SHORTWAVE BULLETIN

**Issue no. 1630 Dec 9 2007.** **Deadline e-mail next issue: 0900 SNT, Dec 26, 2007.**

**Nu närmar sig julen med stormsteg. Inte en enda julklapp har ordnats ännu.**

**Snart är det dags igen för ett nytt år och vi får väl se om KV kan locka några lyssnare.**
**Att döma av inkomna tips så är det oftast samma stationer som listas i varje nummer.**
**Som tur är kan man fortfarande på MV logga många intressanta stationer från de flesta kontinenter.**

**Längre fram finns en sammanställning om SDR mottagare med synpunkter från många av de riktigt aktiva.**
**Utvecklingen går snabbt och med hjälp av bredband öppnas helt nya möjligheter.**
**Det stora problemet blir väl att hinna plöja igenom alla inspelningarna i efterhand och kanske också att lagra ner flera veckors intensivt lyssnande.**

**Vi får i varje fall följa utvecklingen noga.**

**Keep on ....**
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# *SWB-info*

**SWB online på HCDX: http://www.hard-core-dx.com/swb**
**Dateline Bogotá: http://hem.ektv.nu/~ekt035221/Dateline.htm**
**SWB hot stuff: http://hem.ektv.nu/~ekt035221/** (på denna sajt ligger alltid senaste SWB).
**SWB member information: http://www.hard-core-dx.com/swb/member.htm**
**Jubileumstidskriften: http://hem.ektv.nu/~ekt035221/** (html- + pdf-version).

# *QSL, kommentarer, mm.*

*Notera att **stopdate** till nästa nummer är först den **26/12** på grund av julhelgen.*

**Christer Brunström**: Radio Waves International via Lettland 9290 svarade med brev, QSL-folder och ett väldigt radiomässigt RWI vykort. Det är kul med dessa entusiaster som producerar ofta väldigt trevliga program. RWI satsar ju mest på countrymusik och är egentligen en piratstation med närvaro även på Internet och ibland även på 9290 kHz via Lettland. Man har även ett inslag på franska i programmen vilket gör RWI extra lyssnarvärt.

**Leif Råhäll**: Om vi inte hörs innan jul så vill jag önska dej och din familj en riktig trevlig Helg, och tack för allt fint redaktörsarbete under det gångna året. Även en god jul och nyårs helg till alla SWB-are.

**Bjarke Vestesen**: Der er fine forhold på mellembølge - både om morgenen mod især NA og om aftenen mod Asien og Mellemøsten. Og netop Mellemøsten har jo min store interesse, fordi jeg rejser meget i området. Fredag aften hørte jeg således IRIB, Iran, på blandt andet 684 kHz Gaem, 1314 kHz Ardabil og den mere almindeligt hørbare 1503 kHz Bushehr. På flere af frekvenserne var der en lille tidsforskydning på et halvt til et helt sekund i forhold til 1503 kHz. Også Kina hørtes på mellembølge samme aften. Jeg har undtagelsesvis taget enkelte mellembølge-logs med denne gang, fordi flere af dem er hørt parallelt med kortbølge, bl.a. Kina på 1359 kHz // 4800 kHz. Det er altid spændende at DXe mellembølge-stationer og finde parallel-frekvenser på kortbølge (eller eventuelt via satellit, især 13 grader øst Hotbird, som transmitterer mange stationer fra Mellemøsten).

**Ten-Tec RX340 for sale**
**Ten-Tec RX340**, HF DSP receiver, covering 5 kHz to 30 MHz, 57 variable bandwidth from 100 Hz to 16 kHz, AM/USB/LSB/ISB/CW/FM/FM Sync, 100 channel memories including all operating parameters, very fine sensitivity, excellent notch, separate headphone and speaker gain controls etc. The receiver is in perfect condition and looks as new. Including technical manual, diagrams etc.
Price: 4000 USD for Europe (or 20.000 DKK for Scandinavia).
Contact Bjarke Vestesen, Denmark, for further information: bve(at)fyens.dk

**Listen to 7270 kHz**
**After receiving a 'phone tip from a non-computerised** dxer friend living in NE England, I tuned 7270 at around 1410 (Sat.the 8th of Dec.). We could both hear a unid. station at weak to fair level (unfortunately we both had local noise to contend with too) in a language with some resemblance to Indonesian/Malay. Could it have been RTM Kuching? There was a lengthy talk 'interrupted' on two occasions by a break for music that also sounded much like we might expect to hear from that same area. The music took us through the half hour with no ID heard. Shortly afterwards it became apparent that there was at least one other on frequency, and this became lounder, and was
eventually IDed as AIR's Sinhala programme via Chennai, and parallel with a stronger signal on 9820 from Panaji.

But there was another too, playing music - possibly China jamming clandestine Voice of China listed on 7270 from 1435. The original station faded, so any chance of hearing an ID had gone. "Russian" tones started soon after 1445 and VoRussia opened in Turkish at 1500. Also on the hour "Chinese style" time pips were audible (the final pip being higher than the others). Below is what EiBi shows between 1400 and 1500+. Mongolian and Russian langs. were not audible.

