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BR Stats

Radio's Roll Carries Into The New Year

The first revenue figures for 1998 are in, and they show that radio is picking up right where it left off in 1997. The industry enjoyed an 8% gain over January 1997, broken down into a 7% gain in local business, and a 12% gain in the still white-hot national category. This month's forward pacing report shows that the industry can expect more of the same.

The stock market in February again resembled the streets of Pamplona as the bulls ran rampant. Radio companies in general either kept pace or stayed a bit ahead of the herd.

Non-traditional revenue accounted for 12.2% of the average station's bottom line in 1997. That number figures to go up. Our chart shows what categories are hot.

More and more stations are adding Internet service. This month we compare current station by format totals with last year. The number of audiocasters on the web is close to three times what is was, and the pace of growth remains rapid.

— Dave Sevier

Radio Revenue Index

Radio Starts The Year Up 8%

The radio industry is expected to better its record-breaking revenue performance of 1997 by a considerable margin, getting off on the right foot with a healthy 8% improvement over the first month of last year. Local dollars increased by 7%, while national continued its double-digit soaring act with a 12% gain.

Results from coast to coast can be written in black ink. Although the Southeast hit a bit of a speed bump in local revenues, it made up some of the slack with a nice 13% jump in national dollars. The situation was reversed in the Southwest, where modest gains in national were offset by a hefty 12% gain. in local revenue

For the first time, the RAB is releasing actual dollar figures for the 100 or so markets which are monitored to produce industry revenue estimates. In those markets radio was able to bank \$30.7 Million more than it did last January.

January 1998	Local	National
All Markets	7%	12%
East	9%	8%
Southeast	1%	13%
Midwest	9%	6%
Southwest	12%	2%
West	7%	22%

Forward Pacing Report

Q2 Spot Pacing Springs Ahead of 1997

The demand for advertising time on radio remains very strong. Already, almost one half of April avails have been sold, and over a third of May inventory has been spoken for. All indications are that the radio industry is on track to best its best year ever by a comfortable margin.



Local & Nat'l Revenue December 1997 All Markets	8%
Total Cash (M), Monitored Markets January 1997 January 1998	\$ 377 .1 \$407.8

Superduopoly Dimensions

Industry Consolidation (as of March 9 1998)

ľ	as	01	Ivia	CH	υ,	1000

Superduopoly: 44.0%			
Market	# of stns	percent	
1 to 50	711	49.3	
51 to 100	503	46.0	
101 to 150	305	39.5	
151 to 200	332	41.8	
201 to 261	295	38.1	
All markets	2,146	44.0	

Total Industry: 67.5%				
Market	# of stns	percent		
1 to 50	1,040	72.1		
51 to 100	760	69.5		
101 to 150	468	60.5		
151 to 200	526	66.2		
201 to 261	500	65.0		
All markets	3,294	67.5		

Note: The "# of stns" shows the total count for stations in either a superduop or, in the case of total industry consolidation, in an LMA, duop or superduop. The "percent" column shows the extent of consolidation for each market segment.

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YTD Stock Performance

The bulls resumed their Wall Street stampede in February and radio stocks kept pace with the surging market. A few even did a lot better than keep pace. Pulitzer shot up nearly 34% after announcing that it might sell off its radio and TV stations. Only Alliance Broadcasting, a volatile penny stock, has done better among radio station owners. The best performers in MBR's chart, though, were the radio-related tech stocks. SportsLine USA's stock has already more than doubled this year, as has DG Systems.

