



DX Monitor

Devoted Exclusively to
Broadcast Band DXing

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We'll open this week's issue with this startling bit of news:

Longer Hours for Daytime Radio OKd

Washington

The Federal Communications Commission yesterday authorized longer operating hours for an estimated 2200 AM radio stations.

The 4-to-0 vote will allow most of the nation's daytime-only broadcasters to remain on the air for up to two hours after local sunset. Daytime stations, however, will have to broadcast with reduced power after sunset, but most will be allowed to stay on the air.

The commission said it hopes to

provide stations with assigned levels of power for after-sunset operations by October 30. The power levels are being calculated by computer.

The decision is particularly important for daytime stations in the northern sections of the country where sunset can occur as early as 4 p.m. during the winter, a time which is well before the end of the afternoon commuting period. During summer months, when sunset can occur as late as 8 p.m. or 8:30 p.m., stations will be able to remain on the air well into the night.

According to the Daytime Broadcasters Association, there are an estimated 600 communities and roughly 46 million people who are currently denied nighttime service from a local AM station.

According to the commission, roughly 50 percent of the country's AM radio stations — or about 2400 of 4720 stations — are licensed as daytime-only outlets.

Commission officials said that the relaxed standards were made possible by improved methods of calculating radio interference.

Associated Press

Thanks to Doug Nyholm, Jim Hilliker, Robert Wien, & K.C. Kerchner (plus any late arrivals) for sending in copies of the above story. I'm not too sure what the impact will be on our hobby. Some daytimers may become easier to hear on sunset skip in some locations, depending on how much power they're allowed to use (probably 500 watts max). The extra two hours could be more convenient for some DXers' listening schedules (for example, by the time I get home from work in the winter, all the daytimers in the U.S. have already signed off. The extra two hours will move west coast signoffs to just after dinner). On the other hand, the added interference might make it harder for DXers in the east to DX TAs & Latins in early evening. We'll know for sure by Halloween (appropriately enough...).

Another bit of news comes via phone from Bill Harms. The government has decided to put Radio Marti on 1180 (probably using existing VOA facilities). Bill reports that as of 9/15, Cuba has cranked up their jammer on 1180, apparently in response to the news, giving WHAM a lot of interference in the Washington DC area.

Finally, here's news of two get-togethers:

Southern California Area DXers: another SCADS meeting will take place October 8 from 10 am to 4 pm at Mercury Savings and Loan, 4140 Long Beach Blvd (at Carson St), Long Beach, CA. For more info sent a SASE to Don Schmidt, 3809 Rose Avenue, Long Beach, CA 90807.

Seattle Area DXers: Tim & Sue O'Hare will host a gettogether Saturday 10/22 from noon until whenever. Bring your own junk food (liquid or solid). Spaghetti & Lausagna will be served at dinnertime for \$3 a head. Their address is 20023 84th W, Edmonds, WA 98020.

Some really good material in this issue. Looks like we're getting this issue off to a good start. 73. bn.

Report from Guatemala

By Don Moore

Arriving in Cobán about 2pm, I viewed possibly the most developed city of its size in Central America. Its population is about 15,000. Cobán was the center of pre WWII German influence in Guatemala. This investment, accompanied by the agricultural and mineral wealth of surrounding Alta Verapaz Dept. has produced a modern small city with no visible sign of poverty. Surrounding the large central plaza is the cathedral, built in 1559, the huge mansion like Departmental Capitol Building - larger than any government building in Tegucigalpa - and various shops, restaurants and offices. And among all the people were hundreds of colorfully dressed Kekchí Indian women.

Arriving late afternoon, I spent the rest of the afternoon visiting SW station Radio Teztlután. The next morning though I made the trip to nearby San Pedro Carchá, a sister city of 6,000 three miles east. San Pedro Carchá is the center of Guatemala's silver industry. Very fine jewelry can be bought there, e.g. earrings at 75¢ a pair, and hand made, which I'm told by American women would cost seven or eight dollars in the states. While there I stopped in at Radio Imperial, the town's only station, officially on 930 khz, but well heard in Santa Bárbara on 925khz. I tried to talk to the manager, but he was a friendly sort - the only such person I encountered in Guatemala - and left me with the secretary. Playing her my cassette of reception, I then explained I wanted a veri letter, and what that was. To further clarify the matter I showed her a Spanish copy of the NRC Station manager's guide to DX pamphlet. I pointed out the Radio Millón QSL and explained something in that format. As she typed up the veri ltr I sat back and realized I really didn't mind being left with the secretary. In fact, as she was wearing a very transparent blouse and lacey low cut brassiere, I was rather enjoying it. Unfortunately that's probably why I didn't realize until after leaving the station the problem with my QSL. But I'm going to count it anyways. After all, it is on their stationery, and has the correct time, date, & frequency. So what if it says I heard Radio Millón?

While in Cobán, I noted that the station on 1350 is inactive. The town does have a new station however, A Radio Cultural on 1290khz, which appears to be Evangelical. The only other station in the area is Radio Norte, 680khz, in downtown Cobán. Note Radio Norte is the correct slogan, contrary to WRTH. It is the only one used on the air, and is the one painted on front of their building. They too are a regular in Santa Bárbara and I wanted to get a veri. However I waited until the last minute to visit the station & only two very busy DJs were there. So after an all too brief 24 hours in the Cobán area, I left for Guatemala City.

Guatemala City, here they just say Guatemala, or more simply, Guate; while to gringos its Guat City. Spanish colonial capital of Central America, federal capital of the shortlived united Central America of 1823-1838, it is still the cultural, educational, industrial, and commercial capital of this subcontinent. It is a busy metropolis of one and a quarter million; clean & full of beautiful parks and wide boulevards. The excellent city bus service costs 10¢ a ride.

What of radio in Guatemala City? Channels are neatly spaced every 30khz, starting at 550khz, where the station is, oddly enough, Radio 560. The stations on 1030, 1270, & 1360 are located in Guat City, the WRTH listed Villa Victoria is the name of their building. The station on 610 khz no calls itself Radio Seiscientos Diez, while the one of 1420 now goes by Canal Catorce Viente, or, rarely, Radio Capital. Seems gringo station habits are creeping down here.

One of the odder things about Guat City radio is that so few stations have signs. Of those I visited, or at least passed by, Radio Rumbos, Super Radio, Radio Mundial, Radio Emperador, FM Estereo Azul, & even TGV, La Voz de Guatemala, had no signs advertising their presence. While Nuevo Mundo had one - an old fifties type neon one, looking very out of place on modern sixth avenue - there was no indication of sister station Radio Sensación. Nor at Ciro's Musical did the sign mention coowned La Voz de las Américas. Only the Adventist Station, Union Radio, completely advertised themselves, of those that I saw.

I guess this is partly because it is unnecessary in a city as well laid out as is Guat City. With the street address & zone number, any place can be found easily. And these zone numbers can be helpful to the DXer too. Guat City, as well as other principal towns of Guatemala, is divided into different zones. In ads businesses will give their addresses including the zone numbers - which are essential, e.g. 12 Calle 15-34, Zona 4. That is on 12th street, between 15 & 16 Avenues, in Zone #4. Almost every zone has its own, different 12th street & 15th Ave, so the zones must be given. If you hear zones in ads you can be sure you have

a TG, as noother country in Central America, nor I believe, in South America, use the zona system.

I didn't have the opportunity to visit many stations, but the first I went to was Radio Rumbos, 1210khz. This station is logged rather regularly in NAM, in fact I heard them quite often back in Central PA; despite WCAU. They broadcast 24H a day with 5Kw, except from 0500-0900 GMT when they lower poer to one Kw, to save energy. The only other 24H station in the entire country is Ciro's Musical on 850khz. At Rumbos I talked with Rolando Bobadilla, the gerente, who told me a lot about Guat City radio, although I somehow came away learning very little about his station.

Guat City stations have been having financial problems as advertising is switching more and more to TV, as more and more families among the middle, and even to an extent, poorer, classes can afford TV. Guat City is divided as 15% upperclass, 35% middle class, & 50% poorer class. Whether in Guatemala or Honduras, it is not all that uncommon to see a wood shack with a dirt floor & a TV antenna on top, as people save their little spare cash for that ultimate in status symbols - a clean cement floor doesn't impress the neighbors as much. Anyways, due to this switching in ads, four commercial stations have closed down, those on 1060, 1090, 1120, & 1150. Also Radio Istmania on 1390 is using only 100 watts and irregular at that, to maintain their channel, preferring to use FM coverage. Also, Radio Faro Aviataca, 1540 khz, Guat City's only classical mx station, has dropped MW entirely, preferring to use only FM.

Radio Cultural, TGN & TGNA SW, which has been off the air on SW for several months & irregular on MW has been problems due to what Señor Babadilla called "philosophical differences" with the govt of then Pres. Ríos Montt. He wasn't sure of the details & I didn't have a chance to visit the station & find out more.

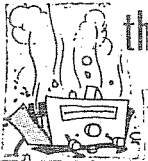
Also it seems CAM is about to get its first stereo AM station. La RH, 1480khz, in Guat City, will be installing stereo before the end of the year. Señor Bobadilla did not know which system. La RH, not listed in the WRTH, and not to be confused with the 1470 station (now on 800khz) is owned by Carlos Manuel Arana Osorio, ex general, ex president (70-74) and un hombre muy rico with lots of money to spend on the station.

Before I left I got a veri ltr, but no pennant as they were out. Pat Martin must have got the last one, hi! Señor Bobadilla also gave me an eight page booklet on the August 1982 Multiplex ratings done in Guat City. His station had the booklet printed up.

Leaving Rumbos I then visited Super Radio, 760khz, about fifteen blocks away on busy Sixth Ave. One must walk up an old, wide staircase to get to the station; located in the second story, above some shops. The fact that the station is one of the older ones in Guat City is much reflected in its ancient equipment. The walls are decorated with record posters & cheesecake calenders. That's fairly common here. The only people there were four announcers, who, while friendly, didn't seem to know much, except that the station had received four overseas reports over the past several years. We chatted a while in the studio. Although most stations have signs up prohibiting anyone but the announcer on duty to enter the studio while on the air, these are usually conveniently ignored; while the DJ is talking into the mic no one talks above a whisper. I've never stopped to count how many 'on the air' studios I've been in. Soon they mentioned something about getting ready for the interview. While my Spanish is good, it took me a few minutes to realize who they were planning to interview. I was on the air almost twenty minutes, talking about my hobby, where I am from in the states, & how I liked Guatemala. Before the end of my trip I would be interviewed two more times. Once live on SW La Voz de Nahuala, where I would be introduced to the audience in Quiché, then interviewed in Spanish. Secondly a recorded interview would be made by Carlos Zipfel, of the Guatemala DX Club, for his weekly fifteen minute DX program on TGW.

With Carlos I visited TGW, La Voz de Guatemala, where we talked to several staff members. I learned that while their 640khz MW frequency is listed as 100kw, they have been using only about 30kw for a long time. The SW service has its own studio and is not normally // the MW service. Besides separate MW, FM, & SW studios, they have a large studio, complete with their own marimba, for broadcasting concerts.

The next morning I left for Lake Atitlán, & while there also visited the market town of Chichicastenango, as well as Nahualá. Lake Atitlán, with its surrounding volcanoes & small Indian villages: I find it difficult to believe there could possibly be anywhere more beautiful or enchanting in this world, nor with people so happy. If you want an overseas vacation, this is the place. In Guatemala the traditional culture is not a dead thing put on display for tourists. It is part of the everyday life of the people. Perhaps that's why everyone in Guatemala seems to have a smile.



the irca technical column

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----Although the Bearcat trade name is better known on scanners and suchlike paraphernalia, there is now a Bearcat DX1000 which from the info sheet sent me by Ralph Sanserino appears roughly similar to the Kenwood R-2000. It tunes from 10 kHz to 30 MHz and sensitivity is given as 1 uV for AM, but "reduced" below 1600 kHz. Selectivity is in the now standard 12, 6 and 2.7 kHz bandwidths, but can be chosen independently of mode. No figures are given for signal handling so we'll have to wait on that until someone tries the DX1000 out. Plenty of lights and buttons, digital display, keypad frequency selection (which appears to be necessary for large frequency excursions as the tuning knob covers 24 kHz per revolution in its fast mode), 10 channel memory etc. etc. round this one out. More info from Ham Radio Outlet, 2620 W. La Palma Ave., Anaheim, CA 92801.

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--and for those who prefer to build rather than buy, the following is lifted from the second edition of A DXer's Technical Guide:

Designing and Building Your Own MW Receiver

Building your own MW receiver is not a job for the faint-hearted; designing your own as well obviously involves a fair deal of technical knowledge. But if you start with building and tinkering with such accessories as audio filters, loop antennas, preselectors, and simple receiver modifications, you may find that the bug has bitten you, and that you want to go all out to try to build your own receiver from scratch. Beyond the simple feeling of accomplishment in making something that really works, there is also the distinct possibility that you can build a receiver that outperforms professional models costing a great deal. The reasoning behind the foregoing statement is simple: no commercial designer can find a large enough market to justify creating a super MW receiver, so MW DXers have had to make do with general coverage models which may or may not provide good MW reception no matter what they cost. An experienced "specialty" DXer knows what he'd like a receiver to do; he'll be lucky to find an off-the-shelf model that will do it, as manufacturers must cater to the widest possible variety of listening tastes. So, the basement tinkerer may just be able to make a MW receiver that will outperform the R-7A at a fraction of the cost.

Integrated circuits are a good place to start in building your own receiver. Ambit International, 200 N. Service Road, Brentwood, Essex CM14 4SG offers a few IC's which contain virtually an entire receiver on a chip, together with application notes; they also offer some reasonable IF filters. A MW receiver could be built with one of these ICs, but the capabilities of the set will be limited by the chip design. Still, it should be possible to build a reasonable set with digital display (using the PCIM177 for example) and 3 kHz IF passband for about the price of a good AM/FM portable, and most of the cost would be in the readout and the IF filter. Shipping IC's from Britain is a bit of an inconvenience, but there doesn't seem to be an appropriate N. American supplier.

You could use only portions of an IC (the IF amplifier/AGC for example) to get full benefit of the IF filter's ultimate rejection, or use specialty ICs, such as audio amplifiers, IF amplifiers etc. (see "The Crudley-Bathbrush 26" IRCA reprint M-24 for example. Specialty IC's are more easily available from N. American companies.) And of course, creating circuits which vary from those recommended for the IC, in order to suit your own purposes, is part of the challenge. For example, some form of preselection is necessary when building simple receivers if you plan to use an untuned random wire in an urban area.

Of course, unless one is an expert on an integrated circuit and what goes on inside it, there are definite limitations to what you can do by changing around external components. If an IF amplifier, for example, is not entirely satisfactory even after tinkering with it, then you may want to build an amplifier which uses discrete components, or simpler ICs. Although the building and tinkering will become more complex, you have more control over the action of the circuit, and a greater variety of options--for example, it's not often easy to switch AGC action off in a full receiver IC. So, we'll now proceed back from the loudspeaker towards the antenna of an imaginary homebrew receiver, and make a few points as to what would be desirable in the various stages. The reader is, of course, encouraged to disagree, and to make suggestions as to what he would find most useful in each stage. Some of these ideas are purloined from Practical RF Communications Data by M.F. DeMaw, which has a fine section on receiver design.

The audio amplifier.....Once your weak DX signal has struggled to your antenna and been generally mangled about in your receiver, you really can't afford to add distortion to it in the audio stage. A number of the power audio amplifier ICs can provide remarkably clean amplification, especially compared to the vacuum tube amplifiers in the big receivers of yesteryear. But you must remember the maxim of the hi-fi audio designer that you should have a lot more power available from the amplifier than you will ever use. This way, the amplifier will always be operating at a low level of distortion. Remember that a lot of IC's have power ratings given a 10% total harmonic distortion. Some feel that the best bet for low distortion is use discrete devices rather than IC's for power audio amplification (see DeMaw and Hayward's Solid State Design for the Radio Amateur), but perhaps see how an IC works for you first. Unfortunately, some ICs distort at very low signal levels as well as at high levels.

Audio filters can be placed before the audio amplifier if so desired, but again should be designed for minimum distortion. High pass, low pass, notch and peaking filters all have their uses, although it's usually a good idea to "process" the signal as much as possible before the receiver's detector.

The detector.....That old stand-by, the half-wave diode envelope detector does a pretty reasonable job under many circumstances. If somewhat more output is desired, it can be obtained from a full-wave diode envelope detector, however. Such detectors do not provide amplification (in fact, there's some loss) but if you have a strong IF amplifier, you probably shouldn't need a detector which delivers an amplified audio output. In the interest of minimal distortion, particularly when tuning to one sideband of a signal, it might be an idea to look into some form of synchronous detection. Like many improvements to basic receiver circuits, the synchronous detector will be a better circuit to use only in some cases. But like many improvements, if you want the best possible DX, it is worth looking into. Exalted carrier techniques might also be investigated.

The IF amplifier...As state-of-the-art receiver designs now use little if any amplification between the antenna and the IF filter, it is of importance to have an IF section capable of high gain, yet one which avoids feedback problems, or distortion of the desired signal (from over-amplification and clipping). The first problem is often met by using high gain IC's, but with careful wiring on a PC board to avoid instability, with perhaps shielding and worthwhile decoupling between stages. The second problem is met by using strong AGC action which can start for signals as weak as a few microvolts. In the past, delayed AGC (where the gain control action doesn't start until the signal is quite strong) has been suggested when listening to weak signals to avoid the distortion which usually accompanies the conventional methods of reducing gain in an amplifier. However, some IC's (the MC1350 and MC1590 for example) show minimal distortion when AGC voltage is applied properly to them, due to their unusual design. AGC is applied to the IF amplifier only, as there is usually no RF amplifier necessary at MW.

AGC.....In the past, it's been thought best to DX without any AGC at all, and to use a manual gain control to keep the receiver from overloading in its IF stages. To a degree, this is still true. A DX signal may be hampered by noise or splatter bursts, yet still be marginally readable. With AGC, the receiver will lose gain every time there's strong interference, perhaps limiting the readability of the DX still further, especially if the AGC has a long decay period (as the original R-1000's did). In such a situation it's better to ride the gain control, and forget about AGC. When AGC is used, it should have a fast attack time, but the decay time should be variable in order to handle different situations, such as a fast SAH or flutter on a desired signal, or in bandscanning. Experimentation is in order here.

An S-meter is usually associated with the AGC circuitry, and may be just a simple tuning indicator, useful for nulls and relative signal levels. A true signal strength meter, with well-defined differences in signal strength between different meter readings is rather more difficult to accomplish, and can depend on complex impedances in your antenna and in the input to your receiver among other things. In other words, you can't easily compare "real" signal strengths in the ether between signals on widely separated frequencies. Nor do most of us need to; it's more than enough to know how deep a null is, or how much stronger one signal is than another. Even that would be a reasonable challenge for the homebrewer, if he wants to apply accurate decibel readings to such observations.

IF filters.....Here is a fine subject for argument, both in the type of filters to use, and in what IF frequency to use. Mechanical filters are available for 455 kHz while crystal filters are more widely available for the 9MHz range. The choice can be based on what sort of front-end the receiver has. If it has plenty of preselection, then there should be little image problems, even at the low end of the BCB, when using a 455 kHz IF. But if the front end is broadbanded, then a higher IF frequency (with a suitable low pass filter at the antenna) will be necessary to avoid image problems. Here, the 9 MHz filters and IF stages would be a better bet.

It has been implied that the sharp passband edges of mechanical and some crystal filters might introduce distortion in the presence of transients (noise bursts and the like)--see p.227 of Solid State Design for the Radio Amateur. Some crystal filters apparently have "rounder" edges to the passband, as do ceramic ladder filters. Most ceramic filters don't have as narrow a bandwidth as desired by DXers, and their ultimate rejection is usually inferior to mechanical or crystal filters. If you're an expert in the subject, superior crystal filters with exactly the desired passband shape and frequency could be constructed, but most of us will have to stick with what's commercially available. Filter passband shapes have not really been investigated as far as MW DXing goes, beyond getting the best shape factor and ultimate rejection, so it's all virgin territory. My own primitive observations lead me to believe that the sharp edges between the top of the passband curve and its skirts, common to most quality IF filters, lead to increased interference when trying to dig a weak signal out from under sideband splatter from an adjacent signal.

The desirable passband for an IF filter is generally considered to be 2 to 4 kHz (at -6 dB down) for DXing purposes. Narrower than 2 kHz, and recovered audio in even a sideband mode becomes too muddy for good intelligibility. However, the narrow bandwidth does make for better receiver sensitivity and signal to noise ratio. Filters wider than 4 kHz generally don't improve intelligibility of a DX signal enough to compensate for the greater possibility of interference being contained within the passband. This is talking in terms of a weak DX signal a kilohertz or two from a much stronger signal. Domestic DX can be handled using filters with wider passbands than 4 kHz, and if possible, should be, for best intelligibility when using both sidebands of a signal.

The IF filter is usually placed in the signal path before any major amplification takes place, to minimize intermodulation distortion (IMD) from signals removed from the filter's passband. A little amplification is usually required before the filter, in order that the receiver's noise figure does not become too high due to the filter's loss. Of course, receiver noise figure at MW is not nearly as important as it is for higher bands; at the same time, one should not forget entirely about a receiver's noise figure. Ray Moore pointed out, in "Receiver Hot-Rodding Hints" in the NRC Receiver Reference Manual that it was not a good idea to cascade mechanical filters at the beginning of an IF strip, due to the increase in receiver noise level as well as the difficulties in isolating the output from the input in such a cascaded arrangement. The same idea would apply to crystal filters. However, placing a filter between each stage of the IF amplifier might be worthwhile for a couple of reasons. One is to eliminate out of passband IMD generated in each IF stage; the other is to improve ultimate rejection of the IF amplifier (the original purpose of cascaded filters). Radio amateurs have found that having a narrow filter at the beginning of the IF amplifier, and a slightly wider one between the end of the IF amplifier and the detector is worthwhile in that the second filter keeps most IMD and wideband noise generated by the IF amplifier out of the detector.

Another IF filter, which was quite popular in vacuum tube receivers, is the notch filter, which eliminates a narrow range of frequencies within the IF passband. Although interfering carriers can often be tuned out of the IF passband of a good receiver without much loss to the DX signal's readability (particularly if some form of synchronous detection is used), there are times when such tuning will move one closer to a signal rich in sideband splatter, and will generally increase interference. In such a case, it's preferable to use a notch filter to eliminate the offending carrier. Sometimes the level of a strong open carrier can be reduced by a notch enough to allow demodulation of signals underneath. At 455 kHz, a Q-multiplier notch is probably most useful, as a crystal based notch will not cover the whole IF passband usually. Up at 9 MHz, a crystal notch is much more feasible, while a Q-multiplier is not appropriate.

