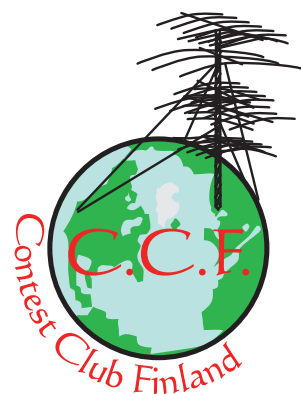


PileUP!

Volume 11(2) 2007



Working those W's from below the Auroral oval in Northern Finland.
OH6KN is in the OH8-area and you may recall other callsigns
like OH8OS, OH8PF and OH8L.

PileUP! is the newsletter of Contest Club Finland published in Finnish and bad English. You are welcome to contribute via oh1wz@sral.fi.

President	J-P	OH6RX
Vice-President ...	Jari	OH1EB
Secretary	Aki	OH1ZE
Treasurer	Mikko	OH4XX
Web	Timo	OH1NOA
PileUP!	Ilkka	OH1WZ

CCF's homepage: <http://www.contestclubfinland.com/>

E-mail reflector archives: <http://lists.contesting.com/pipermail/ccf/>

This issue as a pdf-file: http://www.helsinki.fi/~korpela/PU/PU2_2007.pdf

PileUP! 11(2)

3. Editorial. Ilkka, OH1WZ
4. CCF-Humour. Joe OH7 HO HO HO /BY
6. CCF summer activity. Jari, OH6BG
7. ZB2X reporting to readers of PileUP!, Jorma, OH2KI
9. SAC X - New smart antenna controller. Ranko, 4O3A
14. Arcala Extremes. Martti, OH2BH
18. Short Arcala technical description. Veijo, OH6KN
18. PileUP! visited Arkala. Ilkka OH1WZ
21. DSP Has Destroyed Amateur Radio. Jari, OH3BU



PileUP! congratulates Toni OH2UA, current owner of the CQWW CW SOAB HP European record @ CU2A and a winner of both SSB and CW in 2006.
Photo is taken @ the CU2A cockpit.

Editorial

SAC by Finland

The aim of Scandinavian Activity Contest (SAC) is to encourage radio communications between us here and you non-Scandinavians out there. This year Finland, SRAL and CCF host the event. Send your logs to saccw2007@sral.fi and sacssb@sral.fi. For full set of rules, look at the web pages by Janne, SM3CER (www.sk3bg.se). Back cover of this issue has some details as well. On my part, I wish everyone welcome to enjoy the Scandinavian style of operating. CCF will do its best in organizing a quick release of the results and mailing of the trophies and diplomas.

Radiosporting

Let's move on to something different. It crossed my mind that our hobby fulfills the requirements of a sport. Yes, but what kind of a sport? To me, the words contesting and radiosporting have two different meanings. I somehow like the latter more. And we have a funny sport. On the same arena you have the newcomers, those who do not compete seriously and the small minority of true testers, who can't do without the rest. There are no semi-finals; everyone gets to run in the finals, but they don't consider themselves as sportsmen. That's odd to me.

Well, what's the competition about? Why do we go through all the trouble of building and maintaining an expensive, winning station and practice a lot to get all the skills? PileUP! does not know the answer, I hope you do. Tell us.

PileUP!

I see that you read this issue of PileUP!-newsletter. This is the 11th volume.

PileUP! exists because CCF wants to promote OH - radio contesting, and contesting in general. PileUP! does not focus in any mode or type of contest. Well, to be honest, it's not quite so. It's HF mainly. Also, PileUP! has an OH-viewpoint on things. PileUP! receives articles every now and then, and when there is enough material, it is time for a new issue. It is as simple as that. Please help CCF to keep PileUP! coming to your web-browser. Send stuff to oh1wz@sral.fi.

More sunspots

Having started amateur radio in 1984 during the minimum, I learned to be humble and when the first spots came in 1988-1989, it was a thrill. We modern people want things to happen quickly, so waiting for the spots to reappear in 2010 is really frustrating. Can't someone somewhere do something about this immediately? More spots - less need for a big station - more fun.

More testers

PileUP! welcomes all initiatives on how to get people interested in amateur radio and radio contesting in particular. There are some fresh ideas that you find in this issue. More people - more fun.

More aluminum

The rumors say that more aluminum that resonates around 3.5 MHz has been put up in OH and OH0 this summer. Five new installations. Tests have been made with elements that resonate on 1.8 MHz, but this antenna is scheduled for 2008. We will hopefully read about these monsters in the next issues.

73 OH1WZ



CCF-humour

Communications history in Scandinavia

After digging to a depth of 10 metres last year, Norwegian scientists found traces of copper wire dating back 100 years and came to the conclusion that their ancestors had a telephone network more than 100 years ago.

In the weeks that followed, Swedish scientists dug to a depth of 20 metres. Shortly thereafter, Dagens Nyheter reported "traces of 200 year old copper wire, proving that Swedes had an advanced communications network a century before the Norwegians."

One week later, Kainuun Sanomat announced that "after digging 30 meters in potato fields near Ristijarvi, archeologist Pekka Heikkinen said that he found absolutely nothing and concluded that 300 years ago Finns were already using wireless.

What is flea speak at hamfests?

Flea speak is the jargon of second-hand vendors at a ham radio festival. Often it may have two meanings. Here is the ultimate guide.

Fleaspeak with english translation follows:

This rig puts out a BIG signal -
It's 50 kHz wide.

This is a really good CW rig -
It doesn't work on SSB.

This is a really good SSB rig -
It doesn't work on CW.

This is a really good rig - It doesn't work
on CW or SSB.