	2/27/98	YTD	Pct.
Company	Close	Gain/Loss	Gain/Loss
Ackerley	19.063	2.125	12.55%
Alliance Bcg.	0.500	0.250	100.00%
Am. Radio Sys.	59.750	6.438	12.08%
AMSC	8.469	1.469	20.98%
Belo Corp.	54.750	-1.375	-2.45%
Big City Radio	9.875	1.750 1.500	21.54% 5.10%
CBS Corp.	30.938 15.875	-1.062	-6.27%
CD Radio	46.563	0.750	1.64%
Ceridian Chancellor	40.000	7.438	19.93%
Childrens Bcg.	3.313	-0.750	-18.45%
Clear Channel	90.500	11.063	13.93%
Cox Radio	43.000	2,750	6.83%
DG Systems	5.125	2.625	105.00%
Disney	111.938	12.938	13.07%
Emmis Bcg.	49.500	3.875	8.49%
Faircom	0.813	-0.031	-3.62%
Fisher	129.000	9,000	7.50%
Gaylord	34.000	2,063	6.46%
Granite	11.813	2.751	30.35%
Harris Corp.	50.750	4.875	10.63%
Heftel Bcg.	47.375	0.625	1.34%
Jacor	57.875	4.750	8.94%
Jeff-Pilot	83.875	6.000	7.70%
Jones Intercable	17.000	-0.438 4.125	-2.51% 12.60%
Metro Networks	36.875	-0.250	-12.50%
NBG Radio Networks New York Times	65,438	-0.688	-1.04%
News Comm.	1.375	-0.062	-4.31%
Otter Tail Power	37.875	0.000	0.00%
Pacific R&E	3.625	0.250	7.41%
Pulitzer	84.000	21,188	33.73%
RealNetworks	15.000	1.125	8.11%
Saga Commun.	20.500	-0.750	-3.53%
SFX Bcg.	92.000	11.750	14.64%
Sinclair	56.56 3	9.938	21.31%
SportsLine USA	23.500	12.750	118.60%
TM Century	0.563	-0,063	-10.00%
TriathIon	10.563	0.063	0.60%
Tribune	64.563	2.313	3.71%
Westower	20.750	9.000	76.60%
Westwood One	31.000	-6.125 17.126	-16.50% 68.68%
WinStar Comm.	42.063	17.120	00.0070
Major Stock Market In			
Dow Industrials	8545.72	637.470	8.06%
Nasdaq composite	1770.51	200.140	12.74%
S&P 500	1049.34	78.910	8.13%

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MBR Stats

Non-Traditional Revenue Track (% of Vendor/New Business by Category)

	Jan 98	Jan 97	
Automotive	23.04	16.61	
Food/Grocery	21.57	30.47	
Leisure/Electronic	24.42	24.96	
H&BC	3.11	7.89	
Home Imp.	7.72	2.53	
Office	17.58	8.19	
Clothing	2.56	9.34	
Source: Revenue Development Systems; based on			

revenues from 76 stations in 32 markets.

NTR Revs Off to Strong Start

More stations are beginning the year with more revenue generated from non-spot, according to the latest numbers from Revenue Development Systems (RDS). Last year, the average station's non-traditional revenue comprised 12.2% of total station revenues. For some stations, that number was as high as 30%.

January non-spot business was dominated by the Automotive, Leisure/Electronic, and Office categories. While the Automotive dollars came from the same type of business as last year (gas, oil, manufacturer parts), the Office category boomed with money from computer companies and recruitment, both hot categories for 1998. While Health & Beauty Care was down compared to

last year, expect March and April to come in stronger.

Similarly, Clothing, which was high last year, tends to bring in more dollars in Spring and Fall. It's still the weakest category for NTR.

Web Stats

				TTED
Formats on the Int	ernet 1997	1998		
Format Non-commercial Country Rock News/Talk Religion CHR Sports Classic Rock Alternative Hot AC AC Talk Oldies Adult Altern. Ethnic Urban Sott AC News Standards New AC-Jazz Classical AC-Spanish Talk-Spanish CHR-Spanish 70's Oldies Easy List.	Stns 29 18 19 18 17 14 17 11 13 6 10 16 7 9 8 8 2 7 3 5 4 3 0 2 2 1	Stns 75 55 49 46 40 33 28 27 27 27 27 25 22 22 22 15 14 10 10 8 8 5 4 3 1 1	Chng +46 +37 +28 +29 +36 +16 +17 +14 +21 +17 +15 +13 +7 +6 +10 +3 +7 +3 +4 +2 +10 +3 +7 +0 +15 +10 +10 +10 +10 +10 +10 +10 +10 +10 +10	Pct. 12.2% 9.0% 8.0% 7.5% 6.5% 5.4% 4.6% 4.4% 4.4% 4.4% 4.4% 4.4% 4.4% 2.3% 2.0% 1.6% 1.3% 0.8% 0.5% 0.2% 0.2%
Audio on the Intern Medium Radio Stations International Networks Internet Only TOTAL	et 1997 249 120 19 42 430	1998 613 436 38 100 1,187	Chng +364 +316 +19 +58 +757	Pct. 52.3% 36.6% 2.9% 8.3% 100.0%

Stations Spending Less on TV Ads

Since Telcom, stations have been spending slightly less on TV ads. In 1997, stations spent about \$128M or 2.3% less than the previous year and 3.7% less than in 1995, according to a Shark TV analysis of the top 75 markets.

