

**Happy New Year 2025! Skip season is 6 months away!**

January 2025 #3

**NEW MEMBER.** This month we welcome Mike Ehrhardt (Alden, NY) back to the WTFDA. Mike returns after a very long absence. I think that Mike will find Dxing to be much more of a challenge than it was back in the pre-DTV and pre-IBOC days.

**SOLAR PROBLEMS.** After a period of relatively quiet conditions, the sun is starting to act up again. Jim Thomas posted on the Wlogger "The Sun has gone nuts today. Almost 20 M class flares in the past 24 hours. Many have been Earth facing. Possible Au and Es by New Year's Eve. The flares are being spit out about one or two per hour, lasting from 5 to 15 minutes each."



Figure 1: Another new Franken FM?

**WHAT?** Rumor has it that Nick and Bryce's VHF podcast will be carried on 87.7 WTFD(A). Rumor also has it that the club's new Franken FM will be running 100kw from the top of a hi-rise in an undisclosed city somewhere in North America.

The photo to the left is proof that the new station does exist.

Anyone logging this station via Es or Ms should contact WTFDA HQ. Look for a PI of 8759. Programming consists of up-to-the-minute drone sightings. (Tks to Bill Hohnstein for the photo).

**CANADA CHANGES.** From Bill Hepburn on Discord: "CKYB-TV (4) Brandon, MB and CJCH-TV-6 (6) Caledonia, NS are both officially deleted. CKYB has been dark for a long time awaiting xmtr parts. CJCH-6's xmtr failed on 2024-09-27. CTV says they do not have the money to switch to DTV, so instead will delete these stations."

**IS YOUR FIRMWARE REALLY FIRM?** From Les Rayburn: "Have you updated the firmware for your AirSpy HF+ Discovery or HF+ Dual SDR yet? The current version is R5.0.1. So what is different? According to the change log, users can expect "Improved gain distribution and AGC/ATT Preamp controls for all bands" and "Improved AGC Hysteresis." True enough, but for those who DX FM, the result is improved dynamic range. You can expect to log more stations on adjacent channels to your powerful locals. You'll also notice that your semi-occupied channels may now reveal clearer audio from competing stations. And when signals are weak, you'll hear cleaner signals, even near the noise floor. For those who use Rabbit Ears autologger, you can expect some new stations in the log too. Updating the firmware is easy and takes only a few minutes. Loyd has a video to make it even easier: AirSpy Firmware R5.0.1 Download:

<https://airspy.com/airspy-hf-discovery/> Les Rayburn(#fmdx on Slack)"

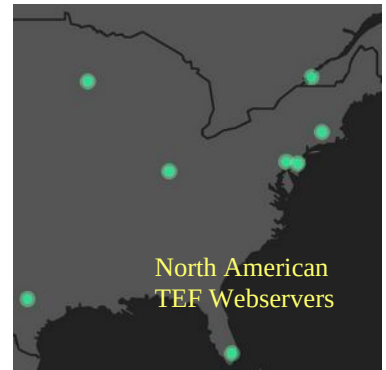


**KGFN 89.1** Jim Thomas writes "You might find this interesting for the VUD. Randy Zerr sent this to me. The caboose will be the broadcast studios for KGFN 89.1 Goldfield, Nevada "Radio Goldfield". This also includes KDYR 90.9 Dyer, Nevada, and a translator station, K221AR Hawthorne, Nevada."

NOTE: Randy is in the picture - long sleeved dark gray shirt and brown pants. He didn't identify the others but they are people involved in the community radio station.

(The moral: No matter what lengths you go to find a reasonably clear FM band, the FCC will find you and plop down a LPFM or translator in your backyard.)

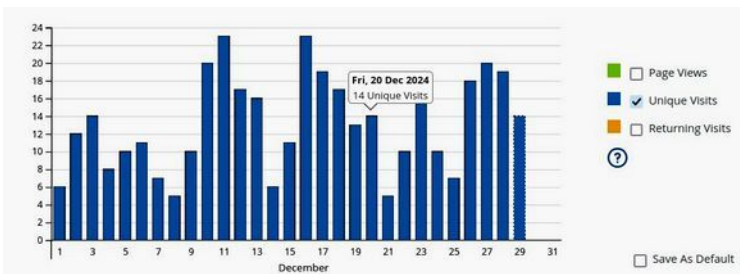
**TEF WEBSERVERS.** Over the past few weeks there have been some changes in the webserver world. WTFDAer Charly Gauthier started his own Montreal TEF webserver and other webserver have turned on in Hugo, MN (Minneapolis) and Austin, Texas. In the past few weeks we found a TEF webserver located in southwest Tennessee but at the moment it's off the air.



You can click [here](#) to find a map with all active worldwide TEF servers. Current webserver also include Hartford, Philly East (Tabernacle NJ), Philly West (West Chester), Miami and Edinburg, Indiana.

**RDS CORRECTIONS.** Jim Thomas ([jim@wtfda.org](mailto:jim@wtfda.org)) is now acting as club liaison between the WTFDA and stations using RDS. Jim's job is to tell them of problems with their RDS display; missing or incorrect PI codes, etc. Jim has been in contact with the NRSC/NAB and has been told the process to employ to solve RDS issues as quickly and easily as possible. [Ed: here in CT I've told Jim of two station who use 0000 for their PI and as of today (12/31) both of them (CT Public Radio/WWUH) have changed back to the correct PI]. Note Jim's new email address for this project and please use that when asking for RDS corrections.

**THE WTFDA FORUMS.** They were there, then they were gone. Now they're back. Why, you ask. Well, we were under the mistaken impression that nobody was visiting the site. But they were. What we did to find out was to bring the site back online. Next, we found out how to add Statcounter to the site and then we just watched the stats daily to see if anyone was going to the site and we found that people were. We just didn't know it.



To the left you will see the daily stats for December. They aren't huge, but for a site of that size they're not bad. People are going there and reading the posts, and luckily, thanks to a few people, there are new posts to read.

The forums are back. CU in February -Mike.

Figure 2: <https://forums.wtfda.org>

# A TV NEWS PRIMER

How an editor would assemble TV News every month using <https://fcc.today/tv/>

The purpose of this article is to take the mystery out of how to assemble a monthly TV News column for our newsletter. In the past, finding the material you need was a chore. Now it's not, thanks to rec.networks and <https://fcc.today/tv/>. This is the same source we use for gathering facilities updates for the WTFDA FM database and the facilities updates in this newsletter. Fcc.today delivers near-real-time grants and changes from Monday through Friday from 8am throughout the afternoon, and on Saturday and Sunday they publish the entire week's worth of changes. Use whatever method works best for you.

What information would an editor need? Let's look at the weekly roundup at fcc.today for the period of december 2<sup>nd</sup> through the 6<sup>th</sup>. Here's what's there:

