



# DX Monitor

Devoted Exclusively to  
Broadcast Band DXing

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## What's Happening?

Last week we had a very interesting article on three letter calls. It looks like the article is already out of date. KHJ-930 is changing their calls to KRTH, as explained in the article below. We'll open this week's DX Monitor with some words from our new DX Worldwide II editor, Paul Swearingen:

Pete Taylor established a high-quality standard as editor of DX WW II, and I hope to carry on in his fine tradition. He has passed his records on to me, and as soon as his original source material starts to reach me, I'll try to organize and present it in a timely manner. I requested and received from President Richard Wood some suggestions for parameters for the column, and I now solicit your comments.

Unfortunately, I won't be able to duplicate the attractive print Pete used in his column ... you'll just have to get used to what you're reading now!

So ... while I'm waiting to hear from the BOD as to their final disposition and for source material to arrive, write me with your ideas and any updates you may be aware of. By the way, I now receive (through memberships or exchanges for my Monitoring Times column) these bulletins which contain ECB DX: NRC's DXN, ADXR's DX Reporter, The Capitol DX'ers Newsletter, ANARC Newsletter, CIDX Messenger, ODXA's DX Ontario, and RadioPhiles, and of course anticipate receiving the bulletins Pete has received. If you're aware of any other club bulletin which might be useful in preparing this column, I'd appreciate a tip from you.

Paul Swearingen  
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Panorama City, CA 91412

## KHJ becomes KRTH-AM

Daily News, 1/31/86  
via Gary Larson

By Jonathan Taylor

Daily News Staff Writer

**K**HJ: To the generation of rock 'n' roll fans who grew up in Los Angeles in the 1960s, those letters evoke images of rock radio at its most vibrant and influential.

But as of Saturday, KHJ (930-AM) will be history. RKO General Radio, which owns KHJ, is changing it to KRTH-AM. The move is designed to help the station benefit from the popularity of its co-owned sister station, KRTH (101-FM).

In the process, the AM station will drop its ill-fated and low-rated Car Radio format — designed for people in their cars, with traffic updates every 20 minutes — in favor of what it's calling Smokin' Oldies. This format focuses on music from the first decade of rock 'n' roll, 1955-1965. KRTH's all-oldest format is broader, covering hits from the '50s, '60s and '70s.

"(Car Radio) was a noble effort and a

very expensive proposition," said Pat Hines, director of creative services for KRTH. "They (the executives at RKO) decided they would try something different and more effective."

According to Hines, there are no immediate changes in on-air staff. However, a prepared statement announcing the new format noted that Bob Hamilton, KRTH's program director for 10 years, has resigned to form a radio consulting firm. No new program director has been named.

This puts to rest one of the truly legendary sets of call letters. In fact, KHJ was one of the last of the original three-letter stations, which were issued during the early days of radio.

Throughout most of the '60s, KHJ's "Boss Radio," along with arch-rival KRLA, ruled the air waves. This was the golden age of top-40 radio, when it was possible to hear the Seeds' raw "Pushin' Too Hard," followed by Dionne Warwick's lush "I Say a Little Prayer," followed by the

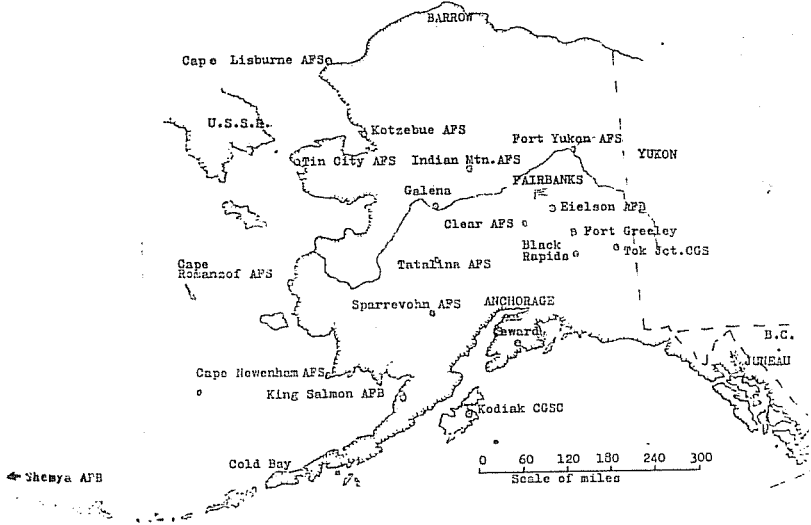
Lovin' Spoonful's raucous "Summer in the City."

It was an age when strict formats mattered less than simply playing whatever was popular.

And then there were the contests. One memorable one — started during the height of the "Batman" craze — had listeners figure out the phone number of the Bat phone in the Bat Cave. It didn't seem to matter that the phone used on the show didn't actually have a number, but rather was activated by pushing a button.

By the end of the '60s, Boss Radio and KHJ were in decline, as the most innovative music was being played on so-called progressive FM stations like KMET. For most of the last 15 years, KHJ has stumbled through a succession of low-rated formats, including rock, country and the current Car Radio — a mixture of current hits and oldies.

But now, as Hines says of KHJ and its Car Radio format, "It's exhausted."



### THE ALASKAN FORCES RADIO NETWORK

Serving the Top Cover of America, the Air Force Arctic Broadcasting Squadron (AFABS), headquartered at Elmendorf Air Force Base, near Anchorage, Alaska conducts the broadcast portion of the Department of Defense (DoD) Internal Information Program in Alaska, parts of Canada, and Greenland. AFABS carries out the DoD policy which mandates that U.S. Military personnel and their families are entitled to, and should be availed the same type of radio and television service as their fellow citizens in the continental U.S.

In Alaska and Canada, AFABS has a radio-only commitment. The Alaskan Forces Radio Network (AFRN) is the squadron's broadcast entity. It's on the air 24 hours a day with two programming services. First, AFRN offers an AM-type schedule aimed at audience members in their late teens or early 20's. As an alternate listening choice, AFRN airs adult contemporary FM-stereo programming at four sites throughout Alaska. Both services are distributed thru a series of low-powered transmitters, and closed-circuit audio distribution systems located at sites where military personnel are assigned.

AFRN's primary studios are co-located with AFABS headquarters at Elmendorf AFB. Other studios are located at Eielson AFB, near Fairbanks, and at Fort Greeley. These affiliates break away from the network for several hours each day to concentrate on local information. The outlet at Eielson AFB is also the entire network's back-up station should AFRN Elmendorf go off the air.

Most programming aired on AFABS radio stations is provided by the Armed Forces Radio and Television Service Programming Center in Los Angeles, California. Programs there are procured from assorted broadcast industry sources.

AFABS personnel in Alaska are mostly Air Force, but some soldiers are assigned to the squadron by the U.S. Army.

The AFABS has a proud history. AFRN is the oldest armed forces radio network in the world. Its first outlet was established on Kodiak Island in 1942 when American soldiers built a small, home-made radio station to entertain the local troops. Since that time AFRN has become one of the largest military broadcasting networks in the world in terms of the number of sites it serves and the geographic area it covers.

In April of 1933 AFABS inaugurated its satellite FM Stereo network in Alaska, again, the first of its type in the military. Stereo programming originates from a state-of-the-art computerized system at Elmendorf AFB and is distributed by satellite to four locations around Alaska: Shemya AFB, far out in the Aleutians; King Salmon, on the Alaska Peninsula; Fort Greeley in the Interior; and Galena in Northwest Alaska.

AFABS reports to the Air Force Broadcasting Service, a directorate of the Air Force Service Information and News Center, Kelly Air Force Base, Texas.

The former "AFRN North" network, connecting sites at Clear, Eielson AFB, Fort Greeley, and Tok, has been discontinued. These sites all continue to receive programming from Elmendorf AFB.

#### ALASKAN FORCES RADIO NETWORK TRANSMITTER SITES

<u>Location</u>	<u>Power</u>	<u>Frequency (KHz)</u>
Black Rapids	50 w	1550
Cape Lisburne AFS	50 w	1400
Cape Newenham AFS	50 w	1450
Cape Romanzof AFS	50 w	1240
Clear AFS	100 w	1490
Cold Bay	50 w	1490
Fort Yukon AFS	50 w	1340
Galena	50 w	1400 (Formerly 570)
Indian Mountain AFS	10 w	1240 (Top Control site)
Indian Mountain AFS	50 w	1490 (Bottom Control site)
King Salmon AFB	250 w	970
Kotzebue AFS	50 w	1340
Shemya AFB	300 w	90.5 mhz FM (Mono).
Sparrevohn AFS	50 w	1550
Tin City AFS	50 w	1490
Tok Junction CGS	50 w	1400
Tatalina AFS	50 w	1450
Eielson AFB	50 w	1490
Fort Greeley	250 w	1360
Kodiak CGSC	50 w	960

#### ALASKAN FORCES RADIO NETWORK FM NETWORK

Fort Greeley	250 w	90.5 mhz. FM
Shemya AFB	300 w	101.1
Galena	300 w	90.5
King Salmon	300 w	101.7

#### Abbreviations:

AFB-Air Force Base AFS-Air Force Station CGS- Coast Guard Sta.  
CGSC-Coast Guard Support Center

Special Thanks are in order to Air Force TSgt. Michael Pataky for his assistance in the research of this article.

- Rod O'Connor  
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Kodiak, AK 99619-1467

BOOK REVIEW ----- RADIO RECEIVER-Chance or Choice

Author -- Rainer Lichte

Published by -- Gilfer Shortwave  
52 Park Avenue  
Park Ridge, NJ 07656 USA

This is a very interesting book. If you're in the market for a receiver or have an interest in what's available this is the book for you. It might also be titled "A Review of All Transistorized Shortwave Receivers of the Last 15 Years". It goes all the way back from the Drake SPR-4 up to the Yaesu PRG-8800 and includes most of the receivers in between.

The book initially covers the basics of radio communication. It covers propagation, modulation types, and reception conditions. It briefly describes receiver types and how they work. It gives definitions of radio terms such as (USB) is upper sideband. The book then describes the various test measurements made on the receivers, how they are made, and how the measured values relate to performance. It then tells how to choose a receiver that fits your needs.

