

SHORTWAVE BULLETIN

Nummer: 1540. 27 juni 2004.

Deadline nästa nr: 9/7 2004 (E mail 11/7 kl. 0900 SNT)

GLAD SOMMAR!
Jaha, då blir det mer tid till DX-ing när nu fotbolls-EM snart är slut.
Intressant att se att de små nationerna haft betydligt bättre utdelning på sitt fotbollsspel än de etablerade länderna.

För min egen del är det en välgärning att speciellt Italien med sina divor fick ge sig. Hur kan man år efter år skylla allting på alla andra? Italiensk press har på fullt allvar anklagat Sverige och Danmark för uppgjort resultat. Måhända, som man känner sig själv känner man andra

DX-ingen har av naturliga skäl inte kommit igång på allvar. Men, flera har aviserat aktivitet nu när semestern står för dörren.

Trots en period av uruselt väder hoppas jag alla får en trevlig semester och kan fullfölja alla planer som gjorts upp.

Själv skall jag ha 4 veckor ledigt och det borde väl bli några dagar med strandväder här i Skälderviken.

Hoppas att många trevliga bidrag skickas över till nästa nummer.

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.

Christer Brunström: WWRB Manchester TN 5085 stort diplom (nummer 52). V/s Angela Frantz.
Radio Ezra via Krasnodar 17590 kHz QSL-certifikat + diverse trycksaker. **Radio Damascus 13610** klassiskt QSL-kort, schema, dekal samt vackert vykort som visar ett antikt tempel i Palmyra.
Trevlig sommar (trots vädret)!

Leif Råhäll: Det är mest det gamla vanliga jag kommer med. Förra veckan var jag på skolträff, det var 60 år sedan vi började första klass. Roligt att träffa gamla kamrater från den tiden, en del har jag inte sett på 52 år. Nog med nostalgi, över till tipsen.

Torre Ekblom: Några qsl har influtit till min glädje, det blir inte så många nuförtiden. Lyssnar och lyssnar, men har svårt att hitta något nytt s.a.s. dels beror det väl på att man inte orkar vaka som förut heller. Är på väg ut till stugan vid Saimens strand om en stund igen så kan jag fortsätta sökandet, hi...
QSL : **R. Rhino Int. 17555** via Jülich brev v/s Godfrey Ayoo 7må.15d - **Radio UNAMSIL, Sierra Leno 6140** v/s Sheila Dallas, brev, info, t-shirt 1år - **Radio St. Helena 11092,5** brev, info v/s Ralph H.Peters Stn.Mgr 4år 4må 10d - **China Radio Int., Kashi-Kashgar 9560** brev ,info, dekal 17d - **Radio Casanova 6260** brev, kort v/s L.Caarels. Tack för alla fina bulletiner Ha en fin midsommar, 73 Torre

Jan Edh: Glad Midsommar! Ingen lyssning och därmed inga loggar under den senaste perioden. Däremot har det kommit ett par QSL: **Radio Six International via IRRS, Milano (via Rumänien?) 5775**. Kort, info. V/s. Tony Currie, programme director. **WWRB, Manchester, TN 12272** med "certificate". V/s Angela Frantz. Tömmer tydligen alla gömmor nu för att skicka verifikationer. 2,5 år cirka.

Rolf Wikström: Min semester börjar nästa vecka så då kommer jag att värma pytsen efter att jag fått upp mina antenner igen som blåste ner för några veckor sedan. Vill bara önska alla SWBare en trevlig semester och gärna då också lite tid över för avlyssnande på eternas vågor.

Börge Eriksson. Jodå, gubben lever fortfarande och jag kommer senare att höra av mig varför det blev så tyst från min sida efter nyår. Förhoppningsvis kan det bli bättring framöver. Förra veckändan avhölls året DX-Parlament i Björnsjö och jag och polare Lennart hade engagerats att berätta om gamla tider och vad vi ansåg DX-ingen vara på väg. Vi var ett litet gäng SWB-are där och förutom mig själv fanns BD, BEFF, JE och LB på plats. Det var speciellt kul att se hur LB kommit tillbaka efter sin svåra sjukdom. Det syns att litet "jävlaranamma" kan göra underverk i en svår situation. Detta är något som jag själv tillsammans med frugan blivit tvungna att praktisera den sista tiden och därför har DX-ingen fått stryka på foten. En kul grej häromdagen var att det kom ett QSL fast jag inte skickat en rapport på snart två år. Det var **WRBB, 5050** som svarade med stiltigt kort efter två och ett halvt års väntan. Vad som framkom på parlamentet så var det många som fått dem överraskande. Midsommar hinner ju passera innan bullen kommer men jag hoppas att Du och alla andra SWB-are haft en trevlig helg i det typiska svenska sommarvädret.