this past week's broadcast actions			
<b>TV</b>	<b>WCWJ</b>	ML3-0000256603	Granted
	JACKSONVILLE FL		
	<b>WCWJ</b>	TCA-0000256018	Granted
	JACKSONVILLE FL		
	<b>WJCT</b>	ML3A-0000252737	Granted
	JACKSONVILLE FL		
	<b>WJXT</b>	ML3A-0000256604	Granted
	JACKSONVILLE FL		
	<b>WKMG-TV</b>	TCA-0000256026	Granted
	ORLANDO FL		
	<b>KGCW</b>	ML3-0000258206	Granted
	BURLINGTON IA		
	<b>KLJB</b>	ML3-0000258069	Granted
	DAVENPORT IA		
	<b>KWQC-TV</b>	ML3A-0000255928	Granted
	DAVENPORT IA		
	<b>WHBF-TV</b>	ML3-0000258334	Granted
	ROCK ISLAND IL		
	<b>WDIV-TV</b>	TCA-0000256025	Granted
	DETROIT MI		
	<b>WMAH-TV</b>	MOD-0000258725	Granted
	BILOXI MS		
	<b>WMAV-TV</b>	MOD-0000258724	Granted
	OXFORD MS		
	<b>KXMA-TV</b>	STAEA-0000258191	Granted
	DICKINSON ND		
	<b>KXMD-TV</b>	STAEA-0000258192	Granted
	WILLISTON ND		
	<b>KLXV</b>	L2C-0000258535	Granted
	LAS VEGAS NV		
<b>TV</b>	<b>WIPR-TV</b>	STAX-0000256437	Granted
	SAN JUAN PR		
	<b>KPRC-TV</b>	TCA-0000256023	Granted
	HOUSTON TX		
	<b>KSAT-TV</b>	TCA-0000256029	Granted
	SAN ANTONIO TX		
	<b>WSLS-TV</b>	TCA-0000256030	Granted
	ROANOKE VA		
<b>LPTV</b>	<b>K06QW-D</b>	L2C-0000258677	Granted
	SENTINEL AZ		
	<b>K02QP-D</b>	MOD-0000258811	Granted
	CHOWCHILLA CA		
	<b>K02QP-D</b>	MOD-0000258811	Granted
	CHOWCHILLA CA		
	<b>K33QW-D</b>	L2C-0000258574	Granted
	OROVILLE CA		
	<b>KRHT-LD</b>	AGN-0000255972	Granted
	REDDING CA		
	<b>KRMV-LD</b>	MLS-0000258530	Granted
	RIVERSIDE CA		
	<b>KHDE-LD</b>	TOL-0000156722	Dismissed
	DENVER CO		
	<b>W23FN-D</b>	MODA-0000202092	Granted
	ALBANY GA		
	<b>WYBM-LD</b>	MOD-0000258700	Granted
	WESTMORELAND NH		
	<b>WNMF-LD</b>	MDS-0000258113	Granted
	NEW YORK NY		
	<b>KONV-LD</b>	SIL-0000258620	Granted
	CANTON OH		
<b>LPTV</b>	<b>WZCD-LD</b>	SIL-0000258256	Granted
	CINCINNATI OH		
	<b>K32MG-D</b>	MOD-0000202091	Dismissed
	ENID OK		
	<b>W25FE-D</b>	AGN-0000256268	Granted
	CHAMBERSBURG PA		
	<b>W22EY-D</b>	AGN-0000256278	Granted
	GREENVILLE SC		
	<b>W30CV-D</b>	STAE-0000258832	Granted
	HILTON HEAD ISLAND SC		
	<b>KQSY-LD</b>	AGN-0000256702	Granted
	CORPUS CHRISTI TX		
	<b>KLNM-LD</b>	L2C-0000258752	Granted
	LUFKIN TX		
	<b>K32KT-D</b>	L2C-0000001482	Cancelled
	WICHITA FALLS TX		
	<b>K32KT-D</b>	REN-0000188432	Cancelled
	WICHITA FALLS TX		
	<b>K32KT-D</b>	SIL-0000219506	Cancelled
	WICHITA FALLS TX		
	<b>KCSG-LD</b>	L2C-0000258776	Granted
	SALT LAKE CITY UT		
	<b>K08QQ-D</b>	L2C-0000258562	Granted
	SALT LAKE CITY UT		
	<b>K32MC-D</b>	MOD-0000258737	Granted
	BAKER FLATS AREA WA		
	<b>W21DS-D</b>	STAE-0000258514	Granted
	SAYNERVILAS COUNTY WI		

Much of what you see above can be ignored. If an editor wanted to include LPTVs and translators (and an editor might or might NOT want to include these), the editor would look for MOD, MODA, SIL, CSRE/CSRI (modifications, silent stations and callsign changes) designations and list those.

Fcc.today also shows applications. These can be of value to Dxers and could/should be included. For example, see the graphic below...

today's broadcast applications			
<b>Full Service TV</b>			
EEO-0000258968	WTJP-TV	GADSDEN AL	RECEIVED
EEO-0000258969	WMPV-TV	MOBILE AL	RECEIVED
EEO-0000258970	WMCF-TV	MONTGOMERY AL	RECEIVED
EEO-0000258973	WSES	TUSCALOOSA AL	RECEIVED
CP-0000258958	NEW	VERNON AL	PENDING
RENA-0000196366	KPIX-TV	SAN FRANCISCO CA	PENDING
RENA-0000196366	KPIX-TV	SAN FRANCISCO CA	REVIEW
RES-0000258949	KTAS	SAN LUIS OBISPO CA	SUBMITTED
CP-0000258954	NEW	TULARE CA	PENDING
RES-0000258953	KKCO	GRAND JUNCTION CO	SUBMITTED
<b>Full Service TV</b>			
EEO-0000258972	WELF-TV	DALTON GA	RECEIVED
EEO-0000258971	WHSB-TV	MONROE GA	RECEIVED
CSRI-0000258935	NEW	SYRACUSE NY	PENDING
CP-0000258945	NEW	JACKSONVILLE OR	PENDING
STAE-0000258919	WPGD-TV	HENDERSONVILLE TN	PENDING
<b>Ownership Reports-Noncommercial</b>			
OWR-0000258939	JOURNEY CHURCH OF TIFTON, INC.		RECEIVED

Let's look at the applications list above and let Doug Smith himself show you how he would handle applications.

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*Looking at what's on there today, I assembled this one-day report:*

TX	Corpus Christi	30	KQSY-LD	Sold to <i>Channel 30 of Corpus Christi, LLC</i>
CA	San Luis Obispo	34	KTAS	Returned to the air Dec. 6, 2024; off since Sept. 9 <sup>th</sup> .
CA	Tulare	3	NEW	Application for new station, 2.3kw/823m, 36-17-14/118-50-19 ( <i>One Ministries, Inc.</i> )
CO	Grand Junction	12	KKCO	Returned to full power Dec. 6, 2024; was at reduced power of 16.3kW since Aug. 7 <sup>th</sup> equipment failure.
NY	Syracuse	15	WKOF	Calls requested for new station. ( <i>WSTQ Licensee, LLC</i> )
OR	Jacksonville	4	NEW	Application for new station, 900w/410m, 42-17-51/122-45-04 ( <i>theDove Media, Inc.</i> )

(I generally ignored renewal applications, and that's what the two KPIX-TV applications were.)

For, for example, Tulare... I:

- Clicked on the CP-0000258954 *File Number*.
- Looked at the heading *New NCE TV Station Construction Permit, the Purpose (Construction Permit), and the Status. (Pending)*.
  - This indicates this is an application for a new non-commercial ("NCE") TV station.
  - Noted the *City and State* (Tulare, California)
  - Noted the *Applicant* further down the page. (*One Ministries, Inc.*)
- Clicked *Channel and Facility Information* on the left.
  - This scrolled down to show the *Effective Radiated Power and Height of Radiation Center Above Average Terrain*. (2.3kW & 823m)
    - (the Height Above Average Terrain is usually either blank or zero for LPTV stations.)
  - It also showed the tower coordinates (36-17-14.2N, 118-50-18.6W) and the physical channel. (3)

If this had been an application (or permit) to modify an existing station, I would have gathered the above information and then...

- Googled on "FCC LMS search"
- Opened the *Application Search << Licensing and Management System << FCC link*
- Typed the callsign in the *Call Sign* box & hit Enter
- Located the newest entry with *Purpose of License to Cover or Minor Modification and Status of Granted*
- Clicked on that entry
- Clicked on *Channel and Facility Information*
  - This will show the last previously-authorized channel, power, antenna height, and coordinates.

That allows you to determine what's changing.

You could then use [this page](#) to determine whether that's an increase or decrease in coverage.

- *Select Contour Type: F(50,90) Digital TV Service Contour*
- *Select Channel Range: (select whether the channel is VHF Low, VHF High, or UHF)*
- *Find This: Field Strength, given a Distance (in km)*
- *ERP (kW) and HAAT (meters): fill in the figures from the LMS search and the Channel and Facility Information.*
- *Distance (km): (Pick a reasonable figure - 50km (30 miles) would be a good choice. You're going to compare the signal at 50km with the new facilities to the signal at the same distance with the old facilities.)*
- *Find Result*

Do once with the old facilities from the LMS search, and again with the new facilities from the *Channel and Facility Information*. It'll tell you whether the new facilities are an increase or a decrease.

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I would suggest that if you are interested in looking up data for TV News or just for your own personal enjoyment, go to <https://fcc.today>, select either TV or FM and click on the callsigns or the filename just to the right of them. For MOD (modifications), clicking the callsign will bring you to a page containing the newest data. Clicking on the filename, especially for SIL stations, will show you the date the station went (or will go silent and will let you view the letter that was sent to the FCC giving their reasons for going silent. -END-

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**Silent STA Request  
KBZZ(AM) 1270 kHz Sparks, NV  
K245DC Carson City, NV  
December 2024**

On November 29, 2024 the KBZZ(AM) transmitter went off the air. Investigation found that a mouse infestation had taken out the power supply section of the transmitter. Cleaning and repair of the transmitter is in progress but is going slowly. It is hoped and expected that the licensee will be able to get the transmitter fixed before the site gets snowed in, but with unpredictable winter weather it is uncertain how accessible the site will be during any given week. (Unlike most AM transmission sites, the KBZZ site is situated on a hilltop which is 1300 feet above the valley floor.)

Up until this time, KBZZ had been operating under a half-power engineering STA, due to continued issues after the transmitter site was vandalized in June 2023.

KBZZ is retransmitted on FM translator K245DC Carson City. Under the terms of the K245DC license and §74.1263(b), the translator must be taken silent during extended periods of the AM station's silence. The licensee had been hopeful that the AM transmitter would be repaired prior to 10 days of silence, but that effort has not yet been successful. Therefore, a separate request for silent STA is also being filed for K245DC, for silence as of today's date.