In the top 12 markets (which represents 55% of all TV expenditures by radio stations), spending is relatively flat. Some markets are up in TV spending including Boston (indexing at 130), LA (116), Houston (112), and New York (103).

What hasn't changed much are station spending patterns. Stations still bulk up promotions in Q2 for the Spring survey and in Q4 for the Fall.

Webcasters by Format (as of March 5, 1998)

613 radio stations (538 commercial) are now putting audio on the Internet. Of the total 1,187 audio websites now in operation, almost half (568) are of US origin.

Country remains the number one commercial format on the web with a total of 55 stations. However, if the various News, Talk and Sports categories are combined, they account for 114 stations, or 21.2% of all commercial webcasters.

RealAudio remains the streaming platform of choice with almost 88% of the business. Microsoft NetShow and Streamworks remain the most viable alternatives, while several others battle it out to gain a foothold.

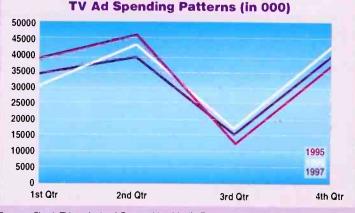
As with any emerging industry, audio webcasting is growing up fast, as the comparison to last year indicates. Total audio webcasting is only about a hundred entities shy of tripling the total at this time last year. And this pace can be expected to continue for some time to come

Streaming Players		
RealAudio	1,041	87.7%
Microsoft NetShow	92	7.8%
StreamWorks	43	3.6%
AudioActive	7	0.6%
Radio Destiny	4	0.3%
Interflix	1	0.1%
GTS Audio	1	0.1%
Vosaic	1	0.1%
TOTAL	1,187	100.0%

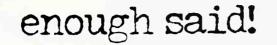
Source: BRS Consultants

TV Ad Spending Trends (in 000)

	1995	1996	1997
1st Qtr	38,651.69	29,428.29	33,979.71
2nd Qtr	45,557.08	42,736.74	39,292.77
3rd Qtr	12,612.43	16,734.24	15,316.73
4th Qtr	36,499.96	42,443.51	39,777.54
Total	133,321.16	131,342.78	128,366.75



Source: Shark TV analysis of Competitive Media Reporting data.





The (very independent) Michael Reagan Show

The Dr.Dean Edell Hour





COAST TO COAST AM



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by Katy Bachman and Frank Saxe

Arbitron Changes Metro Redefinition Policy

Broadcasters looking to change the metro definition of their Arbitron markets are now required to follow a new policy issued in early March. The policy is based on recommendations of a task force of stations, agencies, advertisers, the Arbitron Advisory Council, the RAB and the NAB. Arbitron is touting its new policy as simpler and more objective. "There were a lot more variables in the old policy and no set formula," said Thom Mocarsky, VP, Arbitron.

Among the changes: 75% of subscribing

Campaign Finance Fizzles

For the second straight year, efforts to reform campaign funding failed to clear the Senate. The McCain-Feingold Bill became bogged down during debate, when Senate Republicans were not able to cull enough votes to clear a Democrat-lead filibuster.

existing metro.

President Clinton, meanwhile, is still trying an end run around Congress to get radio and TV stations to give free or reduced price air time to candidates. "I applaud your previous decision to take the next steps toward providing such free and reduced rate time," Clinton wrote to FCC Chair Bill Kennard (D). Kennard is proposing the FCC look at using the public interest standard to pass such requirements onto broadcasters. •

Top 10 1997 Station Billers

Which stations billed the most in 1997? According to BIA's ranking, it looks like Mel Karmazin is king of the billings mountain again, as CBS (N:CBS) comes out ahead of all others with five of the nation's ten highest billing stations. Last year's ranking is in parentheses.