The transmitter is outstanding - It doesn't
receive.

The receiver is really hot - It doesn't
transmit.

This rig is really hot - It's stolen.

It seems to be a vintage regenerative
type - It oscillates.

I just re-tubed it - Got 'em from question-
able used tube stock.

I just aligned it - The slugs on the trans-
formers are jammed.

I don't know if it works - It doesn't work,
probably never has.

It doesn't chirp - It doesn't chirp because
it doesn't transmit.

The audio sounds great - The 100 /
120Hz buzz is faithfully reproduced.

I just had it serviced - I sprayed WD-40
over all the wiring.

It comes with the original box - Just
brush out the kitty litter.

Better buy it now, cause it won't last - No
translation needed here.

Sure, it works at full power - It sucks all it
can from the wall outlet.

This rig has wide frequency coverage - It
drifts up and down and out of band.

Frequency stability is great - The VFO
doesn't work - you'll have to use crystals.

Real popular rig in its day - There were
whole HF nets on the repair and mainte-

nance problems.

QST gave this one a really great review - The language broke new ground for profanity.

It might need a bit of tweaking - Marconi himself couldn't fix it, much less align it.

It was used in government service - It was stored outdoors on a wooden pallet.

The dial drive may need lubricating - The gears are stripped and the setscrew's frozen.

I plugged it in to check that it lights up - The light came from the two foot high flames.

I'm selling it because I have two of them - I'm getting rid of my parts radio.

You won't find one at a 'better' price - 'Better' defined as solely from the point of view of the seller.

This is a collector's item - The manufacturer just went belly up and won't honor the warranty.

It came from an estate sale - If you have any problem take it up with the original owner.

I had it on the air just last night - And you thought the woodpecker was gone?.

It worked last time I used it - If it still worked, I'd still be using it.

The only lightning damage was a fuse - The only lightning damage I recognized was a fuse.

I have the [?] somewhere, I'll send it to you, trust me - You'll never see the [?].

I'll help you carry it to the car - I'll do anything to unload this boat anchor.

It works O.K. on 80 meters - It had some parasitics but I got in and really screwed it up and now I want to unload it.

The tubes used by this rig are worth the asking price - The rig uses a rare 7360 beam deflection tube for a balanced modulator, but it's blown and you'll spend at least \$80+ to get a new one.

This is the rig of my dreams I really wanted one of these as a kid, but now I've got to let it go - As I've gotten older, I've learned what a hunka junk it is.

The signal quality of this rig was easily recognizable in its day - The high distortion and bad audio quickly identified this rig.

This rig will bring back the feelings and atmosphere of vintage ham gear - The bypass capacitors to the AC line put enough voltage on the chassis to give you a shock in the lips through the microphone, and it smokes so bad when you turn it on that you'll probably start coughing and wheezing.

I'd keep this baby, but my wife is making me clean everything out of the shack - I finally got around to giving this thing the proverbial heave-ho.

There are a couple of other people interested in it - Someone sat on it to tie his shoelaces while walking past the table.

You'd better buy it now, because I'm leaving soon - The previous buyer and his brother, Guido, are heading back toward the table and they aren't smiling.

CCF-activity at SRAL's summer meeting

Photos by Jari, OH6BG



Peter OH5NQ esittelee elävästi OH5Z-asemaa, sen historiaa ja varustelua.

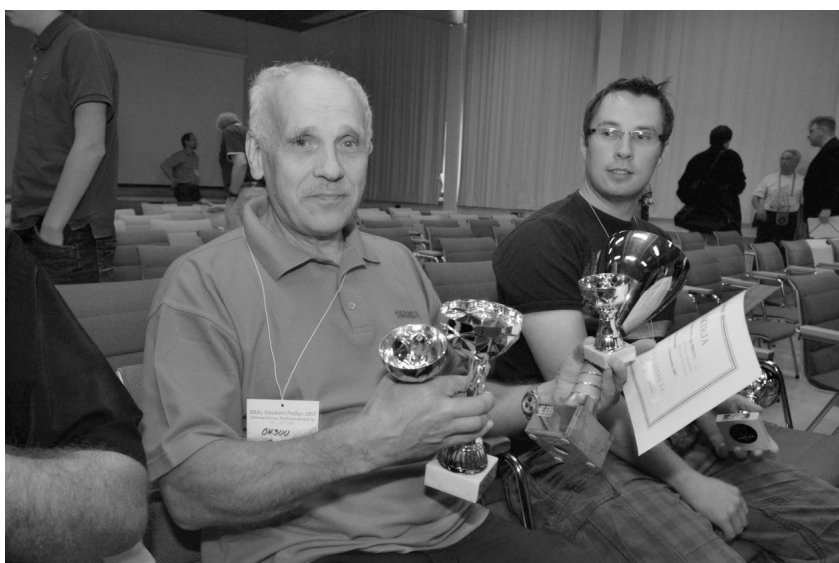
OH5NQ gave a presentation on the history and the current status of OH5Z in Elimäki.

See also www.oh5z.com.



Kari OH2BP kertoi RTTY-työskentelyn olemuksesta.

Mr. RTTY, Kari OH2BP guided us to the secrets of RTTY-operating.



Risto, OH3UU kahmi kilpailufoorumilla taas pyytyjä kotiin.

Risto, OH3UU, once again, left home with an armload of trophies and awards. Toni, OH2UA on the right.

ZB2X Reporting to Readers of PileUp!

