



# The FLASH!



Dedicated to the Preservation and Education of Wireless, Radio, Television and Associated Equipment



In this issue ...

- ✓ Denver Radio Station KPOF and HD
- ✓ CRC 2008 Show & Contest Results

VISIT OUR WEBSITE AT [WWW.RADIOACE.COM](http://WWW.RADIOACE.COM)

# COLORADO RADIO COLLECTORS ANTIQUE RADIO CLUB

Founded October 1988

The Flash! Copyrighted 2008, all rights reserved

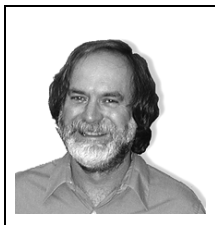
Volume 19, Issue 3

May/June 2008

## Contents of this issue

<u>Article</u>	<u>Page</u>
✓ <b>Dener Station KPOF, On the Frontier Again - HD Radio!</b> - by Wayne Gilbert	<b>3</b>
✓ <b>The CRC Annual 2008 Show and Contest Results</b>	<b>5</b>
✓ <b>March '08 Meeting Activities</b>	<b>7</b>
✓ <b>Collector Books for Sale</b> - by Charles Brett	<b>8</b>
✓ <b>The Open Trunk Classified Advertisements</b>	<b>9</b>

### MESSAGE FROM THE PRESIDENT



Please join me in welcoming new members **John Bellini** and **Bill Herold** both of whom have interesting professional backgrounds. A big *"Thank You!"* goes out to longtime CRC supporter **Riggs Smith** for his generous donation of the significant quantity of tubes which were distributed amongst members during the March meeting.

Thanks also to all who made our annual show a success again this year. The number of contest entries remained consistent with previous years. Peter and Dana report a significant increase in attendance at the expanded, improved and well publicized Expo. The CRC has already been asked to participate in Vintage Voltage again next year! The specialty category selected by vote this January differed from the concept of a major brand (as designated in most previous years) but was well represented. We even had three terrific entries in the often underrepresented television category! Photos from the show and contest results appear in this issue.

One thing I have heard from time to time is disappointment that open trunk sales are no longer a routine part of meetings. The weather is improving so I'd like to encourage all those who have items for sale to park in the northeast corner of the parking lot during the upcoming meeting in Littleton. Many of us are there before the library opens at 1 PM and that easternmost row of spaces is usually open when we arrive. If everyone parks in one area and more items are brought out, perhaps this aspect of club meetings will once again flourish.

Continued on Page 9

### CRC CONTACTS

<b><u>President</u></b> Robert Baumann (303) 988-2089 HQ180A@aol.com	<b><u>Vice President</u></b> Bob Cofer (303) 257-9598 radiocowboy@myway.com
<b><u>Treasurer</u></b> Mike Cook (303) 471-9596 mldcook@hotmail.com	<b><u>Archive and Books</u></b> Charles Brett (719) 495-8660 brett3729@aol.com
<b><u>Flash! Publisher</u></b> Steve Touzalin (303) 988-5394 stevetou@comcast.net	<b><u>Internet Egroup Mgr.</u></b> Mark Dittmar (303) 403-0669 mbdittmar@comcast.net
<b><u>Webmaster</u></b> Bill Grimm <b><u>Website</u></b> <a href="http://www.radioace.com">www.radioace.com</a>	<b><u>Flash! Distribution</u></b> Richard Beckman (303) 344-8565 rebdalbeck@msn.com

### Upcoming Events - Mark Your Calendars!

**Meetings:** May 18th - Littleton  
July 13th - Castle Rock  
Sept 14th - Littleton, **pending July vote**  
Nov 9th - Wings Over Rockies  
Air & Space Museum  
**Auction:** Sept 28th - Arvada

### CRC MEMBERSHIP

Annual membership in the CRC runs from **July to June**. Dues entitle members to attend meetings, "The Flash!" our newsletter, discount book prices, participation in our Spring show and Fall auction. Current annual dues are \$12. New memberships will be prorated to the following June.

### CRC MEETINGS

Meetings are held on the 2nd Sunday of every other month starting in January (except 3rd Sunday of May) at 1:00pm. The meetings consist of business, "show & tell", raffles, auctions, swap meets, technical discussions and other subjects of interest

# Denver Station KPOF, on the Frontier again - HD Radio!

By Wayne Gilbert, CRC Member

Seventy-six years after Christian station KPOF went on the air with a \$1,500 second-hand transmitter, they leaped into the Hybrid Digital<sup>1</sup> radio arena. Both events took a tremendous amount of courage and commitment. Both events were intended to provide a service to the Christian community of Denver and Colorado. The first event was successful; the success of the second remains to be seen.

The first broadcasts from radio station KPOF were only possible after a measure of arm-twisting to convince commissioner H. A. Bellows that granting a religious organization a broadcasting license would not set an "unwelcome" precedent. The fact that no one at the Pillar of Fire Church in Denver knew anything about radio broadcasting is a mark of how much courage these pioneers had.