Roland Åkesson: Verkligen en ovanligt mild vinter vi har, och snart är ju halva "översomringen" avklarad innan mellanvägen tar fart på allvar. Har faktiskt noterat lite NA på min K9AY-loop nu lagom till Midsommar då det varit mycket lugnt på solen. Nå, man ska väl inte klaga på vädret, det kan ju vända och än så länge har jag lite "krockkudde" med några veckor innan semester, hi! Har slölyssnat lite någon natt och inget direkt sensationellt, men alltid något att hitta. Kul att äntligen kunna slänga in lite tips till dig efter alltför lång frånvaro. Ha det gott och tack än en gång för ditt fina arbete med bullen!

Bjarke Vestesen: Lige nogle hurtige hurtige tips i sidste øjeblik. Sommervejret er som bekendt mere til indendørs-sysler end udendørs på grund af massiv regn, så der er gode muligheder for at høre noget radio. En sommerstorm var forleden ved at tage flere af antennerne, men jeg var tilfældigvis hjemme og kunne derfor redde dem alle.

LOGGEN - ALL TIMES ARE UTC

2310	9.6	2027	AUS Alice Springs med pop mx // med 2325 och 2485 2-3 LRH
3905	9.6	2025	INS Merauke med lugn avstressande musik 2 LRH
3961	14.6	2146	INS Palu bara pratade 2 LRH
4605	15.6	2032	INS Serui med svängig south sea mx 2-3 LRH
4750	9.6	2059	INS Makassar med Song of the Coconut Islands 2-3 LRH
4750	14.6	2137	INS Makassar med asiatisk mx 2 LRH
4750	14.6	2120	RRI Makassar som var ny för mig. 2-3 THE
4855.96	23.6	2235	Radio La Hora fra Cusco med mange ann., lang uid. snak, ID, fadede ind og ud. 22222 BV
4918.97	16.6	0445	Radio Quito med spansk, mange ann., mange IDs efterfulgt af frekvens-ann., dejlig LA-musik til morgenkaffen. 23333 BV
4955	25.6	0135	Radio Cultural Amauta , Huanta får sig en rpt igen. Hade px som hette "Hora de la Reforma". 3-4 RÅ
6040	25.6	0010	Rádio Clube Paranaense , Curitiba ofta starkaste brasse på 49 meter. 4 RÅ
6105	25.6	0048	Rádio Cultura Filadelfia med ändlösa predikningar gör den tråkig. Ev. Panamericana i bakgrunden. 3 RÅ
6134.9	25.6	0027	Radio Santa Cruz gick ovanligt bra. Har mkt fin audio på sändaren nu. 3-4 RÅ
6170	25.6	0020	Rádio TV Cultura de São Paulo med klockrent id! 3-4 RÅ
6239.8	8.6	0037	(Mistyped in last issue on 6339.8) Unid here with talk, music and a jammer! CD with a revolutionary type of march, so I presume the FARC-station Voz de la Resistencia in Colombia! S 2. BEFF
6269	13.6	0910	WMTR - piratstation - med engelsk, professionelt program, mange ann. og ID, oldies, pludselig s/off 0911. 23222 BV
9290	13.6	0800	European Music Radio via Letland med s/on med flere IDs, gamle pop- og rockhits, opgav adresse. Flere stationer er i øvrigt på vej til at sende søndag via Letland, bl.a. Kiss 9290. 44444 BV
9720.03	15.6	0520	Radio Victoria - en pastor ägnade sig åt att lovprisa Herren med typiskt darrande röst. 3 CB
9885	14.6	0845	NZL New Zealand hörs i stort sett hela förmiddagen 2 LRH
12120	24.6	1702	Radio Voice of Oromo Liberation via Samara (?) med åbningsmusik, ann., IDs, sender kun mandag og torsdag, bærebølge noteret fra ca. 1630, men først program fra 1702. 34333 BV
15120	23.6	0640	Voice of Nigeria med engelsk, nigeriansk musik, flere IDs, elendig og næsten uforståelig modulation. 34433 BV



Bandscan from BM, Quito, Ecuador

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Antenn: 12 m lw Ö/V, 24 m lw N/S + Lw Magnetic Balun + MFJ1025 phaser

You are very welcome to listen to my recordings at <http://www.malm-ecuador.com> The following stations have been uploaded during the last 14 days:

4815.00 R. El Buen Pastor, Saraguro (Ecuador) 110kb. 06/2004.

5005.72 L.T.C. Radio, Juliaca (Peru) 128kb. 1010 UTC 06/2004. It's difficult to do a recording of LTC Radio but this time the station was coming in with good signal.

On Friday morning (June 23) I had 2 unidentified LA stations on the 49 meter band. I now have ID on both but still one with unknown QTH.

