

# SHORTWAVE BULLETIN

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Jaha, då är det tid med SWB igen. Denna gång är det inte nåt kul att sätta sig framför datorn och sammanställa bidragen. Bara 3 bidrag!!!!

Nu är det också snart dags att tänka på ett nytt år och därmed SWB:s fortsatta existens. Åtminstone jag tycker att de 48 medlemmar vi har, borde kunna skicka över lite mer bidrag av varierande slag.

Till kommande nummer skulle det vara trevligt att få tal del av era funderingar om SWB:s framtid. Skall bidragsmängden ligga på denna låga nivå, så är det i varje fall inte lönt att hålla på med nån 14 dagars utgivning och en pappersbulle och spilla tid på att åka till jobbet och kopiera de 9 ex som skall gå ut per post!

Så, se nu till att ge lite input så vi kan ta ställning till hur det skall se ut framöver.

Keep on ....

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## SWB-info

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

Dateline Bogotá: <http://homepage.sverige.net/~a-0901/Dateline.htm>

SWB hot stuff: <http://homepage.sverige.net/~a-0901/> (på denna sajt ligger alltid senaste SWB).

SWB member information: <http://www.hard-core-dx.com/swb/member.htm>

Jubileumstidskriften: <http://homepage.sverige.net/~a-0901/> (html- + pdf-version).

## QSL, kommentarer, mm.

**Anders Hultqvist:** Tack för ännu ett SWB. Jag noterar att det varit fina konditioner på MV enligt bidragsgivarna. Det var väl därför att även jag fångade WDHP St Croix US Virgin Island på 1620 förra helgen med fantastisk styrka trots bara en stump till antenn. Även en mystisk "grek" på 1618,5 mfl.

Beträffande digitala sändningar på kortvåg så lyssnar jag just nu på en sådan via min fenomenala WinRadio G313. Radio Luxemburg på 6095 låter enormt bra. Ingen kan tro att det handlar om kortvåg.

**Lennart Weirell:** Ett QSL att rapportera: **ABC Tennant Creek** – 2325 b dek inf efter 2 v.

## World Calendar of Events

15th National Holiday in Brasil

18th National Holiday in Oman

18th National Day in Latvia

19th National Day in Monaco

21st Independence Day in Somali Democratic Republic

24th National Day in the Congo

25th Independence Day in Suriname

26th Republic Day in Mongolia

28th Independence Day in Albania

30th National Day in Barbados

16th National Day in Syria and Estonia

18th Independence Day in Morocco

18th Constitution Day in South Africa

20th United Nations Childrens Day

22nd Independence Day in Lebanon

24th National Day in Myanmar

25th National Day in Bosnia

28th National Day in Mauritana

28th Republic Day in Chad

30th National Day in Benin

....Give a listen to the countries above and let us know what you heard on their special days!!! Send them a Reception Report!!! Good Listening and DX (Mike Terry via HCDX)

## BRITISH AMATEURS GET ADDITIONAL 100 kHz ON 40 METERS OCTOBER 31

Starting at 0100 UTC October 31, the 40 meter band in the British Isles will effectively double in size when radio amateurs there gain access to 7100 to 7200 kHz. Ofcom, the UK telecommunications regulatory authority, announced the Notice of Variation October 26.

The change, in the works since last year, is a result of actions taken during World Radiocommunication Conference 2003, where conferees agreed to move broadcasters out of 7100 to 7200 kHz in Regions 1 and 3 to make room for the Amateur Service. Coincidentally, the UK band expansion, which also includes independently governed regions where Ofcom regulates telecommunications, will occur just about halfway through the CQ World Wide Contest (SSB) this weekend. Contesters take note!

The Ofcom NOV makes the segment available on a secondary basis, and amateur stations in the UK and affected regions may not cause interference to stations operating in other radio services inside or outside the UK.

The UK and Ofcom-administered regions join the Republic of Ireland--which reportedly gained access October 20--as well as Croatia, Norway and San Marino among Region 1 countries that have authorized access to the additional spectrum on a secondary basis. The WRC-03 change does not formally go into effect until 2009.-thanks to Lawrence Woolf, GJ3RAX; RSGB

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## LOGGEN - ALL TIMES ARE UTC

11590 31.10 1430 **Voice of Strait Broadcasting Station** med "Focus on China" på engelska. Man bad flera gånger om lyssnarkommentarer. Undrar om de svarar på rapporter? 3 CB  
11815 3.11 0715 **Rádio Brasil Central** med sertanejamusik. 2 CB



### *Bandscan from BM, Quito, Ecuador*

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Rx: JRC-535, Loewe HF-150, Sangean ATS-808 Antenn: 12 m lw Ö/V, 24 m lw N/S + Lw Magnetic Balun + MFJ1025 phaser

The following stations have been uploaded during the last 14 days at <http://www.malm-ecuador.com>

Recording of **4985.01 kHz R. Brasil Central**, Goiânia, This station has been around for many years on the same frequency. Sports program with ads and a very nice song ID.

