

Syndicating Radio Programs to Campus and Community Radio

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I am frequently asked for advice on how to distribute radio programs to the campus and community radio sector. With the recent changes to radio regulations in both Canada and the United States, more stations will be going on the air. That means more stations that will be looking for independent productions to fill up the airwaves.

In recent years I have syndicated three radio series to campus and community stations and also had numerous ones come across my desk when I was a community station manager. On one hand, it seems like an easy thing to do – produce a program, compile a mailing list and send the program out. Then forget about it, because stations will run anything they get, right? Well, no, not always.

If you are thinking of syndicating radio programming to campus and community radio in Canada, here are few of the things that you should keep in mind.

- a) Make sure your program is something that stations want. If you're sending out a program that stations already have the resources to do (like most music programs), it probably won't get played. Stations don't play stuff from outside producers if they have local programmers who are already doing the same thing.
- b) Make personal contact with program directors or show hosts directly so that they are aware that your program exists. Stations are inundated with mail and your program can easily get ignored.
- c) Make your program easy to use — provide all the necessary background info and scripts so that people don't have to go through the recordings to find out how to contextualize it for the audience.

There's nothing worse than hearing the radio host say "Um... we're going to play this show for you about... [fumble] women's rights. Today's episode is called... um... Episode Five..."

d) CD's have largely replaced cassettes. At last. Better sound quality, and easier to cue. These days there isn't much price difference. In years to come, CD's will be replaced by internet delivery. Most stations aren't yet familiar enough with uploads, downloads, file size and all the other technical issues to make this work. Internet distribution is coming, but it's still not common enough to rely on. For now, CD is your best bet, but now is a good time to learn how to use the internet for program delivery.

e) Good technical quality is very important. As is good

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See also: new rules for Canadian and American community radio broadcasters.

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April 2000

Editor's Note

The response to the last issue of Wavelength has been gratifying. We're still a publication which is written and edited by volunteers, so your positive feed back is what keeps us going. If you consider that we're trying to serve the needs of producers in commercial radio, the CBC, and community radio, and that we mail Wavelength to three different countries, you can understand that editing this newsletter is a pretty daunting task.

We must be doing a good job because with every mailing we attract another group of new members. That tells me that we're printing the kind of information that radio producers need to know. We believed that the people who produce radio needed a publication and an organization of their own. Your cheques and letters tell us that we were right.

Interestingly enough, many of our newest members come from outside of Canada. That's just fine. CSIRP welcomes readers and members from all corners of the globe.

I would like to remind our readers -- in Canada and abroad -- that both Wavelength and CSIRP need your support to survive. We are a member driven and member supported organization. If you find this newsletter useful, please consider joining today. And, even better, tell your friends!

Wavelength

Is the member newsletter published quarterly by *The Canadian Society for Independent Radio Production*. Wavelength encourages submissions from members and readers. Wavelength is available in PDF format at <http://www.web.net/csirp>.

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CSIRP still operates on a shoestring. Most of our discretionary budget is still spent on Wavelength and other outreach projects. If we're to grow, and to increase the number of resources that we offer here and on our website, we need more members.

The other thing that I would like to encourage is *your* participation in Wavelength. Our articles come mostly from our members. They donate their time and knowledge to help other people in the radio world. If you have a speciality, or even just a good story to tell, then email it to me for the next issue.

This month we're making special appeal to CBC folks. By the time you see this you will have received at least one email inviting you to consider becoming a CSIRP member. CSIRP offers you a chance to connect with a wide variety of radio folks from every part of the radio spectrum.

As well as encouraging CBC producers to become CSIRP members, I'd like to invite knowledgeable CBCers to contribute to Wavelength. One of CSIRP's goals is to get CBC people talking to Commercial radio people, and community radio people talking to both. We all have stories to share, and knowledge to pass on.

Wavelength is *your* tool. Use it enthusiastically and frequently. 



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Teaching Radio in the *other* Ivory Tower

Dave Tait <david_tait@carleton.ca>

former CBC Radio, now a radio instructor at
Carleton University

Dave Seglins' article in the last WAVELENGTH ("Teaching Radio in an Ivory Tower") is dead right that the only way to teach radio skills effectively is by doing real radio. I know, because that's the way we teach it here in our particular ivory tower, and we're having wonderful success.

Carleton's J-School rejigged both its undergraduate and graduate programs in the late '90s and delays introductory broadcasting until the third year of our Bachelor of Journalism after students have a thorough foundation in the fundamentals common to all journalism. We also got rid of our dreaded Honours Research Projects, making room in fourth year for a series of practical workshop options that include advanced radio. We combine these senior undergrads with students in the second year of our Master of Journalism's broadcast stream, and we do real radio -- lots of it.

