

**The Central Texas Amateur Radio Club  
meets the first Tuesday of each month at 7:00 PM at the  
Bell County Communications Center, 708 West Avenue O, in Belton**

### From the Editor's Desk...

*Rick Murray, K6WXA*

I asked Terry if I could have his space this month as he's been busy with other stuff and I had thoughts to pass along that you might find entertaining. This past month, my wife and I spent about 2-1/2 weeks in our old stomping grounds in California. The weather during the trip there, averaged between 108 to 113 degrees from Junction, Texas all the way into Palm Springs, California. Ugh! Once in the Los Angeles basin though, it was a very pleasant 84 degrees.

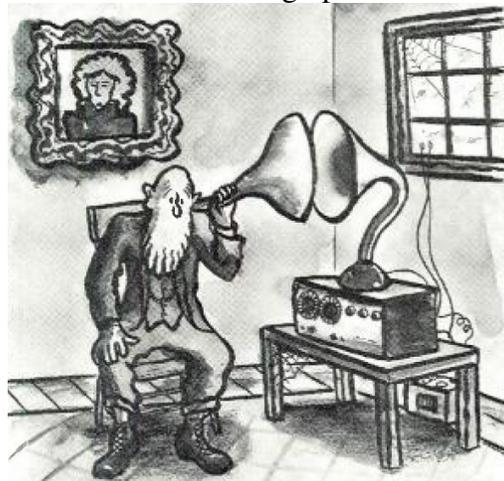
Shopping in California is, well, a culture shock. Here in Texas, those cheap little plastic bags that you bag your groceries in, in such stores as H-E-B; those are outlawed in California. You either bring your own, or pay a dime a-piece for paper bags. Gas stations here in Texas sell beer; in California, you can go into a gas station and buy fine wines. While there, the gas will cost you \$2.89 a gallon. And if you're a smoker like me, cigarettes run \$9.00 a-pack.

We also spent quite a bit of time in Redondo Beach - walking along the strand, visiting the curio shops, the beach side restaurants, Fisherman's Wharf and the pier. Right next door to Redondo, is Hermosa Beach where they proudly proclaim "No Shirt-No Shoes-No Problem." All in all, a great trip. On the way back we spent the night in Fort Stockton, Texas. If you've never been to Fort Stockton, let me tell you about it... 'nuff said.

Coming up this month we need to appoint a Nominations Committee for the selection of certain prospective club officers for next year. The weather is heating up and so are ham radio events, contests and a slew of DX! The month of August is a busy one for ham radio. So please read on, and I hope you enjoy the contents.

Our next meeting is Tuesday, August 1st, at 7:00 PM at the Bell County Communications Center. Since we didn't have a club meeting in July, I hope you'll come out and attend this one. Hope to see you there!

*73 de Rick, K6WXA*





"Theater 5 presents..."



*Theater Five*, so named because of its five o'clock time slot, first aired August 3rd, 1964 and was ABC's attempt to revive old-time radio drama liking to the Golden Age of Radio, though it came a bit late; but better late than never.

The program was an anthology of short stories, having a good bit of science fiction and with some of the plots seeming to have been taken from the daily newspaper. The stories are pretty good, though "trite" in many cases, with unresolved endings and sometimes the bad guy got away with some awful crime. There are also some episodes that were just plain unusual.

Like all attempts at bringing back old time radio drama, Theater Five just didn't get it quite right. The sort of blaring music used, in particular, is obviously "sixties," and works against the feel of "old time radio."

Nonetheless, it's one more series of radio dramas to listen to. Theater 5 aired until July 30, 1965 with 260 episodes in its one year run. You can tune-in to this last attempt of reviving old time radio at: [https://archive.org/details/OTRR\\_Theater\\_Five\\_Singles](https://archive.org/details/OTRR_Theater_Five_Singles)



The Central Texas Amateur Radio Net meets every Thursday at 8:00 PM on the N5ZXJ repeater, on 145.310(-) PL 123.0 Join Us!