Recording of **R. Mallku**, Uyuni (Dave Valko, U.S.A.) If you are a member of mailinglists and reading Glenn Hausers "DXLD" you know that Dave Valko from U.S.A. is a very active DXer. The recording of R. Mallku he made on one of his "Micro-DXpeditions". Thanks Dave!

Recording of **3329.59 kHz R.Ondas del Huallaga**, Huánuco. This station is listed as "irr" in WRTH but is active at least 75%. I have not presented Huallaga before mostly because of electrical noise on these low SW frequencies.



Saludos Cordiales desde "La Mitad del Mundo"!

(When using my information give credit to: Bjorn Malm, Quito, Ecuador, SWB América Latina)

## Stationsnyheter

**BHUTAN. 6035, Bhutan BS** with Bhutanese music program Nov 1, 1351 to 59 (vocal/instrumental song & vocal group with heavy drum accompaniment); woman announcer to 1359.5, Bhutanese instrumental music 1359.5, man 1400-1409 (probable news, but copy not good enough to say for sure) and instrumental music at 1409. After 1409 increasing co-channel QRM (unID) and splash from 6030 (probable Beijing) made readability quite difficult. Tomorrow I'll see how early this can be logged - nominally BBC Thailand is on channel until 1345. S3 at start, fading to S2 after 1400. Got a good recording of the music program before 1400 (Bruce W. Churchill, Fallbrook, CA, Japan Radio NRD-545, Wellbrook ALA-1530 rotating loop, Cumbre DX via DXLD)

**BRAZIL: Rádio Educação Rural**, in Coari, Brazil, is expected to end short wave transmissions when its medium wave transmitter is finally installed. The installation is expected to be ready in January, 2005, says Brazilian DXer Paulo Roberto e Souza after having talked with Sidomar Alfaia at Rádio Educação Rural. When the medium wave transmitter is ready, the short wave transmitter "will be transferred to some other location", says Roberto e Souza. At presente Rádio Educação Rural is transmitting on 5035 kHz between 0945 and 0100 local time. The new medium wave transmitter will operate on 560 kHz. (Paulo Roberto e Souza, 7 November 2004, atividade DX 225 via HCDX)

**GUINEA: Radiodiffusion Television Guineenne**, Conakry noted Nov 8 at 2038 UTC with programme in French on **7125 kHz**. This station can be heard in the very crowded 41 mb at my QTH only during the geomagnetic storms. Also finally logged AIR Gangtok on 3390 kHz from Sikkim at 13 UTC. (73's Jouko Huuskonen, Turku FINLAND via HCDX)

**INDONESIA. 3578, RSPK Ngada**, Bajawa again active, 1105-1308 UT, BI, relay of RRI Jakarta at 1204 UT, clear ID's. Weak on Oct 22, 23 & 25th, on 24th inactive (Roland Schulze, Philippines, BC-DX Oct 25 via DXLD)

**INDONESIA. 4919.9, RRI Biak**, 0930-1008, Oct 16 and 17, active again after a long absence. Bahasa Indonesia ID, islamic programme, but popular and international music! Utility QRM and from 1008 splatter from China on 4920, weak signals (Roland Schulze, Philippines, DSWCI DX Window Nov 3 via DXLD)

**LATVIA. From: "FRS.Holland" Subject: 24th Birthday.** Dear FRS Friends, Broadcast celebrating 24 Years of SW Activities Next Sunday, November 14th, FRS-Holland will take to the air celebrating its 24th Birthday. The broadcast will take place on 9290 kHz/ 31 mb commencing at 0900 UT sharp. Close down will be some 3 hours and 30 minutes later. Even on simple transistorized portables, a solid signal is provided.