5930.27 Radio Melodia, Arequipa (Peru) 53kb. 0030 UTC 25/6 2004.

5949.78 CPN Radio, unknown QTH (Peru) 101kb. 1130 UTC 26/6 2004.



Saludos Cordiales desde "La Mitad del Mundo"! (When using my information give credit to: Bjorn Malm, Quito, Ecuador, SWB América Latina)

Stationsnyheter

BOLIVIA, 5500 2140UTC Radio Virgen de Remedios, Tupiza, Departamento de Potosi. 2200 relay Radio Católica Mundial, ID OM "Radio Virgen de Remedios, frecuencia modulada y onda corta, la voz católica en su casa, con la cadena Radio Católica Mundial" 2230 ID OM "Radio Virgen de Remedios, Tupiza, frecuencia modulada y onda corta, la voz católica en su casa, con la cadena Radio Católica Mundial" 2233 s.off (12/Julio/2004 Rogildo Fontenelle Aragão, Quillacollo- Bolivia via HCDX)

CONGO: After 22 years of trying, I finally received a f/d QSL card and letter from **Radio Congo** (per letter), Félix Lossombo, Le Directeur Administratif et Financier for a June 2001 report on 4765 kHz in 10 months after f/u for \$5 and a registered letter. Their schedule per letter is: 6115 kHz from 0600 to 0830 and 1700 to 2030 UTC with 50 kw. 9610 kHz from 0700 to 1700 UTC (no power mentioned). 5985 kHz from 0430 to 0700 and 1700 to 2300 UTC with 100 kw reduced to 50 kw. I figure this QSL cost me approx. \$53.50 to obtain over the last 22 years. (Terry Palmersheim, KC7LDP Helena, MT via HCDX)

EL SALVADOR. R. Imperial, 17834.82, June 5 1855-2058* Spanish talk, ballads, 2058 abruptly pulled plug mid-song. Fair signal at times but also with deep fades. Irregular; not heard next day (Brian Alexander, Mechanicsburg PA, DX LISTENING DIGEST)

HONDURAS. Re 4-091: HRMI has in fact been inactive on both frequencies (3340 and 5010 kHz). A few months ago the station reactivated and I spoke with the director, who even talked about producing a short program (with yours truly) in English, destined specifically for DXers and SWLs abroad. But the station went off the air again a few days after that, and has been off the air ever since. I have tried talking to the director again, but the cellular number he was using at that time has been assigned to someone else. The failure seemed to be a faulty tube, from what he said at that time. Their antenna was a simple dipole. "See" you soon (Elmer Escoto, San Pedro Sula, HONDURAS, June 9, DX LISTENING DIGEST)

INTERNATIONAL WATERS [non?]. MIDDLE EAST See **DXLD 4-079 and WOR 1229. Radio Ma`luumaati** (Information Radio, in Urdu), 15500U, best signal ever noted at my location in northern Sweden, June 23, 1645-1710, on a Sony ICF2001D and a 7 meter random outdoor wire. Music resembling Indian `film music`, multilingual announcements in Hindi, Urdu, Pashtu, Farsi and Arabic. One 4-minute segment in accented English on detecting and denouncing drug smuggling. In the English language portion the station name was given as `Radio One` and the transmission schedule, with times in UT, mentioned as 0300-0800 on 6125 and 1400-1900 on 15500. The name `Information Radio` was not heard during the English language portion I monitored, only `Radio One` and `Radio Ma`luumaati`. Radio Kuwait on 15505 and 15495 appeared to reach its peak level a bit later than Radio One (Henrik Klemetz, Umeå, DX LISTENING DIGEST)

[Later:] Radio One --- That`s the English language ID for the Coalition maritime forces broadcast on 15500U, audible June 23 and 25 about an hour before and after 1700. Today, a weak BBC WS outlet (in // to 15565) was producing co-channel interference from 1640 to 1730 (close down). Which one? Peak reception time does not seem consistent with that of Radio Kuwait on 15505, and so I suspect Radio One is from some other place further to the East. Reception was possible on June 23 and today but almost unreadable yesterday. I have heard an accented English language segment, about 4 minutes long, on both occasions dealing with drug trafficking. The Urdu name for "Information Radio" has been heard also in the English PSA which ends in an invitation to "tune in every day" to their morning frequency of 6125 and in the afternoons on 15500 On June 25, from 1600 to past 1730. The English segment, probably read by a Pakistani national, included both slogans. Unknown weak BBC WS outlet noted co-channeling at 1640-1730 (off). Kuwait closed shortly thereafter, and never reached full signal readout during its transmission. On 15495, there was only a transmission from the UN Radio until 1745 (Henrik Klemetz, ibid.)