\$18.50

**RECEIVERS AND ACCESSORIES REVIEWED:**

<b>Barlow Wadley</b>	<b>XCR-30 MK II</b>	<b>Mini-reviews on the following:</b>	
<b>Grundig</b>	Satellit 1400	<b>Sony</b>	ICF-5900W ICF-2010
	Satellit 2400		Cat Program for FRG-8800
	Satellit 3400	<b>Other:</b>	McKay Dymek DR-55 McKay Dymek DR-22 Eska RX6, 12, 24 GE World Monitor ITT Tourport 220 JVC FR 6600JW Philips/Magnavox D2825 Sanwa 6090 DF Sharp FV-610GB Silver XF-1900/XF 1400 Zenith Transoceanic
	Satellit 300		
	Satellit 310		
	Satellit 460		
	Satellit 600		
	Yacht Boy 120		
	Yacht Boy 650		
	Yacht Boy 700		
<b>Hitachi</b>	KH-3800		
<b>Icum, Inc.</b>	IC R70		
	R71-A/E/D		
<b>J.I.C.L.-L.A.</b>	JIL SX-400	<b>Small Portables</b>	Toshiba RP-F4L, ICF-7600D, ICF-7600 AW Audio Sonic Sony ICF-4900 JVC-RC-522 Nordmende Globemaster 2016 Panasonic-RF-B50L Panasonic-RF-9L Nordmende Globemaster 2019
<b>Japan Radio Company</b>	NRD-505		
	NRD-515		
<b>Magnavox/Philips</b>	AL-990		
	D-2924		
	D-2999		
	D-2935		
<b>Matsushita</b>	Panasonic RF-4900		
	RF-9000		
	RF-6300		
	RF-2900		
	RF-799		
	RF-3100	<b>Accessories</b>	
<b>R.L. Drake</b>	SPR-4	<b>Preselectors:</b>	Mizuho SX-1D Yaesu FRA-7700 Mizuho SX-59 Mizuho SX-3, AP-1D, AP-M1
	R7/R-7A		
<b>Sanyo</b>	RP-8800		
<b>Sony</b>	CRF-1	<b>Active Antennas:</b>	McKay Dymek Sony Dressler MFJ-1020 Palomar Mizuho Datong
	CRF-320A		
	ICF-6700		
	ICF-6800W/A		
	ICF-5900W		
	ICF-6500W		
	ICF-2001	<b>Antenna Tuners:</b>	Yaesu FRT-7700 McKay Dymek DP-40
	ICF-7600		
	ICF-7600A		
	ICR-4800		
	ICF-2002/7600D	<b>Signal Processing:</b>	Author's setup Hal CT2100 Transi-trap Paeom PFC-100 Telereader
	ICF-2010		
<b>Tandy</b>	Realistic DX-302		
<b>Toshiba</b>	RP-F 11/L	<b>Audio Filters:</b>	Datong FL-3 Datong FL-2 Sherwood SE-3 Datong-Woodpecker blanker
<b>Trio-Kenwood</b>	R-1000		
	R-2000		
	R-600		
<b>Uniden</b>	CR-2021		
	DX-1000		
<b>Yaesu</b>	FRG-7		
	FRG-7000		
	FRG-7700		
	FRG-8800		

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## BOOK REVIEW ----- RADIO RECEIVER-Chance or Choice

The majority of the book contains the tests of the various receivers. As shown in the test sheet of the JRC NRD-515, the testing is quite extensive but is presented in a concise format. It's nice to find all these receivers tested by a high quality laboratory. WRTM also does receiver reviews but they are done in a poor-good-excellent format. The Ham magazines tests are done for Amateur's and the testing isn't very extensive.

The author has included with each test a several page description of the receiver. It tells of the operating characteristics and the author's opinion of the strengths and weaknesses of each receiver. The good part here is that the author understands the difference between Amateur Radio, Shortwave Listening, and Medium Wave DX'ing and how the receiver operating controls and performance affect the ability to hear the station of interest.

One thing about the book that makes it harder to use is that it's not set up to make easy comparisons between receiver types. The receivers are listed by manufacturer and not by type. Also the price of the receivers is not included. Aside from these criticisms I found the book well worth the \$18.50 price. I hope the author and publisher continually update the material.

Review by Marc Bergman

### JRC NRD-515

Manufacturer	Japan Radio Corporation, Tokyo, Japan
Type of receiver	stationary
Type of circuit	Dual superhet, PLL type
Frequency coverage	0.1 - 30 MHz
Reading accuracy	± 100 Hz
Absolute accuracy	- 31 Hz
Frequency stability	± 30 Hz
Remarks	Rugged high-performance DX-receiver with excellent RF-characteristics. Has PBT, RIT, and tunable preselector for BCB-DX.

RF-section	at bandwidth			
	at frequency	wide	narrow	SSB
Sensitivity	0.15 MHz	17	11	-
	0.50 MHz	15	10	-
	1.00 MHz	12	10	-
	2.00 MHz	1.2	1.1	0.4
	5.00 MHz	1.4	0.9	0.5
	7.00 MHz	1.3	0.8	0.5
	10.00 MHz	1.4	0.9	0.6
	20.00 MHz	1.3	0.8	0.6
	30.00 MHz	1.5	0.7	0.5
Bandwidth 6/60 dB in kHz	SSB 2.1/4.6	wide 4.6/10.8	normal -	narrow 2.2/5.3
Image rejection	76 dB			
AGC range	93 dB			
ICP 3rd order	+ 5 dBm (after modification)			
Tuning indicator	SI	1 µV		
		mid-scale	100 µV	
		end of scale	10 mV	
Antennas	none, switchable attenuator (- 10~ 20 dB) for external inputs			
External antenna connections	UHF-type SO-239			
Remarks	Optional memory unit with 24 or 96 channels available. Optional speaker NVA-515. Frequency and mode control via home computer possible through 22 bit port on rear.			

AF-section	
Audio power output	0.9 W
Audio frequency range	46 - 7300 Hz
Tone controls	none
Noise limiter	switchable
Speaker	none
Connections	headphones, external speaker, record out, external mute.
General	
Power supply	110/220 VAC, ext. 13.8 VDC with optional adaptor
Power consumption	47 VA
Dimensions	34 x 14 x 30 WHD in cm
Weight	7.6 kg
Accessories	operator's manual, schematics, various plugs and fuses

## The Micro-MWDX-4 Phasing Unit: A Small, Cheap, & Simple Approach

Mark Connelly

WALION DX Labs

27 JAN 1986

### Introduction

Since the '70s, many phasing unit designs have appeared in the DX press. Over two dozen medium-wave DXers have successfully implemented phasing systems of various types: they enjoy the ability to null out many unwanted stations & noises and, as a result, hear desired co-channel or adjacent-channel DX stations. Phasing (along with looping, audio filtering, active preselection, and IF-circuit enhancements) has become a useful weapon in the DXer's arsenal, a valuable tool in the "bag of tricks" necessary to log new stations in this age of broken-down "clear channels", extended hours for "daytime" stations, and new RF noise-pollution sources (light dimmers, digital appliances).

A frequent complaint heard about phasing systems is that they are too complicated for some DXers to operate. It is generally true that establishing a null with a phasing unit takes more control manipulations than establishing a null with a loop antenna. The main reason that phasing is used by serious international MW DXers is that it sometimes offers nulls not obtainable with looping. (In some cases - e. g. inside metal buildings - looping isn't viable at all.)

The Micro-MWDX-4 is an L-C type phaser that has simplified control operation as its major design goal. Other concepts embodied in the Micro-MWDX-4 are:

- (1) passive design: no battery or mains power is required
- (2) small size: practical for DXpedition purposes, especially when airplane travel is involved
- (3) low cost: estimated parts cost \$ 60 or less (the tuning capacitor is about 25 % of the entire cost)

The relationship between the fancier MWDX-4A and the Mini-MWDX-4 is somewhat akin to the relationship between a luxury car and a subcompact model. The MWDX-4A (with its more efficient coupling, more precise null-tuning, and amplification capability) certainly outclasses the Micro-MWDX-4, but the increased cost, size, and complexity of operation may not suit every DXer's tastes. For many DXers, more than 75% of the medium-wave stations that can be nulled with the MWDX-4A can also be nulled with Micro-MWDX-4.

In discussions to follow, please refer to the Micro-MWDX-4 schematic (Figure 1). Construction documentation is restricted to a chassis-hole list only. Other aspects of construction may be derived from information in my other recent phaser and active-tuner articles.

### Single-Line Tuning: the Key to Micro-MWDX-4's Simplicity

Of the two antenna inputs required for phasing, only one of these (Line 1) has an L-C tuner associated with it. DX Lab. testing has determined that if a receiver can operate spur-free with the antennae-to-be-used connected directly to its input, it will work well with the Micro-MWDX-4. The spur-free stipulation must be met because there is no tuning on the Line 2 aerial. Those who experience overload when connecting their favourite longwires to their receivers are advised to pump the output of Micro-MWDX-4 through a tuner. Any member of the MWT and Mini-MWT families of tuners is ideally suited to be placed between the output of Micro-MWDX-4 and the input of the receiver. The normal way to set up a follow-up tuner is to set S2 of Micro-MWDX-4 to Line 2 (the untuned line) and peak the tuner (adjusting the tuner's attenuation pot if necessary) before proceeding to actual nulling procedures.

Figure 1: Micro-MWDX-4 Schematic

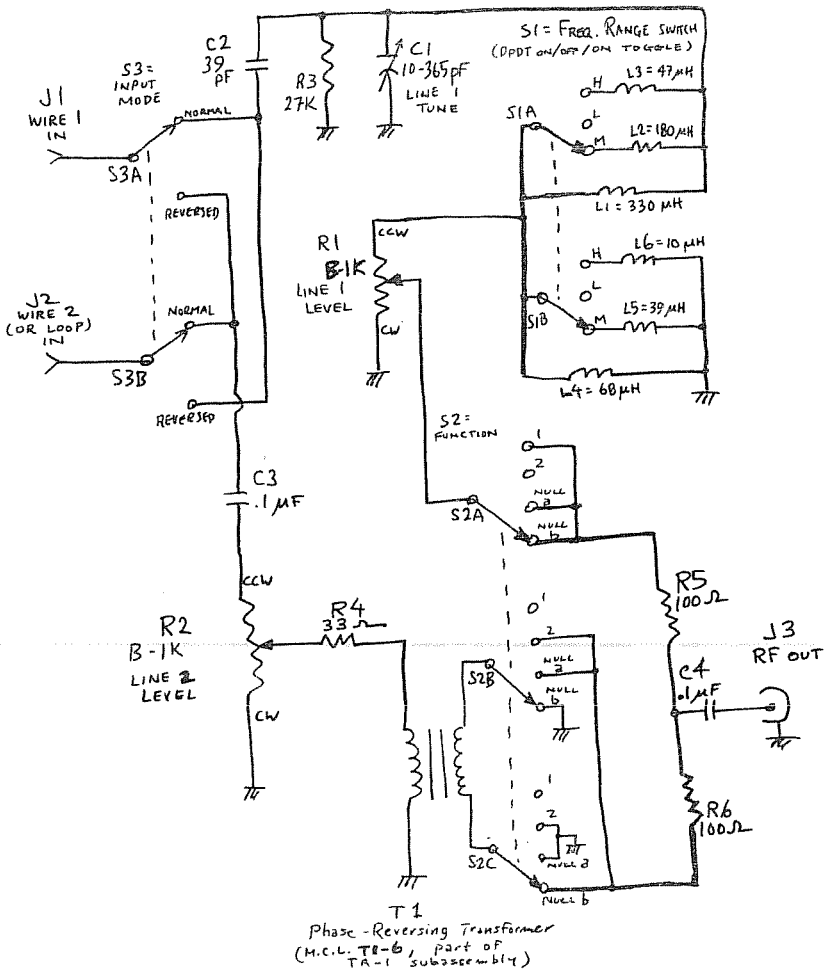


Table 1: S1 Frequency Range Switch Settings Guide

Freq. Range, kHz	S1 position	S1 orientation	Equiv. L, μH	
			S1A	S1B
500 - 750	lowband (L)	middle	330	68
750 - 1250	midband (M)	down	116.5	24.8
1250 - 1800	highband (H)	up	41.1	8.7

Ranges may vary slightly from those above.

Table 2: Hole List for Micro-MWDX-4

=====

BOX USED = Radio Shack 270-238 (5.2" x 2.92" x 2.125")

X = horizontal distance, in inches, from the vertical centreline (VCL) on the side observed. Negative values of X are left of VCL; positive values of X are right of VCL.

Y = vertical distance, in inches, from the bottom horizontal edge of the side observed.

D = hole diameter in inches.