Programs will be hosted by Mark Jones (Off Beat), Frank Carson (Frank Carson Show) & Peter Verbruggen (FRS Magazine & FRS Goes DX). Included will be mainly music from the FRS era 1980- 2004, various programme items, the phrase that pays and a Joop ter Zee tribute. There will be a lengthy (50 min.) DX Show in which many radio topics will be handled. In addition a number of letters from the May 30th 2004 broadcast will be read out. Among the items is a flashback to November 1983 with FRS-Holland & Radio Caroline extracts and the radio news from that month. For this festive broadcast, FRS will offer the 4th photo QSL as part of the FRS Studio Series.

FRS News. The latest news on FRS can be read in a very comprehensive (four din A4 pages) edition of our re-styled FRS News publication (edition 27). The publication is free to any listener sending us a reception report via P O Box 2702 in Herten. In this publication....

- \* news about the production of a fresh & new jingle package;
- \* Mailbox 2702 (letter column);
- \* Why using 9290 ?
- \* And much, much more !!
- \* Fact File (a brand new column);
- \* FRS Jingle Archive on MiniDisc completed;
- \* Looking back at the previous broadcast....

Your support is more than welcome. Reports via snailmail (that's what we like most) or instant reports via E-mail are highly appreciated. Next Sunday 24 years of FRS-Holland. We invite you to participate. Tune in on 9-2-9-0 kHz !!

FRS-Holland...not just a Station...it's a Tradition !! FRS-Holland, SW Free Radio since 1980 P. O. Box 2702, 6049 ZG Herten, The Netherlands E-mail frs.holland@hccnet.nl (via Alan Pennington, dxldyg via DXLD)

**MYANMAR, 5040.40, Radio Myanmar (pres), 1207-1215** Noted a woman in news type comments until 1210, then she continued over music. At 1212 normal musical program with a man singing. Signal was fair to poor. Sunrise is 45 minutes old and this station still audible. (Chuck Bolland, November 13, 2004 via HCDX)

**MYANMAR:** This afternoon from 1611 to 1628 (s/off) it has been heard the **Defence Forces Broadcasting Unit from Taunggy on 5770 kHz** and the signal was really wonderful, with a level S5-7! Fine situation also on the 60m band with a dozen of signals around S9-10 from Asia and Africa. Excellent propagation or good response of the Quad? Last year, the same station with the dipole arrived with a signal of S2-3, mixed with a strong local noise. (LUCA BOTTO FIORA QTH: Rapallo (Genova) – Italy via HCDX)

### **PERU: Radio Municipal de Panao**

Bilderna på sportfiskaren och QSL-managern Pablo Alfredo Rojas Albornoz och ett av hans "QSL-brev" till USA har publicerats på Jerry Bergs DXplorer-sajt. Såvitt jag vet är jag ensam svensk med tillträde till denna lista. Det är förstås bara bra att någon i dessa svåra tider svarar på rapporter från Peru. Och Rojas vill själv så gärna ha brevkontakt med folk, även DXare. Det har han låtit meddela via flera stationer och webbsajter:

1. Radio Bulgaria (spanskt brevådeprogram 21/9)
2. Radio Eslovaquia Internacional (spanskt brevådeprogram 3/10)
3. Radio Taiwan Internacional (tryckt adresslista nr 4/04 för spansktalande lyssnare som är intresserade av brevväxling)
4. Glenn Hauser (Radio Enlace/Radio Nederland 08/04)

El Escucha.net som är en spanskspråkig website och kontakten dit förmedlades av Dario Monferini enligt vad Rojas själv anger. I brevådeprogrammen anger Rojas att han är ansvarig för kortvågssändningarna på Radio Municipal de Panao, 3173 kHz, ibland att han är tekniker för sändningarna. Jag har lyssnat nog på brevådeprogrammen och i ingetdera anges att Rojas skickat en regelrätt lyssnarrapport, bara att han själv önskar souvenirer från stationen samt att hans adress läses upp i programmet så att många kan skriva till honom.

Av de svar som kommit från Radio Municipal har åtminstone ett – till en mindre känd japansk DXare - undertecknats av andra personer än Rojas och avsänts direkt från stationen. I detta svar angav man också stationens egen adress, inte den som går hem till Rojas. /Henrik Klemetz

**PUNTLAND.** Hi Glenn: I am trying to get back to Africa, this time a long stay in Puntland, ex-NE Somalia. I will be staying at Radio Galkayo's complex in Galkayo where I will be helping out with Radio Galkayo, the Puntland ARO's and preparing for the February 2005 Italian ARO DXped. I have been granted the call-sign 6O0JT, that is 6 Oscar Zero Juliet Tango and will be operating 10-80m whenever the Somali ARO's wish. I will be setting up both a SW and ARO station at the Radio Galkayo complex and spending as much time as we can at the dials.

