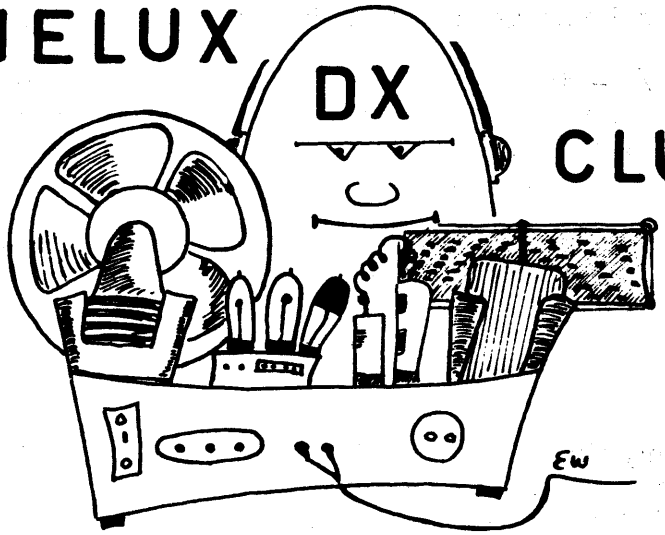
BENELUX DX CLUB



Volume 4, number 6
Monthly publication
1 May 1965 (nr. 42)

Secretary: Oude Amersfoortseweg 153, Hilversum, Holland
Editor : Zeevaertweg 19, Hilversum, Holland

OUR RECEIVER

In this series on receiver improvements without actual meddling in the circuitry of an individual receiver, we can deal with a special subject today: the short wave converter. As the name already suggests, the instrument converts one range of frequencies into another. In our case, part of the short wave rage is transformed into one frequency in the medium wave range. Thus , if the converter is used in combination with a receiver tuned to 1500 kc/s, the tuning knob of the converter permits listening to a whole range of short wave frequencies.
Apart from the actual conversion, adding this unit has some additive advantages: it improves performance of the set in this specific range by providing a vavourable image frequency rejection, and by the extra sensitivity inhearent to the concept.
One such concept we like to deal with today. It is a brand new folder that will be issued by Radio Nederland one of these days and features a short wave converter fitted to receive the 21, 17 and 15 megacycles bands (12 to 20 metres).
It is a separate, tube operated unit which can be made by everyone able to make soldering oints, because the folder does not only give a circuit diagram, but also top and bottom views of the chassis, completed with a five page description (written by yours truly) dealing with both principle operation and practical construction of the unit.
Let's face a practical example to clear up the principle operation of this converter unit. A frequency of 17 megacycles, that is 17000 kilocycles in the 16 metre band enters the antenna and is fed to the aerial circuit of the converter. Here we find our first tuned circuit, even before the RF pre-amplifier tube can commence its work. The roughly selected frequency range is fed to the control grid of the RF tube, which is of the variable mu type. In it's anode circuit we find a second circuit, also tuned to the 17000 kc/s frequency, and it's function is -among more- to increase the selectivity of the unit.
A second tube is called the frequency changer. It will mix the frequency of 17000 kc/s fed to it, with another signal created in an oscillator circuit also connected to this tube (6BE6). Thus we get a number of signals after mixing has taken place, among which we will find both sum and differential signals. The difference between the antenna signal and the oscillator signal is chosen usually, and it can be kept constant by mounting the tuning condensors of both circuits on one common shaft, and so all incoming short wave signals within the tuning range of the converter are "transformed" into one intermediate frequency. In this case, the IF is selected in the medium wave band: 1500 kc/s, and that's exactly the frequency you must tune your receiver to.
The converter is connected to the antenna and ground connections of the radio set by means of a cable, and has not other connections with it, unless you want to draw the heater and high voltage supply from it.
A special feature of this Radio Nederland converter is, that it is equipped with a RF amplifier stage, which makes it a very sensitive device, offers an excellent image fre-

quency rejection and is relatively easy to make by a choice of components which are universally obtainable.
It's range - 15 to 24 mc/s - is selected not only because many radio sets miss this particular range, but also because the short wave bands in this range are most suitable for long distance reception, especially under conditions of high solar activity, which are expected to occur in the near future. Therefore, the publication of this folder is considered well-timed.
Are you interested in receiving a copy? Then we advise you to report one of Radio Nederland's transmissions and ask for the new converter folder. It will be sent to you free of charge soon after it rolls off the presses.