### August NCS & Back-Up NCS Schedule

August 3rd:	August 10th:
Net Control: KE5ISN	KG6FUJ
Back-Up: KG6FUJ	K6WXA

August 17th:	August 24th:
Net Control: K6WXA	KD5FJF
Back-Up: KD5FJF	AD5SK

August 31st:  
 Net Control: AD5SK  
 Back-Up: W5VEX



Once again the capitol city is the place to be August 4th & 5th, at the Crowne Plaza Austin, 6121 N. IH-35 in Austin, for the summer meeting of the Texas VHF-FM Society and the ARRL Texas State Convention. Talk-in frequency is 146.940(-) PL 107.2 and call for W5KA. For more information please visit:

<http://www.austinsummerfest.org/>



### 222 MHz and Up Distance Contest

Contest period runs from 1800 UTC August 5th and ending at 1800 UTC August 6th with the objective of working as many stations as possible on the 222 MHz through 241 GHz bands using any allowable mode.

This is the ARRL's newest contest, replacing the old "August UHF Contest." Further information with complete rules can be found at:

<http://www.arrl.org/222-mhz-and-up-distance-contest>



## Coryell County Joint Comm Group Meeting

The next meeting of the Coryell County Joint Comm Group will be on Tuesday, August 8th, at 11:30 AM, at the Lil Tex Restaurant, located at 502 South Main Street, in Copperas Cove.



## Civilian Conservation Corps On-the-Air Weekend

The Civilian Conservation Corps On-the-Air weekend starts Saturday, August 12th at 14:00z and will run until Sunday, August 13th, 21:00z. The event is to honor the contribution that "The Boys" of the corps made to our country by putting the sites of the CCC camps back on the air.

You are encouraged to activate the actual location of one of the camps or, if it is no longer accessible or you cannot get permission to set up on the site, you may operate from one of the project sites the camp worked on.

Many state and local parks have buildings that were constructed by the "CCC Boys" and would make a suitable place to not only honor them, but to also promote amateur radio at the same time.

For more information, please visit: <http://www.qsl.net/ccc/> which also has a link listing the CCC project sites which were conducted in the State of Texas.

"The ether is a-thrill with magic impulses that soar and dip above the city's crowded streets. For real summer enjoyment you cannot do without radio."

*Elmer T. Cunningham - August, 1925*



## International Lighthouse & Lightship Weekend

Not a contest, but this operating event runs from 0001 UTC, August 19th to 2359 UTC August 20th. For more info on this event, please visit: <http://illw.net>



## North American QSO Party

Contest period is from 1800 UTC, August 19th to 0600 UTC August 20th, on 160, 80, 40, 20, 15 and 10 meters. This is a great opportunity for anyone working towards their Worked All States or for anyone new to the HF bands, as the contestants aren't interested in "rag chewing" but rather, in making contacts and moving on. For more info, visit: <http://ncjweb.com/naqp/>

## National Radio Day

Sunday, August 20th, is National Radio Day - yes, there is such a thing.

Fireworks aside, get on the air, make some contacts, or simply take the time and tune in your favorite station or spin the dials and see what's out there.

Maybe use the occasion to post up comments about your favorite on-air radio personality on social media. Those in radio will appreciate it.

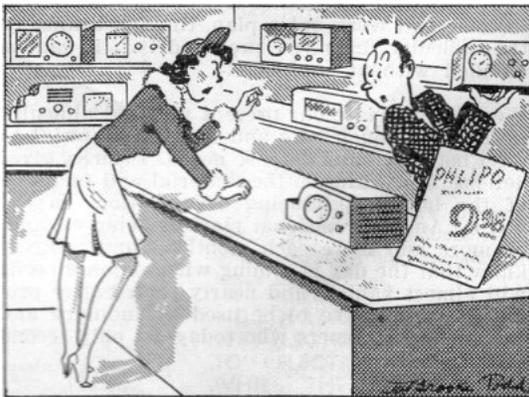
Treat this event like its the only one you'll do all year.