7270 ALL INDIA RADIO 1300-1500 1234567 Sinhala 100 ND Chennai (Madras) ND 8007E1308 AIR b07
7270 PBS Nei Menggu 0800-1600 1234567 Mongolian 50 52 Hohhot 839 CHN 11130E4112 NMRB b07
7270 R.LIBERTY 1500-1600 1234567 Russian 250 6 Udon Thani THA 10245E1725 IBB b07
7270 RTM Sarawak 1000-1500 1234567 Iban 10 45 Kuching-Stapok MLA 11020E0133 RTM a07 G
7270*VOICE OF CHINA 1435-1535 1234567 Chinese 100 325 Taipei TWN 12024E2343 VOC b07
7270 VOICE OF RUSSIA 1500-1600 1234567 Turkish 250 190 Moskva RUS 03718E5545 VOR b07
(73 Noel R. Green via HCDX)

# LOGGEN - ALL TIMES ARE UTC

| | | | |
|---|---|---|---|
| 782 | 4.12 | 2115 | **Radio of Syrian Arabic Republic**, Tartus, arabisk, nyheds-overskrifter, ID, bedst på LSB. 42222 BV |
| 1359 | 7.12 | 2240 | **CNR-1**, Kina, ukendt sende-location, kinesisk snak tydeligt // med 4800 kHz. Første gang, jeg hører Kina på denne frekvens. Jeg tjekkede andre Kina-frekvenser på MW, men kun denne gik igennem. 33333 BV |
| 1521 | 4.12 | 2100 | **BSKSA** Duba med arabisk, nyheder og // med 9555 kHz (som var dårligst). 43433 BV |
| 2379.95 | | | **(tentative) Radio Educadora**, Limeira. 2310 to 2340 vocal with lyrics "..Yo no ..en progresso ...no voy..en los ojos .." om locator and many romantic songs, " ..en el aire, mi orazon...America..." and "en el edificio local.. semana proxima cinco y tres, ocho ..en el centro.." 4 December [Wilkner-FL] |
| 3200 | 26.11 | 1945 | **TWR** Mpangela Ranch, Swaziland, med engelsk kristent program, ID kl. 2000 og adr.ann. 23232 BV |
| 3254.90 | | | **UNID latin** ,0950 to 1030 not enough signal, 21 and 23 November [Wilkner-FL] |
| 3329.53 | | | **Ondas del Huallaga**, Huánuco 1030 to 1040 fading out on 7 September. 90 meter band has been poor all week with high noise levels. [ Wilkner-FL] |
| 3335 | 28.11 | 1902 | **East Sepik** med Marys Boychild och god styrka 3 LRH |
| 3390.15 | | | **Emisoras Camargo**, Camargo 0020 to 0040 with no voice UTE noted. 23 November [Wilkner-FL] |
| 3934,9 | 28.11 | 2111 | **OID** mycket svag men det fanns något, men vad ? LRH |
| 4052,45 | 26.11 | 0115 | **Radio Verdad**, Guatemala, talks, QRM, poor GB |
| 4052.5 | | | **Radio Verdad**, Chiquimula 2345 noted with strong signal and English Gospel program, 2 December One of two Guatemalans left with 4799 Radio Buenas Nuevas, San Sebastián, Huehuetenango now silent. [ Wilkner-FL] |
| 4365.8v | 6.12 | 1450 | **Voice of the Commnist Party of Iran**, kurdisk, kurdiske fædrelandsaange, stærk lyd, kun USB og AM - absolut ingen lyd på LSB! Helt uforstyrret af jamming denne eftermiddag, hvilket er meget usædvanligt. Internationalen spillet kl. 1514. Hørt helt frem til ved 17-tiden UTC stadig uden jamming. Jamming først noteret fra omkring 1715 og fremefter. Voice of Iranian Revolution er også på denne frekvens. 34444 BV |
| 4409.7 | | | **Radio Eco**, Reyes 0023 - 0040 vocal at tune in followed by om. Pulsating UTE on this frequency has strange effect on the signal in ssb, causing the signal to rise and fall. In AM mode not noted. 23 November [Wilkner-FL] |
| 4545.39 | | | **(tentative) Radio Virgen de Remedios**, Tupiza, weak signal, noted locator en espanol sin musica 0020 to 0040 on 3 December. Similar log 6 September 2330 to 0000, very weak . ~ thanks to log by Harold Frodge [Michigan Area Radio Enthusiasts DXpedition; Brighton MI] [ Wilkner-FL] |
| 4650.2 | | | **Radio Santa Ana** Santa Ana de Yacuma 0000 to 0030 each local evening, fades in with rather poor signal. Occasional om en espanol;poor otherwise. 20 through 23 November [Wilkner-FL] |
| 4699.39 | | | **Radio San Miguel**, Riberalta, 0015 to 0045 " *en bolivia ..... San Miguel ...zero ...cinco* ". 23 November [Wilkner-FL] |
| 4716.19 | | | **Radio Yura**, Yura 0000 to 0030 strong signal with vocals. Off the air 1000 to 1100. 23 November [Wilkner-FL] |
| 4780 | 25.11 | 1820 | **RTV Djibouti**, songs, good GB |
| 4790 | 28.11 | 2100 | **Fak Fak** med song of the cocconut Islands sen nx , låg på rätt frekvens denna dag 2-3 LRH |
| 4810 | 25.11 | 1825 | **R. National Armenia**, talks, ids, good GB |
| 4810 | | | **XERTA** 0010 to 0100 strong carrier "with what may be weak audio" [?], best in lsb as usual. 23 November [Wilkner-FL] |
| 4810XXX | | | **XERTA** seems off the air week of 4 to 8 December, strong carrier on 4808.91 on 7 December but no usable audio. [ Wilkner-FL] |
| 4826.41 | | | **Radio Sicuani**, Sicuani 0016 to 0020, in narrow filter to avoid Zimbabwe which was weak on 4828. 23 November [Wilkner-FL] |
| 4831.13 | | | **UNID** noted with fading signal 1020 to 1035,on 7 December, with major transmitter drift, thanks go to Charles Bolland log, with the possibility of the return of Radio Marañon Jaen . [ Wilkner-FL] |
| 4834.96 | | | **UNID** noted at 1130 to 1140 with weak Latin programming on 8 December. Marañon ? [ Wilkner-FL] |
| 4852.45 | | | **UNID** noted 1000 to 1040 on 7 December with weak audio. [ Wilkner-FL] |
| 4852.46 | | | **UNID** weak signal 1040 to 1100, 24 November [Wilkner-FL] |
| 4857.39 | | | **Radio La Hora**, Cusco 0021 with om singing a song repeating the lyrics "..en la vida en la vida.." good strong signal 23 November [Wilkner-FL] |
| 4875.9 | | | **Radio Estambul**, Guayamerin, Beni 0000 to 0100 no signal noted 23 November; 1025 to 1035 weak |