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L E F T   S I D E

Hole #	Comp. Desig.	Description	X	Y	D
1	J1	Wire 1 In - banana jack	-0.75	0.5	0.3125
2	J3	Earth GND In - banana jack	0.0	0.5	0.3125
3	G1	GND H/W - int. lug	0.0	1.125	0.113
4	J2	Wire 2 In - banana jack	0.75	0.5	0.3125

+++++

T O P   S I D E

Hole #	Comp. Desig.	Description	X	Y	D
1	S3	Input Mode switch - tab	-2.125	2.375	0.113
2	S3	Input Mode switch - shaft	-2.125	2.125	0.25
3	S1	Freq. Range switch - shaft	-2.125	0.75	0.25
4	S1	Freq. Range switch - tab	-2.125	0.5	0.113
5	C1	Main Tuning Cap. - H/W 1	-1.088	1.625	0.14
6	C1	Main Tuning Cap. - shaft	-0.625	1.375	0.5
7	C1	Main Tuning Cap. - H/W 2	-0.162	1.625	0.14
8	-	C1's vernier knob - H/W 1	-1.28125	0.75	0.113
9	-	C1's vernier knob - H/W 2	0.03125	0.75	0.113
10	R1	Line 1 Pot - shaft	0.9375	2.125	0.3125
11	R1	Line 1 Pot - tab	1.25	2.125	0.14
12	R2	Line 2 Pot - shaft	0.9375	0.625	0.3125
13	R2	Line 2 Pot - tab	1.25	0.625	0.14
14	S2	Function switch - tab	1.875	2.0	0.14
15	S2	Function switch - shaft	1.875	1.5	0.375

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R I G H T   S I D E

Hole #	Comp. Desig.	Description	X	Y	D
1	TAL	Phase Rev. card - H/W 1	-0.875	1.25	0.113
2	TAL	Phase Rev. card - H/W 2	-0.875	0.45	0.113
3	J4	RF out - BNC jack	0.0	0.5	0.375

\*\*\*\*\*



Refer to schematic & to labels on unit.

1.0 2-wire phasing

- 1.1 Connect longwire 1 to J1. Connect longwire 2 to J2. Connect receiver input (via coax. cable) to J4. Connect earth ground to J3.
- 1.2 Set R1 & R2 fully counterclockwise.
- 1.3 Set S2 to 2. Switch S3 between NORMAL position and REVERSED position. Leave S3 on the position which yields the weaker level of the station to be nulled, or - if levels are within a few dB - the position which shows greater evidence of subdominant signals. (If there's no clear-cut difference between the two S3 positions, set S3 to NORMAL position.)  
Note (from the schematic) that if S3 is on REVERSED, the Line 1 controls (C1, S1, R1) will actually be operating on the wire connected to J2 rather than on that connected to J1; similarly, R2 will act upon the wire connected to J1.
- 1.4 Set S2 to 1.  
Set S1 to correct range for frequency of operation (per Table 1).
- 1.5 Tune Line 1 by peaking desired-frequency signal strength with C1 (then, leave C1 at peaked-signal position).
- 1.6 Switch S2 back & forth between position 1 & position 2:  
If "1" is stronger than "2", adjust R1 until the levels of "1" & "2" are equal.  
If "2" is stronger than "1", adjust R2 until the levels of "1" & "2" are equal.
- 1.7 Switch S2 back & forth between Null a & Null b positions; leave S2 on the position yielding more cancellation (= weaker level) of the dominant station to be nulled. Subdominant signals, if present, should become more apparent if the proper S2 null position has been chosen.
- 1.8 Adjust C1 to get a null of the dominant station.  
If a null or "dip" at a given C1 setting does occur, leave C1 at that setting and proceed to step 1.11.
- 1.9 If a null doesn't occur [an unlikely possibility], set S2 to the 'other' null position (to Null b if it had been on Null a, to Null a if it had been on Null b) & adjust C1 for null.  
If a null or "dip" at a given C1 setting does occur, leave C1 at that setting and proceed to step 1.11.
- 1.10 If, at this point a decided null still can't be discerned, set S3 to its 'other' position (to REVERSED if it had been on NORMAL; to NORMAL if it had been on REVERSED). Steps 1.5, 1.6, 1.7, & 1.8 must then be re-done. In all likelihood, a null should now be established (thereby obviating the need to re-do step 1.9).
- 1.11 Try to enhance the null by adjusting R1. If best null is with R1 fully CCW, leave R1 there.  
Try to enhance the null by adjusting R2. If best null is with R2 fully CCW, leave R2 there.
- 1.12 Make successive adjustments of C1 and whichever pot (R1 or R2) was found to have the greatest effect on null enhancement in step 1.11. After several of these successive adjustments, a very good null should be obtained. Occasional re-adjustment may be necessary when the station to be nulled is arriving via skywave and is closer than 500 mi./800 km. The need for re-adjustment is more common on the high end of the band (above 1100 kHz).

2.0 loop vs. wire phasing

Loop must have fixed 15K (Q-spoiling) resistor across LC tank.

The fixed 15K resistor should be switchable in (= low Q) or out (= high Q): the switch used will be referred to as the Q switch.

Loop's tuning capacitor will be referred to as the Loop cap.

- 2.1 Connect longwire to J1. Connect loop output cable inner conductor to J2. Connect loop cable shield and earth ground to J3. Connect receiver input (via coax. cable) to J4.
- 2.2 Set R1 & R2 fully counterclockwise. Set S3 to NORMAL position.
- 2.3 Set S2 to 1.  
Set S1 to correct range for frequency of operation (per Table 1).
- 2.4 Tune Line 1 by peaking desired-frequency signal strength with C1 (then, leave C1 at peaked-signal position).
- 2.5 Set loop's Q switch to High Q. Turn loop power on. Set S2 to 2 & peak the desired-frequency signal with the Loop cap. Then, set the loop's Q switch to Low Q.
- 2.6 Switch S2 back & forth between position 1 & position 2:  
If "1" is stronger than "2", adjust R1 until the levels of "1" & "2" are equal.  
If "2" is stronger than "1", adjust R2 until the levels of "1" & "2" are equal.
- 2.7 Switch S2 back & forth between Null a & Null b positions; leave S2 on the position yielding more cancellation (= weaker level) of the dominant station to be nulled. Subdominant signals, if present, should become more apparent if the proper S2 null position has been chosen.
- 2.8 Adjust C1 to get a null of the dominant station.
- 2.9 Try to enhance the null by adjusting R1. If best null is with R1 fully CCW, leave R1 there.  
Try to enhance the null by adjusting R2. If best null is with R2 fully CCW, leave R2 there.
- 2.10 Make successive adjustments of C1 and whichever pot (R1 or R2) was found to have the greatest effect on null enhancement in step 2.9. After several of these successive adjustments, a very good null should be obtained. Occasional re-adjustment may be necessary, especially on high-angle skip. If you've reached a deep & steady null and the C1 / pot adjustments to get additional nulling become too touchy, try slight physical re-positioning of the loop to help in establishing the maximum null.

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Please write to me if you have any questions about Micro-MMDX-4 use, construction, availability, etc.

(address = 30 William Road - Billerica, MA 01866 USA)

/\* end \*/

### Experimental booster

The FCC has authorized an experimental synchronous AM transmitter—the first in many years—for use with a Nevada AM station set to go on the air next July. The synchronous transmitter, or "booster," will be built in East Las Vegas to complement the signal of KROL(AM) Laughlin, Nev., 90 miles south.

Synchronous transmitter technology, in which identical programming is aired by two separately located transmitters on identical frequencies to fill coverage gaps or extend service areas, is common outside the U.S., but has been unused here in recent years until advances in transmitter technology led the FCC last year to reconsider allowing its application. Only one other synchronous AM transmitter is reported to be in operation in the U.S., in Lowell, Mass., with its authorization granted decades ago.

The experimental operation at KROL is expected to provide the commission with information on the potential benefits of this type of facility, according to Gary Thayer, a staff engineer in the commission's AM branch. The station will be required to report to the FCC at least every six months

once the facility goes on the air, he said.

The station filed the synchronous transmitter application after an engineering survey showed that the construction permit granted the station would not cover the entire service area because predicted ground conductivity was lower than the FCC had indicated, according to KROL owner Thomas Letizia of Laughlin Roughrider Broadcasting.

The \$1-million station construction project has begun on the primary transmitter, which will operate on 870 khz with 10 kw, directional daytime, and 1 kw, directional nighttime, according to the FCC. The synchronous transmitter facility, with construction scheduled to begin in February, will operate on 870 khz at 300 w, nondirectional daytime, 500 w, directional nighttime.

Designing and building the transmission plant for Laughlin Roughrider, which also owns KLFZ-FM Albuquerque, N.M., and KRNH-FM Tonopah, Nev., is consulting engineer Slim Sulyma of Williamstown, N.J. The station, added Letizia, will air the Drake-Chenault Enterprises "Evergreen" format in stereo and make extensive use of compact disk technology.

Broadcasting  
Magazine  
1/27/86  
via Robert Wie  
(used by  
permission)

# EASTERN DX FORUM

RICHARD EVANS  
English Village Apts; Bldg 23 Apt. B-6  
NORTH WALES, PA 19454

Deadlines: 2/15 2/22 3/1 3/8 3/15 3/29 4/12 4/26 5/10 5/31  
Anniversary issue: 3/8

John H. Demmitt, Box A K0848, Bellefonte, Pennsylvania 16823  
Finally found a null to get rid of WHLO on 640 but instead of getting KFI, I am now getting WPMC on that frequency. Had them on Jan. 23rd at 0322 and again on Jan. 25th at 0454. The station gives its QTH as in Fayetteville but the transmitter may or may not be located in Goldsboro. Does anyone know? (The two towns are 58 miles apart--rce) I'd also like to know when they made the switch from 730. WPIX-TV is airing what looks at first to be an ad for a rock radio station - WMFP complete with a fast talkin' DJ and several musical jingles singing "WMFP" but watching it further, it is an ad for Colgate toothpaste. A great way of using a TV ad to get several groups of people's attention.



## Western DX Forum

★★★★

IRCA—Serving the Broadcast Band DX'er Since 1964

Editor: Ric Heald, 8539 Bellamy Way, Sacramento, CA 95828 USA

1986 DEADLINES — WEEKLY ON TUESDAY, 12 DAYS PRIOR TO PUBLICATION DATE

### W. GEORGE ELLIOTT, P.O. BOX 312, FENICTON, BC V2A 6K4, CANADA

Hello and Happy New Year to all. The weekend of 18 January I went to Kelowna and of course I spent a few hours with the radios. Although both the DX-160 and FRG-7000 were plugged in, the Yaesu was the only radio I turned on. Now that I've put my four-foot loop back together, I rarely go to the Radio Shack machine. I had forgotten how nice it was to be able to null out a pest when trying for that weak station in the background.

I wasn't sure what I'd get on the radio, so I tried for a couple things and ended up getting a couple other things. I worked on catching CJWW on the new frequency of 750 and got KERR Montana instead; I looked for KHWY 1030 and got KMAS Washington as I tried. Both of which had never been heard in Kelowna before. Only one call change heard this time: KBIT (ex-KOOK). I still want KHWY though. (I'll be more than happy to give ALL of K-HWY to you, hi-Rth.)

Ric, CKOK will soon be no longer a pest to California as the CE has finally put together a power switcher so we'll be 10000/1000. This has to do with a warning/threat by the CRTC. If you want a job at a country station, half the staff at CKSP has resigned. They're having problems with the limited hours they operate on their own. It's too bad as the town of Summerland are really with the station as a part of their "small town family" and aren't afraid to show it.

Not much else to say about life in the Okanagan, except you all are missing out on a great deal of beauty if you've never been through the valley. Will be touch again next time I get to Kelowna. 3's de WGE.

