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McCain weighs in on LPFM

True to his reputation as a maverick, Sen. John McCain (R-AZ) is charting his own course on Low-Power FM, making it less likely that any bill to rein in the FCC's LPFM plan will pass Congress this year.

McCain, as Chairman of the Senate Commerce Committee, controls the agenda on FCC-related measures in the upper chamber and he was known to be less than satisfied with the House-passed bill (H.R.3439, RBR 4/24, p. 2) which would block 80% of the LPFM stations that the FCC wanted to license. McCain has now come up with his own bill (S.2518), which he claims will produce a "fairer result" than the House bill and its Senate companion (S.2068), sponsored by Sen. Judd Gregg (R-NH).

Rather than blocking the FCC from dropping third-adjacent channel protection, McCain's bill would allow LPFM to be implemented, then require those LPFM stations which actually cause interference to be shut down. The role of spectrum cop would be assigned to the National Academy of Sciences, in answer to complaints of bias by the FCC's engineers. Full-power broadcasters would be able to sue any LPFM for causing interference and the losing party would have to pay court costs.

In a letter to the Senator, NAB President Eddie Fritts stated his "respectful opposition" to McCain's LPFM bill. Fritts noted several points of disagreement. First, he said, broadcasters want Congress to be sure there will be no interference before LPFM licenses are issued. As for having the National Academy of Sciences measure interference, Fritts questioned whether the Academy has either the expertise or the infrastructure to investigate what are expected to be thousands of interference complaints. He also noted that the bill doesn't spell out just how the Academy is supposed to determine what constitutes harmful interference.

Fritts complained that sending interference complaints to court could drag on, and cost broadcasters, while listeners suffer. And finally, Fritts urged that protections for converting to digital transmission be worked out before any LPFM licenses are issued. McCain's bill would allow LPFM to go forward, but require the FCC to wrap up its digital radio rules by 6/1/2001.

RBR observation: Sen. McCain, it seems, has come up with a way to anger everyone on all sides of the LPFM issue. His bill would subject listeners to harmful interference, and those current broadcasters and future LPFM licensees to costly litigation—plus, he even throws in an insult (rightly deserved) to the FCC in the process. Some might call it compromise. We just call it bad public policy.—JM

Radio still on record pace

Noting that May is traditionally the top revenue month for radio, George Nadel Rivin of Miller, Kaplan, Arase & Co. says it is all the more significant that this year is beating last year's record pace.—JM

RBR/Miller Kaplan
Market sell-out
percentage report

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>88.2%</td>
<td>86.6%</td>
</tr>
<tr>
<td>June</td>
<td>76.9%</td>
<td>71.2%</td>
</tr>
<tr>
<td>July</td>
<td>52.5%</td>
<td>47.3%</td>
</tr>
</tbody>
</table>

March to new revenue record remains resolute

Normally, when a month picks up a 21% gain in revenues over the previous year, we'd write a headline like "March to a new revenue record picks up steam." Not this time. The 21% gain registered for the month of March merely matches the year-to-date total. The gain was comprised of a 15% pickup in local business coupled with an astonishing 40% gain in national. YTD, the numbers from RAB stand at 17% and 35% respectively.
Although gains are strongest in the larger markets (1-50), where YTD local is up 19% and national is up 44%, business isn't too shabby further down the Arbitron market ranking list. Markets 51-100 are at plus 9%/18% and 101-smaller stand at plus 11%/19%.—DS

**Administration opposes FCC deal limits**

The Clinton Administration is opposing bills pending on Capitol Hill to set deadlines for the FCC to approve or deny license transfers. Commerce Secretary William Daley sent a letter to key congressional leaders, saying time limits might prevent the FCC from conducting a thorough analysis. He also opposed moves by some in Congress to get the FCC out of merger reviews altogether and stop duplicating the work of the DOJ and FTC. "The Commission employs a public interest standard, has affirmative market-opening goals, and initiates a public comment process," Daley noted, which makes its reviews different from those of the other agencies.—JM

**AP reaches settlement with ABC, Reuters**

The AP, ABC and Reuters arrived (5/10) at a legal settlement to resolve all claims of copyright infringement of AP material that arose when news stringers working for DC-based States News Service copied material from AP (RBR 7/5/99, p.3). The AP first began warning States in '95 that its stringers were lifting stories. It again warned SNS and news client ABC NewsWire in early '99 the practice was ongoing and a problem. AP also monitored Reuters beginning in '98 and found, along with SNS, a substantial number were duplicated either verbatim or very closely 6-12 hours after AP issued the stories. ABC and Reuters were previously unaware that AP material was being copied, but dropped their relationship with States after learning of the copying. SNS ended up shutting down its national radio and Internet news gathering service.

While terms were not disclosed, under copyright law, each news story is considered a work and statutory damages can apply to each. The monetary damages could be huge—$500 to $20K per work with "hundreds into the thousands" of stories—as AP Attorney Andrew Deutsch told RBR last year—in question.

AP is the largest non-profit, membership news agency in the world, serving 4,000 radio and TV broadcasters and 1,500 newspapers in the US.—CM

**Emmis buys Lee TV; separating radio**

Emmis Communications (O: EMMS) is greatly expanding its TV operation with a $562.5M deal to buy the Lee Enterprises (N:LEE) TV group. With the addition of eight network-affiliated TV stations (plus seven satellite stations), CEO Jeff Smulyan believes the TV division will have reached critical mass to stand on its own, so he plans to split Emmis into two companies, one for TV and one for radio. Exactly how is yet to be determined.

By separating into two companies, Smulyan hopes to boost the stock price for the radio operations (Emmis’ stock fell as investors learned of yet another TV buy), while being able to take advantage of the long-term opportunities he sees in TV. He told analysts that Emmis is negotiating a number of radio deals and expects to have some radio acquisition announcements to make soon. "If this company spends another billion dollars, it will all be in radio," he insisted.

