

SHORTWAVE BULLETIN

Nummer: 1440, 27 augusti 2000. Deadline nästa nr: 8/9 2000 (fax & E-mail 10/9 kl. 0900 SNT)

Sitter i dag och knappar för sista gången på min gamla P120 dator. Har äntligen bestämt mig för att uppgradera till något betydligt snabbare och det var lämpligt nu när Jesper och Sara mer och mer behöver datorer till hjälp i sina utbildning. Så min gamla + en inköpt begagnad P166 får nu göra tjänst hos dem ett tag. Det är framför allt de nya Office 2000 programmen Word och Frontpage som kräver betydligt snabbare maskiner. Det är faktiskt rätt kass och behöva sitta och vänta på att något skall hända på skärmen!! På DX-fronten har det trots rätt dåliga konditioner kommit in en hel del tips. Aktiviteten är i varje fall inte helt borta. Vi får väl hoppas att hösten skall bjuda på en del fina hörligheter. För den tekniskt intresserade har jag på webben hittat lite info om två ovanliga radioapparater.

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SWB-info

SWB online på HCDX: <http://www.hard-core-dx.com/swb>

SWB old archive:

<http://www.algonet.se/~ahk/swbhome.html>

SWB hot stuff: <http://home.sverige.net/thomas.nilsson>

Komplettering av medlemslistan: Några stycken har ännu inte skickat in en kort medlemspresentation innehållande åtminstone: Yrke, DX-start, Verifierade länder/stationer, Mottagare, Antenner, Ev. andra hjälpmedel, Ev. annat avlyssningsställe, Favoritområde, Övriga hobbies, samt annat av intresse.

Sammanställningen finns på: <http://www.hard-core-dx.com/swb/member.htm>

Passar även på att visa en bild av den perfekta DX-lyan som visar att en sann DX-are inte bara lyssnar på radio utan även intresserar sig för annat (Bilden hämtad från nätet vid ett lämpligt tillfälle och är omslag till en bok av W1GFH)



QSL, kommentarer, mm.

Jan Edh: En tur ut till Fredriksfors 15/8, men nu är det faktiskt inte roligt längre. Samma stationer snart sagt varje gång, och sällan något bra. Solvärdena är ju heller inte med oss precis. Nu var det 194 och med A-index 12-14 och K-index 1-3. Family Radio, Taiwan på 1557 fortsätter gå enormt i sin ensamhet. Antarktis 15475,6 samma sak. Och ytterligare en som bara brakar in nästan oavsett konditioner är La Red 92 på 1630. Men sedan litet av de vanligaste brassarna på KV, Bolivia, Peru etc t o m sämre än vanligt, om alls. Och på MV inget. Då hjälpte det knappast att det åter var åskfritt heller. Det är tur att man kan sitta och njuta av SWB i sådana stunder...

Den 21/8 åkte Ronny Forslund och jag (JE) ut till Fredrikfors igen. Det märks att kvällarna blir mörkare och det börjar höras litet ljud efter hand från Asien. Inget Diego Garcia den här kvällen dock, men 120 mb-australierna var starka och 1557 Family Radio, Taiwan går som ett spjut och måste ha höjt effekten kraftigt. 4960 kan ha varit Vanuatu. Men sedan började motgångarna. Brassarna dåligt, inget annat speciellt. Solvärdena för natten var 151 - 9 - 2.

QSL: Radio Congonhas 4775, brev, turistborschyr mm (v/s oläslig) 4,5 månad, **Super Radio Alvorado** 2460 email (snyggt dokument) (v/s José Severiano de Freitas, Director Geral, severian@mdnet.com.br), 13 mån, **Radio Coestena Ebenezer** 4930,6 email (v/s Ivan Franc, casasps@yahoo.com, 4 mån.

Christer Brunström: Radio Santa Rosa 6045 med nytt QSL-kort och broschyr om deras Club de Amigos. Rapporten till Jn. Camaná 170, Lima 1 kom fram. **Scandinavian Weekend Radio** 11720 kort.

21/8: Annars tycks det vara väldigt stort just nu. Lyssnade efter 0300 på kortvåg i morse och i stort sett endast Ecos del Torbes var hörbar.

23/8: Rádio Trans Mundial 9530 kort + tidningen NoArRTM med intressant information. Programmen produceras i São Paulo och sänds per satellit till sändarstationen i Santa Maria, RS. RTM köpte de tre kortvågssändarna år 1995. Inget tyder därför på att Rádio Nova Visão existerar längre. Man erbjuder också sina lyssnare en liten praktisk kortvågsmottagare som bara tar in RTM:s tre kortvågsfrekvenser.