### NIEL J. WOLFISH, 31 SOUTHLAWN STROLL, WINNIPEG, MANITOBA R3T 5E9 CANADA

My first verie of the 1985/6 DX season came this week from 1010 KKGZ Brush, Colorado. This my first Winnipeg QSL. There's lots of stations I'd love to try and verify from here, but obviously time is limited. I'll have to avoid the easy stations, or ones already verified from Toronto, such as KWTO, KOA, KGHL, KPXR, KFNW and CBU. I thought KKGZ was an ideal station to report considering that I grew up in the city dominated by 1010 CFRB. Now if only 950 KIMN would reply.

I spent 20 minutes in the backyard fixing the antenna the other day. I've now got 60 feet pointing southwest and then another 35 feet along the wooden backyard fence towards the east. It was a tough 20 minutes. At noon the Winnipeg temperature was -33 degrees Celcius! It was a typically sunny and windy day. However, the foot-and-a-half of snow we've had since November had drifted another foot higher against the fence. I'm not really sure if the new-improved antenna makes a difference or not. Some of the better stations noted around noon or 1 PM have included 1510 KCCV Missouri and KIFD Iowa, and 1600 KLGA Iowa, normally only noted at sunset.

I'm still plagued by a few mixing products and harmonics. Nulling 1110 KFAB gets CBW (the difference between CKSB and CBW's frequencies added to CKSB - 1050 + 60 = 1110). 680 CJOB shows up on 1360 which is a harmonic,

but I haven't quite figured why 630 CKRC shows up on 1420. CKRC also seems to be the worst of the stations as far as splatter is concerned. Too bad they don't have a regular SP as their C&W rival 920 CFRY does. (Right you are about CKRC on 1420 - I've tried several equations and nothing fits. Are you so close that they're just plain overloading the front end of your receiver?-RtH.)

CHUCK BOEHNKE, P.O. BOX 488, KEAAU, HI 96749

(Cont. from last week. . .) Do you have any idea of how many IRCans belong to other clubs? I would be curious to know this as it would have some bearing on this time zone thing. Also, I would like to say that whether it might be thought that a ballot wouldn't really produce and results I'm glad that you feel that it would be a good thing if members would express their opinions.

I won't bore you with details of DX'ing in Hawaii. After several years of living in San Jose only two or three miles from Robert Wein, it's sure nice to be out of that noisy pit and out here in DX'ers Paradise! I started DX'ing from Hawaii as a kid over 40 years ago, and it sure is great to be back home.

Would you believe there's only one fulltime CW station here in Hawaii. Several stations play some country segments as part of their regular programming, but KDED is our only CW station. Here on the Big Island of Hawaii the situation is not too good, only four AM and four FM, all terrible. We're able to pick up other stations on the other islands, but I still wouldn't give you two cents for the lot, excluding KDED, of course! (That's all I listened to from Poipu Beach, Kauai two years ago, Chuck-RtH.)

Hope we can all work together and get this time thing worked out to everyone's satisfaction. I want to cast my vote for the use of UTC in all loggings, domestic or otherwise.

Best to all from Hawaii and my hopes for a great DX year for everyone. 73 and Aloha.

ROY H. MILLAR, 13714 30th AVE. NW, MARYSVILLE, WA 98270

bp - "Jordan River Trails" is a residential development in my neck of the woods, i.e. northern Snohomish County; to be more exact, on the west bank of the South Fork of the Stillaguamish River between Granite Falls and Arlington.

REW - Regarding FJF1 The Bottom, Saba: When I was in St. Maartin about nine years ago I heard the story of how it was necessary to set up the tower for Saba radio by helicopter; I'm not sure of call or frequency, but believe they were on at that time and were listed in WRTH circa 1976; however, it seems to me that I read that this station left the air not too many years thereafter; interesting to hear that they're back on - too bad not on a split. By the way, I verified FJD2 Phillipsburg, St. Maarten when they were on their original split of 1295 in 1965.

MS - CBXY 1490 has been around for quite a few years; I verified them in 1970 at which time CHFA provided about 37% of their programming, the balance from CBC FF net I presume. This remains my most distant LPRT and one of my best Canadian catches.

Just back from a vacation from radio listening, let's see if you can follow my trail: "RJR" 550, "RO" 1205, "SCN" 1420, HJAG 1000, FJA-5 1440 and back to "JBC" 700. A highly interesting itinerary. I don't recollect ever seeing an IRCA Countries list, I suppose the BoD would be the final word as to makeup, but a few thoughts: Canal Zone, prior to 01 October 1979; Sarawak, prior to (circa 1965) merger into Malaysia, St. Maarten, Saba (separate from ABCs of Netherland Antilles) should be separate countries (perhaps the latter two could be described as Northern Netherland Antilles??).

Also, Aruba is at a new stage of separation from N.A., perhaps should be considered as a separate country as of 01 January 1986? (I understand Bonaire and Curacao voted to remain an integral part of the Netherlands.) It would be interesting to see a listing of "extinct" countries, whether by virtue of merger, removal of facilities or name change. Such would be quite a chore, but would include such as Newfoundland, Swan Island, Phoenix Islands, etc., with perhaps some notes as to facilities when active on BCB. 73

JACK WOODS, P.O. BOX 1003, WALDFORT, OR 97394

Quite a while back I lived for about five years in an isolated location in western Alaska. There was no town, only a few people, so we depended on radio for news and entertainment, especially during the winters. We were pretty much boxed in by mountains and so it wasn't a very good location for radio reception. I didn't keep any records, but I remember that KFBK 1530 and two or three other West Coast powerhouses could be heard almost any winter night.

Over time I noticed that the best periods of good signals seemed to occur

during stormy weather. Winter weather consisted of periods of clear cold with not much wind, with occasional storms moving in from the Pacific with southwesterly winds and snow. Good signal conditions didn't always occur during the storms (or just after), but it did happen often enough to be noticed.

This winter I noticed the same effect here in Oregon. The last two weeks of November brought record cold to much of the West Coast. Toward the end of November DX conditions at least at my location, were fair to poor. On Q2 December and the following day, a Pacific storm front several hundred miles wide with winds to about 90 knots in places moved in, ending the cold spell in the Northwest. During the early morning of 03 December I found DX conditions greatly improved. That day I logged five new stations and heard others including KVOO 1170 for the first time in several years. TP conditions were not noticeably improved, however, the storm moved in from the southwest.

The literature that deals with signal reflection and refraction from the ionosphere doesn't mention any observed effects of surface storms. However, the bottom of the D region is considered to be as low as 25 miles above sea level. It doesn't seem impossible that a storm front several hundred miles wide could have some effect 25 miles up. Also, there's some speculation concerning a lower layer, the C layer, that forms under some conditions. Comments?

My 1985 DX'ing near Waldport on the Oregon coast resulted in 42 US or Canadian stations not heard at my previous location some 40 miles inland (some were frequency changes and new stations). Logged 10 Hawaiians, but no Alaskans. No DU that I could identify. Had some TP activity early in the season. Receiver used was the XCR-30 with either the Hot Rod or Martens loop. Have no space available for a Beverage. The modest-length longwires that I've tried haven't worked as well as the loops. 73.

RANDY TOMER, 1038 11th ST., ARCATA, CA 95521 (707) 822-0537

Well, it brought a great feeling today when I looked in the mailbox and it contained a DX Monitor. It's been a couple of years since I've seen one. What have I been doing the last two years? Did some time at a consulting engineering firm in Santa Rosa learning to be a draftsman, then worked in Sonoma for over a year in machine design as a draftsman-designer and technical writer (it's kind of fun writing those instruction manuals that you know will confuse the heck out of people, hi). Now I'm back in Arcata and work in Eureka as a draftsman for a firm that's designing the new sewer system for the city of Los Alamos, California. I also managed to pick up my Extra ham ticket. Kept my General call, N6KJLJ. If you hear me anywhere, give me a shout. I still hang out a lot on the novice bands, hi. (Guess it beats hanging out on CB channel 23, hi-RtH).

I still even DX the BCB once in a while, although I seem to have lost the knack for hearing much in the way of good foreign DX (translate that to: I won't get out of bed at 4 AM anymore, hi. (What do you mean, anymore? You said the same thing to me three years ago, hi-RtH.) I sold my HQ-180A but still have the Drake SFR-4 and use it as the main DX rig. I consider it to be an excellent receiver, except for its strange AGC action (I just switch the AGC off and reduce the RF gain). I also still use the GE Superadio with a plug-in unamplified loop, and of course the modified digital TRF. In reading DXM, I was surprised to see how few Icom receivers are being used by IRCANs presently. They seem to be the status quo among SWL'ers. No, I don't have \$700 to spend on a receiver, either.

Recently learned of the death of former ace BCB foreign DX'er Clarence Freeman. It was sad news as Clarence was a real friend who was always eager to talk DX, or help fix a rig, etc. I tried to call him recently but his phone was no longer listed, so I inquired about him with some local hams (Clarence's call was AC6A) and they informed me of his passing and said they had handled the estate sale of his radio gear. Clarence had inherited the late Jim Critchett's SFR-4. I don't know who ended up with it, but it's too bad it didn't get passed on to yet another deserving BCB DX'er. Anyway, Clarence is missed around here. I used to see him practically every day, driving his white Chevette through Arcata - one of the nice things about living in a small town.

You might be interested, Ric, that I've been doing some work for the retired owner of KRED, so boy, do we ever have some gossip to catch up on, hi. (I think you've learned by now, believe about 10% of what Paul tells you in those stories, hi-RtH.)

Now maybe someone can be of help. A local blind person who is a BCB enthusiast is seeking a good used ferrite loop. He's a real swell guy who unfortunately is on a fixed limited income so it would be nice to find a good deal for him. I would appreciate hearing from anyone with a reasonably priced used antenna. 73. (Great hearing from you stranger. You have my permission to restart HEAVES, hi. Can you beat this? I leave town and Randy returns - maybe someone's trying to tell me something, hi-RtH.)

RIC HEALD, 8539 BELLAMY WAY, SACRAMENTO, CA 95828 Tele-Forum: (916) 386-8677 to 2200 FLI & opd

Good contributions this week from all over WDXF-land. Midwest, are you going to let Niel be the only reporter? That wasn't exactly a subtle hint was it? Hi.

Another reminder of the IRCA Anniversary issue. Don't be left out, get your forum in today.

Well, looks like Sacramento was not the best place to move in terms of expediency with the Postal Service. I apologize for the recent missed deadlines, the columns have been mailed in what should be plenty of time (3 to 4 days). Finally got a sympathetic postal worker on the phone who explained that all mail in and out of Sacramento goes via the postal center in Oakland, and of course blamed Oakland for the delay. I had assumed all Northern California mail went via Oakland, but no, from Eureka, mail going north went directly to Portland for sorting on to other Northwest points. And I mailed from the main post office in Eureka (nothing's more than 2 miles away in Eureka, hi), but goes from sub station here to the main station then onward (I'm not about to drive 12 miles, hi), so hopefully things will be worked out shortly and back in the swim of things.

Finally caught up with KGRV 700 Winston (Roseburg), Oregon (not easy with 10 kw knocking on your door at 710), and caught up with the police blotter from KAJD 1270, a former daytime pest.

Randy, good to see you back in Humboldt County again, and as much as I miss it, economics dictated a change for Rth, but I'll be back for visits, first one planned for first weekend of May. By the way, while you're over there behind the KRED studios visiting with Paul, you might run into another ex-CB'er, Captain Eagle, personal is Dusty, who, I believe is working on his General ticket. You might want to kid Paul about his hamming in the evening and his voice coming across loud and clear in the monitors at KRED, including the headphones while I was talking. Talk about "the show must go on," hi. Ya see folks, the former owner of KRED, my ex-boss's father and his wife live in a double-wide behind the station and he just happens to be a ham.