# FCC GRANTS AND ACTIONS

From fcc.today and the FCC

January 2025

Calls	Freq	City	St	Change
KLIU	89.9	Unalakleet	AK	Ex KLUI
WXKI-LP	100.7	Battleground	AL	Ex NEW
W234DI	94.7	Douglas	AL	Silent 11/20/24 extended STA, lost tower site
W269AX	101.7	Anniston	AL	33-40-53 85-48-57 new tower site
KAWX	89.3	Mena	AR	resumed operations, was silent
KAWX-LP	93.1	Mena	AR	Ex KGHA-LP
KEUD	89.9	Eudora	AR	150w/21m, 33-09-07 91-15-40
KURM	100.3	Gravette	AR	resumed operations, was silent
NEW	93.7	North Little Rock	AR	45w/45m, 34-44-37 92-16-33
NEW	92.9	Springdale	AR	42w/46m, 36-10-07 04-06-56
KBKG	93.5	Corning	AR	Silent 11/22/24 financial difficulties
KFFH-LP	93.7	North Little Rock	AR	Ex NEW
KZOM	96.5	Claypool	AZ	Ex KIKO-FM
NEW	91.9	Phoenix	AZ	100w/19m, 33-26-34 112-05-10 (fac id 788085)
NEW	91.9	Phoenix	AZ	20w/66m, 33-41-41 112-07-04 (fac id 788307)
KWFH	90.3	Parker	AZ	800w/761m from 3.5kw/761m, move tower site
NEW	92.9	Maricopa Indian Comm.	AZ	100w/29m, 33-29-37 111-49-38
KZUL-FM	104.5	Lake Havasu City	AZ	270w from 230w, move tower site
KRCY-FM	96.7	Lake Havasu City	AZ	270w/817m from 260w/825m, move tower site
NEW	96.9	LeGrand	CA	100w/11m, 37-13-53 122-15-04
NEW	99.3	Ojai	CA	100w/-362m, 34-26-48 111-19-46
NEW	101.3	Ventura	CA	2w/220m, 34-17-48 119-16-24
KBVE	107.9	Boonville	CA	Ex NEW
KYNO-LP	107.7	Fort Bragg	CA	HAAT -28m from 2m, new tower site
NEW	92.9	Lafayette	CA	100w/-12m, 34-42-18 85-17-56
KZLA-FM1	98.3	Riverdale	CA	800w-V from 5kw-V
KJCN	107.5	Sutter Creek	CA	Silent 4/18, looking for new tower site, STA extended
KZLA-FM1	98.3	Riverdale	CA	800w-V from 5kw-V
KSRH	88.1	San Raphael	CA	Silent 4/22 equipment replacement, STA extended
KPDC-LP	104.7	Ukiah	CA	Ex NEW
KEWG-LP	103.9	Ukiah	CA	Ex NEW
K205BM	88.9	Oakland	CA	primary to KLV5-HD3
NEW	90.1	Big Sur	CA	50w/45m from 10w/68m, new tower site
NEW	91.3	Coalinga	CA	100w/-120m, 36-08-51 190-21-59
NEW	89.9	Caloma	CA	38w/47m, 38-51-29 120-49-22
NEW	90.5	Bishop	CA	500w/-218m, 37-22-32 118-23-39
KAZB	94.3	Wilkenson	CA	Ex NEW
K245AI	91.9	San Pasqual	CA	Primary to KLVJ 102.1
NEW	94.7	Bakersfield	CA	100w/-28m, 35-23-47 118-53-10
NEW	93.1	Watsonville	CA	100w/-99m, 36-56-58 121-44-31

KOJY-LP	99.3	Ojai	CA	Ex NEW
KSUR	90.1	Big Sur	CA	Ex NEW
KCFU	91.3	Coalinga	CA	Ex NEW
KFOS	89.9	Coloma	CA	Ex NEW
KFTT	88.5	Penn Valley	CA	Ex NEW
KITS-FM6	105.3	Alamo	CA	220w, 37-48-57 122-03-45
KITS-FM8	105.3	Cocord	CA	140w, 37-55-57 122-07-24
KITS-FM5	105.3	Orinda	CA	570w, 37-53-57 122-13-15
KITS-FM7	105.3	Pleasanton	CA	135w, 37-44-20 121-59-43
KITS-FM9	105.3	San Francisco	CA	400w, 38-01-17 121-59-16
KLLC-FM6	97.3	Concord	CA	360w, 37-55-57 122-07-24
KLLC-FM4	97.3	San Francisco	CA	150w, 37-48-57 122-03-49
KLLC-FM5	97.3	San Francisco	CA	44w, 37-44-20 121-59-43
KLLC-FM7	97.3	San Francisco	CA	500w, 38-01-17 121-59-16
KLLC-FM3	97.3	San Francisco	CA	1kw, 37-52-57 122-13-15
KWCB-LP	94.7	Wasco	CA	Silent 6/2/24 financial difficulties, personnel issues.
NEW	88.5	Penn Valley	CA	100w/244m, 39-07-57 121-05-56
KWCB-LP	94.7	Wasco	CA	Silent 6/2 & Extended, lack of resources and personnel
KFTT	88.5	Penn Valley	CA	100w/244m from 390w/89m & new tower site
KHFJ-LP	94.5	Hermosa	CO	Ex NEW
NEW	105.5	Aurora	CO	57w/40m, 39-38-08 104-47-25
K223CU	92.5	Colorado Springs	CO	Silent 12/4 with transmitter problems
NEW	103.3	Waterbury	CT	27w/57m, 41-27-21 73-02-24
W204BL	88.7	Gainesville	FL	27w from 19w, 17m-V only, new tower site
NEW	107.3	Deland	FL	75w/35m, 29-01-35 81-16-23
NEW	102.5	Deland	FL	100w/23m, 29-01-52 81-18-10
W268DQ	101.5	Dunnellton	FL	250w-H only, new site 29-08-05 82-11-13
NEW	107.3	Deland	FL	75w/35m, 29-01-35 81-16-23
NEW	102.3	Deltona	FL	28w/56m, 28-53-30 81-17-08
NEW	102.3	Sanford	FL	17w/72m, 28-49-02 81-19-53
W212CG	90.3	West Palm Beach	FL	resumed operations, was silent
NEW	100.7	Cape Coral	FL	52w/42m, 36-38-05 81-51-52
NEW	93.9	Cocoa	FL	45w/45m, 28-21-23 30-44-06 (fac id 788358)
NEW	93.9	Cocoa	FL	45w/45m, 28-21-23 30-44-06 (fac id 788176)
NEW	100.7	Fort Myers	FL	25w/59m, 26-29-17 81-55-46
W295BJ	106.9	Jupirwe	FL	Primary to WFLM-FM 104.7
W240CI	95.9	North Palm Beach	FL	Primary to WFLM-FM 104.7
NEW	102.9	Citrus Springs	FL	100w/30m, 28-59-25 82-26-32
NEW	95.1	Ocala	FL	57w/40m, 29-10-38 92-08-41
NEW	93.3	Ocala	FL	41w/47m, 29-12-05 82-09-04 (fac id 788397)
NEW	93.3	Ocala	FL	same specs as Ocala above but fac id 788224
W228DF	93.5	Orlando	FL	Silent 12/12, lost their primary station
NEW	94.5	Homestead	FL	15w/56m, 25-28-09 80-29-07
WCPR-LD	97.5	John's Creek	GA	Ex NEW
NEW	101.9	Norcross	GA	100w/29m, 34-00-12 84-15-20
NEW	88.9	Roswell	GA	31w/53m, 34-02-10 84-20-19