The mixer.....We now look at the mixer, the portion of the receiver which must handle the strongest signals we throw at it, yet not produce obnoxious distortion products.

A good deal of ink in the radio amateur press has been devoted to this subject, but one must remember that what may be a reasonable mixer for a radio amateur will not handle a clutch of 50 kw MW transmitters a mile away. So one wants a mixer with as good a strong signal handling capability as possible. The use of VMOSFETS in a double balanced configuration looks promising, but these circuits are still somewhat experimental, and consume a good deal of power. The availability of broadband double balanced diode mixer packages can simplify design considerably, and they are some of the most crunchproof mixers around. There is some loss in these mixers, but that's not really important at MW frequencies. They do require a healthy level of local oscillator injection, particularly the highest level mixers which suck in nearly 1/2 watt of local oscillator power. Impedance matching is important at all ports of broadband mixers, so you have to know what you're doing--you can't just hang an antenna, an IF filter, and a local oscillator on such a mixer and expect it to work perfectly. The results can be well worth the work however, and there have been a number of broadband mixer circuits and theoretical articles in the radio amateur press to offer guidance.

The local oscillator....A great deal of work goes into designing the local oscillator of general coverage receivers because the circuit must cover a wide frequency range with reasonable stability. The problem is simplified considerably if you're concentrating on just one band of frequencies, however, and a stable L.O. for MW frequencies (using a 455 kHz IF) can be constructed with a minimum of components as long as care is shown in the physical layout and quality of the L.O. components, and in good regulation of the power supply for the L.O. Broadband amplifiers to bring the L.O. level up to that needed for the mixer are also fairly easy to construct.

A synthesized oscillator could be useful with higher IF frequencies if stability is desired, but at present a good deal of work would be involved in getting one going satisfactorily. Free running L.O.'s for IF's of 9 MHz can still be pretty stable if designed and built carefully. "Spectral purity" is needed in a L.O. in a high performance receiver, i.e. there should be minimal noise sidebands to the L.O. signal. It is quite difficult to measure this quality without high grade lab equipment however. Simple L.O. circuits using very high Q resonating elements seem to be the best ways to avoid excessive noise sidebands; see the discussion on pp.125-7 of Solid State Design.

Digital readout is driven from the L.O. and with many displays available now, there should be no problem with getting readout to .1 kHz if desired, but watch out for digital circuit noise being transmitted to a nearby loop antenna.

The front end....It would be nice to report that one can hook up an antenna to a good broadband mixer and, without any preselection, get spurious-free reception. If the signal developed by the antenna is low level and the mixer quite a high level one, spurious-free reception is a possibility. Use of a high-Q loop may provide enough preselection to make a good mixer run clean, but untuned antennas may well require a couple of high Q tuned circuits before the mixer, particularly when listening near strong locals. Passive preselection by tuned circuits can get quite complex, as you want the circuits to be high Q, yet track easily with each other, and you don't want them to introduce too much loss before the mixer. Even at MW, some sensitivity is desirable! Joe Worcester's ideas on preselection (see IRCA reprint M3, "The Worcester Long Distance MW Receiver") could be looked into.

Unfortunately, use of high Q circuits for preselection might present problems when tuning up very close to a strong signal. At the desired signal's frequency, your high Q preselector will present a nice pre-determined resistive impedance to the mixer's input port. At the interfering signal's frequency however, that same preselector is (due to the nature of tuned circuits) going to present a complex impedance entirely unsuitable for the mixer input, with all the possibilities for IMD which that will present. So the strong interfering signal is going to have to be greatly attenuated by the preselector. Perhaps using a broadbanded, crunchproof RF amplifier (otherwise unnecessary for MW) and a brace of lossy tuned circuits and resistive attenuator might solve the problem, but at a great price in complexity. Of course, this assumes that you're building a super receiver in order to tune very close to your locals and get DX. If you're willing to allow a 10 kHz no man's land around your locals, the problem will not be nearly as acute. It's always a good idea to try for simplicity as well as best performance; the more complex a circuit becomes, the more opportunity there is for it to do something unexpected and unwanted (cf. Murphy's Law).

The future....It still would be nice to use a broadband antenna with a broadband mixer, and not have to twiddle a batch of knobs for every new DX channel--or design some extraordinary tracking for a multitude of tuned circuits. Use of the highest level mixer one can afford will certainly help toward this goal; just add only the preselection necessary. However, IF filters themselves are the next weak spot of a receiver. Your mixer may have a dynamic range of 110 dB, but mechanical filters have a range of less than 100 dB; good crystal filters somewhat more. So the filters can generate IMD as well as the mixer. Also, there have been suggested interference rejection schemes which require the interfering signal as well as the desired signal to be passed on to the detector where the interference is defeated (e.g. "Eliminating adjacent channel interference", P.L. Taylor; Wireless World, July 1977). But this means more than an extra wide passband; the interfering signal's internal phase relationships should be shifted as little as possible, and our usual IF filters tend to shift phase relationships. Does it seem too far-fetched that the ultimate MW receiver in the year 2000 will be broadbanded at the front end (front end preselection also shifts phase relationships in the received and interfering signal), with a very wide IF passband? It would run against the accepted wisdom of today, but who knows what circuits will be developed tomorrow?

Further reading and acknowledgement....The receiver sections of Solid State Design for the Radio Amateur, by Hayward and DeMaw, and RF Communications Data for Engineers and Technicians by DeMaw, give a great deal of information that I would only be able to repeat, so it's well worth looking into these two books.

Special thanks to E.H. Grossman for his help and ideas in the preparation of this article.

--NHP

Modular Phasing Systems

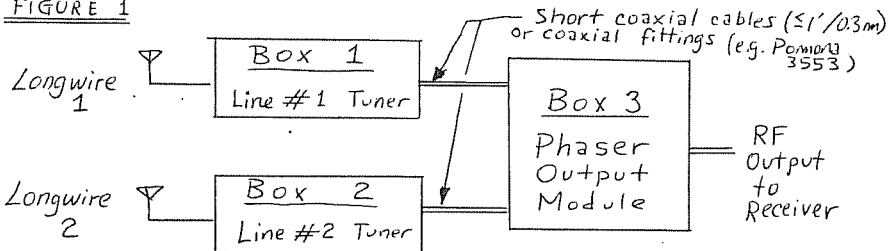
by Mark Connelly

Phasing, for the uninitiated, is the production of a phase shift between the tuned signals from two antennae; the two signals are then electrically added or subtracted from each other to produce a null of the dominant (unwanted) station on a given channel to allow reception of subdominants on the same channel and/or adjacent channel stations normally covered by slop. The end result of such nulling is comparable to that obtained by looping. Unlike looping, phasing can more often give reception of stations in the same direction or in the opposite direction of the unwanted signal that was nulled.

Recent experimentation has proven that a modular phasing system comprised of separate shielded tuners & output module will outperform the earlier design MND:-1 unit.

In brief, the modular system resembles the block diagram of Figure 1.

FIGURE 1



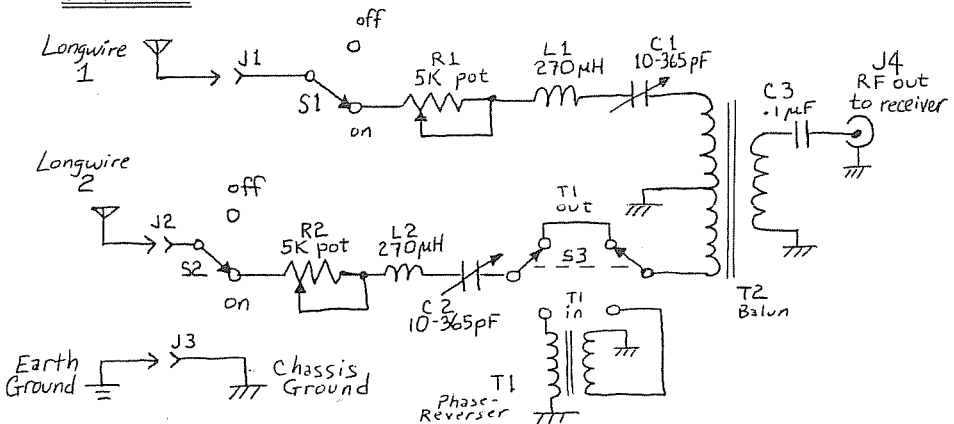
The two tuners should be of identical design; the "phaser" output module, hereinafter abbreviated as POM, combines the two phase-shifted tuner output signals to yield a null of the "pest" station.

It has been proven that there is better cross-talk rejection if tuner #1's setting won't influence the peaking of tuner #2 (as much) and decreased hand-capacitance effects (and, thereby, deeper & more stable nulls) when 3 shielded modules (chassis boxes) are employed.

How does one go about implementing the modular approach? For an initial example, we'll look at a very simple phasing circuit - one primarily designed for use with a pair of Beverage aeri-als.

Refer to Figure 2.

FIGURE 2



T1 is a phase-reversing toroidal RF transformer consisting of a 25-turn bifilar winding; windings evenly spaced, occupying 1/2 of a Miller F-87-1 or Amidon FT82-61 core.

T2 is a toroidal balun RF transformer consisting of a 25-turn trifilar winding; windings evenly spaced, occupying 2/3 of a Miller F-87-1 or Amidon FT82-61 core.

Components J1, S1, R1, L1, & C1 of Figure 2 will be defined as Line 1. Components J2, S2, R2, L2, & C2 will be defined as Line 2. The simple phaser of Figure 2 is operated as follows:

I. PEAK LINE 1

Set R1 to zero ohms.

S1 to on, S2 to off, S3 to T1-out. Positions of R2 & C2 don't matter at this time. ADJUST C1 FOR MAXIMUM SIGNAL AT FREQUENCY OF INTEREST.

II. PEAK LINE 2

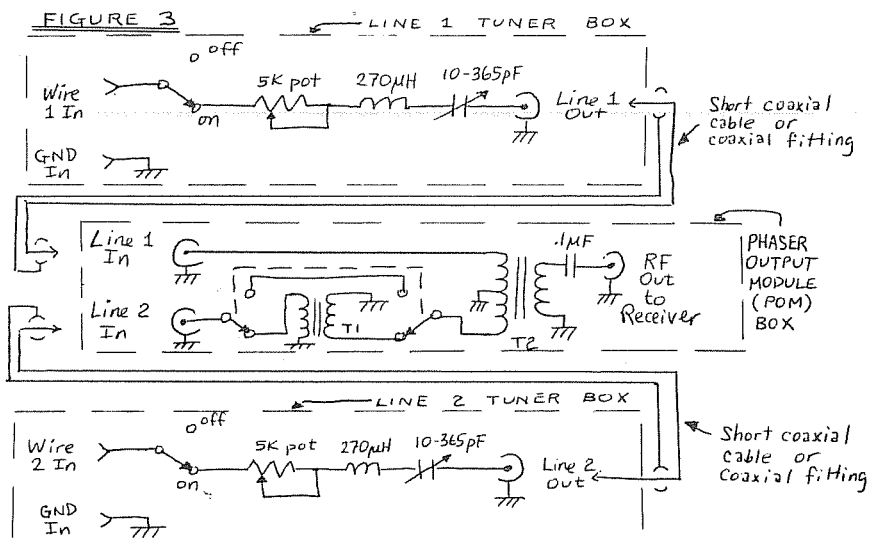
S2 on, S1 off. Leave C1, R1, & S3 in previously-set positions. Set R2 to zero ohms. ADJUST C2 FOR MAXIMUM SIGNAL AT FREQUENCY OF INTEREST.

III. NULL

Put both S1 & S2 to on. Flip S3 between T1-in & T1-out positions. Leave S3 in the position yielding the LOWER signal level of the "best" station to be nulled. Increase R1 to see if a "dip" (point at which turning the control either clockwise or counterclockwise from the "dip" position will increase level) occurs. If a dip occurs, leave R1 at the dip position; otherwise, return it to zero ohms. Do the same with R2. Then, offset C1 to get on to enhance the dip. Do the same with C2. Finalise the null with SLIGHT adjustments of R1, R2, C1, & C2.

Subdominant co-channel stations and/or formerly-stopped adjacent channel stations should now be audible, just as if a loop had been used.

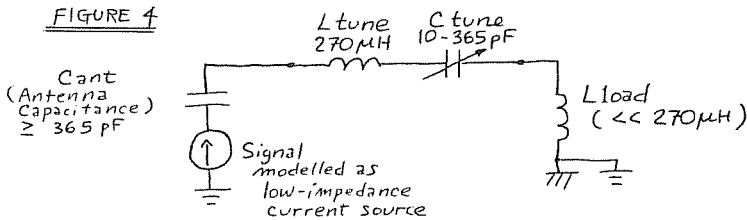
As mentioned earlier, casting the phasing unit into two tuner modules and a POM will improve performance. Applying the strategy of Figure 1 to Figure 2, we get the scheme illustrated in Figure 3.



The type of tuner box illustrated in Figure 3 [two boxes shown] is known as a Passive Series Tuner (which we will abbreviate as PST). It is "passive" as it uses no active elements such as transistors or op-amps. It is "series" as the L & C elements are arranged in series between the antenna and the output load.

The PST operates into low-impedance "current-sinking" loads such as a short coupling link coil over a transistor radio's ferrite rod or such as an RF transformer winding of inductance substantially lower than the inductance of the tuner's coil. Furthermore, the antenna must be LONG, having a high effective capacitance to ground (preferably greater than the tuner's maximum capacitance, 365 pF in this case).

Figure 4 shows the PST's total equivalent circuit, including external connections. At this time we'll assume no series resistance: pot in tuner set to zero ohms and resistance of load (e. g. balun or phase-reverser primary) negligible.



The resonant frequency of this tuner is $f = 159155/\sqrt{(L_e C_e)}$
 where $C_e = \text{equivalent capacitance (in pF)} = 1/((1/C_{\text{ant}}) + (1/C_{\text{tune}}))$
 and $L_e = \text{equivalent inductance (in uH)} = L_{\text{tune}} + L_{\text{load}}$

It should be noted that any RESISTANCE in the tuned line will degrade the Q (sharpness, selectivity) of the peak: this is why initial peaking must be done with the PST's pot set to zero ohms. In the ideal case, C_{ant} is sufficiently higher than 365 pF that the $1/C_{\text{ant}}$ term approaches zero in the C_e equation, causing C_e to equal C_{tune} . Also, if L_{load} is small, L_e approximately equals L_{tune} , in this case 270 uH.

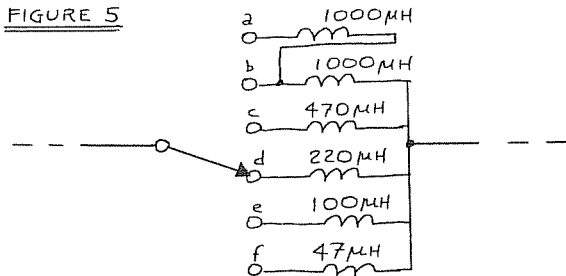
Applying the resonance equation,
 $f_{\text{max}} = \text{resonant frequency at minimum } C_{\text{tune}} (10 \text{ pF}) = 159155/\sqrt{(10)(270)}$
 $= 3053 \text{ kHz.}$

$f_{\text{min}} = \text{resonant frequency at maximum } C_{\text{tune}} (365 \text{ pF}) = 159155/\sqrt{(365)(270)}$
 $= 507 \text{ kHz.}$

If a shorter than ideal antenna is being used, the C_{ant} term can no longer be ignored: typically it might only be 100 pF, perhaps less.

If $C_{\text{ant}} = 100 \text{ pF}$, $C_e = 1/((1/100) + (1/365))$
 For $C_{\text{tune}} = 365 \text{ pF}$, C_e is now only 78 pF. For $C_{\text{tune}} = 10 \text{ pF}$, $C_e = 9 \text{ pF}$.
 f_{max} is now $159155/\sqrt{(9)(270)} = 3228 \text{ kHz.}$
 f_{min} is now $159155/\sqrt{(78)(270)} = 1097 \text{ kHz.}$

It is obvious that the PST of Figure 3 will not tune the shorter antenna on a substantial segment of the MH BCB. This problem can be alleviated, to an extent, by changing the tuner's inductance. This is best accomplished with an inductance switch, as in Figure 5.



With the aforementioned shortwire ($C_{\text{ant}} = 100 \text{ pF}$; $C_e = 9 \text{ pF min.}$; $C_e = 78 \text{ pF max.}$), frequency ranges with the switch of Figure 5 are as follows: (Assume load inductance = 25 uH)

Switch Position	L_{tune}	L_e	f_{min}	f_{max}
a	2000	2025	400	1179
b	1000	1025	563	1657
c	470	495	810	2384
d	220	245	1151	3389
e	100	125	1612	4745
f	47	72	2124	6252

In reality, few variable capacitors get down to 10 pF, especially when stray shunt capacitances are added in; therefore, the f_{max} figures figures above are overly optimistic. Realistically, you could expect to use position [a] to cover 400 - 700 kHz, [b] to cover 570 - 1000 kHz, [c] 820 - 1300 kHz, [d] 1160 - 1700 kHz, [e] 1620 - 2500 kHz, and [f] to cover 2130 - 3500 kHz.

The PST's performance can also be improved by adding a small (e. g. 47 pF) shunt capacitor near the input to add capacitance to short aerials. A slight, but negligible, amount of loss is introduced, but with improvement in peak-tuning capability. The capacitor is best installed after the pot so that the resistance added by the pot will have a lesser effect on Q-spilling.

Another modification to the PST is the inclusion of an output transformer with lower primary inductance than those in the POM (Phaser Output Module). This internal transformer accomplishes two goals: (1) It permits operation at higher frequencies than the POM's RF transformers would allow if directly connected to the PST's output. (2) It allows "stand-alone" operation of the PST with a great variety of receivers with widely-varying input-impedance characteristics. (Stand-alone operation, in this case, means using the PST as a straight antenna tuner in situations where phasing is not necessary.)

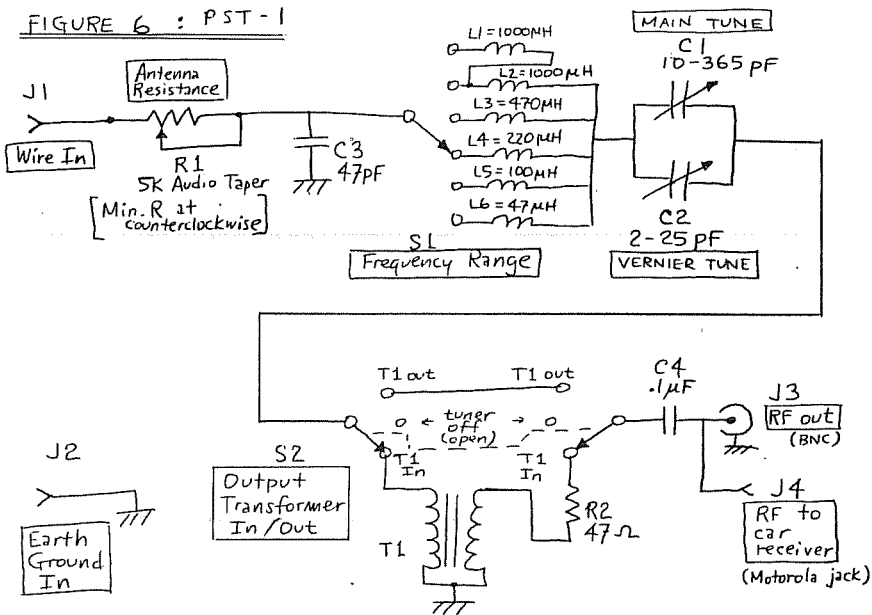
There is some loss at lower frequencies (below 1100 kHz) with this internal transformer, but this shouldn't be a problem with wires of 30m./100ft. or greater length.

A small output resistor (in the 22 to 100 ohm range) is included at the internal transformer's output to (a) decrease loading effects on tuning, and (b) to reduce the chance of spurs caused by capacitive loads resonating with the secondary.

The tuning capacitor is often very touchy when tuning for nulls, so it's advisable to add a lower value "vernier" variable capacitor in parallel with the main 10 - 365 pF capacitor.

The revamped PST, designated as "PST-1" is shown in Figure 6. A jack for "stand-alone tuner" output to a car radio has been added.

FIGURE 6 : PST - 1



The output transformer of the PST consists of a 15-turn bifilar winding with evenly-spaced turns, occupying 1/2 of a Miller F-87-1 or Amidon FT82-61 core.

A further refinement to the PST (beyond those embodied in the Figure 6 schematic) is the inclusion of a small-value pot (0 to 20 ohms or 0 to 50 ohms) in series with R1 to make fine nulling adjustments easier. Such pots are, unfortunately, difficult to purchase in desirable (non-inductive) non-wirewound versions.

At this juncture, it should be mentioned that one of the great benefits of a modular phasing system is that different-design tuners & POM's can be swapped around as system building blocks.

Working along this school of thought, three other types of tuner have been developed.

- These are: RST (Active Series Tuner)
- PPT (Passive Parallel Tuner)
- and APT (Active Parallel Tuner)

This introductory article does not attempt to go into the details of CONSTRUCTION of any of the tuners or POM's; these will be dealt with in subsequent works. These subsequent articles will also delve into the finer details of PHASING STRATEGIES.

The Active Series Tuner "AST-1" is an amplified version of the PST-1. Figure 7 gives the overall AST-1 schematic. Figure 8 is the schematic of the Broadband Amplifier subassembly, designated as A1 in Figure 7.