These workshops are each one 12 week term long, so students can have advanced training in two specialties. We spend two weeks on technical refreshers and the basics of radio current affairs, then we do one dry-run of an hour-long show called **Midweek**. In the fourth week, we go live to Ottawa on CKCU-FM at 12:05:30 p.m., right after the BBC news. We do nine live-to-air shows a term, and this term, we're also doing the final half-hour of CKCU's Special Blend morning show, which makes our Wednesdays feel even more like a real programming day.

We divide classes into three groups and they rotate through assignments, meaning everyone gets three turns in each

category. They produce mini-documentaries and tape-talks, record interviews or "green" them for the hosts, report live into the show from events, write up weather updates, copy edit, and pick music. They also take turns acting as producers, lining up the shows and directing them as they go to air. Hosting is voluntary, but every member of every class so far has done it at least once. On-campus stories aren't forbidden if relevant to a city-wide audience, but are rare. Students work tremendously hard, work great as a team, and feel a strong sense of ownership -- **Midweek** isn't just a course, it's their show.

As with any live radio show, we've run with a wheel or two or three hanging over the cliff, but have always managed to stay on the road by staying calm, thinking clearly, and pitching in. Past students say they learned as much about professionalism, teamwork and dealing with stress as they did about radio journalism. It's common for someone who feels they've done a poor job one week to do an extra not-for-credit piece the next week to make up for it -- not so much in my eyes as in their own and those of their team. We've had several folks go straight from the course into CBC Radio, and they've all hit the ground running.

All of this is helped by the fact that at Carleton we have both undergrad and graduate students, and our graduate program is two years, not one. It also depends on the terrific support and flexibility shown by CKCU, the community station based on our campus. Standards are real-world (or better); no one gets coddled, but no one gets publicly berated, either; and oh boy, do we ever have fun. A's and B's do get handed out by the boat-load, but every one of them is earned. I know, because I'm the one handing them out; I'm as determined as anyone to give radio students their money's worth, and here at Carleton, we do.



Information for Advertisers

Wavelength is the magazine of the Canadian Society for Independent Radio Production. It provides articles about production techniques and opportunities for people who produce radio in Canada, and provides radio listeners and producers alike with lively discussion about the state of radio in Canada.

Wavelength is sent to CSIRP members, radio stations, independent producers, government legislators and broadcasting schools. Minimum print run is 1,000. *Wavelength* provides an ideal opportunity to reach producers and broadcasters directly. Advertising revenues help defray the costs of printing and distributing *Wavelength*.

Rate Card Full page ad: \$500 Half page ad: \$250 Quarter page ad: \$125

Business card: \$75 Insert with mailing: \$125 per page (advertiser to supply inserts)

We offer a 20% discount for advertisers contracting for four or more issues or a 15% discount for CSIRP members

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For further information, contact Victoria Fenner, CSIRP, fenner@community-media.com (613-274-4441)

So, you want to put your radio station on the Web?

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First, you'll need programming. That's easy. You've already got a radio station or you're a producer.

You'll also need some software – some of it probably won't cost anything.

And you'll need two computers.

One computer to encode the station sound in a way that works over the Net. Encoding means turning your audio into RealAudio, or MPEG, or whatever kind of stream you want to send out. This can be any decent recent computer with an okay sound card and relatively high-speed (LAN, cable, ADSL, ISDN etc.) 7 day a week 24 hour connection to the Internet. (See below for technical specifics.)

Another computer will distribute that encoded signal to Web listeners. That computer must be running server software and media streaming server software, have relatively powerful processing capacity and memory, and a fairly high bandwidth permanent connection to the Internet.

This second computer is the key. It needs sufficient power and bandwidth to ensure that your listeners get a good signal.

You'll also need a place to put those computers and some wires to connect them together. How you sort all this out will depend on your situation and your budget.

Here are some basic steps you will probably follow.

Step One - Setting Up Your Encoder: You get a decent computer to dedicate to the encoding process. You download some free encoding software. Real Networks, Microsoft Media, Apple Quicktime or Shoutcast MP3 are the most popular choices. You install the software, hook your audio feed into the sound card, and connect the computer's ethernet connection to the university's LAN or some other high-speed connection. You put the computer in a locked closet near the main on-air studio. (You don't want those midnight clandestine Quake sessions to put you off-the-air on the Net.) Some stations put the computer in the server room of a friendly off-campus Internet service provider (ISP). Even safer.