## U.S. Islands Event

This event will be on Saturday, August 26th from 1200 UTC through 0300 UTC Saturday, August 27th, and promotes portable ham radio operation from islands in all bodies of water — lakes, rivers, streams, ponds, and coastal islands. More information on the U.S. Islands Program, is available at: <http://usislands.org/>



"I want a gadget that will turn off the radio next door."  
*Radio News* - August, 1941

## Radio Station WWV Invites Reception Reports

The resurrected 25-MHz signal of time and frequency standard station **WWV** is now emanating from a circularly polarized turnstile antenna, with 2,000 watts output. Silent since 1977, the 25-MHz signal returned to the air on an “experimental basis” in April 2014, and it’s been transmitting ever since — initially on a broadband discone until August 2015, when it switched back to a vertical, which it used until the July 7th switch to circular polarization.

Reception reports can be sent via email to: [wwv@nist.gov](mailto:wwv@nist.gov) or by regular mail to: Radio Station WWV, 2000 E. County Rd. 58, Fort Collins, CO 80524.

## 'Observe' August 21st Eclipse with your AM Radio

*Joe Rao, Sky & Telescope*

Solar eclipses are more than remarkable visual astronomical phenomena; they’re pretty interesting from a radio viewpoint too. Should overcast skies prevail over your location on eclipse day, you can still make some interesting observations using an AM radio.

Dramatic changes can take place in radio reception when day changes into night and vice versa. Distant radio stations along and near to the path of totality might briefly experience enhanced propagation, thus making long-distance reception possible during a solar eclipse unlike any other time.

Radio signals in the commercial 540–1700 kHz AM radio band can be heard for hundreds, sometimes even thousands of miles under the cover of darkness. This is especially true of the so-called “clear channel” (Class A) radio stations which are frequencies set apart by international agreement for use primarily by high-powered stations designed to cover wide areas.

Those 50,000 watt Clear Channel Stations located near the path of totality during the eclipse, will include:

WSM	Nashville, TN	650 KHz
KBOI	Boise, ID	670 KHz
WSB	Atlanta, GA	750 KHz
WHAS	Louisville, KY	840 KHz
KTWO	Casper, WY	1030 KHz
WHO	Des Moines, IA	1040 KHz
KFAB	Omaha, NB	1110 KHz
WBT	Charlotte, NC	1110 KHz
KPNW	Eugene, OR	1120 KHz
KEX	Portland, OR	1120 KHz
WLAC	Nashville, TN	1510 KHz



**G8OFQ** will be active from Isabela Island, Galapagos Islands 1 August - 31 October signing **stroke HC8**. QSL via his home call.

**JA6REX** will be active from Chuuk Islands, 28 August - 3 September as **V63KS**. QSL via his home call.

**VE6SH** is active from Antigua Island, until 7 August as **V29SH**. QSL via his home call.

A group is active on Hiva Oa Island, in the Marquesas Islands, until 6 August. Then from Moorea Island, 15 August - 5 September as **TX5EG**. QSL via **F6BCW**.

A group is active on Aruba Island, until 6 August as **P4ØX**. QSL via **DL8UD**.

**F4GHS** will be active from Aitutaki Island, 7 - 16 August and Rarotonga Island, 16 - 25 August as **E51GHS**. QSL via his home call.

A group will be active from Robben Island, South Africa, 9 - 13 August as **ZS9V**. QSL via **MØOXO**.

**F6CTF** is active from the French Polynesia Islands, now through September as **TX5JF**. QSL via his home call.

**PY2DY** is active from Lesvos Island, Greece, until 2 August as **SY8APQ**. QSL via his home call.

**VE7ACN** will be active from Hinchinbrook Island, 9 - 15 August signing **stroke AL3**. He will then be active on Kayak Island, 18 - 28 August signing **stroke NL6**. QSL to his home call.