Leif Råhäll: Inte särskilt mycket att komma med denna gång, har kollat 5020 vidare men inget kunnat höra något p.g.a. att Niger varit igång och ibland legat på frekvensen och ibland lite över. Kanske någon annan som vet ? Det är fortfarande trögt på eftermiddagarna så det blir att vänta.

Rolf Wikström: Har inte mycket att bidra med denna gång, men såg att JE gått ut på Internet med sitt svar från Radio Costeña Ebenezer. Han skriver: "Quite surprisingly, I today got an email QSL from the notorius "all black" Radio Costeña Ebenezer on a report of reception dating back to May 1999." Vill nog bara säga att stationen inte alls är "notorius all black" om man läser t.ex. SWB och EA !

Stefan Björn: Jag har ännu inte fått tid över för att sätt upp en mindre K9AY, men jag har förbättrat den befintliga med ett jordplan bestående av ett ihopkopplat fårstängsel. Antennen fungerar nu ännu bättre på MV, med ett tydligare fram - back förhållande. Jag har även testat riktverkan på KV vid flera tillfällen - och får ibland så bra resultat att en mindre antenn knappast skulle vara bättre. Allra bäst riktverkan har den på svaga signaler (mest testat mot Asien på e.m.). Ibland förvånansvärt bra riktverkan även på höga

frekvenser. Oftast är riktverkan obefintlig på höga frekvenser. De enda svar som kommit sedan sist är **Radio Vaticana** - 5883 med kort och **Scandinavian Weekend Radio** - 11690 med kort nr 28.