(1)	WFAN-AM NY	\$47.7M	CBS
(7)	WLTW-FM NY	\$37.9M	Chancellor
(6)	WXRK-FM NY	\$37.3M	CBS
(3)	WINS-AM NY	\$36.5M	CBS
(2)	WGN-AM Chicago	\$34.5M	Tribune
(4)	KRTH-FM LA	\$34.3M	CBS
—)	WKTU-FM NY	\$34.3M	Chancellor
(10)	KIIS-FM LA	\$34.2M	Jacor
—)	KKBT-FM LA	\$34.2M	Chancellor
(8)	KVIL-FM Dallas	\$32.8M	CBS
	(7) (6) (3) (2) (4) (10) (10)	 (7) WLTW-FM NY (6) WXRK-FM NY (3) WINS-AM NY (2) WGN-AM Chicago (4) KRTH-FM LA —) WKTU-FM NY (10) KIIS-FM LA —) KKBT-FM LA 	 (7) WLTW-FM NY \$37.9M (6) WXRK-FM NY \$37.3M (3) WINS-AM NY \$36.5M (2) WGN-AM Chicago \$34.5M (4) KRTH-FM LA \$34.3M (4) WKTU-FM NY \$34.3M (10) KIIS-FM LA \$34.2M (10) KKBT-FM LA \$34.2M

Source: BIA

Low Power, High Anxiety

The FCC is considering allowing one AM and FM one watt station in each market. "People just want to speak to their community. We ought to figure out what our options are," says FCC Chair Bill Kennard (D). But he adds, "I am not ready to support it." Mass Media Bureau Chief Roy Stewart says the Commission is hoping to reverse some of consolidation's impact, "so it's not just the big people that get to speak, it's the little people that get to speak in America too."

Distribution and policing must still be worked out. One consideration is last year's Balanced Budget Act which dictates available broadcast spectrum be auctioned. •

Casino Ads Ruled Legal

station owners must request the change and a

reevaluation will include all existing metro

counties and all counties adjacent to the

The new policy was a year in coming,

prompted in part by Boston broadcasters

desperate not to fall out of the top 10. Including

Boston, about 25 markets with outstanding

metro redefinition issues will be eligible to

request metro redefinitions in Fall 1998. Other

markets may request metro redefinition

evaluation in Spring 1999.

All bets are on! A Supreme Court decision handed down February 23 has made casino and lottery advertising legal in eight western states, and supporters say it may clear the way for a nationwide reversal of the FCC's ban on broadcast casino advertising.

In a closely-watched free speech case, the Department of Justice appealed a Sept. 4 ruling by the Ninth Circuit, which lifted an FCC ban barring broadcast casino ads (*RBR* 9/8/97, p.4). DOJ lawyers did not attack the Appeals Court ruling, but argued the lower court should not have used a 1995 Supreme Court decision as the basis for its ruling. The Supreme Court's refusal to hear DOJ's appeal makes the Ninth Circuit's decision binding law in Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon and Washington.

"We believe the high court will ultimately strike down the ban nationally," says Eddie Fritts, president and CEO, NAB.◆



The second annual Visionary Awards, held in February, honored ingenuity, imagination and individuality in radio programming. The Awards were co-sponsored by the Wall Street Journal Radio Network and Sabo Media's Walter Sabo.

The winners, left to right, Dr. Judy Kurianski, Premiere: Dan Griffin, WCBS-AM NYC; Lori Kramer,

WRKO-AM Boston; Jack Swanson, KGO-AM SF; Leslie Gold, WRKO-AM; Bob McAllan, Press Broadcasting; Chris Kampmeier, WTKS-FM Orlando.

Other winners (not pictured): Jim Trapp, The Buzz, Houston; Leigh Jacobs & John Dziuba, New Jersey 101.5; Jim Philips, WTKS-FM; Sally Jessy Raphael; Gary Slaight, Standard Broadcasting, Toronto.

Holy Toledo!