Step Two - Getting the Encoded Signal onto the Internet: You obtain the use of a streaming server. If you're on a campus this could involve having some friendly computer science type install some free streaming media streaming software on a campus computer (with the agreement of the

powers that be, of course). Or doing a sponsorship or contra promotion deal with an ISP that does streaming media. They'll let you "bounce your signal" off their media streaming server in return for little or no money but lots of good will and publicity on-air and on your station's website. Or, if you are using the Shoutcast system, they actually provide a free server to which you can send your streaming signal.

Streaming servers (or the part of them you get to use) should be able to support from 10 to 25 simultaneous connections. More is great, but 10 gives you a web presence and 25 will take care of most listening needs for most small stations. Yes, really. (Here's a little secret - a really big webcast with a national audience and lots of promotion usually has an audience of 300 to 1000 listeners at any one time. It really is still narrowcasting, folks.)

Step Three - Finding Listeners: Promo the connection on your website and elsewhere. And make sure somebody at the station is responsible for checking the quality (and existence) of the web signal on a regular basis.

Some tech stuff (These are just some ball park examples, but should give you the general idea.):

For Real Networks software:

Encoding computer: At least a Pentium 133 with 8 Meg of Ram and a SoundBlaster-compatible sound card running Win95. Ideally, A Pentium 200 with 32 Meg of Ram and a SoundBlaster card running Win98 or NT 4.0. Internet Link: 7x24 connection to the Internet via LAN, ADSL, ISDN or cable modem.

Media Streaming Server Computer: For 25 streams of audio at 28K, Pentium III 500 with 128 Meg of Ram running NT 4.0 or Linux 2.2. Internet Link: fractional T1.

Some websites:

Real Networks: <http://www.real.com> has links to Real Producer Basic and Real Server Basic (25 stream) software. (Free!) Real Networks also provides some online tutorials about using its production software:

<http://www.realnworks.com/getstarted/index.html>

Microsoft Media Technologies: <http://www.microsoft.com/windows/windowsmedia/EN/default.asp> click on Download button for link to some free Windows Media Tools

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“Baking” Magnetic Tape To Overcome “Sticky-Shed” Syndrome

Mike Rivers <mrivers@d-and-d.com> with some additional material and editing by

Graham Newton <gn@audio-restoration.com>

By now, every audio-professional has encountered the “sticky recording tape” problem, and has heard that something referred to as “baking” will fix the problem. The truth of the matter is “yes” and “no”. Yes, the problem can be temporarily corrected by the “baking” process, but no, the cure is not permanent.

The purpose of “baking”, is to drive out all the moisture that the tape binder has accumulated, which is what caused it to go sticky in the first place. This will give a few weeks to a few months of “normal” tape functioning... enough time to transfer the affected recordings to a stable medium before the problem reappears when more moisture is absorbed.

Audio tape manufactured in the mid-to-late 1970’s is starting to come out of storage now, for remixing and re-issue, and engineers are finding that it won’t play. The surface of the tape has become gummy and it sticks to the heads and fixed guides of the tape transport, squealing, jerking, and, in extreme cases, slowing down or stopping the tape transport. This problem has cropped up on all brands of tape, but is nearly always fixable, at least temporarily.

Tapes can exhibit two different problems as a result of long term storage; binder breakdown and lubricant breakdown. Lubricant breakdown, which is fairly rare, leaves a white residue when the tape is run over the heads. Binder breakdown, the more common failure mode, leaves a dark, gummy residue, and is fixable by gentle heating (“baking”) of the tape. Fixing lubricant breakdown requires careful cleaning of the tape and possibly applying fresh lubricant. Baking will not solve the lubricant breakdown problem and may make it worse. Make sure you know which problem you have before you put a tape in the oven.

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Apple: <http://www.apple.com/quicktime/authoring/> includes some free Quick Time authoring and streaming software

Shoutcast: <http://www.shoutcast.com/download/> Free Shoutcast Server software that runs from your PC with the free WinAmp MP3 player.

Hal Doran works with the Internet broadcaster Sussex Place Inc. (www.sussexplace.com), and also does media and Internet consulting and training. He has worked for campus/community, commercial and CBC radio and taught radio broadcasting at Algonquin College and the University of Ottawa.

Here’s where the stickiness comes from. The binder is the chemical compound that holds the oxide particles together and sticks them to the tape backing. Under humid conditions (which means anything but controlled low-humidity storage), the polyurethane used in the binder has a tendency to absorb water. The water reacts with the urethane molecules, causing them to migrate to the surface of the tape where they gum up the tape path during playback.