LOGGEN - ALL TIMES ARE UTC



3250,8	12.8	0210	Radio Comas hörs ofta fint numera. 3-4 RÅ
3270	12.8	0200	GBC, Georgetown med fint id och rpt från FN:s generalförsamling. Annat var det förr när man hördes ofta på 5950 och 560 kHz och dessutom svarade bra. 3 RÅ
3280	12.8	0136	La Voz del Napo med mkt fin signal. 3-4 RÅ
3344,8			ska frekvensen förstas vara för RRI Ternate (fel i logg 9/8) JE
3380,1	11.8	2355	OID mycket intressant SS-LA men svårt att få fram något distinkt. Möjligen är R. Cumbre fortfarande igång? 1-2 RÅ
3392,1	11.8	2340	R. Emisora Camargo skapligt denna natt med comunicados. 3 RÅ
3494,6	11.8	2348	R. Emisora Padilla med lugna sånger och en mycket slö locutor som pladdrade om "Alcaldía Municipal" - det är ju en kommunal sändare i Padilla. Verkar svår på QSL. 1-3 RÅ
3945,0	23.8	2028	JPN Radio Tampa med klockspel. första gången i höst. 1-2 LRH
4319	18.8	1630	AFN med rock'n roll och nyheter om flygvapnet. Stationen kom in samtidigt med indierna på 60 mb. Signalen bäst på S och E "loberna" på min K9AY - och mot sydost ligger Diego Garcia, som tabellerna säger att det är! Svåra utility-QRM. 2 SND
4319u	19.8	1730	AFRTS som troligen är Diego Garcia. Jennifer Rush bl a i ett program med kvinnliga sångare. QSA 2-3 på aktiva antennen hemma. Mycket störningar, bl a från en röst som tjatade "Radio check" och ett åtta siffror. JE
4696,55	21.8	1930	Radio KIP, Surabaya med indonesisk ("muslimsk") musik. QSA 2 JE
4880,84	20.8	0345	Radio Comas nu här. Har senare hörts på 4880,98 och en bit över 4881 kHz. Kör halvtimmessjok med mx innan man IDar. QSA 2-3. WIK
4890	12.8	2120	NBC igenom ett tag med QSA 2-3 GW
4910	23.8	1740	AIR Jaipur med lokal-ID efter nyheterna. 2-3 CB
4950	13.8	1630	AIR Srinagar med ett program om utbildningsväsendet. c/d 1738. 3 SND
4960	21.8	1905	OID - tankarna går till Vanuatu. Asien/Pacificantenn. Svag, fade out redan ca 1920. Troligen nyheter. QSA 1 som bäst... JE
4960	23.8	0423	Radio Villa "Siga con los cinco grandes de la bacata". 3-4 CB
4960 2	2.8	0300	"This is the Voice of America, Washington D.C." Man undrar nu om VOA och AFRTS/AFN kommer att även blockera 60 mb. i fortsättningen! QSA alledeles för bra. WIK
5009	12.8	1820	Radio Madagascar idade "Radio Madagascar, ondes moyennes, ondes courtes, FM" flera gånger. I övrigt var det mesta på lokalt språk. 2 CB
5020	22.8	0500	La Voix du Sahel började dagens sändningar med hymn och frekvensangivelser. 3-4 CB
5765	22.8	1840	"This is AFN" även på denna frekvens. Nu country & western. Enligt uppgift är detta Guam - och det finns inget i mottagningen (tid, riktning etc) som motsäger det. 3 SND
5935	19.8	1800	Radio Caroline (via Lettland) med specialsändning. Stark signal men ständiga avbrott. 4 CB
5935	19.8	1830	Radio Caroline via Lettland QSA3-4 på aktiva antennen hemma (däremot fick jag inte fram 1296 på den tidigare på kvällen) JE
5970	21.8	2105	Radio Itatiaia ofta framme tills Italien drar igång 2115, men nästan omöjligt att få ut något ur programmet pga splatter och larm. QSA 2 JE
5985,8	16.8	1540	MYA Yangon med nat. mx , slutar 1600 1-2 LRH
6847,5u	21.8	2015	AFRTS (Sicilien?) med Airforce Radio News QSA 4 JE
7244,97	15.8	1945	Em Nacional de Angola, annonserade 19.58, sedan jazzmusik QSA 2 JE
7450	14.8	1845	Radio Nacional Saharaui med livlig LA-musik. Ny tid för sändningen på spanska. 3 CB
10320	17.8	0600	AFN utsändning med ett sådan snabb fading och ljud att signalen bör passera över polen. Hawaii? Hörs nästan dagligen, men oftast svagt. 3 SND
10320u	21.8	2020	AFRTS-station med nyheter. Island troligen, men strax före 20.30 kom Radio Nederland med paussignal och annonseringar på holländska och senare låg ett program på arabiska och tryckte bort allt. RN-feeder eller vad? JE
10320u	22.8	0440	AFRTS (Island?) nu stark och bra, men började få fadingproblem efter en halvtimme. Sände (gamla?) serier staplade på varandra. Inga nyheter 0500. QSA 4 JE
10940,5U	15.8	2125	AFRTS (Sicilien?) brakade in QSA 4 JE
11815	22.8	0456	Rádio Brasil Central med jinglen "No Coração do Brasil - Rádio Brasil Central". 3-4 CB
11925	24.8	0500	Rádio Bandeirantes snackade fotboll vid denna sena timme. 2-3 CB
12210,0	13.8	2250	R Cultura Filadelfia med bra signal denna kväll. Nu exakt på sin frekvens (6105) fast gånger 2. Q3 SND
14565,1	19.8	2130	R Blandengue pirat i Sydamerika med musik från Anderna och Ecuador. 3 SND
15475,6	15.8	1920	Antarktis bryr sig inte om konditioner - går "alltid" kanonbra. -17 grader där, slår myggen här med hästlängder... JE
16847,5	15.8	0500	AFN med "ANI Money Talk". Varifrån? 3 SND

Stationsnyheter

ANGOLA

7245, Radio Nacional de Angola; Mulenvos, Aug. 22, 2006-2015, African popmusic, male speaker in French with ID and frequent

mention of Luanda. 23343 at best. At re-check 2056 IS, followed by ID and frequencies by female speaker in English. From 2100 blocked by Radio Liberty in Russian. [Veldhuis, via HCDX]

BENIN

7210, ORTB Cotonou, 13.8, 1810-, in FF/ vernaculars, afropops. Belarus off this evening. [Jarmo Patala, Hyvinkaa, Finland. via HCDX]

DIEGO GARCIA

Diego Garcia has been heard on MW here in NZ back in the late 70's... a cover-letter was published in the DX Times in 1979 and is now posted at: http://radiodx.com/spdxr/Diego_Garcia.htm. I'd greatly appreciate any illustrations to brighten up this article, photos, QSLs etc. [Paul Ormandy, New Zealand, paul@radiodx.com via HCDX]