JV

-o-

FREQUENCY METERS

by Jim Vastenhoud

What is a frequency meter, what can I do with it and what does it cost. Moreover, where can I obtain one and what are the critical points to keep in mind when pondering? These questions were put by one of our members recently, and form the reason why we deal with this subject today.
A frequency meter is a piece of equipment able to generate a carrier between 125 kc/s and 20 mc/s with great accuracy. This carrier is very weak and can only be received when the aerial (antenna) of the instrument is coupled with the antenna of the receiver. The receiver will then indicate the carrier somewhere in the band. Now, for what purposes can we use the frequency meter?
In the first place, the alignment of the set or deviations on the dial can be checked with it. The operation mode is quite simple; just generate a frequency and checks its place on the dial with the pointer. Trimming of course is more difficult, and should not be carried out without experience.
In the second place, the frequency of a station can be determined with the frequency meter. Tune the receiver to the station, tune the frequency meter to approximately the same frequency and a beat note will become audible in the loud speaker. Then let the carriers coincide (zero beat) by adjusting the frequency meter, and read the instrument. The last method is applied by DX-ers to check the frequency of a station before reporting to it. And the reading is correct, with an accuracy of even less than one kc/s in the high frequency bands.
Frequency meters of the type BC 221 or LM 13 (LM14) are still available on the market today, especially in war surplus stock. They are battery-operated, so it will be necessary to construct a small voltage supply unit for mains operation, but this is simple. The price can vary. Recent magazine checks indicate a value of L 15.- for London (UK) and $ 75 for the US, complete with original crystal and calibration book "used but like new". As the quality of the crystal determines the value of the unit, and only an original calibration book will indicate the exact rading, it is important to keep these two points in mind when going to a store. Otherwise, check the general condition by inspection of the chassis, making sure that it is still in "factory"-condition.
Although the BC-type is best known, the LM is maybe even better, because it has a handy extra; it can not only create a carrier, but also a tone modulated carrier, which facilitates identification of the carrier sometimes.
The frequency meter is the best piece of auxiliary equipment the DX-er can possess, I think. Maybe the price is an objection? in that case, pay some attention to the "crystal calibrator" article expected soon in this series.

-o-

COLOUR TELEVISION

Just a little remain talkin on the problem of the colour television standard for Europe, which was subject of discussion during a recent meeting in Vienna. As you know already, the conference was a failure because no unanimous advice on a system could be made. There are several reasons for this, and some of them are political, some are purely technical, such as the different terra in circumstances experienced in Europe, the price of receivers, the compatibility with the already existing NTSC-system, etc. Also, money is involved! Because patents are involved for each system, and so the matter must have been quite complex. Now, after the gunpwder smoke has lifted, what are the expectations? As far as we can guess now, the system will be determined by the first station starting colour television in Europe, and BBC stands a good chance to be the first one. What will BBC use? Well, it is known that they are generally in favour of the American NTSC system, however with the colour subcarrier on the frequency applied in the German PAL system. Not because of

a compromise, but because the colour subcarrier is less visible in the picture when it is shifted 3931 cycles from its original position at 4.43 megacycles above the video carrier. JV