Jorma Saloranta, OH2KI & ZB2X



Where is ZB2X, is it QRT or what? Some people have asked me why I operate only some single band and not any more all bands. At this writing the feeling is that ZB2X is history because the last full-bore CQWW was worked in 2000 M/S, and after that year only single-band entries have been seen, not very successful ones. The last activity was 80M CW in 2006 using a 3-meter high dipole and very modest power.

ZB2X was born in 1975, after one frustrating DXpedition to 3V8 land earlier that same year. It needed some substitute activity. I started to talk to ZB2GF who kindly offered me a QTH, and so I went there. The first trip was difficult: by bus to Algeciras EA7, ferry to Tangier (CN2), and next day another ferry to ZB2. The same way back. In 1975 Gi-

braltar issued those two-by-one calls. I was lucky to get one. This over 30-year period keeping the license running has required frequent visits to Gibraltar. Many friends have been met there, and Mac McEwen, ZB2CF deserves big thanks as he has always spent time helping me get over some troubles there.

Many hams have visited the Rock, and have thus seen the high spectacular mountain which rises over the horizon offering a beautiful QTH - one might think. The top of the Rock is not the place to operate from for many reasons. Possible places for setting CQWW records are either on the northern or southern side of the Rock. If you are on the western side, the Rock constitutes an obstacle to JA, and if you are on the

eastern side, you at least miss South America and VK/ZL.

Why not have a permanent location in Gibraltar? It is quite possible, if one wants to stay there longer. My operations always have been “one-week trips”, with everything from nuts and bolts carried from home, and after the contest everything was taken down again. It is easy to understand that these Scout type operations can no longer compete against those super contest stations in Europe. It was a good time when this was possible in the 1980’s and the 90’s. New records were set, SOAB and Single Band, CW and SSB. Most often European SOAB records were swapped with Tine Brajnik, S50A. Every second year he took the honors and then ZB2X went back to take the lead. This continued for several years. The best SOAB win ever was second place in the world on SSB, after John Crovelli, P40GD.

Gibraltar is a good radio location. The Strait of Gibraltar somehow seems to “radiate” well, with water surrounding the Rock some 300 degrees. Only Europe is shadowed, but that is good if one wants to win. There was a time period when I was quite frustrated to run too high numbers of Europeans who always sat between me and the needed JA. Then I asked a contest guru for advice on what to do. One-point QSOs simply did not make a winning score. Martti Laine, OH2BH told me to “work them out, it is possible”. And so have I done ever since: the first day as much Europe as possible, and DX may wait – only the strongest JA’s can be heard. On Sunday the Europeans begin to shout “QSY, this is my frequency” and then it is my time to start with the badly needed Asian DX.

Heavy European pileups are dangerous also in another sense: you may stick with them on 28 MHz, and at the same time, in the afternoon, 14 MHz USA may be missed. Well, every QTH has strong and weak points, and band conditions vary very much from year to year.

Many good memories are linked with ZB2. One nice moment was when Olli Rissanen, OH0XX went to EA9, blinking the lights of his hotel room which I could see in ZB2 over the Mediterranean Sea. Suitably, the night was very clear. One of the most QRM’ed operation was when the British artillery exercised the whole weekend some 30 meters away from my radio shack, firing into the sea, using big guns. My VOX had to be turned off...and many repeats had to be asked to log a call.

There are always plans to activate ZB2X again, also this year 2007, but we will see. If the plans materialize, please give me a call.

73 and GL,

Jorma, OH2KI

SAC X – New Smart Antenna Controller

Ranko Boca, 403A

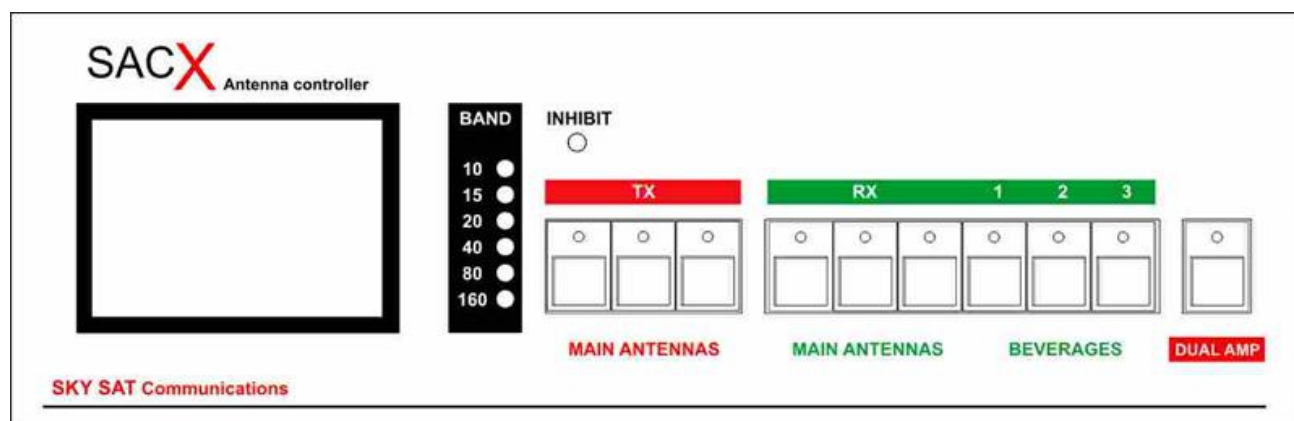


The SAC X is a new and very unique product, dedicated to making the automation of your station as simple as possible. Once you have integrated the SAC X in your shack, you will be surprised how tidy your wiring is, and how easy complex switching of all antennas at your QTH, including reception only antennas, can be.

