noticed Paul McLane's article on WRR Radio's CD "Roll Over Beethoven." Look at the credits in the press package or on the CD folio, and you'll see the name "Margaret Bryant Photography." Yes, we are one and the same. Paul, I'm sure when you wrote the WRR article you had no idea the "local pet photographer" you wrote about was someone you knew!

I have a part-time dog photography business; the cat playing with the music notes on page 34 and the whippet with the violin on the cover are my images. The dog is my Sophie.

The bulldog on the cover of the CD is not mine, as they used stock photography before they found me. The folio inside images are mine.

So if you ever wondered what engineers do when they are not at work, you now know what this one does. I photograph dogs. Want to see more? Go to www.bryantdogphotography.com.

Margaret Bryant
Director, Engineering and Tech Ops
ABC Radio Networks
Dallas



Engineer Margaret Bryant has a dog photography business on the side, with assistance from her dog Sophie.

◆ READER'S FORUM ◆

Its Size Makes Clear Channel A Target

After reading the "poison pen" comments to Paul McLane and RW about the Clear Channel letter to shareholders ("Should We Stick to the News?", July 6), I felt compelled to add my opinions.

First, I wholeheartedly agree with Paul's comments about the "Clear Channel bashing" that goes on in the industry. Why is it so easy to constantly pick on Clear Channel? Sure, they're a behemoth, with more than 1,000 signals on the air. But you don't get to be that big without knowing what you're doing. They've built an empire that does an above-average job of serving the public, as any good broadcaster should.

Furthermore, Clear Channel has led the industry in many technical aspects of broadcasting. Though their "bandwidth reduction" idea was met with significant opposition, it has proven to be a viable way of reducing interference on the AM dial and making more efficient use of the spectrum by removing the frequencies that were of no use to the listener.

I don't know all of Clear Channel's motives as I do not work for the company. But I will say that the things I have seen it do, at least from an engineering standpoint, make a helluva lot of sense.

mean Clear Channel is to blame. There just isn't any true local support for it. If there were, you could be certain someone — it's Clear Channel, Crawford Broadcasting or another company — would be airing that format.

I'm supporting Clear Channel not because I have something to gain. I don't support any company just because of their size. I support companies because they are doing something right.

There are many large corporations (like a certain major software manufacturer) that I believe make an inferior product; I will not support them in any way. But just because someone is big doesn't mean they are bad.

*Edward C. Dulaney
Chief Engineer
Crawford Broadcasting Co.
Denver*

Modernize Management

I've been getting RW since 1981. Thanks for a great publication.

Since that time, I've seen several editorials suggesting that broadcast engineers should help train other would-be broadcast engineers, including "Recruiting Engineers" (March 16).

You know, I've actually tried to do that. More than once, I've tried to get an

People can complain about the loss of localism and the lack of unique formats, but don't blame Clear Channel for those problems. If there were a real need for those formats, someone would step up to the plate and do it.

—Edward C. Dulaney

People can complain about the loss of localism and the lack of unique formats, but don't blame Clear Channel. If there were a real need for those formats, someone would step up to the plate and do it.

The fact that there may be no full-time polka station in your market doesn't

intern program going. I was told our insurance wouldn't cover non-employees. So I said, "Why don't we hire the interns at minimum wage?" I was told there was no budget.

The answer was always the same, with variations on a theme. Translated, it was: "You don't need an assistant; you just

SBE Affirms Commitment to Frequency Coordination

For many years the Society of Broadcast Engineers has helped out the broadcast industry with its volunteer Frequency Coordination program. Recently, the SBE strengthened this program by offering accreditation to its coordinators.

Frequency coordination is an essential, but essentially thankless, task. The use of wireless technology for live broadcasting has multiplied over the last decades as costs associated with wireless equipment have decreased. It is now commonplace for many, if not most, broadcasters to use wireless microphones, wireless intercom or IFB, and wireless program links in covering events. The flexibility and high quality of this equipment add excitement and interest by allowing the broadcaster to be in the center of action.

But remote broadcasting of anything, from sporting events to political campaigns, would not be practicable if hordes of reporters and technicians descended on every venue with no regard to the physical limitations of available spectrum. The SBE has for many years helped to coordinate users at events and within local markets to prevent interference. Broadcast engineers are uniquely qualified for this type of coordination work due to their understanding of the technology behind it.

The SBE Frequency Coordination program works because it provides an essential service at low cost and without the paperwork burdens of typical government regulation. It is informal enough that most situations can be resolved with a phone call or two. By using local engineers who understand local markets, the SBE program can respond flexibly and fairly to all requests. This can often help smaller users who don't have the same economic clout as networks.

The society's move to offer accreditation is an important step to maintain confidence in this volunteer program. It reassures broadcasters that frequency coordination will be done in a consistent fashion, following national standards. It makes clear that all parties who wish to coordinate in good faith will be treated in an unbiased and professional manner.

This accreditation strengthens a good program and helps to keep it working in an increasingly complex world of wireless technology.

— RW

need to work harder." This in spite of the fact I wasn't trying to get a real assistant, just help someone get started. But that is how my suggestions were interpreted by management. No exceptions.

The only time I have heard a member of management complain about the supply of broadcast technicians was when they were off the air and no one would help because they had abused a previous employee or failed to pay a contractor. I still get those calls from time to time. But for the most part, I can tell you that broadcast management does not seem to have any serious concerns about the supply of technical labor. At least if they do,

they are well concealed.

The only people who've been complaining about a shortage all these years are overworked engineers.

What we call "broadcasting" rapidly is morphing into something different, with traditional terrestrial broadcasting as a component of a much more diversified business plan. One can only hope that, along with the new model, we get a more modern attitude about how management will train — and treat — technical employees.

*Gary Keener
Keener Technical Services
San Antonio*

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Radio World

Vol. 29, No. 25 October 12, 2005

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NEXT ISSUE OF RADIO WORLD OCTOBER 26, 2005
NEXT ISSUE OF ENGINEERING EXTRA OCTOBER 19, 2005

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Radio World (ISSN: 0274-8541) is published bi-weekly with additional issues in February, April, June, August, October and December by IMAS Publishing (USA), Inc., P.O. Box 1214, Falls Church, VA 22041. Phone: (703) 998-7600, Fax: (703) 998-2966. Periodicals postage rates are paid at Falls Church, VA 22046 and additional mailing offices. POSTMASTER: Send address changes to Radio World, P.O. Box 1214, Falls Church, VA 22041. REPRINTS: For reprints call or write Emmily Wilson, P.O. Box 1214, Falls Church, VA 22041; (703) 998-7600; Fax: (703) 998-2966. Copyright 2005 by IMAS Publishing (USA), Inc. All rights reserved.

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