WRJS	88.1	Soperton	GA	resumed operations, was silent
W270AS	101.9	Carrolton	GA	resumed operations, was silent
KBZB	107.5	Kihei	HI	Ex KHEI-FM
KIXK	95.1	Wailuku	HI	Ex KAOI-FM
KSRR	94.3	Makawao	HI	Ex KDLX
KLNY	88.9	Lanai Ciy	HI	1.8kw/456m from 1.6kw
KSHW	88.3	Glidden	IA	Ex 91.9, 100w/19m from 2kw
K256DM	99.1	Webster City	IA	Ex 92.9 (K225BZ)
K269FQ	101.7	Montpelier	ID	resumed operations, was silent
WGVR-LP	105.3	Bloomington	IL	Ex NEW
WBWJ	88.3	Rochester	IL	1.25kw/66m from 1.1kw/72m
WYRX-FM	94.3	Plymouth	IN	Ex WZOC
WONS	91.5	New Castle	IN	310w/38m from 500w/38m
KPSR	89.3	Smith Center	KS	Silent 11/1 QRM to WISP antennas on same tower
K217CV	91.3	Beloit	KS	Silent 12/16, new full power station on the same channel
W201DD	88.1	Central City	KY	Primary to WAYD 88.1
W253BK	98.5	Winchester	KY	Primary to WJWA-HD2
NEW	89.7	Louisville	KY	100w/17m, 38-13-29 85-44-23
WNYX	91.7	Olive Hill	KY	Ex NEW
WYNX	91.7	Olive Hill	KY	Ex WNYX (which probably was a typo)
WHCV	89.9	Hazard	KY	500w/-16m from 40w/143m and move tower site
KLRZ-FM1	100.3	New Orleans	LA	700w, 29-54-23 90-02-22
KLPI	89.1	Ruston	LA	resumed operations, was silent
NEW	94.7	Monroe	LA	100w/10m, 32-28-56 92-04-50
NEW	104.1	New Orleans	LA	11w/89m, 29-59-24 90-04-07
WTFB-LP	94.1	Berlin	MD	Ex NEW
WEMA-LP	94.3	Fort Washington	MD	HAAT 14m from 8m, move tower site
W284BE	104.7	Havre de Grace	MD	Silent 8/20, primary (WHGM) is silent
WGYS	91.9	Rumford	ME	Ex NEW
WVBH	91.9	St. James	MI	Ex NEW
WDRZ	89.1	Shelby	MI	Ex NEW
NEW	89.5	Laurium	MI	1kw/144m from 6kw/125m, new tower site
NEW	105.3	Lansing	MI	100w/-70m, 42-45-27 84-32-47
WSHG	89.7	South Haven	MI	150w/45m from 750w/45m
NEW	95.1	Holland	MI	100w/12m, 42-47-08 86-06-24
WDRK	89.5	Larium	MI	Ex NEW
WELY-FM	94.5	Ely	MN	Silent 11/24/24, two unexpected deaths, AM & FM silent
K207AY	89.3	St. Robert	MO	170w from 250w-V, move tower site
NEW	99.7	Maplewood	MO	30w/54m, 38-28-21 90-18-15
K234CE	94.7	Sedalia	MO	Silent 12/3 relocation not completed
K245BO	96.9	Warrensburg	MO	Silent 12/3, fed by K234CE which is also silent
KPPZ-LP	98.5	Kansas City	MO	49w/43m from 100w/30m and move tower site
NEW	107.9	Centerview	MO	85w/8m, 38-46-46 93-50-18
WWUN-FM	101.5	Friars Point	MS	Silent 10/29, technical problems
W274CH	102.7	Meridian	MS	Silent 10/30/24 Primary (WQMS 1500) is silent
KHSI-LP	97.5	Conrad	MT	license canceled



KHSI	89.7	Conrad	MT	Ex NEW
KXEB	91.3	Big Timber	MT	480w from 1kw, new tower site
K215GT	91.1	Great Falls	MT	Silent 10/25 transmitter failure
WGHC	90.3	Robbinville	NC	Ex WLET
NEW	101.3	Mooreville	NC	100w/15m, 35-33-07 80-46-25
NEW	91.5	Aydlett	NC	license canceled
KARR	90.3	Alliance	NE	125w/20m from 10kw/20m, new tower site
KARR	90.3	Alliance	NE	125w from 10k, new tower site
KBTI-LP	96.5	Omaha	NE	Ex NEW
KXNM	88.7	Encino	NM	Silent 11/18 equipment problems
NEW	106.9	Henderson	NV	100w/-28m, 36-00-27 114-56-29
KHIQ	89.9	Tonopah	NV	Ex NEW
K254AK	98.7	Reno	NV	Primary to KYSA-HD3
NEW	89.9	Tonopah	NV	15w/102m from 100w/98m
K245DC	96.9	Carson City	NV	Silent 12/9 primary (KBZZ) is silent
NEW	94.9	Las Vegas	NV	100w/-128m, 36-18-03 115-16-39
KSWR-LP	94.9	Las Vegas	NV	Ex NEW
KGFN	90.1	Goldfield	NV	Ex New, 100w at -43m from 30w at 502m, new tower site
W227EF	93.3	Port Jervis	NY	COL fm Quinns Corner PA, from 103.3 W277DH
W203AW	88.5	Fredonia	NY	primary to KAWZ 89.9
W204BJ	88.7	Old Forge	NY	Silent 11/22/24 xltr causing interference to WSLH 88.7
WNKI	96.9	Wauseon	OH	license canceled
W263AX	103.7	Circleville	OH	Silent 11/21 pending station move
NEW	99.5	Middletown	OH	75w/-7m, 39-29-25 84-24-29
NEW	100.1	Sheffield Lake	OH	100w/24m, 41-29-09 82-05-20
WHRN	88.3	Newark	OH	4.7kw/63m from 1.7kw/145m
KBDM	88.3	Boardman	OR	Ex NEW
KZRY	90.1	Seaside	OR	Ex NEW
NEW	88.3	Boardman	OR	from 5kw to 100w, HAAT -23m, new tower site
KBSR	91.5	Burns	OR	100w/-61m from 300w/256m, move tower site
K223CV	92.5	Albany	OR	Silent 9/30/24 pending relocation to another site
WLWS	90.1	Scottsdale	PA	Ex WLSW
WLSW	103.9	Scottsdale	PA	Ex WKHB-FM
WMZB-LP	95.5	Brague	PA	Ex NEW
W233BY	92.5	Collinsville	PA	Primary to WPKV 98.3
NEW	94.9	Indiana	PA	100w/-1m, 40-36-56 79-08-14
NEW	98.3	Lajas	PR	10w/93m, 18-04-01 67-01-13
WCXQ-LP	90.9	Isabela-Camuy	PR	license canceled
NEW	89.3	Quebradillas	PR	64w/30m, 18-27-22 66-55-30
NEW	93.7	Mayaguez	PR	100w/12m, 18-12-07 67-11-05
NEW	97.9	Boqueron	PR	50w/15m, 17-59-39 67-08-30
WMDS-LP	95.1	Woonsocket	RI	80w/34m, 42-01-19 71-35-34
NEW	94.1	Greenville	SC	57w/40m, 34-46-10 82-27-29
NEW	93.3	Bath	SC	100w/3m, 33-29-51 91-51-18
K201HB	88.1	Aberdeen	SD	Silent 11/22 requested by KFCA
K209EM	88.1	Huron	SD	license canceled (fac ID 93602)

DKGVG	88.5	Encinal	TC	license canceled
WJIG	88.1	Bruceton	TN	150w/21m from 6kw/69m
KVUT	99.7	Cuney	TX	resumed operatons, was silent
NEW	88.1	Sierra Blanca	TX	100w/22m, 31-11-15 105-21-21
K278DA	103.5	Houston	TX	resumed operatons, was silent
KWGR-LP	102.9	Wichita Falls	TX	HAAT change to 30m from 92m and site change
KLMH	88.5	Lamesa	TX	Ex NEW
K240EO	95.9	Lufkin	TX	Silent 11/19, transmitter malfunction
KWGD	88.7	Dalhart	TX	32kw-H/72m-H from 28kw-H/64m
KOWD	90.7	Memphis	TX	500w/92m from 800w/122m
NEW	106.5	Seagoville	TX	75 watts, 35m, 32-41-21 96-33-12
DKVGV	89.3	Cotulla	TX	license canceled
KHRG	90.1	Follett	TX	new tower site 36-25-51 100-28-29
NEW	98.7	Temple	TX	22w/63m, 31-05-19 97-20-52
KFRO-FM	99.7	Cuney	TX	Ex KVUT
KMCL	91.5	Mclean	TX	300w/53m from 3kw/68m
K239CC	95.7	Burleson	TX	resumed operations, was silent
K226BM	93.1	Cleburne	TX	resumed operations, was silent
K217GB	90.3	Houston	TX	Primary to KHVU-HD2
K213EW	90.5	San Angelo	TX	Primary to WYFQ-FM (NC)
NEW	104.5	Tomball	TX	47w/44m, 30-04-58 95-43-55 (fac id 779270)
NEW	104.5	Tomball	TX	9w/98m, 30-04-14 95-42-39 (fac id 788138)
NEW	102.7	Jewell	TX	75w/35m, 30-48-04 97-36-02
K228EP	93.5	Laketown	UT	200w-V from 10w H/V.
WJIJ	90.9	Rocky Mount	VA	Ex NEW
WPPB-LP	101.5	Petersburg	VA	Ex NEW
W288BS	105.5	Reston	VA	Primary to WTOP-FM-HD2
NEW	94.7	Charlottesville	VA	27w/57m, 38-01-56 78-31-09
W252DP	98.3	Moneta	VA	37-09-15 79-37-20 new tower site
KLMN	106.5	Raymond	WA	Ex NEW
KRSE	105.7	Yakima	WA	20kw/236m from 100kw/172m, new tower site
KOPL	89.3	Omak	WA	200w/781m from 86w/781m
K225DI	92.9	Tacoma	WA	Ex 104.1 (K281CI)
NEW	101.7	Manitowoc	WI	44-06-32 87-40-07
W212CQ	90.3	Menomonie	WI	10w, 44-52-06 92-04-30
NEW	106.7	Rhineland	WI	100w/9m, 45-39-37 89-26-03
NEW	100.5	Sturgeon bay	WI	100w//6m, 44-50-03 87-22-41
WVTP	91.3	Kermit	WV	Ex NEW
K284BI	104.7	Alpine	WY	resumed operations, was silent
K206EO	89.1	Granite	WY	from 92w to 120w
KWUW	90.5	Dubois	WY	Ex NEW
KJUW	88.9	Pinedale	WY	Ex NEW
WXRP	90.5	Matewan	WY	Ex NEW
NEW	88.7	Thermopolis	WY	350w/598m from 1800w/698m