**TZ4PR** is active from Mali until October. QSL via **F1UIJ**.

**W5JON** is active from St. Kitts Island, until 5 August, as **V47JA**. QSL via his home call.

**DC4CQ** is active from Senegal, until 11 August, signing **stroke 6V**. QSL via his home call.

**CT1BWW** will be active from Faroe Islands, 1 - 10 August signing **stroke OY**. QSL via **EA4URE**.

**WW6RG** will be active from Kwajalein Atoll, Marshall Islands 21, 23 August signing **stroke V73**. QSL via his home call.

**KQ2I** will be active from Efate Island, 29 August - 14 September as **YJØAT**. QSL via **NR6M**.

A group is active from the Royal Mint in South Wales, as **GB4RME** until 5 August. QSL via **GWØANA**.

Special event station **GB5RC**, will be on the air August 3rd through the 7th aboard the *Ross Revenge* marking the long and colorful history of Radio Caroline. QSL via **G6NHU**.

**DL7AT** is active from Aruba Island, signing **stroke P4** until 6 August. QSL via his home call.

A group will be active from Georgia, 3 - 13 August as **4LØGF**. QSL via **F5RAV**.

**IZ7GXB** will be active Macedonia, 21 - 25 August signing **stroke Z38**. He will then be active from Albania, signing **stroke ZA**, August 25 - 29. Then he will travel to Montenegro, where he will operate as **4O7GXB** from August 29 to September 3. QSL via his home call.

**DM4DX** is currently active in Egypt signing **stroke SU** until November. QSL only via LotW.

**EA5RM** is active from Bolivia until 14 August as **CP1XRM**. QSL via his home call.

**NN3RP** is active from Nicaragua until 4 August as **YN2RP**. QSL via his home call.

**ZL1BQD** is active from Samoa, until 15 August as **5WØRR**. QSL via his home call.

# Noise Inquiry Spurs Recommendations

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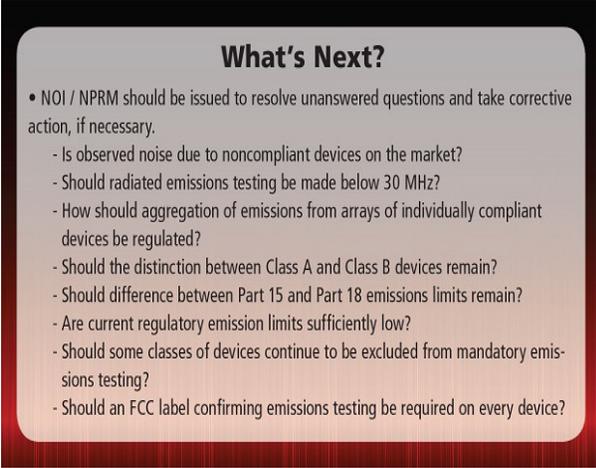
Broadcast engineers are becoming more aware of the impact of environmental radio noise on reception. The recent efforts at “AM improvement” have highlighted this challenge to AM stations, and evidence is growing that reception on FM and TV bands is being impaired as well.

The general public, however, is far less aware of our growing *noise pollution* issue. Listeners or viewers may not know *why* there is a reception problem; they just perceive the signal as “weak” and may switch to a competitor. Broadcasters are hearing a common pattern in listener complaints: “I used to get good reception, but not anymore.”

Other industries using RF wireless technologies report growing noise trouble as well. Designers of such devices are not getting the range they expect due to unexpectedly high background noise.

Growing awareness of the problem of excessive radio noise in the environment last year led to the FCC’s Technical Advisory Council forming a working group to study the problem. Inquiry ET-16-191, released in June 2016, sought public comments.

The responses came from about 100 individuals, companies and organizations, from a broad array of RF users including broadcasters, equipment manufacturers, consulting engineers, radio astronomers, amateur radio groups and users of other spectrum services such as cellular, GPS and public safety communications. Industries often blamed for interference were also represented.