Sam Voron is back in Sydney; he tells me he is very busy with E Mail. The ARRL has just given Puntland country status, so she has become big news! Sam tells me Radio Galkayo is on-the-air 0200 to 0400 and 1000 to 1800 GMT, that is 0700 to 0900 and 1300 to 2100 European Local Somali Time on 6980 kHz. He did not confirm, but I assume daily. Sam reported hearing Radio Galkayo in the DX press last week from Sydney. Puntland does not have mail service; reports could be sent via E Mail. See the Radio Galkayo web site:

<http://www.radiogalkayo.com>

I asked Sam about other Horn of Africa SW stations; he tells me "most others have disappeared or gone FM", Radio Galkayo remains the only SW station on the air from the former Somalia. Some very interesting listening ahead for us from Galakyo!

We will be busy at the station for the next weeks given all that is ahead, but I can make sure that all correct reception reports are QSLed. Please be patient with reports and let us know if you can hear Radio Galakyo in your area. Glenn, we will be in touch from Galkayo, 73. (Joe Talbot VA6JWT, Home: Red Deer, Alberta, Canada. N: 52-16-18 W: 113-48-46. Grid: DO32cg. Currently: Africa, Nov 11, DX LISTENING DIGEST)

**SWITZERLAND: The Swiss Radio International** broadcast station has stopped using short waves and its transmitters and antennas are being decommissioned. Members of the HB9MM [http://www.hb9mm.com/Index\\_e.htmclub](http://www.hb9mm.com/Index_e.htmclub) station in Lausanne have been given permission to use the former broadcast station facilities and antennas, including a 62-metre high curtain array weighing 135 tonnes. The special callsign HE3RSI is on the air now until 3 December on bands from 40 to 10 metres. This is the first time the HE3 prefix has been used. (Mike Terry via HCDX)

### **UNIDENTIFIED. CURIOUS DATA TRANSMISSIONS**

I've been hearing these for a while and just assumed it was something local until another ham several hundred miles away from me made a passing comment about it yesterday. We were on a 40 meter net about 0100 UT. It sounds like a series of short data bursts repeated 8 times. They never seem all that strong but they are very clear. The bursts seem to be extremely wide bandwidth as you can tune (if you're quick enough) without the noise changing pitch. I've heard this on several bands and wonder if you could point me to any information about these transmissions. Thanks, (Steve, K6SKS, Oct 31, DX LISTENING DIGEST) I referred him to 7238 unID items in DXLD 4-138 and 4-143. Is that what he is hearing? (gh)

## Övriga radionyheter

### MW beverage, Southern Sweden

**DX-Tuners is happy to announce that due to popular demand the Southern Sweden Beverage antenna site will be returning very soon** and this time the beam of the beverage will likely be towards USA. Last year many Western Hemisphere MW stations were logged here! [http://www.dxtuners.com/servlet/IBMainServlet?ib\\_page=1](http://www.dxtuners.com/servlet/IBMainServlet?ib_page=1) (Mike Terry via HCDX)

### MW DX-Beverage Antenna - Hylteberga, Skurup, Sweden

Here at DX-Tuners it seems like a radio laboratory sometimes. Kelly has now developed an experimental MW-Beverage Antenna site for the network. This DX-Tuner site will be dedicated to Medium wave listening.

The "beverage antenna" is called this because it was developed by American radio pioneer Harold Beverage. Beverage Antennas are considered by many to be the ultimate receiving antenna for low band reception. Beverage antennas are a minimum of 1 wavelength long. Very few dxer's in the world have the open space to construct a beverage. The beverage antenna is nulled on the back end, so is a one-direction antenna.