-o-

THE EARLY BIRD

Lifted to its stationary place in orbit 22,300 miles above the earth 6 weeks ago was the Early Bird, the first commercial satellite in orbit now. Because it is so far from the earth, it will seldom have to rely on its storage cells, so for most of the time the 6000 solar cells will be able to supply the satellites receiver and transmitter equipment. The bird is basically a relay station, stationed high over the Antlantic ocean and able to supply direct communication between Europe and North and South America, In the course of time, two more such satellites are expected to appear: one over the Pacific Ocean and one above the Indian Ocean, and together they will pretty well cover the whole earth. Early Bird can relay TV programs, or can handle 240 simultaneous telephone conversations. This means an active support to the five transatlantic cables, which can together handle just 412 telephone calls. One disadvantage, and at the same time a curious proof to the user will be that it will take radio waves almost a quarter of a second to make the round trip. This will lead to little "waiting times" between question and anwer.
How long Early Bird will perform is still a question. Solar activity is rising, and the satellite will be bombarded by blizzards of high energy particles from the sun trying to damage the intricate mechanism of the capsule, but for the moment commercial telephone trafic via satellite is starting. JV

-o-

NEWS FROM RADIO NEDERLAND

Great joy in the studios in Hilversum when at last the report arrived from Bonaire that the 260 kW shortwave transmitter was ready for use. The first day's broadcast started without announcements in the other Radio Nederland Programmes. Only a small number of listeningposts were informed. The motto was to be quite on the safe side. The first telegraphic reports were very encouraging, sothat the next day the relaytransmissions were announced in all other programmes to same directions.
It is a matter of credit to the DX-ers activities, that many of them heard the first transmissions and sent a report on it.
As appears from the reports which are received up to now, the first block of programmes, respectively 2000-2050 GMT English to W.Africa; 2100-2220 GMT Dutch to W.Africa and 2230-2320 GMT Spanish to South America on a frequency of 15290 kc/s can be received very well in the whole of Europe. At present it may be still possible that the Spanish broadcast will fade out, but within a month the propagationconditions will improve. So during the Summerschedule, Bonaire will be a big competitor for the 10 kW transmitter for Europe on 6020 kc/s.
In the last block of transmissions, there has been an important change. Now the English programme to North America can be heard from 0130-0220 GMT and the Spanish programme to Mexico from 0400-0450 GMT. The Dutch programme to North America remained unchanged from 0230-0350 GMT. So far as the frequency of this block of programmes concerns, the results of the choosen frequency of 9690 kc/s were not as expected. A strong interfering signal caused bad reception in the eastern part of North America. In the western part reception is good, due to the worse propagation path of the interfering signal. Because better reception is much desired, a new frequency channel is needed. Propagation conditions for the path Bonaire - North America and Mexico make it possible to use a 9 mc/s frequency throughout the year. With effect of the new schedule, that is per the 2nd of May, the 9690 kc/s will be replaced by 9590 kc/s, being one of the oldest Radio Nederland frequencies used for these programmes to North America via the Lopik transmitters.
As a result of this change, it was needed to make some more minor corrections in the schedule you received last month.
Please correct your schedule as follows;
0130-0150 English on Sundays to Australia/New Zealand/West Indies on 11730 and 9525 kc/s;
0100-0120 on Sundays and 0130-0155 on weekdays several languages to West Indies on 11800, 11730, 9715 and 6005 kc/s;
Note c) should read 11730 and 6005 kc/s not in the night of Saturday to Sunday.
We hope that the good news will result good reception.