A request to those who have a silver tongue calling distant stations for information. I have a favor. Should you call the Sacramento area, (and I have a regular shopping list, hi), you might want to ask exact transmitter locations for KSMJ, KJAY, KFIA, KHVY, KFBK and KRAK. I know KFBK is near the town of Lincoln and KRAK, per an old MM s/off near Clay Station Road and Hwy. 104, but exactly where? I drove up to the Gold Country last weekend and came back via Hwy. 104 (pure coincidence, hi), and did notice KRAK causing harmonics in that vicinity, but saw no towers. Any help would be appreciated.

That's it this time around. Keep the Anniversary deadline in mind - would be great to hear from y'all. Best of DX and 73 de Rth. .

IRCA ANNIVERSARY WDXF ISSUE DEADLINE - 04 MARCH 1986

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SUMMARY OF UNREPORTED STATIONS

Through Volume 23 #18 dated January 25, 1986

compiled by Don Kaskey, 465 Burnett St., #1, San Francisco CA 94131

The following chart lists the total number of stations in the USA and Canada and the volume they were last reported as being heard in DX MONITOR.

| <u>COUNTRY</u> | <u>V23</u> | <u>V22</u> | <u>V21</u> | <u>V20</u> | <u>V19</u> | <u>V18</u> | <u>V17</u> | <u>V16</u> | <u>V15</u> | <u>V14</u> | <u>V13</u> | <u>V12</u> | <u>Prior</u> | <u>Total</u> |
|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|--------------|
| CANADA         | 170        | 82         | 35         | 16         | 20         | 16         | 11         | 13         | 4          | 5          | 0          | 2          | 46           | == 420       |
| U.S.A.         | 1593       | 945        | 512        | 419        | 277        | 269        | 133        | 162        | 69         | 47         | 28         | 42         | 293          | == 4789      |
| TOTAL          | 1763       | 1027       | 547        | 435        | 297        | 285        | 144        | 175        | 73         | 52         | 28         | 44         | 339          | == 5209      |

New stations reported as having taken the air during the period covering V23 #12 through #18:

|                     |                       |              |
|---------------------|-----------------------|--------------|
| 540-KKAR-CA (ET's)  | 1160-WFEN-MI          | 1320-WHOF-FL |
| 560-WWCR-TN         | 1210-CKWA-AB          | 1560-KARP-WA |
| 640-WFNC-NC (x-940) | 1240-WLSC-SC (x-1570) | 1600-KNWA-AR |

NOTE: Station WBYG-930 was incorrectly listed as a new ON THE AIR station in the last Updater. It is not on the air as yet so delete this station as well as Canadians CBNM-740-NF & CPGB-1340-NF that the CBC pulled off the air recently.

Continued on Page 15



EASTERN DX ROUNDUP Karl J. Zuk, 154 Old Post Road North, Croton-on-Hudson, New York 10520

ONLY TWO THIS WEEK!

- (RCR-PA) Robert C. Ritchey, R.D.#1, Box 738, East Freedom, PA 16637...DX 160 and 100 foot longwire.
(MW-MA) William Wyllie, 95 Peck Street, Franklin, MA 02038...Sharp GF-450 with built-in antennae.
540 WGTQ FL, Cypress Gardens. 1-21 1735 ID as "Continuous Country WGTQ," into C&W music. Good. (RCR-PA)
540 WELZ CA, Columbus. 1-23 1810 Promo for WELZ Bridal Fair, into "Laughter In The Rain" by Niel Sedalca. Fair-good. (RCR-PA)
640 WFNC NC, Fayetteville. 1-15 1700 Ex-940 kHz, ID by man, into news, over/under WFLD, Akron, OH. Good. (RCR-PA)
690 WADS CT, Ansonia. 1-13 1712 Good but fady signal, with big band type music, or MOYL, like "Mr. Blue" by The Fleetwoods.
Over the Canadian, CBF, Montreal, PQ. (MW-MA)
690 WVKC AL, Birmingham. 1-4 1755 Good signal but much background noise. Interference from CBF, Montreal, PQ. Country music and CBS news on the hour. ID at 1800 "WVKC Birmingham." New. (MW-MA)
700 WCAT MA, Orange. 1-8 1645 Very poor signal, noted sign off. Ex-1390 kHz. (MW-MA)
760 KMIL AR, Sherwood. 1-23 1800 Sign off by man over gospel music, ID "KMIL Sherwood-North Little Rock," mention of 10 kW, no SSB, fair to good over WJR, Detroit, MI. (RCR-PA)
800 CJAD PQ, Montreal. 1-18 1725 Fair to poor signal with rock music, with Gerry and the Pacemakers' "Ferry Across The Mersey." (MW-MA)
910 WKCN SC, North Charleston-Dorchester Terrace. 1-21 1742 ID as "Newsradio WKCN," ad for Dulco-Lax, fair to good. (RCR-PA)
920 CFPS PQ, Levis. 1-4 2139 Strong signal battling WLLJ, Providence, RI, with French music. (MW-MA)
930 WNNH NH, Rochester. 1-18 1746 Strong signal with "Everyday" by James Taylor. Noted ID: "Hi, this is Kenny Linstrom of the Boston Bruins. When I'm in NH, I listen to Bill McDermott in the morning on your Boston Bruins connection on the seacoast WNH." also IDed as "AM 9-30 WNH." (MW-MA)
930 CFBC NB, St. John. 1-11 2300 Good signal with news followed by soft music with female announcer. (MW-MA)
940 UNID 1-11 1653 ID sounded like "WSSC" and ID as "AM 9-40." Country music and CBS news, ad for Ford Taurus. Any ideas? (MW-MA)(My guess: WMAZ, Macon, Ga or WINZ, Miami, FL-kz)
970 CBZ NB, Fredericton. 1-11 2310 Strong signal over WYNZ, Portland, ME, with marine weather. This seems to be a regular logging now; before a year ago I never picked it up. (MW-MA)
1060 WNOE LA, New Orleans. 1-24 1730 C&W music, ID "1060 WNOE," good, about even with KYW, Philadelphia, PA. (RCR-PA)
1080 WFTV FL, Kissimmee. 1-24 1737 ID as "Country 1080 WFTV," into C&W music. Good. (RCR-PA)
1170 WXCX NC, Claremont. 1-23 1700 Promo for station contest, mentioned call several times, briefly over WWA, Wheeling, WV. (RCR-PA)
1190 WBDY VA, Bluefield. 1-23 1025 Promo for UVA basketball game on WBDY, local ad, C&W music, good. (RCR-PA)
1260 WADC DC, Washington. 12-30 0038 Very strong signal with "Music Of Your Life" (not my life) format. ID at 0100 as "WADC Washington," then CNN news. First time logged. (MW-MA)
1310 WSSJ NJ, Camden. 1-12 1710 Rock songs "Lay Down Sally" and "Clap For The Wolfman." Just about made out the call letters as WSSJ. New. (MW-MA)
1460 WPRW VA, Manassas. 1-12 2245 Good signal but fady, noted call letters just before song. (MW-MA)
1460 WCEI MD, Easton. 1-12 2250 Very good signal, strong at times. ID by chorus "WCEI." Songs by The Ames Brothers and Les Brown. ID at 2300 as "WCEI, Easton, The Memory Music Station." Listed as 500 watts nights. Good signal, if that's true. First time logged. (MW-MA) (Yep, 500 watts nights in my books-kz)
1520 KOMA OK, Oklahoma City. 1-20 0220 Music "Cara Mia" by Jay and The Americans," ID "AM 1520 KOMA," fair, no WKB, Buffalo, NY. (RCR-PA)
1550 WYCU FL, Tampa. 1-21 1800 Sign off by man in English, no SSB, Fair to good. (RCR-PA)

Thanks to Robert and William for saving the day this week. I have all sorts of anger about this DX season, since I haven't had a moment to relax with the old Superadio in weeks and months! The broadcasting business has me in its hand. And by other parts. I was on the air with the special report about the Space Shuttle launch when the tragedy happened. I don't think I'll ever forget it. The newsmog got so quiet; everyone was in shock. We were on the air non-stop for hours; I ended my board shift at 3:30 pm Eastern and just sat for a hour in silence. God bless them all. 73s - kz. (1-30)

Previously unreported stations noted by IRCA reporters in DX MONITOR since the last update (V23 #14)...Covers V23 #12 through #18:

- AZ---0 KESE-1230 (Hall-CA)
AR--10 KAAB-1130 (Jasinski-IL)
CA---0 KKAR--540 (Hilliker-CA & Hall-CA)
KY---9 WPLE-1060 (Ritchey-PA)
MI---1 WNZK--690 (Rose-MI)
MN---2 KLLR-1600 (Faulkner-SD)
RI---0 WJJP-1180 (E.Cooper-MA)
WA---0 KARP-1560 (P.Taylor-vac-WA)
WV---5 WCST-1010 (Ritchey-PA)
WI---2 WBME-1530 (Kramer-IL)
AB---0 CKWA-1210 (Stonebridge-AB) & CILW/CHLWL1-1340 (Stonebridge-AB)

OFF THE AIR STATIONS: WLPQ-980-KY, WBME-1230-ME, WWES-1270-VA, WKOJ-1310-MS, KDRW-1450-CO, KARR-1460-WA, KGNG-1470-MO, WDEY-1530-MI.....
BACK ON THE AIR: KESE-1230-AZ, KRSS-1230-WA, KOKN-1270-OK, KITZ-1400-WA, WJBX-1450-CT, KDUN-1470-OR, KDJC-1500-AR, WTME-1530-ME.....