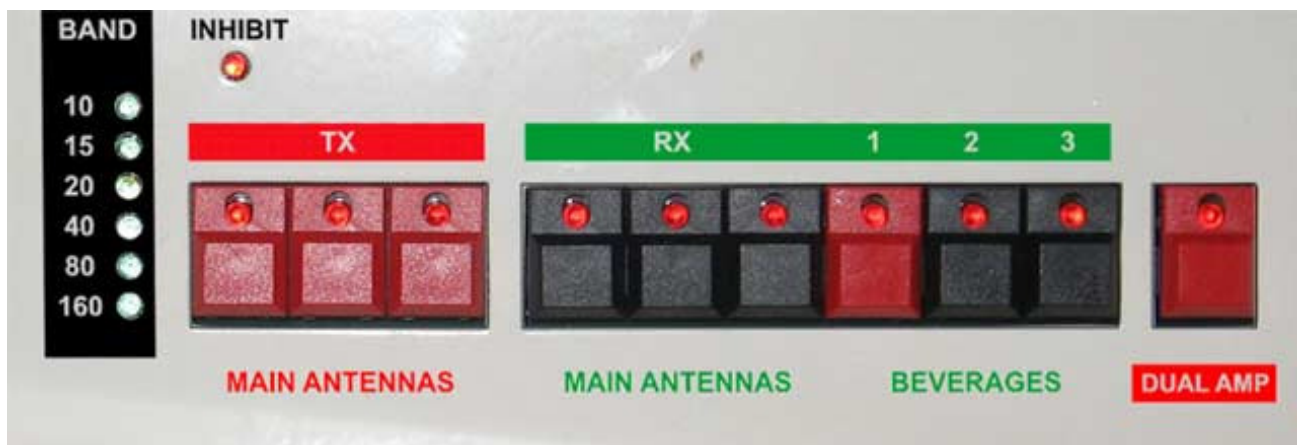
The SAC X is a system which automates antenna usage based upon band usage. It controls antenna matrixes, band pass filters and notch filters switchers, and other peripherals in your shack.

If you have more than one radio, and would like to have full control of antennas from each rig, then you need SAC X. The SAC X can operate in your network and has a FOLLOW ME philosophy in its design. Your SMART Antenna Controllers (SAC X) communicate via the network in your shack allowing complete antenna switching control from each operating position while preventing the kinds of errors which will ruin your radios and your day. Any configuration - SO2R, MS, M2 or even M/M is quickly possible without chaotic rewiring of your station.

The SAC X connects to your radio, all antenna and filter switchers, and various other peripherals. The SAC X tracks which band your radio is on and brings up a highly configurable menu on a band by band basis. In other words, you will not be offered your 2m Yagi when you go to the 160m band. You also have complete control and freedom to choose which antenna(s) you want to transmit on and which antenna(s) you want to listen on, e.g. transmit on your 80m vertical and then listen on your dipole and a beverage.



Front panel.

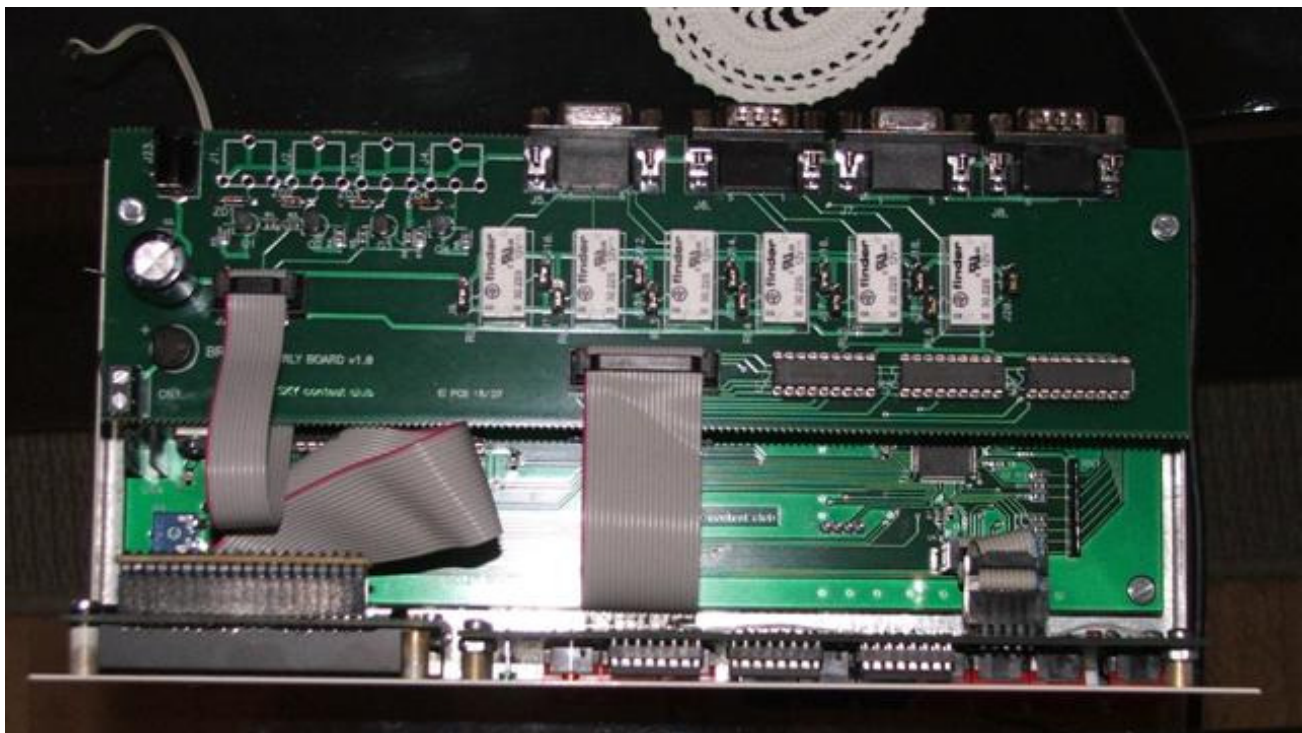


Control buttons on front panel. You can see different layouts for RX and for TX. Also DUAL AMP function button

At the same time, AND THIS IS VERY IMPORTANT, the SAC X will not allow simultaneous transmission and reception on the same antenna. After many hours of contest operation, tired people do stupid things. The SAC X helps prevent equipment fatalities.