Our antenna is an amazing 430 meters (over 1410 feet) long. This is 2 wavelengths for the MW band. The extreme length makes the tuning sharp (narrow front lobe). Our beam is heading 270\*, towards Latin America. The receiver is the communications grade Icom 735, and will be tunable from 100-1700 KHz exclusively. We are employing low pass filters on the antenna. There has been much debate and speculation through the years about beverage antenna theory. This should be a really fun site for the serious MW dx'er. Kelly has built this monster site in Hylteberga, Sweden. Because I am an avid medium wave enthusiast, I will be administrator of this site. If you have any questions, suggestions, or frequencies you would like added to bandguide, let me know. You can email me, Brad, at [brad@dxtunerDOTcom](mailto:brad@dxtunerDOTcom). (From DX-tuner website)

### Digital SW will revolutionise cross-border Radio

**Digital short-wave will revolutionise cross-border broadcasts** and will initiate a world-wide renaissance of radio". This was the opinion of the Director General of Deutsche Welle, Mr Erik Bettermann, during a panel discussion at Münchner Medientage. Bettermann, the head of the German international broadcaster - and instigator of the event - was not the only one to present an optimistic prediction of a "Digital Global Radio" development: The other panel specialists also emphasised the advantages of digitalisation in the so-called AM range, i.e. short-, medium- and long-wave. The discussion was chaired by Peter Senger, Director of Distribution at Deutsche Welle and Chairman of the Digital Radio Mondiale (DRM) Consortium; and next to Erik Bettermann, BBC representative Mike Cronk, Dan D'Aversa of RTL Group and Phil Laven of the European Broadcasting Union (EBU) were also participating in the debate. Senger outlined the advantages of digital short-wave as follows: The world-wide accepted DRM standard provided an excellent audio-quality comparable to FM. In addition, the search for frequencies was obsolete, as the station identification tuned in to the designated frequency and automatically switched to the best one. In parallel, it allows for the sending of accompanying programme information such as text messages. "On top of everything, digital transmission technology saves a lot of energy and costs compared to the analogue one", Senger said. This would open up enormous opportunities, especially for international broadcasters. For several years, DW - like many other broadcasters - has noted that listeners migrated from short-wave to FM or other new distribution channels in digital quality, said Bettermann. Deutsche Welle had to stay abreast of these changes. "According to test transmissions being operated by Deutsche Welle, we anticipate large area coverage in almost FM quality without interference such as jitters, induced power-noise or fading", the General Director stated. At the same time, not only stationary indoor reception, but also mobile reception in cars and with small portable devices is possible. Admittedly listeners would need new receivers. As a consequence, the real challenge for the DRM consortium would be to achieve successful implementation, said Technical Director of the EBU, Mr. Philip Laven. The timetable for the introduction of digital services in the AM bands would in fact be set by broadcasters, "but the speed of the transition to digital will be set by consumers", stressed Laven. Dan D'Aversa of RTL Group sees the chance to develop pan-European coverage and that RTL Group would try to ensure "that low-cost DRM receivers will be on sale in time for Christmas 2005". Mike Cronk stated that the BBC had invested heavily in DRM and that they were now developing "a detailed strategy for its initial deployment, probably into Europe, in 2005". According to Cronk, DRM offered the unique combination of wide area short-wave coverage and FM usability and quality. As a consequence of using this digital medium, continuous direct delivery to the audience avoiding "political or other regulatory obstacles" will be possible. Bettermann, having also stressed the aspect of the impossibility to censor short-wave and, focussing on European implementation, announced that Deutsche Welle would gradually switch off its analogue short-wave transmissions. A pre-condition would be the world-wide availability of DRM receivers. (Via The Radio Newsletter. Ray Browell via HCDX)

### CAPE COD DX GET-TOGETHER 2004 \*\*\*

**It had been a while since I'd visited my DX friends on Cape Cod so I figured that an October trip to the area was a good idea (after summer tourists and traffic had departed and before the arrival of winter's snow).** Marc and Debby DeLorenzo had moved from Marstons Mills to a new home in South Dennis, off Route 134. Marc needed some antenna improvements done, so with my car loaded up with antenna supplies of all types (and myself loaded up with caffeine from Marylou's coffee shop in Weymouth), I rolled into his driveway at 9 a.m. on Saturday, 16 OCT. This was the first of three DX stops for the day. The bow and arrows, fishing line, ropes, wire, and toolbox were quickly set up on his back deck and the antenna work commenced. Up to this point Marc had been running his NRD-525 receiver from a phasing unit fed by an indoor Quantum Loop and an outdoor non-noise-reduced south longwire on the ground. He'd had as much as 500 ft. / 150 m of wire out there on conservation land behind his house until some local kids made off with over half of it. There were pine and oak trees of decent height behind the house, so I suggested a broadband loop and a vertical. The broadband loop we put up peaks east-west and is square, about 12 m per side. It is center-fed on the bottom side through a 4:1 transformer. The vertical is about 15 m bottom to top. This would need a ground rod to "work against" for low-noise operation. Luckily nearby DXer Chris Black (N1CP) had a 2.4 m ground rod, so he brought it over and we pounded it in near the bottom of the vertical wire. A 16:1 transformer worked well to couple this to coaxial feedline. With two new antennas up (as the main "TA-gettin' set-up"), we thought that there were still some occasions when a longwire running south would be a valuable DX tool. I was mostly thinking about Latin American DX during auroral conditions. Instead of running the wire on the ground (and inviting sabotage by the DX-unappreciative), I ran it out, about 60 m worth, through low branches about 4 m off the ground. The effective method for this was tossing a string, attached to a rubber mallet, over branches while trying to keep the overall run as straight as could be managed. Then I pulled the length of wire