FIGURE 7 : AST-1

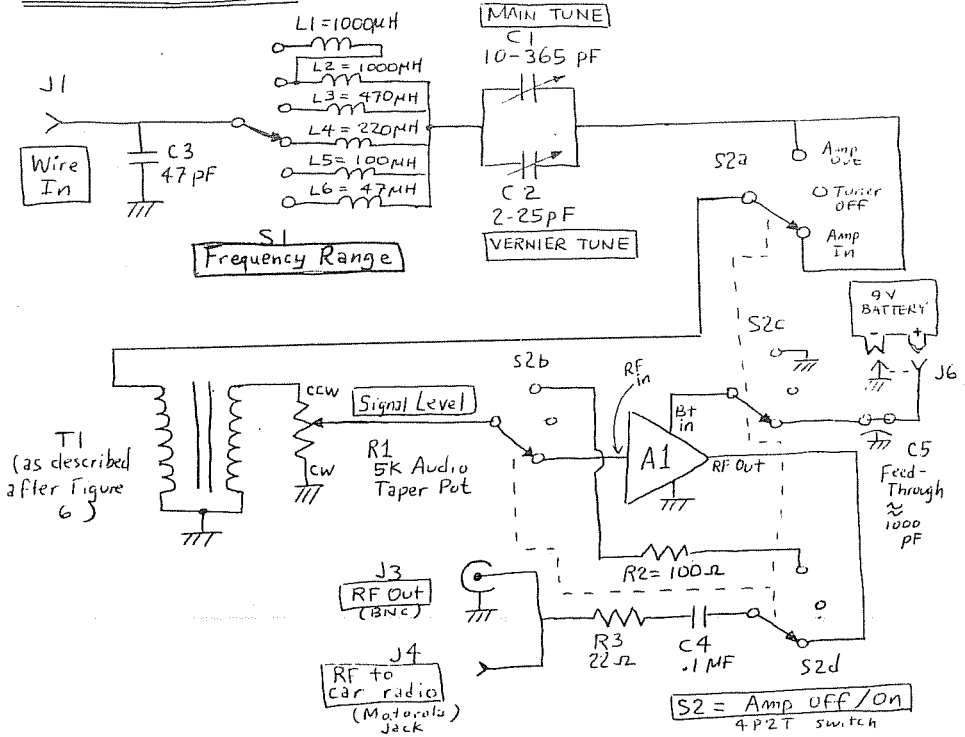
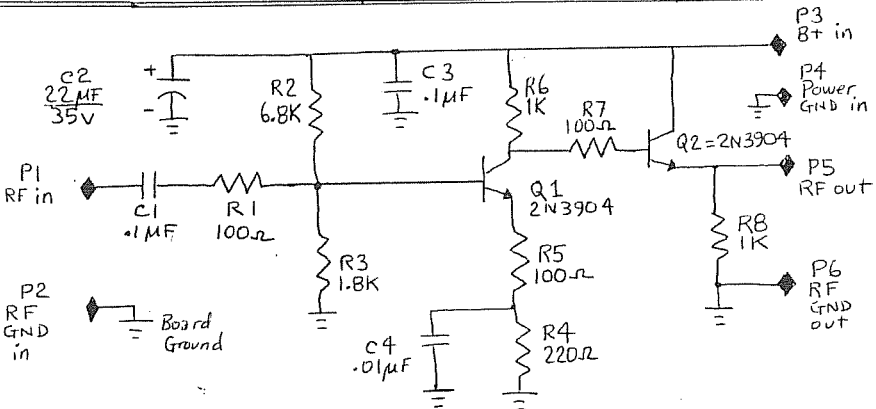


FIGURE 8 : Broadband Amplifier Card Assembly (A1 of AST)



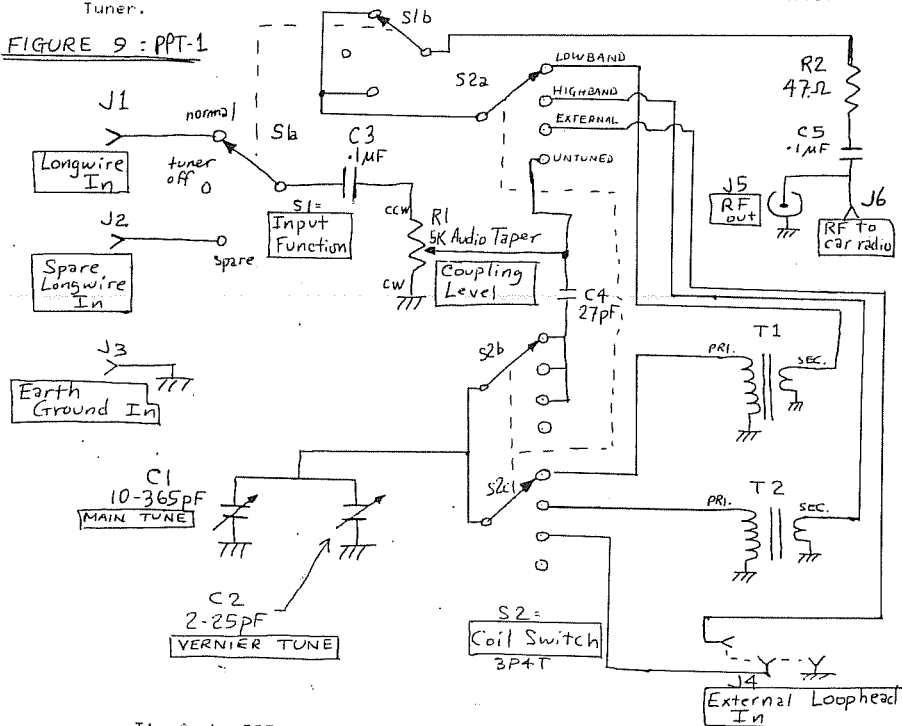
If overloading occurs with R1 set for maximum signal transfer, adjust it so a peaked signal can be obtained without spurious responses. Unlike the PST, the level pot on the RST does not cause any significant degradation of Q or any shifting of the peak settings of the tuning capacitors.

The Passive Parallel Tuner (PPT) is another worthwhile tuning module to consider. Old-time DXers will recognize it as a close relative of the so-called "degenerate loop coupler". It has the advantage of predictable tuning (thanks to loose coupling), not greatly affected by either source impedance (antenna length) or load (POM or receiver) impedance. The primary of the transformer in use for a given frequency is resonated by the tuning capacitor(s) and a link secondary (pickup coil) wound around the primary couples the peaked signal to the load.

Two transformer assemblies are provided within the box: one for low-band [approx. 500 - 1000 kHz] and one for high-band [approx. 950 - 1700 kHz]. Furthermore, a stereo jack is utilized for an external coil such as a ferrite rod antenna with added coupling coil or an external toroidal transformer similar to the internal transformers. Such external coils would be used if other frequencies (e. g. longwave or tropical-band shortwave) were to be tuned or if direct pickup of signals by the transformer primary (with no longwire) was desired.

The PPT offers superior Q, and therefore better rejection of spurs, than the aforementioned series tuners (PST, AST). As input & output coupling is "looser," the achievable output signal level is somewhat lower than that of the PST-1 and, needless to say, the RST-1. With ANY passive tuner (either PPT or PST), you should be using wires 30m/100ft long, or longer: with such wires either passive tuner will provide sufficiently generous output levels for the majority of MW DXing situations. Figure 9 is the schematic of the PPT-1 Passive Parallel Tuner.

FIGURE 9 : PPT-1



T1 of the PPT-1 is the low-band coil. The core for T1 is an Amidon FT114-61. A Miller F-125-1 or Indiana General F626-12-01 core would probably work as well. The primary consists of 64 turns of #28 enamelled solid magnet wire, turns evenly spaced, occupying 2/3 of the core. The secondary consists of 7 turns of insulated #28 solid wire-wrap wire, turns evenly [widely] spaced, over the primary (also occupying 2/3 of the toroid core).

T2 of the PPT-1 is the high-band coil. The core for T2 is an Amidon FT82-61. A Miller F-87-1 or Indiana General F624-19-01 core would probably work as well. The primary consists of 32 turns of #28 enamelled solid magnet wire, turns evenly spaced, occupying 1/2 of the core. The secondary consists of 5 turns of insulated #28 solid wire-wrap wire, turns evenly [widely] spaced, over the primary (also occupying 1/2 of the toroid core).

For shortwire applications (wires of length significantly less than 30m/100ft), the Active Parallel Tuner (APT) gives the best tuning approach. Although designed to work with any length wire, it is with short to medium length wires that the APT shows a clear-cut advantage over the previously-discussed PST, AST, and PPT tuners.

The overall APT-1 schematic is given in Figure 10; the "Front End Card" FET-input subassembly (A1 of the APT-1) is diagrammed in Figure 11.

FIGURE 10 : APT-1

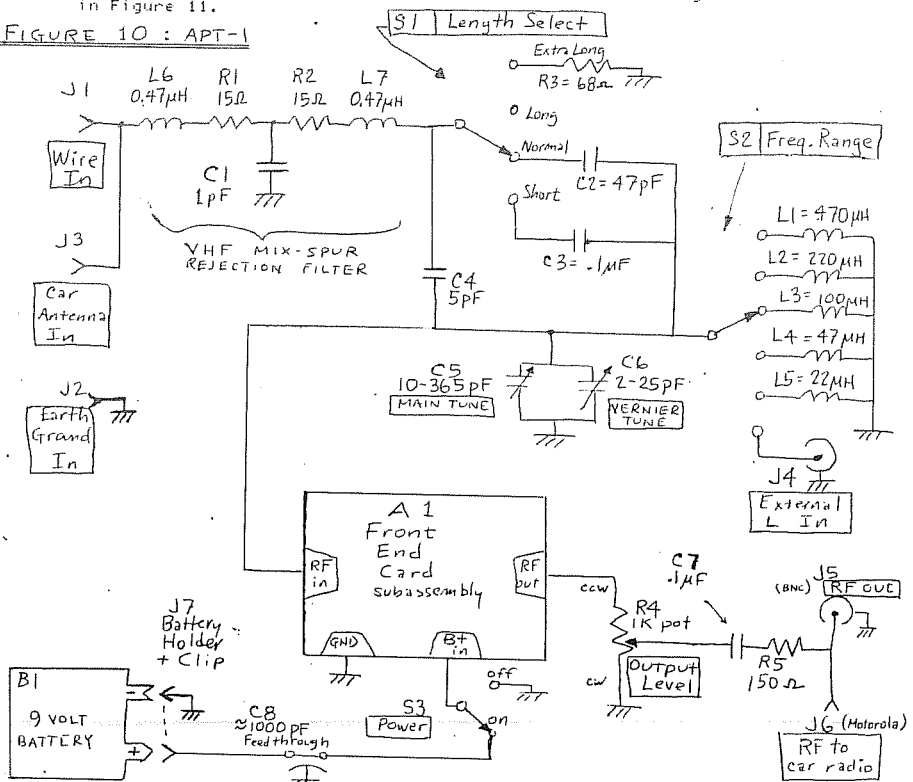
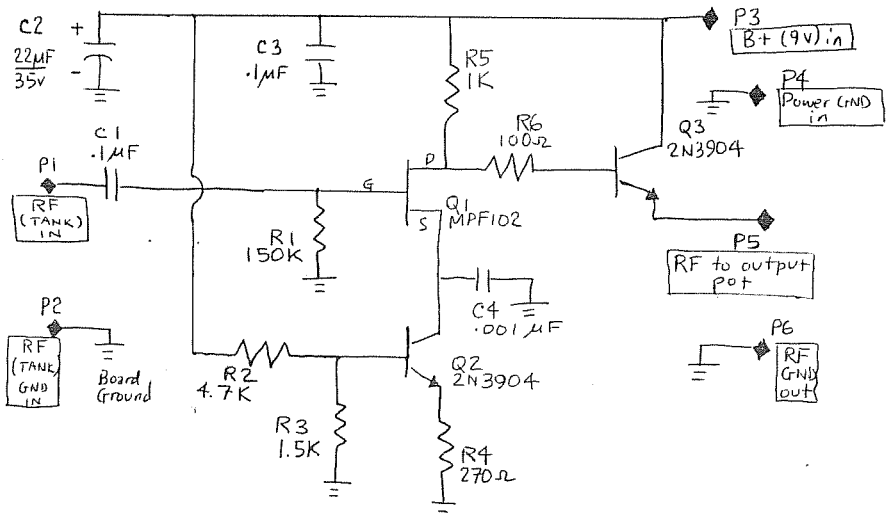


FIGURE 11 : Front End Card Subassembly (A1 of APT-1)



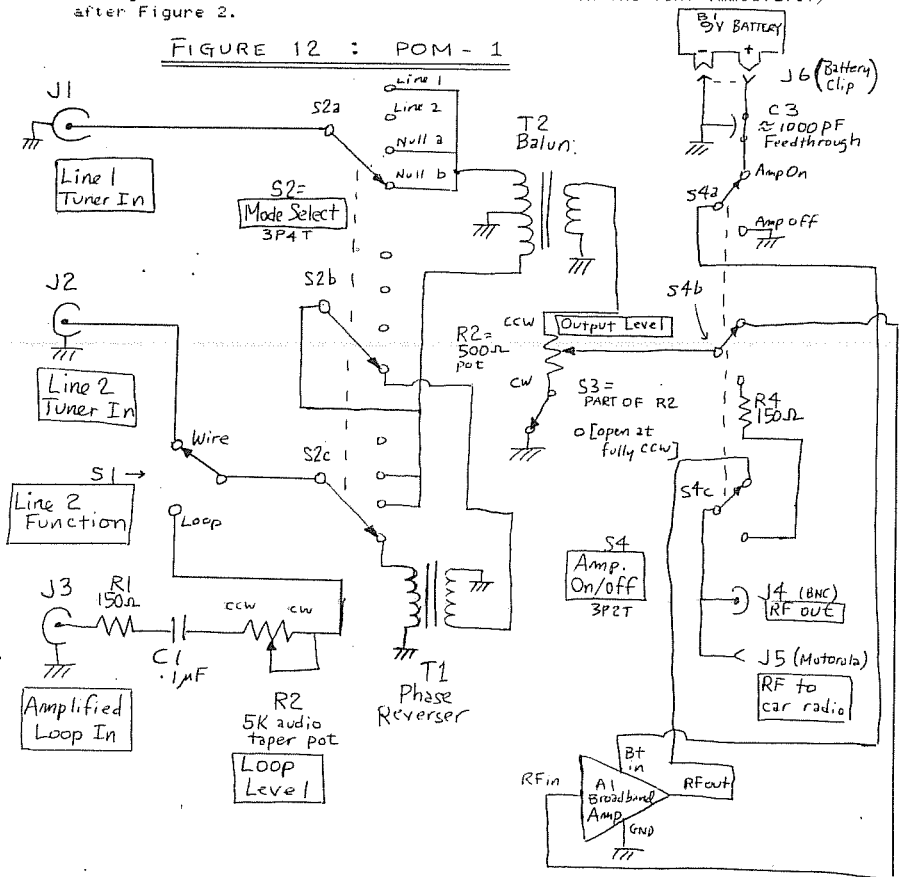
A fifth kind of "tuner" which can be presented to the input of a POM or to a receiver is one which many DXers already have: an active loop antenna. This is actually a form of Active Parallel Tuner with its tuning inductance not shielded (and hence able to pick up signals on its own). A loop, of course, can also be used as a longwire coupler by winding 5 or so turns of the wire's shack end around the loop coil & connecting the bared longwire end to loop chassis ground.

How that tuners have been touched upon (remember, tuner construction & operation will be covered in subsequent articles), we should turn to the Phaser Output Module (POM). A simple POM is that shown in Figure 3 near the beginning of this article.

- This unit can be improved upon in several ways. These include:
- (a) improved input switching for faster operation with some tuners - notably the active tuners.
 - (b) output level control by means of a pot that won't effect nulls.
 - (c) ability to phase a wire against an active loop (à la Schatz LSCA)
 - (d) the possibility of amplification of POM output in cases where the desired signal left after post-nulling is too weak: a common case when shorter wires & less-sensitive receivers are being used.

The improved version of the POM has been designated as POM-1; its overall schematic is shown in Figure 12. Its Broadband Amplifier Card subassembly A1 is the same design as A1 of the RST, shown in Figure 8. POM-1 RF transformers T1 & T2 are identical to those in Figure 2; these transformers are discussed in the text immediately after Figure 2.

FIGURE 12 : POM - 1



Future articles in this series on Modular Phasing Systems will detail tuner & POM construction as well as tuning & phasing strategies.

A New Look at Daytime DX

A Synopsis of Daytime DX From Provo, Utah

by Bill Harms

Many articles have appeared in the last few years about daytime DX. Almost all of these articles have dealt with daytime DX from coastal or near coastal locations, with no particular mention of daytime DX at truly inland locations. It is well known that signals can travel long distances in coastal areas along the water because of salt water's high groundwave conductivity. Signals also do well in the midwest because of the fairly good groundwave conductivity there. (It's interesting to note that KFJR-550 claims to have the largest daytime coverage in the U.S.) On the other hand, desert areas such as Utah have notoriously poor groundwave conductivity, so daytime signals aren't supposed to get out too well, right? WRONG.

Long distance reception from stations is just as possible and daytime DX can be just as good in the so-called "poor daytime DX locations" like Utah as they are in coastal areas where daytime DX has been given so much praise. At my former Utah location, for example, I heard 234 total stations (not counting about 20 call changes) from 3 countries, 4 provinces, and 24 states, all during the day.

As crazy as it seems at first, I think perhaps the most significant reason I found daytime DX to be so good in Utah is the lack of close locals on a majority of channels. According to my calculations, there are less than 50 stations within 150 miles of Provo. This makes for quite a few open channels, with good targets possible. Some channels have good targets in several directions. For example, 1570 and 1510, not having stations within 300 miles, yielded six and three stations, respectively. But with a new local, KZZI, now on 1510, any potential targets will now be covered up.

Another contributing factor was my extensive use of Beverage antennas. While stations I received only on Beverage antennas do not represent the majority of my daytime catches, most of my best catches occurred only via this mode. Bruce Portzer and I, while using a Beverage antenna near Heber City, heard no less than 225 signals (not all IDable) in the daytime, including WLS and WCCO. The most surprising catch was KAGO-1150 in Klamath Falls, Oregon.

Most of my long distance catches were not made by groundwave, but by skywave. It is well-known that in the winter the ionosphere is still able to reflect at least some signal during the daytime, especially at the high end of the band. So it is obvious that good groundwave conductivity is not necessary for great daytime DX. (Although some of my daytime DX, like KFI and KFMB obviously did come via groundwave). Perhaps the factor that contributes to the success of daytime DX at coastal locations is not necessarily the great conductivity of sea water (though important), but more because of the fact that there are fewer local stations to contend with at the coastal locations that DXers find so good.

So in summary, although groundwave DX can be good at a coastal site, great daytime DX is not exclusive to those areas of good groundwave conductivity. Any comments by other DXers would be appreciated.

The following is a compilation of the daytime DX heard by me in Provo, Utah and the area within a 25 mile radius of Provo from September 1979 to December 1982. For the purposes of this article, a daytime reception is defined as a reception made between two hours after local sunrise and two hours before local sunset. The underlined calls mean that the station was heard only on a Beverage antenna.

521 "INE", only heard at home once or twice
540 KNAK semi-local. CBK and KNMX on Beverages
550 KRAI regular. KOY once or twice.
560 KSFO, usually poor.
570 KLUB local.
580 KFXD fair. KMJ poor w/KFXD nummed.
590 KSUB fair. KID poor with KSUB nulled.
600 KCLL & KOGO co-dominant. KLIX & KSJB fair on Beverages.
610 KVNU semi-local. KFRC occasionally w/KVNU nulled.
620 KSTR fair
630 KZJO local, KIDO once during Utah power blackout.
640 KFI fair

650 Provo HS driving range, 100mw, now on 700. Fair at 2 miles.
660 Pioneer drive-in
670 KBOI good.
680 KFAM (ex-KYD981) local. KNBR with KFAM nulled. CJOB.
690 Excellent daytime channel with 6 stations: KEOS KBLI KHEY CBU XETRA
and CBKF1.
700 WLW tentative once. Also 3 high school driving ranges.
710 KFIA & KMFC usually, KIRO occasionally. KERE.
720 KDWN good.
730 KSVN local. KDAZ & KLOE once each.
740 KBRT oddly the best with KCBS & KVFC not far behind. CBX on north
Beverage.
750 KXL occasionally in winter. KMMJ often good.
760 KFMB poor.
770 KOB poor at home, good on Beverage.
780 KAZM & KROW both fairly good.
790 KABC KUTA KSPD KGHL in order of reception.
800 KBUH semi-local, but XEROK heard on Beverage.
810 KGO & KWSR co-dominant. CHQR on north Beverage.
820 WBAP once without a Beverage.
830 WCCO
840 nothing
850 KOA all year. KTAC winter only. CKRD on Beverage.
860 KWHO local. CBKF2 only on N. Beverage,
870 KIEV at home a few times. WWL just a few times.
880 KRVN, a winter pest at times.
890 WLS my best positive ID.
900 Oddly KBIF was heard frequently. CJVI & CKBI at times on Beverage.
910 KALL local
920 KVEL semi-local
930 KSEI semi-local.
940 KBRE semi-local.
950 KMER fair in KDOT slop.
960 KDOT local.
970 KAYT poor in KDOT slop. KVWM once with KDOT off. KOOK usually on Bev.
980 KSVC semi-local. Also KGLN & KFWB at times.
990 KTLE local. CBW occasionally.
1000 KOMO w/good NW cx.
1010 CBR & KCMP a good mix.
1020 KTNQ & KBCQ fair at times.
1030 KTWO of course.
1040 WHO good.
1050 KTBA only fair. CJNB surprisingly strong at times.
1060 KRSP local. CFCN a few times.
1070 KNX poor-fair. KERR once or twice.
1080 KRPX local.
1090 KANN local with XEPRS KBOZ CHEC & KLDR at times.
1100 KREX fair-good. KSL translator at BYU Marriott Center.
1110 KHAC only once at home. KFAB & CHQT occasionally.
1120 KPNW barely audible. KMOX sometimes there, rradable but poor.
1130 CKWX surprisingly good. KSDO occasionally. KBMR in almost every
time I tried.
1140 KMJJ the super pest, KGEM also there. KMMZ good at times.
1150 KSEN & KIMM the usual dominants when the Beverage went up. CKX also
at times. KAGO was a surprise when bp and I heard it last fall.
1160 KSL, no comment.
1170 KVOO KUAD & CKGY have all had their turns on Beverages.
1180 KOFI strong w/good northern cx. KWSO at times.
1190 KRDS usually held the fort down. CFSL & KADE at times good.
1200 WOAI was the best until KFNW came along.
1210 KCLG poor semi-local with KGYN before KCLG.
1220 KIBE fair at times. KCCS once on late skip. CKDA once or twice.
CJOC & KBNO usual on Beverages.
1230 KPRQ (now KLAF) local. KOAL when KPRQ nulled.
1240 KEVA the best with KWIK & KRDO skipping in at times.
1250 KNEU semi-local. KWSU on late skip.
1260 KPOW & KTEE. CFRN good a couple of times.
1270 KTLC poor, sometimes fair, but always there. KDJI sometimes on late skip.
1280 KDYL local with KIT popping in at noon once.
1290 KZBQ the usual dominant with KHSL KGVO KUMA & KOWB.
1300 KVOR & KPTL fair on midday skip a few times.
1310 KLIX fair usually. KFKA only occasionally.
1320 KCFX (now KEUG) local.
1330 KGAK & KOVE fair on skip.
1340 KMTI was dominant before moving to 1590. KLVR then the best. KQIL
KVRH KYLT & KSGT were heard between the time KLVR moved & KLVR came on.