dkk

# CENTRAL DX ROUNDUP

Robert Kramer  
6416 N. Richmond  
Chicago, IL 60645

|             |         | UNID, SPECIAL, CHANGES, et. al.                                                                                                                                                    |        |
|-------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1200        | CFGO ON | OTTAWA, tent. 1/19 0144-0155 hrd 4 T40 songs but no ID, fair-poor u/WOAI For a while. NJW-MB                                                                                       |        |
| 1210        | UNID    | 1/19 1630-1655 someone w/SS mx & YL in SS. NJW-MB (KQTL Sahuarita, AZ per DF earlier this season, ed.)                                                                             |        |
| 1210        | CKWA AB | SLAVE LAKE, tent. 1/13 0100 I assume this is CKWA, BN at 0100, C&W mx w/ male ancr, 0131 wx for Slave Lake, no IDs hrd, poor w/WCAU, 1/15 0906 w/"KWA" nx, lcl spots & C&W. NJW-MB |        |
| 1560        | KSNJ?   | 1/12 1810 CM w/ID that sounded like KSNJ or KSMJ inbetween oldie & recent song, poor u/KQYX. NJW-MB                                                                                |        |
| All da Rest |         |                                                                                                                                                                                    |        |
| 630         | KIDO ID | BOISE, 12/7 0600 weak u/KTKK w/rck. JGJ-MT                                                                                                                                         |        |
|             | KTRK UT | SANDY, 12/7 0600 w/Briem DX special. JGJ-MT                                                                                                                                        |        |
| 850         | KTAC WA | TACOMA, 1/19 1900 w/lcl nx & rck, weak u/KOA. JGJ-MT                                                                                                                               | NJW-MB |
| 900         | CKBI SK | PRINCE ALBERT, 1/13 0150 in well above X&4, YL w/pop mx ID as "900 CKBI"//                                                                                                         |        |
| 960         | CFAC AB | CALGARY, 1/15 0922 C&W mx, traffic rpt., ID & contest promo, fair. NJW-MB                                                                                                          |        |
| 980         | CKFM SK | REGINA, 1/13 0221 C&W mx, ID as "9-80 CKFM Country" good o/RMBZ. NJW-MB                                                                                                            |        |
| 990         | WNOX TN | KNOXVILLE, 1/13 0300 ID, Mutual nx & Larry King, poor. NJW-MB                                                                                                                      |        |
| 1000        | KXRB SD | STOUX FALLS, 1/19 1730 w/Country Countdown pgm, ID & lcl spots, poor. NJW-                                                                                                         |        |
| 1090        | CHEC AB | LETHBRIDGE, 1/15 0922 pop mx, ID as "10-90 Chec", promo, good. NJW-MB                                                                                                              |        |
| 1030        | KBUF KS | HOLCOMB, 1/11 1754 C&W mx, ID as KBUF Holcomb-Garden City, ABC nx, poor w/KTWO. NJW-MB                                                                                             |        |
| 1170        | KCBQ CA | SAN DIEGO, 12/6 1810 on top 1170. JGJ-MT                                                                                                                                           |        |
|             | KLOK CA | SAN JOSE, 12/6 1800 o/KVOO w/Clock nx. JGJ-MT                                                                                                                                      |        |
| 1210        | KLDI WY | LARAMIE, 1/11 1720 w/H.S. BKB game, ID & lcl spots before postgame show, fair w/KRSV. NJW-MB                                                                                       |        |
| 1380        | KOTA SD | RAPID CITY, 12/31 0400 unsked ET TT/mx. JGJ-MT                                                                                                                                     |        |
| 1390        | KENN NM | FARMINGTON, 1/3 0935 w/ABC nx features, on top 1390, lcl spots. JGJ-MT                                                                                                             |        |
|             | WRIG WI | SCHOFIELD, 1/15 1157 pop mx, lcl ads, IDs as "Big Rig Stereo 1390", fair w/KKOA. NJW-MB                                                                                            |        |
| 1430        | KASI IA | AMES, 1/15 1101 ID, lcl nx & C&W mx, poor w/KKXL slop. NJW-MB                                                                                                                      |        |
| 1480        | WTDY WI | MADISON, 1/15 1104 w/lcl nx, ID by CM, fair w/KAUS, no KKOQ. NJW-MB                                                                                                                |        |
| 1490        | CJSN SK | SHAUNAVON, 1/19 1630 Country Countdown pgm, ID as "Southwest Radio", contest promo, poor o/mess. NJW-MB                                                                            | NJW-MB |
| 1510        | KTTT NE | COLUMBUS, 1/16 1826 w/MYL, s/off ment. KTTT-FM, fair w/KGA, WLAC & KMSD//                                                                                                          |        |
|             | KGA WA  | SPOKANE, 1/16 1830 w/lcl nx & wx, PSA, lcl spot, ID & C&W mx, poor after KTTT s/off w/WLAC & KMSD. NJW-MB                                                                          |        |
|             | KMSD SD | MILLBANK, 1/16 1837 w/lcl nx & funeral ancmts, fair w/KGA & WLAC, NJW-MB                                                                                                           |        |
| 1550        | WHIT WI | MADISON, 1/15 1127 T40 mx, lcl spots, ID as "Madison's Hits on WHIT-1550 AM, fair w/KQWB. NJW-MB                                                                                   |        |
| 1570        | WFRL IL | PREPOT, 1/15 1245 mx, ID as "WFRL-The New Light 1570", poor w/WKEH. NJW                                                                                                            |        |
|             | KVRA SD | VERMILLION, 1/12 1740 // FM-102 w/"Sunday Request Line Oldies Show", ID as "we're KVRA/KVRF", fair. NJW-MB                                                                         |        |
|             | WKBH WI | HOLMEN, 1/15 1136 MYL mx, ID & lcl spot, fair o/WFRL. NJW-MB                                                                                                                       |        |
|             | CKTA AB | TABER, 1/19 1514 C&W mx, ID, lcl sports, good. NJW-MB                                                                                                                              |        |
| 1580        | KCHA IA | CHARLES CITY, 1/16 1800 o/KDOM w/s/off & FM ment. C&W mx. NJW-MB                                                                                                                   |        |
|             | WLNZ MI | ST. JOHNS, 1/16 1742 w/rck mx, // WLNZ 92.1 FM, s/off, ID as "The Laser, Z-92", fair. NJW-MB                                                                                       |        |
|             | KNIH MO | MARYVILLE, 1/12 fair at 1916 s/off. NJW-MB                                                                                                                                         |        |

## NORTHERLY DUO

JGJ... John C. Johnson 501 5th St. West Billings, MT 59101-2831  
(R-71A, 50' N-S LW)  
NJW... Niel Wolfish 31 Southlawn Stroll Winnipeg, MB R3T 5E9  
(Superadio, DX-400, 65' NE-SW LW)

Sorry about missing last issue, but a superbowl hits Chicago about as often as Alaska, 46-10!!!!!!!!!!!!!!!!!!!!





Nancy Hardy  
2301 Pacific Avenue  
Aberdeen, WA 98520

## WESTERN DX ROUNDUP

All times are  
Eastern Local



Phone for hot WDXR tips: (206)532-6827 till 10pm(PLT)

DEADLINES: Tuesdays 2/18, 2/25, 3/4, 3/11 (anniv. issue), 3/18, 4/1, 4/15

### REPORTERS FOR THIS ISSUE:

- (BH) Bill Hardy-2301 Pacific Ave.-Aberdeen, WA 98520  
FRG-7, Radio West loop
- (NH) Nancy Hardy-2301 Pacific Ave.-Aberdeen, WA 98520  
FRG-7, Radio West loop
- (JH) Jim Hilliker-P.O. Box 1499-Carmel Valley, CA 93924  
Kenwood R-1000, Radio West loop
- (5P) Dale Park-2253 Kanealii Ave.-Honolulu, HI 96813  
Sony ICF-6700W
- (PT) Pete Taylor-2614 Jackson St.-San Francisco, CA 94115  
Car radio  
(PT-CA1) DX'ing at Palm Springs, CA w/ICF-2001 & car radio  
(PT-CA2) DX'ing at San Diego, CA w/ICF-2001 & car radio
- (RT) Rich Toebe-2972 Martin Ave.-Pleasanton, CA 94566  
Grundig 3400, Radio West loop
- (RW) Robert Wien-1309 Dentwood Dr.-San Jose, CA 95118  
GE Superadio, GE long-range portable, SM-2
- (ØW) John Wilkins-4385 Hoyt St. #205-Wheat Ridge, CO 80033  
R-1000, R390A, indoor wire, 4' box loop  
(ØW-WY) DX'ing from Laramie, WY w/Magnavox AM/FM portable
- (JW) Jack Woods-P.O. Box 1003-Waldport, OR 97394  
Barlow Wadley YCR-30, Martens loop

- \*\*\*\*\*
- 550 KUZZ CA, Bakersfield 1/25 1333 "it's 10:33 at KUZZ, AM 55" into country music. I hear this mainly daytime; nights usually yield KOAC/KOY. Ex-KAFY. (RT-CA)  
+Has finally made the swap w/KAFY, which is now on 970. 1/25 2320 even w/KOY.(PT-CA1) 1/30 2300 completely dominant. (PT-CA2)
  - 570 KCNO CA, Alturas 1/25 completely on top at 2000 s/off. (PT-CA1)
  - 620 KWFT TX, Wichita Falls 1/19 0750 relig. message in Spanish; 0800 CBS news. Very good at times, but KHOU-630 slop & spotty KTAR QRM. (ØW-CO)
  - 660 (KCRZ) WA, Hoquiam local pirate left the air late January. Was still on evening of 1/24, but was off 1/27 & has been off ever since. Apparently KCRZ going dark had something to do w/the guy's dismissal from KXRO-1320 (where he worked at the time), not a bust by the F.C.C. (BH&NH-WA)
  - 690 KGGF KS, Coffeyville 1/18 2125 Coffeyville vs Independence BKB. Excellent signal. (ØW-CO)  
+1/27 0600 good at s/on u/YETRA OC. ID "Radio 69." (RW-CA)  
+1/27 0605 weak w/national rx, local wx (temp nine above) ID, C&W mx. No sign of CBU. New. (JW-OR)
  - 700 WLW OH, Cincinnati 1/29 0430 has been giving KFAM quite a fight lately, got def. ID this morning. Fair-good on top of KFAM w/ID, ment. Cincinnati, wx, pop mx. Haven't heard this well since before KFAM took over the frequency. (JH-CA)
  - 710 KIRO WA, Seattle MM 1/27 0308 good w/s/off. Ment. going off for equip. maintenance, ID, then off. (JH-CA)
  - 720 WGN IL, Chicago MM 1/27 0310 fair during usual KDWN SP w/ID, MOR mx, but signal being QRM'd by strong co-channel Russian stn. No sign of KUAI. (JH-CA)
  - 740 KTRH TX, Houston 1/26 0633 fair to weak. Central time given, local wx, slogan "Newsradio 740 AM," IDs. KCBS apparently off. New. (JW-OR)
  - 750 KAMA TX, El Paso obviously has due west DA nights, as quite strong in Palm Springs & totally dominant in San Diego. (PT-CA1&CA2)
  - 820 WAIT IL, Chicago 1/19 0820 nostalgia mx, 0829 wx ("...34° at Midway..") ID as "W-A-I-T AM," then more 40's/50's music. Poor u/WBAP.(ØW-CO)
  - 860 KTRB CA, Modesto bombs in days in San Francisco w/50kw. However, I give up on where their night 10kw goes. Not much better in San Diego, & extremely weak nights in Palm Springs. However, audible u/XEMO days (1/26 1600). (PT-CA1&CA2)
  - 970 KVIM CA, Coachella 1/26 1300 strong days, 1/26 2300 barely there at nights. (PT-CA1)
  - 1100 KFAY CA, San Francisco 1/20 0405 Bible study class from BIOLA Univ. in La Mirada, CA. Poor, w/het from WSZO-1098, local QRM. (5P)