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|---|---|---|---|
| | | | signal noted 4875.84. 25 November [Wilkner-FL] |
| 4910 | 26.11 | 0047 | **AIR Jaipur**, India, Indian music, fair GB |
| 4910 | | | **VL8T** Tennant Creek 1025 tune in, 1030 news of Kevin Rudd's election as PM. Nothing on 4835 same time and nothing noted here on 120 meter band frequencies. 25 November [Wilkner-FL] |
| 4940 | 26.11 | 0044 | **AIR Guwahati**, India, talks, fair GB |
| 4974.73 | | | **Radio del Pacífico**, Lima 2330 "..viente hombres en la villa..en horas del peru .. " 2332 seemingly religious programme, unusually good signal, 3 December [ Wilkner-FL] |
| 4976 | 25.11 | 1835 | **Radio Uganda**, talks, fair/good better USB GB |
| 5005.9 | | | **UNID**, former frequency of Peru, Radio LTC Juliaca 1000 to 1020 weak audio 8 December [ Wilkner-FL] |
| 5014.5 | | | **Radio Altura** Cerro de Pasco not noted 1000 to 1130 either 23, 24 or 25 November [Wilkner-FL] |
| 5014.5 | | | **Radio Altura**, Cerro de Pasco 0030 to 0045 "... en el centro de el pais..." good signal lsb to avoid Cuba on 5025. 4 December. ~ 1000 to 1030 "...en la hora .... Radio ....en Santos ...en las manana..." some local t storm crackle, this followed by two telephone numbers 5 December; strong signal, locator "en el radio popular...ministerio de ...." 1020 to 1030 on 7 December [ Wilkner-FL] |
| 5039.27 | | | **Radio Libertad**, Junin 1010 to 1040 locator "en la tierra ....Santa Maria .... imediamente en la alegria de ...."1036 locatora and brief music 8 December. [ Wilkner-FL] |
| 5039.9 | 8.12 | 2303 | **Fujian PBS** med nyhetsprogram. 2 CB |
| 5040 | 26.11 | 0035 | **AIR Jaypore**, India, Indian songs, fair GB |
| 5040 | | | **UNID** 1000 to 1030 on 6 December [ Wilkner-FL] |
| 5050 | 8.12 | 2226 | **Voice of Strait** med en mängd annonseringar. Senare trevlig musik. 3 CB |
| 5120.26 | | | **(tentative) Ondas del Suroriente**, Quillabamba 2348 to 0000+ on 2 December [ Wilkner-FL] |
| 5240 | | | **Xizang PBS**, Lhasa excellent signal 2340 - 2350 with bass driven rock like music, parallel 4905 and 4920. 2 December [ Wilkner-FL] |
| 5486.67 | | | **Radio Reyna de la Selva**, Chachapoyas, 1040 to 1110 "en el numero zero ...en el mundo ...Senor Carlos Puesta [Cuesta ?] en las ..... hoy...en el tiempo de...cambio en todos ....recuerdo en el final ...en el grand sabado ... Carlos Puesta..." 7 December. Note : Both 5460.1 Peru Radio Bolivar and 5470.8 Peru Radio San Nicolás, off the air at this time [Wilkner-FL] |
| 5967.92 | | | **Radio Nacional de Huanuni**, Huanuni 0950 with ments of La Paz y Santa Cruz, news items, weak but in the clear, using "on the ground antenna 10 meters in length. 5 December. [ Wilkner-FL] |
| 5996.31 | | | **Radio Loyola**, Sucre 1000 to 1030 with weak signal om en espanol : murdered at 1030 by co channel 23 and 25 November [Wilkner-FL] |
| 5996.31 | | | **Radio Loyola**, Sucre 0930 to 0950 clear with tenor vocal ballad. 5 December [ Wilkner-FL] |
| 6035 | 9.12 | 0000 | **Bhutan BS** med sin typiska musik. 2 CB |
| 6035 | 26.11 | 0039 | **BBS Bhutan** & **La Voz del Guaviare** Colombia fighting togheter. Both with nice signal. GB |
| 6150 | 26.11 | 1350 | **Radio Singapore International** med engelsk, nyheder, ID: "this was the news from Radio Singapore International", fra kl. 1400 IDs som "93-8 Live" efterfulgt af flere nyheder, QRM indtil kl. 1400 af kinesisk-talende station. 22322 BV |
| 6185 | 7.12 | 0890 | **Radio Educación (t)** med halvklassisk musik samt senare mexikanska tongångar. 2 CB |
| 7325 | 30.11 | 1147 | **Wantok Radio Light (tent)** med religiös pop mx med USA stuk sen samtal mellan två män på EE ,( ytterliggare en station börjar att tuna in 1155 som sen startar 1200 ) har försökt många dagar men inte fått fram något, men den 8.12 hördes den med samma px-stil som 30.11 2 LRH |
| 7370 | 26.11 | 1500 | **Radio PMR**, Tiraspol med engelska. Franska 1515 och tyska 1530. Så fortsätter det sedan hela eftermiddagen. 4-5 CB |
| 9615 | 26.11 | 0055 | **Radio Cultura**, Brazil, music & id, fair GB |
| 9630 | 26.11 | 0052 | **Radio Aparecida**, Brazil, prayers, fair/good GB |
| 9645.2 | 26.11 | 0102 | **Radio Bandeirantes**, Brazil, talks about S.Paulo, fair GB |
| 9720 | 26.11 | 0106 | Radio Victoria, Peru, usual religious prg, fair GB |
| 11735 | 25.11 | 1845 | **Radio Tanzania Zanzibar**, Tanzania, religious Christian program, id on the hour and news in National Language. Good GB |