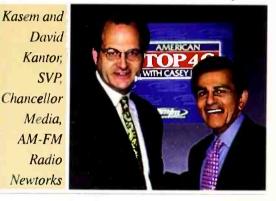
Mid-size markets are reaping the rewards of consolidation with the largest gains in revenue, according to BIA. At the top is #76 Toledo, with a growth rate of 17%, and outpacing last year's leader, Raleigh-Durham, NC, which had a 15.4% growth rate.•

	Hot Markets by Revenue Growth (in Millions)								
e f	Market/rank 1 Toledo, OH (76) 2 Denver-Boulder (22) 3 Knoxville, TN (68) 4 Washington, DC (8)	96 revs 21.8 117.6 23.8 202.7	97 revs 25.5 1 3 7.4 27.7 235.2	% growth 17.0% 16.8% 16.4%					
, , , , , , , , , , , , , , , , , , , ,	 Atlanta, GA (12) Dallas-Ft. Worth (6) Tucson, AZ (61) Detroit (7) Greenville, NC (80) Austin, TX (50) 	192.9 221.8 27.7 183.2 15.4 49.0	233.2 222.2 254.7 31.6 208.5 17.5 55.4	16.0% 15.2% 14.8% 14.1% 13.8% 13.6% 13.1%					
	Source: BIA								

AMFM Adds Programming

Just three months after it launched the network on Jan. 5, Chancellor's (O:AMFM) AMFM Radio Networks has added syndicated programming to its roster. Countdown King Casey Kasem signed in early March, although his former syndicator Westwood One (O:WONE) filed a lawsuit against him (*RBR* 3/9, p. 4).

AMFM has also signed Dave Koz, who will host a two-hour Smooth Jazz weekend program, "The Dave Koz Radio Show." Koz moves from MediaAmerica, which bought his program last November (*RBR* 11/24/97, p. 3).



Competing Media

Exclusive New Report

MBR/Miller, Kaplan Total Media Index

Detailed local market advertising expenditure information across media has been something of a Holy Grail, until now. While both TV and newspapers have enjoyed local market ad expenditure data for several years, radio has not, leaving many GMs clamoring for a way to gauge how radio stacks up to its local media competitors.

Each month, MBR (and Radio Business Report) will report the RBR/Miller, Kaplan Radio/Total Media Index. For each major local advertising category, The Total Media Index gives side-by-side advertising expenditures for each of the three major local media—radio, TV, and newspaper—as well as radio's share of total media. (The report does not measure outdoor, magazines, direct mail, or newspaper classifieds.)

This first report summarizes media expenditures for the top 25 local ad categories (representing about 90% of all the local ad dollars) from a sample of radio stations in seven markets measured by Competitive Media Reporting (CMR) and Miller, Kaplan's Market X-Ray. The number of markets will increase next month as Miller, Kaplan has a total of 17 markets signed for Market X-Ray.

Radio Captures 13.3% of The Local Ad Pie

On the local level, radio does a lot better than the 7% share it gets overall, capturing 13.3% of the local dollars. Still, that's far below newspapers' and TV's share.

Radio is doing well among Cellular companies (14%), Financial Services (17.4%), and Grocery Stores (15.5%), but against the two biggest categories, Automotive and Restaurants, radio only gets 6.6% and 7.5% of the dollars, respectively. In some of the less lucrative categories, radio tends to net one out of every five media dollars.

by Katy Bachman

January 1998 (Expenditures in 000)