Here's a look at the TV stations Emmis is buying from Lee:

- **KOIN-TV** (Ch. 6, CBS) Portland, OR (Nielsen market #23)
- **KRQE-TV** (Ch. 13, CBS) Albuquerque, NM (#49), plus two VHF satellites
- **WSAZ-TV** (Ch. 3, NBC) Huntington-Charleston, WV (#59)
- **KSNW-TV** (Ch. 9, NBC) Wichita, KS (#65), plus three VHF satellites
- **KGMB-TV** (Ch. 9, CBS) Honolulu, HI (#71), plus two VHF satellites
- **KGUN-TV** (Ch. 9, ABC) Tucson, AZ (#72)
- **KMTV-TV** (Ch. 3, CBS) Omaha, NE (#73)
- **KSNT-TV** (Ch. 27, NBC) Topeka, KS (#138)

None of the acquisitions overlap with Emmis' radio stations. Emmis does, however, already own KHON-TV (Ch. 2, FOX) in Honolulu, so Smulyan expects to have to divest one of the two Honolulu stations.—JM

**Cumulus hires new auditor**

Cumulus Media (O:CMMS) has hired KPMG LLC as its new auditor, following last month’s resignation of PricewaterhouseCoopers (RBR 5/1, p.7). A company announcement quoted KPMG’s Wayne Frankenfield as saying “We have followed Cumulus with great interest since they became a public company in 1998. They will be an excellent addition to our broadcasting client base. We are very pleased to have been chosen for the assignment.”

Meanwhile, another law firm jumped into the fray, filing yet another class action lawsuit accusing Cumulus of pumping its stock price through “false and misleading statements.” Stull, Stull & Brody is purporting to represent people who bought Cumulus stock between 5/11/99 and 3/14/00, two days before Cumulus restated its financial results for most of 1999. Most of the class action lawsuits claim 3/16/00 as the ending date for the class period. One of the earlier lawsuits, filed by Berger & Montague PC, is now seeking to extend that period to 4/24/00, the day PricewaterhouseCoopers resigned.—JM

**USADR gets $41M in additional financing**

15 of the top 20 radio broadcasters are now investors in USA Digital Radio—capping off a $41M capital infusion secured 5/1. The new investors, including manufacturers Texas Instruments (already working with USADR on a chip set—RBR 8/2/99, p.6) and Harris Corp., are Beasley Broadcast Group, Bonneville International, Saga Communications, Regent Communications, Allbritton New Media, ConVirtures, DB Capital Partners, Flatiron Partners, Grotech Capital Group, H & Q Venture Associates, J&W Selligman & Co., Riggs Capital Partners, TelVentures, Waller-Sutton Media Partners, Whitney & Co. and Williams, Jones & Associates.—CM

5/15/00 RBR
Snafu in Scranton; WARM hot over Imus

Westwood One's Don Imus was supposed to broadcast his show live from Scranton, PA (5/5) with Citadel's WARM-AM. Well, that didn't happen and WARM has dropped "Imus in the Morning" from its lineup. Here's the story: The night of 5/4, the hotel Imus was staying in, The Radisson, wouldn't put through a call from his wife Deirdre. He wasn't happy about it. Then, apparently the hotel management lied about not putting her through. Imus was so angry about the event he lost all sleep that night. Early the next morning, he called the limo to drive back to New York to do his show. The "I-jet" flew the rest of the crew back.

WARM GM Paul Ehlis and PD Greg Foster weren't happy about the blow-off and ended up dropping the show. As Foster told RBR: "He was going to do the show from the Radisson in front of an audience of 500 people. We have brought Imus in the past here and we haven't had any problems. And this time—I don't know what happened—he blew a gasket and unfortunately, we suffered from it. He spent four hours on the air just making disparaging comments about the radio station, about the town, the hotel, the staff at the hotel, about our staff, about myself. And we took him off the air at 8:35 this morning right in the middle of the show. We can't have that. The listeners were so upset, by us keeping him on the air, we're just putting a nail in our own coffin."

Later, Foster called Imus' show in NY: "I said, 'Don, whatever happened to the fact that the show must go on?' He's like, 'Well, you put me in such a dumpy hotel...'. I said 'Well, this whole deal with the phone call could have been solved in five minutes, but it was all blown out of proportion.' He said, 'Kiss my ass.'"

Ehlis sent Westwood One a notice of contract cancellation 5/5. WARM rolled out its own local morning show the next week (5/8), previous evening host Rob Neyhard.

Imus was unavailable for comment. However, WFAN (WFAN manages Imus) GM Lee Davis is looking at all options: "Our preference would be that they keep Imus on the radio station, and if they choose to break contract, we'll look into our options, which would obviously include putting Imus on another affiliate. Clearly, his recognition just went up big time in that market, so somebody might be quick to jump on that—you know as well as I do. In this business, it's getting the name out there."

"They have called and there's some things happening. Obviously they would not like us to drop the show, but I think at this point, we've reached the point of no return where we just don't have a choice," Foster tells RBR. "The cancellation hasn't been officially recognized by Westwood yet (5/8), but the show is off the air."—CM

RBR News Briefs

FCC slaps fine on station for contest "parody"
Clear Channel station KITT-FM in Shreveport, LA thought it was a clever parody of the hit ABC TV game show "Who Wants to Be a Millionaire," but the FCC thinks otherwise. The "Millionaire Monday" contest ran in February and John Richard McRae, was a listener contestant who won a million. The million was one million Turkish lira instead of one million US dollars; one million Turkish lira is worth approximately $1.90. The FCC ruled that failure to disclose the nature and true value of the prize is a violation of FCC rules and ordered KITT to pay $4K.—KM

Public radio station fined for running ads
Southern Rhode Island Public Radio Broadcasting, Inc. has been fined $1K by the FCC for running commercials on WBLQ-FM. The FCC says that various announcements that were broadcast by the station appear to promote the products and services of for-profit organizations. WBLQ argues that its announcements were factually accurate and did not include any call to action. The station also says that since its underwriting announcements are similar to that of other local noncommercial broadcasters, the FCC should not punish it.—KM