**Brief River DXpedition using the Sony 2010XA ~ whip antenna.**

Location is close to my home; far enough from overhead wires. No rain nor mosquitoes. Good strong Indonesian coffee blend. :-)

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|---|---|
| 2310 | **VL8A** Alice Springs NT 1100 good 21 November [Wilkner River DXPedition] |
| 2325 | **VL8T** Tennant Creek NT 1100 fair 21 November [Wilkner River DXPedition] |
| 2485 | **VL8K** Katherine NT 1100 best signal of the three 21 November [Wilkner River DXPedition] |
| 3204.9 | **Radio West Sepik**, Vanimo 1120-1200 "*...like to take the opportunity.... in the development of the project..." "we have rechecked the political...."; "...the time of the service is...*" 21 November [Wilkner River DXPedition] |
| 3260.1 | **Radio Madang**, Madang 1130 to 1140 yl with music; followed by male vocal unaccompanied by instruments 21 November [Wilkner River DXPedition] |
| 3315 | **Radio Manus**, Lorengau 1131 with Island music, recheck at 1151 still strong signal. 21 November [Wilkner River DXPedition] |
| 3335 | **Radio East Sepik**, Wewak 1139 1200 "*with Labour MPs voting with .... majority ...Friday....'" "...storm effected the area along the coast and river villages along the river..more saturation expected.* 21 November [Wilkner River DXPedition] |
| 3365 | **Radio Milne Bay**, Alotau 1132 fair, 1150 Island music 21 November [Wilkner River DXPedition] |
| 4886.7 | **Radio Virgen del Carmen** Huancavelica 1105 weak signal fading with OA music 21 November [Wilkner River DXPedition] |
| 5040.6 | **Radio Myanmar** 1130 to 1144 with yl, fair to good 21 November [Wilkner River DXPedition] |

# Stationsnyheter

**ECUADOR. Radio CRI 3380 kHz Reactivación - Pruebas??**
Escuchada el viernes 23 de noviembre desde las 2340 hasta salida del aire alrededor de las 0100, la emisora ecuatoriana Radio CRI (Centro Radiofónico de Imbabura) en 3380 con aceptable señal; presentando una excelente selección de música folclórica ecuatoriana. Por el tipo de programación sin conducción, con solo dos mensajes que repetían contínuamente, y la hora pregrabada, considero pueden tratarse de emisiones de pruebas, monitoreada ayer en la mañana-noche y hoy en la mañana pero sin señal. Los anuncios escuchados fueron:
".... Desde la provincia sur de los lagos(¿?) C R I Imbabura, Ecuador..." y "...usted puede comunicarse con nosotros llamando al teléfono 062612720, Radio C R I..." Buen DX (Rafael Rodríguez R., Bogotá D.C. - COLOMBIA, Nov 25, condiglist yg via DXLD)

Saludos amigo Rafael! Gracias por tu señalación: **3380.00, ECUADOR, CENTRO RADIOFONICO DE IMBABURA**, LOS CEIBOS, IBARRA "...telefono 062612720 Radio C R I..." Reported by Rafael R. Rodriguez hrd in Colombia at 0100 the 23 November. (Prefix is +593) ".... Desde la provincia sur de los lagos (¿?) C R I Imbabura, Ecuador..." http://www.radio.cce.org.ec/?action=audioturismo. Turismo en la provincia de Imbabura ---La provincia de Imbabura es denominada la provincia de los lagos. Uno de estos famosos lagos es el de San Pablo.