"Information" och "kunskap" heter ma`lumat på arabiska och faktiskt samma sak på bahasa malasia, malumat på turkiska, farsi osv... Ja, HK bor förstås i Luleå nuförtiden... (Henrik Klemetz)

ISRAEL: Was doing a bandscan of the 19 meter band this evening (6/26) and was surprised to hear **Galei Zahal** in HB on 15785 khz at 0039 UTC. (They were absent from their usual 6973 khz). The program consisted of hip-hop/rap and R & B mx ... seemed to be hosted by a woman. She gave ID's and, while I was tuned in, she had a conversation with a (M) in studio, I believe, but it may have been via telephone. Many "Shaloms" were exchanged and there were mentions of "Tel Aviv" and "Bet El." Is this a (usual) seasonal change? (Jim Clar, Rochester, NY via HCDX)

LATVIA [and non]. It would appear that Radio 945 am is not the only station about to commence transmissions from Latvia. **Europa Radio International - E R I** is shortly to commence tests on its **9290 kHz** transmitter and has negotiated a deal with a German station to use its AM/MW transmitter covering Western Europe later in the year. A deal is also currently being struck with Sky and the station will also be broadcasting on the WWW. E R I is primarily a music station, playing new Rock and album tracks from the past 30 years, the primary target areas are France, Germany, Holland, Belgium, Switzerland, Austria and the United Kingdom and the station intends being the first wholly European music station with programmes being presented in a number of languages. The website (under construction) is at <http://www.europaradio.co.uk> or you can e-mail to (Barry Knight via Alby Ridge, hard-core-dx via DXLD)

There appears to be a widespread misunderstanding about the nature of the transmissions in/from Latvia (partly encouraged by misleading statements of relayed foreign "stations"). To make it clear: there is only one licensee for the MW and SW transmissions in Latvia: the Riga-based KREBS TV. As for Mediumwave, KREBS TV's new station Radio 945 AM is a regular, domestic station which will broadcast around the clock for listeners in Riga as soon as the test period is completed. Shortwave: KREBS TV is renting out air time via the Ulbroka SW transmitter on 9290 (which is owned by the state-run Latvian Radio & TV Centre). Because of the good coverage in Western Europe, 9290 has proved to be an attractive frequency and the number of "stations" that are booking this relay is constantly growing. None of these "stations" however has any own license in Latvia, all these transmissions are mere relays. (Bernd Trutenau-LTU via DXLD)

PARAGUAY: Adan Mur, from Villeta, tell me in a email some days ago what the local technical college's station transmits now in 1610 KHZ (with 5 watts), 107,9 MHZ (with 25 watts) and short wave!!!, in 9905 khz (with 5 watts) The station transmits music (rock, heavy metal, etc), messages and some commentaries. (73', Arnaldo Slaen via HCDX)

Övriga radionyheter

IC-746Pro Impressions & Mods, Dallas Lankford, 6/13/04

Introduction

Having owned two 16 bit DSP receivers, the NRD-545 and the WJ-8711A, I was curious if the 32 bit DSP receivers performed any better. There aren't any "receiver only" 32 bit DSP receivers, so my choices were among various ham transceivers. After studying the field, I kept coming back to the IC-746Pro (IC-7400 in Europe). It (and the 756Pro(II)) had crippled MW and LW bands, but after studying the schematics, it appeared that in principle these defects could be fixed. Prices of the 746Pro have been dropping, and late model used ones have sold on eBay recently for under \$1000. So I decided to give one a try.

Initial Impressions, June 4th and 5th

It has excellent sensitivity above 1.8 MHz with Preamp 1 or Preamp 2. With Preamp 2, above 20 MHz it may be more sensitive than the R-390A. Not a good evening for comparison, though.

Frequency readout to 1 Hz makes manual ECSS tuning easy if you like ECSS (I don't).

Users can select any three SSB bandwidths up to 3.6 kHz for the wide, med and narrow filters (displayed as FILTER 1, FILTER 2, and FILTER 3, which I suppose is more accurate since FILTER 1 can be wide or narrow or in between, etc.).

AM bandwidths are fixed at 3.6 and 9 kHz (nominal). Users cannot change them. I haven't measured them yet, but they sound good.

Users can select three AGC release times for each mode (except FM). The factory default release times for AM were 3, 5, and 7 seconds. I changed them to 0.3, 2.0, and 6.0 seconds. To turn the AGC off, you have to make "OFF" one of the 3 release times. Dumb. So you really have only two release times for each mode if you want OFF selectable by a single button push or two. But that's probably sufficient.

MW and LW bands are desensitized, and the preamps are deactivated. I knew this before I bought it. We'll see if I can't fix it.

Measured MW sensitivity is 3 uV (usual parameters). Not as bad as I expected (the ARRL measured 6), but not good either.