INDONESIA

2899, RPDT2 Ngada. 1252 Aug 5 at low level with local info. Aug 5, 2000, David Foster-OZ via Numero Uno No.1590. [JEMBATAN DX NO.100, via HCDX]

2960, RPDT2 Manggarai. 1250 Aug 5, conversation, clear but not so strong. Aug 5, 2000, David Foster-OZ via Numero Uno No.1590, [JEMBATAN DX NO.100, via HCDX]

3161.3 RSPDT2 Halmahera Tengah. 1249 Aug 5, Indopop, 1300 relay of Jakarta nx; overmodulated and unstable xmtr. Aug 5, 2000, David Foster-OZ via Numero Uno No.1590, [JEMBATAN DX NO.100, via HCDX]

9540, Unknown RRI regional. noted Jul 23-25 during local daytimes. Breaks noted at approx. 0220-0545, but still on when KTWR swamped the channel after 0900. IDs as "RRI [location] Programa Satu," but unfortunately I'm not sure of the location. It sounds like it begins with S and ends with A. Sibolga has been rptd recently on 5030, although my impression is that the ID on 9540 may have too many syllables to be that, but it's hard to tell as the anmts are very rapid and the audio was somewhat distorted. Time anmts are in Western Indonesian Time (UTC+7). Apparently off air morning of Jul 26. I've not been able to hear an Indonesian on 5030 under co-channel Kuching; maybe this is a new xmtr testing intermittently. Jul 23-25, 2000, Alan Davies-Malaysia via Numero Uno No.1589. [JEMBATAN DX NO.100, via HCDX]

NIGERIA

7255.00 Voice of Nigeria 2154a Business News, in English, followed by Sports news at 2156. Main points of news given by woman at 2158, with ID at 2159, then continued past 2200 with more English news. Changed to French at 2202. Very strong, crystal clear signal. (Fine 26 Aug) [Mark J. Fine / mark.fine@fineware-sw.com via HCDX]

PERU

3234.87, R. Luz y Sonido, 0938-0946, Long excited talk by man with mentions of Peru, TC. Into OA campo song 0945. Song announcement, simple "Luz y Sonido" ID, TC, and talk by man at 0948. Mention of onda corta and phone number too. Heard under pulsing UTE here. Tough. Not heard in some time. [Valko 12 August, via HCDX]

3375 R San Antonio, San Antonio de Padua, August 15, 0100-0125, Spanish, huayno music, IDs, time announcements, the speaker presented the singer of each song, ID: "En sintonía con Radio San Antonio" (RA sound file available, 151 KB). 34323 [Michael Schnitzer, mschnitzer@cc-online.de in northern Jutland, via HCDX]

r4880.5 R.Comas, Comas, Lima, August 19, 0130, Spanish. New frequency. [Rogildo Fontenelle Aragão, Bolivia via HCDX]

5235.56 R Apurimac, 11.03, no ID but s/on at or about 11.00, but flute music noted with fair signal. This one confirmed and being heard by Rogildo Fontenelle in Bolivia at this time and thanks to him for this confirmation (Norrie, 25 Aug, via HCDX)

5300.1 R Superior, Bolívar, August 15, 0220-0230, Spanish, Andean music, time announcement, ID. 23322 [Michael Schnitzer, mschnitzer@cc-online.de in northern Jutland, via HCDX]

5460.71, R. Bolivar (pres.), 0217-0241+, Hearing this throughout the evening. Long speech by man when first tuned in. Nice OA harp music at retune, then more speech by man. Possible mention of Cusco and several possible mentions of "telefono". Occasional canned echo talk by man during speech. Finally what was obviously, and sounded like a canned ID by man starting with high pitched flute, mention of onda corta following the possible ID. Studio man announcer briefly, then back to romantic music. Possibly "El Condor Pasa" at 0241, but too weak to be certain. Signed on the next morning at 1017. [Valko 13 August, via HCDX]

5470.88 R San Nicholas, 11.35, full ID as tuned in but generally weak with static crash hindering programme details (Norrie, 25 Aug, via HCDX)

5637.23 R Peru, 11.19, ID as a "San Ignacio .. Peru." frequent ID's between soft guitar music with signal peaking as good at 11.31 (Norrie, 25 Aug, via HCDX)

TANZANIA 11734.07 Radio Tanzania Zanzibar 2045a Talk by woman in presumed Swahili, into regional music at 2047. Very strong signal at this time, but weak audio is obliterated by China Radio Int'l on 11735. (Fine 26 Aug) [Mark J. Fine / mark.fine@fineware-sw.com via HCDX]