Monferini searches on WEB : http://www.municipiodeibarra.org/imi/index.html info about Ibarra town (lot of informations). More info : http://www.radioestrelladelmar.com/Barra%20de% 20navegacion/emisora_e_l.htm

RADIO CATOLICAS DEL ECUADOR REPORTS : CRI – CORPORACIÓN RADIOFÓNICA DE IMBABURA
Director: Ing. Luis Adriano Calero, Calle Salinas 623 y Oviedo, Telf: 06-955 897 06-643 519, Ibarra - Prov. de Imbabura

Precedents reports about same station in HCDX WEB : C.R.I. Centro Radiofónico de Imbabura.
C.R.I. AM, Calle Rio Chinchipe 396, Los Ceibos, Ibarra, Ecuador. +593 06 955-897 (INFO FROM DX blog B.MALM 2001)(R.I.P.) THIS TELEPHONE IS OLD ONE AND NO MORE IN USE.

6760.14 kHz, Centro Radiofónico de Imbabura, Ibarra, 30/Ene/2004 0100 UTC. (INFO FROM DX blog B. MALM 2004) (R.I.P.) [harmonic]

4609.99, Centro Radiofónico de Imbabura (B. MALM-Ecuador Mon, 02 Feb 2004) (R.I.P.) (via Dario Monferini, DXLD) (Glenn Hauser via DXLD)

**LIBERIA**. **ELWA**. We were on **4760** AM and PM through Tuesday AM. Now on 6070 and probably will be for a week. Then, based on listener comments will decide on when to use which frequency. Many receivers here do not cover 60 meters, but
49 has much more QRM. Still on 2 kW, but gradually going up to 5 kW in the next few days if nothing blows up. Times are 0500 to 0900 and 1600 to 2300 UT. 73 and God Bless (John Stanley, ELWA, Nov 28, DX LISTENING DIGEST)

# Övriga radionyheter

**Organizing Your Digital DX**
**Cheap digital storage space has revolutionized** the way we DXers can save, organize and access our recordings and QSL collection. Creating a digital DX archive however requires many decisions concerning formats and file names, with long lasting consequences. This article explains the many mistakes I have made, and how I have tried to resolve practical problems related to going digital.
Check out "Organizing Your Digital DX" at http://www.dxing.info/articles/digital_dx.dx

And feel free to post comments about the article, or about your own experiences in recording, converting and organizing your best DX at http://www.dxing.info/community/viewtopic.php?t=2409
(73, Mika Makelainen via HCDX)

**Brazilian Medium Wave List**
**The 4th edition** of the Brazilian Medium Wave list is out. You may download it freely from the Dx Clube do Brasil website. Hundreds of updated information and new features.
http://www.ondascurtas.com/servicos/LISTA_OM_Brasil_2007.pdf
(Rocco Cotroneo, Brasil, NRC-AM via DXLD)

**DRM approved by the ITU**
**DRM approved by the ITU for 'tropical band' shortwave** broadcasting Geneva, Switzerland - The International Telecommunication Union (ITU) is the United Nations organization for coordination of the use of the radio spectrum. Every 4 years it conducts a thorough review and modification of the regulations for the use of the radio spectrum, including broadcasting use.

Since 2002 Digital Radio Mondiale's (Drm) system has been endorsed by the ITU for broadcasting over the world in the long-wave, medium-wave and short-wave frequencies, with the exception of the "tropical zone" bands. The tropical zone bands are the frequencies near the lower end of the shortwave spectrum that are reserved for domestic (national) broadcasting.

It includes countries located roughly in latitudes between 30 degrees North and South like Indonesia, India, Pakistan, Iran, Egypt, Congo, South Africa, Mexico, Brazil, and many others countries are concerned.

At the last World Radiocommunicaton Conference (WRC) of the ITU in Geneva, the conference officially approved Drm system in the broadcasting bands between 3200 and 5900 kHz for domestic coverage in the "tropical zone" countries. This major regulatory achievement opens up a huge market for the benefit of the citizens from this part of the world.

The Drm Consortium is very pleased with this outcome that " the recognition of the Drm system is now totally worldwide for all digital radio applications of various types around the world in the traditional broadcasting bands below 30 MHz - long-wave, medium-wave and short-wave" said Dr. H. Donald Messer, DRM representative at WRC.

Moreover, the Drm Consortium has developed an adaptation of its system to the VHF bands I and II (the "old TV" and "FM" bands, respectively). It is currently being field tested and is in the final part of the standardization process.

When completed in the near future, the Drm system will be available for worldwide use in all the terrestrial broadcasting bands up to and including the "FM" band.

Coverage can range from less than 100 square kilometers using very low power levels, to well over 1,000,000 square kilometers using powers approaching 100 kW.