Short strings of urethane molecules are particularly prone to water absorption, while long strings make the coating mixture too viscous to produce good tape. In the case of Ampex tape, the tapes most likely at risk are 406 and 456 manufactured from approximately 1975 through 1984. In the worst cases, as little as 3 days exposure to 70% relative humidity can cause a tape to become gummy, but typically, it takes 2 to 15 years under normal, people-friendly ambient conditions. In 1984, Ampex started doing it’s incoming inspection with a high pressure gas chromatograph (that’s when it was invented), and was able to more accurately determine the molecular makeup of it’s binder, and control production much more carefully.

The good news is that the “sticky shed syndrome” resulting from water absorption is almost always fixable. The process for repair is commonly know as “baking a tape”.

Handling is pretty much normal after the baking, and will probably last for some time until the tape accumulates enough moisture to go sticky again, whereupon re-baking *might* temporarily fix it again. It is strongly suggested that you do a good transfer the first time, and file the bad master away somewhere, just in case you ever need it again, perhaps in a sealed plastic bag with some desiccant material inside, like a bag of silica-gel, to keep it dry.

To bake a tape, you want to expose it to even heat, ideally at 140 degrees Fahrenheit, with a variation of less than plus or minus 10 degrees. Too cool and the process is ineffective, too hot and you’re starting to risk increasing print-through. Ensure the temperature control is accurate by using a “lab” type thermometer to test the oven’s performance BEFORE using it on valuable tapes.

There are several kinds of ovens you can use. One thing you DON’T want to do is stick it in your kitchen oven and turn the heat on “low” unless you have carefully tested the characteristics of your oven. Most oven thermostats don’t go low enough, or don’t provide good enough temperature control. Whatever you choose, DON’T use a gas oven... a gas

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editorial content, of course. You would be surprised how many programs look great but have uneven levels, or sound superb but are dull as dishwater.

f) Series are preferable to “one-offs”.

g) Series of 30 minute programs are more popular than 60 minutes — easier to find a time slot for 30 minutes than for an hour.

h) Nobody will pay for programming. With a few VERY rare exceptions. Look for foundation, government and other types of funding to pay for your production and research costs.

i) Funders want to know when the shows are going to air. It can be difficult to get broadcast times from

stations. Be prepared to make a lot of phone calls. Personal contact is everything.

j) Funder mentions are okay at the end of the program, but not outright ads. When was station manager I used to get no end of people who don't have a clue about Campus and Community radio offering me programs came packaged with a really obnoxious aggressive ad for McDonalds at the end. Limit your funder mentions to “This program was brought to you by...”

k) A good way to promote your series is with an advertisement in Wavelength (see the inside front cover), which gets mailed to every campus and community radio station in the country!



Community Radio reborn - on both sides of the border.

In January of this year the CRTC (Canadian Radio-Television and Telecommunications Commissions) release their long anticipated revision to the rules governing campus and community radio. Soon after, the American FCC (Federal Communication Commission) released *their* long awaited Low Power FM Radio regulations. Each of these should mean that dozens of new station will be licenced, and that means more places that will need your programming.

Both of these aim to make the radio waves accessible to groups - especially non-profit community groups - who otherwise couldn't own and operate a radio station. Still, comparing the Canadian and American regulations offers a lesson in the differences between radio broadcasting north and south of the border.

Probably even more important is the reaction that followed their release. In the U.S. there has been an outcry from the National Association of Broadcasters, National Public Radio, and even some existing community and campus broadcasters, all of whom oppose an increase in low power community radio. As well, many pirate broadcasters and LPFM advocates have complained that the regulations are still to restrictive.

In Canada the new regulations - which offer considerably more access than the American rules - have been alternately welcomed or just plain ignored by the CBC, the Canadian Association of Broadcasters, and the community radio sector.

Of particular importance in Canada are new CRTC

regulations governing the structure of the Boards of Directors for campus radio stations. The Board of a Community-based Campus radio station must now be fairly diverse, and the CRTC will require such diversity at licence renewal time.

Under the revised policy, the Commission will expect the board of directors of a campus radio station to include balanced representation from among the student body, the associated college or university (for example, faculty or administration), station volunteers, and from the community at large.

This will affect a number of radios stations where Boards of Directors are predominantly or entirely populated by members of Student Governments. They will now have to add a good number of community members.

The new Canadian regulations allow an increase in “ethnic” programming. The CRTC has announced that it will allow campus stations in markets without a local ethnic station to provide up to 40% third-language programming without the Commission's prior approval

After nearly twenty years, the concept of “Restricted advertising” is gone. Stations can now play up to 504 minutes of full-blown advertising each week.