**What's Next?**

- NOI / NPRM should be issued to resolve unanswered questions and take corrective action, if necessary.
  - Is observed noise due to noncompliant devices on the market?
  - Should radiated emissions testing be made below 30 MHz?
  - How should aggregation of emissions from arrays of individually compliant devices be regulated?
  - Should the distinction between Class A and Class B devices remain?
  - Should difference between Part 15 and Part 18 emissions limits remain?
  - Are current regulatory emission limits sufficiently low?
  - Should some classes of devices continue to be excluded from mandatory emissions testing?
  - Should an FCC label confirming emissions testing be required on every device?

Commenters cited radio noise sources such as power lines, modern lighting systems, switching power supplies, motor speed controllers and cable TV leakage. Several respondents pointed out that these devices needn’t cause interference problems *if designed properly*. Unfortunately, too many seem to not meet that standard.

Twenty respondents had concrete suggestions for study methodologies. Nineteen comments specifically called for more effective enforcement of current regulations. And respondents were virtually unanimous in calling for an official noise study.

The primary recommendation is that the FCC should issue a Notice of Inquiry or Notice of Proposed Rulemaking to resolve unanswered questions and take corrective action.

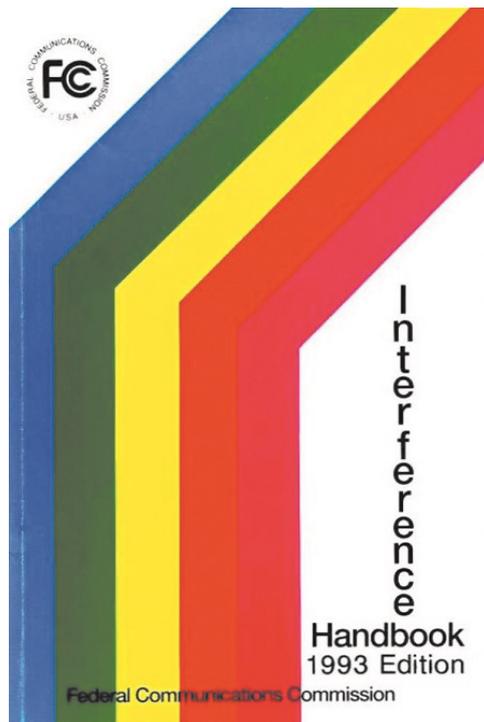
In addition, the TAC Working Group raised several enforcement concerns:

- There is evidence that devices claimed to be “FCC Compliant” were actually never tested, or the design was cost-reduced after they were tested, leading to non-compliance in delivered products.
- The FCC Enforcement Bureau needs to stop the manufacture and import of non-compliant switching power supply “wall warts,” LED and CFL lights, and other products.
- The current FCC limits must be enforced effectively to stop the rapid rise in the noise floor across the spectrum before the problem becomes completely unmanageable.

On April 11, 2017, representatives of the Association of Federal Communications Consulting Engineers met with FCC Chairman Ajit Pai to discuss the problem of the rising radio noise floor. These respected engineers reviewed the nature of the problem with the chairman and made a strong case for enforcement of regulatory limits on noise.

The group’s recommendations covered both the rising noise floor issue and enforcement challenges with the following points:

- There has been no systematic study of RF noise since the 1970s.
- Many radio services are being compromised due to the rising noise floor.
- “Internet of Things” system performance is suffering due to the background noise.
- The FCC should re-establish the random sampling program to test products for compliance.
- The FCC should stop turning a blind eye toward “at variance” practices.



The AFCCE presentation made one final point: The commission’s current offering to consumers experiencing interference is the “FCC Interference Handbook.” This booklet is offered online but was last updated in 1993 and is long out of date. It can be found at:

<https://www.arrl.org/files/file/Technology/FCC%20RFI%20Information/tvibook.pdf>

The group encouraged the commission to update this important document and create an online portal for submission of interference complaints.

While we are fortunate to have an FCC Chairman who is pro-broadcast and appears to be receptive to our concerns, there has been no word as of mid-June so far from the commission in response to the recommendations of the TAC Working Group or the AFCCE representatives’ meeting with Chairman Pai.

The NAB, SBE, ARRL and other wireless communications associations need to take an active role in keeping up with new technology developments and identifying the potential impact they may have on the RF noise floor.