UNITED STATES/Worldwide

According to <http://www.npr.org/worldwide/shortwave.html> the transmitters are:

Key West, Florida: 12689.5 (daytime) and 12689.5kHz (evening), **RR Puerto Rico**: 6458.5 and 6458.5kHz, **Signonella, Sicily**: 4993 and 10940kHz, **Guam (Barrigada)**: 13362 and 5765kHz, **Diego Garcia**: 12579 & 4319kHz, **Keflavik, Iceland**: 10320 and 6350kHz, **Pearl Harbor, HA (Lualualei)**: 6350 and 10320 [Jan Oscarsson, jan.oscarsson@umehus31.ac.se via HCDX]

Övriga radionyheter

T2FD dimensions

I built a T2FD a couple of weeks ago and I've been very satisfied with it. On tropical bands it has proven to be as good as a long wire of 260 metres, which I use as a reference antenna. In fact I don't see any difference between them on tropical bands. Very positive point is that T2FD provides a fair audibility on higher frequencies (above 15 MHz) in the late night, while with a normal wire antenna those bands are usually almost dead. The dimensions of my antenna are: From the feedpoint to the end: 12,13 metres. Spreaders: 0,747 metres (made of wood, varnished against the weather) The overall length of the antenna element: 50,0 metres. Resistor: 390 ohm, 2-watt. The lowest useable frequency in this application is 4.0 Mhz. After a test period of two weeks it seems to cover all bands above this fq. On the

90 metre band the noise level is higher. Funny thing is that you can also pick up some (weak) signals even on medium wave, but so far I could not find out the exact radiation pattern for the medium wave band. The upper support of my T2FD is at the height of 10 metres and the lower one at 2 metres. Please drop me a line if you need more information. [Vesa-Jussi Rinkinen, vesa-jussi.rinkinen@kolumbus.fi via HCDX]

Radio-exports.com homepage [Graham Leo via rec.radio.shortwave]

Interesting new vintage radio site at <http://www.radio-exports.com>. Many interesting European/British items for sale including many rare pieces. Please take a look. Your feedback would be greatly appreciated ! Many Thanks for your time. Please find below two receivers from this interesting site..

Argentinian Army Communications Receiver Model 8722A. An unusual receiver and one with a very interesting provenance, as it was apparently taken as a trophy of war, by a British soldier, from the battlefield at the time of the Falklands War between Britain and Argentina. This is a transistorised communications receiver, made by Compania Standard Electrica, Argentina. Coverage is from 1.5 Mc's to 18 Mc's in 4 switched ranges. The circuit incorporates switched selectivity, B.F.O., A.V.C., Calibrator and the receiver is fitted with an internal speaker. Operation is from 12 volts D.C. and the set has a battery compartment designed to accommodate 8 standard 1.5 volt D cells. One of the small metal control knobs is missing from the front panel. Apart from some minor corrosion on the chassis, the communications receiver is in very good condition. A detachable metal front cover, designed to protect the control panel, which is not shown on the photograph, is with the receiver. The serial number is 006,



so this example must have been one of the very first of these receivers to have been made. This communications receiver is in working order. The price is \$395 USD, which includes air freight to the USA.



Rees Mace Marine BR2169 Communications Receiver. This extremely well made receiver was produced in England between the years 1952 and 1957. It is a 12 tube (valve) superhet, with continuous coverage from 55 Kc's to 31 Mc's in 8 ranges. The set requires 6.3 volts at 3.5 amps for the tube heaters and around 245 volts DC B+ (HT) at 135mA. Audio output is via a low impedance phone jack. In addition to being a nice addition to any collection of vintage radio sets, this one has the added bonus of being a pleasure to operate. The reduction gearing on the tuning capacitor of 48:1 results in a satisfyingly slow rate of tuning, which, combined with variable selectivity, makes for easy reception of SSB and CW. The condition of this vintage radio is very good, and it is in working order. The price is \$475 USD including air transport to the USA. □

New Websites

Radio Cook Islands and Tonga Broadcasting Commission have recently opened their websites at: <http://www.radio.co.ck/> and <http://www.tongabroadcasting.com/> [Pentti Lintujärvi, via HCDX]