through following the string. The end of the wire closer to the house was fed to one side of a 4:1 transformer and the new ground rod to the other side. All three of the newly-installed antennas, therefore, are configured to pick up minimum local electrical noise. Marc still has the indoor Quantum Loop as a fourth antenna to "play".

With this mission accomplished, it was now just a bit after noontime. We carried the "show" on to DX Shack #2, that of Chris Black in South Yarmouth. Chris took me on a tour of the antenna farm in the woods on downsloping land behind his house. There were pitch pines out there that were well over 20 m tall: good-sized trees by Cape Cod standards. Like Marc, Chris is lucky to border land that is not likely to be developed in the near future. Chris mentioned future plans for a BOG (Beverage-on-Ground) though, considering what he already had it didn't seem that necessary. He has a supersized dual K9AY loop, a vertical, a longwire at 40 deg., and another longwire at 130 deg. On the house are some other antennas for ham and SWL use. Noise pick-up is minimized through rigorous usage of ground rods and matching transformers. Marc and Chris watched as I "drove" Chris's Drake R8B and phaser to null various stations when using the 40 deg. wire against the vertical, undoubtedly the set-up of choice for Europe. It was sweet to wipe out WOR-710's nasty IBOC garbage from 720 and get entertainment-quality CHTN in the middle of the day. And while my mind was on PEI, I just had to step up to WPRO-630 and null it to oblivion to hear country music from CFCY. I can get these PEI stations at home in Billerica during the day on the Flag antenna, but nowhere near as strong as I got them on Chris's set-up. I am now happy to report that Cape Cod DXers Marc and Chris are both "ready for prime time" when it comes to hearing Trans-Atlantics on medium-wave.

The time was a bit after 2 p.m. when we phoned a third Cape DXer, Vern Brownell (W1VB), about our imminent invasion of his palatial digs on the Chatham waterfront. All of this antenna work and stomping through the woods in cool autumn weather had given us a "wicked big" appetite. En route to early dinner I drove down Station Avenue in South Yarmouth, a place of many memories for me from the years that my parents had lived in the area. I rolled onto Route 28 in South Yarmouth with WROL-950's "Irish Hit Parade" show blasting out of my car speakers; this brought more "good old days" memories to mind. Chris, Marc, and I got to Seafood Sam's restaurant for a great meal and DX conversation. Chris went for scallops and Marc and I had - what else? - clams. I chatted up the idea of looking for Thailand-1575 at local sunset via Arctic-zone greyline. This would require very quiet geomagnetic conditions. India-1566 would almost have to be a "pest" for this to happen, I surmised. Chris filled us in on his trips to the 2004 NRC Convention and to the "mother church of homebrewers": the Dayton, OH Hamfest.

Soon we were off to Chatham for our visit to DX Shack #3, that of Vern, W1VB. This ride took us by the old WCC site at the corner of 28 and Old Comer's Road, overlooking picturesque Ryder's Cove. Vern is working with a local historical preservation society to make an antique wireless museum in one or more of the remaining WCC buildings. Some of the original towers are still there, unlike the South Chatham part of the operation that was completely demolished. We rolled out Fox Hill Road, past the Eastward Ho Golf Course (if I ever win the \$200 million Powerball, I'm buying that !) and down a maze of little streets to Vern's place on Eastward Road. He is one of a select few DXers whose home location is DXpedition-worthy. It's as good as hand-picked sites I visit to DX from the car. All the comforts of a house (a great house at that) and the DX quality of a "super-site". I guess Pat Martin in OR and Richard Wood in HI would also be in the elite group of those living in "DX heaven".