				Total	Radio%
Category	Newspaper	т	Radio	Media	of Total
Automotive	\$ 41,215	\$ 38,768	\$ 5,639	\$ 85,622	6.6%
Restaurants	15,272	15,273	2,477	33,022	7.5%
Department Stores	16,316	1,989	2,818	21,123	13.3%
Foods	9 ,3 87	9,251	1,942	20,580	9.4%
Communications/Cellular	7,879	6,799	3,914	18,592	21.1%
Furniture	6,240	5,845	1,972	14,057	14.0%
Financial Services	6,232	4,938	2,352	13,522	17.4%
Movies/Theater/Concerts	4,500	6,462	1,384	12,346	11.2%
Grocery Stores	6,485	3,560	1,840	11,885	15.5%
Appliances & Electronics	6,944	3,464	1,454	11,862	12.3%
Hotels/Resorts/Tours	8,619	1,686	819	11,124	7.4%
Drug Stores/Products	2,125	4,464	1,144	7,733	14.7%
Computers/Office Equipment	4,198	1,545	1,459	7,202	20.3%
Other Retail	2,834	1,982	1,953	6,769	28.9%
Medical/Dental/Health Insurance	2,229	2,318	1,312	5,859	22.4%
Auto Parts/Service	1,116	3,203	1,084	5,403	20.3%
Music Stores/CD's Videos	732	2,743	1,109	4,584	24.2%
Transportation	2,563	1,018	792	4,373	18.1%
Entertainment - Other/Lottery	832	1,383	1,904	4,119	46,2%
Home Improvement	1,944	1,218	824	3,986	20.7%
Professional Services	445	2,578	939	3,962	23.7%
Beverages	187	1,979	1,207	3,373	35.8%
Television	1,034	724	1,337	3,095	43.2%
Personal Fitness & Weight Centers	320	2,049	410	2,779	14.8%
Publications	404	924	450	1,778	25.3%
	\$150,052	\$126,163	\$42,535	\$318,750	13.3%

*Based on Media Market X-Ray composite data for 17 markets, Newspaper and television data compiled by Competitive Media Reporting and radio data compiled by Miller, Kaplan, Arase & Co., CPA's. For further Information contact George Nadel Riven, CPA at (818) 769-2010.

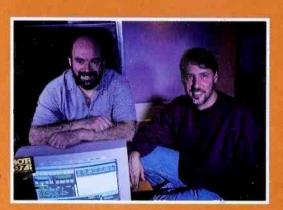
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Major broadcasters worldwide



choose Dalet

more than any other system.



Paul Sanchez and Jim McGivern at Emmis New-York

"Dalet has improved the way we do business"

Jim McGivern, Chief Engineer, Emmis New York (Hot 97, Kiss FM, CD 101.9) "Bugsy," on air at Emmis NY (Hot 97, Kiss FM, CD 101.9).

Cost Efficiency

Whether you are a large or small market station, Dalet offers a completely integrated suite of software which allows the entire staff to work together. All departments – traffic, production, programming, news and on-air – have simultaneous access to all audio, copy and logs. With modular software options, the Dalet system can meet your specific budget requirements – growing with your business needs.

Standard hardware also means cost savings. The system is not proprietary, and will grow with the industry. Finally, with Dalet's easyto-use interface your staff will be operational in no time.

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Dalet has the proven expertise to guarantee that your station stays on the air. Choose from a wide range of security options (RAID array, mirrored servers, local backup) to meet your specific requirements. Dalet's digital audio system has been running on Windows and networks for eight years, at hundreds of sites – from stand-alones to hundred-plus workstation networks. It works for them, it can work for you.



d Standard in Digital Audio

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Feature

Sound Arguments Processing For Music Formats

by Carl Marcucci

Behind the music, production and positioning, every format takes on a unique processing style which engineers tweak out of the audio chain. A marriage between dressing up the music and serving the psychographic needs of the listeners is made at the hands of the CE with today's high-tech processing boxes. Here, a look at how some CEs format their specific station's sound



Pete Booker, president, Delmarva Broadcasting, adjusts processing for WDEL-AM and WSTW-FM Wilmington.

CHR

Traditionally, CHR processing is loud, with a powerful low end and a nice presentation on the high end. However, there is a new school of thought.

"Our sound is aggressive, but not gimmicked. The days of slamming people out of their seats are over. The competition today is the CD player rather than the station across the street." Ed Bukont, CE, WWZZ-FM Washington, DC

Hot AC

While Hot AC borders CHR musically, Hot AC's presentation is a little smoother.

"Our Adult CHR, WSTW-FM [Wilmington, DE] is really a Hot AC-it walks that border. It's not processed as hot as some CHRs, particularly the big city, dance-leaning CHRs. We tend to be a little broader in the equalization. We try for a pretty even frequency response across the board, but want a tight, defined low end."

Pete Booker, president "Delmarva Broadcasting

AOR

Because the music is spread over so many years and genres, this format requires a middle-of-the road approach.