## Making the Most of Summer Reception

Radio News - August, 1927

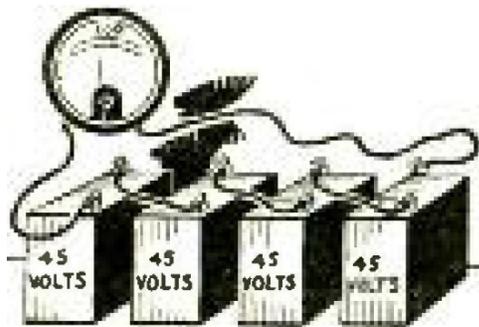
*"No, we don't use our radio much in the summer. You know. The static is so bad."* You have no doubt heard such an explanation offered many times for parking the radio among the moth balls from May till September.

Summer reception is admittedly not as satisfactory as that in winter. Signal strength is lessened, atmospheric interference is increased, and distance range is limited. But granting all this, there is still no reason to relegate your radio to the same disuse as sleigh bells during the hot months - at least not under present day conditions.

If you give it a fair chance, it will go right on giving you information and entertainment in spite of static and the thermometer. The broadcasters continue to put good programs on the air, many of them with features not possible during the winter, such as sporting events. All you have to do is give your radio a chance first by getting rid of the notion that summer static makes it practically useless.

You have probably noticed nights during the winter when the static was just as bad as on the worst during the summer, and summer nights when the air was as clear and the signals as sharp as during the winter. You can easily overcome even bad static, by making sure that your receiver is in proper condition.

Because some have the notion radio is only for the winter, many people let their sets struggle through the summer with worn-out tubes and run-down batteries. The result is noise they charge to static, and weak signals; the fault is solely that of defective accessories. So be careful to see that your tubes are live and your batteries as fully charged in the summer as during the winter.



the volume will still be found ample for all practical purposes, at the same time making the program much more enjoyable.

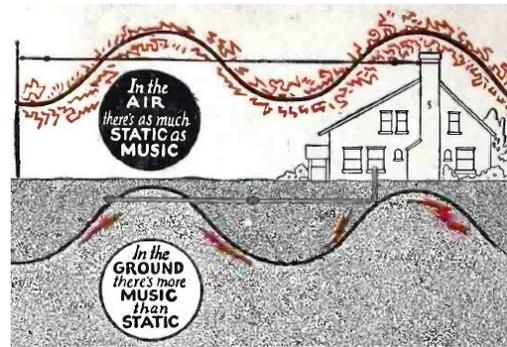


Now as to static, as you know, modern receivers are designed to overcome this much more successfully than older types; and you can assist them by some simple means.

For example, even very bad interference of this kind can be materially reduced by merely turning down your rheostats (the filament current controls). This, of course, also reduces the volume; but, since you will probably be listening to a nearby station, the

A better way of combating "old man static" is by using a small indoor aerial. This can be made by running a piece of insulated wire from ten to thirty feet long around the baseboard or picture molding. Simply disconnect your usual outdoor aerial and connect the indoor wire in its place. You will find that this reduces the amount of static and other interfering noises picked up to a considerable degree.

If you live out in the country or, even though you live in the city, if you have access to a back yard, you can do away with practically all static, not only in the summer, but in the winter as well. Excellent reception can be had by the ground method, using no aerial. All you need to do is to bury your aerial in your back yard or any open plot. Such underground radio "aerials" require a hole about three feet in diameter. The hole is sunk about four feet into the ground; while a lead



lead covered connection cable runs to your set. With such a device it is possible to listen, even during a thunderstorm, and you will not be troubled with an excessive amount of static. During normal periods, the underground system picks up practically no static at all. Long distance stations can be picked up with the "underground aerial" method just as with the outdoor open aerial.



But the principal reason why you use your radio less in summer than in winter, is that you want to be out of doors. Likewise, you do less reading, less theater going, less card playing, less dancing in hotels and halls, because it is too hot indoors. Instead, you seek porches, yards, parks, roads, camps - anything that promises relief from the heat.