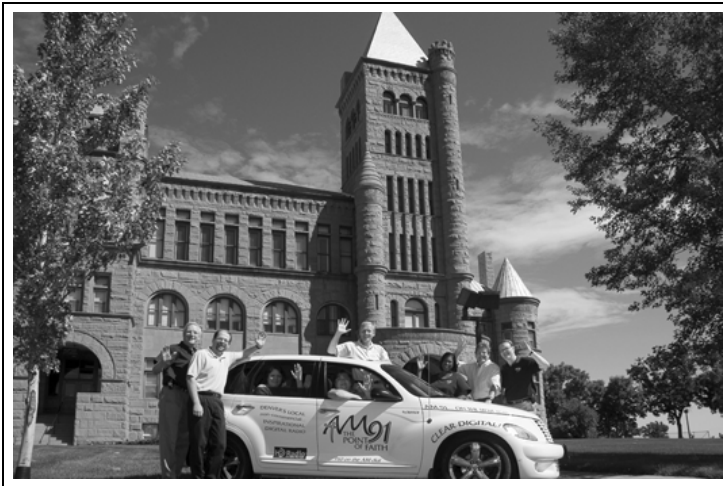
At least when they leaped into the HD radio arena, they had a skilled and experienced radioman to guide them, named Jack Pelon. It was truly one of those man-moment-machine

encounters that put a person with the right experience in a position to guide KPOF into the modern age of broadcast technology at a time when the station had to revitalize or die. The machine came in the guise of a new radio broadcasting system that would improve the quality of KPOF's AM signals to FM radio quality, and convert it to stereo in the process. A fourth component was the courage displayed by the Pillar of Fire Church's administrators when they recognized station KPOF was at that crossroads and plunged ahead with the faith of their founders.

Jack Pelon is a radio man, with an architectural background, whose career had been in Christian Radio. Before accepting a position with KPOF, he had managed other Christian stations in Denver, both large and small, and his resume included installation of three new Christian FM radio stations in Estonia.

Estonia, for those who are

unfamiliar with European geography, is a small country that borders Russia and is just across the Baltic Sea from Sweden. While a modern country, as compared with other countries in the old USSR, it was a country where modern radio parts, and components, and even tools had to be brought in from the west. The Estonians, having been a part of the former Soviet Union, and thus unaccustomed to the Western work ethic, refused to believe that Pelon's crew could build and install a radio station in the two weeks time allocated by the budget.



It is the success of this challenge that may have convinced the board of directors of the Pillar of Fire Church that Pelon was the right man to manage KPOF, and to update its equipment and philosophies to embrace HD radio.

HD radio is, very simply, the broadcast of radio signals digitally on a sideband of the frequency allocated to the station by the FCC. This signal is 'received' by a specially built HD radio, and reconverted to audio waves that a listener can hear and enjoy. "Enjoy" is an important word here because the purpose of HD radio transmission is to improve the quality of the broadcasted signal. As a rule of thumb, normally an HD signal broadcast on the AM band will have the sound quality of a normal FM signal, while an HD signal broadcast on the FM band will have the same sound quality as one would hear when listening to a stereo compact disc, played in his own home. Of course, as in all

new technology, there is a cost for this improved performance, both to the listener and to the broadcaster.

To begin with, although any broadcast radio receiver will receive HD radio signals, it takes a specially made HD radio receiver to receive the higher quality hybrid radio signals. These HD radio receivers are hard to find in most stores today, and when they are available for purchase, they are comparatively expensive. The very least expensive model HD radio available in the Denver area is priced at approximately \$200, with more deluxe models costing upward to \$2000; however, without an HD receiver, a listener will hear only the analog signal he is currently hearing on his ordinary home or car radio.

The cost for the broadcaster is not cheap either. First, it must be determined if their current transmitter(s) are sufficiently modern to transmit the HD signal. Then if the station's antenna is sufficiently modern to broadcast HD signals, it must be cleaned of all the subsidiary antennas, dangling wires, floodlights, and other things that normally get 'hung onto' a typical broadcast antenna. All these 'extras' detract from the antenna's ability to transmit a clear HD signal.

And then, there is the rat's nest of wires that most electronic systems usually develop-- note the back of your computer desk as a good example. Most of our computer systems started with a well-organized cable layout, but as we add modems, printers, scanners, external hard drives, camera hookups, USB port expanders, etc., the power and signal cables hanging from the back of our computers become a maze that 'works' until something doesn't, at which time we are forced to find the time to clean up the mess. Broadcast radio stations are often plagued with a similar mess of wires and cables, which must be organized and properly routed, or the HD signal will suffer.

1 - The term HD technically refers to Hybrid Digital, not High Definition, as commonly believed and used.



The station's control room may also need to be upgraded at this time since the rewiring needed for the new HD systems will include leads into, and out of, the control panels located there. This upgrade is the most obvious change seen by any visitor to the station, and perhaps to the employees as well. When the necessary wiring has been organized and hidden, and the control panels typically simplified, the control room becomes a much more desirable work environment, and the more organized wire and cable placement reduces the 'cross-over' interference found in snarled cables.

There are several companies who license the software and technology to convert standard broadcast radio transmissions into HD transmissions, but the most popular one is a company named iBiquity Digital Corporation. The price of their conversion is generally about \$75,000, a significant cost in today's economy.

It's probably well to step back at this point and review just how the new HD system will work, in concept. Talk-show hosts and disc-jockeys will still speak into microphones, but music and commercials that formerly were stored on cartridges or compact discs will now be stored on the hard disk of a computer, likely located in a remote part of the building. Computer software is used to determine the order of broadcast, sometimes even days in advance. (Disc jockeys can override this sequence if a situation warrants, perhaps inserting a visiting performer's recently released CD into the queue, or interrupting for a commentary or a current traffic or weather report.)

Conceptually, although not necessarily physically, after the broadcast signal is gathered from the various sources, it is sent as an analog signal to a replicator/splitter, which produces a second analog signal which is sent down a digital pathway, while retaining the original as the analog signal of the transmission package. The second

signal now traveling the digital path is converted into a digital representation of itself, and then compressed to remove any unwanted or unneeded sounds. This conversion takes several seconds to accomplish; thus, the digital signal leaving the converter now lags its analog counterpart traveling the analog path.

A packet containing the analog signal and the converted digital signal is then re-synchronized and sent to the transmitter and the antenna to be broadcast to the station's listeners.