These are both pretty interesting sites. The Tonga site had links to some other Pacific Broadcasters, including The **Fiji Broadcasting Commission** at <http://www.radiofiji.org>. The fiji site includes coverage maps for their AM stations plus recordings of IDs for each network. [Bruce Portzer, bportzer@home.com via HCDX]

Here's another Oceanic web site: <http://www.vbtc.com.vu/>. It's for **Vanuatu Broadcasting & Television Service**... there's a link at this site for the Vanuatu weekly newspaper online, which I like reading occasionally. [Guy Atkins, via HCDX]

Eldorado for LA Dxers, new URL

My ISP is growing and has changed the URL to Eldorado for LA DXers to <http://members01.chello.se/mwm/eldorado/index.html>. So please change your bookmarks! Hopefully I'll be able to update the site during next week! [Nils Jakobsson, mwm@chello.se via HCDX]

The EDXC Country Landlist

Finally the European DX Council has the pleasure of introducing the World Wide Web version of the EDXC Country Landlist. The web version is available at <http://www.swl.net/edxc/> following the publications -link. It contains practically all the same information as the printed version and the landlists are available as .pdf -files either continent by continent or as a whole. The project has taken a lot more time as was expected, mainly due to heavy workloads (of business) of the EDXC webmaster, and also due to some software updates.

The EDXC Country Landlist is maintained by Mr. Olle Alm, a very experienced Swedish DXer. The www layout has been created by Dr. Anton J. Kuchelmeister, who is the EDXC webmaster. You may send your comments respectively to them. Enjoy the list and count your country totals! [Risto Vahakainu, secretary general, European DX Council via HCDX]

Pennant Antenna with Remote Termination Control

The initial version of my new article "Pennant Antenna with Remote Termination Control" is now available at ["http://members.aol.com/DXerCapeCod/pennant.htm"](http://members.aol.com/DXerCapeCod/pennant.htm). It contains descriptive text, circuit drawings, and data tables and graphs of test results. This articles builds upon the excellent article "Flags, Pennants, and Other Ground-Independent Low-Band Receiving Antennas" by Earl W. Cunningham, K6SE, in the July 2000 edition of QST magazine. What I have done is to provide a way to adjust termination resistance remotely from the comfort and convenience of the operating position. The need for doing this is made apparent by test data

showing that the null bearing may be moved to a certain extent by means of changing this resistance. [Mark Connelly, MarkWA1ION@excite.com via HCDX]

Watkins-Johnson HF-1000

I'm using a Watkins-Johnson HF-1000. I sold it a while back, only to re-purchase it when I got re-interested in SWL. I couldn't believe just how much I missed. In an attempt to make good things even better, I bought the Sherwood SE-3 which uses the 455 kHz IF and makes listening even better for a number of technical reasons. The biggest change I made after I bought back the HF-1000 was to erect an Alpha Delta DX SWL Sloper antenna. I did this because I thought it might be nice to have a correct impedance match of an antenna to this receiver. The difference it made was astronomical! I am routinely picking up signals at easy listening levels which I can't even begin to hear using my 150 foot 100 foot elevation "inverted L" antenna. Still not sure why. The only time the long wire is marginally better is on signals in the 2 to 3 MHz range. I am not sure why there is such a dramatic difference and would like to know if others noted this much of an improvement.

I also have the HF-1000 slaved to a high precision 5 MHz quartz oscillator [the Rubidium atomic standard I had went kaput]. By using the HF-1000's CW mode and associated audio output, and an oscilloscope, it is easy to measure AM and CW stations RF to the one Hz level. This often allows me to separate signals "on the same frequency" such as signals from PNG and Indonesia. It is also interesting [to me] to see how their stability holds over the years, and which stations are exactly on frequency, and which ones aren't. The other major "listening" device isn't for listening. It is a Singer MF-5 Spectrum Analyzer, which also makes use of the 455 kHz IF output of the HF-1000. I can clearly see signals that I can never hope to hear and also verify their presence by using the "exact tuning" method I mentioned above.

Another favorite hobby device is the Sony TCD-D7 DAT recorder. With this device I can record up to 4 hours audio output from the HF-1000 on a tape not much bigger than a small match box. It is a digital tape recorder so I can always be assured of no "wow", "flutter" or frequency distortion. Nice to record those rare broadcasts. It also features an internal date/time stamp clock. I set it for UTC and then you can play back the tape years later and know exactly what day of the week, date, month, year and time [to the one second resolution level]. Even when the clock "drifts" I merely record a patch of WWV so I can correct for any error. Great for recording digital modes for subsequent analysis or breakout if you ever get an advanced decoder card.