- 1350 KIDN the only one to make it in due to KFTN-1400/KEYY-1450 mix.
 1360 KRKK a super pest!
 1370 Although KSOP is a local, KXLF CJWW & CFOK made it through.
 1380 Only KSRV & KOTA.
 1390 KBLQ semi local
 1400 KFTN local
 1410 CFUN on late skip. KCOL & KWYO quite often.
 1420 KUJ & KSTN on midday skip. CJVR made it a few times.
 1430 KLO local. KEZW good.
 1440 KRDZ the only one heard.
 1450 KEYY local. KURA mixed in on some Beverages.
 1460 KYSN the usual pest with KDON & CJMH occasionally.
 1470 KBXN a local, but KAZM was fair before moving to 780.
 1480 KONI local
 1490 KJQN semi-local. KUGR the Beverage pest.
 1500 KXRY (now KHMT) & KSTP late skip on Beverage only.
 1510 KGA & KDJQ fair some mornings. KDKB good at times. This could be all for naught with KZZI now here
 1520 KACY a late skipper in winter. Also KYXI. KOMA once or twice.
 1530 KFBK all day at times. KUUY a Beverage visitor.
 1540 KPOL (Now KZLA) another late visitor at home in the winter with KXEL seeming to like the Beverage antennas.
 1550 only local KRGO.
 1560 KPMC on daytime skip. Also KKAA.
 1570 An interesting channel with KWAY KLOV KCVR KHNY CKLQ & CHUB all coming in at home.
 1580 KNIX a super pest at times in the winter
 1590 KMTI semi-local
 1600 KBBX local with KLAT & KVRD heard when KBBX's transmitter burned down.
 1610 Only the extinct TIS in American Fork Canyon.

Gospel music station goes on air in Raleigh

A new radio station is scheduled to go on the air in Raleigh today at 6 a.m. — WSES on 1550 AM. The frequency formerly was used by WRZR, which shut down in January, pending sale of the station.

Stanton E. Smith Perkins of Rocky Mount has purchased the station from Bob Bander and has changed the call letters. The Federal Communications Commission approved the transfer of owner-

ship Tuesday afternoon, allowing WSES to begin broadcasting.

The station, which is allowed to transmit only in the daytime, will feature black gospel music. WRZR operated for a year as a top 40 and beach music station. Previously, it was a country station under the call letters WYNA.

Perkins said Wednesday that he planned to move to Raleigh. Before moving to Rocky Mount, he

was active in broadcasting and religion in Washington, D.C., where he grew up, and in other cities, such as Atlanta, where for a time he was general manager of WXET radio. He also is the author of "Satan in the Pulpit."

"In my book," Perkins said, "I advocate putting money back into the community to improve the community. So that's what I decided to do."

3-31-83

ABOVE: Via Ernie Cooper. BELOW LEFT: Seattle Times 8/26/83
 BELOW RIGHT: Electronic Engineering Times 6/20/83

400 'Louies' hit the airwaves

LOS ALTOS HILLS, Calif. (AP) — This weekend, a college radio station will play 400 versions of the '60s rock hit, "Louie Louie" in a daylong marathon.

KFJC, a student-run station at Foothill Community College, will play rock, disco and elevator-music versions, a religious choral version and even a 40-minute version recorded at a Hell's Angels Halloween party.

Richard Berry's song was a regional hit for a Seattle group, the Wailers, in 1957. In 1963, the Kingsmen's record gained national attention.

AM Stereo Radios Handle All Stds.

CHICAGO — Radio-receiver manufacturers have taken it upon themselves to resolve the market confusion arising from the proliferation of AM stereo broadcast formats. At the Consumer Electronics Show here Sansui, Jensen and Magnavox joined Sony in introducing systems that operate with all four competing AM stereo formats.

Sony Corp. of America privately showed at the National Association of Broadcasters meeting in April—but formally introduced at CES—its new Walkman-style music box, the SRF-A-100.

It contains two speakers for both AM and FM stereo reception, as well as a stereo headphone/amplifier output jack. Available this month at a list price of just under \$90, the unit is built around a custom Sony

integrated circuit that decodes all four AM stereo modulation schemes now used in the United States.

The IC is semiautomatic in operation: The consumer needs to place the switch in either the Kahn/Hazeltine mode or the Harris, Magnavox, Motorola position. Magnavox recently issued a statement supporting the development of multistandard receivers.

Sansui demonstrated a truly automatic decoder system, in a portable model at \$140. Sansui plans to ship the unit this fall, and is extending the technology into at least one automobile stereo system, which the company claims is where most AM listening occurs.

Jensen also demonstrated an automatic AM stereo receiver for auto use. —R.D.

EASTERN DX FORUM

(215) 368-8067
RICHARD EVANS
P.O. Box 1294
NORTH WALES, PA 19454

Deadlines: Every Friday.

C. M. Stanbury II, RR #1, Ridgeway, Ontario LOS 1N0

In September's Canadian edition of Electronics Today International I have a short article ("Spectrum Wars") on the frequencies between 1615 and 1800 kHz with particular emphasis on the cordless phone problem. But during the last couple months, after that article went to press, I have noticed that some of these signals are now strong enough to create images in the middle of the BCB. Worst offender is on 1750, 10 kHz off frequency, located at a residence over half a mile away, and easily readable during daylight hours on 840 kHz. I suspect that in any large apartment complex almost any cordless phone conversation could be monitored on the simplest of standard AM receivers. Incidentally, since Popular Electronics changed names then subsequently dropped Hauser's column and schedule features, ETI (which also has editions in Australia, Great Britain, and France) is now one of only two commercial electronics magazines in North America publishing material for DXers - the other of course is Popular Communications. Ironically, ETI pays its writers about twice as much as the U.S. based PopComm, a dramatic reversal of the usual pattern. On the other hand, PopComm uses a lot more DX material. But nobody is going to "get rich" out of DX articles these days. The fact is that if the very concept of distant radio listening is to survive it just be integrated into the whole "spectrum" of space age broadcasting. Best.

Mike Brooker, University College Residence, Laurentian University,
Sudbury, Ontario P3E 2C6

ANARC '83 was a fun convention despite the slightly cool food at the banquet and the not so slightly cool Wx. ODXA's bid for ANARC '84 was successful despite Chairman Harold Sellers and the entire ODXA BoD not being in Washington. The Ramada Renaissance (site of ANARC '84) is way out in "Scarberia" (Scarborough--as all Torontonians know, civilization ends at Victoria Park Avenue), so if you are not planning to drive to the convention, be prepared for some long bus and subway rides. The hotel is at least an hour from downtown T.O. by public transit. Perhaps this remote location was chosen to make convention attendees stay at the hotel and attend boring seminars, spend money on auctions, etc., instead of pub-crawling downtown. Because of poor DX and high postal rates, veries have been few and far between. I thought a one or two-year wait for a QSL was a long time until recently, I received a mimeo v/l from KRVN-880 for a report sent on October 15, 1978. This took almost 5 years. 1783 days! No follow-up was sent (I very rarely send follow-up reports), and I have not logged KRVN since '78. The letter was postmarked Atlanta, Ga., Aug. 27, 1983, a long way from Lexington, Neb.! It is a good catch--only my second Nebraska logging--so it was worth waiting for. How many more unanswered reports are still gathering dust on some CE's desk? I hope my DX Monitors will arrive a little faster than that KRVN verie. I looked through the December 2, 1978 DXM, in which my KRVN logging appeared in EDXF. In Oct.-Nov., '78, I also logged WKIS-740, WMTS-810, WNDB-1150, WAAY-1550, WXVA-1550, and WSKI-1240 DX test for Vt. (my last unheard eastern state). All of these QSL'ed a long time ago. In '78, postage was only 14 cents to the USA as well as Canada and the DXM - in 8½ x 11 sheets - cost 15¢ to mail. Will we see you at ANARC '84?? 73.

Gary Mitchell, P. O. Box 1003, Fairfield, Connecticut 06430

Just got my hands on a new Sony SRF-A100 stereo AM receiver. Sony has them for direct order but 47th Street Photo has them now at approx. \$80. Reveiwing the unit gives one the question if it is acceptable as a DXing unit but it really is not that bad DX-wise. The unit is small and in-turn one wonders how they expect to get good audio from a miniature radio; but...anyway...features: AM and FM stereo. Size is about 10 by 1 5 inches. Has two speakers. Volume and tone control. It has narrow and wide AM selectivity switch. Also the AM regular and stereo swtch. It has one switch with two positions. One for Kahn stereo and the other for other systems. Contains AC voltage adaptor jack. A plug for earphones which in turn can be used for stereo taping and running a bigger audio amp and in turn bigger speakers. Conclusion? It is rather impressive how it can take a dull AM signal and give music stereo life and audio quality/it

(Mitchell, cont.)...is a pioneer (not trademark!) receiver so surely improvements will follow with newer models. My DX impression? I was rather amazed at the sensitivity. It is no consumer "sucker" unit. On top half of AM band, sensitivity is impressive picking up all the day DX stations I get on Super-radio-Sony ICF-S5W, etc. Not quite the ability of the real AM DX machine but the sensitivity is there. On the very low part of AM band, I was rather disappointed. I do not get my DX test day stations like WHYN-560 and WPRO-630 and WGNG-550. Just slight audio traces. It could be just an alignment problem. Then I did notice that despite lack of any external antenna jacks that the FM antenna also is a link to AM section. I connected external antenna and I had my WHYN/WPRO/WGNG. For AM DXing sensitivity (I mean exceptional) is not that important so???---but the unit is not bad. The most amazing part of unit liked is the selectivity. Selectivity is excellent. My impression is the unit is really a unique interesting unit and it does have DX potential. With modifications maybe it could be yet improved.---But surely this is only the first of a whole generation of other AM stereo units to follow...I am not an expert at reviewing products but just compare with other radios like ICF S5W and Super-Radio and Radio Shack TRF, etc. It does not equal them for DX but the unit is not a "dud".

Karl J. Zuk, 154 Old Post Road North, Croton, New York 10520

I think I have discovered a new method of ECB DXing. You take a Drake SPR-4 receiver in London, England. You tune it to 963 kHz, connect the output of the receiver to the uplink of the ABC London bureau's satellite, and you listen to Radio Caroline without the need of any trans-Atlantic skip! They have been using the phrase "Caroline on 319" (meters) and seem to be broadcasting from 0200-2100 ELT with non-stop rock n' roll and no commercials. They are using an address in Los Angeles as their mailing address, and are asking listeners to get in their boats and come out and see them. The best part is when the announcers open their microphones; you can hear the turbines of the ship running, and when they have the windows open, you can hear waves breaking against the ship. Their sound is a real mixed bag of all types of rock n' roll, with no tight playlist and lots of personality and personal tastes in music from the jocks. I think they've been on since last Sunday (Aug. 21), and we can hear them whenever ABC isn't feeding news material on the satellite. I have discovered a neat little ECB transmitter for sale. It is a Part 15 unit sold by Fanon, the company that brought you the Courier CB rigs, etc. It is called the "BC-1" or "Babycom", and is meant as a wireless monitor of your infant's activities. It uses an 8 ohm speaker as a microphone (easily modified), and will transmit on 1200 to 1650 kHz or so. I think it goes for around \$25.00 list. It transmits about 5 blocks with its 10 feet of wire antenna. Attaching a 500 foot wire (like those used for ECB DXing) raises the transmitting frequency of the rig (real stable oscillator) and will be heard considerably farther. It is a nice "experimenter's item". I recently upgraded my stinky Delco car radio. I could never get the rig to load properly with the supplied car radio antenna. I called Delco, and they said that I had to remove the fender to change it, so I tried many antenna tuners and matching devices, which would work for awhile but would eventually fail. The antenna cable would constantly fill up with water and eat away the center conductor. It finally rotted away completely, and I bought a new top loaded whip and installed it, letting the old mount fall into the abyss inside the fender. Suddenly I have a real radio in my car again. Considering I have a radio with only two IF cans, I'd say it's working rather well. I have dedicated a pushbutton to the Caribbean Beacon on 1610. I should have done this a long time ago. It also showed me that it is almost impossible to DX on the west side of Manhattan facing the Jersey swamps and 50 kw row. There is so much cross modulation, harmonics, and RF waste that even a SPR-4 (modified) or a Dymek DR-22 cannot cut the cheese between the locals. I'm so glad I live in rural America! Thank you to all who voted for me. '73 and a good DX season.

Bill Gilbert, 26 Terrill Lane, Kings Park, New York 11754

Haven't been able to log any TAs yet. Built a 8' 12' loop with a 1½ turn around Sony 5900w. WLDW-1570 is S4 with this loop. Where can I order PCIM frequency counter? Bought Realistic TRF and would like to install it. I use stereo walkman phones with TRF and DX55. DX55 has a regeneration control now between IPs. Have not heard any new states yet but will probably log one with new TRF and 3½ x 3½ loop. (Bill, welcome to EDXF. Please report often and tell us more about yourself.--rce)

Richard C. Evans, P. O. Box 1294, North Wales, Pennsylvania 19454

A few comments (with hopes I don't get in too much trouble for starting a third page for just myself). I didn't make it to the NRC convention over Labor Day weekend, after all. My wife managed to twist her back resulting in a pinched nerve on Sept. 2nd, and there was no way I could leave her at home alone for two days or take her with me, which was the original plan. Have managed to start off the new season the right way, tho. Had one new station over Labor Day weekend. Did anyone else sense that most stations played oldies over the holidays? Was up early 9/10 for the WEED-1390 N.C. special. It was in weakly for a new station and followed by 8 other new ones by the time I went back to bed at 0800. Those 9 new stations included a new state--S.C. for #31, WCSC-1390 which actually ID'ed for me before WEED did--and a new province--Nova Scotia for #4, CKBW-1000 thru WCFL, but with no splash from local WZZD-990. Also heard was my first Canadian graveyarder. Only problem was that I could hold anything long enough for a report. I'll be setting up a marginal report for WEED-1390, but not enough for a report to any other station. One other thought--I've had the current IRCA Almanac since spring, but this was the first time I had tried to use the charts on the talk shows in conjunction with DX. I was amazed how much it helped me on the stations carrying the Larry King show. Don't forget that by the time you read this, DX Monitor will be weekly again until April. Report often to your local sections! Night classes start here on Sept. 22nd, but I'm still expecting to listen often this season. Gotta run. PTL.

1983-1984 TIP TRADERS LIST

Vol. 3, # 1

Listed here are the phone numbers of DXers who want to be contacted by other members who have hot DX tips. The nature of this tip could be a late-breaking CPC Test, a sunset skip pipeline to a certain area, a usually NSP station off the air, a daytime on late by mistake, for emergency, or testing after midnight, etc. Please call only during the specified calling times, and use the state listing to judge who would benefit most from your tip.

An updated list will be compiled November 1. Get new listings or changes in by then.

All times Eastern Local.

Name	State	Days/times to receive calls	Phone number
Ray Arruda	MA	Seven days 0105	617-998-3958
Ernest Cooper	MA	6 days exc. Wed 01-03, + SSS	617-487-9337
Tony Fitzherbert	CT	SSS	203-336-8959
Paul Mount	NJ	MM	201-836-1137
Joe Fela	NJ	SSS	201-561-1685
Steven Paradies	NJ	SSS	609-825-8212
Jeff Kadet	MD	SSS,MM,SM, others to 02	301-654-1876
Bill Coleman	NC	Seven days to 04	919-443-3551
Dave Fox	PA	SSS	215-373-4400
Dave Whatmough	ON	MM,SM	416-527-0383
Jerry Starr	OH	MM	216-534-1394
Frank Merrill	OH	"NSP" anytime	419-866-8589
Ken Romstadt	OH	MM	419-475-3089
Gary Siegel	OH	"Let ring 3 times or less" MM,SM,SSS	419-726-1405
Bob Walker	OH	SSS	513-874-8289
David Reitz	KY	SSS	502-239-8300
Robert Kramer	IL	MM to 03; all nite SM	312-262-6299
Eric Loy	IL	SSS	217-586-3255
Mike Knitter	WI	MM,SM,SSS	608-423-4159
John Rieger	WI	MM	414-476-3652
Stephen Francis	TN	SSS	615-982-3122
Bill Whitacre	TX	MM	214-343-1433
Don Erickson	CA	MM,SM,SSS	714-687-5910
Albert Lobel	CA	MM 0208,SSS	714-484-0604
Mark Strickert	CA	SM; 21000230 other nites	415-752-4245

MM=Monday morning SM=Sunday morning SSS=sunset skip/early evening.

Updates go to Paul Mount 471 Emerson Ave. Teaneck,NJ 07666



Western DX Forum

★ ★ ★ ★

HRCA—Serving the Broadcast Band DX'er Since 1964

Editor: Ric Heald, 1632 J St., #3, Eureka, CA 95501

DEADLINES 27 SEPT, 11 OCT, WEEKLY TUESDAY THEREAFTER

BILL NITTLER, BOX 724, MEEKER, CO 81641

I kept my promise. Another new location. Came down from Rawlins in mid-July and find the Meeker area much to my liking. Meeker was a semi-boom town a couple of years ago but things slowed down with the oil shale bust. Prediction had been 15,000 population by 1990, but now that's revised to 4200 with current at 2500.

KMKR plays a mixture of light rock and country with s/off 10 PM. KMKR has been purchased by owners of KGLN 980 so don't know if that will change anything.

Western Colorado radio changing with new KRMW 700 due on in a few weeks. KRDZ 1000 lost its tower a few days after coming on (4th of July weekend) and operated on low power for a while but now seems to be back to full power. They seem to go off early some evenings though. V/1 promptly with bumper sticker using green and white Colorado license plate theme for those interested

Two 300-foot hills directly to the west of my house which seems to retard western signals drastically. West Coast stations normally dominant on most frequencies at night. In Southwest Colorado location of Nucla, California was dominant.

Veries include KRDZ 1000, KNUS 710, KTMG 1370 and KSGR 1170.

Sounds like the convention was great. Had planned on being there until job plans blew up in May. How about Grand Junction in 1984, Ralph? 73.

GENE MARTIN, 3303 E. EVANS AVE., DENVER, CO 80210

I wonder how many DX'ers can name the first 50 kw station to take the air west of the Mississippi? Perhaps a good many don't know for the history of that station had a strange twist tending to obscure recent developments. Well, the first 50 kw station west of the Mississippi as well as the first one in the south was WFAA Dallas, which vaulted from 500 watts to 50,000 watts at 9 PM, 10 May 1930, a Saturday night and I remember it well. A live orchestra playing "Pomp and Circumstance" was the first sound heard as WFAA became the sixth 50 kw station in the US. The only other 50 kw stations that night were WEAP New York (now WNBC), WGY Schenectady, KDKA Pittsburgh, WLW Cincinnati and WENR Chicago (now WLS).

The strange twist in the story of WFAA is that it no longer is a 50 kw station; instead now with 5 kw at 570. No other US station has ever undergone and accepted a change of status anything like that.

From 1930 until 1970 WFAA was a half-time station sharing its frequency with WBAP Ft. Worth. The frequency was 800 in 1930 and became 820 in the NARBA changes of 1941. For three or four years in the beginning, WFAA with its 50,000 watts shared time with a 10 kw WBAP.

The change from one to the other at night took place at 9 PM and it was always an impressive thing, when you were far away from Texas, to hear the sputtering WBAP change in a half-second to the super-loud WFAA. Or vice versa if the change went the other way. Late in 1933 or perhaps early '34, WBAP acquired a half-interest in the WFAA transmitter at Grapevine, and thereafter there was no dramatic change to hear at 9 PM. Both were 50 kw stations.

To bring this story up to date, WBAP in 1970 paid a reported \$3.5M to WFAA and became a fulltime station on 820. For its part, WFAA became a full-time station on 570 on the 5 kw station both of them had been sharing time on for more than 30 years. To end this story, the Dallas Morning News, always the owner of WFAA, has purchased KOA from GE, and will again be the owner of a 50 kw station, but this time, a fulltime operation. 73.

FRANK ADEN, 4514 SE 82nd #5, PORTLAND, OR 97266

Good to see everyone at the convention. I wished I could have stayed for Sunday but Bill Frahm and I had to go over to eastern Otegon. I'm going to keep the convention special available to all member on my Oregon Broadcast Guide; \$1.50 per copy postpaid. An Idaho edition is now being compiled and will be out early fall or late summer. When it's out I'll start working on an expanded edition for Oregon.

The convention was at the end of my vacation. First went to Boise then over to Yellowstone where I heard the TIS 1610 West Yellowstone. I camped at Indian Creek (south of Mammoth) where I heard another TIS on 1610 with campground information. From Yellowstone I went down to the Grand Tetons and back into Idaho. There's a TIS on I-86 about 20 miles west of Pocatello with highway construction information. All I heard was an open carrier. I picked Bill Frahm up in Boise and we went on to Alberta and British Columbia. We saw signs for TIS in both Banff and Jasper (several locations) with 1490 for EE and 1230 for FF. None were heard on the air but we did see longwires along the highway near the signs. The 1490 and 1230 TIS was noted on the air in Glacier National Park (Canadian side - BC).

For those of you who have a VIC-20 Computer, take a look at the August issue of Compute's Gazette. On page 75 is a program that computes the distances between and degrees from north on two locations. An excellent program for DX'ers needing angle bearings for loop antennas. 73.

RANDY TOMER, 2254A HOEN AVE., SANTA ROSA, CA 95405

Howdy. Well, we've moved to Santa Rosa and it looks like I have been reduced to being a student again. I'm doing school for one year, learning to be a mechanical engineering draftsman. Looks like a good deal as there are only seven students in the school maximum and so far there's been 100 percent job placement for the graduates. With a couple of JC courses I will be able to diversify this into cartography and electronics drafting, so the future employment picture looks rosy.