Källa: Southgate News (via Bengt Falkenberg)

**SOFTWARE DEFINED RADIO VS. CONVENTIONAL RECEIVERS** (Whole story from DXLD)

**Steve mentioned the Perseus SDR in the latest MWN**. If you're interested, you might like to join the Yahoo group at http://groups.yahoo.com/group/perseus_SDR More info at http://www.cqdx.it/woodbox/Perseus_uk.html and http://www.microtelecom.it/perseus/ The UK agent is ML&S http://www.hamradio.co.uk/

This piece of kit is getting some very good reviews for MW DXing, and convinced me to take the plunge - mine is on order! 73s (Martin A. Hall, Clashmore, Scotland. NRD-545, RPA-1 preamp, MFJ-1026 phaser (modified), beverages: 513m at 233 degrees, unterminated; 475m at 262 degrees, terminated; 506m at 279 degrees, terminated; 550m at 338 degrees, terminated; 50m at 321 degrees, unterminated. http://myweb.tiscali.co.uk/clashmoreradio/
Associate websites: http://www.gorrell.co.uk http://www.achardholidaylets.co.uk
(Dec 5, Mediumwave Circle via DXLD)

You are not the only one who has taken an interest in this. I am considering one myself. There is a Yahoo Group dedicated to the Perseus SDR. http://groups.yahoo.com/group/perseus_SDR

Maybe there are other groups too - I would be interested to discover any other groups dedicated to SDRs in general
(John Faulkner, ibid.)

Perhaps, and -mind you- this is not (!) out of ill feeling, we should make a distinction in the various logs of the various DX clubs between 'ordinary' or 'normal' catches on the one hand (i.e. made with a receiver and antenna), and catches made with special software on the other hand
(Herman Boel, http://www.emwg.info ibid.)

Curious why you should suggest this, Herman. Is the DX potential of an SDR receiver superior to that of a traditional receiver? It seems to me that the potential of SDRs could make receivers like the AR7030 'almost' redundant. Especially when you consider the IF recording possibilities and superior DSP filtering. Time will tell.
(John Faulkner, ibid.)

Herman, I'm not sure I understand. I have been using SDRs (Winradio G303, Winradio G313, RFspace SDR-14 and Flex-Radio SDR-1000) for several years now and most of my MWDX loggings have been made with them, especially the G313 which I use a lot on MW.

I consider my loggings to be quite normal and they're certainly made with a receiver and an antenna (Wellbrook ALA100 or ALA1530 in my case).

I do think that SDRs have a great deal to offer but, just like other receivers, some are good and some less good. You still need a good antenna, lots of patience and skill to get the best results. The software doesn't magically suck DX out of the ether and present it to you with its ID already logged when you get up in the morning.

It is true that some SDRs offer the ability to capture enough spectrum to contain several potential DX channels, but this is no different in principle to someone recording several single-channel receivers and then listening back to them. The techniques that are used in SDRs are increasingly being employed in many receivers that look more traditional and I think that within a few years only SDRs will be made

- they're more economical, more flexible and potentially more powerful. But they are not fundamentally very different - they still need good filters, low noise oscillators, wide-dynamic range and all the other factors that are required to make a good all-hardware receiver.
Best regards, (Jack Weber, ibid.)

We have had this discussion here in Sweden too, because people fear that SDR owners are going to start produce of receptionreports like machines and the DXers that use ordinary receivers would not have a chance against the SDR owners....

But a "normal" DXer, with a SDR do not get with the buying, the extra time to drown the stations with reception reports, listen thru thousands and thousands of hours of RF files and so on. Here in Sweden and the other Nordic countries it is now very popular to DX with one or more SDR receivers, often combined with a normal receiver. Almost every DXpedition in Norway/Sweden/Finland make use of these SDRs now and when you spend your money and vacation time on a DXtrip often more that thousand kilometers away up to the north you do try to get most out of it!

When you have good conditions you choose a spectrum of interesting frequencies and start RF recording of them with the SDR and then continue to DX with the standard receiver. With this new way of DXing you often get more out of the short openings at sunrise for example, but you still have to know when and where to record and which antenna to choose (and to have the time to DX from the RF File many more hours...)

I have been an SDR-IQ owner since February and use it with dipoles and beverageantennas. It is no better as a receiver than the other popular receivers as NRD, AOR and Drake. Often can these normal receivers pick out a weak signal from the mud of interferences a little bit better, but the with the RF recordings you get a lot more chances to get that signal who came out of the mud a few minutes. Another fascinating thing is to see the signals and the interference signals on the spectrum. It is much more easy now to "tune" the filters for the best possible audio.

A secondary effect of being a SDR owner that I and others here in Sweden have felt is that you´re sending fewer reception reports! It is often more exciting to hunt around in the RF files from that good opening than to write the reports, and with the Perseus ability to RF record a 400 kHz wide spectrum will produce many more hours of listening thru these recordings.

I have gone a step further and put my SDR-IQ together with a remote steered antenna selector box and a computer in my DX cabin where I have a few beverage antennas, longwires and dipoles. The computer is connected with internet so I can DX with these nice antennas from home or wherever I am with an internet connected computer.
(73´s, Bernt-Ivan Holmberg, Möklinta, Sweden, NRD545, SDR-IQ, ibid.)