Pristine Systems under new ownership
Digital recording and automation software vendor Pristine Systems has been bought (5/9) by its Director of Technical Services, Kevin Loper. Loper has been with the company since 1991, designing and developing Pristine products such as TimeWarp!, RapidFire and MusicPlus. As President and Director of Product Development, Loper plans on working on advanced LAN/WAN software.—CM

NBG launches "Hispanic Syndication Network," "The Tour Bus"
The NBG Radio Network (O:NSBD) and The Square One Group have allied to launch The Hispanic Syndication Network 5/10. The new unit will produce syndicated product for US Hispanic formats. Square One's UNO COM will rep the net. Roberto Jimenez (formerly with ABC Radio Nets) gets HSN's Director of Affiliate Relations and Victor Macias (formerly with Cadena Radio Centro) Director of Ops.

Already on three New Jersey Rock stations—WINJ, WDHA and WRAT—"The Tour Bus" launched for national syndication with NBG 4/27. Hosted by Ralph Sutton and Matt Murray, the five hour show (8P-1A) show ranks #1 in the Morristown market on WDHA. Murray's Monkey Business production company has founded rock-related events at big NY nightclubs and venues for years. Stations can take any amount of hours.—CM

Winstar names Larry Kahn VP Programming
Winstar Radio Networks has tapped former Westwood One Senior Director of Talk Programming Larry Kahn for its new VP of Programming. Reporting directly to Winstar President Michael Ewing, Kahn will manage The SportsFan Radio Network, Winstar's daily prep service, and Walt "Baby" Love Productions.—CM
SiteShell allies with GetMedia

SiteShell Corp., a networked website developer for radio stations, announced (5/9) a strategic alliance with GetMedia, which supplies a real-time purchase vehicle as songs are streaming or played on air. In the deal, SiteShell will embed GetMedia's "Now Playing" Music Store into all of its BlueDot Website Network websites, allowing listeners visiting SiteShell's BlueDot sites to hear and buy CDs online. Additionally, all other lines of business developed by GetMedia will be made available to SiteShell to enable its Network affiliates. SiteShell currently has 20 affiliates with 10 more contracted.—CM

Big City launches portal

Big City Radio (O:YFM), leveraging its new focus on Hispanic formats, has launched (5/5) "Todoahora.com," a new, full-service bilingual web portal. Todoahora, which means "Everything Now," offers the following links and channels: news, finance, sports, health, fashion, politics, children’s programming, music and entertainment, email, chat, messaging and more. The site will support Big City’s broadcast properties in Phoenix, NY, Chicago and LA.—CM

MP3.com and BMI sign licensing agreement

Boasting 56,000 artists and 346,000 songs, online music service provider MP3.com has signed a licensing deal (the term was undisclosed) with BMI. The deal allows MP3.com to offer more than 4.5M BMI compositions from 140,000 US songwriters and composers.—CM

More cooperation between LAUNCH Media and Listen.com

Expanding on their audio and music download partnership, LAUNCH Media, Inc. (O:LAUN), will provide Listen.com's audience with links to its music video library. Listen.com artist pages will have links connecting to LAUNCH.com’s library of more than 4K music videos on demand. Listen.com is an online music guide categorizing more than 60K artists and providing links to their legally posted work.—KM

Alliance to boost streaming media delivery

ATC Telectrolog (part of American Tower, N:AMT), PSInet, Young & Rubicam and Streampipe.com have joined forces (4/28) to boost quality and availability of video content distribution on the Internet. The deal—providing an A to Z offering for clients, includes production, signal acquisition/distribution via satellite and fiber and encoding/hosting for streaming media—includes PSI, ATC and Y&R making minority investment positions in Streampipe.—CM

NetRadio.com and netCustomer.com partner up

NetRadio.com (O:NETR) will use netCustomer.com’s services to better serve its customer base. NetRadio was recently named in the "Best of the Web" edition of Forbes magazine. It launched in October 1995 and produces and delivers custom music, information and original programming on the Internet. NetCustomer services are designed to handle high volume online customer interactions and integrates Internet contact channels such as email and live interaction and call-center channels such as telephones and fax. NetRadio’s more than 120 channels of music and information have more than 1.3M listeners.—KM

LAUNCH Media to use BBC’s NewsBeat

Internet music site LAUNCH.com has joined with BBC Worldwide in a marketing alliance to use its pop news service, NewsBeat, on its LAUNCH affiliate worldwide. Dan Forth, SVP, Content Licensing, LAUNCH, says that the alliance with the BBC is a natural extension of its services. He adds, "The European Music & Entertainment News component will be a strong addition to our broadcast-related 'business to business' menu as we continue to expand globally."—KM

Sinclair launches ZigZagZone.com

Sinclair Broadcast Group (O:SBGI) launched (5/8) "ZigZagZone.com," a Web portal just for kids. The site, featuring educational and entertainment content, will first be tested in Columbus on the website of Fox affiliate WTE-TV. "WTTE has one of the most successful kids clubs in the country with approximately 150,000 members, making it the ideal market for testing of the new product," said Sinclair Ventures COO Len Ostroff. Kids can join ZigZagZone.com by logging onto the site and providing their parents’ email address. ZigZag then emails the parents to get personal information to best target the child's interests. The info is kept confidential.—CM

ClickRadio names execs

While not an official "streaming" site, ClickRadio.com, a recently launched online digital radio service with 25 formats has named its executive team: Bill Freston, Al Hoover, Larry Studnicky, Mark Altschuler, Mark Beacham, Jeffrey Connell, Ben Hartman, Kim Hill and others.

Freston, an early founder of ClickRadio, and who has held positions at CBS, Columbia, Epic and Warner Records, becomes VP Entertainment; Hoover, becomes Chief Technology Officer; Studnicky becomes VP/General Counsel; Altschuler becomes SV Ad Sales; Beacham gets the VP Distribution spot; Connell, SVP Research, Hartman becomes SVP Business Development and Hill gets VP, Products and Strategy.