The basic box allows for three antennas for TX/RX plus 3 RX only antennas per band. And if this is not enough, then we can provide button boxes allowing for almost any number of antennas. The menu and status information is displayed on a large easy to read display.

BAND DECODER built in

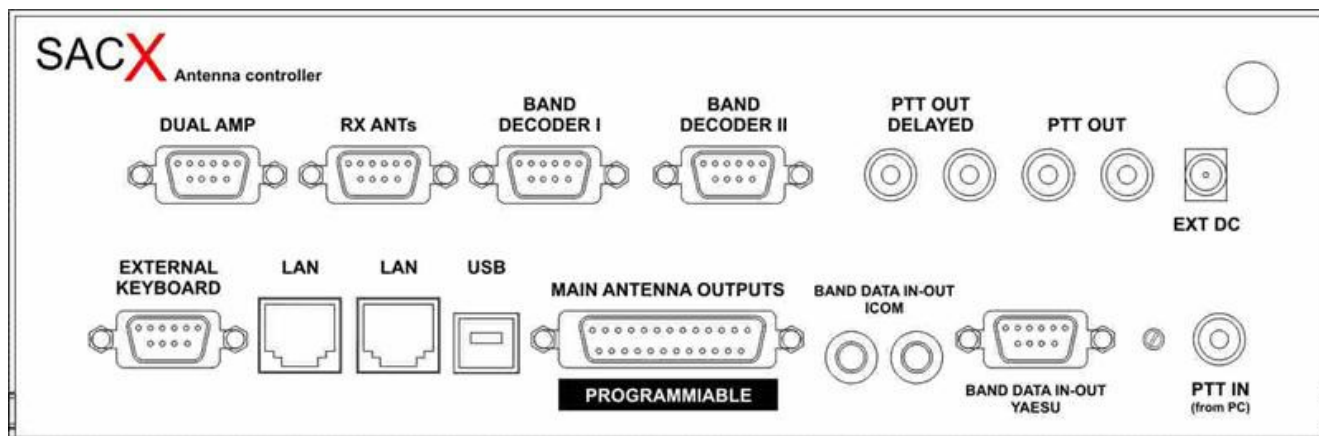


Upper PCB board with relays is Band Decoder with double outputs. You can see jumpers near relays, for programming any of outputs to be positive or negative, depending what you need for your specific hardware in shack

The band decoder in SAC X can be connected to YAESU, ICOM or KENWOOD radios. For other transceivers from other manufacturers, please get in touch with us.

The SAC X uses BDC data from YAESU and Kenwood transceivers and with ICOM radios the CI-V signal is used. The band decoder also has two relays per

band, which can switch a positive or a negative voltage as needed. The voltage for each relay can be configured using jumpers on the PCB. With the band decoder you can control your WX0B Six Pack, Micro Ham switches, etc. and switch band pass filters, notch stubs or anything else you need in your specific station layout.



Rear panel

The basic SAC X reception antenna control is connected to the switcher via a DB9 connector. The RX control bus offers following open collector outputs: 3 outputs for the antennas, and a fourth output for controlling RX ANT ON/OFF. The RX ANT ON/OFF switches automatically, e.g. when you choose any of the main antennas for receiving.

For very complex stations extension boards are available. Just drop us a line with your requirements.

A perfect solution for all SO, SO2R, MS, M2 and MM stations

PROGRAMMING



General

The heart of SAC X is the 18 programmable outputs for switching to the correct antennas based

on the bands currently in use.

The programming of the SAC X requires a Windows PC with USB ports.

The first step is installation of the USB drivers and easy to use configuration software. The drivers and software can be downloaded on www.yt6a.com

Once the software has been installed, you can configure SAC X and define which output will be enabled for each antenna and the names of antennas for each band.

With the basic version of the SAC X you may define up to three antennas for each band. Up to three receptions only antennas may also be defined. This allows control of more than 20 antenna systems.

If you configure less than 3 antennas on some bands, only the corresponding buttons on the front panel will be active when SAC X is switched to that band.

Also the display only offers you the antennas for the current band. For example, on 160m band you set up a GP and two beverages, only the GP and two RX antennas will be visible on the display when you operate on 160m.

Storing data

Once you complete configuration for your station you have to store it in SAC X.

1. First have to reset SAC X by pushing together buttons TX3 & BEV3

2. After reset push and hold 3 second button TX1. On display will appear - 'Wait PC'

3. Click with mouse on **Send To Controller** button on user menu.

4. On display you will have messages about number of received, and after about number of send information's. When dialog finish, SAC X is ready for using.

5. In few seconds data will be stored in SAC X and you can use it.

You can change settings any time - changing names, adding or removing antennas etc.