## FM STATIONS HEARD IN SOUTHERN ARGENTINA VIA TEP



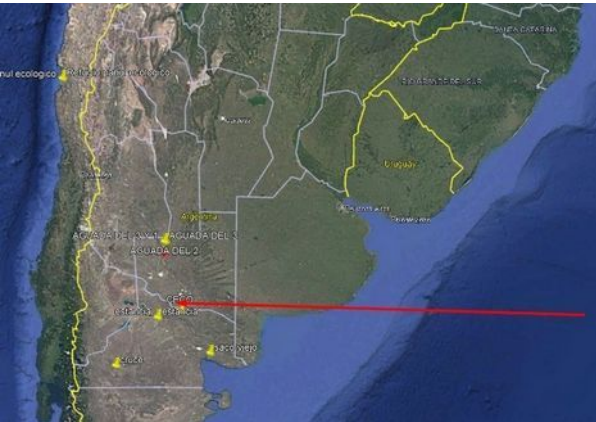
Jose Kucher

November 30 at 5:40 PM · 🌐

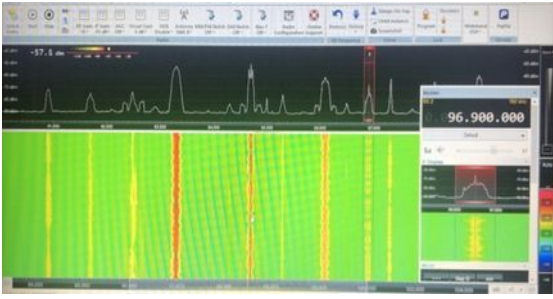
... 91.9  
FM

List of FMs received via TEP propagation at Chimpay (Rio Negro Argentina) site. include 2023 and 2024 listings

- 88.1 FM La Mega, Aruba
- 88.6 FM Besame Barranquilla Colombia
- 88.7 FM Policia Valledupar Colombia
- 88.9 FM Radio NAC de Venezuela
- 89.1 FM Radio Caribe Cuba
- 89.1 FM Tropicana Barranquilla Colombia
- 89.1 FM Radio Taino Cuba
- 89.3 FM Uniguajira Stereo Valledupar Colombia
- 89.3 FM Moody radio Miami USA
- 89.7 FM Cacica stereo Valledupar Colombia
- 89.7 FM WMLV Klove Miami
- 89.7 FM CDN Radio, Dominicana
- 90.1 FM Wradio Barranquilla Colombia
- 90.1 FM La voz del Toa Cuba
- 90.2 FM Caliente Stereo bosconia Colombia
- 90.5 FM Olimpica Stereo Cartagena Colombia
- 90.6 FM Codazzi, Codazzi Colombia
- 90.7 FM Palma Barahona Dominicana
- 91.7 FM Cardinal Stereo Riohacha Colombia
- Panamericana Venezuela
- 91.9 FM Radio reloj Cuba
- 91.9 FM Unimagdalena Santa Marta Colombia
- 92.1 FM Olimpica stereo Barranquilla Colombia
- 92.2 FM Radio Nac de Colombia La Guajira
- 92.6 FM Principe de paz Barranquilla Colombia
- 92.7 FM Supernova Machiques Venezuela
- 92.7 FM WEOW Key west USA
- 93.1 FM La mega Barranquilla Colombia
- 93.3 FM Radio Taino Cuba
- 93.3 FM Radio Progreso Cuba
- 93.7 FM Rumba Riohacha Colombia
- 94.0 FM Radio Nac de Colombia
- 94.5 FM Radio Jamaica jamaica
- 94.7 FM Cardinal stereo San juan del cesar colombia
- 95.1 FM Radio Revolucion Santiago de cuba
- 95.1 FM Radionica Riohacha Colombia
- 95.1 FM Radio Nac colombia Santander
- 95.5 FM Radio Rebelde Cuba
- 95.9 FM Miraflores Caracas Venezuela
- 97.3 FM Radio Nac Colombia
- 97.7 FM Radio Nac Colombia Valledupar
- 98.1 FM Radio Nac Colombia Magdalena
- 99.3 FM Radio Progreso Cuba



This list was pulled from one of the Facebook Groups. It was posted on November 30<sup>th</sup>. Chimpay, Argentina to Miami is 4,500 miles. The antenna used is a five element yagi.



# Format Flips

and branding, too

John Zondlo - [fmdxweb@cox.net](mailto:fmdxweb@cox.net)

January 2025

Welcome to the all-new and exciting **Format Flips**! How's that for a rebranding statement right off the bat? Lots of different sources contribute to the creation of this column and you can have your name right there with them at the bottom of the page. If a station in your area flips their format from, say, classical to alternative, send me an e-mail at the above address. As they said on the original Iron Chef, you will gain "the people's ovation and fame forever." Let's get on with this month's column.....

## AL

Townsquare Media hands down wins the award for the most bizarre stunting of the month. Alternative WQRR 101.7 Reform AL (Tuscaloosa market) has switched to Christian AC as "101.7 The River," but not without fanfare. Radio Insight has the best review of it [here](#). Maybe I should be surprised that so many fell for this prank, but I'm not.

## AZ



KZOM 96.5 Claypool AZ is no longer oldies. New owners Orozco Broadcasting have changed the format to Regional Mexican with the moniker "La Z 96.5." Be sure not to confuse it with XHCW, also "La Z 96.5," in Los Mochis, Sinaloa, during an Es opening.

KJXL 94.7 Blue Ridge AZ is now on the air with a Variety Hits format as ["94.7 Jack FM."](#) They boast "...biggest playlist ever conceived in radio."

## CA

KLLY 95.3 Oildale CA has been rebranded by owner Alpha Media as "Live 95.3." Sadly, the station parted ways with its local staff as part of Alpha's latest bloodletting last summer.

KHTI 103.9 Lake Arrowhead CA is now simulcasting co-owned KATY 101.3 Idyllwild and it's AC format. "More music, more variety for the IE," is how the stations are presenting themselves. IE, btw, is Inland Empire, fwiw.

## FL

WWRF 1380 Lake Worth FL has flipped from Spanish CHR to Variety Hits as "96.9/94.7 Jack FM." So, following along are the translators W245AY 96.9 Lake Worth and W234DA West Palm Beach. With the old format WWRF was only pulling a .4 share in the November Nielsen book.

The Light is now on in the St. Augustine FL area. W267BX St. Augustine is now being fed by WBHU-HD3 105.5 St. Augustine Beach FL with a slogan change to "The Light 101.3 FM." The Christian AC format hit the airwaves at midnight December 26<sup>th</sup>.

## GA

Now on the air with Urban Gospel is WZZV-LP 100.3 LaGrange GA. Love chasing those LPFMs. Finally got my first by Es last summer.

## HI

After buying the Visionary Related Entertainment group of stations on Maui, Akamai Broadcasting has made some wholesale changes to the cluster. KSRR 94.3 Makawao is now AC “Star 94.3” after being CHR as KDLX. KIXK 95.1 Wailuku, formerly adult alternative as KAOI, is now “Kix 95.1,” along with translators K243BY 96.5 Honokawa and K249EH 97.7 Honokawa. K250CC Kihei is now oldies “Wowie 97.9,” rebroadcasting KEWE 1240 Kahului (not to be confused with the wowie in Maui in 2002...IYKYK). Rhythmic Hawaiian KNUQ 103.9 Paauilo retains the “Q-103” branding, but flips from CHR to Hot AC. The station’s 2 translators, K277AW 103.3 Napili and K277AX 103.3 Paia, are now HD-fed the Rhythmic Hawaiian format with the branding “103.3 The Beat.” And finally, K254CS 98.7 Kihei is now HD-fed with Rhythmic Throwbacks as “98.7 The Vibe.”

## KY



Can there ever be enough Jack stations? Commonwealth Broadcasting doesn’t think so. They flipped three of their stations in Kentucky to the Variety Hits format after stunting with Christmas music til the holiday was over. “Jack FM” is now on WLLI 102.3 Munfordville, W239BT 95.7 Glasgow and W253BN 98.5 Glasgow. I’m so glad our Variety Hits station in OKC is named Alice. Guess you could say we don’t know Jack, but I’m not going there.

## MI

[Smile FM](#), the CCM network blanketing Michigan, has another new signal on the air. It’s WHSI 88.9 Litchfield MI. Incidentally, Smile is acquiring KSNS 91.5 and KREJ 101.7, both in Medicine Lodge KS, from Florida Public Radio. Both will retain their Christian format, with one likely to be “Smile FM.”

Another boost for Boost Radio is the addition of W215CH 90.9 in Grand Ledge MI, a Lansing suburb. The Boost Radio programming replaces K-Love 2000’s on this EMF-owned translator.