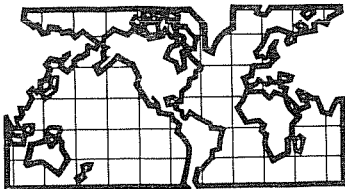
- 1110 KYKK NM, Humble City 1/26 1907 Mickey Gilley song, local ads. S/off at 1915; studios at 619 N. Turner in Hobbs; transmitter at Humble City; 5000w, back at 6:00am. Good signal, KFAB nulled w/loop. Even w/KFAB on indoor wire. (BW-CO)
- 1140 KRAK CA, Sacramento 1/26 1921 YL DJ saying "...3 in a row on your Country Music Station K-R-A-K." Poor in QRM. New, CA #39.(BW-CO)
- KMJJ NV, N. Las Vegas 1/26 1911 ads, "Magic Eleven" slogans, pop mx. Very good, dominant signal. (BW-CO)
- 1160 KSL UT, Salt Lake City 1/19 0842 ending The World Tomorrow (obviously recorded before Herbert W. Armstrong's death 1/15 at age 93); brief wx, ID; CBS news in synch w/KGU except for some ads. Poor to very poor w/local spur QRM, deep fades. (5P-HI)
- 1210 KRSV WY, Afton 2/2 1900 fair ending C&W mx through KASY/KREW. ID "Every hour on the hour, KRSV Afton...(?)..." Then Satellite News Network. No sign of the 400 Hz het; is KRSV back on frequency now? Had been 400 Hz low per Bill Frahm. (BH-WA)
- KLDI WY, Laramie 1/27 1400 MOR vocals. Not strong, even in downtown Laramie. Sure didn't sound like 10kw. KOWB-1290 sounded much better. Many "Stereo Diamond" slogans. (BW-WY)
- 1250 KHIL AZ, Willcox 1/24 1201 C&W standards, ads for Willcox & Safford businesses. Fair signal at 10am local. (BW-CO)
- KLLK CA, Willits-Ft. Bragg 1/25 1245-1300 fair to good w/"Ticket To Ride" program (weekly Beatles syndicated show), local ad & ID 1250 and 1300. Some KTMS QRM at times but KLLK mostly dominant. Never heard in S. Calif. New. (JH-CA)
- 1260 KOIT CA, San Francisco 1/23 0300 call letter, format change; last KYLR ID at 0256 "the great experiment" ended in failure, now light rock format // 96.5FM. Will miss BEC newscasts on my daily commutes. (RT-CA)
- +1/27 0230, 0508 call change, ex-KYLR, thanks to RT-CA for tip! Changed calls 1/23 0300 per call. Program called "Crossroads of the West" at 0230, legal ID at 0508 "The new Coit, KOIT" Apparently doesn't simulcast w/FM. (Rw-CA)
- +The week of 1/27 the KYLR "Trendformation" format died so it's back to KOIT and "easy pop/soft hits," a la FM. (PT-CA)
- KSNO CO, Aspen 1/24 1239 plug to listen to Super Bowl YY on KSNO-FM ("Snowmass 104"), into MOR vocals. Fair o/KIMB. (BW-CO)
- 1270 KNWZ CA, Palm Desert local days, "K-News," ex-KGUY. (PT-CA1)
- 1290 KOWB WY, Laramie 1/27 1330 excellent signal in downtown Laramie (gee, really?). Pop music, Lost Dog Report, ad for Steamboat Ski resort. Much better than 10kw KLDI. (BW-WY)
- 1310 KLIY ID, Twin Falls 1/27 0820 fair w/sports, ID, promo for call-in giveaway show, cattle prices. KDIA nulled. (JW-OR)
- 1320 KNNC CA, Oceanside weak days, "K-News" news/talk, ex-KEZL. (PT-CA2)
- 1400 KSUN AZ, Phoenix 1/27 0255 nicely o/mess w/ID, local spot, looking for KHTX. (Rw-CA)
- KART ID, Jerome 1/24 2004 sunset skip in tight KRE null; item in local news about Twin Falls station's assets being demanded for repossession but prevented by court order. (RT-CA)
- +1/27 0200 strong on top w/s/off, nice choral version of NA. Apparently not NSP anymore. Looking for KHTX. (Rw-CA)
- 1410 KVEG NV, N. Las Vegas 1/25 2010 dominant w/C&W format o/KERN and others. (PT-CA1)
- 1420 KSES CA, Yucca Valley fair days, calling itself "kisses." (PT-CA1)
- 1450 KAYO WA, Aberdeen 2/2 1002 s/on from my local, which has cut back its 24-hour schedule for now. New hours are 0800-0500 Mon-Sat., 1000-0300 Sun. Previously had been off MM only. (BH-WA)
- ?KJUN? WA, Puyallup 1/27 0725 weak w/ad for Country Kitchen, ment. Highway 167, Sumner, Algonia. ID not readable. Tentative for KJUN. (JW)
- 1520 KOMA OK, Oklahoma City 1/27 0652 weak. Heard briefly w/ID, airport wx. Tough to hear through KSGO. (JW-OR)
- +1/30 2200 fair but dominant. Rock, then country, and now w/MYL-like format. (PT-CA2)
- 1530 (KFBK) CA, Sacramento 1/27 0313 totally off. (Rw-CA)
- 1560 WQYR NY, New York 1/26 0420-0436 I couldn't believe how strong this stn was, hardly any fading. Classical mx, ID 0436 "25 til 5, this is WQXR AM & FM, New York." Only heard once, poorly, in S. Calif. (JH-CA)
- 1610 TIS WA, Discovery Bay 1/27 0535 female voice "This is a repeated recorded message from the Department of Transportation. Traffic is proceeding normally across Hood Canal Bridge at this time. If weather or other bridge conditions warrant a change in traffic patterns you will be advised on this station. Thank you. KNHD262." Noted that the Puget Sound ferries are no longer ment. (JW-OR)

1610 WXN37 WY, Cheyenne 1/27 1300 "National Weather Station." Forecasts for Cheyenne, Laramie, Wheatland, Torrington, etc. 10:00am temps for various WY/northern CO cities. Not sure if call is correct; will attempt to get verie. (ØW-WY)

UNID:

1260 Fair 1/27 0845 w/time in Mountain Time, mention of Eastern Oregon livestock auction. Lost to dominant station before ID. (JW-OR) (How about KWEI, Weiser, ID?--NH)

Don't forget--Tuesday March 11 is the WDXR deadline for the big anniversary issue! ♡



## DX WORLDWIDE - WEST

Pat Martin - Editor

P.O. Box 843, Seaside, Oregon 97138

PHONE: (503)861-3185 TIME: UTC

Welcome to another DX WORLDWIDE-WEST Column: DX this week still seems to be on the slow side and it seems like DX is that way in most places. Attended the annual Bruce Portzter Gettogather and that is about all I heard there is poor conditions. In DX News: The New Zealand Country Music Association Incorporated Wellsford was on 1404 KHZ in January with 250 watts. Radio Rhema-Auckland will be using 603 KHZ with 1KW from March 2-31st from 0600 to 2400 NZT. In other news Ponape in Micronesia is now POHNPEI. Native language is now POHNPEIAN. This also from NZRDXL and FERC. On to reports: We have a nice report from Neil Wolfish in Winnipeg.

### PAN-AMERICAN DX ROUNDUP

- 825 ST. KITTS, Basseterre-Radio Paradise-0121 to 0135 1/25 w/talk by man w/Caribbean accent, fair signal---first time in Manitoba for me, although easy in Toronto (until local 820 s/on) (WOLF)  
+Also noted 1/19 at 0315 positively IDed finally and got enough for a report. EE Rel. pgm to 329 "Radio Paradise" ID then into SS pgm S/off at 0402. (ØW-Co)
- 830 BELIZE, Radio Belize-0138 1/25 w/Latin Calypsoish sounding mx, good o/WCCO...parallel to 2nd harmonic on 1660 and 3285. (WOLF)
- 970 MEXICO, Cd. Juarez,Chih. XEJ 1/14 0744. Vicente Fernandez songs, ads, Great signal for a while, but later u/WDAY/KNUU (ØW-Co)
- 1010 MEXICO, Guadajajara-XEHL 0114 1/22 way above CBR w/La Poderosa H-L™ IDs and SS anmts. (WOLF) (Anyone know when XEHL is supposed to change freqs.?PM)
- 1165 ANTIGUA, St. Johns-Caribbean Radio Lighthouse 0220 1/25 w/rel. program featuring organ mx and YL anc, fair. (WOF)
- 1205 CAYMAN ISLANDS, Georgetown-Radio Cayman 0133 1/25 w/Bob Marley mx. Man host, poor signal almost equal to 1555. (WOLF)
- 1210 UHID, 0301 1/25 not sure if this is a Latin or not...in with very long dance extended mix of "Girls Just Wanna Have Fun" by Cyndi Lauper 0308 straight into another song, f/out soon. (WOLF)
- 1540 UHID, 0038 1/22 noted someone w/Ranchero mx, briefly atop KXEL, is this a Mexican or Texan? (WOLF)
- 790 CUBA, Radio Reloj 0235 1/25 noted w/KFGO w/typical thrilling elock and man talking. (WOLF)
- 770 COLOMBIA, Bogota-HJKH-0149 1/25 w/what sounded like a sporting event Hrd RCN IDs pr w/WABC/KOB couldn't hear // on 6160. (WOLF)

### TRANS-PACIFIC DX ROUNDUP

- 774 t JAPAN, Akita-JOUB strong carrier 1/19 at 1210, w/possible audio noted. Seemed YL in oriental lang. but couldn't be certain. JOUB most likely w/500KW, also noted strong carriers on 747 (JA loop) 738 and 756 (loop DU). (ØW-Co)

### THANKS TO THESE REPORTERS:

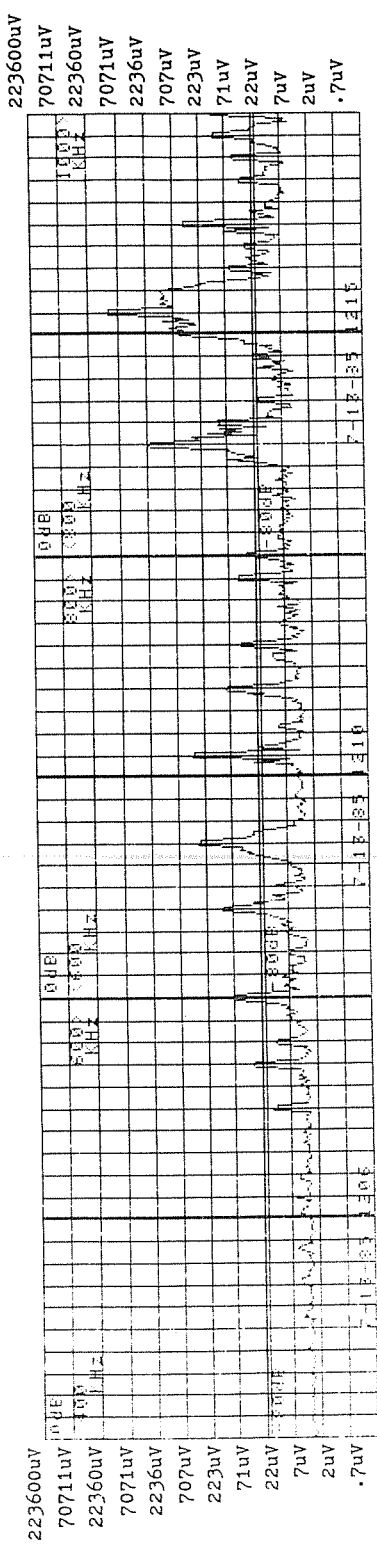
- ØW-Co JOHN WILKINS-4385 Hoyt Street #205-Wheat Ridge,Co. 80033  
R-1000, R390A, indoor wire, 4' Box Loop
- WOLF NEIL WOLFISH-31 Southlawn Stroll-Winnipeg, Manitoba,CANADA R3T 5E9  
Superadio, 60' Longwire

I ran another test of the noise and signal levels on the BCB. The results are similar to the daylight tests made previously. To make this test of some value, I ran a bandscan with my ICOM R-71A. I noted the S-meter reading and the clarity of reception. I came up with a list of types of reception conditions and their definition. I hope this will provide an aid to understanding the reception conditions I encountered during the bandscan.