"We are not as loud, but add a little low end enhancement. We want more of a dynamic range without sounding too compressed-a natural sound, but competitively loud." Dan Mettler, CE, WFBQ-FM Indianapolis

Urban

Think of a street dance. To make it sound exciting for the listeners, Urban stations tend to go for a very well defined low end.

"There's so much bump and grind and emphasis on that beat and base line. That has to have a special treatment."

Tom McGinley, CE, WPGC-FM Washington, DC

Oldies

Because much of the music was originally recorded in mono, consistency is key from song to song. Some go for a "big AM sound," especially from the mic.

"There is a lot less brain work because the music was entirely processed with tubes, and often tracked in mono. We try not to get too scientific, keeping the music in the analog realm and treating the audio the way it was meant to be be treated."

Chuck Bullett, CE, WYNZ-FM Portland, ME

Classical

Because of the broad range of instruments, Classical needs a broad dynamic range.

"We maintain the integrity of the original recordings. However, we do compress a little to overcome road noise and huge differences between Classical's crescendos and lulls. This avoids listeners turning the volume up and down."

Herb Squire, CE, WQXR-FM New York

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Feature

Country

Because of the music's emphasis on guitar and vocals, attention is given to the presence and high frequency ranges.

"Because of a lot of instrumentation in Country music, we take an AC approach to processing our Country stations. With all of the acoustic and percussive instruments, you want the individual notes to stand out. The processing is a little more open, more transparent. Maybe the envelope is up using clipping, but we don't want to sacrifice that natural, open sound just to get extra loudness. Country is a 55% female, 45% male format, so we tend to lean a little bit to what a female listener would like. We aren't a hard-edged, sh—kicking Country station. Our entire envelope is up pretty high, but we back off on the gain reduction,"

With different packaging, comes different processing.

"We've got one station that's Contemporary Country, so that's a little bit backed down. The other one is Modern Country, so that's more aggressively processed."

Don Missad, CE , Clear Channel, Grand Rapids

Spanish

On many Spanish-formatted stations reverb is used on the mic and processing varies.

"We process our two LA FMs somewhat differently. At KSCA, we push the audio on it a little bit more because it's a regional Mexican uptempo sound, and it sounds a little better when it's a little denser. At KLVE, we use the Cutting Edge Unity box. It's processed to be very relaxed, with a minimum of fatigue. However, we do realize that radio has a need to keep the average volume up because of car windows and traffic noises."

Soft AC

This requires compression for consistency without being too loud or "punchy." Soft AC is often processed for listenability at low volume settings. "You don't want to create listener fatigue with overprocessing. We want a presence on the dial, and cohesive sound from song to song. Our listeners have good TSL—being too aggressive could send them away. We do use some compression and limiting for low level office listening."

Nick Doshi, CE, WLTW-FM New York

Classic Rock

The processing tries to bring a modern twist to the sounds of the 60s and 70s.

"We try to make the radio station's image on the dial exciting, easy to listen to and yet almost bigger than a CD player would provide. The tricks that we employ make the station almost sound bigger than life—stereo image enhancement, judicious clipping without distortion. It's a carefully selected list of tradeoffs using clipping, compression, attack and release times, EQ and low end augmentation. We use the Optimod 8200's factory presets, then crank up from there."

Tom McGinley, CE, WARW-FM Washington , DC

Alternative

There are two schools of thought—allowing the loud edge of the music to come through, pushing it to the point of adding a little distortion—or—a small amount of processing because the music is already processed and loud.

"The most difficult thing for me was to adjust processing for our Adult Alternative format which carries clean, analog 80s Alternative Rock and digital Seattle grunge bands. I attached a little notch filter in the presence range in the EQ. The consonance of the vocals fights with the loud electric guitars. I pull down the gunk that distracts from the vocals about 6 dB. Essentially what I do is use my analog multiband processor as more of an AGC with very slow attack and release times to create loudness and punch."

Greg Benson, CE , KXPK-FM Denver

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Like Classical, Smooth Jazz is instrument-based.

"You want to color the sound the least. You want consistent levels song to song. We're running this in a small market, so you don't have quite so many audiophiles that you'd find in big cities. We're running on a Class A, so we obviously need to punch a little more just to get through. But we are very conservative in the way we process that station. We want the dynamic range, we want the separation in levels and instruments."