I made some preliminary measurements of the 746P filters last night. Well, really just one... the 6 kHz filter. I didn't measure the 6 dB BW. The 60 dB BW is (very preliminary) about 11 kHz. Nothing to write home about. But the filter just keeps going down, and down, and down..... At 80 dB down I had 14 kHz BW. Ultimate attenuation was about 86 dB. That is outstanding. BTW, that means the close in phase noise (also called composite noise by the ARRL) is less than -120 dBc/Hz. The only receivers I have that will come close to or beat this are my R-390A's. The ultimate filter attenuation and oscillators (all of the oscillators combined, not just the 1st LO) phase noise blows the competition away, except for R-390A's. To be specific, it leaves the WJ-8711A and the NRD-545 (as well as the non-DSP receivers like the NRD-525) in the dust. Whether or not this translates into a better DX receiver remains to be seen.

More Impressions, June 5th

Filter measurements were made using a HP-8640B (with measured phase noise at 1.8 MHz of -145 dBc/Hz) from the noise floor of the IC-746Pro with AGC off. There are three fixed AM filters, nominally 3, 6, and 9 kHz BW, and the operator has no control over them (cannot set BW or shape). It took me two tries to get all of these numbers right.

#1 (9 kHz nominal): 9.8 @ -6 dB, 15.1 @ -60, phase noise limited at -80 dB

#2 (6 kHz nominal): 6.8 @ -6 dB, 12 @ -60 dB, 18 @ -80 dB, ultimate ~ -86 dB (close in)

#3 (3 kHz nominal): 3.4 @ -6 dB, 7.0 @ -60 dB, 10 @ -80 dB, ultimate ~ -86 dB (close in)

The ultimate selectivity value of -86 dB may be (probably is) phase noise in which case the close in phase noise (5 to 10 kHz offset) is about -124 dBc/Hz (using the 6.67 BW). The shape factors of AM #1, #2, and #3 are 1.54:1, 1.76:1, and 2.06:1 respectively. I would have preferred a better shape factor for #3, but #2 and #1 are certainly outstanding, and #3 is excellent. I am curious why the #2 filter ultimate attenuation isn't several dB less (because I believe this is phase noise). Perhaps this is due to the filter algorithm, or inaccuracies in my equipment.

For SSB and CW the operator can select "sharp" or "soft" filters with SSB bandwidths up to 3.6 kHz. For SSB I picked #1 as 3.6 and #2 as 2.8 and #3 as 2.4. I picked the wider filters for ECSS and the 2.4 as default SSB.

#1 (3.6 kHz sharp): 3.3 @ -6 dB, 4.5 @ -60 dB, 7.1 @ -80 dB, ultimate ~ -86 dB (close in)

#2 (2.8 kHz sharp): 2.9 @ -6 dB, 4.0 @ -60 dB, 6.2 @ -80 dB, ultimate ~ -86 dB (close in)

The shape factors of SSB #1 and #2 are about 1.34:1, outstanding. I did not measure #3, but have no doubt that it is similarly outstanding. The soft filters numbers were not as good as the sharp filters numbers (audio response is not flat, but has an upward slope from low to high frequencies, skirts are somewhat wider, and nose is somewhat narrower). I didn't care for them.

I did some weak AM signal listening above 21.5 MHz this morning. AM performance is just outstanding. The AM detector in the 746P is much better than the AM detector in the WJ-8711A, and about the equal of the 8711A AMS detector. I didn't have the WJ at hand for a direct comparison because I was going against my standard, the R-390A. ECSS is also excellent. I compared ECSS and AM modes on a number of weak signals above 21.5 MHz. As to which was better, I suppose it depends on your taste in audio. I like the generally better audio quality obtained with AM mode. Sometimes ECSS delivered better audio when there was interference on one of the sidebands. The comparison was somewhat problematic because of the BW differences (3.3 and 2.9 for ECSS and 6.8 and 3.4 for AM). There were no cases where audio was recovered in ECSS but not AM and vice versa. Those who prefer ECSS won't be disappointed. And it appears to be a dead heat between the R-390A and the 746P for AM reception whether you use AM mode or ECSS. And no (and I do mean N... O... NO) uP crud from the 746P above 20 MHz (or anywhere else) like with the WJ-8711A and some other high end (elsewhere called premium) receivers. Days later (6/13) I measured AM sensitivity at 21.6 MHz using the 6.78 kHz BW: Preamp 1 = 0.6 uV with NR control turned off, 0.5 uV with NR adjusted for maximum digital noise reduction; Preamp 2 = 0.4 with NR off, 0.3 with NR on. I don't believe you will need an external preamp for the 746P.

The 746 is not an intuitive receiver to operate, and there are a lot of options that users can configure (audio bass and treble boost for one). It will take more than a few hours for me to master this receiver.