These signals are received by the listener's receiver, which determines the quality of the digital signal. If received on a typical broadcast receiver, the signal will sound no better, or worse, than a normal analog broadcast; however, if received on an HD receiver, the quality may be significantly improved. Should the digital signal be weak or distorted, or during the first few seconds that an HD station is first 'tuned in,' the HD receiver automatically switches to, and uses, the analog component of the signal to produce the sound heard by the listener. When the digital signal improves, the HD receiver replaces the analog component with its corresponding digital component so smoothly that the listener is normally unaware of these transitions, unless he/she notices that the sound quality of the broadcast had temporarily lessened.

Keeping these transmissions in sync is very tricky, and although done automatically and mysteriously by 'black boxes' containing very sophisticated electronic circuits, it remains the responsibility of the broadcaster to synchronize the analog and digital signals, since each station's equipment may have a different 'lag time'. Maybe \$75,000 isn't really too much to pay for the technology to accomplish this synchronized hybrid transmission, after all.

When all goes well, the HD listener will hear a broadcast that is much clearer, without static or electrical interference, than can be heard by a listener with a standard analog radio. Hybrid Digital AM listeners will hear FM radio quality sound, and HD FM listeners will hear sound as though it were produced by a compact disc player in their own home. An HD listener may also benefit from other features that can be included in a hybrid digital transmission, such as seeing a song's title and performer's name appear on a

tiny digital screen, or perhaps being able to, at the press of a button, notify the station of his desire to purchase a copy of the current transmission for his own home use—for an additional fee, of course.

Station KPOF's management philosophy is to provide their listener with the highest quality of service available, and, consequently, chose to be a leader in AM HD broadcasting, having completed their conversion to hybrid radio in early 2004. Other stations have taken a 'wait and see' attitude, remembering other broadcasting technologies that have not been supported by the listening audience. It remains to be seen which philosophy will prove to be the well-timed one.

The higher quality of HD radio lends itself to fit the needs of a station that desires to be a 'companion' radio station, such as KPOF, while stations that solicit 'destination' listeners (listeners who tune to a station for a specific program) may not find the conversion worthwhile.

KPOF's management indicates that they have no accurate way of determining how many of their listeners are currently receiving their broadcasts on HD receivers, but history has shown that this small listener-supported station has always been successful in their efforts to fill a niche in the Christian Radio broadcasting spectrum.

*Note: iBiquity Digital Corporation's Internet web site, [ibiquity.com](http://ibiquity.com) provides a very good description of their system, explaining in detail the differences between hybrid AM broadcasts, and hybrid FM broadcasts. They also have very good illustrations of exactly how they utilize the allocated bandwidths of both.*

#### Sources:

**Pelon, Jack, General Manager, KPOF. Conversations and emails in February 2008.**

"How does HD work?"  
[www.ibiquity.com/hd\\_radio/hdradio](http://www.ibiquity.com/hd_radio/hdradio)

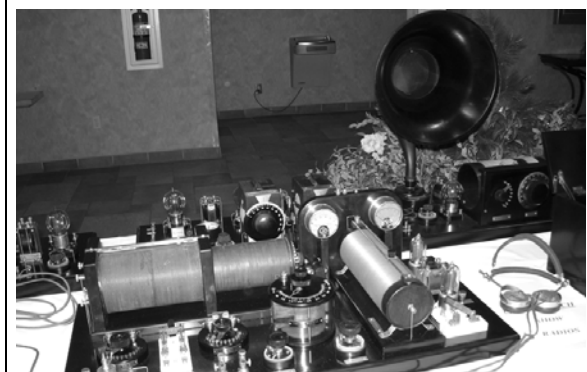
"HD radio" Wikipedia,  
[en.wikipedia.org/wiki/HD-Radio](http://en.wikipedia.org/wiki/HD-Radio)

"WHAT IS HD RADIO BROADCASTING?"  
[www.crutchfieldadvisor.com/ISEO-rgbt/cspd/learningcenter/car/hdradio\\_faqs.html](http://www.crutchfieldadvisor.com/ISEO-rgbt/cspd/learningcenter/car/hdradio_faqs.html)  
#1

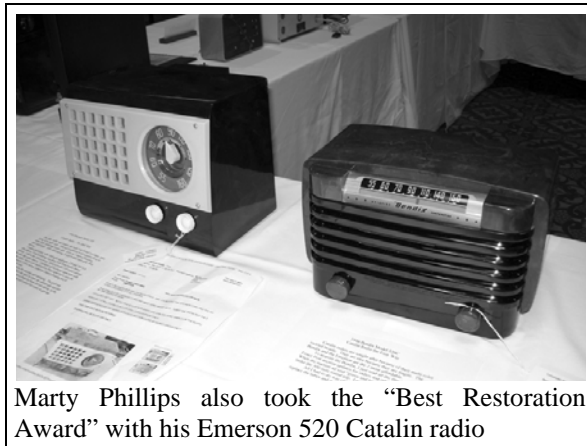
# The CRC 2008 Annual Show and Contest Results



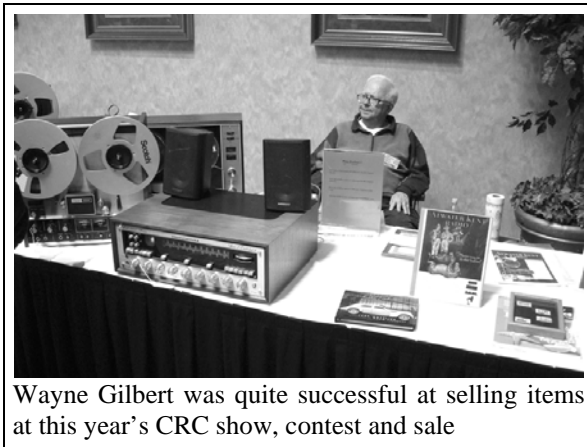
Marty Phillips and his son bask in the glow of their "People's Choice Award" - Zenith 12S268