NETWORKING



Mat, IZ3EYZ operating SO2R @ 403A. On each radio you can see SAC X controller working in network, providing fully station automation and antenna selection

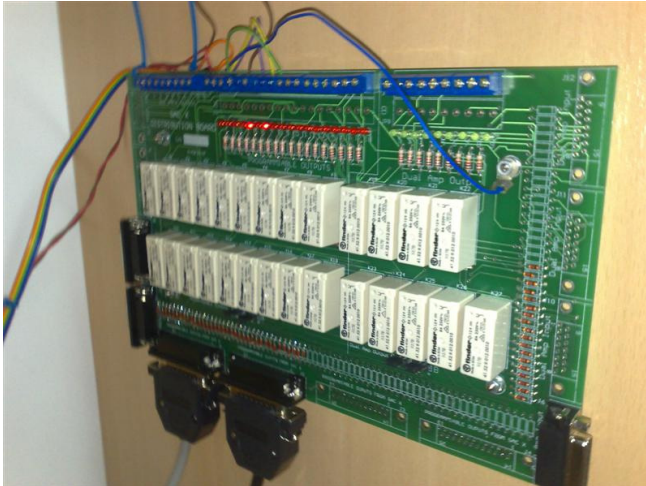
If you have two or more radios in your shack, you need a SAC X unit for each radio. They connect to your LAN with standard Ethernet cables. In the network

one SAC X is MASTER and the others have to be configured as SLAVE1, SLAVE 2, and SLAVE3. Apart from this the units have identical configurations. A

maximum of four SAC X can operate in network.

When you have them in network, on each SAC X you can monitor which bands are being used by others in the network. Each busy band is marked with an arrow on the left side of the display

DB X – distribution board



Distribution board DB x

When SAC X is in network, very important accessory is DB X – distribution board, for connecting all outputs from maximum four SAC X and making all wiring to be easy and simple.

You have four inputs from four SAC X controllers and common output for wiring antennas switchers. LED diodes will provide you visual information about active outputs.

INHIBIT

If an operator switches to a band, already used by an other operator, the OP's SAC X will go into INHIBIT mode, the PTT is disabled, transmitting is prohibited, the INHIBIT LED will blink and INHIBIT is shown on the LCD display

DUAL AMPLIFIER FUNCTION

The SAC X can control two amplifiers, i.e. at the push of a button, you can run two amplifiers on two different antenna systems, e.g. one pointing towards North

America and the second pointing towards eastern Asia, and each with its own PA. This requires special 3WAY Dual Amp switchers. These switchers will be available soon.

EXTERNAL KEYBOARD



For more flexibility, for very complex stations or for better ergonomics, you can use an external button boxes and extension boards.

The SAC KB button box has a flexible cable allowing optimum placement of the switching control according to your wishes.

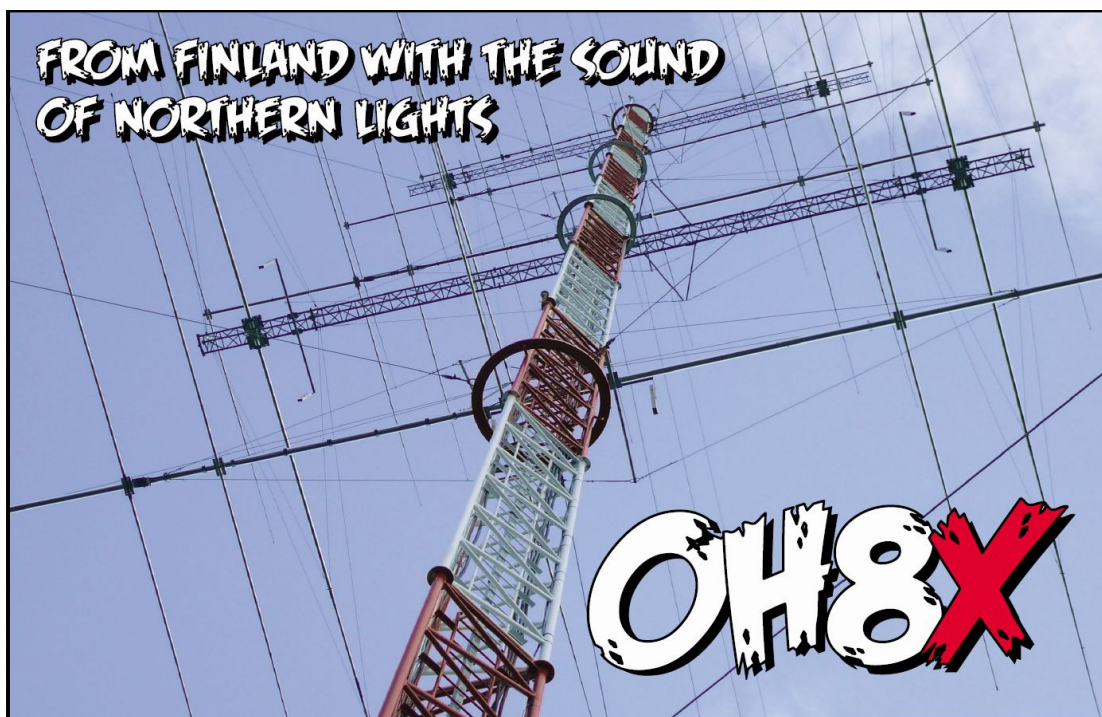
PTT Sequencer built in

PTT signal from transceiver is connected to SAC X. From SAC X you can use four PTT outputs. Two of them have no delay, and other two have maximum delay of 100mS. It can be adjusted with a pot-meter on the rear side of SAC X.



SAC X controllers will be available on market from November 2007. You can order it on yt6a@cq.yu

Uudenlainen lähestymistapa: Mahdotonkin mahdollista?