With the sun still fairly high at 4 p.m. local (2000 UTC), Saudi Arabia - 1521 was already putting a fat het against the 1520 domestics. Knowing that we still had close to an hour before the really interesting stuff showed up, Vern rolled out about 100 m of wire along the beach going roughly north-northeast. I did a jury-rig repair to a broadband loop I'd set up outdoors there about 4 years earlier. Vern also had a vertical antenna available for use. After playing around with a couple of different antenna configurations as inputs to Vern's phasing unit, I determined that the 100 m wire (noise-reduced via 4:1 transformer) versus the vertical was going to deliver the most "candy" on the Trans-Atlantic route. Really high latitude stuff like Norway-1314 was only so-so and, alas, deep Asians such as India would have to wait for another day. What was happening were some phenomenal signals from south-central Europe. Albania - 1214.95 was drop-you-in-your-tracks loud, annihilating UK and Spain. Turkey-1017 right in there. Of course Croatia - 1134 was monster level, almost pegging the meter and sometimes better than adjacent WBBR-1130. Saudi Arabia - 1521 was also super-huge and, with its extended Ramadan schedule, should be heard just about everywhere. An effect I'd seen in Newfoundland was also repeated at Vern's in Chatham: Different geographical areas or different parts of the band popped into the spotlight as others receded. France-1377 was S9+35 one minute and 1206 was hard to hear at the same time, then it totally swapped around. Channels that are often single-station dominated, usually by something from Spain, had deep complex clusters of signals from all over Europe. At times you'd have to sit on a pile-up and wait for something to rise to dominance. When it did, it wasn't always the "usual". TalkSport-1089 was entertainment-quality, but so was Radio Farda UAE on 1170, super with WWVA easily phased. As we DXed, Vern's wife stopped into the shack with snack platters, including shrimp which I had to sample. By 8 p.m. EDT (0000 UTC), DXing wound down and Marc, Vern, Chris, and I chatted a bit longer before departure time. It was the end of a fun DX day on Old Cape Cod.

On my way out of Chatham, I put on the Boston Red Sox - New York Yankees game on WEEI-850 and noted that WEEI was taking a beating from a het and slop from Spain-855 ! The reception bore a marked resemblance to WEEI as it sounds on Route 10 in eastern Newfoundland or maybe even to how it sounds in Ireland. I said to myself "This is one wild DX location." The Cape's resident DXers have the ability to contribute logs and audio clips that will be nothing short of astounding. (Mark Connelly via HCDX)

## GROUNDING TIPS

**Does the gauge of the wire running from receiver to ground rod matter?** Thanks for your input (Steve Bass, Columbus, Ohio, swl at qth.net via DXLD)

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Steve, For receiving, the answer is, possibly/probably. Now I'll clarify. Wire has a given amount of inductive/resistive losses per foot. Due to a feature called "Skin effect" RF travels primarily over the outer surface of the wire, this effect increases with an increase in frequency. So RF grounding effectiveness will decrease with a decrease in wire diameter. The wire that runs from my "ground bar under the radio bench is tied to the FIRST ground rod via about a 4 foot length of 4 gauge copper wire. So I'm pretty certain my resistive losses are quite low. Due to wire costs the succeeding ground rods are tied together to the first rod via 10 gauge copper wire, not the best, but sufficient to my needs.

BUT, there is another dragon that rears its ugly head in grounding! This is wavelength of the ground wire.

As the length of a ground wire gets longer and approaches a quarter wavelength the "impedance (reactive plus resistive component)" goes up significantly, until at a quarter wavelength (roughly 8 feet at 28 MHz) the impedance is very high for RF. In other words, if you have a wire from the radio to ground that is 8 feet long you have NO RF ground at all for 28 MHz, while you still have a DC or safety ground. That is why VHF gear is seldom grounded other than for safety reasons. Instead antennas that need no RF ground, such as groundplanes, dipoles etc are always used at VHF and above.

However, there is another feature of "Wavelength". Impedance goes to a MAXIMUM at a quarter wavelength then starts to drop again as you pass a Quarter wavelength, hitting a MINIMUM at a half wavelength, when it starts to rise again till it hits 3/4 wavelength (Odd wavelengths = High impedance, even = lowest impedance). These features are what makes it possible to create a "Wavetrap" using nothing more than an open or shorted length of coax.