ClickRadio is unique in that users can use it as a "radio" without being online—songs are downloaded and played from the hard drive. Listeners rate songs they hear as "thumbs-up, thumbs-down or skip." The more interaction, the more the site knows what songs to download.—CM
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Hearst-Argyle talking
with Time Warner

While ABC Television has been locked in
a battle with Time Warner Cable, the larg-
est owner of ABC TV affiliates has also
been unable to come to terms with Time
Warner (N:TWX). Hearst-Argyle (N:HTV)
CEO David Barrett told CNBC that his
company and Time Warner had agreed
last month to a 60-day extension of their
retransmission agreement. Hearst-Argyle
has 12 ABC affiliates among its 26 TV
stations.

Ackerley buys Fresno TV

The Ackerley Group (N:AK) is adding
another TV—the CBS affiliate in Fresno,
CA. Ackerley is paying the Fisher Com-
panies (O:FSCI) $60M for KJEO-TV (Ch.
47). The deal, which will take Ackerley to
16 TV stations, is expected to close in Q3.

"This transaction is consistent with the
company’s successful business strategy
to manage stations in media markets
ranked 50-200 that are in a close geo-
graphic proximity to our existing proper-
ties," said Dennis Curley, Co-President
and Chief Operating Officer of The
Ackerley Group.

Emmis Communications (O:EMMS)
ramped up its TV operation last week
(5/8) with a $562.5M deal to buy the
Lee Enterprises (N:LEE) TV group. See
page 3 for details.

TV's top billers

Network O&Os dominated the top tier in BIA’s tally of TV station revenues for 1999. All
of the top ten are owned by the networks they carry, save one—Tribune Co.’s (N:TRB)
WPIX-TV New York. The WB affiliate moved up two slots from #10 in 1998 to #8 last year.
Here are TV’s top-ten billers:

<table>
<thead>
<tr>
<th>Rnk.</th>
<th>$ (millions)</th>
<th>Station</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$315.0</td>
<td>WNBC-TV (Ch. 4, NBC) NYC</td>
<td>NBC/GE</td>
</tr>
<tr>
<td>2</td>
<td>$285.0</td>
<td>WABC-TV (Ch. 7, ABC) NYC</td>
<td>ABC/Disney</td>
</tr>
<tr>
<td>3</td>
<td>$265.0</td>
<td>KNBC-TV (Ch. 2, NBC) LA</td>
<td>NBC/GE</td>
</tr>
<tr>
<td>4</td>
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<td>WNYW-TV (Ch. 5, FOX) NYC</td>
<td>FOX</td>
</tr>
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<td>5</td>
<td>$257.7</td>
<td>KABC-TV (Ch. 7, FOX) LA</td>
<td>ABC/Disney</td>
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<td>6</td>
<td>$213.1</td>
<td>KTTV-TV (Ch. 11, FOX) LA</td>
<td>FOX</td>
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<tr>
<td>7</td>
<td>$200.4</td>
<td>WPVI-TV (Ch. 6, ABC) Phila.</td>
<td>ABC/Disney</td>
</tr>
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<td>8</td>
<td>$195.0</td>
<td>WPIX-TV (Ch. 11, WB) NYC</td>
<td>Tribune</td>
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<tr>
<td>9</td>
<td>$185.0</td>
<td>WCBS-TV (Ch. 2, CBS) NYC</td>
<td>CBS</td>
</tr>
<tr>
<td>10</td>
<td>$183.4</td>
<td>WLS-TV (Ch. 7, ABC) Chicago</td>
<td>ABC/Disney</td>
</tr>
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</table>

Source: BIA’s MEDIA Access Pro Television Analyzer
Ultra Wideband: wireless technology of the future?

In a recent issue of RBR (4/4, p.6), we looked at a new application being considered for commercial wireless applications, Ultra Wideband. Advantages of this transmission scheme include immunity to multipath and data streaming at rates up to hundreds of megabits per second. That can mean high-quality fixed and mobile Internet broadcasting—a threat or cash cow for current broadcasters, depending on how you look at it.

At the forefront of researching and applying this technology is Dr. Robert Fontana, President of Multispectral Solutions Inc. (MMSI), located in suburban DC. Fontana and his team of engineers have been developing different applications with the technology for 15 years. While the primary client so far has been government/military, the FCC is looking to allow its commercial use. The Notice of Inquiry, Docket 98-153, just moved to NPRM 5/10.

“Our office believes that Ultra-Wideband is a promising new technology and the Commission would be remiss if it weren’t to at least conduct a NPRM and some testing to figure out if the American people can enjoy the benefits [of it],” Bryan Tramont, Legal Assistant to Commissioner Harold Furchtgott-Roth told RBR in the previous story. Here, Fontana reveals the details and those benefits.

You have worked with UWB development for 15 years now. How did you come to realize its viability for wireless data transmission?

Actually, we were introduced to UWB in 1984 by Dr. Gerry Ross who had pioneered this unique technology back in the early 1960’s. Dr. Ross was looking for a company with communications expertise to help him implement a wireless, low probability of intercept (LPI), voice transceiver for the Government. He had constructed and demonstrated a rudimentary UWB wireless transceiver back in 1978, but needed additional expertise in synchronization and modulation techniques. Together, Gerry and I developed the first fielded UWB wireless transceiver in 1986. Since then, Multispectral Solutions has received 34 Government contracts in ultra wideband system development.

What is UWB currently used for?

Within the Government and military sectors, current applications that we have been involved with include: Tactical handheld & network-capable LPI/D radios (LPI/D standing for low probability of intercept and detection); Non line-of-sight, surface wave communications systems; Datalinks for unmanned aerial vehicles (UAVs) and ground robotic vehicles; UWB wireless intercom systems; UWB tags for Intelligent Transportation System (ITS) applications; Precision geolocation systems; Collision and obstacle avoidance radars; High precision (sub-foot accuracy) altimeters; LPI proximity fuzes for “smart munitions” and Intrusion detection radars.