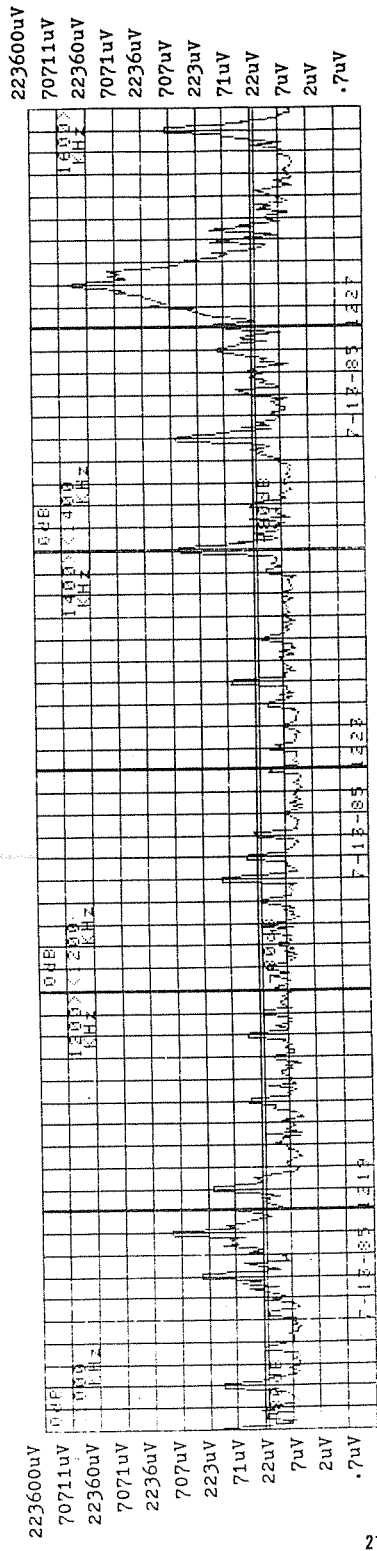
| Condition | Definition                                                                                                                    |
|-----------|-------------------------------------------------------------------------------------------------------------------------------|
| Very Poor | There was evidence of a station but no readable audio.                                                                        |
| Poor      | There was some barely readable audio but was hard to even determine the language. Positive ID of station next to impossible.  |
| Fair      | There was noticeable hiss or interference. Audio not 100% readable. Positive ID of station takes much concentrated listening. |
| Good      | There was some hiss or interference. Positive ID of station takes some concentrated listening.                                |
| Very Good | Signal to noise not quite excellent. Casual listening for ID. Armchair copy.                                                  |
| Excellent | No hiss or interference. Good signal for music.                                                                               |

I ran this test on July 13, 1985. I wanted to show the reception conditions for a summer midday. The noise level measured at about -95dBm or 4uV. The following chart shows the signal levels of various stations and the results of my bandscan done at the same time.

| Freq | dBm | uV   | S meter | Cond | Freq | dBm | uV    | S meter | Cond |
|------|-----|------|---------|------|------|-----|-------|---------|------|
| 550  | -83 | 16   | S5      | Fair | 1010 | -80 | 22    | S5.5    | P/F  |
| 570  | -77 | 32   | S6      | Fair | 1020 | -65 | 126   | S8      | Good |
| 580  | -86 | 11   | S4.5    | P/F  | 1070 | -57 | 316   | S9+8dB  | VG   |
| 600  | -70 | 71   | S8      | Good | 1090 | -47 | 999   | S9+20dB | Exc  |
| 620  | -90 | 7    | S4      | VP   | 1110 | -62 | 178   | S9      | Good |
| 640  | -67 | 100  | S9      | VG   | 1130 | -87 | 10    | S4.5    | Poor |
| 670  | -58 | 282  | S9+10dB | Exc  | 1150 | -76 | 35    | S5.5    | P/F  |
| 690  | ?   |      | S7      | Good | 1170 | -86 | 11    | S5      | P/F  |
| 710  | -56 | 354  | S9+15dB | Exc  | 1180 | -76 | 35    | S6      | Fair |
| 740  | -69 | 79   | S8      | VG   | 1190 | -82 | 18    | S5      | P/F  |
| 760  | -75 | 40   | S6.5    | Good | 1210 | -84 | 14    | S5      | P    |
| 790  | -74 | 45   | S6.5    | P/F  | 1230 | -82 | 18    | S4.5    | VP   |
| 800  | -77 | 32   | S6      | P/F  | 1240 | -82 | 18    | S5      | Fair |
| 850  | -41 | 1993 | S9+28dB | Exc  | 1250 | -67 | 100   | S8      | Good |
| 860  | -66 | 112  | S7.5    | Good | 1260 | -76 | 35    | S6      | F/G  |
| 870  | -82 | 18   | S4.5    | P/F  | 1270 | -80 | 22    | S5      | F/G  |
| 910  | -27 | 9988 | S9+40dB | Exc  | 1300 | -85 | 13    | S3.5    | P/F  |
| 930  | -72 | 56   | S8      | P/F  | 1310 | -88 | 9     | S4      | P    |
| 940  | -77 | 32   | S7      | Poor | 1330 | -84 | 14    | S4.5    | Poor |
| 950  | -54 | 446  | S9+10dB | VG   | 1340 | -72 | 56    | S7      | Good |
| 960  | -85 | 13   | S4.5    | Poor | 1350 | -90 | 7     | S3.5    | VP   |
| 970  | -76 | 35   | S6      | Fair | 1360 | -84 | 14    | S4      | Poor |
| 980  | -73 | 50   | S6      | Fair | 1390 | -85 | 13    | S4      | VP   |
| 990  | -66 | 112  | S8      | Good | 1400 | -53 | 501   | S9+12dB | Exc  |
| 1000 | -65 | 126  | S5      | VP   | 1410 | -88 | 9     | S3      | VP   |
|      |     |      |         |      | 1420 | -79 | 25    | S4.5    | P/F  |
|      |     |      |         |      | 1450 | -52 | 562   | S9+10dB | Good |
|      |     |      |         |      | 1490 | -68 | 89    | S9+     | VP   |
|      |     |      |         |      | 1520 | -16 | 35439 | S9+50dB | Exc  |
|      |     |      |         |      | 1590 | -49 | 793   | S9      | Exc  |



uV referenced to 50 ohm input impedance.



Comparison of the test and the bandscan show a fairly consistent result. It's interesting to try and determine what signal to noise ratio is needed for readable audio. When a station is not affected by a strong local the S/N ratio needed may be about 10-15dB to provide some intelligible audio. When a station is affected by a strong signal the S/N ratio need greatly varies depending on the strength of interference.

One of the problems in viewing the graphs is the inability to determine whether a weak signal is being interfered with by a strong station. It may appear that with good IP filtering you can eliminate any interference. In reality the problems can appear in the mixer stage(s) of your receiver. If you look at the graphs at 790KHz and 1000KHz you will note that these stations are received with good signal strength. The poor reception of these signals during my bandscan was due to strong interfering stations. This is one of the problems with using a untuned antenna even with a receiver known for it's strong signal reception abilities. This leads to my next article.

Reception With a Tuned Antenna

Marc Bergman

For this test I substituted a small Ferrite Loop antenna for the longwire antenna used in previous tests. The three graphs show the region from 600KHz and 1000KHz. In the first graph the antenna was tuned to 670KHz. In the second graph the antenna was tuned to 790KHz. In the third graph the antenna was tuned to 910KHz.

A comparison of the graphs show how the antenna peaks the frequency of interest and can lower the signal strength of possible interfering stations. In the first graph I've tuned to the station at 670KHz. With the longwire antenna this station was dwarfed by the signals at 850KHz and 910KHz. Their levels were 17dBm to 31dBm stronger. With the tuned antenna the station at 670KHz is at -43dBm. It is stronger than the stations at 850KHz and 910KHz by 30dBm and 17dBm respectively. This helps eliminate the possibility of interference from these stations. The other graphs show the same type of results.

The results with this loop antenna may not exactly correspond to that of commonly available ferrite loop antennas. This loop antenna is of my own design and is different in several ways. This loop antenna probably has a lower Q (tuning sharpness) than some commercial antennas. It's tuned with varactor diodes. An antenna with a higher Q would show greater attenuation of signals other than that signal to which it is tuned. It probably has greater gain than most ferrite loops due to it's greater amplification. In comparing the results of this loop antenna vs. the longwire antenna you must also figure that this loop antenna has 12-15dB greater gain. Given these differences it's still possible to see the advantages of a tuned antenna whether it's a loop or a tuned longwire. Not shown is the ability of the loop antenna to null a nearby station.

In studying these graphs I've become more convinced of the need for greater RF selectivity. There are several interesting RF filter designs that I'm going to build and test. I feel they can be incorporated into an antenna design or a separate preselector.

I also want to run some tests and graphs showing the nulling ability of loop antennas. The loop antenna I'm working on is Electrostatically Balanced and is an Altiazimuth design. I want to try an electrostatic shield on it. It seems that if the ferrite rods are exposed to nearby metal objects, such as a metal base or are on top of a receiver cabinet that the nulling abilities are limited. The problem with an electrostatic shield is the lowering of gain by about 3dB.

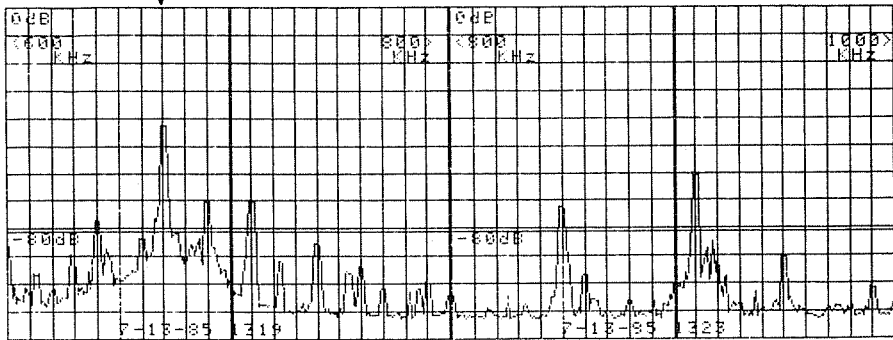
If anyone has questions or comments feel free to contact me.

Marc Bergman  
P.O. Box 6286  
Oxnard, CA 93031

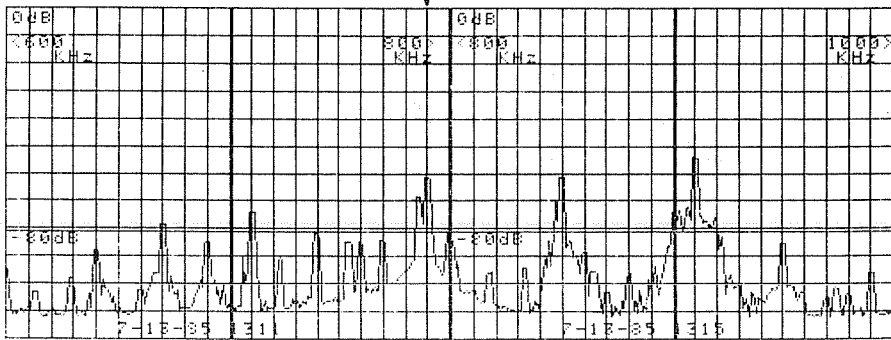
Test of Ferrite Loop Antenna from 600KHz to 1000KHz

Antenna tuned to different frequency for each graph.

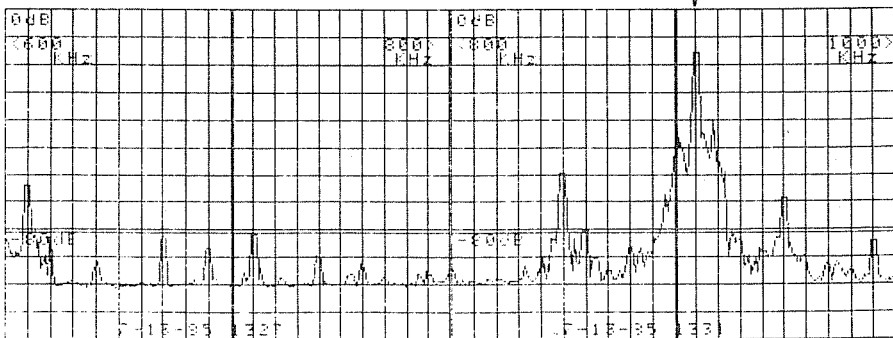
670KHz



790KHz



910KHz



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