Radio Arkala, OH8X, on rakentunut suomalaisen kilpailutoiminnan lippulavaksi kaikessa hiljaisuudessa menneiden neljän vuoden aikana. Monia merkittäviä ahaa-elämyksiä ja single-band kilpailuvoittoja (EU, WW) on jo kirjattu aseman tilille.

Aseman perustajat Juha OH8NC ja Veijo OH6KN ovat kutsuneet mukaan uusia jäseniä ja päättäneet käyttää liikemaailmastakin tuttua lähestymistapaa: luoda OH8X-asemalle selkeä missio, tavoitteet ja niitä tukeva hallintomalli viemään Radio Arkalaa (Radio Arcala) kohti mahdollista uutta pohjoisen ihmettä – Miracle of the North. Lähivuodet näyttävät, kuinka siinä onnistutaan.

Tämä kirjoitus on ensimmäinen sarjassa, joka avaa Arkalan saloja CCF:n jäsenille, ja jakaa monet Arkalan suunnitelmat, mallit ja konseptit auttamaan suomalaisen kilpailutoiminnan edelleen kehittämisessä. OH8X on osa CCF:n intressialuetta, ja CCF:n jäsenet ovat nyt aitiopaidalla seuraamassa ja toivottavasti hyö-

dyntämässä tämän merkittävän projektin kokemuksia. Tässä ensimmäisessä artikkelissa esitetään laajennetun ARCALA EXTREMES -ryhmän ajatuksia ja mietteitä ja niiden selvennyksiä.

Arcala Extremes -ryhmä ponnistaa kohti asetettuja tavoitteita ehkä maailman haastavimmalta keli- ja luonnonvoima-alueelta – pohjoisesta Auran ja napapiirin kotikunnailta. Nämä asiat onkin otettu tavoiteasettelussa yhdeksi perushaasteeksi. Näiltä samoilta leveysasteilta on kuitenkin koko Suomikin pystynyt ponnistelemaan itsensä monitahoisensa osaamisensa turvin maailman kilpailukykyisimmäksi valtioksi, joten perusteet ovat selkeästi olemassa. Parhaiden voimien yhdistäminen ja koko suomalaisen osaamisen kokonaisvaltainen hyödyntäminen ovat myös Arcala Extremes -projektin peruskiviä. Yritämme tehdä mahdottomasta mahdollisen – muuttaa Pohjoisen ja Etelän paikkaa - esim. tavoittelemalla CQWW single-op all-band -luokkien Euroopan ennätyksiä tänne pohjoiseen.

ARCALA EXTREMES AT OH8X FROM THE FAR NORTH

Radio Arcala, OH8X, located in the Far North at the Arctic Circle under the Aurora Belt, captured the imagination of a team of Finnish radio operators gathering around the fireworks to think. Their subject was not only to change the order of North and South in competitive amateur radio, but also to assist in making sure that the stream of radio contacts would keep coming in regardless of our aging brotherhood. And thinking is what they did; in the wee small hours of the morning they came up with the Mission of Arcala Extremes, to convey a message throughout the world and to invite all in their ranks to join and share in the thinking of that bright Northern Night.

Mutta kilpailutoiminta, kuten koko radioamatööritoiminta, taistelee olemassaolostaan harrastajien voimakkaasti ikääntyessä. Vastuu toiminnan uudistumisesta ja uusien nuorten mukaan saamisesta on meillä kaikilla. Arcala Extremes pyrkii rakentamaan oman reseptinsä nuorten innostamiseksi radioamatööritoimintaan juuri niillä asioilla ja medioilla, joiden parissa nykynuoriso aikaansa viettää.

Monet radioamatööritoiminnan modernit sektorit – kilpailutoiminta niiden joukossa – pyritään saamaan kiinnostaviksi EXTREME leimalla varustettuna – siitä Arcala Extremes nimikin.

Radio Arcala sijoittuu lähiaikoina myös virtuaaliseen maailmaan – siellä sen odotetaan löytävän nuoria heidän omassa elementissään.

Monissa OH8X-aseman kehittämishankkeissa tehdään yhteistyötä myös Oulun Yliopiston ja Stadia Ammattikorkeakoulun kanssa. Erilaisilla vireillä olevilla dip-

lomitöillä pohjustetaan Radio Arcalalle tärkeitä tutkimus- ja kehittämishankkeita.

OH8X-asema kehittyi myös kauko-ohjattavaksi - niin omassa kuin virtuaalissa maailmassa - hyödyntäen uusimpia teknologioita ja lähestyen valittua kohderyhmää. Saamme pian yhteyden omasta maailmastamme myös virtuaaliseen maailmaan. Myös OH8X-asemalle on suunnitteilla sisarasema.

Here the Older Types felt a need to pay back something that had enriched their lives spiritually and professionally, and they reached out to a group of Younger Types to set targets and create a new language. They forced themselves to do the impossible, breaking old barriers and competing for the souls of today's smart youth. We challenged Arcala Extremes to do the impossible, not only swapping North and South, but also seeking others to join in the fun and approaching young on their own terms, encouraging the competitive urge of youngsters to make the impossible possible in the course of their own lives through radio communication experience and related exciting theories.

Moni suomalainen radioamatööri on hyödyntänyt ja ollut luomassa uutta teknologiasuomea ja saanut toiminnasta voimakaita virikkeitä ja kansainvälistä toimintavarmuutta. Nyt harrasteelle kriittisessä pisteessä on takaisinmaksun aika.

Kilpailemme nuorista nyt monen muun kommunikointivaihtoehdon rinnalla. On tärkeää osata toimia niillä termeillä, jotka nuoriso kokee omakseen. Vektorit on käännettävä reilusti eteenpäin ja harrasteemme on esittäydyttävä nuorille modernina, hauskana ja kehittäväenä vaihtoehtona.