Part of Tom Pouliot's "Best of Show Award" for his early replica homebrew radio display



Marty Phillips also took the "Best Restoration Award" with his Emerson 520 Catalin radio

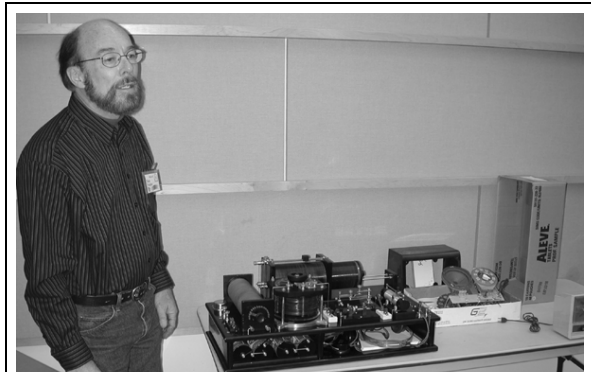


Wayne Gilbert was quite successful at selling items at this year's CRC show, contest and sale

<b>Category</b>	<b>Description</b>	<b>Owner</b>	<b>Score</b>	<b>Portable - Post 1938</b>		
<b>Accessories</b>				Zenith R-520/URR 1953	Mike Cook	475 - <b>1st</b>
Simpson Aerial Antenna	Merrill Campbell	440 - <b>1st</b>	Zenith Royal 7000-1	Mike Cook	470 - <b>2nd</b>	
All American 18618 Batt. Elim.	Jim Johnson	300 - <b>2nd</b>	Toshiba Companion C 1955	Neil Gallensky	460 - <b>3rd</b>	
<b>Bakelite</b>			Automatic Tom Thumb 1949	Bob Stutzman	400	
Admiral 48-J6 1940	Merrill Campbell	450 - <b>1st</b>	Westinghouse H-410P4 1954	Merrill Campbell	275	
Crosley 46FA 1947	Richard Alley	345 - <b>2nd</b>	Airline 14-690 1940s	David Solliday	275	
Mantola R654PM 1946	Richard Alley	340 - <b>3rd</b>	RCA B10 1940s	David Solliday	245	
RCA 45X-11 1940	Jerry Waterman	335	<u>Troubadour 1940</u>	Richard Alley	230	
Airline 14WG-624 1941	Steve Touzalin	325	<b>Pre 1926</b>			
Eca 102 1947	Merrill Campbell	315	DeForrest MR-6 1922	David Boyle	500 - <b>1st</b>	
Crosley 10-136E 1950	Marty Phillips	315	Grebe MU-1 Synchronphase 1925	Travis Ogden	425 - <b>2nd</b>	
Admiral 5Y22AN 1952	Rich Kubersky	300	Moskowitz Herbach 8-tube 1924	Bill Dial	415 - <b>3rd</b>	
Airline 04BR-513A 1940	Merrill Campbell	300	Westinghouse RA/DA 1920	Larry Weide	405	
Delco 1230 1947	Jerry Waterman	265	<u>Stewart Warner 325 1925</u>	David Solliday	305	
Sonora RBU176 1946	Mike Phillips	220	<b>Speakers</b>			
<u>Philco 48-460 1948</u>	Steve Touzalin	205	Stromberg Carlson 5A 1925	Jim Johnson	425 - <b>1st</b>	
<b>Battery - 1926-1929</b>			Air Chrome P50 1921	Jim Johnson	360 - <b>2nd</b>	
Case 60A 1926	Bob Jensen	425 - <b>1st</b>	Atwater Kent H 1924	Jerry Waterman	330 - <b>3rd</b>	
<b>Catalin</b>			RCA 103 1926	Jerry Waterman	315	
Bendix 526C 1946	Marty Phillips	445 - <b>1st</b>	RCA 103 1926	Jim Johnson	290	
Emerson 520 1946	Marty Phillips	440 - <b>2nd</b>	Truetone Horn 1925	Jim Johnson	265	
<b>Cathedral</b>			<b>Specialty, Obscure Brands</b>			
Atwater Kent 84 1931	Jerry Waterman	325 - <b>1st</b>	Aerodyn Special 1925	Bob Jensen	440 - <b>1st</b>	
Atwater Kent 944 1933	David Solliday	325 - <b>2nd</b>	Kemper K52 1926	Mark McKeown	400 - <b>2nd</b>	
Philco 70 1931	Jerry Waterman	320 - <b>3rd</b>	Kingsbury TRF 1926	Bill Dial	365 - <b>3rd</b>	
<u>Philco 60 1933</u>	Jerry Waterman	295	Mosley CM1 1962	Robert Baumann	365	
<b>Classic Audio</b>			Aetna 400 1939	Merrill Campbell	300	
Teac AL-700 1977	Robert Baumann	450 - <b>1st</b>	Trego 1923	Travis Ogden	300	
Bogen DB20 1954	Mark Kuligowski	445 - <b>2nd</b>	Paramount N315P 1936	Larry Snyder	280	
Heathkit AA161 1964	Mark Kuligowski	420 - <b>3rd</b>	Gilfillan 56-C 1946	Merrill Campbell	275	
<u>Eico HF12 1959</u>	Mark Kuligowski	350	Woolaroc 3-3A 1946	Marty Phillips	270	
<b>Communication Gear</b>			Dejur 56	Jim Johnson	265	
Homebrew Ham Xmitter 1941	Mark McKeown	480 - <b>1st</b>	Puritan 501 1946	Marty Phillips	255	
Stewart Warner R390/URR	Rich Kubersky	420 - <b>2nd</b>	Vibroplex 225 SL 1980	Robert Baumann	215	
Hallicrafters S38E 1950s	David Solliday	195 - <b>3rd</b>	<u>Cardwell CR-54 1946</u>	Robert Baumann	185	