Previously campus radio stations had to play 20% Category 3 music. Category 3 is music like blues, folk,

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jazz and classical which is not normally played on radio these days. It has been replaced by a 5% quota. However, since the new quota is calculated by tallying the number of musical selections played, instead of by the number of hours devoted to one or the other kind of music, it works out to about the same thing. The "Hit Quota" is now 10%, and Canadian Content is set at 35% of musical selections played.

At Campus stations 25% of programming in each week must be Spoken Word, meaning programming that isn't music or advertising. Two thirds of all programming must be locally produced

Most of these changes reflect what's happening already, and really won't have much effect.

Of particular interest to new community broadcasters is a new class of "Developmental" licences. These have been described as a "training wheels" licence, and will allow new groups to get an initial 5 watt licence with very little paperwork and expense. They can use this for up to three years to establish themselves in their communities, and to build up listener and advertiser support for a full-blown community radio licence. Once the fine points of the regulations and the accompanying application forms have been released next month this should open the door for dozens of new community radio stations in town which otherwise couldn't afford to start one.

American LPFM Changes

by John Devecka, LPB Inc.

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On January 20, 2000, the FCC adopted rules creating a new, low power FM radio (LPFM) service.

The new LPFM service will consist of two classes of LPFM radio stations with maximum power levels of 10 watts and 100 watts. The 10 watt stations would reach an area with a radius of between one and two miles, the 100 watt stations would reach an area with a radius of approximately three and a half miles. 100-watt stations will be authorized first.

This LPFM service will be exclusively noncommercial, there will be no commercial LPFM stations. In addition, current broadcast licensees or parties with interests in other media – cable or newspapers - will not be

eligible for LPFM stations.

LPFM stations will be licensed exclusively to local entities for the first two years of license availability. Later, however, non-local entities will be eligible for licenses. Each licensee may own only one station in any given community, however, eventually a licensee may own up to ten stations nationwide.

Licensees will be subject to the same character qualifications as are currently applied to full power licensees. Unauthorized broadcasters will be disqualified unless they certify that they ceased operations when notified of their violation of FCC rules or by February 26, 1999.

If mutually exclusive applications are received for LPFM stations in a given city, mutual exclusivity will be resolved through the award of points for established local presence, proposed hours of service, or locally originated programming. The point system would encourage mutually exclusive applicants to share their stations with other applicants.

These LPFM stations would operate throughout the FM band. The stations will be geographically separated from existing stations on the same (co-channel) channel, the next (first adjacent channel) channel, and the channel two channels away (second adjacent channel). The new stations will not be geographically spaced from stations three channels away (third adjacent channel). The rules provide for a 20 km "buffer zone" of additional separation from co- and first-adjacent channels so that existing FM stations can modify facilities without undue adverse impact. They also provide for separation from existing vacant FM allotments.

John Devecka has worked for many years providing transmission and studio equipment packages to small broadcasters in the US and abroad. He can be reached at:

LPB Communications, Inc. 28 Bacton Hill Road, Frazer, PA 19355 <http://www.lpbinc.com>

The FCC has a webpage devoted to LPFM at <http://www.fcc.gov/mmb/prd/lpfm/>

You can download the FCC Applicant's Guide for Low Power FM at

<http://www.fcc.gov/mmb/prd/lpfm/lpfmguide.pdf>

CSIRP is proud to announce its long awaited *Radiant Dissonance*, a ten part radio series featuring the works of ten Canadian audio artists.

Over the years Canadian artists have dared to suggest that radio, and sound, can move beyond established forms. Working in community radio stations, galleries and their own small recording studios, they take the sounds which most of us are accustomed to hearing, and turn them on their ear.

Radiant Dissonance is a self-contained radio series, to be broadcast on campus and community stations across the country -- the places on the airwaves where the works of these artists are likely to be found. *Radiant Dissonance* was created to provide new material for the audio art shows which already exist, and more important, provide a starting point for those stations which have not yet explored the outer limits of artistic expression through sound.

We hope this collection challenges Canadians to listen to radio in an entirely new way, and maybe even encourage more people to create their own sonic ordering.

- CD # 1 -*Robin Parmar* - London, Ontario, *David Lewis* - Hamilton
- CD # 2 -*Hildegard Westerkamp* - Vancouver, *Andra McCartney* - Montreal
- CD # 3 -*Michael Dumontier & Drue Langlois* - Winnipeg, *Herb Bayley* - London
- CD # 4 -*Mike Ewanus* - Edmonton, *Terry Walters*- Waterloo
- CD # 5 -*Michael Waterman* - Peterborough, *Mannlicher Carcano* - Peterborough, Winnipeg and L.A.