## MN

In lovely Mankato MN, home of the Minnesota State University Mavericks, KEEZ 99.1 has returned to its longtime branding as “Z99.” It’s also gone back to CHR after a time as Hot AC. KEEZ is one of the many Alpha Media stations that put all of its local staff “on the beach” last summer.

KJCA 88.1 Marshall MN is now on the air with the Mankato MN based “[Kinship Radio](#)” network. The format is mainly Christian programs, with some light CCM.

Also on the air in Minnesota is KWHH 88.3 Fairmont, owned by We Have This Hope Christian Radio. Most of their programming is from the [Life Talk Radio](#) network.

## MO

Variety Hits is a popular format flip this month. KCKC 102.1 Kansas City MO has switched to it as “102.1 Bob FM.” It was AC in its previous life. Good on them, tho, for keeping the entire staff, although they are jockless til mid-January.

## ND



Following a frequency change from 99.1 to 98.5 and stunting with Christmas music since late October, KQYZ Emerado ND is now classic hits and known as “981/2 – Q98.” The station will still carry North Dakota State sports and Green Bay Packers football, 2 things they’d be crazy to give up.

## OH

The November 2024 merger of Soaring Eagle Promotions and River Radio Ministries has led to several Ohio stations switching from Soaring Eagle's "Rise FM" contemporary Christian music (CCM) format to River Radio's "The River" CCM programming from WCVO 104.9 Columbus. Those switching include WSOH 88.9 Zanesfield, WKEN 88.5 Kenton, WJEE 90.1 Bolivar, WHEI 88.9 Tiffin, and W216AH 91.1 Ashland.

[EMF](#) continues its buying spree with the acquisition of WKVR 102.5 Baltimore OH. They're running "K-Love," giving WCVO some competition in the Columbus market.

## SC

W247CC Greenwood SC is still Urban Contemporary with a splash of Urban Gospel, but it's now known as "[Emerald City Radio](#)." The station is a translator for WCZZ 1090 in Greenwood, which is known as Emerald City. I'm guessing you get to Greenwood by following the yellow brick road.

"Star 99.5" is the new name of W258CB Greenville SC. The format is AC, and is being fed by WJMZ HD3 in Anderson SC.

## SD

O'Neill NE-based The Praise Network has put two new stations on the air in SD. KGRL 89.3 Miller and KGGY 88.9 Gregory are using the branding "Good News Radio." They feature a mix of programs and CCM.

## TN



[Boost Radio](#) is now heard on W244BY Memphis TN, fed by WWAI-HD2 94.9 in Bartlett TN. Though the translator is owned by Educational Media Foundation, Gateway Creative Broadcasting is using it to expand the reach of Boost.

## TX

KVUT 99.7 Cuney TX is no longer silent. It's taken the call letters KFRO-FM and is simulcasting co-owned classic hits KFRO 1370 Longview.

KROI 92.1 Seabrook TX is no longer Urban Gospel. New owner Spanish Broadcasting System has introduced Regional Mexican [La Ley 92.1](#) to the frequency. The Urban Gospel format remains on KMJQ-HD2 102.1 Houston.

## UT

KXFF 106.1 Colorado City UT is now relaying KDXU 890 St. George UT. KXFF was going by "Fox Sports Utah," but is News/Talk now with new call letters KDXU-FM. Owner Townsquare Media has also given up the license of KHKR 1210 Washington UT, which had been feeding "ESPN 97.7" K249EQ St. George UT. The translator is now being fed by KDXU-FM HD2.

## VA

iHeartMedia has rebranded Rhythmic AC WMOV 107.7 Norfolk VA from "Movin' 107.7" to "Party 107.7." They say they're playing "feel good hit music." We'll see how good they feel after the first book.

## WI

WHSM 101.1 Hayward WI has returned to its previous country format and branding as "Musky 101." It tried Variety Hits as "101.1 The Cabin" for two months, which obviously didn't work out. Also in Hayward, W245CT 96.9 is now rebroadcasting 910 WBZH Hayward, which is known as the "Buzz of the North" with liberal talk.

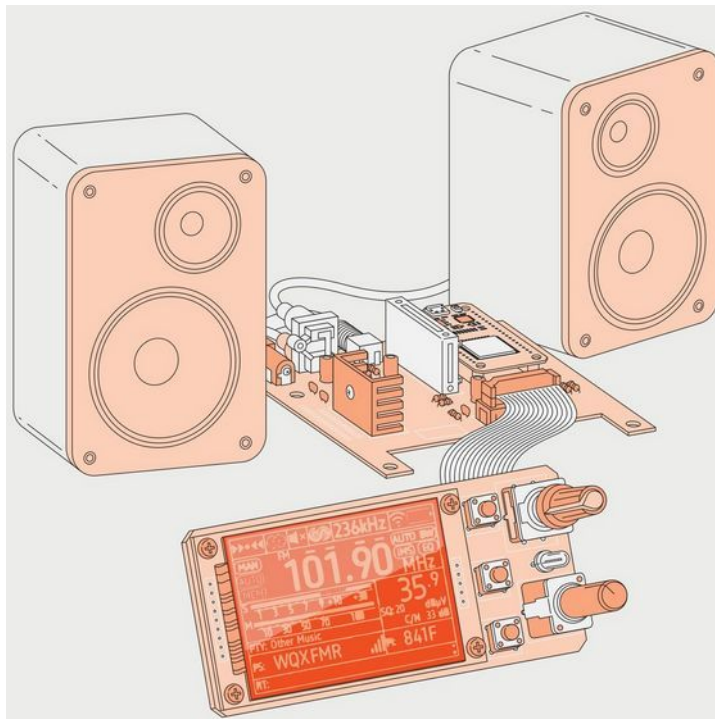
Continues on page 21

# Hacking A Car-Radio Chip Into The Ultimate SDR Receiver

Pull in the weakest FM and AM signals with this DIY build

30 Nov 2024 IEEE SPECTRUM

Sjef Verhoeven is a radio amateur and DIY enthusiast in the Netherlands.

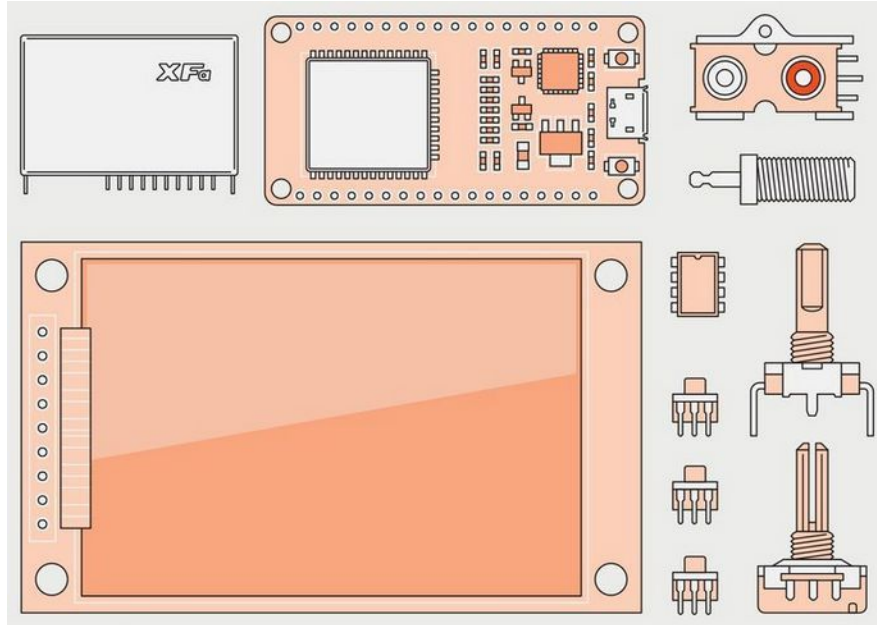


At a time when we all carry smartphones that can stream high-definition movies into our hands, the romance of listening to old-school analog broadcast radio nevertheless endures. For some it's a break from the cookies, contracts, and terms of service that lurk behind every online activity. For folks like me though, a big part of the charm is the thrill that comes from pulling in a signal from thousands of kilometers away—and doing it the time-honored way: with an understanding of atmospheric conditions, antennas, and electronics.

This pastime of using varied knowledge and skills to pull in very distant stations is called DXing. Today, digital signal processing makes it possible to put stupendously capable receiver electronics into an economical and very portable package, so there's never been a better time to be a DXer. And among these high-performance electronics, there's arguably no better example than the [TEF6686 chip](#), introduced in 2013 by [NXP Semiconductors](#) and revised multiple times since then.

The chip has been very successful in car radios, in part because of its low cost and high audio fidelity, but especially because of its astoundingly high sensitivity and selectivity to radio signals. The TEF6686 can receive both FM and AM, and can be configured to accommodate the different bandwidths used by stations in different countries. It can also decode a broadcast station's digital RDS ([Radio Data System](#)) feed, which when present contains continuously updated information such as the title of a song currently playing.