Hello Herman, I have put some more questions to Jack. If I get the right answers I will most likely switch to SDR and put my AR7030 in moth balls. I did not realize my radio hadn't been updated for 10 years hi! Would the question of equipment type appear at the end of the DX Loggings against the contributor?
(Barry Davies, ibid.)

Hi Jack, Many thanks for your wonderful explanation. Should be published. Anyway, I would like to draw the attention to your following words: "It's just like the difference between a CD player and a vinyl record player or between film and a digital camera."

This is exactly my point. What is the difference in value between receiving a weak, near or distant station when received with an "ordinary" receiver (Sony, Kenwood, AOR, TenTec, etc.) on the one hand and when received with an SDR on the other hand?

This is why I would propose to make a distinction between both methods of reception. I can imagine 'normal' DXers to become very discouraged when they see all those loggings from the SDR people intermixed with their own catches of seemingly less value.

Is this not also the reason why DX Camp loggings are usually published separately from other loggings?

Anyway, don't get me wrong. I don't have anything against the use of SDR's, but somehow it doesn't seem fair to have those logs treated the same way as conventionally made logs.
(73, Herman Boel, ibid.)

Barry, Whatever equipment is used will be listed in DX Loggings, there's no change. For more background to the clear explanation Jack's just provided, you could go back and re-read his excellent articles on SDR's in the November and December 2006 issues of Medium Wave News.

MW DXing has evolved over the years. It's very different now from when I bought my first decent receiver in the 1960's - a valve (tube) AR88D. An excellent receiver, which would hold its own today in terms of RF performance; but it had poor frequency accuracy, so I needed a BC-221M frequency meter to set it accurately on channel, which slowed down DXing somewhat. Today's conventional receivers are much more convenient to use, and improve our chances of catching DX, though I suspect that the AOR-7030 and NRD-545 are the last of this generation, and that all future receivers will be SDRs, as the A/D, memory and computing technology and speeds now enable them to be implemented quite cheaply. Our style of DXing will change to take advantage of the newly available facilities of SDRs, just as it did when we moved from simple but effective valve receivers through the early poor performance transistorised equipment, to the modern conventional receivers.

Herman and Bernt-Ivan have raised some of the practical issues associated with moving to SDRs that will record chunks of the MW band - but at the end of the day we will be limited by how much time we are able to devote to DXing in our daily schedule. After a long DXing session just listening to one frequency at a time it can take me several hours to check my recordings and write up my log. I expect that any recordings of 400 kHz of MW spectrum I make will be just over the top of the hour, only when conditions are exceptionally good, simply because I won't have time to check any more - but we'll have to wait and see what emerges in the light of experience!
(73s, Martin A. Hall, Scotland, ibid.)

So where does this leave things like "contests" ... anyone with an SDR can "listen" to multiple channels simultaneously by "after the event" tuning of the "recording". Which leaves anyone with a traditional receiver at a complete and utter disadvantage
(Mark Hattam, ibid.)

Hello Jack, Does this mean my AR7030 is obsolete and hence the lack of DX? Have I got hold of the wrong end of stick? I have looked at the link but must confess it goes over my head. Can you summarise SDRs in simple English in two or less short paragraphs for a none technical old timer
(Barry Davies, ibid.)

Hi Barry, I think your AR7030 is just fine. I have one too, it's an excellent receiver and still very hard to beat in terms of, for example, dynamic range. But it's also an excellent receiver that's been around for 11 years, so it's not surprising that technology has moved on since then.

The basic principle of an SDR really is very simple and in most (not all) cases it has the same basic structure as a normal superhet like the AR7030. The big difference is that an SDR digitises the received signal and then does its bandwidth filtering, noise reduction, notch filtering, tone controls, sometimes AGC, etc by using appropriate software to modify the digitised signal. It's just like the difference between a CD player and a vinyl record player or between film and a digital camera. In a radio receiver, if you want to switch from receiving in AM to USB, for example, you could do this by switching physical circuits in and out of the signal path. Or you could digitise the signal and then change over from running a bit of software that does AM demodulation to one that does USB demodulation. The same for filters and so on.

Doing it this way is cheaper, more flexible and potentially more powerful because you can get better results than you could with an equally expensive analogue circuit. Obviously, it doesn't always work out so well, digital can sound harsher and can be plain bad if it's not done well, but the results so far are very impressive, especially considering that this is relatively new technology. One simple example of how it can be very useful is that on my AR7030, for example, I have a small number of crystal filters to set the IF bandwidth. On my G313 I have a smoothly varying filter that I can slide to whatever bandwidth I want. Instead of worrying that 3 kHz is too wide and 2.4 kHz is too narrow, I can simply find the optimum setting and not care if it turns out to be 2.738 kHz.

One big distinction between different SDRs is whether they digitise the RF that comes in from the antenna, or whether they use a normal hardware circuit to get this down to an IF and then digitise that. The latter is cheaper and can avoid some problems of overload, intermodulation, etc, while the former helps if you want to observe a wider chunk of spectrum. One thing that several SDRs allow you to do is to record, not just a narrow bandwidth containing one broadcast channel, but a broader section of spectrum that may contain several channels. Each of these can then be tuned-in and listened to independently when you play back the recording.