Each disc contains two complete 30 minute radio programs. Each program is created by one artist, who present samples their work, and talk about why they are engaged in this artform.

The entire collection is available at no-cost to non-profit broadcasters. A limited number of discs are also available for sale. Individuals may order the 5 CD set for \$45 plus \$5 shipping and handling. Some single CD's featuring two artists are also available for \$15 each plus \$3 S&H. To order, write to CSIRP - 242 Westhaven Crescent, Ottawa Ontario K1Z 7G3 with a cheque made out to *CSIRP*.

Radiant Dissonance was produced with the generous assistance of the Canada Council.



Radiant Dissonance Order Form

Just copy this form and mail it with your payment.

Name: _____

Address: _____

City: _____ Province: _____ Postal Code _____

Phone Number: _____

Email: _____

- Full Set \$45 + \$5 s&h = \$50
- Disc One \$15 + \$3 s&h = \$18
- Disc Two \$15 + \$3 s&h = \$18
- Disc Three \$15 + \$3 s&h = \$18
- Disc Four \$15 + \$3 s&h = \$18
- Disc Five \$15 + \$3 s&h = \$18

Total enclosed: _____

Mail to: CSIRP - 242 Westhaven Crescent, Ottawa Ontario K1Z 7G3 with a cheque made out to *CSIRP*.

Excuse me, did you wash your hands?

Jeff Cudahy

TechTalk@NorthernAudio.com

Hello! My name is Jeff Cudahy (a.k.a. Bucky) and I own and operate a small audio engineering and manufacturing company in the Golden Horseshoe region called Northern Audio. One of our major functions is radio broadcast engineering, handling everything from minor maintenance to technical briefs and complete studio and transmission facility construction. I am also a member of CSIRP.

I would like to talk about Godliness in radio. Now before you flip the page, I'm not going to preach redemption for your soul; I am, however, going to talk about the almost *religious* necessity for cleanliness in the radio studio. Due to the high volume of people that travel through, the volumes of recorded media brought in to, and the not uncommonly poor ventilation found in most broadcast facilities, we work in a dirty place. Should we be concerned? Yes, and here's why.

Radio, like any business, needs money to survive. Here's the basic equation: Profit=Income-Expenses. Advertisers who purchase commercial spots on certain shows provide income. More advertisers means more profit. But the advertisers won't buy the airtime if they don't believe that people are listening to these shows. If your station sounds bad, people won't listen, advertisers won't buy ads, and that means lower income and lower profit.

To have a show or station sound good we must be able to take the original program material, whether it be cassettes, CD's, or live voice, and deliver that material to the listener as accurately and colorlessly as possible. Dirt gets in the way of that.

Let's look at an example of the production and broadcast of a 30-second jingle in a small studio. Our producer first finds a music bed track for the commercial. Let's assume it's a cassette. He sits down in front of the microphone; presses play on the cassette deck and starts reading the ad. He records this onto a reel-to-reel for editing and archiving. The finished work then gets dubbed onto a cart to be played in the on-air studio.

For decades commercials have been produced this way and in some stations still are. Here's where the problem lies: the transfer of the media. When our producer plays his bed track cassette on a dirty or misaligned machine, he loses sound quality in the music. He then mixes his voice with this less than perfect music and records *that* to a reel-to-reel machine. This may also be dirty, misaligned, or both, causing



his nice resonant voice to become slightly muffled and further degrading the music bed. After editing, he dubs the reel to a cart, meaning two more passes over dirty and/or misaligned heads (playback heads on the reel-to-reel and record heads on the cart deck).

We then take this final somewhat pathetic sounding cart and play it on air with a most-likely filthy playback deck. If an ad sounds *this* bad, people won't respond to it. If that happens, the advertisers will go elsewhere, reducing your income and subsequently your profit.

Now I'm sure a lot of you are saying, "Hey, I work in an all digital, tape-free studio, so this stuff doesn't apply to me!" Oh yes it does, and more than ever. With the advent of computers in today's radio studios, we have the capability to go from the original source, through editing, and on to the on-air studio for playback without the signal ever having to cross a tape head. It stays locked up inside in the form of bits and bytes and floats from one computer to the next with no signal degradation. Hey great! But don't let that great sound lull you into a false sense of security.

Modern electronics are sensitive to the environment around them. A dirty disk drive can cause data errors and loss, a computer in a dirty environment will develop bad internal connections, and last but not least, a dirty humidifier (the cheapest yet most important piece of equipment a studio can have) can result in dry air and high static problems which can cause total system failures.