<b>Console - Full Length</b>			<b>Television</b>			
Philco 42-1008 1942	Rich Kubersky	445 - <b>1st</b>	RCA 621 1946	Bob Cofer	480 - <b>1st</b>	
Zenith 12S268 1938	Marty Phillips	340 - <b>2nd</b>	Admiral 20X122 1949	Bill Harris	465 - <b>2nd</b>	
<u>Zenith 9S262 1937</u>	Jerry Tynan	205 - <b>3rd</b>	Philco Predicta Pedestal	Dan Busetti	425 - <b>3rd</b>	
<b>Console - High/Low Boy</b>			<b>Tombstone</b>			
Majestic 91 1929	Mark Kuligowski	430 - <b>1st</b>	Crosley 179 1934	Jerry Tynan	375 - <b>1st</b>	
<b>Crystal Set</b>			Zenith 6S128 1936	Jerry Tynan	365 - <b>2nd</b>	
Jecophone 1 1922	Bob Jensen	500 - <b>1st</b>	Admiral 551 1936	Jerry Waterman	355 - <b>3rd</b>	
<b>Homebrew, Kit</b>			Philco 623 1935	Larry Snyder	305	
Homebrew Early Radio Disp.	Tom Pouliot	500 - <b>1st</b>	Aetna 500 1934	David Solliday	290	
Bremer-Tully 1923	Rich Kubersky	420 - <b>2nd</b>	Philco 620 1936	David Solliday	285	
Homebrew Console 1930s	Larry Snyder	375 - <b>3rd</b>	<u>Crosley 515 1934</u>	David Solliday	265	
Homebrew Neutrodyne 1925	Bill Dial	375	<b>Transistor</b>			
Radiohack Kit Radio	Mark Kuligowski	335	Zenith Royal 500 1957	Jerry Tynan	460 - <b>1st</b>	
<b>Metal Box - 1920's</b>			<b>Tube/Parts Display</b>			
Philco 511 1928 w/ table	Marty Phillips	420 - <b>1st</b>	Collins Mechanical Filters	Robert Baumann	470 - <b>1st</b>	
<b>Metal Case</b>			RCA Nuistor 1960s	Robert Baumann	440 - <b>2nd</b>	
Arvin 840T 1955	Steve Touzalin	330 - <b>1st</b>	Western Electric 211D 1924	Bob Jensen	435 - <b>3rd</b>	
Detrola 568-1 1948	David Solliday	275 - <b>2nd</b>	<u>Everyready Batteries</u>	Mark Kuligowski	300	
<b>Novelty - Transistor</b>			<b>Wooden - Line Powered</b>			
Gasoline Gas Pump	Julie Mckeown	330 - <b>1st</b>	Packard Bell 66D 1940	Bill Dial	340 - <b>1st</b>	
Hot Dog w/ Mustard 1970s	Merrill Campbell	320 - <b>2nd</b>	Philco 45C 1935	Jerry Tynan	330 - <b>2nd</b>	
Heinz Tomato Ketchup 1980s	Merrill Campbell	295 - <b>3rd</b>	Airline 14WG-731 1941	Steve Touzalin	325 - <b>3rd</b>	
Radiohack Statue of Liberty	Julie Mckeown	280	Philco 42-323 1942	Merrill Campbell	270	
Rolls Royce Phantom II 1970s	Merrill Campbell	260	Phillips A3 26196 1960s	David Solliday	270	
Statue of Liberty 12-101 1986	Merrill Campbell	260	Westinghouse H157 1947	David Solliday	255	
Hamilton Beach Kitchen Tunes	Mark Kuligowski	255	Philco 48-482 1948	David Solliday	255	
<b>Novelty - Tube</b>			Philco 610 1936	David Solliday	235	
Hazeltine "Coke" 1949	Marty Phillips	365 - <b>1st</b>	Airline 14-BR-736 1941	David Solliday	230	
Empress 55 1946	Julie Mckeown	350 - <b>2nd</b>	RCA T60 1938	David Solliday	230	
Universal Publicizer Mike Radio	Bill Dial	350 - <b>3rd</b>	Sparton 652-1 1940s	David Solliday	220	
Arvin 441T 1950	Travis Ogden	345				
<b>Plastic - Tube</b>			<b>Best of Show:</b>	<b>Homebrew Early Radios</b>	<b>Tom Pouliot</b>	
GE 65 1949	Merrill Campbell	430 - <b>1st</b>	<b>Best Restoration:</b>	<b>Emerson 520</b>	<b>Marty Phillips</b>	
Philco 48-225 1948	Bob Stutzman	375 - <b>2nd</b>	<b>People's Choice:</b>	<b>Zenith 12S268</b>	<b>Marty Phillips</b>	
Crosley 11-120U 1951	Merrill Campbell	340 - <b>3rd</b>				

Note: In cases of score ties a coin toss will decided the winner

# MARCH '08 MEETING - ACTIVITIES



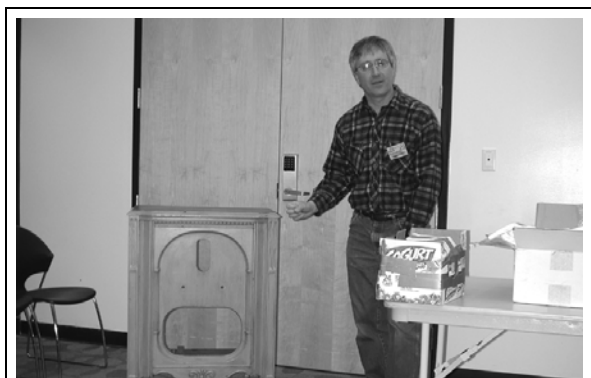
Tom Pouliot creates another one of his very fine homebrew radios in the earliest technology