Overseas, the primary use for UWB is in Ground Penetrating Radar (GPR) which is used to detect, identify or image buried structures. GPR is currently used, for example, to determine the integrity of the rebar reinforcement found in bridges and highways.

Explain why UWB will probably have to wait for the fourth generation of wireless communications to be picked up for consumer applications.

Third generation (3G) wireless is rapidly becoming a reality in Japan and Europe, and will eventually bring 2 Mb/s [Megabit-per-second] maximum digital wireless to mobile cellphones—so you’re not going to get a whole heck of a lot of video over two megabits. The US is doing some major “catching up” at this time, but will also be introducing its version of 3G. The standards and protocols for 3G wireless—typically CDMA [code division multiple access] based—are essentially fixed at this time; so it is fair to say that UWB technology will not be introduced into 3G systems. 4G standards, on the other hand, are just now being developed. If things go the way they look like they’re going, I think 4G wireless may be one place to introduce UWB.

Right now, from the manufacturers we’ve talked to, many of them are considering UWB for distribution of music, video, sensor information throughout the house or business—fixed point-to-point and point-to-multipoint distribution. It’s great for the “last mile” problem—trying to get from local distribution points to your house or business—it’s cheaper than trying to do an optical wireless sys-
tem or digging up the road to get fiber optic to your house.

Where the companies are really pushing things from a commercial perspective are in the house: moving your computer data from one room to another, being able to take your high-definition TV set and stick it anywhere you want and pop a UWB transceiver next to it—you don’t have to run cable or wiring. Also intercom systems, wireless handsets for your telephone, security systems without wires. These do not need to wait for the introduction of 4G wireless, since they do not depend upon the use of existing cellular infrastructure.

Why is UWB’s transmission scheme so uniquely immune to multipath?

Advantages for UWB include very short pulse widths, so in a multipath environment, they resolve distortion and interference issues. You can get much more kilobits per second through it in the presence of severe multipath, and that lends itself to better audio and video streaming in a mobile environment. Multipath cancellation occurs when a radio wave following a direct path from one unit to another is destructively interfered with by a wave which is reflected off of another object—for example, reflections off of a wall, building, automobile, concrete pavement, etc. With conventional communications systems, these reflected waves typically occur within the duration of a single bit of information, causing loss of signal integrity which can result in rapid fading (familiar “picket fence” behavior observed with AM reception from your car) or other forms of signal distortion.

UWB waveforms, on the other hand, are extremely short—typically hundreds of picoseconds (trillionths of a second) to several nanosecond (billionths of a second) in duration. Since electronic signals travel at a rate of about one foot per nanosecond, the reflected wave off of a wall, say 10 feet away, will take approximately 20 nanoseconds to travel out, bounce off the wall, and come back. By the time the reflected wave returns, the original short pulse is gone and no interference can occur. Thus, UWB waveforms are particularly useful for in-building and mobile communications.

In real-world wireless consumer applications, why is multipath immunity so important?

Multipath cancellation directly results in reduced signal-to-noise ratios and resulting bit errors in digital communications systems. Unfortunately, in real world wireless consumer applications, multipath effects are a fact of life. Antennas are typically close to the ground or other obstacles—automobiles, handheld PDAs, wireless modems sitting on a table next to a PC, etc. And many times, the wireless devices are in motion relative to one another, further aggravating the effects of multipath.

How can UWB allow hundreds of megabit per second streaming?

As was mentioned earlier, UWB waveforms are extremely short in duration; thus, high data rate communications systems can be developed by placing these pulses closer and closer together in time. The ultimate data rates achievable are limited by multipath because reflections may become indistinguishable from subsequent transmitted bits. However, time gated detector technology developed specifically for UWB receivers can alleviate most of these issues for data rates up to several tens of megabits per second. For fixed point-to-point applications, hundreds of megabit per second streaming can also be achieved; however, the practical implementation of mobile wireless UWB systems capable of such high data rates for many simultaneous users is still a key research objective.

What level of wireless Internet/streaming applications do you foresee using UWB and video streaming in a handheld device?

MSSI has concentrated on UWB wireless system design and has built numerous prototypes and field models for both high-speed communications and precision, short range radar applications. Several of these systems have demonstrated unique potential for wireless Internet and video streaming applications because of their high data rate capability in mobile, multipath environments.

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YOUR LINK TO NEW MARKETS ...GO BEYOND

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- combine operator tasks
What steps have you taken and what steps still need to be taken with the wireless companies and consumer electronics manufacturers to establish UWB as a viable service to the consumer?

To date, MSSI's funding for ultra wideband development has come from the US Government and military communities, since UWB technology is yet to be approved for commercial applications by the FCC. However, the Government realizes that, in order to acquire affordable hardware, it needs to incorporate the economies of scale available from the commercial marketplace. Toward this end, MSSI recently received a $2.88M Dual Use Science & Technology (DUS&T) contract from the Office of Naval Research for the development of an ultra wideband, wireless network radio system. The goal of the DUS&T program is to develop low cost, commercially viable UWB components to significantly reduce the cost of future Government systems. In addition, MSSI has initiated discussions with several firms interested in investing in the development of MSSI's advanced UWB designs for commercial applications.

There is concern on the part of some airlines and GPS people that UWB may pose some interference threats to airline safety if used on GPS frequencies. How can we avoid that problem?

The answer to this problem is quite simple—do not allow UWB systems to operate, in or near, GPS frequency bands. Fortunately, MSSI's patented UWB transmitter approach permits spectral filtering of UWB emissions to prevent unwanted emissions from "overlaying" such restricted bands. Unfortunately, several UWB companies continue to insist on developing devices whose emissions fall within GPS and sensitive safety-of-flight navigation bands.

Where is the process with the FCC to approve UWB? Tell us about the current NOI and NPRM that is coming soon.