Data errors and data loss cost time and money by forcing the work to be redone. System failures cost major time and money to repair equipment, and cost income due to an inability to produce during downtime. Technology may give us great sound and convenience, but poor maintenance can cause major overruns in expenses. Back to our basic equation: Profit=Income-Expenses. Expenses up equals profit going down.

I hope that you can now see that no matter whether your station uses tape machines or state of the art digital technology, cleanliness truly is next to Godliness. So write your best copy, pick your best music bed and produce the best commercial since Coca-Cola taught the world to sing, but remember to wash your hands before you start! 

Bye for now!

Bucky

Continued from page 5

flame generates quite a bit of water vapor, which is exactly what you're trying to get rid of.

It's important that the tape be packed smoothly before baking. Chances are it will be if it's been cared for as a master tape should, but if it needs to be re-packed, this should be done by winding the tape at play speed on to another reel using a tape deck on which the heads can be removed, and with the tape threaded so that it doesn't pass over any fixed (non-rotating) guides.

Baking time ranges from about 4 hours for 1/4" tape to 8 hours for 2" tape. It's not critical. You can't over-bake unless you leave it for a day or so and if you under-bake and the tape is still gummy, you can bake it more. After you shut off the heat, leave the tape to cool down to room temperature before running it through the deck again.

If you want a more elegant solution, check your local appliance shop for a Faberware (or equivalent) convection oven, but make sure it's large enough to accommodate the size tape reels you use. These run about \$150 and might be a worth while investment if you have a large amount of tape to bake.

DO NOT ATTEMPT TO USE A MICROWAVE OVEN... they are totally inappropriate for the job, and may be dangerous if used with metal reels.

Lately, I've been doing tapes in my pilotless kitchen oven, by replacing the 25 watt appliance lamp inside with a standard 100 watt light bulb, and putting in a muffin fan salvaged from a dead PC power supply to circulate the air. That gives me a nice stable 140 degrees, but it took some experimenting with the fan speed and placement. Without the fan, it never got beyond about 110 degrees, and I found that a 150

watt bulb (my first test) wouldn't allow me to get below 140 degrees. The friend who told me about this approach says he does it in his kitchen oven with the standard bulb that was in there when he bought the house. Go figure. The technical jargon about the molecules comes from an article by Philip De Lancie in the May 1990 issue of Mix Magazine, where he quoted sources from Ampex. I'm no molecular chemist, just giving credit where it's due (and relieving myself of the responsibility for errors).

For more information on Audio Restoration visit Graham Newton's website at <http://www.audio-restoration.com/>

CSIRP on the WEB

Have you checked out the CSIRP website? It's growing quickly. and offers lots of resources for folks like you.

- **Back issues of Wavelength**
- **canrad-l, our member mailing list**
- **Member biographies and contact info**
- **Community radio resources - links to community broadcasters, and CRTC decisions.**

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attn: Andy Posthumus

Mic Technique for a Talk Show

Philip Hutchison, KTUH FM Honolulu, Hawaii

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Question:

We have a talk show that we air live once a week for 2 hours. The show is produced out of our news/talk show studio. When the show is going on, and the host has guests, you can hear all of the ambient noise in the room. The room is fairly small. When all of the mics are open, it sounds like we have a small room plate reverb unit installed on the air chain. It also causes some phasing issues "comb filtering" if you will...

Any suggestions?

Here are a few thoughts of my own...

1) I was going to say the same thing: the room needs to have at least a small amount of absorption material on the walls to prevent reflection.

2) An omnidirectional mic (even the revered Shure SM58 cardioid) can be messy in a room full of reflections or extraneous noises. For superior rejection, get some supercardioid unidirectionals, like the Shure beta 57 on the cheap end, or a Sennheiser 421 in the mid-range pricing bracket.

These mics also have superior frequency ranges, tending to make people sound better without extra EQ. Their tighter pickup patterns can also alleviate phase problems.

3) A gate is a so-so idea; it can work well, but if it isn't set up properly, it can be more of a headache than help. You can easily get an unnatural sounding show with attack or release times set too quick. Gates are a last resort in my opinion.

4) One important thing to mention is proximity to the microphone; if your guest's mouth is a good 12 inches away, you'll have to crank the mic, thereby picking up additional ambient noise. Be sure to tell all guests (and hosts) to get up close to the mic (in which case a pop filter really helps, too). The biggest drawback to this is when someone cracks a joke and everyone starts laughing directly into the mics... in that case, properly set compressors can really help.