Robert Baumann and Mike Cook conduct another very successful CRC meeting raffle

At the March meeting there was a discussion on the history of the NBC Chimes. CRC member Bill Harris has a very interesting article about the chimes on his website. Well worth checking out. See the article and much more at:

<http://www.radioremembered.org>



Mark Kuligowski explains his cabinet refinishing technique on his current Majestic 90 project



Tom Pouliot auctions off Dennis Lawrence's Zenith console restoration project



A beautiful Radiola also goes on the auction block

# Collector Books for Sale

Special CRC prices. Order at club meetings. Mail order shipments: add \$2.00 postage for each book ordered. Info/order: Charles Brett, 5980 Old Ranch Road, Colorado Springs 80908, (719) 495-8660, brett3729@aol.com. void all other listings	Retail	Club				
RADIOS, (GENUINE PLASTIC) OF THE MID CENTURY Jupp & Pina, hard bound, 219 pgs, 1998 PG, 450+ color pics			\$39.95	\$28.00		
ANTIQUE RADIOS, COLLECTOR'S GUIDE - 4th EDITION Bunnis, 1997 values, revised & updated, new photos, 248 pgs			\$18.95	\$15.00		
GUIDE TO OLD RADIOS, POINTERS... - 2nd EDITION Johnson, 277 pgs, 1995-96 prices			\$19.95	\$15.00		
ANTIQUE RADIO RESTORATION GUIDE - 2nd EDITION Johnson, 144 pgs, repairing, refinishing, cleaning			\$14.95	\$12.00		
RADIO, EVOLUTION OF THE - VOLUME ONE 227 pgs, 118 in color, More than 800 radios pictured, 1992			\$22.95	\$18.00		
RADIO, EVOLUTION OF THE - VOLUME TWO 226 pgs, Radios of the 1920s to 1960s, with 93-94 values			\$24.95	\$19.00		
TRANSISTOR RADIOS, COLLECTOR'S GUIDE VOL II Bunnis, 1996 prices, Full Color			\$16.95	\$13.00		
ZENITH TRANSISTOR RADIOS, 1955-1965 Smith, 1998 PG, 160 pgs, 226 color pics, info, descr.			\$29.95	\$22.00		
THE ZENITH TRANS-OCEANIC (THE ROYALTY OF RADIOS) Bryant and Cones, 160 pgs, 1995			\$29.95	\$22.00		
ZENITH RADIOS THE EARLY YEARS 1919-1936, Cones 1997-98 Price Guide, 223 pgs, 100's Photos, Desc., Hfst.			\$29.95	\$22.00		
RADIOS BY HALLCRAFTERS, revised 2nd edition Dachs, 1999 values, 220 pgs, 1000+ pics, id's, history			\$29.95	\$22.00		
CLASSIC TV'S, PRE-WAR THRU 1950'S 86 pgs, color & b/w pics, descriptions, etc.			\$18.95	\$15.00		
Machine Age to Jet Age, Radiomania's Table Radio Guide 'III, 33-62 Stein, 256 pgs, 100's of b/w photos			\$29.95	\$24.50		
TRANSISTOR RADIOS, 1954 TO 1969 Norman Smith, with prices, 160 pgs, 1000 photos, 1998			\$29.95	\$22.00		
PHILCO RADIO: 1928 - 1942 Ramires & Prosisie, 160 pgs, 828 pics & drawings, 1993			\$29.95	\$22.00		
RADIO AND TV PREMIUMS Jim Harmon, 256 pgs, 200+ photos, 1997			\$24.95	\$19.00		
RADIO MANUFACTURES OF THE 1920'S VOL I Alan Douglas, 225 pgs, 1988			\$24.95	\$19.00		
RADIO MANUFACTURES OF THE 1920'S VOL II Alan Douglas, 266 pgs, 1989			\$29.95	\$22.00		
RADIO MANUFACTURES OF THE 1920'S VOL III Alan Douglas, 285 pgs, 1991			\$29.95	\$22.00		
CRYSTAL CLEAR VOL I Maurice Sievers, 282 Pgs, 1991			\$29.95	\$22.00		
CRYSTAL CLEAR VOL 2 Maurice Sievers, 252 Pgs, 1995			\$29.95	\$22.00		
RADIO TUBES AND BOXES OF THE 1920'S George A Fathauer, 112 Pgs, 1999			\$26.95	\$20.00		
70 YEARS OF TUBES AND VALVES, 2ND EDITION John Stokes, 264 Pgs, 1997			\$29.95	\$22.00		
RADIO DIAGRAM SOURCEBOOK Richard Gray, 264 Pgs, 1996			\$18.95	\$15.00		
THE RADIO COLLECTOR'S DIRECTORY AND PRICE GUIDE, 2ND ED. Robert Grindler, 524 Pgs, 1995			\$26.95	\$21.00		
COLLECTOR'S GUIDE TO VINTAGE TELEVISION Durbal & Glenn Bubenheimer, 200 Pgs, 1999			\$15.95	\$13.00		
NOVELTY RADIOS, VOLUME 1 Marty Bunnis & Robert Breed, 223 Pgs, 1995			\$18.95	\$15.00		
NOVELTY RADIOS, VOLUME 2 Mary Bunnis & Robert Breed, 199 Pgs, 1999			\$19.95	\$15.00		
COMPLETE PRICE GUIDE TO ANTIQUE RADIOS: PRE-WAR CONSOLES Mark Stein, 235 pgs, 100's of b/w photos			\$29.95	\$22.00		
TUBE TESTERS AND CLASSIC ELECTRONIC TEST GEAR Alan Douglas, 166 Pgs, 2000			\$25.95	\$19.50		
COLLECTOR'S VACUUM TUBE HANDBOOK, VOLUME I Robert T. Millard, 196 Pgs, 2001			\$25.95	\$19.50		
SILVERTONE ANTIQUE RADIOS 1930 - 1942 Stein, 239 pgs, 2001			\$34.95	\$25.50		
ANTIQUE RADIOS COLLECTOR'S GUIDE 5th EDITION John Slusser, 264 Pgs, 2001			\$19.95	\$15.00		
RADIOCRAFT JUBILEE - REPRINT OF 1938 EDITION Hugo Gernsback, Vestal Press			-----	\$12.00		
CLASSIC CONE SPEAKERS Buford & Jane Chidester, 122 Pgs, 2001			\$25.95	\$19.50		
TUBE LORE Ludwell Silbey, 186P gs, 1996			\$29.00	\$15.00		
ARTHUR COLLINS RRADIO WIZARD Ben Sterns, 394 Pgs, 2002			\$18.95	\$14.00		
MACHINE AGE TO JET AGE - VOL I Mark V. Stein, 256 Pgs, 1998			\$24.95	\$21.00		
MACHINE AGE TO JET AGE - VOL II Mark V. Stein 358 Pgs, 1997			\$28.95	\$23.00		
TABLETOP RADIOS - Vol I Mark V. Stein, 240 Pgs, 2002			\$29.95	\$22.00		
A. ATWATER KENT Williams & Wolkowitz, 108 Pgs, 2003			\$25.95	\$19.50		
THE WOOD FINISHER Bruce Johnson, 341 Pgs, 1993			\$12.00	\$10.00		
THE WEEKEND REFINISHER Bruce Johnson, 296 Pgs, 1989			\$12.00	\$10.00		
THE PLATING MAN'S MANUAL Johnson			---	\$10.00		
THE FABULOUS VICTROLA "45" Phil Youniss, 176 Pgs, 2002			\$29.95	\$22.00		
ZENITH RADIOS THE GLORY YEARS 1936 - 1945 Cones, Bryant & Blankinship, 256 Pgs, 2003			\$34.95	\$25.50		
ZENITH ILLUSTRATED CATALOG AND DATABASE 1936 - 1945 Cones, Bryant & Blankinship, 182 Pgs, 2003			\$29.95	\$22.00		
THE ALL-AMERICAN FIVE RADIO Richard McWhorter, 92 Pgs, 2003			\$19.50	\$15.00		
E.H. SCOTT...THE DEAN OF DX, 2ND EDITION Marvin Hobbs, 240 Pgs, 2003			\$29.95	\$27.50		
ANTIQUE RADIOS 6TH EDITION John Slusser, 320 Pgs, 2004			\$24.95	\$19.50		
OLD TIME RADIOS Joseph Carr, 256 Pgs, 1991			\$19.95	\$15.00		
The Early Development of Radio in Canada 1901-1930 Murray Editor, 154 Pgs, 2005			\$26.95	\$19.50		
Plastic Radios Stein, 255 Pgs, 2006			\$37.95	\$26.25		
Novelty Radio Handbook Weaver, 160 Pgs, 2006			\$29.95	\$22.00		
Philco Radios 1928-1942, 2nd Edition Ramirez & Prosisie, 192 Pgs, 2006			\$29.95	\$22.00		