The FCC's NOI for Ultra Wideband came out in August 1998 to "investigate the possibility of permitting the operation of ultra-wideband (UWB) radio systems on an unlicensed basis under Part 15 of its rules." To date, the NOI has brought in 139 responses from ultra wideband manufacturers, various spectrum user communities, and other interested parties from both government and the private sector. Based partially on these responses, the FCC has now drafted a Notice for Proposed Rule Making (NPRM) which is currently under review by various Government agencies, including the National Telecommunications and Information Administration (NTIA). The NTIA has been tasked with obtaining test results which will assess the potential for certain classes of UWB systems to interfere with other services. It is expected that the NPRM will be released for public comment soon (it did on 5/10). After a comment period during which the FCC will solicit technical dialog on the proposed rule changes, the Commission will draft its final rule changes and submit them for incorporation into Part 15 regulations. From our discussions with the FCC and NTIA, it is expected that these final rule changes will take place in approximately one year.

Both the FCC and the NTIA have expressed concern about the potential for interference from improperly designed UWB systems, and will carefully consider rule making changes which will not impact existing services such as GPS.

Including its low-energy requirements, what other benefits does the UWB transmission scheme present?

We've already talked about the high data rate capability of UWB systems because of their extremely short pulse durations. In addition, since these very short pulses generate correspondingly large bandwidths, the energy densities (i.e., the amount of power per mHz of bandwidth) can be very low. What this implies is that, if properly designed, these systems are extremely difficult to intercept particularly useful for communications security, and also can be made so that they negligibly interfere with other services.

Of course, as we discussed earlier, multipath immunity is a natural outcome of using short pulses. So, the fading and "picket fencing" that one constantly experiences in mobile applications is significantly reduced or eliminated. This is also important for in-home applications where walls and other obstacles can cause multiple reflections—somewhat like the reverberation experiences with your audio system.

Perhaps one of the more interesting benefits of UWB technology is its ability to marry communications with radar applications. In a sense, a UWB system is using short, radar pulses for communications. Because of the commonality in signal generation and processing, single devices can now be used for not only communications, but position location, intrusion detection, etc. This opens up very interesting applications for the home and industrial markets.

One of the major benefits of UWB is its low cost. Unlike more conventional, narrowband systems, most UWB system designs require relatively simple, and low cost, RF electronics. In fact, UWB systems that we have developed over the years are now nearly "all digital," making them ideal for low cost manufacture and microminiaturization. In addition, because of their relative RF simplicity, UWB systems can be used over a wide range of frequencies—even millimeter wave applications have been considered—with minimal hardware modifications. This makes it relatively straightforward to design systems which can be made high performance, without subjecting other users to intentional or unintentional interference.
France Telecom to sell Crown Castle shares

France Telecom has agreed to sell its huge stake in Crown Castle International (O:TWRS) to satisfy antitrust authorities in the UK. That will clear the way for France Telecom to invest in NTL Inc. Because France Telecom owns 42.7M shares of Crown Castle, about 20% of the shares outstanding, the divestiture is being done in steps to avoid flooding the market with the tower company's stock. Approximately 22M shares will be registered for sale in a public offering, with Crown Castle selling up to 3.5M new shares at the same time. The remainder of the France Telecom stake will be sold to financial institutions, who will agree not to re-sell them for at least a year. They will also be required to vote the shares on a proportional basis with the votes cast by other shareholders in any shareholder vote that takes place during that lock-up year.

SBS boasts record quarter

Spanish Broadcasting System (O:SBSA) broke records for its fiscal Q2, which ended 3/26/00. Net revenues shot up 32.5% to $24.9M and broadcast cash flow gained 42.7% to $12.7. After-tax cash flow rose 147.4% to $4.7M.

RBR Observation: Remember a few years back when the idea of having cash flow margins of 50% or more, "like television," was just a dream for most in the radio industry? Well, add SBS to the list of radio groups who've gotten there. The company's cash flow margin for the past quarter was 51%, up from 47.3% a year ago. On a same station basis, SBS said revenues were up 17% and cash flow 38.9%.

Ink still red at Big City

Although Big City Radio (A:YFM) got into positive cash flow for one quarter last year, the company is still struggling to get out of operating in the red. For Q1, net revenues increased 38.2% to $4.6M. The broadcast cash flow deficit decreased 22.4% to $1.5M.

"All of our broadcast properties made great progress this quarter," said CEO Charles Fernandez. "Excluding Los Angeles, which completed its first quarter in its Spanish format, same station revenue growth was 47% and same station broadcast cash flow improved over $1.3M when compared to the first quarter of 1999."

Regent cash flow up triple digits

Terry Jacobs' efforts to move Regent Communications (O:RGCI) into more mid-size markets, while shedding some of its smallest properties, is paying off. Regent reported Q1 cash flow up 143% to $1.7M. Net revenues gained 68% to $7M. On a same station basis, the company said revenues increased 7.2% and cash flow 11.2%. Noting that the company now has almost no debt, following its recent IPO, Jacobs said Regent is "ideally positioned" to acquire more mid- and small-market radio stations.
Nassau Broadcasting seeks $190M on Wall Street

Lou Mercatanti's Nassau Broadcasting is joining the Wall Street waiting line for when the window for IPOs reopens. Nassau, which owns or is buying 32 stations in nine New Jersey, Pennsylvania, Connecticut and New York markets, has filed to sell $190M in common stock.

On a pro forma basis, the company would have had net revenues of $55.9M and broadcast cash flow of $20.6M for all of 1999. For Q1 of 2000, the figures are $12.9M in net revenues and $4.5M in cash flow.