However, instead of putting the radio on the shelf till cooler weather, you can take it out of doors with you easily and conveniently. Should your receiver be provided with a separate speaker, the solution is still more simple. All

you need do is equip the speaker with an extension cord and place it in a window or on the porch. This makes it possible to place the speaker in any of several locations that command the out of doors, and offer as well considerable convenience when it is desired to move the speaker about the interior of the house during the winter. For sets with a built-in speaker, place it near a window so that those on the porch or in the yard may hear the program.

In fact, if your receiver is already equipped with a built in speaker, you will find it of material advantage, as many have done, to purchase in addition a separate speaker, which can be moved about with the convenience just suggested, both in summer and winter.

In any event you should have little difficulty in finding ways and means of adapting your receiver for full summer usefulness. The principal thing is to remember that your radio can give you just as much pleasure in summer as in winter, if you give it a fair chance.



## Dorothy E. Brunson

- An Industry Icon -

Dorothy E. Brunson, earned a bachelor's degree in finance and accounting in 1960 from the State University of New York Empire State College and went to work in 1962 as the assistant controller of station WWRL in New York City. There, she advanced very quickly and within three months became controller. Before she left WWRL in 1969, she was the station's assistant general manager and corporate liaison.

She then went to work as an executive with the Inner City Broadcasting Corporation, an American media company and one of the first broadcasting companies wholly owned by African-Americans. There, under her management, she turned the failing operation of station WBLS, into the sixth-largest radio station in the nation.

In 1979 she left the Inner City Broadcasting Corporation, and turned her attention to Baltimore, where she established Brunson Communications Inc. and purchased station WEBB - becoming the first African-American woman in the nation to own a radio station.

The station was in deteriorating condition, mired in bankruptcy, owing back taxes and



facing some 600 violations by the FCC. For the first four years under her ownership, the station operated in the red and she took no salary, living off of previous earnings she had acquired. The station initially operated only during daylight hours, but after a protracted 5-year legislative struggle with the Baltimore City Council, approval was finally gained to construct two 350-foot towers which would permit 24-hour operation and made the station more profitable.

In 1990 Brunson would sell off her radio station to provide funding to establish WGTW-TV (Channel 48), broadcasting from Burlington, New Jersey, a suburb of Philadelphia, becoming the first African-American woman to establish and own a television station. She explained her reasoning for wanting to go into the television market, saying, "Because I'm a dreamer. The great fantasy. The impossible, the impractical. Not wanting to be caught up in the boredom trail."

She later sold WGTW-TV to the Trinity Broadcasting Network in 2004, as the station was experiencing additional hardships with limited financial resources in acquiring additional quality syndicated programming.

Thanks to the pioneering work of Ms. Brunson, the world of broadcast media was opened up to African-American entrepreneurs and business leaders. Her vision and commitment to excellence at every level of the business led to her success and paved the way for others to find success in cities across America. Ms. Brunson was a true pioneer in the radio broadcast industry.