The chip's extreme selectivity and sensitivity results from its adept use of software-defined-radio and digital-signal-processing (DSP) technologies to filter out adjacent frequencies. This enables reception of very weak signals that would otherwise be drowned out by nearby broadcasts. The chip has proven irresistible to radio enthusiasts, attracted by features of the chip that go far beyond what is needed by a car radio. It can receive not just the commercial broadcast bands, but also the shortwave and long-wave bands. The chip can also provide instantaneous signal-strength information.



The TEF6686 chip can be found in a handy module [top left] that provides electromagnetic shielding and a through-hole interface. An ESP32-based development board [top middle] controls the module and performs signal processing. An LCD screen [bottom left] displays the user interface, which is controlled using buttons and rotary controls [bottom right]. James Provost

As an active radio amateur ([PE5PVB](#)) in the Netherlands, I became intrigued by the enthusiastic reviews I started seeing of the TEF6686. During the COVID lockdown of 2020, I started designing a completely open-source tuner that would wring the highest possible performance out of the chip for FM DXers. My enthusiasm grew when I found TEF6686 tuner modules on AliExpress. These contain a TEF6686 chip in a DIY-friendly package, suitable for through-hole soldering (the TEF6686 itself is a surface-mounted chip), and with radio-frequency shielding to help minimize interference. These modules are cheap—they can generally be found for around US \$25.

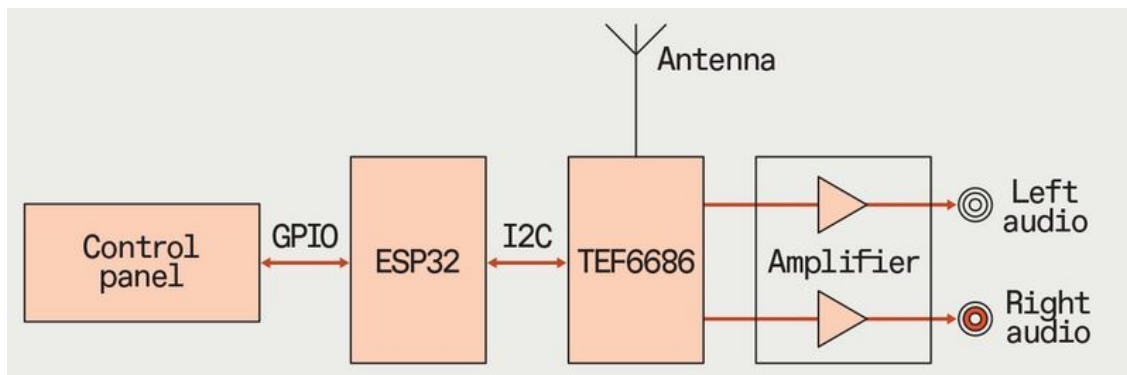
I soon settled on a configuration consisting of two printed circuit boards connected by ribbon cable. There's a main board, which contains the TEF6686 module and the microcontroller, and a display board, with a small OLED display and the switches and encoders that control the radio. I evaluated various versions of Arduino-compatible microcontrollers, and found that most were all too slow and had insufficient flash memory.

The microcontroller needs a lot of flash because it must store not only all the firmware that operates the radio, which is sent to the TEF6686 after every boot up, but it also must store the different fonts for the display, various images, as well as a database of North American call signs and of Canadian provinces and U.S. states (this info, coupled with other capabilities, enables the user to immediately see the call sign and state where



the transmitter they are receiving is located). Eventually I settled on [a variant of the ESP32](#) module, that had the speed and memory capacity I needed, but that still could be programmed using the popular [Arduino IDE](#).

In early 2021, I [released on GitHub](#) an initial version of the firmware and schematics for other DIYers. I also was in contact with a [DIY Webshop](#) in the Netherlands, [Team AmateurRadioShop.nl](#), which still sells [a kit](#) of an earlier version of the radio. In the fall of 2021, I created a second version with a so-called human-machine interface (HMI) display from [Nextion](#). This display has a built-in processor, so I could hand off more user-interface tasks from the ESP32. This sped up the radio considerably, and also opened up some new graphical possibilities. In this version I also added Wi-Fi, which permits connection to online resources such as XDR GTK, a user interface that allows for fine computer control of the radio tuner, and RDS Spy, which decodes the RDS data into usable information in real time. If you want to build this version yourself, you'll have to have your own printed circuit boards made up. But Gerber files, a bill of materials, and construction tips are available on [my Web site at www.pe5pvb.nl](#). Soldering it together will take about 2 hours.



The display and controls are directly connected to the microcontroller using general-purpose input/output pins, while the TEF6686 receiver chip is controlled via commands sent over a serial I2C interface. The left and right channels are amplified and passed to standard RCA audio sockets. James Provost

For those who don't feel like making a kit, there's an option for you, too. Early in 2022, a Chinese hobbyist, Justin Peng, contacted me to say he had built a portable version out of my design. That summer, the first versions based on this design of his [appeared on AliExpress](#). In the months after that, interest in my open-source project exploded, and the radio was adopted by FM DXers worldwide.

In 2023, I was contacted by a Czech hobbyist, [Marek Farkaš](#), who invited me to a group he was establishing on the [Discord social platform](#) with other hobbyists devoted to working on and improving software for this radio. In this team we now have a graphic designer, some folks who are specialists in RDS, others who are very skilled programmers, and a Chinese fellow who wrote a version suitable for use by hardware designers looking to make a radio for the AliExpress market. Together, we completely reviewed the code and added a smoother graphical design, more connectivity, selectable languages, and other improvements.

I am very grateful to this team for all their hard work to make this open-source radio perhaps the highest-performing radio of its kind, ever. I hope you'll try it out, and even if you don't spend your time hunting for distant stations, rediscover the joy of high-quality FM radio broadcasting!

# Skyworks FM Tuners Evaluated

Bill Hohnstein

On Nov 20 Les Rayburn asked about people's experience with the Skyworks Si4706 FM tuner IC. That IC along with a few other Skyworks IC's have High Performance RDS capability. According to their specification sheets, the Skyworks tuners have 9 dB greater RDS sensitivity than the TEF6686.

That reminded me of seeing information on their Evaluation Boards in the past. I decided to purchase two of those: Si4743-C-EVB and Si4735-D60-EVB. The 4743 has High Performance RDS and covers FM & AM broadcast plus shortwave, longwave and the weather frequencies. The 4735 is "available with High Performance RDS" and covers FM & AM broadcast plus shortwave & longwave frequencies. I am looking into what "available with" means.

I have done my first tests with the Si4743. The FM tuner and RDS displays are shown below:

**Radio Data Service (RDS)**

PS: Public    PTY: Public    PI: 0x4519    RDS Sync 75 ms

RT: On Point from WBUR and NPR    RT Display 4979 ms

eRT: N/A    eRT Display N/A

CT: Tuesday, 12/10/2024 09:06 (GMT -6:00)    RDS    PS Display 1914 ms

**Block Counters**

After Sync	After Tune	# Accepted: 3040	Errors: 48
Ideal: 3088	Ideal: 3084		
Error Rate = 0.016	Error Rate = 0.014	Total Recv: 3088	Reset

**Group Counters**

0A	0B	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B	6A	6B	7A	7B
507	0	0	0	190	1	13	0	0	0	26	0	0	0	0	0
66.4%	0.0%	0.0%	0.0%	24.8%	0.1%	1.7%	0.0%	0.1%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%
8A	8B	9A	9B	10A	10B	11A	11B	12A	12B	13A	13B	14A	14B	15A	15B
0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0
0.0%	0.0%	0.0%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**Alternate Frequencies**