In its pitch to potential investors, Nassau said that its same station net revenues increased 25.0% from 1998 to 1999 and same station broadcast cash flow increased 42.0%. Nassau plans to have its stock trade on Nasdaq as "NBCR." Underwriters: Merrill Lynch, Salomon Smith Barney, Banc of America Securities

SBS grabs six, plus an exec, from Rodriguez

Raúl Alarcon's Spanish Broadcasting System (O:SBSA) is adding two new top-ten markets with a deal to buy six stations for $165.2M. The seller, Rodriguez Communications and a related entity, both owned by Marcos Rodríguez, will take $43.5M of that payoff in SBS stock, with the remaining $121.7M in cash. SBS will enter Dallas for the first time with Rodriguez's KXEB-AM & KTCY-FM and make its first entry into San Francisco with KXJO-FM, a station Rodriguez is buying from the Clear Channel (N:CCU)/AMFM (N:AFM) spin-offs. SBS will also expand in two of its current markets, adding KFOX-FM & KREA-FM (a 93.5 mHz simulcast) in Los Angeles and KSAA-AM San Antonio, TX.

Also coming to SBS in the deal with Rodriguez is Chuck Brooks, who has been President and COO of Rodriguez Communications. He'll become VP/Western Region at SBS, with responsibility for the group's stations in Los Angeles, San Francisco, Dallas and San Antonio. Closing is targeted for November.

RBR observation: Is Marcos Rodriguez going to be the Bob Sillerman of the New Millennium? The way he's been buying, flipping and buying more stations, he could eventually challenge old "F.X." for the Master Dealmaker title. Of course, Sillerman is selling his latest company—SFX Entertainment (N:SFX) to Clear Channel—so he could be back in the game at any moment.

Dick bidding won by Citadel

Forget Cox Radio (N:CXR)... and the headlines we were dying to write. Forget Infinity (N:INF) and everyone else who was rumored to be bidding for Dick Broadcasting (RBR 4/3, p. 9). In the end, it was Larry Wilson's Citadel Communications (O:CITC) which topped the bidding at $300M for 11 stations, plus a long-term LMA of a 12th. The deal will give Citadel powerhouse superduopolies in Birmingham, AL and Knoxville, TN, plus two FMs in Nashville, TN. Allen Dick will retain his two Greensboro, NC FMs.

Citadel spins Saginaw excess

Citadel Communications (O:CITC) is clearing the way to close the last piece of its acquisition of Liggett Broadcast Inc. Liggett has held onto WTCF-FM Saginaw-Carrollton, MI temporarily to keep Citadel from running afoul of the FCC's local ownership limits. Now Larry Wilson has a deal to spin WTCF and two other Saginaw stations, WSGW-AM & WGER-FM, for $16.18M.
to W&W Broadcasting LLC. That's a new entity being created by The Wicks Group, headed by Jamie Weston.

Three Eagles adds five in two deals

Rolland Johnson's Three Eagles Communications is buying five more stations in two deals:
- The Nolan Family's Gemini Broadcasting Co. is selling KAUS-AM & FM Austin, MN and KEEZ-FM Mankato, MN for $10M. Broker: Donald Clark

Wyoming price set at $2.9M

The price has now been set at $2.9M for the latest acquisition by Dain Schult's American Communications Enterprises (O:ACEN). That will take the tiny company with big aspirations out of Texas for the first time. ACE will acquire KGWY-FM Gillette, WY and a duopoly FM CP in Lead, SD from another penny stock company, First Entertainment Holdings (O:FTET), which will exit the radio industry.

HBC moving to NYSE

Hispanic Broadcasting (O:HBCCA) is preparing to move to the New York Stock Exchange. The paperwork to switch from Nasdaq to the Big Board was filed today with the SEC. The nation's largest Spanish radio group will move to the NYSE 5/25 with the new symbol "HSP."

HBC is planning to spend more and more on its Internet operation this year as it launches a full-fledged web business aimed at Hispanics. The Internet division, HBCi, posted an operating loss of $400K for Q1 and HBC CEO Mac Tichenor said that loss will grow in each of the next three quarters.

For Q1, HBC reported an overall net revenue increase of 23.4% to $46.5M. Broadcast cash flow gained 23.5% to $16.9M. After-tax cash flow gained 37.7% to $14.2M.

Unica cuts negative cash flow

Radio Unica (O:UNCA) isn't yet into positive cash flow, but it got closer in Q1. Net revenues grew 252% to $6.2M. Cash flow (EBITDA) improved by 31% from negative $5.9M a year ago to negative $4M. "Our second quarter advertising revenue is pacing well ahead of 1999, although growth is coming in slower than expected," said CEO Joaquin Blaya.

Entercom cash flow up 131%

Entercom Communications (N:ETM) reported record results for Q1. Net revenues rose 79% to $70.9M and broadcast cash flow increased 131% to $24.7M. Like most big groups, Entercom has been on a station-buying spree. On a same station basis, revenues were up 19% and cash flow 47%. "The numbers speak for themselves," said CEO Joe Field. (Yes, he had other comments, but that really sums it up, doesn't it?)

Record quarter for WW1

Westwood One (N:WON) saw Q1 revenues rise 109% to a record $122.1M, due to both strong ad sales and last year's acquisition of Metro Networks. Operating cash flow gained 347% to $27.7M. On a pro forma basis (adding in Metro for all of 1999), net revenues rose 21% and cash flow 140%.
The deals listed below were taken from recent FCC filings. RBR’s Transaction Digest reports on all deals that involve assignment of a station license (FCC Form 314) and substantial transfers of control of a licensee via a stock sale (FCC Form 315), but not internal corporate restructurings (FCC Form 316). All deals are listed in descending order of sales price.

$33,000,000 WKDM-AM New York from Way Broadcasting Inc., a subsidiary of Multicultural Radio Broadcasting Inc. (Arthur Liu) to Mega Communications LLC (George L. & Adam Lindemann, Alfredo Alonso). Mega will pay $24.5M ($1.225M escrow, balance in cash at closing) and swap WZHF-AM (valued at $8M) & WKDV-AM (valued at $500K) Washington. Broker: Robert Biernacki for WZHF deal only (Mega)


$5,000,000 WVOA-FM Syracuse NY (DeRuyter NY) from Cram Communications LLC (Craig Fox) to Clear Channel Broadcasting Licenses Inc. (Lowry Mays), a subsidiary of Clear Channel Communications (N.CCU). $1M non-refundable deposit, balance in cash at closing. Superdupopoly with WSYR-AM, WHEN-AM, WWH-FM, WWY-FM, WBBS-FM & WHCD-FM.