Because we are renting a three-room cottage there's little room for a DX shack inside that will be safe from my two-and-a-half year-old daughter, so it's out to the backyard where there's a shed that might be usable. It's only good attributes seem to be having a concrete floor and a roof that doesn't leak, but it will have to do. An alternative will be to use the '67 VW DX'mobile as a shack. Haven't tried DX'ing here yet. . . haven't had the nerve to yet, hi, as I've never been in a place with so many locals. (You've been spoiled rotten in Humboldt, Randy. Good luck, hi-RtH.)

In preparation for the move down here I sold my HQ-180A, something I may live to regret, as it was the best BCB and low bands SW receiver I've ever used. I'm in the market for a clean Drake R-4C; anyone got one for sale?

The big news here at the new QTH is that I'm living only about five blocks from veteran ace foreign BCB DX'er Hank Wilkinson. Small world. We used to correspond quite frequently back in the late '70s when we were both heavily into foreign DX (and back when good conditions allowed you to get totally into foreign DX, hi). Will be good to meet him in person.

Ric, I've decided that I'm going to bring the HEAVE'S name down here with me, so you will have to quit using it from now on, hi. The HEAVES name now stands for Heard Everything Association for the Verifiers in Sonoma (county). So far, it's Hank and I as members, but of course, membership is open to anyone and the usual chaotic rules will apply. (That still leaves us Wally and I with Extreme Northern California and Oregon Radio Enthusiasts, hi-RtH.) 73 de RET.

MARK BIXBY, 1627 HIGHLAND DR., NEWPORT BEACH, CA 92660

Hello. The biggest shock of my DX-life arrived in the mail yesterday (29 August). It came in the form of a QSL letter from KRVN for a reception report that I sent six-and-a-half years ago! The letter appears to have been created using a XEROX machine and a KRVN 880 bumper sticker which was cut in half.

The verie signer appears to be R.J. Bitner or Brtiner, CE. The return address on the envelope (Box 880, 68850 -- yep, that's all) differs from the one listed in the '82 NRC Log.

This verie easily beats my previous longest-reply record by a couple of years. To top it off, the envelope was postmarked on 27 August in Atlanta! It sure is nice to see that our hard-earned tax dollars move the mail in this kind of distance-efficient manner, hi. It should be interesting to see how many more forgotten KRVN veries turn up in the next few weeks. 73. (Mark, Gene Martin's forum took 18 days and had a San Diego postmark!-RtH.)

BILL HARDY, 2301 PACIFIC AVE., ABERDEEN, WA 98520

A recent trip to eastern Washington took us close enough to Ephrata, population 5440, to check out the two "new" stations there. KULE 730 and KTBI 810.

For years, Ephrata had just KULE 730 with a typical small-town MoR or pop format. Other nearby stations were in Quincy and Grand Coulee and Ephrata listeners could also get AM stations from Moses Lake, Wenatchee, Takima, Tri-Cities and sometimes even Spokane or Seattle.

Tom Read of Spokane, whose hobby is old-time radio, bought KULE a few years ago and turned it into a religion-oriented-and-nostalgia station, changing its calls to KTRQ. Read Broadcasting also added KTRM 95.9 Ephrata, KTRW 97.7 East Wenatchee and a smattering of FM translators. Most programming on this

"network" is paid religion, with blocks of old-time radio shows, big bands and classical music. NBC news on the hour is followed by weather from the 162 MHz Weather Service broadcasts, but no news department that I could discern. The whole thing is somewhat overproduced and hokey. Audio quality sometimes resembles a cheap cassette. I suspect the Ephrata stations are fed via phone from Wenatchee with some programs originating at Read's home in Spokane! (Oh brother, hi-RtH.)

I noticed in 1982 that KTRQ 730 was overmodulating, probably trying to reach Spokane 100 miles away with 1 kw. Read applied for and was granted 10 kw daytime on 810 kHz. Until this summer I understood it to be a CP for change of frequency from 730.

The suddenly, KTRQ applied for its former call sign KULE and a "new" station on 810 applied for KTBI. Evidently Read made arrangements to sell the 730 outlet. KTBI gets out well compared to 730, but ironically is partially blocked in Spokane by KJRB 790. KTBI format is identical to the former KTRQ 730 but I don't understand why Read wanted the KTBI calls. They've dropped CBS "RadioRadio" network, so correct your Almanac.

The new "old" KULE has a pop music format, no network, uses the "73" slogan heavily. Their format and audience are so different from KTBI that they may be rivals, but not real competitors. 73 and good DX.

ALBERT S. LOBEL, P.O. BOX 26762, SAN DIEGO, CA 92126 (619) 484-0604 or (619) 566-0092

Not much new here. I just want to thank whomever it was that placed the one vote for me for the BoD. Thanks much. However, I cannot accept nominations for the BoD due to my busy work schedule; I just wouldn't have the time to do a satisfactory job. Next time someone wishes to nominate me for a position in IRCA, please call and ask me first.

I do have to work today, so until next time, 73 de ASL.

(Due to an ever decreasing demand - zero - we once again bring back the world famous - well, King County - it's time for JAISUN'S JOURNAL. . .clunk)

JEF JAISUN, 12860 136th AVE. NE, KIRKLAND, WA 98033

"Dear Diary: Well, it was close. . . I only lost by 18 votes. It must have been the Tweedle-Dee/Tweedle-Dum dance Phil and I did at the convention auction. . . he's got more natchul rhythm than I do. Gosh, how I hate those face-to-face debates. Oh well, there's always the Washington governor's stakes in '84. I only lost the '80 race by 300 KV (kilovotes). Signed, Bridesmaid. Er-wait a minute. That doesn't sound right. Make that Grooms-butler." (At least it's been "revisited," hi-RtH.)

In reality, my congratulations to Phil for being elected IRCA President. I look forward to seeing our club progress under his leadership and I'll do everything I can to lend him a hand. Also, congrats to the new board members and to Rich "Beverage Wire" Segalas for taking another stab at minding the purse strings.

As for bp and that TVA. . . so, Bruce, you say you've got wall space? Ha. I've seen the walls of your DX shack. Better you should find a safe spot for the plaque next to Evelyn's chocolate chip cookies, hi. Given the demand for the cookies, your guests will have plenty of opportunity to view the award.

Moving along to another subject: KTBI 810 was heard here for the first time this week. It comes in like gangbusters late in the day and considering they run old radio shows there's a possibility they may, in fact, come in like Gangbusters one of these days.

Now for the irony. Guess who owns KTBI? None other than Tom Read of Read Broadcasting (ex-KQIN 800). Anybody remember Tom Read? He's one of the hardcores of the Daytime Broadcasters Association, the same guy who once wrote to me that he had to sign off KQIN at sunset because of KGO. Needless to say, I straightened him out on that, but don't you figure it's a bit odd that he now turns up with a daytimer on 810, having just dumped one on 800? What, dear friends, do you think his next move is likely to be? Would you guess an application for fulltime nights with, say, 1000 watts? Personally, I think the guy has a vendetta against KGO and would like nothing better than to stiff their nighttime signal in the Pacific Northwest. Remember, he could have applied for 820, 830, 1200 or even 660 and gone fulltime right away. I tell you this much (as bp pointed out to me on the phone last night): IRCA would be back in the Wedge loop business toot sweet and in a big way. (OOOHHHH NNNOOOO!) (Stay tuned in two weeks dear readers for the next installment of. . . Jaisun's Journal - Part II-RtH.)

RIC HEALD, 1632 J ST., #3, EUREKA, CA 95501 (707) 443-1685 M-F 9-6 and (707) 443-2704 SAT 9-2

Howdy. First to explain lack of column last issue. There weren't any forums! Second, my thanks to all who voted for my re-election to the BoD and for the TVA award. Again, I will try to serve the membership to my best ability in the upcoming two years. Always feel free to drop me a line or voice your

opinions in a forum.

Jef, if Read thinks he'll get fulltime on 810, he's not aware of the potential battle. KGO makes Arbitron in Seattle and Portland (and Eureka) and remember, is ABC 680 and I think those New York lawyers will keep Read from doing much of anything, except maybe apply to be returned by the FCC.

Jetted off to Hawaii for the weekend of 26-28 August to the island of Kauai (Poipu Beach) courtesy of another familiarization trip, getting home the morning of 29 August. Took the TRF equipped with the homemade shotgun antenna.

Was in a huge resort hotel, three wings, each four stories, I would be in middle wing low floor. Took TRF onto the lanai and did a midday bandscan. From the westernmost island in the chain, all Hawaiian stations present and accounted for. Curiously, KMVI 550 was the weakest. You'd think considering the frequency they'd boom in. And, oddly, KONA 790 boomed in and they're considerably farther from Kauai than KMVI.

Nighttime was a chorus of TVI and light dimmers. If I took the radio on the beach away from noise there was no light, so again from the lanai noticed KSL, KDAY, KFI, KGO and several other signals, mostly the clears. Was puzzled by the total lack of hits from the South Pacific; not a one.

I was surprised at the fact with all those C&W stations in Hawaii and a population of just under a million that KDEO 940 is the only C&W station. KIPO 1350 makes an attempt. Their format is a curious "blend" of C&W, soft rock and Hawaiian music. The only other station on the island, KUAI 720, is still the usual teenage level rock.

There's some irony in that just over a year ago I moved here from Santa Rosa and now Randy's down south there. Yes Randy, you'll be very frustrated with DX conditions down south. I've gotten really spoiled here. I scream because KATA 1340 is now NSP, the only one in the area that's AN even.

Typing Gene Martin's forum reminds me. Didn't we have an Old Time Radio column of some sort? Sure would be good to have a feature like that on some sort of regular basis, i.e. once monthly. Until such a time, keep 'em coming Gene.

There's been no mention locally in the unTimesly subStandard re the two applications for this area on 1160 and 1200. In fact, nobody in Ferndale knows anything about it, and no one I've talked to at KATA or KRED knows anything about the 1200 one for Eureka. Strange.

Well, that's it this time around. Good column and cross section. We're now bi-monthly with the weekly issues just around the corner. Maybe I'll even DX before the next issue, hi. '73 de Rth.

Texas Radio Station Spins to the Beatle Beat

Washington Post 7/30, via Greg Monti

By Steven Reddcliffe

Dallas Times Herald

HOUSTON—All Beatles. All the Time. Twenty-four hours a day, songs by the Beatles, songs by ex-Beatles, Beatles trivia, Beatles history. They call it "KBTL, Beatle Radio Number Nine."

KYST-AM, as it is still officially known, became the world's first all-Beatles radio station on May 9. What does an all-Beatles radio sound like?

It sounds like:
"I Should Have Known Better," "Blow Away" (George Harrison on his own), "Getting Closer" (Paul McCartney on his own), "Octopus' Garden," "Here Comes the Sun."

And: "Please Please Me," "I Don't Want to Spoil the Party," "We Can Work It Out," "Help!"

And: "I'm a Loser," "Rocky Racoon," "Power to the People" (John Lennon on his own), "She Loves You" and "In My Life."

And: "Penny Lane," "Ain't She Sweet," "Goodnight Vienna" (Ringo Starr on his own), "Eleanor Rigby."

Before it became an all-Beatles station, KYST (920 on the radio dial) played Top 40 pop songs.

The ratings were not good (the higher the ratings, the more a station can charge for commercial time), and so a change was considered. Todd Wallace Associates of Phoenix, a radio consulting firm, recommended the all-Beatles approach, and KYST managers agreed.

"I think some innovations are necessary for stations like ours in a market where FM is so strong," says station owner Roy Henderson.

Initially, he had his doubts. "My opinion was that it was really a bad thing—a year, year and a half, two years."

Now, he says, "I see it's a format that can be sustainable, like country. As long as they want to hear it, we'll play it. And I think they'll want to hear it for a good long time."

Says Cat Simon, the morning disc jockey and station operations manager: "This isn't something people would listen to 24 hours a day. The whole basis is, anytime someone wants to hear a Beatles song, this is where they'll come."

And, he says, if enough people listen for three or four songs several times a day, the ratings will go up.

Like Henderson, Simon was skeptical when the format was first proposed. After giving the matter some thought, however, he concluded there was enough musical variety to keep listeners interested.

"I had always been a big Beatles fan myself," he says, "and I realized they went through so many stylistical changes—Ringo would sing a country song, John a hard-driving rock song, Paul a ballad. They were offering so many musical textures. It wouldn't sound like 'I Want to Hold Your Hand' over and over."

The station is currently playing more than 500 songs, says Simon.

Part of the station's appeal is nostalgia, he says. "People call in and say what they were doing when they heard their first Beatles songs."

When the station plays songs such as "If I Fell" and "Yesterday," he says, "We have lots of ladies calling up in tears, they're so moved by the memories."

"It's also an educational appeal. We have a lot of teen-agers who are hearing the Beatles for the first time."

During a recent Simon morning show, he played "Please Please Me," "Hey Jude," "I Want to Hold Your Hand," "I Fell," "Rain," "Can't Buy Me Love," "Ticket to Ride" and "Girl."

In addition to the songs are various recorded features, including Beatles trivia; when the day I visited was about Paul McCartney's recent trip to a barbershop, where he waited his turn. Then there is "The Continuing Story of the Beatles," the chapter I heard being about the birth of the Beatles haircut.

There also are various recorded slogans for the station, such as "Close your eyes and you're 18 again," designed to underline the station's oldies appeal.

It's a format that wouldn't work with other groups or performers, Cat Simon says.

An all-Elvis station? "You'd hear 'Teddy Bear' and 'Love Me Tender' and 'Jailhouse Rock,' but after a while you'd get tired of it, hearing the same voice over and over."

An all-Rolling-Stones station? "They've been around long enough to have a lot of songs," Simon says, "but I don't think it would have the same effect. There was never Rolling-Stonemania."

EASTERN DX ROUNDUP

Bob Lazar

11 011 Becontree Lake Drive, #410
Reston VA 22090

Deadlines: Saturdays 9/24, 10/1, Firday 10/7, Saturdays 10/15, 10/22, 10/29

- 710 CJRN ON Niagara Falls, 8/16 0116 very good w/ ID, MoR mx. O/ WOR. (RSR)
730 CHYR? ON Leamington, 8/16 0120 very good w/ ID & rock mx. Mixing w/
unid SS stn. (XEX?) (RSR-ON)
920 CKCY ON Sault Ste. Marie, 8/11 0220 good w/ top 40 mx, ID, ads. (RSR)
960 CFTJ ON Cambridge, 8/7 ID, sports, into C&W mx. (RSR-ON)
1150 WCUE OH Cuyahoga Falls, 8/11 0250 good w/ ID by m & promo. CKOC
silent. (RSR-ON)
*CKOC*ON*Hamilton, 8/11 0250 very good w/ testing. Tone. (RSR-ON)
1240 WJTN NY Jamestown, 8/11 0327 good w/ ID, wx, sports. (RSR-ON)
1450 WDAD PA Indiana, 8/15 0055 fair w/ s/off, ID by m DJ. (RSR-ON)
1490 WMPX MI Midland, 8/11 0408 fair w/ m w/ ID & city in pileup. (RSR)
WAEJ MI Adrian, 8/15 0100 good w/ ID, into ABC mx. (RSR-ON)
1550 WKVI TN Clarksville, 8/5 0349 very good w/ EZL mx, ID, ads, "Nix
strictly for lovers." 8/6 0359 good again. Have they in-
creased power? (RSR-ON) (Not that I know of.--ed)
1600 KATZ MO St. Louis, 8/2 2148 good w/ ads, mx, ID by f DJ. (RSR-ON)
WAAM MI Ann Arbor, 8/5 0342 very good w/ ID, local ads, back to Larry
King. (RSR-ON)

Eastern DXer

RSR - Robert S. Ross, Box 4373, Stn. C, London, ON N5W 5J2

This last week I received a verie (xerox) from KRVN-880 from October 26,
1976 ... almost seven years later! It was signed by good old R. J.
Bitner. So remember, don't give up hope on those veries! 73.

*KRVV goes on the air
bright and early
this coming Monday*



All the problems have finally been solved, and Vail's new AM radio station, KRVV, will officially sign on for the first time and begin broadcasting at 6 a.m., Monday, July 25.

The station has had the necessary approvals to go on the air since last fall, and owners of the station had hoped to be broadcasting more than two months ago. But a "dead spot" in the station's reception in the Vail Village area forced a postponement until the problem could be fixed. Station general manager Colleen Kline said the dead spot problem was caused by granite in the mountains between Vail and the station's broadcast tower in Minturn; the problem has been solved by installing a 250-watt booster near Ford Park.

"It's a little anticlimatic," Kline said of finally getting KRVV on the air, after several postponements. "But it certainly feels good."

KRVV, "Radio Vail Valley," is a 5000-watt station with an assigned frequency of 1360 on the AM dial. KRVV's signal will be heard from Vail Pass to

Vail Trail 7/23/83
via Ted Fleischaker

Eagle, and as far south as Leadville. It will broadcast only during daylight hours, at least during its beginning stages.

KRVV program director Fred Moore describes the station's music format as "adult album radio." He said that term means "a certain tempo and texture of music" that will include commercial jazz, cross-over country, oldies, and contemporary hits.

KRVV is an affiliate member of the Associated Press radio news system; AP news reports will be heard on the hour. Local news will be handled by Rich Teeters and Maro Selby; it will be broadcast at five minutes before each hour in the morning and afternoon. Selby will also do a five-minute "community news magazine" called "The Public Affair" that will be broadcast three times a day. Weather reports will be done by Colorado meteorologist Sunny Roseman. Listeners will hear Teeters

doing the morning disc jockey job, Moore will work during the mid-day, and Mark Welby, formerly of Steamboat Springs, will work the last shift, ending at 8 p.m., when KRVV goes off the air.

KRVV is owned and operated by Mountain Wireliss Limited, a Colorado corporation. Officers and directors are former Vail Mayor John Dobson; G. Lane Earnest, a Boulder attorney, Robert Greenlee, a Boulder broadcaster; and Kline, a former town clerk for the town of Vail.

KRVV's studios and offices are located in the Glen Lyon Office Building on the South Frontage Road west of Lionshead. Operators of the station are inviting the public to visit the studios during the station's premiere week.

WESTERN

Nancy Hardy

2301 Pacific Avenue
Aberdeen, WA 98520

DX ROUNDUP

All times are
Eastern Local

Phone for hot WDXR tips: (206)532-6827 till 10pm(FLT)--no collect calls
DEADLINES: Tuesdays 9/27, 10/4, 10/11, 10/18, 10/25, 11/1, 11/8, 11/15

REPORTERS FOR THIS ISSUE:

- (AD) Alan Davidson-8121 E. Balfour Dr.-Tucson, AZ 85710
'63 Ross-Supreme portable & GE 7-2950 5 band portable, both without external antenna
- (NH) Nancy Hardy-2301 Pacific Ave.-Aberdeen, WA 98520
FRG-7, SM-1
- (JH) Jim Hilliker-1502 E. Hedgewood Ave.-Anaheim, CA 92805
Kenwood R-1000, Radio West loop
- (EH) Ed Hoffman-P.O. Box 125-Burlington, WA 98233
IC-R70, Sanserino loop
- (PM) Pat Martin-P.O. Box 843-Seaside, OR 97138
SP-600JX, Beverage
- (RM) Roy Millar-7420 57th Dr. N.E.-Marysville, WA 98270
DAK3, FRG-7, Grundig 5077, SM-1, SM-2, 42" loop, 300' longwire
- (DN) Doug Nyholm-2071 Cedar St.-San Carlos, CA 94070
FRG-7000, 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
Lafayette KT-320, Kenwood R-1000, 2' spiral loop

OF SPECIAL INTEREST:

- 750 KERR MT, Polson 9/4 2313 & 9/5 0139. Freq. change, ex-1070. Tent. logged o/KXL at 2313 w/"Kerr" ID, definite at 0139 way o/KXL in KCBS null w/promo, ID "...your friends at Kerr Radio," this one popped out of nowhere! (RW-CA)
- 1020 *KYXE* WA, Selah first hrd Fr 9/9 running an ET, non-stop Willie Nelson live album. Per call to station, Mon. 9/12 will be their first day of regular broadcasting, w/country format. 5kw days directional, nulling the northeast, 500 watts nondirectional nights. Potent here on 5kw, but very weak later on apparent 500 watts. (PM-OR)
- KYXE +9/13 1259 ABC Direction (?) nx, 1302 local ad, 1303 wx, 1304 country mx. 1307 promo for premiere of "Party Line Show" 11-noon on Mon. 9/19, many call letter ments. Poor through usual neighborhood static. Probably first day of RS--had checked 9/12 2100, but still testing w/TT. Thanks for phone tip, Pat! (NH-WA)
- *****
- 530 (KGT822) WA, Seattle-Tacoma Int'l Airport hasn't been hrd at my home location for some time; was at the airport Labor Day and found no sign of same. Will watch for them when inclement wx may affect airport operations. (RW-WA)
- 540 CBK SK, Watrous 9/2 0305 very good reception tonight. Complete s/off after nx, listing all relay transmitters as well as Watrous. Mentioned studios in Regina. Ended w/"O Canada."(JH)
- 550 *KARI* WA, Blaine 8/3 0410 noted on rare ET w/TT, OC. (EH-WA)
- 560 KMOM MT, Great Falls 8/18 0353 fair w/C&W mx, nx, ads. KPQ off.(EH)
- 600 KXSX CA, Redding 8/27 1300 finally hrd after trying for a long time. Many ads and K-six-0 IDs. Weak signal but good for 10am local reception. (DN-CA)
- KSJB ND, Jamestown 8/17 0356 briefly in CJOR fade w/ID, C&W mx.(EH)
- 660 KSKY TX, Dallas 8/29 0711 poor, fluttery in KBOI null w/local nx, while looking for WESC.(RW-CA)
- +9/7 0700 Lord's Prayer, s/on, transcription report, 0706 nx, "Your Sky Station." Good signal. (ØW-CO)
- 670 (KBOI) ID, Boise 8/29 0236 noted totally off. (RW-CA)
- 680 KWKA NM, Clovis 8/21 2226 "El Paso," other C&W mx; YL DJ. Good sig, alone on freq. (ØW-CO)
- 690 KEYR NE, Terrytown 8/21 0924 "Hymn Time Country Style," canned ID 0959; alone on freq. until KRMX s/on (0929), then KRMX nulled. (ØW-CO)
- CBKF1 SK, Travelbourg 8/17 0757 good w/class. mx, FF talk. XETRA nulled. (EH-WA)

720 (KDWN) NV, Las Vegas MM 9/5 0505 noted off the air. WGN was in like a trooper, w/classical mx, ID's. (JH-CA)

