



ONLINE RESOURCES FOR RADIO BROADCAST ENGINEERS

It has never been easier for radio broadcast engineers to obtain useful technical information that can help them solve a thorny issue or learn a new skill. Earlier this year a Website which is a virtual library of broadcast engineering-related technical papers called www.radiopapers.net was featured in *Radio TechCheck* (see the [November 6, 2006 issue](#)). Here are some other Internet resources full of tips (or just some great "virtual tours" of transmitter sites) which might prove useful:

Radio World's Workbench - *Workbench* provides "hands-on, in-the-trenches" tips, by and for "hands-on, in-the-trenches" engineers. John Bisset, a chief engineer, contract engineer, industry equipment representative (and frequent presenter at NAB engineering conferences) with almost four decades of experience, has compiled thousands of technical tips from readers around the industry, and adds his own special insights.



Articles dating back to 2000 are accessible online at <http://rwonline.com/pages/s.0056/t.p0001.html> – some of the highlights are listed here:

- [Got Gas? Try these handy aids](#) (9/1/06) - When was the last time you checked your nitrogen regulator assembly? You'll be amazed at the assortment of gas-related accessories that can make your life easier and safer.
- [Looking for leaks? Try Formula 409](#) (8/2/06) - Yes, antennas and line sometimes will leak air. But if you're losing tanks of air on your pressurized FM lines, more than likely you will find the problem on the ground. Armed with a fresh tank of air, pressurize the line to about 3 psi, as read on your regulator. Then spritz a bottle of Formula 409 or similar brand cleaner on the manifold, fittings and regulator assembly and along the hose connecting them.
- [Increase efficiency – add cooling](#) (4/12/06) - It won't be long before transmitter buildings that lack air conditioning will turn into hot houses in many parts of the country, as higher daytime temperatures approach. Faced with an older AM building with outside ventilation but no air conditioning, one engineer added a box fan to his 5 kW dummy load.
- [Document your site economically](#) (10/26/05) - Last time, we provided a starting point for inspecting the outside of the transmitter site. For best results, perform that procedure quarterly, if not monthly. Now let's move inside. What follows is a basic list that an entry-level technician can use. Whether you're at the site for a routine inspection or to troubleshoot an emergency, this advice will serve you well.
- [Digital cameras offer protection](#) (7/6/05) - We've shared thousands of tips in this column through the years. Perhaps the best, though, involves a recent technological development: the digital camera. Almost anybody can afford one. Last issue, we shared useful ways you can use a digital camera to diagnose transmitter problems - poking the lens in places your head won't or shouldn't go; documenting a component on which the circuit identification number has worn off. In this day of litigation, several contract engineers I know document transmitter sites through a series of digital pictures, snapped when they take responsibility for a station. Why? Missing equipment, missing tools - the list goes on.
- [Be nice to the soda machine man](#) (7/14/04) - If you want to move big rectangular devices with care, consider people who do it all the time: the folks who transport vending machines. The vending company that has done business with your station for years probably can arrange to send over a couple of stalwarts with the specialized dollies, appliance movers, truck with lift gate and roller skates to get your gear carefully from where it is to where it needs to be. These folks definitely know how to do it and they are flexible.

Tower Site of the Week – broadcaster and journalist Scott Fybush maintains the “Tower Site of the Week” at <http://www.fybush.com/siteindex.html> which chronicles his many visits to broadcast facilities in the U.S and abroad, including some spectacular photos. A partial list of the places featured on this site is given in the table below.

Alabama – Birmingham, Huntsville	Louisiana – New Orleans (before Katrina)	Ohio – Eaton, Cincinnati, Hamilton, Mansfield, Ashland, Columbus
Alaska – Nome	Maine – Bangor, Baldwin, Litchfield, Portland, Bath	Oklahoma – Oklahoma City
Arizona – South Mountain, Phoenix	Massachusetts – Paxton, Needham/Boston, Marshfield, Ashland, Salem, Lowell	Pennsylvania – Grove City, Bloomsburg, Reading, Philadelphia, Scranton, Pottsville and Shenandoah
California – LA, San Diego, Santa Barbara, Ventura county, San Francisco, Mt. Wilson, Stockton	Michigan – Flint, west Michigan	Rhode Island – East Providence, Pawtucket
Connecticut – Trumbull, Hartford, Avon	Minnesota – Minneapolis/St. Paul, Duluth, Eveleth, International Falls, Chisholm, Hibbing	South Carolina – Columbia, Newberry and Union, Greenville/Spartanburg
Delaware – Wilmington	Missouri – St. Louis, Kansas City, Jefferson City/Columbia	South Dakota – Yankton, Sioux Falls
Georgia – Atlanta	Nebraska – Omaha and Lincoln, Rockford	Tennessee – Chattanooga, Nashville
Illinois – St. Louis, Rockford, Dubuque, Chicago	Nevada – Las Vegas	Texas – Dallas-Fort Worth
Indiana – Evansville, South Bend, Lafayette, Terre Haute	New Hampshire – Mount Washington, Dover	Vermont – Mount Mansfield, Burlington
Iowa – Des Moines, Sioux City, Iowa City, Cedar Rapids	New Jersey – Carlstadt/East Rutherford, Alpine, Lyndhurst, Lodi	Virginia – Roanoke and Lynchburg
Kansas – Shenandoah, St. Joseph, Topeka	New York – Jamestown, Utica, Buffalo, NYC, Rochester, Plattsburg, Johnstown and Gloversville	Wisconsin – Duluth-Superior, Eau Claire, Madison, Milwaukee, Fond du Lac, Green Bay, Wausau
Kentucky – Lexington, Louisville, Cincinnati	North Carolina – Charlotte, Asheville, Greenville, Raleigh/Durham	International – Canada, Mexico, France, England, American Samoa

Broadcaster Net - Broadcast Net, <http://www.broadcast.net/index.html>, is a coalition of professional broadcast service and equipment providers in a centrally located domain area on the Internet. Some of the services accessible from this site include:

- [BNet Listservers](#) – a directory of broadcast-related listservers (including links for subscribing and unsubscribing and access to list archives) such as Radio-Tech (forum for discussion of radio engineering topics) and “B.E.A.N.” – the broadcast engineer amateur radio network discussion forum.
- [Broadcast Software FREE](#) – a collection of broadcast related freeware, shareware and commercial demoware is presented for free download by The Society of Broadcast Engineers and Broadcast Net, in co-operation with the software authors.
- [FCC Rules on the Web](#) – an online copy of the FCC’s rules, including a link to “Rule changes sorted by date,” listing the most recent 250 changes to the FCC’s rules.
- [Broadcast History Archive](#) – this link goes to the Website of “oldradio.com,” whose mission is to collect and preserve historical and current information, graphics, printed materials, and whatever else can be accumulated to help radio enthusiasts, researchers, and students find information on the background and history of the industry.
- [Resistor Color Code](#) – the user selects the color bands on a resistor, then the Website converts this color code into the resistance value and tolerance, and there’s even a picture of the resistor with the selected colors on it!
- [Broadcast Linx](#) (BLinx) – a page with literally hundreds of links to broadcast-related sites.