Freq	RSSI
88.90	N/A
89.10	N/A

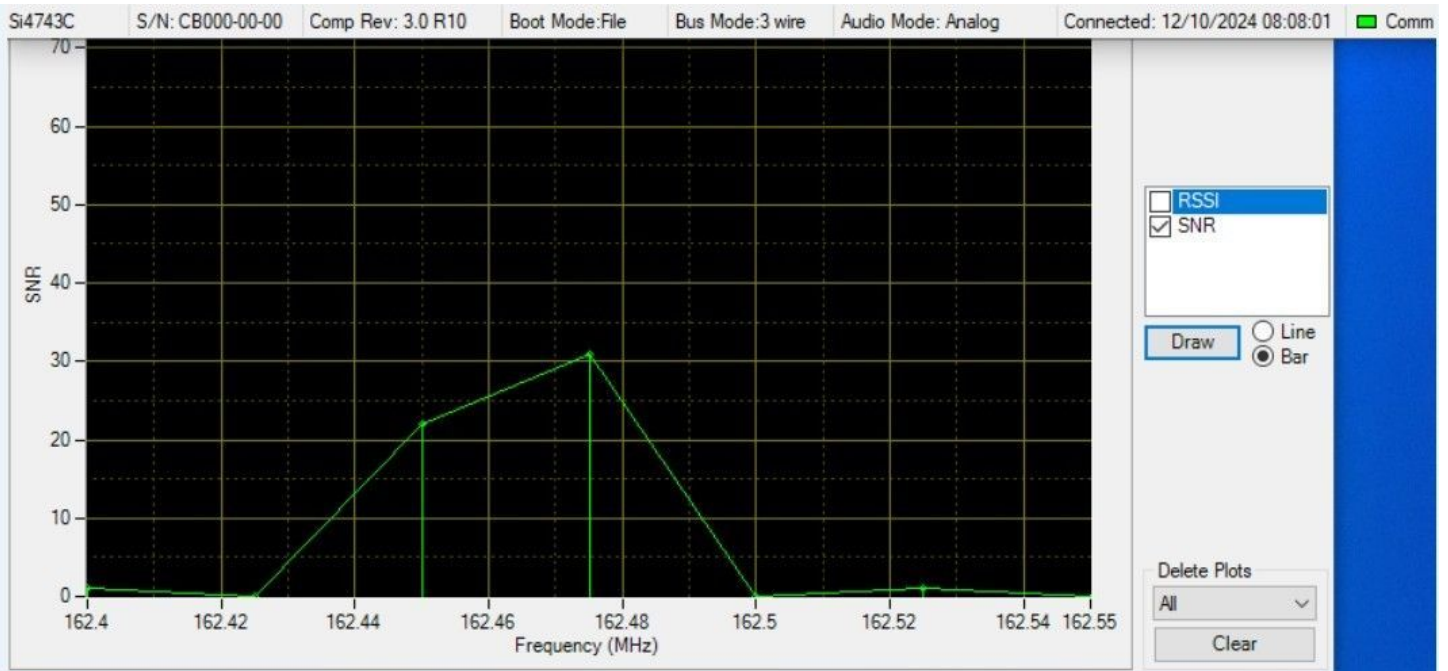
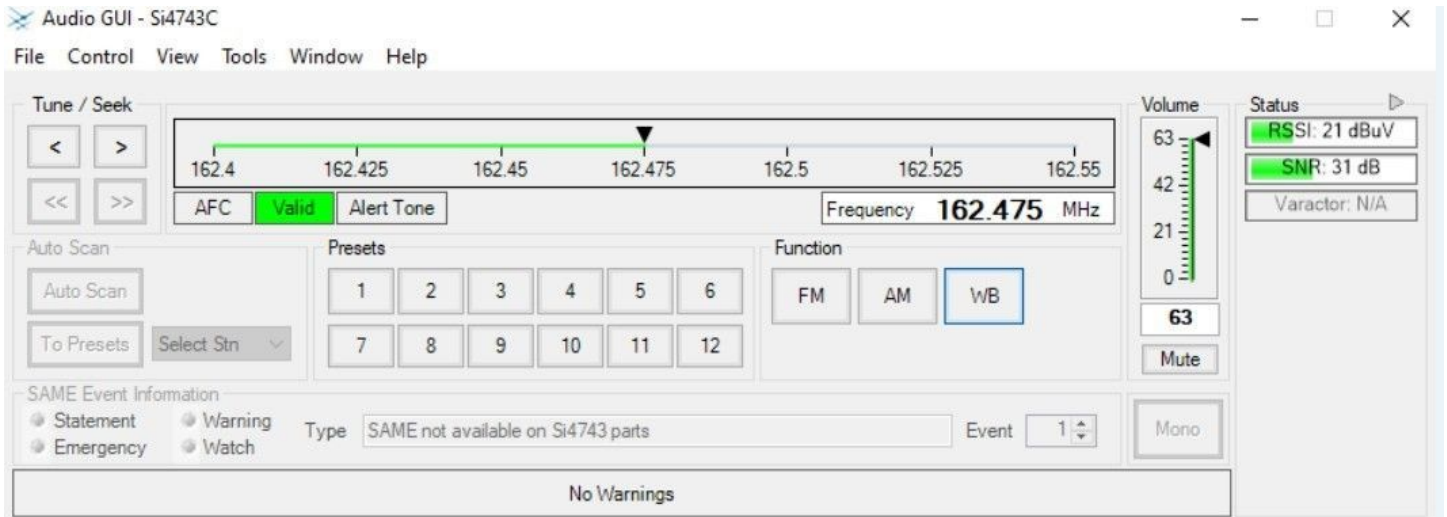
AF Method A

Radio Text Plus (RT+) >>



one frequency, that was due to my combining scans from multiple antenna headings. More involved antenna changes would add additional stations.

There are not as many unique features for receiving the weather frequencies. Here is a quick look at some of those displays:



12/10/2024 10:13

Time	Freq	AFC	Alert State	Alert Off	Alert On	RSSI	SNR	Valid Ch	Call
12/10/2024 10:13:51:418	162.4	FALSE	FALSE	TRUE	FALSE	0	2	FALSE	WXL-74
12/10/2024 10:13:56:418	162.425	FALSE	FALSE	TRUE	FALSE	0	0	FALSE	
12/10/2024 10:14:01:527	162.45	FALSE	FALSE	TRUE	FALSE	9	22	FALSE	WNG-549
12/10/2024 10:14:06:637	162.475	FALSE	FALSE	TRUE	FALSE	21	31	TRUE	WXM-20
12/10/2024 10:14:11:730	162.5	FALSE	FALSE	TRUE	FALSE	0	0	FALSE	
12/10/2024 10:14:16:714	162.525	FALSE	FALSE	TRUE	FALSE	0	0	FALSE	
12/10/2024 10:14:21:808	162.55	FALSE	FALSE	TRUE	FALSE	0	0	FALSE	

It's nice to know the measurement time down to the millisecond. I manually added the above call signs. I previously serviced those three weather transmitters. More detailed measurements will be coming.

The spreadsheet above is just a small sample of the complete report which is at:

[Skyworks FM Tuners Evaluated - WTFDA Forums](#)

There are added measurements to be made.

#### FORMAT FLIPS CONTINUES FROM PAGE 14

W273DQ 102.5 Milwaukee WI is now owned by [The Family](#) radio network. It's a translator of co-owned WEMK 1460 West Allis WI. The format has switched to CCM.

WGIF 90.1 Rice Lake WI is now on the air with religious programming. It's owned by Calvary Baptist Church of Barron WI. WGIF is the first full power non-com in Barron County.

#### WY

KKBE 89.5 Winchester WY is new to the airwaves airing [Your Network of Praise](#) programming. They're joined by KRWY 90.1 in Lander, also owned by YNOP. Check out the YNOP website for a nice listing of net stations (lots of 'em throughout the west).

Sources: Indianaradio.net, Northpine, Radiolnsight, Hisair.net, LPFM Database, IRCA's DX Monitor, InsideRadio, and radio biz connections

# Stephen King's Radio Stations to Sign Off for Go

By [Brian Sullivan](#) WABI

Published: Dec. 2, 2024 at 10:01 AM EST | Updated: 7 hours ago



BANGOR, Maine (WABI) - Stephen King's radio stations are signing off for good at the end of December. The Zone Corporation announced Monday morning that after 41 years, WZON (620), WKIT (100.3), WZLO (103.1) will sign off on Dec. 31. In a press release, King cited losses in the millions of dollars and his age as reasons for the shut down. The Kings bought WZON in 1983.

"While radio across the country has been overtaken by giant corporate broadcasting groups, I've loved being a local, independent owner all these years," said King. "I've loved the people who've gone to these stations every day and entertained folks, kept the equipment running, and given local advertisers a way to connect with their customers. Tabby and I are proud to have been a part of that for more than four decades."

The Zone Corporation said they would be making no further public comment nor conducting interviews on the subject.

Part of the press release is below:

*When internationally known author Stephen King first entered the radio business in 1983, it was with the enthusiasm and love of a lifelong rock and roll fan and as a listening member of the greater Bangor community. He also was a young man of 36 with a lifetime of creativity ahead of him. Now, in good health but feeling his 77 years, King says it's time to "get his business affairs in better order," and that means saying good-bye to the radio stations that he personally has kept afloat and on the air all these years.*

*"While radio across the country has been overtaken by giant corporate broadcasting groups, I've loved being a local, independent owner all these years," said King. "I've loved the people who've gone to these stations every day and entertained folks, kept the equipment running, and given local advertisers a way to connect with their customers. Tabby and I are proud to have been a part of that for more than four decades."*

*Flagship station WZON, which first went on the air in Maine in 1926 as WLBZ, was purchased by the Kings in 1983. The call letters were changed to WZON, a nod to Stephen King's best seller *The Dead Zone* and a rock and roll format was instituted. The station never made money and for a time, even surrendered its commercial status to become a donor supported enterprise. In 1990, the station was sold, only for the Kings to re-acquire it three years later and bring back the commercial model.*

**\*\*\*Note: WKIT 100.3 has found a buyer and will stay on the air \*\*\***

Thanks for reading the Line of Sight newsletter for January 2025