-o-

NEXT DEADLINE MAY 20TH - BE SURE YOU SEND YOUR CONTRIBUTIONS IN TIME

EDITORIAL MISCELLANY

Did you know,

- that the West Indian DX-ers Association has published her first bulletin;
- that President of this Association is our member Margaret Hinkson;
- that our ex-member Timothy James is no longer secretary of the said association;
- that this club still doesn't accept members outside the West Indian region, but that they consider to change this policy within a few months;
- that a photograph of our member N.J.Jensen at Frederikshavn, Denmark is to be seen on the backpage of the May issue of Radio Japan News;
- that the wireless operator on board of the lighthship St.Govan has complaint of being blocked on his emergency wavelength by a relegious broadcast of Radio City when trying desperately to send out an SOS;
- that the Post Office has a bulky file of complaints about interference from pirate radio stations;
- that these complaints have come from Holland, Germany, Czechoslovakia, coastguards and ship-communications stations;
- that this file will be used as ammunition by Mr. Anthony Wedgwood Benn, Postmaster-General in legal moves now being considered to deal with pirate broadcasting.
- that the radio pirates do not seem worried about the future;
- that this was to be read in the Daily Mirror of March 22, 1965;
- that our member Henk van der Laan has won the third price in Radio Canada's listening-post contest;
- that our member Ben van Eerden has been mentioned by Radio Portugal on April 9th, being the very first RPDXC-member who earned the bronze certificate (10 QSL's "do mundo Portugueso" and that also a silver (20) and a golden (50) certificate are obtainable;
- that we read the most fantastic articles on our Dutch National broadcast policy in North American periodicals and DX-bulletins and that now everybody has pity on us because it's still impossible for us to enjoy the commercials;
- that Radio Prague didn't fall behind in founding a Monitor's Club and that it's also possible to get some certificates via this Club to decorate your shack.
  For further particulars write to "Radio Prague Monitors Club, Prague, Czechoslovakia".
- that the get-up of your clubbulletin is in hands of six energetic fellows and one chap who is not so energetic;
- that the less energetic fellow just has been elected as your editor in chief, who is shrinking every new month from dividing that one long letter, closely written on both sides of the page, with almost unreadable scrawls, in portions for every concerning editor;
- that he would enjoy it very much if every member sends his contributions divided in portions per editor, and when he puts his name and residence under each portion, the first price in the football pool is heartily welcome to him;
- that the contributions for the bulletin, that are received later than the 20th of a month, perforce have to wait till the next bulletin.

-o-

HOW TO LISTEN TO THE WORLD

There is a new edition of "How to listen to the world" available today, and it looks good with its 175 pages of information, it's plastified and colorful cover and the many well known names of its contributors!
It's contents? An almost complete coverage of short waves, their behavior, the ionosphere, reception problems, reporting, general information in high frequency propagation, etc. Then, 40 pages devoted to different international short wave stations and how they can be identified; some chapters on medium wave and medium wave DX-ing, some circuits on receiver improvement (including transistor circuits), language courses, TV-DX-ing and entries from several big or important DX Clubs.
It is a good book, especially for the man with interest in DX-ing on short wave, medium wave and the television bands. The only thing I miss is satellite communication and reception, The book has one chapter on the subject which does not cover the whole thing. But the overall impression is fine: the book is well cared of, reads easily and contains lots of information arranged in a fine way. It will have special attraction for the not-too-technically minded hobbyist.
The New Guide, How to listen to the World 1965-1966; Published and edited by O.Lund Johansen, World Publications, Lindorffsalle 1, Hellerup, Denmark

-o-

MEET A NORTH AMERICAN BDXC MEMBER

James J. Howard

Al Quaglieri (12 Verplanck Street, Albany, New York 12206, USA) is a 15 year old high school freshman. He started his SWLing in August of 1962. His first receiver was a 7 tube set that covered MWBC plus 25 and 31 meters "in dial space equal to about 5 inches". (With this he logged and QSLed 20 countries). Then he got a Heathkit GR-91. He then added an old Zenith (with RF stage) and by this time his standing was 45 countries. Today Al is using the Hammarlund HQ-100A. His score is 90 countries logged and 55 verified. The antennas are a 90 foot V longwire, a 75 foot longwire and a 60 foot longwire. Other antennas are an FM-dipole and 6 foot MWBC loop. (The loop currently is occupying a position at the foot of his bed.) By the way Al would like a tape pal. Better write first.