Top Of The Heap, June 11th

Here are some things that put the 746P at the top of the heap. The AM detector is an AM synchronous detector. Why ICOM doesn't advertise this feature of the 746P is a mystery to me. I discovered it merely by noticing that it sounded like an AM synchronous detector and asking ICOM Technical Support if it was. They confirmed what my ears had already told me. And it is not just any old AM synchronous detector. It is an outstanding AM synchronous detector. It doesn't lose lock (no growling on extremely weak signals fading in and out of the ambient noise floor) and you can tune the signal with the AM carrier anywhere you please in the passband, and even out of the passband, and still no growling. In other words, the 746P AMSD is completely transparent to the user. You never know it is there except that the quality of AM reception is better than with an ordinary AM detector for some weak signals at the ambient noise floor and for some strongly fading signals, and better than ECSS. And there is a receiver (and transmitter) audio tone control which permits you to select up to 5 dB of bass or treble boost or cut. In other words, you can customize the audio response to your liking. It works great in AM mode. However, the 746P doesn't seem to like full bass boost when using SSB for ECSS. The audio starts cutting off and on as you approach zero beat. Very near zero beat the audio can stay off for several seconds or longer. However, this problem has a useful application as an aid to adjusting the calibration pot through the small hole on the rear panel. Tune WWV 10 MHz (or whatever) with the frequency display set to 10.000000 (and RIT at 0) and adjust the pot slowly as the audio on and off period gets longer and longer. The longer you can make this period the closer you are to zero beat. The 1st LO oscillator phase noise (or more generally the composite noise) at close separations (from 3 to 10 kHz) is about -124 dBc/Hz. This is easily 10 dB better than any other solid state receiver that I

am familiar with... including such receivers as the NRD-525, 535, and 545, the RA6790/GM, 6793, and 6830, the (Harris) RF-590, and 590A, the (Collins) 651S-1 and HF-2050, and the (Watkins Johnson) HF-1000(A) and WJ-8711A. The ARRL published transmit (not receive, but presumably they are the same as receive) composite noise measurements of a 746Pro which show noise decreases from -120 to -130 dBc/Hz as the offset increases from 2 to 10 kHz at both 3.5 and 14 MHz, with noise declining -135 dBc/Hz at 22 kHz offset. I measured the wide offset (500 kHz) phase noise (composite noise) as -145 dBc/Hz with tone at 1.000 MHz and noise at 1.500 MHz. This is outstanding phase noise performance. The filters ultimate attenuation is greater than 80 dB, and even though there are only three AM filters, their bandwidths are well chose with excellent shape factors. Then there is the NR (noise reduction) knob. Not a noise blanker, but digital noise reduction. And it works very well, especially on weak signals in the presence of noise in AM (synchronous detection) mode. It even reduces external preamp noise, thereby improving the overall sensitivity when an external preamp is used with the 746P. In one case adding a low noise preamp improved MW band sensitivity only to 0.50 uV (from 0.60 uV). But turning on the NR feature and adjusting the NR knob for optimal sensitivity improved it to 0.30 uV. At noisy locations this won't matter. At quiet locations it will. There is also a noise blanker which works very well. Users can adjust the amount blanking provided by the noise blanker. And there is no (not even a hint of) microprocessor noise (which plagues the WJ-8711A and many other top receivers). Taking all of the above into consideration, this is about as good as it gets.

Down Sides

The down sides are that the ICOM put a 10 or 11 dB attenuator in the signal path below 1.6 MHz and the preamps are disabled below 1.6 MHz. Furthermore, Preamp 1 gain rolls off fast below 500 kHz. And it is non-trivial to fix these things because of the many tiny 0603 SMD's and tiny PC board traces. But they are fixable, as I will describe below.

Sensitivity Measurement Issues

Perhaps it is just my IC-746Pro, but there seem to be some anomalies when measuring AM sensitivity. In the 6 kHz (nominal) BW the AM sensitivity is a tenth of a microvolt or two better when the receiver is detuned to the high side. Also, the digital noise reduction (NR knob position) can be used to improve the AM sensitivity by a few tenths of a microvolt. So the question arises, "What is the AM sensitivity of the IC-746Pro in the 6 kHz BW?" Well, it seems to vary by as much as much as 0.4 microvolts depending on the position of the controls. The tone TCN (tone control) menu setting also affects sensitivity values. And if 1000 Hz signal generator modulation is used instead of the standard 400 Hz, measured sensitivity values are worse. Sensitivity values given below were made with the NR (noise reduction) turned off (I think), and with 400 Hz modulation. I have no idea where the carrier was in the filter passband because I did not know about detuning effect when those measurements were taken. So presumably those values could be as much as 0.2 or 0.3 microvolts high from the best sensitivity.