730 KDAZ NM, Albuquerque 8/30 2344 ID "KDAZ Albuquerque, the Christian sound and pulse of the great Southwest," relig. program to 2358 s/off. KLOE nulled, slight XEX QRM. (ØW-CO)

KBOY OR, Medford 8/29 0901 fair at s/on in KCBS null w/ID "KBOY AM and FM," so hasn't changed calls to KRVC yet. (RW-CA)

KULE WA, Ephrata 8/25 2243 xlint w/ID, rock and C&W songs. Ex-KTRQ, KTBI-810 is new station. (EH-WA)

(CKLG) BC, Vancouver 8/29 0428-0700 noted totally off at times, other times w/OC/TT. Very weak FY-like mess on freq., nothing ever fading up. Probably a coupla LA's, CKAC/GJNR/CHFR in there? (RW-CA)

740 KTOX ID, Boise 8/13 0815 good w/"K-Talks" and "Talkradio--74" slogans into ABC Talkradio. (EH-WA)

CBL ON, Toronto 8/19 0516 very good w/EZL mx, "CBC Toronto" ID. (EH)

800 CHAB SK, Moose Jaw 9/5 0458 poor w/CKOK/XEROK in KGO null w/ad ment. "...in Regina," jingle ID, rr, lost at 0500. New. (RW-CA)

840 WHAS KY, Louisville MM 9/5 0645 very loud, haven't hrd it this good in some time, ad for Ford dealers in Kentucky. (JH-CA)

860 WDMG GA, Douglas 9/2 0530-0536 a real shocker! XEMO off, was looking for KKOW again. OM voice faded up, "...on W-D-M-G," noisy but OK, then mx "Battle Hymn of the Republic," faded under "...join me every Thursday night for Bulldog Hotline, the Georgia Bulldogs, on W-D-M-G in Douglas." Ment. every Thurs. at 7:06pm, WDMG AM and FM. DJ gave TC, "69° at 5:33," C&W mx, faded, then up at 0536, poor, ad by YL, then gone. New. Good things happen when least expected. (JH-CA)

KKOW KS, Pittsburg 8/26 0430 OM giving sports scores, Royals, Cardinals, mentioned that Missouri teams were doing well (stn about 1 mi. from MO line), gave ID, promo for Bluegrass Festival, nx, ment. Pittsburg. Fair, but noisy. C&W mx. New, stn #4 from Kansas. (JH-CA)

KWHO UT, Salt Lake City 8/31 0831 s/on. Sept. s/on time should be 0915. (RM-WA)

CFPR BC, Prince Rupert 8/31 0827 s/on utterly in the clear; lists only the following AM relays: Stewart, Alice Arm, Terrace, Kitwanga, Hazelton, Kispiox, Gran Isle and Ft. St. James. (RM-WA)

CJBC ON, Toronto 9/2 0600 very noisy, YL in FF w/s/on, ment. Toronto, CBC and Radio Canada, mx. Faded quickly. Poor. New. (JH-CA)

890 WIS IL, Chicago 9/2 0430 fair to good w/pop mx, YL DJ Terry Ryder. (AD-AZ)

900 KPBA TX, Floydada 8/22 0700 s/on by OM; fair at best in QRM. (ØW-CO)

910 KURY OR, Brookings 9/2 s/on 0900 nicely in clear during KKSX fade, but soon buried. (RW-WA)

920 KOLO NV, Reno MM 9/5 0651 faded up w/clear ID, pop mx, o/u KORK, fair. New. (JH-CA)

KXLY WA, Spokane MM 9/5 0444 KHJ off for testing, so no QRM except for KORK. Clear w/wx for Seattle, oldies, Four Seasons "on KXLY." Fair. New. (JH-CA) (100 lashes w/the stiff penguin flipper, John. You listed this as Seattle! The wx was probably for Spokane?--NH)

930 *KHJ* CA, Los Angeles 9/5 0319 w/TT in KSEI null, o/KAGI. (RW-CA)
 +MM 9/5 0430-0800 noted w/OC and testing w/various tones. Probably their PoP. (JH-CA)

KSEI ID, Pocatello MM 9/5 0432 nulled KHJ's carrier down enough to get fair signal. Pop mx faded up, many good IDs, 0435 "on the Valley's best, 93 K-S-E-I." New. (JH-CA)

KVGM WA, Yakima 9/4 2215 s/off. Identifies as Yakima; apparently U2 CP not on. (RM-WA)

940 KIXZ TX, Amarillo 8/30 0500 good thru KFRE OC w/ID into Ai nx. (RW)

950 KJR WA, Seattle 8/23 0500 XE3M off for about an hour. Good signal, ID "K-J-R, Metromedia for Seattle," into rock mx. New. (JH-CA)

960 KNND NM, Farmington 8/21 2149 anncr. in Navajo language; "Take this Job and Shove It," other C&W tunes; slogan is "K-Indian," 2200 s/off in EE. KOOL QRM, KIMN-950 splash. (ØW-CO)

970 KVIM CA, Coachella 8/27 on top w/Dodgers BB 2216-2400w/ID as "The new 9-70, where the best is yet to come." KVIM call however not heard. (DN-CA)

KNUU NV, Paradise 8/21 2330 ID, Mutual nx; QRM from XEJ, others. (ØW-CO)
 +8/27 hrd w/Angels BB 2216. Very poor w/interference from everywhere. (DN-CA)

990 KTKT AZ, Tucson MM 9/5 0519 nulled XECAL OC, fair clear ID, wx for Tucson, beer ad. New. (JH-CA)
 KKIS CA, Pittsburg AN again, off MMs, has had a nightly 0300-0800 SP. (RW-CA)
 CBW MB, Winnipeg 8/21 2300 CBC nx, sports; 2315 "Sunday Side Up." Good sig in QRN. (ØW-CO)

1000 KRHS AZ, Bullhead City 9/5 1005-1030 YL DJ, wx for Col. River Valley, "David Bowie and Let's Dance on KRHS," many Budweiser ads, very strong signal, but noisy. (JH-CA)
 ?KRHS?+8/27 2230 weak w/possible s/off. No SSB?? (DN-CA)
 KOMO WA, Seattle 9/5 0345 fair w/C&W and pop mx, Ai nx at 0400. AN on MM for 3-day holiday weekend. (AD-AZ)
 +9/5 AN for telethon. (RW-CA)

1020 KDKA PA, Pittsburgh 8/27 0457 very strong in KTNQ null w/talk show. Not hrd in a while. Thought it might've been KYXE (Selah, WA), but I don't think they're on the air yet. (RW-CA) (They're on now. See "Of Special Interest" at beginning of column.--NH)

1030 KTWO WY, Casper 9/5 AN for telethon. (RW-CA)
 1050 CKSB MB, Winnipeg 9/5 0701 good at s/on in XEG null, into FF mx. CHUM poss. in background. XED now has nightly SP, hours unkn., opening up 1050, especially after CKAL's s/off 0500 MMs. Was looking for WHN! (RW-CA)

1080 KWIJ OR, Portland MM 9/5 0545-0600 ID 0552 "10-80 AM is country music in Portland, K-W-J-J." Loud & clear, hardly any splatter from KNX-1070. 0600 SID "KWIJ, Portland." C&W mx. New. (JH-CA)
 (KWIJ)+8/25 0411 totally off on rare SP. (RW-CA)

1090 KKBB CO, Aurora 8/8 0504 fair u/XETRA OC w/AP nx, IDs, MYL-type mx. (EH-WA)

1110 KBND OR, Bend 8/27 o/u KRLA 2318 w/Emeralds vs Phillies minor league BB game and local ads. (DN-CA)
 CHQT AB, Edmonton 9/5 0233 EZL mx, OM anncr. Fair sig in KFAB null. (ØW-CO)

1170 KVOO OK, Tulsa MM 9/5 0420 good w/ID, wx for Tulsa, faded out, then hrd KLOK, then up again. No sign of KCBQ. (JH-CA)

1180 KOFI MT, Kalispell 9/2 0530 fair w/KNWZ-1190 QRM. ID. Is this still 10kw? (JH-CA)

1190 KNWZ CA, Anaheim 8/26 0100 way u/KEX w/nx. (DN-CA)
 (KEX) OR, Portland 8/25 0450 noted totally off. Weak stn w/C&W mx here. Probably CFSL. (EH-WA)
 +8/26 0505 totally off, KNWZ/KLIF in. (RW-CA)

1200 KPNW ND, W. Fargo 8/17 0745 good o/WOAI w/nx, sports, into hymns. (EH-WA)
 WOAI TX, San Antonio 8/29 0419 noted w/OC. (RW-CA)

1210 WCAU PA, Philadelphia MM 9/5 0416 fair to poor, noted w/Best of Larry King Show. Much KNWZ-1190 splatter. (JH-CA)

1250 WREN KS, Topeka 9/2 0440 KTMS quite a pest, every once in awhile WREN ID would sneak through, but can't get rid of KTMS enough to get good signal. (JH-CA)
 KIKC MT, Forsyth 8/21 0900 AP nx; 0905 C&W mx w/DJ Ginger Lee. Good sig, KNEU nulled. (ØW-CO)
 KKFY WA, Seattle MM 9/5 0400 ID through KTMS tone, "K-K-F-X" by YL, then OM w/mx, "From California to Canada...(faded)...the Fox, the Northwest's proudest music, 1250, K-Fox." Into Hall & Oates song. Poor to fair. New. (JH-CA)

1260 *KYA* CA, San Francisco 9/5 0312 w/TT. (RW-CA)
 KVSF NM, Santa Fe 8/29 0200 s/off annct. Good sig, dominant here. (ØW-CO)
 KPOW WY, Powell 8/8 0700 good at s/on into Ai nx, C&W mx. F/c listed for this time, not noted. (EH-WA)

1280 KBRQ CO, Denver 9/5 0557 good w/local nx, AP nx 0600. New. (AD-AZ)
 KDYL UT, Salt Lake City 9/5 0530 fair w/Mutual nx, then into Larry King Show. New. (AD-AZ)

1300 KPMO CA, Mendocino 8/27 2252-2308 really in a mess w/few anncts. & "KPMO Country Gold" ID w/C&W mx. (DN-CA)
 KACI OR, The Dalles 8/24 0925 fair mixing w/KMPS w/rock mx, IDs.(EH)

1310 CHLW AB, St. Paul 9/3 0500 w/"Radio LW" ID nicely atop KDIA/KEIN, but soon disappeared. (RM-WA)

1340 CIBQ AB, Brooks 8/29 0552 freak fade-up in KMAK/KRAM null, lost to KATA/XEAA. Talk on Calgary/Winnipeg CFL game on Sun., promo to hear "Stampeders football here on the Calgary Stampeders football network." ID as "??-thirteen," slogan listed in a Radio-philles bulletin as "Q-13," only affiliate listed on 1340 in 1983 Stampeders network. 2nd Canadian GY logged here, farthest GY on RS. Are they // CKDQ-910? (RW-CA)

- 1350 WSMB LA, New Orleans 8/30 0432 very good o/KABQ/KIDN/KRLC w/ID.
(RW-CA)
- 1360 KAMT WA, Tacoma 8/26 0100-0106 w/NBC nx then into phone talk show.
(DN-CA)
- ?WGEE? WI, Green Bay 8/22 0700 assumed the one w/NBC nx & partial ID.
(EH-WA)
- 1450 *KFLT* WY, Rock Springs 8/2 0352 good o/KAMT w/wx, ID into rr mx. (EH)
AZ, Tucson 8/31 0510 noted w/TT's, ID at 0520. Back on RS at
0530. (AD-AZ)
- 1460 KENO NV, Las Vegas 8/28 0200 ID "K-E-N-O Las Vegas, where every song
is a winner." KSO, XEYC QRM. (ØW-CO)
- 1470 *KAPS* WA, Mt. Vernon 8/1 0520 noted on rare ET w/TT. (EH-WA)
- 1480 KGCX MT, Sidney 8/12 0500 briefly noted at s/off. (EH-WA)
- KAAR WA, Vancouver 8/26 0055 w/local ads & Portland Beavers vs
Vancouver baseball. Ad for Wash. St. Cougars on KAAR. (DN-CA)
- 1510 KDJQ AZ, Mesa 8/29 1015 good but fadey w/PSA, full ID, then into
pop mx. Went off in middle of a song at 1018. New. (AD-AZ)
- KCCV MO, Independence MM 8/29 s/on 0700 and logged in & out until
0740. Assume 500 watts/PSA prior to 0630. (RM-WA)
- KZZI UT, West Jordan 8/29 0830 finally hrd after several tries at
s/on o/u KGA in KHTT null w/SS-accented OM "Good morning,
KZZI..." s/on in EE and SS, straight into ranchera-type mx,
lost by 0833. They must null this direction. (RW-CA)
- ?KZZI? 8/18 0838 assumed the one w/SS mx u/KGA. (EH-WA) (KZZI was hrd
by RW 8/29 w/ranchera mx & EE anncts. Could also be KNSE.--NH)
- 1520 WAUK WI, Waukesha 8/22 0710 fair w/"K-15" ID, talk by YL DJ. (EH-WA)
- ?KYXI? OR, Oregon City-Portland MM 9/5 0315-0325 tent. u/KACY; faded
up for awhile w/CNN nx format. (JH-CA)
- 1550 KRGO UT, West Valley City 8/31 0832 fair w/C&W mx, wx 0845, slogan
"Kargo Kountry." New. (AD-AZ)
- 1560 WPAD KY, Paducah 8/9 0628 fair w/C&W mx, ID into local nx. (EH-WA)
+9/5 0455 good, alone w/ID. (RW-CA)
- 1590 KLIV CA, San Jose 8/1 0410 good u/KJET OC w/IDs, MYL. (EH-WA)
- KBBQ CA, Ventura-Oxnard 8/16 0658 fair u/KLIV w/local nx into NBC nx
on the hour. KJET off. (EH-WA)
- KRRK MN, E. Grand Forks 8/1 0405 fair u/KJET w/"Double R Country"
slogans by YL, C&W songs. (EH-WA)
- KTIL OR, Tillamook 8/24 0900 fair at s/on w/ABC nx, local nx. (EH)
- *KJET* WA, Seattle 8/1 0400 noted playing "Home on the Range" in TT.
Interesting variation, hi. (EH-WA)
- 1600 KBBX UT, Centerville 9/7 s/on 0800 but soon lost in mud. Assume 500
watts PSA; don't think U CP on. Have KBBC verified from
2/17/58 DX test, but never hrd since call change. (RM-WA)

Sept. f/c's heard:

- 1st Sa 0300-0310 KZUL-1380 AZ (RW-CA)
0310-0320 KYCA-1490 AZ (RW-CA)

Sept. f/c's not heard:

- 1st Sa 0200-0210 KREN-1450 MT (RW-CA)
0210-0220 KLMX-1450 NM (RW-CA)
- 1st MM 0245-0300 KGHL--790 MT (on RS, so this f/c is defunct) (RW-CA)
0200-0205 KSN0-1260 CO (RW-CA)

UNIDs:

- 630 8/23 0428 unID TT u/KOH, looped east. TT was noted at this time last
week, who has a Tues. morning SP? (RW-CA)
- 920 9/5 MM 0448 OC, tones, wiped out all but KORK, NV. Off and on for
quite awhile. (JH-CA)
- 1050 MM 9/5 sounds like Dow Jones report u/XED, very faint, then soft mx,
then gone. (JH-CA)
- 1200 Possible KPNW 8/26 0109 looping u/WDAI w/program??? Anyone know if
they're 24 hours? (DN-CA)
- 1400 9/5 0610 unID in KRE null w/EZL, ID "On your AM dial, this is the
unforgettable 1400." Good at times, other times buried u/KDRG/KVOY,
et al. Is KSUN back on? They had a format similar to this for a
while. (RW-CA)

Thanks to all our WDXR reporters this week! It's nice to see so many
"eastern" stations reported so early in the season. Two from Wisconsin...
not bad. We'll soon be going to weekly issues--keep reporting! ♥

PLEASE NOTE NEW ADDRESS !!! PLEASE NOTE NEW ADDRESS !!!

Sorry there was no column last week, I was getting married. In order to get this to HQ by Friday's I'm going to have to make sure it's in the mail by Monday so deadlines will usually by the Friday before HQ's deadline.

I will now be using the abbreviations "M" and "W" for man & woman respectively. I'll also be using the numeric date abbreviation used in all the other columns i.e. 6/20 for June 20, my apologies to those this may confuse; I realize most other countries reverse the month & day, but it's alot easier to type 6/20 than Jun 20 & I must save as much time as possible with this column. I plan to start school, two nights a week soon to get a masters degree.

PAN AMERICAN DX ROUNDUP

- 535 GRENADA 0347 8/4 Morne Rouge to good peak w/ Sinatra song. (MC-MA)
- 550 VENEZUELA 0202 8/4 Caracas YVKE noted w/ Caracas ads o/2nd SS LA (likely Cuba); bad CFNB QRM. (Connelly-MA) + 0301 8/11 LA mx R. Mundial ID (Hakiel-NY)
- 555 ST. KITTS 0203 8/4 Basseterre ZIZ xlnt w/ BBC nx relay. (Con-MA)
- 570 CUBA 0207 8/4 SS talk // 590 et al; u/WMCA (Connelly-MA)
- 580 PUERTO RICO 0205 8/4 San Juan WKAQ good w/WKAQ jx ID, SS nx o/ WTAG/Cuba. (Connelly-MA)
- 590 Cuba 0208 Aug 4 SS talk // 570 et al; u/WEEI. (Connelly-MA)
- 600 CUBA 0210 8/4 SS talk about Nicaragua & Costa Rica // 570. Audio on 600 Cuban is compressed & somewhat "mushy sounding" (Connelly) Oops, I sure messed that line up -ed.
- 600 COLOMBIA 0251 8/4 Barranquilla HJHJ hrd w/ R.Libertad ID u/Cuba(MC)
- 620 CUBA 0212 8/4 SS talk // 570 loud blowing WACZ/WVNJ away.(MC-MA)
- 630 CUBA 0253 Aug 4 SS//570, u/WPRO. (Connelly-MA)
- 640 GUADELOUPE 0141 8/4 Arnouville dominant w/ drama in FF. (MC-MA)
- 640 VENEZUELA 0230 8/4 Puerto LA Cruz YVQO blasting in o/others: Ondas Portenas ID ments of local towns incl. Puerto La Cruz, Margarita, Carupano & Barcelona; then disco mx. (Connelly-MA)
- 650 DOMINICAN REPUBLIC 0301 8/4 Santo Domingo HIAT fr w/ Universal jx, SS mx. (Connelly-MA)
- 670 VENEZUELA Caracas YVLL 0147 8/4 xlnt w/ fast SS mx, Rumbos ID, way o/Cuba (not atrace of WMAQ) (Connelly-MA)
- 680 PUERTO RICO San Juan WAPA 0230 Aug 20 LA pop mx, call letter ID(GH)
- 690 CUBA 0144 8/4 M&W in SS// 670 loud, dominant. (Connelly-MA)
- 700 COLOMBIA 0300 8/4 Cali HJXC barely atop mess: HJ-team sport event // 810. (Connelly-MA)
- 720 VENEZUELA/CUBA 0354 8/4 Porlamar YVOE w/ R.Vision Oriente ID o/u a Cuban w/ familiar anthem mx. As usual here on Cape Cod, LA's totally ruled 720 w/ not a trace of WGN. (Connelly-MA)
- 725 SURINAM 0349 Aug 2 Paramaribo S.R.S. w/EE & SS pop hits, in w/ huge sig. slopping onto 720 & 730. (Connelly-MA) + bombing in as usual w/ DD talk & swinging pop mx, xlnt. (Hakiel-NY)
- 730 COLOMBIA 0247 8/4 Bogota HJCU atop mess w/ several Bogota ments(MC)
- 735 ECUADOR Quito HCGE-1 0302 8/16 SS love songs, pop mx "R.Melodia" ID (Hakiel-NY)
- 740 VENEZUELA Maracaibo YVNC 0554 8/29 LA tunes, R.Maracaibo IDgd.(GH)
- 760 COLOMBIA 0309 8/4 Barranquilla HJHJ hrd w/same game as on 700.(MC)
- 763 UNID 0350 8/11 LA mx, SS talk pr-fr. (Hakiel-NY)
- 780 VENEZUELA San Cristobal YVOD -1-3 8/27 SS talk Ecos del Torbes ID gd. (Hakiel=NY)
- 780 COLOMBIA Rio Hacha HJZW 01 21 8/28 soft ballad mx, W w/Almirante ID, gd. (Hakiel-NY)
- 810 COLOMBIA 0311 8/4 Bogota HJCY gd w/SS sx event // 700,760 o/WGY/Bahamas. (Connelly-MA)
- 820 COLOMBIA 0316 8/4 Cali HJED noted in hodgepodge (O/u Cuba/others: Cali ads. (Connelly-MA)
- + 0605 8/29 LA mx, LV de Rio Cauca ID, gd. (Hakiel-NY)
- 825 ST.KITTS 0312 8/4 Basseterre R.Paradise like a local w/EE preaching (Connelly-MA)
- 834 BELIZE 0318 8/4 Belize City weak w/EE talk (Connelly-MA)
- 840 CUBA 0319 8/4 SS talk about Managua, Nicaragua atop WHAS.(MC-MA)
- 850 COLOMBIA Bogota HJKC 0210 8/20 SS talk "R.Caracol", gd. (Hakiel)
- 860 DOMINICAN REPUBLIC Sto. Domingo HILR 0438 8/20, R.Clarin ID (GH)
- 870 Puerto Rico San Juan WVOZ noted o/WWL arond 0335 9/5 on the NRC Convention Beverage. (Kaz-CT) Lively LA mx and R.Voz de Puerto Rico ID fr-gd.