Pete Booker, president, Delmarva Broadcasting

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Engineering News Analysis

Reaching For an IBOC Standard: Is Radio Any Closer?

by Carl Marcucci

IBOC (in-band on-channel) is again in the spotlight. Now that Digital Radio Express (DRE) has entered the field (RBR 2/16, p. 7), it will be competing with USADR for the NRSC's approval of a US digital broadcast standard.

Whether or not the two companies will push the radio biz closer to adopting a standard remains to be seen. Both companies will begin field testing this year. DRE is working within the political structure and will subject its tests to the scrutiny of the NRSC's DAB subcommittee, while USADR has opted to use an independent lab (RBR 3/28, p. 4).

Both companies cannot win, despite the similarities between the two systems. The differences are enough that it's highly unlikely manufacturers will produce one receiver to accommodate both DRE and USADR signals.

"Look at what happened with AM stereo. As a result of confusion from broadcasters as to which system to choose, it died on the vine. I would hope the FCC will choose an IBOC system for the standard [based upon the DAB subcommittee's recommendation It would assure a seamless transition from analog to digital. If a single system isn't chosen, the receiver manufacturers will choose by default," said Milford "Smitty" Smith, co-chairman, NRSC's DAB subcommittee and VP engineering, Greater Media.

The DAB subcommittee, inactive for two years, was reactivated at the request of DRE on Jan. 7. The first round of testing, targeted for Q2 will only be a feasibility study to see if DRE's system—already in the hardware stage—can make the grade. "No broadcast standard is going to be recommended at [that] stage of the game," said John Marino, VP/ Science & Technology, NAB.

USADR's system will still be evaluated by the DAB subcommittee. "The only thing the DAB subcommittee has decided to do at this stage of the game is encourage USADR to go ahead with their independent testing. And whenever the testing is done, the committee will lend its expertise and evaluate those test results," said Marino.

The major difference between the DRE and USADR systems is analog backup. Both systems will be comparable in sound quality. The deciding factors will be fringe reception quality and resistance to signal dropout (the tradeoff for "no static at all" is no signal at all). USADR answers that question with a time-delayed backup blend with the analog signal. DRE claims an improved digital signal ability which shirks the need for backup.



Other DAB issues

IBOC was one of the center-stage issues at the NAB's annual Washington Fly-in in mid February. Randy Odeneal, chairman of the NAB's DAB task force and General Partner, Sconnix Broadcasting, updated broadcasters on several DAB issues including satellite DARS, IBOC and Eureka-147.

Broadcasters have some breathing room when it comes to competitive threats from DARS proponents, CD Radio and AMRC. "They are going deeply into the hole before they get their first \$10 subscription check. By their own admission, they've lost \$70M thus far and they expect to lose another \$170M by the end of next year," reported Odneal. He added that both companies admit they will need hundreds of terrestrial repeaters to fill in reception gaps the satellites can't "view," such as in urban corridors.

Many broadcasters, including Odeneal would like to see IBOC get out of the chute before the satellite broadcasters begin operation sometime in 1999, a deadline he feels is iffy. USADR expects to have receivers in the stores for Christmas 2000. DRE may be able to meet or beat that date.

While CEMA announced Feb. 4 its final recommendation for US broadcasters is Eureka-147, there is almost zero support from US broadcasters, and the L-band rests on our military's frequencies. Odeneal reassured US broadcasters that Eureka is losing support in this hemisphere (Mexico rejected Eureka and Canadian broadcasters have new doubts)."

USADR and DRE: More Similarities Than Differences

- Both broadcast digital signals on the upper and lower sidebands of the analog signal. If either of the digital streams are impaired from interference or multipath, the other will still be usable—they are redundant.
- Both have no interference to the host analog signal or first adjacent stations.
- Both claim digital signal reacquisition in less than one second and use forward error correction technology in overcoming multipath or signal obstructions while driving.
- Both need much of the same equipment add-ons for plugging into existing transmission facilities.
- Both offer digital subcarriers for systems like Muzak.
- Both systems allow most of the existing analog subcarrier frequencies to be used without added interference.



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