Intercepts

The ARRL gave measured values for the intercepts in their long review which for the most part I will not reproduce here. The 3rd order intercept with Preamp 1 on is about +3 dBm with close spacing, and the 2nd order about +70 dBm above 1.6 MHz. Below 1.6 MHz (not measured by the ARRL), with the 11 dB attenuator removed and Preamp 1 enabled (to be described in detail below) the 2nd order intercept is typically +35 dBm when both tones are in the MW and/or LW band(s) and +85 dBm when both tones are in the HF bands. This is because a simple elliptic low pass filter with cutoff frequency somewhat above 1.6 MHz and attenuation in excess of 40 dB at 3 MHz and above is used when tuning below 1.6 MHz. A low pass filter may be needed for the LW band, and some kind of tracked tuned circuit may be needed for the MW band for "in band" intermod free reception. The 746P 2nd order performance above 1.6 MHz is much better because it uses switched bandpass filters above 1.6 MHz. However, the filters could obviously be better. So even in the HF bands additional front end filtering may be wanted in some cases. Wide spaced (out of band) 3rd order intercepts generally vary in the +38 to +40 dBm range for the HF bands and about +44 dBm in the MW and LW bands. Overall I expect my modified (attenuator below 1.6 MHz removed and Preamp 1 enabled) 746P to be an excellent performer with regard to intermod except, perhaps, for in band MW and LW intermod, which can be fixed by various filters. I have not experienced any LW or MW intermod, but then I am not near any high power MW transmitters. For LW it is straightforward to build a good 450 kHz cutoff low pass filter, or you can buy one from Kiwa Electronics. If MW intermod is experienced, an appropriate MW filter can be built or perhaps bought.

(Dallas, thanks a lot for letting us take part of this very interesting review! Regards, Thomas)

NRD545 REMOTE CONTROL APPLICATION -- ORCHID CITY SOFTWARE

The Japan Radio Corporation's newest Communications Receiver is the Digital NRD545. It has a comprehensive CPU that allows the receiver to be controlled in a number of new and unique ways. JRC had a computer program written for the receiver and although it looked good, it can only be assigned to commport 2 of your computer. Enough Said.

The NRD545 Remote Control Application from Orchid City Software, was written with the focus on the Shortwave/DXer as the primary user. The application is a remote control program with a set of comprehensive database files combined. Take a look at the screen shots below: . . . <http://www.orchidcitysoftware.com/IMAGE19.HTML> (Chuck Bolland, FL, DX LISTENING DIGEST)

South Korea halts DMZ propaganda broadcasts

The Korea Times reports that the South Korean radio programme Voice of Liberty, which has been aired for decades along the border with North Korea, made its farewell broadcast on Sunday. The sign-off came just hours before North and South Korea exchanged radio communications in their first test of an inter-Korean military hotline since the end of the 1950-53 Korean War.

At the same time, the Korean Broadcasting System reports that South Korea is set to bring a complete halt late today to propaganda broadcasts that have gone on for 42 years along the demilitarized zone. The Defence Ministry said it would air its final farewell broadcast of "Sound of Freedom" through its loudspeakers along the demilitarized zone for ten minutes up to midnight Monday, in accordance with recent agreements aimed at easing military tensions with North Korea. The ministry said the ten-minute special broadcast would also feature wishes for the well-being of both South and North Korean soldiers.

VOA confirms discussions with Free NK

An article in the JoongAng Daily confirms that the Internet broadcaster Radio Free NK is in discussions with the Voice of America about rebroadcasting Free NK material on VOA's Korean Service. The article quotes Han In-seop, Programme Director of the VOA Korean Service, as saying "Free North Korea and VOA are currently discussing a partnership" for such rebroadcasting. (Media Network via Mike Terry, rec.radio.shortwave)

From WIA's Q-News for June 13: WEIRD AND WONDERFUL

Ever wondered why our call signs start with the letter V? Of course, radio call signs are allocated on an international basis - Australia was originally allocated the block of VHA-VKZ at the London Radio Conference of 1912.

Many of the UK's former colonies (such as Canada, Australia, South Africa and British India) were allocated call signs from the V series at the 1912 conference.

The reason? Queen Victoria had recently died - the block was allocated in her memory.... (Glenn VK4DU)
(via John Norfolk, dxldyahoogroups via HCDX)

Ethiopia to issue radio licenses. June 02 2004. Addis Ababa

- Ethiopia will issue a long-delayed radio broadcast licence to private operators beginning in August, the information minister said on Wednesday, opening slightly the country's tightly-controlled media.

Many Ethiopians and rights groups have asked for private radio and television stations to be allowed to operate independently.

"Technical works in frequency allocations that would allow private broadcasters to operate have been prepared and the licence will be issued starting next August," Minister of Information Bereket Simon told parliament.

Bereket said the licence will be only for FM broadcasts, and medium- and short-wave as well as private television stations will be considered later.

Bereket said his ministry had begun to discuss a draft press law with members of the media before presenting it to the cabinet.