-o-

A DAY IN THE LIFE OF A NORTH AMERICAN SWL

JJH

What is a day like for a NA SWL? What does he listen to? Well there is no set reply. So we ask NA BDXC members to write to us and tell us what one of their days is like.
We will begin by telling you about one of our own days. We will take a week day. (We should point out that on weekends we make up for the little listening we do on weekdays. We do little or no DXing on weekdays.) Well our own week day will begin around 9.00 AM CST (1500 GMT). At about that time we get up to begin our day. 1530 GMT we monitor the BBC news on 15300 kc/s. In fact almost 100% of our week day listening is done on the 19 mb. Then it is to the printers - SWL Publications post office box - gas for the car - etc. At 1830 GMT we listen to CBC news. During many week days we must also work on our SWL columns for BDXC, ASWLC and WMRC. We must also answer mail etc. We see little or no TV unless it is a special news report (such as a space shot, or the President etc.). At 1915 GMT we will listen to the O.R.T.F. English news via Brazzaville. Most of the time we hear part of "Music USA" or the VOA Jazz program. Sometimes we hear other SW stations ... even sometimes Radio Nederland. At 2050 GMT (2:50 pm local time) we are in our car beginning the 28 miles to our job. From Kansas City, Missouri where we live we drive to Kansas City, Kansas where we work. On the car radio (MWBC) we listen to two local stations for news (we listen to two news programs, plus music and wather reports).The local stations are WHB 710 kc/s and WDAF 610 kc/s. We get to work at 3:25 pm. We work as a welder at the Darby Corp. We can't listen to any radio between 4 pm and 12:30 am. (That is 2200-0630 GMT the best hours for SWLing here in North America. I am going to have to get a day job!) On the auto radio on the way home we listen to WDAF. We can pick up a number of stations in Canada very easy. But we don't do any DXing on the way home. We get home at 1:10 am (0710 GMT). We eat something and drink a Pepsi-Cola and go to bed at 0800 GMT. Our day is over... and I think I am right when I say your day is just beginning over there in Holland.

-o-

AS WE SEE IT (the views of a North American SWL)

JJH

When the government in Holland came down over the radio matter it made big news here in the USA. But I think few people (other than SWLs) know the facts behind it all. Americans seem to think that all radio/TV is the same as our own..... I am watching with interest the matter of what color TV system will be used in Europe. It seems it would be best to use the US sy tem. But can understand that you would want to keep out too much Americanism. With Europe trying to bring some of the countries into some form of federation or what ever you want to call it... can't understand why ... say the BBC-V. of Germany and Radio Nederland don't all beam one QRG to NA and carry other broadcasting systems programs. It might work this way... BBC would use 6195 to NA between 0000-0600 GMT; V. of Germany 6100 kc/s same hours and R.Nederlands say 6085 kc/s. Then each of the other networks would feed their English news over all three QRGs to NA. Rome, Vatican, Paris etc. could all feed by land line or UHF to BBC, VOG &RN. They would still have there own transmissions but it would be an easy way to make sure the NA listeners could get the news from Europe. A listener in NA could tune in one QRG and set back and listen to the news from each of the countries in Europe with out turning the dial.
(I think that only to decide at what time each station will broadcast its newscast will need ten years of talking. HI Ed.)

-o-

NOG MEER NIEUWS UIT DE BENELUX

Roland Jonckheere

Als Beneluxpartner zit Belgie weer met de gebakken peren. Op de conferentie te Wenen over kleurentelevisie koos Nederland het Duitse sy teem en Luxemburg koos partij voor Frankrijk. In de BRT te Brussel is men hoogst ontevreden en men wijst er op dat Belgie weer verplicht zal zijn de twee systemen in te voeren. Dit betekent dat ook de toch al peperdure ontvangers nog minstens 15% duurder zullen worden. Overigens deelde de BRT nog mede dat voor 1970 in Belgie nog geen sprake zal zijn van kleurentelevisie.

-o-