This is where SDRs become controversial for some people because one day, not too long from now, you'll be able to record the whole of MW overnight and then tune around at your leisure. While this means that you needn't miss any rare DX, it also requires a vast amount of time because you can still only listen to one channel at a time. In practice I rarely do this. My SDR-14 can record up to 190 kHz, which is quite a big piece of MW - 18 TA channels, but it doesn't have the ability to retrieve audio as well as it might so I generally use my G313 and record just one or two channels. However, even here, the big advantage is that you can tune in the signal as if you were receiving it live when you playback the recording. So, if the local splatter shifts from being upper to lower sideband, I'm not stuck with how I set the receiver up the previous evening, I can change sidebands, shift the passband, add a notch or do whatever else is needed to receive the signal as best I can.

The new Perseus receiver that got this all started is one of those that digitises the RF directly and, those who've used it, say it works very well on MW. I haven't had a chance to try one yet, but it does look very tempting.

Let's not forget that performance isn't everything. The fun of using a receiver is also valuable and some traditional radios provide more of that. That's why I still have my AR7030, and a bunch of older valve and solid state radios. They're fun to use, but if you really want to get the more difficult DX then my money is on the SDR way of doing it.
(Regards, Jack Weber, ibid.)

Hello Jack, So with an SDR receiver you can: -
*Record a bunch of frequencies simultaneously*
*You can choose one frequency to play back.*
*You can play with that frequency as though at the dial.*
*You can switch side bands of the station as though you are sat at the dial.*
*You cannot remove QRN other than you reduce on AR7030 now.*
*You can thus check several channels when 1000 KOMO is on.*
*You need an antenna and earth rod.*

Does this summarise an SDR receiver?
Do you hear audio on an SDR receiver?
Can that audio be recorded on cassette recorder?
If all above is correct why would you need an AR7030?
If all above correct how much is an SDR radio?
(Barry Davies, ibid.)

Yes, or more accurately, you can record a block of spectrum. With my SDR-14 the maximum I can record is 190 kHz, with the Perseus you can record up to 400 kHz. This has to be a single contiguous block - for example 1000 to 1190 or 850 to 1250, etc.

It's just an ordinary radio. You can tune it to any frequency and listen to that frequency just as you would with any other radio. In the case of the SDR-14 it actually has two demodulators so you can listen to any two frequencies simultaneously (provided they're within 190 kHz of each other and your ears are ambidextrous). I'm not sure if the Perseus lets you do that or not. But anyway, it's not particularly useful. The important point is that you tune and listen exactly as you would with any other radio. Except, of course, there isn't a physical front panel - the controls are on your computer screen and you use a mouse and keyboard for everything (you can buy an add-on tuning knob that works with many, but not all, SDRs).

``You can play with that frequency as though at the dial.`` Yes

``You can switch side bands of the station as though you are sat at the dial.`` Yes

``You cannot remove QRN other than you reduce on AR7030 now. `` Yes and no. The AR7030 has no noise reduction other than IF filters, a notch filter (in the AR7030+) and a noise blanker. Some modern receivers additionally provide digital noise reduction which can help with QRN, but not all do, and anyway there's a limit to how much you can remove.

If you're listening in real time you can only listen to one (or at most two, see above) channels at a time. If you're playing back a recorded block of spectrum then you can check everything within its 190 or 400 or whatever kHz span, but again only one at a time. Then you'd go back and listen on another channel and so on. That's why spectrum recording isultimately self-limiting because it takes forever to check. However, once you've got over the initial excitement you do as Martin was suggesting and just check multiple channels at the toh. Where this could be useful though is on a really good DX night then there is simply more coming in than you could ever hope to catch in real time. It may take you a week to check it all, but it will be worth it.

You certainly need an antenna or you won't receive anything. An earth rod may help or may not as with any other radio. It all depends on your particular receiver, antenna, mains etc.

``Do you hear audio on an SDR receiver?``Yes, if you provide powered speakers of the sort that are used with PCs, or use headphones.

``Can that audio be recorded on cassette recorder?``

Yes, but I can't imagine why you'd want to. Since the radio operates inside your PC and records onto the hard disk, that's infinitely more convenient.

``If all above is correct why would you need an AR7030?``

Because it's a very nice radio that's a delight to operate. Anyway, no one radio will always be best for everything. The AR7030 has superb audio - the best you can get - so it's very nice to listen to if reception conditions don't demand anything more complex.

``If all above correct how much is an SDR radio?``

Between about £500 and £1500. Check prices on the websites of Waters & Stanton, Martin Lynch & Sons, Radixon and RFspace Inc.

For general use, much like a conventional radio only better, I like the Winradio G313. It does spectrum recording of two adjacent channels at most. For wider spectrum recording, you need an RFspace SDR-14 or a Perseus.

Don't sell your AR7030 until you've tried an SDR. Some people hate operating via a computer. You'll get more DX with a radio you're comfortable using than one you're not, even if in principle it can do a lot more
(Jack Weber, UK, ibid.)