- 870 ARGENTINA Buenos Aires LRA-1 0330 8/28 semi-cl mx 3 time pips at 0330 R.Nacional ID., fr (Hakiel-NY)
- 890 COLOMBIA Bogota HJCE 2352 8/28 SS talk "LV de Colombia" ID, gd (GH)
- 895 UNID (Haiti or perhaps the drifty HJ) mx in bad storm QRM, 0452 8/2 (Connelly-MA) My vote goes to Colombia, they were definitely here in Aug and often run AN & are quite strong at the coast-ed
- 915 ECUADOR Machala hro3 0337 8/8 complete ID w/call & Ondas Orenses & NA at 0337 s/off. good. (Hakiel-NY)
- 918 NICARAGUA Managua 0404 8/25 R.Mundial ID NA & s/off, fr. (Hakiel)
- 940 CUBA HolguinCMKD 0222 8/25 R.Reloj nx format, fr. (Hakiel-NY)
- 944 HONDURAS Tegucigalpa HRYW 0358 8/20 pop mx W ancr p-fr (Hakiel-NY)
- 960 COLOMBIA Maganague HJHN 0153 8/24 SS talk" R. Sutatenza" ID,fr.(GH)
- 965 ECUADOR Sto. Domingo de los Colorados HCOT 0349 8/20 IA mx, R. Zaracay ID // 3395, pr-fr. (Hakiel-NY)
- 985 PERU Lima OBX4J 0454 8/11 very bassy audio, fading pr-fr (Hakiel-NY)
- 990 GRENADA Mourne Rouge 0210 8/11 "The Quiet Time" rlg pgm of hymns, R.Free Grenada ID, xlnt. (Hakiel-NY)
- 990.3a GRENADA 0450 8/2 very loud & dominant w/Carib. EE calypso vocals obnoxious low het present from YVTA et al on 990. + 0324 Aug 4, superloud w/24 $\frac{1}{2}$ after 11 TC, pgm of mellow hits incl. Sheera, Easton, Kenny Rogers, etc. (Connelly-MA)
- 1000 VENEZUELA Moron YVNM 0040 8/29 LA mx, Mundial Mil ID, gd. (Hakiel)
- 1020 VENEZUELA La Asuncion YVRS 0330 8/20 LA mx, Mundial Margarita ID (Hakiel-NY) + 0500 8/2 w/ ID xlnt, loud obliterating KDKA (Con-MA)
- 1100 ANTIGUA 0444 8/2 St. John's ZDK fr-gd w/Calypso mx, mixing w/HJAT/WWWE, (Connelly-MA)
- 1110 VENEZUELA 0331 8/4 Carupano YVQT o/u WBT/CBD: Rumbos ments. & typ. doorbells, (Connelly-MA)
- 1160 CUBA many nights in August: powerhouse Cuban totally dominating channel. (Connelly-MA) Recent Schatz list say this is 75 kw but w/ a 5/8 wave tower, thus terrific skywave. This is in control every night and is a good 10 dB stonger than any other Cuban-ed
- 1165 ANTIGUA St. John's 0011 8/28 "Caribbean Lighthouse Radio" discussion of "Darwin's Theory of Ev." xlnt. (Hakiel-NY)
- 1200 VENEZUELA Caracas YVOZ 0014 8/19 SS talk "R.Tiempo" ID, gd. (Hak)
- + 0432 8/2 gd w/ R.Tiempo ID o/Cuban & others. (Connelly-MA)
- 1205 CAYMAN ISLANDS 0414 8/2 R.Cayman fair w/showtunes & high-society nostalgia mx atop 1206 France het // 1555. (Connelly-MA)
- 1220 BRAZIL Rio de Janeiro ZYJ458 0019 8/11 PF mx, tk, R.Globo ID // 6035 (Hakiel-NY)
- 1555 CAYMAN ISLANDS 0414 8/2 R.Cayman xt w/showtunes & high society nostalgia mx // 1205 atop 1557 TA het. (Connelly-MA)
- 1610 ANGUILLA 0353 Aug 2 The Valley- Caribbean Beacon good w/ preaching although' dogged" slightly by ute QRM. (Connelly-MA)

TRANS ATLANTIC DX ROUNDUP

TA cx show signs of improving, and I'm most hopeful that this year will be better than last year which was probably the worst year on record for TA's. The nights of 9/6 & 9/7 were quite good with many of my "old friends" being hrd. Tonite 9/8 showed definately worse cx across the pond unfortunately.

- 164 FRANCE Alloiux very good (amazing since I have no LW antenna other than the Sanserino Loop which doesn't tune this range) w/FF pgm 0335 9/7 (Kaz-MA) This would've been super w/ a proper antenna.
- 185 W.GERMANY noted pr w/GG OM in bad QRM 0333. (Kaz-MA)
- 209 MOROCCO Azilal 0140 AA vocals by OM AA mx, fr (Hakiel-NY)
- 218 MONOCO Monte Carlo 0302 8/20 FF talk p-f (Hakiel-NY) + FF talk f-gd around 0410 9/5. (Kaz-CT)
- 254 ALGERIA Tipaza 0018 8/26 AA chants AA talk, fr (Hakiel-NY) + 0151 Aug 4 AA wailing, fr. (Connelly-MA)
- 639 SPAIN 0250 9/6 f-g w/SS mx in 640 QRM. (Kaz-MA)
- 675 UNID noted w/ rock mx 0238-0241 9/7 when lost to WRKO slop. Neither France or Netherlands is listed on at this time & nothing else seems too likely. Can Euro members help? (Kaz-MA)
- 747 NETHERLANDS Fle voland very loud w/TT 0231 9/7. (Kaz-MA)
- 765 SENEGAL Dakar 2333 8/24 AA talk fr. (Hakiel-NY) Noted very gd w/FF W 2358 9/6 into s/off w/carrier cut fol. stringed mx at 0002 9/7 WRTH lists s/off as 0100. (Kaz-MA)
- 774 SPAIN synchronos - fr w/ SS in WABC slop 2329 9/7. (Kaz-MA)
- 783 E. GERMANY Burg xlnt!! crushing a considerably weaker WBBM w/GG pop mx fol. by M GG ancr speaking for a couple of min. into more mx. 0213-0217 9/6. Was about 12 dB weaker but still v.g. w/ M in GG 0247 9/7. (Kaz-MA)
- 827 LIBYA Sebha pr w/bits of AA chanting noted w/828 het notched out 0242 9/6. (Kaz-MA)

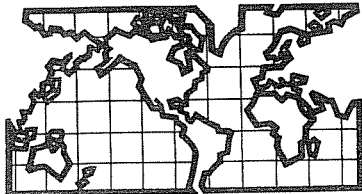
- 846 ITALY Rome gd w/ W in II, pause, then OM in II 0029-0031 9/7. (K-MA)
855 SPAIN Murcia fr-gd 2341 9/6 w/ 2 M's talking in SS. (Kaz-MA)
873 W.GERMANY Frankfurt to gd peak w/AFN coverage of Mon.Nite FB game
0236 w/ no sign of Spain which is dominant here about 85% of the
time from my observations over the last five years.(Kaz-MA)
882 ENGLAND Washford BBC quite strong but only fair due to WCBS/TVI QRM
soft musak & M in EE 0229 9/7. (Kaz-MA)
891 ALGERIA Algiers 242 8/3 good w/male AA a-cappella vocal, then talk
by M in AA: no appreciable 890 QRM at the time, just a background
het from WLS/HJCE. (Connelly-MA)
908 UNID weak TA het/carrier noted here against 909 at 0250 9/7. Who's
on the old channel. (Kaz-MA)
909 ENGLAND synchros noted fr w/soft mx 2344 9/6 and grew stronger as
the night wore on; peaking up as strong as 910 domestics at times
with usual AN muzak format. (Kaz-MA)
963 UNID TA here with big sig. but no modulation hrd, so I presume
somebody has OC on here 0228 & 0317 9/6. (Kaz-MA)
1017 W. GERMANY/TURKEY(tent) Wolfsheim was noted pr-fr w/GG ancr 0208
9/7. It soon faded and Mid-estern mx & chanting was hrd weakly
(from Turkey I presume) from 0211-0212 when the German returned &
increased greatly in strength to v.gd w/muzak. (Kaz-MA)
1035 PORTUGAL Porto Alto 0340 8/28 disco mx, PP talk. (Hakiel-NY)
George, WRTH lists location as Lisbon -ed.
1035 UNID (Italy orPortugal) pop mx // 1062, fr 0447 8/2 (Connelly)
1062 UNID (Italy or Portugal) pop mx // 1035, fr 0447 8/2 (Connelly)
Mark, per several positive Radiodifusao Portuguesa ID's by PP M,
Portugal now runs AN in // on 1035 & 1062 ; noted quite strong
here on many non-AU nights (Kaz-MA)
1062 PORTUGAL Norte Azurara (WRTH lists as S.Salvodor in country secti-
on & Azurara in freq. section- ed) 0220 8/24 PP talk, fr. (GH-NY)
1089 t ALBANIA Durres likely w/high-pitched (2-3 KHz) TT blasting WBAL
at 0355 9/7 but faded drastically by sked 0400 s/on so no vocat
audio hrd. BBC is not listed on 'til 0500 & Albania has been hrd
in this time period here before (Kaz-MA)
1106.7 UNID TA noted w/big sig. w/OC(?) all eve on 9/6 'til about 0325 &
all eve on 9/7 from 2320 9/6 to about 0325 fade 9/7. Much weaker
on 9/8 as TA cx declined. Putting an obnoxious low het on 1107
at times. Any one know who's off freq here ? (Kaz-MA)
1206 t FRANCE 0430 8/2 apparent bitsof FF talk, mostly just a het against
slightly stronger Caymans-1205. (Connelly-MA)
1215 ALBANIA Lushnje 0351 8/26 M in unid lang, poor (Hakiel-NY)
1251 LIBYA Tripoli barely audible in QRN w/AA chanting 2324 9/6. Het
reduced with notch filter. (Kaz-MA)
1314 NORWAY Kvitsoy 0057 8/20 piano mx IS, Several "R.Norway"ID, pronounced
"Rahdio Norway", fr-gd. + (info relay via phone) super-
strong 0402 9/7. (Hakiel-NY)
1332 UNID poss. Italy 0356 8/26 Band mx, M in lang. sd/lk II, poor.
(Hakiel-NY) Italy is hrd here when cx are right -ed. Nothing else
is likely -ed.
1349 MAURITANIA Nouakchott just audible w/AA mx thru het 2327 9/6(KazMA)
1375 ST. PIERRE et MIQUELON 2350 8/20 jazz mx, FF talk, good.(Hak-NY)
1395 ALBANIA Lushnje 2357 8/18 anthem "The Internationale" s/off at
2357 before conclusion of anthem, fr-gd (Hakiel-NY) Noted w/LOCAL-
LIKE signal w/SS pgm w/R.Tirana ID's noted in passing at 2332,2342
& 2347 by W. Gone due to s/off after 2400. (Kaz-MA)
1404 GUINEA Conakry 0020 8/9 FF talk, fr. (Hakiel-NY) 0426 8/2 at fr
carrier level, but low audio, female chanting. (Connelly-MA)
1422 W.GERMANY very gd w/ CL mx 0259 9/6. One medium-length pip at 0300
& into M in GG. (Kaz-MA)
1521 SAUDI ARABIA Duba 0246 8/8 AA mx, talk- killing WKBW, gd. (Hak-NY)
+ AA mx noted fr in slop at 0303 9/6; gd at 0327 w/chanting (Kaz-MA)
1530 VATICAN CITY noted u/WCKY w/ W in Euro.lang. 0325 9/6. I've hrd
them quite often since moving back east. At times they override
WCKY which isn't usually strong here. (Kaz-MA)
1575 SPAIN Cordoba in w/SS song circa0405 9/5. (Kaz-CT)fair sig.
1584 SPAIN graveyarders 0040 8/8 SS talk by W, fr. (Hakiel-NY)
+ noted SS here w/multiple hets & SAH's circa 0405 9/5, pr-fr (K-CT)
+ 0410 8/2 SS nx to good peak o/SAH jumble. (Connelly-MA)

CONTRIBUTORS

Neil Kazaross Amesbury, MA - R70, Sanserino Loop
E. Windsor, CT on NRC convention Beverage pointed South
approx. 1500 feet in length, R70
George Hakiel W. Islip, LI, NY -R7A, R70, LW's, Martens & Sanserino Loops
Mark Connolly W. Yarmouth, Cape Cod, MA- HQ-180A, ICF2001, SM2 phased
against 30 meter LW.

73's & go get those TA's !!

- KAZ -



DX WORLDWIDE - WEST

Pat Martin - Editor

P.O. Box 843, Seaside, Oregon 97138

(503) 861-3185 - deadline MONDAY

Received a nice IA Phone call from Doug Nyholm about an opening on 9/8. He was receiving several frequencies, but nothing heard here except a possible carrier on 756 and 828, which may have been early DUs, as IYA was in about a hour later. IA carrier have been present a couple nights, but so far no audio. On 9/11 heard R. Thailand on 891. They should be fairly easy to hear now, as they made a boost recently to 1000 KW from 500 KW. Dave Williams also has heard them 2 or 3 mornings recently. On with reports:

TRANS-ATLANTIC DX ROUNDUP

- 747 t HOLLAND, Flevoland-Tent. logging here of their 400 KW Xmtr that was heard last year. Hrd 9/8 at 0430-0450 with Germanic sounding lang. and man and woman talking. Poor w/KCBS slop. (DN-Ca)
- 756 t WEST GERMANY, Ravensburg-Tent. logging here of station that was also hrd last year. German ann. in MOR/POP musical program. Less QRM, but weaker than 747 signal, on 9/8-0430-0450 UTC. (DN-Ca)

PAN-AMERICAN DX ROUNDUP

- 750 NICARAGUA, Managua-YHX at 0535 8/25 "Radio Sandino" patriotic ballads also songs about El Salvador+Guatemala, good sig in QRN, alone (ØW-Co)
- 825 ST. KITTS, Basseterre-Vy weak 9/8 at 0400, Indications of good openings to the East. (DN-Ca)
- 840 UNID, 9/5 at 1215-1220, SS fading up nicely at 1215 w/great signal, Tent. ID as "R. Juventud" which would be XEFG, almost sure it was an XE, OM anc, lost by 1222, Who's in this SR zone? (RW-Ca)
- 990 MEXICO, Mexicali-XECL at 0608 8/29 "R. Mexicali" ID, ad string, XE pops after-good signal (ØW-Co)
- 1260 MEXICO, San Luis Rio Colorado-XEHW at 0604 8/29, ID, Pops, OM anc, canned slogans, good sig. dominant after KVSF s/off at 0600 (ØW-Co)
- 1460 MEXICO, Cd. Juarez-XEYC at 0550 8/28, R. Sensacion, rr tunes. (ØW-Co)
- 660 MEXICO, Mexico City-XERPM-0616 9/7, "La Tropical de Oro" SS vocals ballads, full ID 0616 and 0622, fair. (ØW-Co)

TRANS-PACIFIC DX ROUNDUP

- 531 NEW ZEALAND, Alexandra-4XA good sigs with IDs and pop mx with local ads on 8/14 at 1203-1209 (DN-BEV-CA)
- 576 AUSTRALIA, Sydney-2FC, poor audio in and out 8/14 at 1103 (DN-BEV-CA)
- 630 t AUSTRALIA, Townsville-4QN vy poor, light Inst. mx, u/Domestics, poss. // to other ABC-3 stations (DN-BEV-CA) (Likely to be 4QN, hrd here many times in the past several years. PM)
- 639 UNID, Something DU putting het on KFI, 4MS? at 1223-8/14 (DN-BEV-CA)
- 648 t OKINAWA, Naha-FEN, poss. here with Network news at 1400, over and under JOIG and RR, U.S. anc, nx on Airliner shot down over USSR on 9/9 (DW-OR)
- 657 AUSTRALIA/NEW ZEALAND, 2YC and 2BY both fighting for the channel at 1107 on 8/14. (DN-BEV-CA)
- 747 AUSTRALIA, Toowoomba-4QS hrd in passing with light Inst. mx at 1110 on 8/14. (DN-BEV-CA)
- 756 NEW ZEALAND, Auckland-IYA, in well w/Opera at 1115-8/14 (DN-BEV-CA)
- 801 UNID, Het here prob. 4QY at 1220 on 8/14 (DN-BEV-CA) (Or poss. the new NZer 2XL-Nelson (2KW) (PM)
- 828 t AUSTRALIA, Nambour-4NA with Pop and Nx on the hour-8/14 at 1200 (DN-BE) NEW ZEALAND, Tent on 2XS, fighting with 3GI at 1117 with light Int. mx, no IDs hrd. Does this fit their format? On 8/14 (DN-BEV-CA) (Hope, 2XS is a rr station and pops. JOBB has been playing some soft Inst. pieces in the mornings, may have been them. PM)
- 837 NEW ZEALAND, Whangarei/Kaitaia-LYX/LYK hrd poorly on 9/5 at 1300, they sure get out for 2 KW, as this was not a coastal beverage. (DN-Ca)
- 873 UNID, hyped Pop mx with accented DJ, 3CR? at 1218 on 8-14 (DN-BEV-CA)
- 891 AUSTRALIA, Sydney-2GB hrd w/weak signal 9/5, 1330-Disc. pgm or talk back pgm (DN-Ca)
- 891 NEW ZEALAND, Wellington-2XW-R. Windy with Rolling Stones at 1328 on 8/14. Don't they ever ID? (DN-BEV-CA) (Not many times. PM)
- ++++ THAILAND, Radio Thailand-very strong with OM and YL in Thai, beautiful chimes at 1331 on 9/11, followed by ID by man. fade out by 1345, during musical selections of Temple music. Reported. (PM-OR)

- 891 +++ THAILAND, R. Thailand, also hrd at 1345 with temple mx on 9/11
 Fade by 1357, before diff. ID could be heard, same pgm as PM
 hrd. Also heard on 9/12 and 9/13. (DW-OR)
- 1035 NEW ZEALAND, Wellington-2ZB, pounding in, sounded like KNBR from
 a distance of 500 feet from the antenna. Even had this on the car
 radio with a windshield antenna. Too bad they weren't in AM Stereo,
 hi at 1300-1330. Sun was up too. (DN-BEV-CA)
- 1044 UNID, two stations mixing here at 1137, suspect 4ZB and 5PI or 2UH?
- 1080 UNID, at 1056, what sounded like the Tonight Show and pips on (DN-BEV)
 the hour, but could be LZB I guess (DN-BEV-CA) (Hrd here a couple
 times. PM)
- 1566 AUSTRALIA, Wangarita-3NE good w/pops at 1052 and IDs (DN-BEV-CA)
- 1584 UNID, at 1046 on 8/14 suspect 2EA or 7SH (DN-BEV-CA)
- 1602 UNID, at 1133, suspect 3WL (DN-BEV-CA)

VERIFICATIONS

- 780 VENEZUELA, San Cristobal-YVOD, sent vl in SS in 3 weeks for taped
 report at s/on with anthem. Also sent pennant. Signed: Desiree
 Gonzalez-Jefe De Relaciones Publicas. Country 61 verified on MW. (PM)
- 880 MEXICO, Los Mochis-XEPNK, freq. only personal letter in 20 days,
 after fu for SS report and ms, v/s Lic. Enrique Yamuni. (ØW-Co)
- 1000 MEXICO, Cd. Juarez-XEFV, Prepared card and long personal letter
 asking for reports in 37 days after fu for SS report, m/s V/S-Lic.
 Francisco Gomez Fraire, Subdirector. (ØW-Co)
- 1580 MEXICO, Hermosillo-XEDM, Date and freq. letter, stickers, in 42 days
 for SS rep., m/s-V/S Marth a Martinez-Depto. De Continuidad. (ØW-Co)

THANKS TO THESE REPORTERS:

- DN-CA Doug Nyholm-2071 Cedar Street-San Carlos, Ca. 94700
 Receiver: FRG-7000, R. West Loop
- DN-BEV Doug Nyholm-DXing with A. Peterson and R. Segalas-
 2-1240' Beverages and FRG-7000-Calif. coast.
- RW-Ca Robert Wien-1309 Dentwood Drive-San Jose, Ca. 95118
 GE Portable (cir. 1962) Loop
- ØW-Co John Wilkins-4385 Hoyt St.-#205-Wheat Ridge, Co. 80033
- DW-OR Dave Williams-Box 605-Hy 101-Astoria, Or. 97103
 SPR-4, longwire antenna, loops.
- PM-OR Yer Editor
 SP-600JX, RB0-2, 200 foot term. NE antenna, ground system

IRCA EXTRA - RADIO MOSCOW FOREIGN SERVICE PROGRAMMING. Courtesy of the BBC Monitoring Service, here is the
 latest list of foreign language programming from Radio Moscow transmitters:

0000-0230 RMWS (EE)	1143 1323 1494	1700-1800 Albanian	1431
0230-0300 RMWS (EE)	1143 1323	1700-1800 Greek	1170
0330-0530 Polish	1143	1700-1800 Std. Ch.	585 648 801 810 900 1026
0900-1200 Korean	1476		1080 1170 1251 1476
0930-1300 Japanese	630 720 1251	1700-1900 Persian	1296
1000-1200 Std. Ch.	585 648	1730-1800 Greek	1170
1030-1100 Mong./JP	801 1080 1170	1730-1830 Arabic	972 1314 (ex-Sat)
1100-1145 Mongolian	801 1080 1170	1800-1830 Greek	1314 1431
1145-1215 Mongolian	801	1800-1830 Hebrew	1170
1200-1330 Std. Ch.	585 648 1476	1800-1900 Std. Ch.	585 648 801 1026 1080
1300-1400 RMWS (EE)	630 720 1251		1170 1251 1368 1476
1300-1400 Korean	1476	1830-1900 Albanian	1431
1300-2100 Polish	1143	1830-1900 Turkish	972
1330-1400 Std. Ch.	585 648	1830-1900 Arabic	1170 1314
1400-1500 Japanese	630 720	1900-1930 Greek	1431
1430-1500 Std. Ch./P	585 648 1251 1476	1900-2000 Std. Ch./P	585 648 810 1026 1080 1251 1476
1500-1530 Greek	972	1900-2000 Italian	1548
1500-1530 Persian	864	1900-2100 Arabic	972 1170 1296 1314
1500-1600 Std. Ch./P	585 648 801 810 1080	1930-2000 Albanian	1431
	1170 1251 1476	2000-2030 Greek	1431
1500-1630 RMWS (EE)	630 720	2000-2100 French	1386 (R. Mosc. Int'l.)
1500-1900 Romanian	1548	2000-2100 Italian	1170 1548
1530-1600 Turkish	1170	2000-2200 Std. Ch.	585 648 1251 1476
1530-1630 Arabic	1314	2030-2100 Albanian	1431
1530-1630 Bulg.	972 1431	2030-2100 Spanish	1323
1530-1700 Finnish	1494	2030-2100 RMWS (EE)	1494
1600-1700 Std. Ch.	585 648 801 810 900 1026 1080	2100-2130 Arabic	972 1170
	1170 1251 1386 1476	2100-2130 RMWS (EE)	1143 1170 1323 1386 1494
1630-1700 Arabic/P	864 1314	2130-2400 RMWS (EE)	1143 1323 1386 1494
1630-1700 Greek	1431	2200-2230 Japanese	720 1521
1630-1730 Turkish	972 1170	2200-2300 Std. Ch.	585 648 1476
1700-1730 Arabic	864 1170 1314 (ex-Sun).		