$3,150,000 KDGS-FM Wichita KS (Andover KS) from Gary L. and Viola A. Violet to Entercom Wichita License LLC (Joe & David Field), a subsidiary of Entercom Communications (O:ETM) $157.5K letter of credit as escrow, $3.125M in cash at closing. Superdupopoly with KQAM-AM, KFH-AM, KNSS-AM, KEYN-FM & KWSJ-FM. Broker: Star Media Group

$2,900,000 WPHM-AM, WHYT-AM & WBTI-FM Port Huron-Marine City-Lexington MI from Hanson Communications Inc. & Hancom LLC (Janet & Lee Hanson) to Liggett Communications LLC (Robert Liggett Jr., James Jensen). $100K escrow, additional $1.804M in cash at closing, assumption of $336K in liabilities, $200K under employment agreement, $200K under consulting agreement, $140K under non-compete agreement, $120K under real estate lease. Superdupopoly with WPHM-AM & WSAQ-FM.

$2,750,000 KOOC-FM Killeen-Temple (Belton TX) from Sheldon Communications Ltd. (Ken Williams, VP) to Cumulus Media Inc. (O:CMLS) (Richard Weening, Lew Dickey Jr.) $137.5K escrow, balance in cash at closing ($50K allocated to post-closing agreement). Superdupopoly with KOOV-FM, KYUL-FM, KLTZ-FM. No more than three FMs overlap at any one point. Cumulus is also buying KTEM-AM (RBR 4-24, p. 12). Seller retains KTON-AM. LMA since 9/15/99. Broker: Media Services Group Inc. (seller)

$1,825,000 KZDC-AM San Antonio TX from Texas Lotus Ltd., a subsidiary of Lotus Communications Corp. (Howard Kalmenson), to Radio Unica Corp. (Joaquin Blaya, CEO, O:UNCA). $1.825M cash. LMA since 10/31/97.
$1,300,000 KBTN AM-FM Joplin (Neosho MO) from KBTN Inc. (David L. Winegardner) to Petracom of Joplin LLC, a subsidiary of Petracom Media LLC (Henry A. Ash). $50K escrow, balance in cash at closing. **Superduopoly** with KQYX-AM, WMBH-AM, KGBZ-FM, KMOQ-FM, KJML-FM, coming in separate transaction (see above). Forms two distinct markets.


$1,065,000 WBTF-FM Lexington KY (Midway KY), 100% stock sale of WAHY-FM Inc. from Jacor Communications Co. (Lowry Mays), a subsidiary of Clear Channel Communications (N:CCU), to Blue Chip Broadcasting Licenses II Ltd., a subsidiary of Blue Chip Broadcasting Inc. (L. Ross Love et al). $150K escrow, balance in cash at closing. Duopoly with WULV-FM.

$512,000 FM CP (106.7 mHz) Hicksville OH from GMA Broadcasting Corp. (Richard H. Heibel) to Fallen Timber Communications Inc. (Alec C. Dille, John F. Dille IV, Sarah D. Erlacher). Cash. Buyer will also loan seller $462K. Buyers hold non-attributable interest in radio station group owner PathFinder Communications Corp.

$495,000 KGTM-FM Rexburg ID from Communicast Consultants Inc. (Judith Grow) to Pacific Empire Holdings Corp. (John Taylor, Randolph Lamberjack). $35K downpayment, balance in cash at closing. Combo with KGTM-FM (above). LMA in place.

$386,998 WXYQ-FM Northwest Michigan (Manistee MI) from Crystal Clear Communications Inc. (Marc Rosseels) to Lake Michigan Broadcasting Inc. (Roger Baerwolf, Scott Seeburger, John Hausbeck). $20K escrow, $300K (less escrow) in cash at closing, $86,998 under non-compete **Superduopoly** with WMTE-AM, WKLK-FM & WKZC-FM. LMA since 12/31/99.

$360,000 KFLW-FM St. Robert MO from Prentiss Enterprises LLC (Louis Prentiss Jr) to Crawford Media Inc. (Jack & Deborah Crawford). $40K in cash at closing, $320K note.

$250,000 KJLS-FM CP (90.9 mHz) June Lake CA from CSN International (Jeffrey Smith et al) to Living Proof Inc. (Daniel & Barbara McClennen, Brian Law, Malcolm Wild). $250K note.

$250,000 KPBZ-FM Chino Valley AZ from 21st Century Radio Ventures Inc. (Reginald Hopkinson) to Prescott Radio Partners (Joan E., Samuel W. & James L. Primm). $30K down payment, $7.5K for work done by James Primm, $121.5K note.

$200,000 KAYF-FM CP (97.3 mHz) Starbuck MN. 100% of the stock of Digital Broadcasting Co. LLC from Emily, Robert, Terrance, Michele & Brian Moore, Richard Tyner (each 16.6% to 0%) to Thomas E. Ingstad. Cash.

$76,000 WALD-AM Walterboro SC from Frankie Green to John H. Pembroke. $7.6K escrow, $4K advance loan, balance in cash at closing.

N/A KTAE-AM Austin (Taylor TX) from Vie Dansante Broadcasting Inc. (Fernando Zee Zepeda) to Sendero Multimedia Inc. (Alberto A. Munoz et al). Assumption of unspecified debt. Buyer has already paid $211.3K. LMA in effect.

N/A WSTD-FM Saginaw-Bay City-Midland (Standish MI) from Agri-Valley Communications Inc. (Edwin H. Eichler, pres) to Central Michigan University (Leonard E. Plachta, pres). Donation. CMU has applied for waiver to operate as satellite of noncommercial WCMU-FM Mt. Pleasant MI.

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