5) People need to keep their mouth aimed at the mic. Many guests on shows I've engineered turn to speak to someone, making their mouth point away from the mic, which equals an instant drop in their level. Instruct them to pivot their body from the waist, with the mouth staying pointed at the



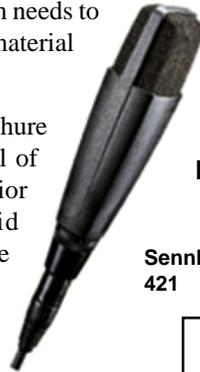
Shure
Beta 57A

mic, instead of simply turning their head. It is also important to tell them to back up a little when they aren't talking, so that breathing sounds can be reduced or eliminated.

6) A problem I've encountered in the past is excessive headphone volume; this can be picked up by the microphone(s), causing either feedback or phase problems. Closed-ear headphones set to reasonable volumes are the best solution.

I've tried all of the above suggestions on shows I do every week at Hawaii Public Radio, and they make a big difference! Give 'em a shot...

Philip Hutchison is Live Director at KTUH FM in Honolulu, and a board-op/mixing engineer for Hawai'i's NPR affiliates, KHPR FM, KIPO FM, and KIFO AM.



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CSIRP presents

Full Moon Over Killaloe 2000

Join us for a full week of soundmaking and radio art in the Ottawa Valley. This is a rare chance to get away from the pressures of daily life and focus on listening and creating.

Full Moon Over Killaloe is a rural artist retreat for those interested in exploring the creative use of sound. The week's activities include:

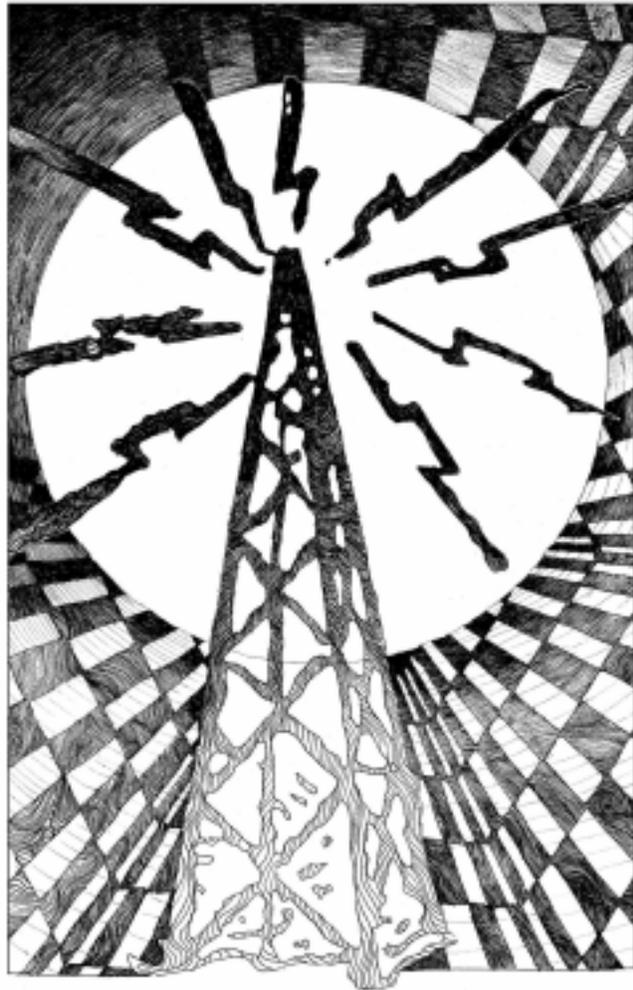
- Listening sessions,
- Soundwalks
- Field recording sessions
- Hands On Workshops
- Opportunities to collaborate with other radio artists
- Time to work on your own projects

Guest Artists will be Michael Waterman, Peterborough, Ontario and Andra McCartney, Montreal, Quebec.

"I had been lacking the comradary and inspiration needed to motivate me to create more art. I found the missing elements at the Full Moon Over Killaloe." - *Dave Solursh - Collingwood, Ontario*

"FMOK grounded me in such a way that the technology I use can extend my spirit, rather than obscure it. Whenever I need to rekindle that feeling, I think of FMOK." - *Cliff Caruthers, Kansas City MO*

"Over the week one couldn't help but be influenced and inspired by the diverse range of work that was presented or being explored." - *Scott Stevens, Kingston*



Date: August 13-20, 2000
Location: Killaloe Fairgrounds, near Killaloe, Ontario
Cost: \$200 CSIRP members (\$140 U.S.)
\$225 non-CSIRP members (\$155 U.S.)

Costs include rustic campsite (bring your own tent); most meals. Bring your own portable recording gear and any specialized equipment you want to use. A production studio will also be available.

For further information, contact Victoria Fenner at 613-274-4441

Email: fenner@community-media.com
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