# The Open Trunk

Member submitted advertisements



**WANTED:** Morse keys/bugs/paddles, Allied Radio/Knight Kits, "heavy metal" communications gear (Collins, National, Hallicrafters, Hammarlund).

**Robert Baumann,** (303) 988-2089  
HQ180A@aol.com **03/08**

**FOR SALE:** The following test instruments:

- Hickok # 209 VTVM and multimeter with capacitance measurement. 8 inch large dial, like new, rebuilt and fully calibrated. Includes manual and new test leads. Top of the line in its day. \$85 obo.
- RCA WO505, 5 inch 'scope, professional radio and TV repair model. Solid state, AC/DC. Looks and performs like new. Refurbished and ready for repair or experimental needs. \$65 obo.
- Heathkit # O-12, 5 inch "Professional" scope built by myself. Hardly used and in VG condition, still meets original specs. \$30.00.
- RCA WA-44C audio oscillator. VG, refurbished and tested. \$30.00.
- BK #801 Capacity Analyzer with 5" meter. A beautiful looking and sensitive capacitor tester, all parameters. With manual, fully rebuilt and calibrated. Every radio hobbyist needs one. NOTE: Today's modern capacitance testers may not test for leakage, which is so important in repairing old radios. \$60 obo.

**David Boyle** 303-681-3258 **03/08**

**WANTED:**Wanted: 50,000 ohm resistor, 50 watts or more.

**Mark McKeown** 303-278-3908  
Mmckeown@hughes.net **05/08**

**WANTED:** Broadcast reception letters and/or EKKO stamps.

**FOR SALE:** I have the following tubes to sell for a fair price. Call or email me for prices and quantities; 24, 27, 35, 40, 45, 47, 80, 199, 200, 01A, 01A short pin. **Wayne Gilbert** 303-431-6774  
wagil@aol.com **05/08**

**REPAIR SERVICE:** Radio repairs for club members. Reasonable rates. Good references.

**David Boyle** (303) 681-3258 **03/08**

## WAR OF THE WORLDS:

As some of you know, JoAnn and I do old radio show recreations. We do these shows, not for broadcast; but for live audiences in what we call Radio Theater. We use scripts, microphones, and sound effects from the original shows. Our actors dress their parts and often ham it up either on purpose or by mistakes.. We are known as the St. Luke's Radio Players and this is our tenth year of doing productions.