Now you ask, how does this enter into the overall grounding picture? Picture this in your mind. You have a ground bar under your radio bench. (you do, don't you?) IF this groundbar (and your radio) can be tied to a GOOD ground rod installation that is perhaps within 4 feet you "probably" have a pretty good RF ground for your station below 28 MHz (mine does). HOWEVER, most people can't meet that requirement. What do you do? Instead of a single ground rod, imagine a series of rods, perhaps 4, spaced 4 feet or more apart These are "daisy chained", one to the next with GOOD solid, low resistance connections. OR, a separate wire is run from the ground bar under your bench to each ground rod. This WILL provide a good RF ground across the spectrum, from VLF right up through 30 MC. Why? Because while one or more rods "MAY" be a quarter wavelength (or odd number there-of) from your receiver and thus have no effect, other rods WILL either be under a quarter wavelength or around an even number of wavelengths (low impedance). Now, as wire length gets longer, calculations get a little hairier, but this is a good general rule. An additional feature of this arrangement is that the parallel grounds make for a lower ground resistance (better effectiveness).

Another point. IF you cannot get a GOOD regular ground, a group of wires cut to a quarter wavelength for the various bands, connected to your ground bar (receiver) and just run around the baseboard of your home can provide an effective counterpoise that will often help a lot. For a number of years I lived in an apartment, all antennas in the attic and one POOR ground rod outside my window. I had counterpoise wires for all bands 80-10M tacked along the baseboards. It stopped a problem I had with the HF rig "crashing the computer" and for awhile I even ran over 300 Watts on all bands (Galaxy 5 transceiver) 160-10M into those attic antennas with no "RF in the shack problems "no RF biting my lip, crashing the computer etc (though I got into all telephones). That was before RF exposure became a big deal. (73 de Phil, KO6BB, Atchley, Merced CA, REAL Radios "Glow In The Dark", swl at qth.net via DXLD)

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It is 'important' to consider whether it is a receive only ground or one that will be used with a transmitter. Although the majority of what Phil said is correct, for most receive only applications with a single receiver, it is of questionable value. Especially with newer solid state receivers. You definitely can notice the difference in noise reduction and improved receive sensitivity/ability in an older vacuum tube receiver.

I have read hundreds of opinions of how to ground the station, receivers, transmitters, antennas and so forth. They have come from the so called 'experts' to the casually familiar. One theme dominates, absolutely nobody can agree! The end result of asking what Steve Bass asked is generally more confusion than clarity. No criticism of Phil implied/intended here, but unless the reader of what Phil wrote has a good understanding of electronics, he/she is probably wondering what the heck he said. There is no simple and easy answer. What works in one situation may not work in another.

Perhaps it would help if people understood that there are different types of grounds. The one most are familiar with is the electrical ground, for safety via the wall outlet. The round prong followed by the ground for lightning or static discharge protection. (The only protection from a lightning strike, is don't be there! The exception being a commercial radio/TV tower installation.) There is also the ground used by some radios in conjunction with the antenna.

The most important is the ground for safety reasons.

You do not want anything other than major appliances using the power company ground system grounded inside your home during an electrical storm. Lightning can, and does, hit the earth and travel through it. If you have appliances connected to an outside ground rod, the lightning current will enter your home via that ground rod and destroy the appliances. Disconnect all radios, stereo gear, TV receivers and so forth during electrical storms from their antennas and an outside ground. Lightning can, and does, enter via both means!

Now hear this! The storm does NOT have to be in your immediate proximity! If it is within ten miles there is a real risk of a static discharge doing major damage. There is far more damage done by such static discharges than by actual lightning strikes!

You can have a portable radio sitting on a table with no connections to anything. No power cord to an outlet, no external antenna and no wire to a ground system. If lightning strikes nearby the discharge is sufficient to destroy the radio!

I have been told many, many times by antenna installers over the years that the better the antenna is grounded, the more likely it is to be struck by lightning. Lightning always takes the most conductive path to ground. So you are darned if you do and darned if you do not!

The bottom line? Make very sure that your home owners insurance is paid! Be sure you have adequate insurance to cover replacement of the contents in the unfortunate event of a fire or other disaster. Most people are way under insured on the contents. All the ground rods, surge suppressors, poly phasers and so forth will not save you if lightning hits your home direct. Only very expensive commercial installations are capable of shunting this amount of current to ground and saving the building and its contents. Homes simply do not have this kind of protection.

Use common sense and take the proper precautions. They will save your equipment from damage by a static discharge. Which is much more likely than a direct hit by lightning (Duane Fischer, W8DBF, MI, via DXLD)