Also, R. Moscow GG programs are broadcast on DDR XRs: 1323 1548-1600, 2000-2030; and 1323//1386 1600-1700. The
 "P" means it is a Radio Moscow "Peace & Progress" station program.

DX WW II

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T R A N S - P A C I F I C

AUSTRALIA - 6PR-882 Perth had only a one year license renewal due to their past overcommercialization. 2UE-954 Sydney has dropped racing results (B&T, M. Francis). The ABC relay on 738 at Manjimup is 6MJ, not 6PB (G. Rickman). 2CN-1440 Canberra is still here and doesn't know when it will move to 666, where it is listed in WRTH (M. Francis). (All ADXN). ABC is starting a 2nd regional network, starting in 1985. Forty regionally based studios are planned; ten of them will be new (BBC).

CHINA - Henan PBS P1, Zhengzhou-657, is on 2120-0040, 0340-1515 (BBC).

INDIA - AIR changes: Mysore-1017 is ex-1602, and Mangalore-1332 is ex-1458 (also on 1089). (ARC via DXC, FERC)

LAOS - A 150kw station being built by the Russians is 60% complete; airdate 1984. Vientiane-1030 (1/2 hr. pgms.) has EE 0100, 0600, 1330; FF 0030, 0530, 1300; Thai 0400, 1130, 2300; Vietnamese 0430, 1200, 2330; Cambodian 0000, 0500, 1230 (BBC).

NEW ZEALAND - R. Rhema continues its quest to cover all of NZ. It now wants 603kHz for Auckland. However, NZBC wants to establish a "YB" type station here, and 603 is the only frequency left. Whakapapa Village-522 TIS is now on (B. Woller). 4XD-1431 Dunedin 450w has moved its XR to Highcliff, near the NZBC masts, and is now using a new 110' tower (Jack Fox). Auckland ratings, ages 10+ (BCNZ survey): 1ZB-1080 25%; 1ZM-1251, 1X1-1332, 1XP-1593, all 12%; 1YA-756, 1XA-1476 each 11%; FMers 1MJK-91 and 1R00-89, each 7%; and 1YC-881 and 1XB-1404, each 3% (all NZDXT).

PAKISTAN - The government has embarked on an expansion program, with these MW outlets planned (no freqs.-PT): Khuzdar-300kw; Islamabad-250kw (for FS); Muzaffarabad-150kw; Peshawar- and Karachi-100kw XRs; and 14kw XRs in Skardu, Sibi, Loralai, and Zhob in Baluchistan (BBC).

PHILIPPINES - The city of Quezon must be referred to as "Quezon City." (Tagalog: "lunsod ng Quezon" or "Siyudad ng Quezon"). On all others, the "City" suffix may be omitted (Charlie Taylor, FERC)

SRI LANKA - EE Ch.1 and Ch.2 were combined 1/1 as "the EE service of the SLBC." Sked on 693/918: 0030-0300, 1100-1700, 0300-0330 (Sat/Sun 0430), 0730-0930 (Sat/Sun 1030). "Mahu Nuwara Sevaya" is a new regional service on 531-Ambewella and 567-Senkadagalla. Sked: 0000-0230, 1130-1730; mostly in Sinhalese, but with 1 hour Tamil daily and 2 hours of EE on Sat/Sun. (WRTHNL via FERC)

TAIWAN - Voice of Asia-621 moved to 612kHz 9/1/83 (ADXN). Schedule: EE 1030-40, 1100-1200, 1500-1530; Indonesian 1040-50, 1200-1300, 1440-50, 1800-1900; Thai 1430-40, 1530-1700 (BBC).

TAHITI - New name/ID of the former FR3: Societe Nationale de Radio Television Francaise d'Outre Mer (RFO); in Tahitian, "O Tahiti teie te RFO." FF 1600-2045, 2200-0300, 0600-0620; Tahitian 2045-2200, 0300-0600; French/Tahitian 0620-0730 (WRTHNL).

THAILAND - RT-927 (10kw) has EE 2250-0425, 0500-0600, 1130-1230; FF 0430-0500; JJ 1400-1430; Laotian 0915-1000; Std. Chinese 1000-1030; Vietnamese 1100-1130; Cambodian 1230-1310; Malay 1310-1400; Burmese 1430-1500 (BBC). New VoFA address: Broadcasting Division, Ministry of Foreign Affairs, Saranrom Palace, Bangkok 10200 (G. Carroll, ADXN)

T R A N S - A T L A N T I C

ALBANIA - Kukes is drifting between 988-998 (B. Erickson, ARC)

ANDORRA - Sud Radio-819 is back on the air with 900kw//Toulouse-1161, 0500-2130 (T. Vignaud, WRTHNL). Programs are in FF, but ID is in Catalan. A new company is being formed to activate R. Andorra-702 (WRTHNL).

BULGARIA - Khorizont program is 24h on 594 747 774+ 963 1017 1143 1161 1224* 1377+. Khristo Botev program is on 0400-2200 on 576 648+ 828 864+ 873+ 945 1143 1296+. (*= also some FS; += also regional pgms.). 1377 and 1296 also carry some Turkish pgms. (BBC).

CHAD - There is a local station in Abeche* between 820-840kHz (A. Sommerfeld, WRTHNL)

COMOROS - Haboho has drifted to 1097 (L. Philipe, SADX)

CYPRUS - R. Bayrak has EE news at 1115 & 1500 on 1098/1494 (L. Astrom, SCDX).

GREAT BRITAIN - R. Jackie-1320, a London pirate, has been 24h since Jan. (SCDX).

GREECE - Pyrgos-1350 noted by EBU (ARC)

GUINEA-BISSAU - RN observed on 1034, but not on 1070 (R. Gibney, WRTHNL).

HUNGARY - Kossuth (P1) service is on Solt-540 and *Miskolc-1116 from 0325-2330 M-F, 0325-0100 Sat., 0400-2330 Sun. Petoeffi (P2) is on 873 (Lakihegy, *Pecs), 1116 (Magyarovar), 1188 (Szolnok, *Szombathely), 1251 (Siofok, Nyiregyhaza), 1341 (Lakihegy), 1350 (*Gyoer) from 0325-2310 Mon.-Sat. and 0558-2310 Sun. (*these carry some regional programs) (BBC).

ICELAND - Utvarp Reykjavik (209/666/738 + LPRTs on 1386 1413 1512) is on 0700-2400 M-Th; 0700-0305 Fri.; 0700-0205 Sat., 0800-2400 Sun. (BBC)

IVORY COAST - Rdf. Ivoirienne 1233/1494/1575 is on 0600-2400 in FF, but has EE news 1800-1815 (BBC).

KUWAIT - The General Program is on 0225-2215 on 540//1134. 1341kHz is the 2nd Pgm. and FS service, with these highlights: **Koran Service** 0158-0500; EE 0500-0800 & 1800-2100; **Persian** 0800-1000 (unconfirmed); P2 1000-1600; **Urdu** 1600-1800 (BBC).

LEBANON - Israel has allowed the Druze people to set up a station in the Shuf mountains; in return, the Druze will refrain from anti-Israeli comments. Their station was formerly in Syrian territory. (No freq.-PT). VOP/VPR-1412, the PLO station, is on in AA 0500-0700 and 1730-1945 (BBC). Voice of Hope-1593 is now on 684 (BBC). R. Lebanon-989 has EE nx 1500 (M. van Delft, SCDX). Voice of Free Lebanon-1476 has EE news at 1745. The Iran Military has a station, Bekkaa Valley-1200. Voice of Arab Lebanon-931 has EE at 1300. Voice of Lebanon-872, Asrafieh, has EE at 1400 (L. Astrom, SCDX).

MAURITIUS - MBC-684 is on 0100-1835 Sun.-Fri. and 0100-1905 Sat. in FF other than these programs: EE 0557-0600, 0400-0415, 1800-1810 (BBCWS); **Indian languages** 0200-0300, 1030-1430; **Chinese** 0930-1030 Tu/Th, and 0900-0930 Sun. (BBC)

POLAND - R. Polonia's DX pgm. in EE, "DX Talk," is on 1503kHz at 2230 (A. Patapov, SCDX).

PORTUGAL - New 10kw R. Renascenca XRs: Prado-576 & Viseu-1251. On 630, RdP Montemor-o-Velho + 1 station are //, but also Santa Isabel w/separate programming; ??? (B. Erickson, EBU via ARC). The Faro XRs (RdP3-557.2, P1-720) are off because "legal procedures have not been followed" (J. Turner). Coimbra-1448 has been replaced by 50kw Santa Isabel-630, and Castelo Branco-827 is now on 720 (N. Turner) (both SCDX). (Some clarification is needed on this latter item - PT).

SAUDI ARABIA - EBU says Damman-765 1000kw is now on (via ARC)

SOUTH AFRICA/TRANSKEI - Capital Radio is operating on 585//603 (E. Rimmer, SADXC)

SUDAN - No frequencies specified, but 3 services - Holy Koran Radio, Voice of Music, and R. of the Sudanese Nation, all with 1700 s/on - were to have begun July 31. The Peoples' Program (Idha'at ash-Sha'b) was to begin this month, thus complementing the other services and the General Pgm. (BBC)

TOGO - LV de la Nouvelle Marche-1395 is in FF & vernaculars 0530-2400, but has EE 1030-1100, 1950-2000. R. Kara-1503 is on 0525-0835, 1200-1435, 1630-2305 M-F and 0530-2305 Sa/Su. (BBC).

TURKEY - Dededoruk-1467 is new; 10kw (EBU via MWSC)

YUGOSLAVIA - R. Koper-Capodistria has a tourist pgm. on R. Yugoslavia's 549kHz XR in GG & EE at 1300 (G. Jablonski). R. Zagreb P2 has a tourist pgm. on 738/765/774/1584 in EE 0932, Gg 0940, Ital. 0950 M-F. P1 has moved from 1135 to 864kHz; 1125 & 1143 remain // (E. Toffano) (both SCDX).

ZAMBIA - R. Zambia-1269, Lusaka, now here in EE (B. Kramer); also observed on 1271 (E. Rimmer) (Both SADXC). 1269 listed as Mansa (R. Gibney, WRTHNL).

INTERNATIONAL WATERS - R. Caroline-963, on a ship in the North Sea, is on the air. Mailing address: Box 69504, Los Angeles CA 90069 (BBC). Voice of Peace-1539 is once again on a ship off of Israel. Addr.: Box 4399, Tel Aviv (BBC & H. Mesci, SCDX).

P A N A M E R I C A N A

ARGENTINA - LRA28-670 has 25kw. LRA4-690 has 25/5kw. LRA27-730 uses 25kw 0900-0400. LRA7-750 is 24h w/100kw.

BARBADOS - CBC-900 is now 24h from its new XR site (BBC).

BOLIVIA - R. Ichilo-1510, LV Catolica del Norte Cruceno, Casilla 463, Santa Cruz de la Sierra, and R. Uncia-1260, 400w (1100-0300; Roberto Velazquez, DG), Casilla 15, Uncia, Potosi, are new. R. Cosmos de Cochamba-1480 is ex-1530 (Sintaxia via John Wilkins, IRCA). CP...-1150 R. Horizontes de Campi, Montada, is new on MW. (SWB via ARC).

BRAZIL - ZYH890-890 R. Imperatriz ex-570. ZYJ483-1070 ex-1550. ZYL213-1240 ex-1390 (CRM via ARC)

CHILE - Delete CC63-630 R. Constitucion. CA90-900 R Univ. de Atacama ex-R. Inst. Profesional. CA101-1010 R. Coya ex-Rem del Salitre. CD104-1040 R. Raices ex-R. Curacautin. CD150-1500, new, R. Tierra de Fuego (ARCHI via WRTH).

COLOMBIA - HJCE-890 LV de Bogota' 25kw; TODELAR. HJWA-1170 TR. Transamazonica is 5kw 1000-0500. HJCV-1190 R. Cordillera 15kw. HJLX-1260 R.5 is now GRC. HJKN-1280 R. Musical is 5kw 1100-0500. HJRL-1310 Ondas del Cesar ex-1030; 30kw. HJFS-1410 Ondas del Guali' now 10kw. HJZI-1550 R. Fantasia now 5kw. HJLP-1560 R. El Sol, ex-R. Espacial; this is one of ten stations in the "Sistema Solar" forming part of the RCN network (PDX, WRTH via ARC). Not in WRTH: HJNJ-860, LV del Canaguate, Valledupar, Cesar (50kw); HJGX-1030 1kw R. Progreso de Cordoba, Loric; HJRM-1580 R. Costanera, Sincejelo, 5kw, and HJSQ-1580, R. Robledo, Cartago, both 5kw; HJSP-1600 5kw R. Soratama, Pereira, Ris. (G. I. Barrera)

COSTA RICA - R. Chorotega-1100, Santa Cruz, Guanacaste, was inaugurated 7/25. R. Doce-1200 is now on 1100-0500 and is heard "beyond the Central Valley" (BBC). UNER (Union Nacional de Emosiras Rurales) network affiliates: R. Casino-1176; R. Victoria-1220; R. Emmaus-1260; R. Atajuela-1280; L Fuente Musical-1300; R. Sideral-1340; R. Cima-1500; R. Guanacaste-1580; R. Golfo-1600 (BBC).

DOMINICAN REPUBLIC - It is not abundantly clear, but it appears that the R. Clarin-860 XR is // to SW11700 with a "R. Earth Intl." program 0200-0300, and again from 1600-0200 with "LV del CID" (Voice of Independent & Democratic Cuba). However, in a later item, R. Clarin was ordered by the General Directorate of Telecommunications to cease carrying the CID program (BBC).

ECUADOR - HCF1-670 5kw ix ex-660. HCVP2-675 25kw (nom.: 680). HCA05-990 is 1kw 1045-0600. HCLV1-1020 is 24h 5kw. HCFB2-1140 3kw 1130-0500. HC.4-1170, new, 10kw 1100-0300. HCCS1-1195 R. Canal 12 is ex-R. Turismo and ex-1200; 1100-0500 5kw. HCRL6-1235 is on

1045-0300 w/1kw. HCJD6-1320 is ex-HCJB6; 3kw 1000-0400. HCJR6-1375 1kw 1000-0500. HCDP1-1545 R. Caracol 10kw 1000-0500. HCP15-1580 5kw 1145-0330. HCTI6-1595 1kw 1100-0300 (PDX, WRTH via ARC). HC..5-1480 R. Atlantida, somewhere in Chimborazo Prov. announced as being here on its SW frequency (ARC).

EL SALVADOR - Changes: YSNK-610 R. Exitos ex-YSHK. YSFB-840, R. Vanguardia, ex-YSF. YSHG-950, R. Minuto, San Miguel, ex-YSGH. YSCA-1015, R. Intl., ex-YSC. YSXW-1340, R. Novedades, Usulután, ex-YSWX. Delete YSMM-1200 R. Tiempo. YSDA-1500 R. Imperial, new address: Apto. 90, Nueva San Salvador. The YSS stations are now all YSSS and all on 610 (Morazan; El Salvador, ex-660, ex-655; Cabanas, ex-680; Santa Ana, ex-760) (WRTH via ARC).

HONDURAS - New/changes: HR..-800 R. Sonora, Danli', 860w, 1100-0400. HRLE-1050 R. 10-50, San Pedro Sula 2kw; 1200-0500. HRQU-1070 R. Siguatepeque 1kw 1200-0500. HRG2-1070 R. Guaymuras, El Paraíso, 3kw. HRYT-1270 R. Estrella de Oro, 1200-0400. HRPC-1600 R. Luz y Vida, 2200-0400 (WRTH via ARC)

MEXICO - Newies: XERA-690, R. 9-190, Fresnillo, 5kw. XEKOK-750, R. Sensacion, Acapulco, 5kw. XEIO-840, Tuxtla GTO 10kw. XEIH-930 Fresnillo, 5kw. XE---1100 R. Alegria, Moreolon, 5kw. XEJY-1350, R. del Valle, El Grullo, 1kw. XEZJ-1480, R. Selecciones, Guadalajara, 1kw. XERUV-1550, R. Universidad Veracruzana, Jalapa, 10kw (WRTH LANL via SDXL, FERC)

MICARAGUA - A new official list shows that prefixes have changed from YN-- to HT---. Current list: 540-HTOW 10kw 1000-0500. 555-HTS 10kw R. 19 de Julio (ex-R. Tic Tac, 8kw), 1000-0600. 570-HTAE1 5kw 1100-0400. 620-HTGR 10kw 24h. 650-R. Jalteva, Granada, 1kw. 660-HTOS 10kw 1200-0400 (ex-680). 720-HTRC 10kw 1200-0400. 750-HTX 50kw 24h. 810-HTCC 2kw 1000-0130. 820-HTOL 12kw 1130-0300. 840-HTRN 1.6kw 1130-0300. 860-HTAV 5kw. 880-HTRC 2kw 1200-0400. 900-HTRT 5kw. 920-HTW 10kw 1000-0300 (ex-930). 1000-HTTS 10kw. 1030-HTCW 2.5kw. 1035-HTLL 2kw (ex-1030). 1040-HT.. 2kw 1100-0400. 1130-HTQ 1kw 1130-0030. 1230-HTCN 1kw 1200-0300. 1270-HTWX 3kw. 1300-HTR 2kw 1200-0100. 1410-HTMS-1000-0600. 1500-HTPT 5kw 1200-0400. YNRD-590, YNW-930, and YNRP-1390 are not referred to (WRTHNL).

PANAMA - So. Command Network (790/1420) has a new address: PSC, Box 349, APO Miami FL 34004. GM: Andreas I. Friederich (WRTH via ARC)

PARAGUAY - R. Manduti-1020, Asuncion, is back on (0900 s/on) after a 30 day government suspension (BBC). ZP27-680 is ex-820.ZP41-680 now 5kw. ZP25-1080 R. Nanawa 1kw. ZP71-1100 R. Hu Vera', Capitan Bado, is new; 5kw, 0900-0200. ZP24-1120 3kw. ZP3-1250 10kw. ZP44-1360 R. Arasapoty, Itaubua, new, 1kw 0900-0200. ZP42-1420 R. Guyra' Campana, Horqueta, new, 5kw 0900-0200. ZP29-1450, R. Vallemi, new 5kw 0900-0200 (WRTH via ARC).

PERU - RN de Peru says new stations will be built on the borders. These would help cover the entire country and to settle the border areas. Outlets in Tacna, Puno, Tumbes, Puerto Maldonado and Iquitos are already on (BBC). OAX5T-620 ex-980; 2kw 1000-0600. OBX4G-730 RP del Peru', 10kw. OBX5B-1060 2kw 1000-0400. OAX3U-1060 R. Luren, Jiron Grau 530, Ica, new, 2kw 1000-0500 (same calls used to be R. Horizonte-1060, Tingo Maria, 2kw. Any info anyone?) OBZ7Z-1100 now 1kw. OAX3R-1140 2kw 1000-0500. OAX4M-1300 15kw 1100-0500. OAZ4B-1300 2kw 0900-0600. OAZ8B-1300 3kw. OAX2Y-1410 2kw. OAX5M-1580 2kw 1000-0600. OBX5C-1590 R. Esmerelda, new on MW; 1030-0300 (WRTH, PDX, SWB, JLCC via ARC).

PUERTO RICO - WMNT-1500 R. Aleluya, Manati' ex-R. Atenas; 1000/250. WBJA-1540, R. Musical, Guayama, 1kw. WRSJ-1560 R. San Juan Apostol, 5000/250 24h. WPPC-1570 R. Felicidad req. 1kw U1 (WRTH via ARC).

URUGUAY - CX6-650 SOBRE is 7kw. CX8-690 25kw. CX144-1440 R. Rivera ex-1445; 5kw 0930-0300 (WRTH via ARC).

VENEZUELA - YVQL-720 R. Vision Oriente ex-YVQE. YVKC-790 10kw. YVDE-1060 10kw 1000-0400. YV00-1140, YVOK-1160, and YVPX-1170 all now 10kw. YVZA-1390 now 5kw. YVNP-1530 is the call for R. San Felipe; 5kw 1000-0300 (WRTH via ARC). YVMJ-580 now 100kw. YVSR-960 R. San Sebastian, ex-R. Mundial. YVRR-1160 now 20kw. YVPF-1290 now on 0900-0500. YVMS-1300 R. Reloj, ex-YVNS; now 20kw (WRTH, CRM via ARC).

Credits: ADXN - Australian DX News. ARC - Arctic Radio Club (Sweden). BBC - BBC Monitoring Service (copyrighted). CAT - Charlie Taylor, Okinawa. FERC - Far East Radio Club (Japan). MISC - Mittelwellen-Spezial-Club (W. Germany). NZDKT - N. Z. DX Times. SADX - South African DX Club. SODX - Sweden Calling DXers. Sintonia (quarterly publication of Bolivia DX Club, Casilla 2250, Cochamba, sent by John Wilkins). WRTHNL - World Radio/TV Handbook Newsletter.

Toshihiko Oka of FERC has written in response to some statements relating to the expensiveness of the extremely thorough and complete Japanese MW List we mentioned recently (\$7). He says the expense of cashing in the checks or International Money Orders is 30-40%, which we agree is a bit unreal. He will accept \$5 in cash. This does represent a substantial saving. I know some of you don't relish the idea of sending cash in the mail. I did send cash for an Asian Broadcast Institute subscription several years ago and have been dealing with FERC and ABI for several years, so can pretty well vouch for them. However, I can't vouch for the mail service. All I can say is that it is an excellent publication. If the savings are more important to you than the risk, then I would go for it. Toshihiko is at: 64, Sumiyama-cho, Kameyama City, MIE, 519-01 Japan.

Arthur Cushen of the NZRDXL has logged CFWH-570, which certainly gives the rest of us something to shoot for.

WORLD TIMES: Most of Europe goes back to GMT 9/25. The UK and Ireland revert 10/23, the US on 10/30 and the USSR on 10/1. In the Southern hemisphere, DST is in effect in Australia and New Zealand 10/30-3/4 and Chile 10/9-3/11.

Thank you Gabriel Ivan Barrera and John Wilkins for materials you sent, and everyone else for your support of the column!

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