At the Vintage Voltage Expo, I talked to several of our members who indicated that they might be interested in our next production, which will be a recreation of the 1938 Mercury Theater show of "War of the Worlds". The show is free, but any free will offering is always appreciated to fund our future productions.

The show will be on Sunday evening July 27 at St. Luke's Episcopal Church located at 13th and Quebec Street, Denver, CO. There is parking on the east side of the building. Before the show, at 6:00 PM, come and enjoy a hot dog, chips and a beverage for \$4.00 or free coffee, tea and cookies. The show will start at 7:00 PM. You are all cordially invited. Hope to see many of you there for a relaxing Sunday evening before another busy summer work week.

## Any questions call

**JoAnn or Fred Bantin** (303) 427-5431

**WANTED: CRC Members Help!!**  
**Please help me collect comments and anecdotes about our club for an article planned for anniversary edition of the Flash. Here is your chance to relate a story or event that struck you as interesting, or even something that you feel is very typical of the club. Simply call me to relate your anecdote, or send it by email to wagil@aol.com.**

**Please help make this article fun, as well as interesting. Thanks**  
**Wayne Gilbert. (303) 431-6774 05/08**

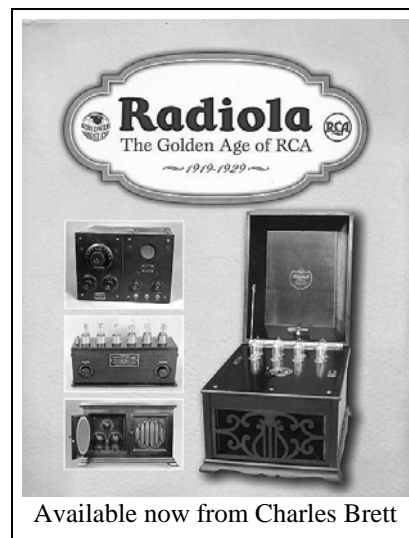
## President's Message - Continued

Planning for the 20<sup>th</sup> anniversary edition of our newsletter is already well under way. CRC resident researcher and historian **Wayne Gilbert** has volunteered to author the centerpiece article containing memories and anecdotes from as many early and longtime members as he can interview. Please look for his request inside the back cover of this issue and share your best recollections with Wayne. I'm pretty sure he will agree to honor your anonymity if you contribute a particularly revealing story and request he do so. A handful of volunteers are needed to review newsletter back issues and select photos to support planned articles. Please contact Flash Editor **Steve Touzalin** to lend your support.

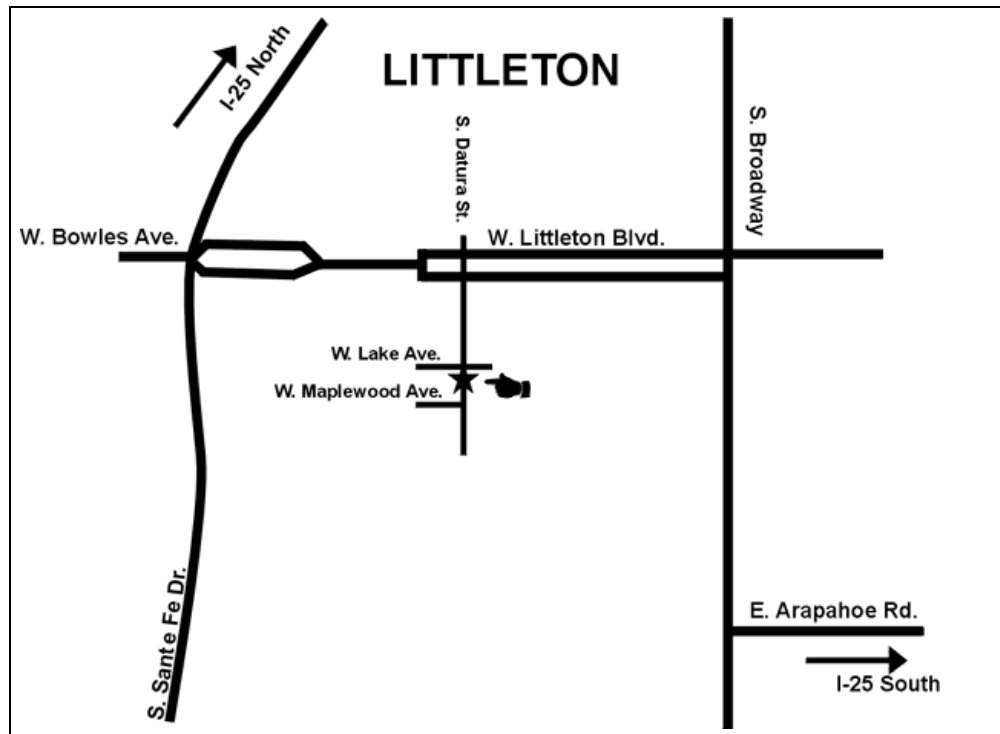
Note also the invitation from **Fred and JoAnn Bantin** that appears on this page. This sounds like it will be an entertaining evening. I appreciate Fred's invitation and hope that many CRC members take advantage of this wonderful opportunity.

**Wanted:** RCA Super Hydra-Dyne wooden cabinet Hi-Fi console, Model U-46. Can provide photos.

**Bill Kohl** 303-761-0911  
squidgobbler@yahoo.com **05/08**



*For our May 18th, 1:00pm meeting ....  
We will be meeting at the Bemis Public Library, Littleton*



**Colorado Radio Collectors  
Antique Radio Club  
417 S. Queen Cir.  
Lakewood CO 80226**

**FIRST CLASS MAIL**