I used this portable Sony tape unit [fits in your shirt pocket easily] on trips to Costa Rica, Belize, Mexico, Africa [Tanzania and Kenya] and India [several places] and recorded signals from a Sony 2010 or YB-400. The Indian "natives" enjoyed hearing cricket games, football, etc. The fidelity of the DAT was superb and I had a portable stereo microphone and nice set of earphones to listen to it with. One morning in India when I was way out in East Nowhere [Little Rann of Kutch looking for Wild Asses] I played back the morning prayer which greeted us every morning in this Muslim area. My tour guide heard it and signalled for one of his workers. About 30 minutes later [this was late in the afternoon] the fellow who did the daily prayer broadcast over a loudspeaker from the Mosque heard the tape. He was dumfounded! He then sang the whole prayer for me so I could record it in stereo. Another one of our guide's servants [slaves is closer to the truth!] heard himself talking on the tape from the evening before and looked like he had heard the voice of the devil. He was almost frightened by the whole thing. It was proper grounding to realize just how miraculous such things can be to people that are barely living above stone age conditions.

While in India I would take the longwire antenna and string it up in the straw roof of the cow dung hut we slept in. It worked fine. I could lay in my bed at night, which consisted of a frame with ropes and a hay filled mattress. I would listen to the radio and go off to sleep. It was especially interesting when I awoke the next morning and heard an AIR broadcast in English telling me details about the giant LA earthquake [Jan 1964?]. Since some of the people in our group were from LA, I was able to give them details on what areas were affected the most.

I currently have my old, but reasonably good, NRD-525 which I use as a back up. Alas, I must tell you, even at its best, it was not even close to the receiver the HF-1000 is. I hope someday to make a comparison of the TenTec RX340 to the Watkins Johnson. As good as the WJ is, I'll bet the RX340 is better. Time marches on!

[sgint@mindspring.com , Tom Roach, In the Sierra Foothills about 50 miles East of Sacramento, California via HCDX]

Lowering the resistance to earth

If you can locate a supply of the mineral called Bentonite, it makes an excellent ion-rich (and non-corrosive) backfill for ground rods and grounding systems. Professional antenna installations and electrical substations use Bentonite for lowering the resistance to earth. I have read that Bentonite is sold at animal feed stores; it is used as an additive to cattle & pig feed. Also, ceramic supply stores sometimes carry Bentonite, as it is a special clay used by potters.

During a vacation one year, I got my initial supply of Bentonite directly from a refinery in Wyoming where they mine the stuff... they gave me some bags of Bentonite free because the bags were slightly ripped and they couldn't sell them.

To use the Bentonite, you dig a hole eight inches or more in diameter, perhaps three feet deep (post-hole digger helps), and suspend the ground rod in the middle. Put in a few inches of the powdered or crushed Bentonite, water it thoroughly (it swells up tremendously with water), and then add another layer. Water that layer, and continue with water-soaked layers of Bentonite until the hole is filled up.

The Bentonite absorbs the water, expands, and holds the ground rod very tightly in the center. Because of the expansion and Bentonite's conductive qualities, a lower resistance path to ground is achieved. It's sort of like using an eight-inch diameter ground rod at your site. The Bentonite never dries out, as it is "hydrophilic" and absorbs moisture from the soil to remain hydrated.

If you do a web search on the term "bentonite" you'll come up with a lot more information about this mineral. Besides improving ground systems, it is used as a colloidal (suspension) product for everything from vinyl plastics to chocolate(!) to cosmetics. Also, Bentonite, in a highly refined form, is the key active ingredient in disposable baby diapers (I'm not kidding!). I know this trivia because Bentonite mining is one of the industries in the region of Wyoming my wife grew up in.

Here in Bonney Lake, WA, our soil is very rocky, ancient glacial debris from Mt. Rainier. Even though we live on a small island and are surrounded by water, the soil is still very dry and rocky. Bentonite surrounding my ground rods has improved the directionality of my impedance-matched, terminated 175 ft. longwire. There was a noticeable improvement in directivity to Papua New Guinea and Irian Jaya after improving the ground with Bentonite.

I also use the same ground for K9AY electronics (the head unit), although I don't know if this is really helping.