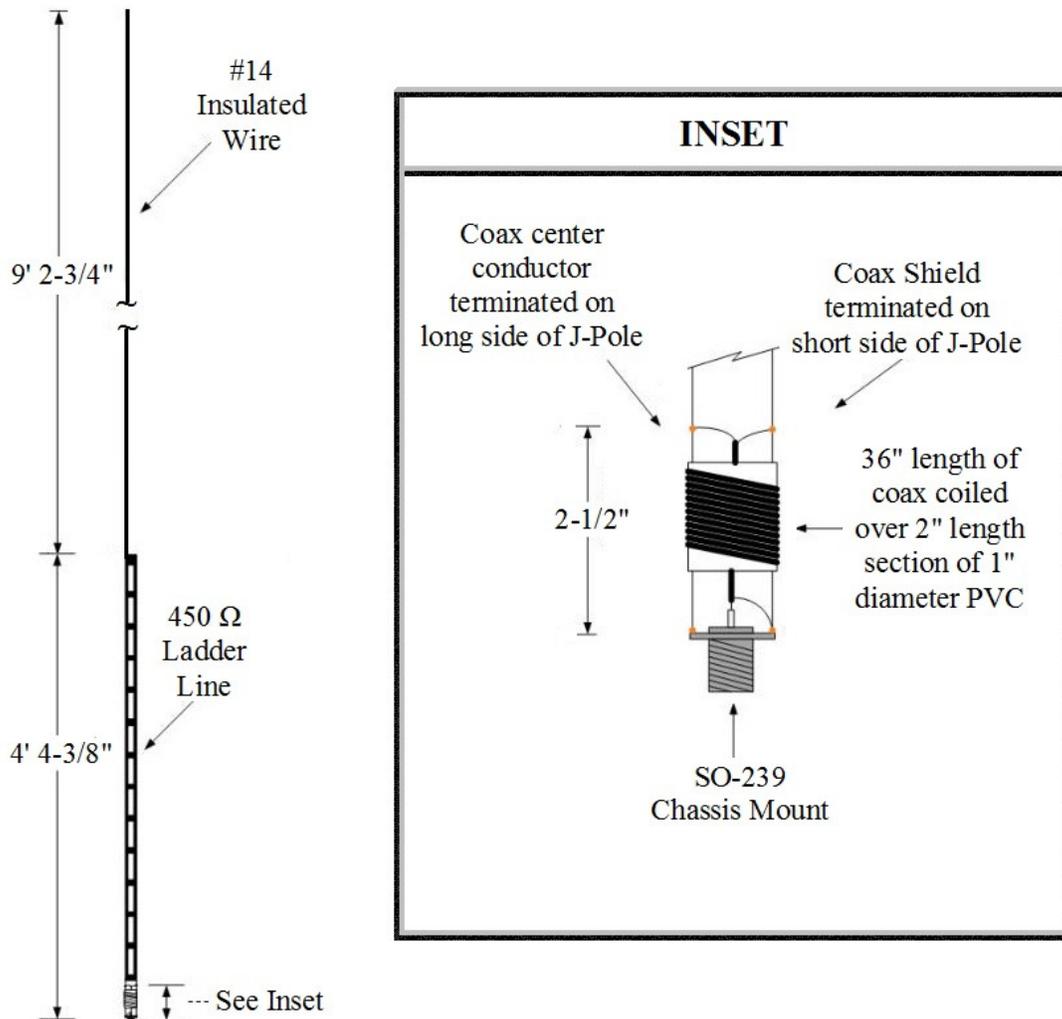
She passed away on July 31, 2011, at age 72 of complications from ovarian cancer at Mercy Medical Center, in Baltimore.

# Ladder Line Wire J-Pole for 6 Meters

Larry D. Brown, WB5CXC

*Editor's Introduction...* This antenna design, by Larry D. Brown-WB5CXC, is from his website which can be found at: [http://www.wb5cxc.com/6m\\_ipole.html](http://www.wb5cxc.com/6m_ipole.html)

This page illustrates how to build a J-Pole antenna for use on 6 Meters made from #14 AWG insulated wire and 450 ohm ladder line.



Use a 54" piece of 450 ohm Ladder line. Cut out 3 inches of the center part of the ladder line. Solder a SO-239 chassis mount on the bottom of the Ladder Line (both sides of the ladder line will solder on the ground side of the SO-239 - this is used for the shorted part of the J-Pole). Cut a 1" diameter section of PVC pipe 2" long. Cut a 36" piece of coax and wrap the coax around the PVC pipe. This will be a quarter wavelength RF choke. One end will attach to the SO-239, the center of the coax will connect to the center of the SO-239 and the shield of the coax will connect to the outer portion of the SO-239. Strip the insulation off the ladder line 2 1/2" above the SO-239. Attach the center of the coax to the side that will have the long wire attached, the shield side of the coax will connect to the short side of the J- Pole. Connect a 9 foot, 2-3/4 inch length of #14 AWG insulated wire to the top of the ladder line, as shown in the diagram.