The controversial draft has been described as restrictive and discriminatory by journalist groups, who say it aims to stop reporters operating freely. http://www.iol.co.za/index.php?click_id=87&art_id=qw1086195420896B253&set_id=1 (via HCDX)

Yaesu FT-767gx ham receiver

Just bought a used Yaesu FT-767gx ham receiver with general coverage receiving capabilities. It totally ROCKS as a shortwave receiver. The audio is excellent, the selectivity is good, the tuning knob is so smooth, it's a joy to use.

On the AM BCB band, it is subject to overload during the daytime when the locals are at their highest power, but with the attenuator in, it works fine.

Here's a few audio clips of some DX I've heard with it recently (antenna is a 20m vertical dipole, top at 35 ft ... hung in a tree).

<http://members.aol.com/j999w/DX>. One is of Radio Farda from Greece in Farsi on 15,290kHz. Listen for the "Radio Farda". Signal was rather weak, so there is some hiss, and I spliced two clips together with a 'pip' in between. 175kb .wav file.

The second clip is of what I believe to be the clandestine Radio Free Asia, 13,700kHz at the 1800z sign on (according to the ILG database). I ran across this by accident as I was listening to the carrier in USB when they opened up with audio, so I switched to AM.

Interval signal, followed by ident in Chinese. 310kb .wav file.

The third is of Radio Nacional de Venezuela (according to ILG relayed from Cuba beamed at South America ... hence the weak signal).

ILG shows that the station heard underneath could be Voice of Iran. Easy Spanish ident on this after the interval signal. Listening in USB on this one. 11875kHz, 2200z, . 377kb .wav file

All recorded on a 233mhz PC with CoolEdit 2000. I'll post more as I hear them. (73! Jw K9RZZ, via rec.radio.shortwave)

UNIVERSAL RADIO 2004 COMMUNICATIONS CATALOG

The new 104 page 2004 Universal Radio catalog is now available. It is available free on request. Click here for more Universal Catalog info. <http://www.universal-radio.com/catalog.html> (Dxing.com May 20 via gh, DXLD)

Transatlantic FM opening.

Just a few lines to report a rather exceptional reception which occurred this weekend just gone by. During a Sporadic E opening on June 19th toward Iceland a path opened to North America which saw the MUF rise at least as high as the FM broadcast band.

A North American station was received between 1310 and 1330 UTC. As yet no positive identification of its source has been possible but I am confident that this was a Trans Atlantic signal. During the event TA television carriers were received on 55.25 - 61.25 - 67.25 - and 83.25 mhz.

To my knowledge this is the third time in the last year that such a path has opened the other dates being June 26th and July 20th 2003.

Further information on these receptions can be found at the bottom link. Audio from June 19 2004 can be heard at

<http://www.geocities.com/yogi540/unid> Hope this report is of some interest. Low VHF/ FMDX Homepage: www.geocities.com/yogi540 (Paul Logan, MI3LDO Lisnaskea, N. Ireland. Loc. IO64GG via HCDX)

It is interesting to note that these long-distance openings have appeared close to the astronomical mid-summer (this year June 21st). On June 24th there was a long-distance opening here in Finland. I heard about 10 stations from Near East & North Africa: IRIB on 99,6 and 100,1 MHz and RTT Tunisia on 88,6 88,8 and 90,3 MHz. Plus a lot of unidentified stations including possibly private stn's from North Africa on 88,8 and 91,8 MHz. I'll add some mp3-files on my web-site in the near future.

Anyone understanding Arabic? I have added some mp3-files of several Arabic & Iranian stn's heard on 24.6. long-distance conditions, see: <http://www.kaapeli.fi/~jmantyla/index2.htm> If anyone can help me with Arabs on 88,7 and 88,8 MHz or Tunisia/Gafsa 91,8 MHz I'd be very happy. Does anyone know the locations or regional addresses of IRIB 99,6 and 100,1 MHz? (Jorma Mäntylä, Kangasala, Finland via HCDX)

The RF Noise Identification Website

Canadian radio amateur VE3HLS is busy putting the finishing touches to a new Website called The RF Noise Identification Website. Its purpose is to help hams and SWLs identify the noises that intrude on shortwave listening. The Web site contains a growing library of recordings in MP3 format that you can download or listen to online. The recordings are of various types of noises from known sources and some that haven't been identified. Also included are small waveform images that provide an additional "fingerprint" for identification.

Ken, VE3HLS, hopes that users will visit the site if they have noise problems and will be able to identify noise that's bothering them by comparing it to the recordings. He would also greatly appreciate contributions in the form of recordings of noises at your location as well. They'll be converted to MP3 format and added to the Web site (with credit to the sender) for all to listen to. WAV or MP3 files, audio cassettes or CDs will be gratefully accepted. See the Web site for additional details.

<http://www.ve3hls.com/noise/rfhome.html> (Media Network via HCDX)