BTW, there was a IEEE paper written some years ago about Bentonite grounds. The careful measurements and comparisons they did showed clearly that resistance-to-ground was lowered when Bentonite was used. This method is clearly preferred over adding various salts to the soil... Bentonite won't corrode the ground rod nor harm the soil or surrounding vegetation.

[Guy Atkins, Bonney Lake, WA, dx@guyatkins.com via HCDX]

I am a member of the Lowdown which deals heavy with weak signals. Good ground system is a real plus. This is a bit expensive but what many do is to lay chicken wire down and cover with dirt. I have heard of some using a 1/2 acre and just covering it over. Chicken wire being a 1 inch square sort of wire about 4 feet wide. Solder them together in various areas and make sort of a carpet arrangement. Then bury. Sounds easy but sure is much work. By far a very good ground system but one hard job. [Bob Montgomery, RMonty3@worldnet.att.net via HCDX]

Dimmer noise in the halogen torchiere

There was a post, recently, making an oblique reference to having a halogen torchiere in the same room with the radios, and having hell to pay for it. Been there, done that. I have one in my studio, and although the audio equipment is well filtered, I was having fits with the dimmer noise in the halogen torchiere getting into the air monitor when I'm working an AM Station. Ran the antenna to my Rhombic to get the antenna out of the house, and in fact, that made the signal clearer, to be sure, but seemed to make little or no difference with the dimmer noise.

Well, it became clear, especially after I put the oscilloscope on both the mains and the post transformer power supply of the air monitor, that the dimmer noise was being shuttled into the receiver, through the spikes on the mains. The dimmer for the torchiere is an scr/triac type, very cheap, VERY noisy, and in a very tight space. Though the most effective way of reducing the noise is to bypass the control junction in the scr/triac with a high quality cap, there simply isn't space enough in the support tube of the torchier for sufficient capacitance to be added.

So, here's what finally worked. I opened the wall socket and applied a sufficiently large capacitance across the mains. Normally this would be a .1 at 600wv for a safety margin, but that was insufficient capacitance for buffering the large on/off switching transients produced by the control device in the dimmer across a 500w load. Sufficient quieting required a .5 uf. This was mounted directly across the back of the socket, wired across the hot and neutral. Now, keep in mind that a capacitance WILL conduct a small amount of current even when there is no other load on the line, when placed across the mains, so this large of a cap was only used on the socket with the offending device. The remainder of the sockets were bypassed with .1 uf caps at 600 wv. Larger working voltages increase the safety margin.

I use Orange Drops, with polystyrene dielectric because they have very good transient characteristics, important for removing noise. That, and I buy them in bulk. And QC with Sprague is very good. Some dimmer noise remained after bypassing, and much of that was removed by using ferrite cores (wrap around the cord) in the line to the lamp, one at each end, and in the line to the Monitor Receiver. The balance would be radiating from the bulb element itself and difficult and unsafe to shield. But reducing the bulb rating from 500w to 300w further reduced noise, without appreciably reducing illumination.

Eventually, the torchiere will be removed from the studio, and replaced with incandescent lamps, as the studio lighting is redone. Now, I realize that this solution isn't for everyone. Working with A/C lines is dicey, and if you don't know what you're doing, you can be very dead, very fast. Or burn down your house, which will have a detrimental effect on the quality of your SW listening. But there is an effective alternative. Go to your ACE hardware, or preferred Local Mom and Pop hardware store, and during the 45 minute to an hour of bonding conversation with the clerks, owner, and other customers, pick up a couple of two prong replacement plugs... they're cheap. Get the kind with screw terminals. After sufficient bonding at the hardware store, (is there ever REALLY enough, though?) return to your shack, and wire into each of the plugs, the desired capacitance: at least on .1 and at least one .5, and any variations on the theme. Turn on your radios, and your offending lamp or other implement, and an empty socket on the same branch, plug in one of your bypass capacitors. You'll notice a reduction in noise. Keep trying increasing amounts of capacitance, until you reach diminishing returns. Leave it there through your listening sessions. You may also distribute these devices through out the house. It will help. Such an alternative is NOT as effective as bypassing the control element in the dimmer switch... nor bypassing the sockets... but it's surprisingly effective. It's also cheap.

Warning...use of a cap with insufficient working voltage, threatens the efficacy of the project, and may be a fire hazard. Just so you know. If you really want to get fancy, chokes in the A/C line to the receiver, and bypassing the power supply pre and post transformer also helps. [Peter Maus PeterMaus@worldnet.att.net via rec.radio.shortwave]