Radio Arcala on päättänyt olla totaalisen avoin ratkaisuihissaan tavoitteidensa ja käytettyjen konseptien suhteen, samalla toivoen, että Arcala Extremes -siemen luo monia samankaltaisia hankkeita kaikkialle.

Arcala Extremes is headquartered in Finland while operating in a European context. The message is global, and the experience is for us to share. Read about the Arcala Mission and let your imagination fly to do your share of impossible. When we meet over the airwaves, we will then have something valuable to share and be proud of. The world is at our fingertips. OH8X is calling.

Ovet Radio Arcalaan avataan koko maailmalle. Olemme kuitenkin avoimesti suomalaisia ja eurooppalaisia toivoen, että mahdollisimman monet Radio Arcalan ideoista veisivät osaltaan eteenpäin suomalaista osaamista, ja esittäisivät

YOU HAVE CONTACTED OH8X — ARCALA EXTREMES

Once upon a time it happened in the Far North of Finland where Juha, OH8NC and Veijo, OH6KN decided to follow what is known as the Miracle of the North and team up with the best forces in the Northern Village. They wanted to challenge the established world order by targeting the impossible, i.e. to change the overall prospects between North and South — using global warming and Aurora Borealis as a catalyst of technical innovations to beef up their snowy tundra so as to enable OH8X to score high in the realm of Competitive Amateur Radio.

They gathered under the dazzling Northern Lights with the best people in strategy, radio operating and technical excellence and drafted a five-year plan on the back of a birch-bark mousepad with well defined targets as the mission of Arcala Extremes. The plan covers many extreme tasks aimed at making possible the impossible in the true spirit of discovery, innovation and technical excellence — all on young people's terms.

You have now contacted OH8X — the group that has decided to stand tall in Amateur Radio with fresh and extreme ideas and fluttery signals from the Arctic Circle of Northern Finland.



Check out our website at: www.radioarcala.com

Suomen erikoispiirteitä mahdollisimman oikealla tavalla.

OH-maan hieno kansaivälinen DX- ja kilpailuhistoria yhdistettynä koko Suomen menestystarinaaan kannustakoon meitä kaikkia tekemään mahdottomasta edelleen totta. Monella elämän alueella näin on käynytkin – miksei myös radioamatööritoiminnassa?

Arcala Extremes strategiaryhmään kuuluvat OH8NC, OH6KN ja OH2BH kun taas OH1WZ, OH2MM, OH2UA, OH4JFN, OH6UM ja OH7EA muodostavat kilpailu- ja asiantuntija-tiimin. OH1MA, OH5BR, OH5RF, OH6RM, OH8KBZ, OH8NJ, OH8OS, OH8QD, OH8SR ja Oululainen Admino Oy luovat omaan osaamiseensa perustuen projektille teknisen selkärangan.

OH8X osallistuu SAC CW-osaan Pasi, OH2IW ohjastamana kun taas SAC SSB:n ajaa Toni, OH2UA. ♠

Arcala Radio Team Operators and Advisors:
Ilkka, OH1WZ, Ville, OH2MM, Toni, OH2UA, Marko, OH4JFN, Pasi, OH6UM and Antti, OH7EA

Arcala Extremes Strategic Direction:
Juha, OH8NC, Veijo, OH6KN and Martti, OH2BH

Arcala Technical Team:
OH1MA, OH5BR, OH5RF, OH6RM, OH8KBZ, OH8NJ, OH8OS, OH8QD, OH8SR & Admino Ltd.

OH8X Radio Station: Driving 40 kilometers east of the city of Oulu, one will suddenly approach an unbelievable sight with a forest of high towers. Currently you can view six (6) rotatable towers with 40 antennas totaling 198 elements. You have reached the village of Arkala

Picture: 350 ft (105m) tower with 4 x 6el on 20M & 2 x 2el on 80M

OH8X QSL

Mission Statement

Providing an alternative way to promote amateur radio activity among young people by launching a team of skillful participants targeting and conducting competitive activities at extreme level as their way of self-education and self-satisfaction to boost interest among those who seek and value competitive amateur radio as an option

Strategic Intent

Global Community and Fellowship Through Radio Communication
Experience in the Spirit of Experimentation and Competitive Urge Targeting the Minds of Young People

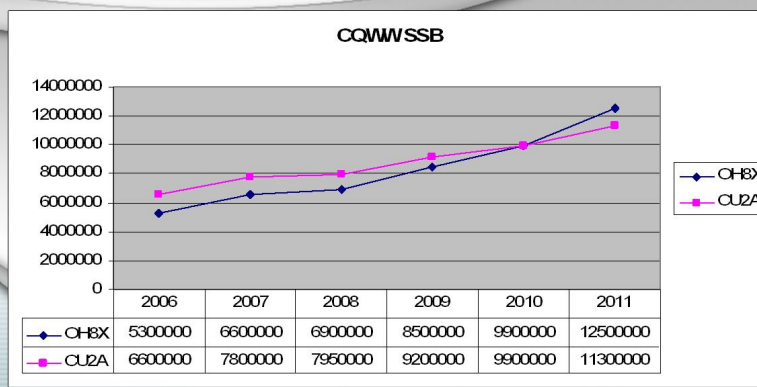
Starting Points

- maintain and develop a valuable cultural heritage
- create an open development platform to renew and promote competitive concepts and related technology
- create a professional image for all activities
- continue to capitalize on existing Finnish knowledge and innovative environment in the field
- redefine a fashionable image for Amateur Radio to attract young people, thus ensuring its global long-term success

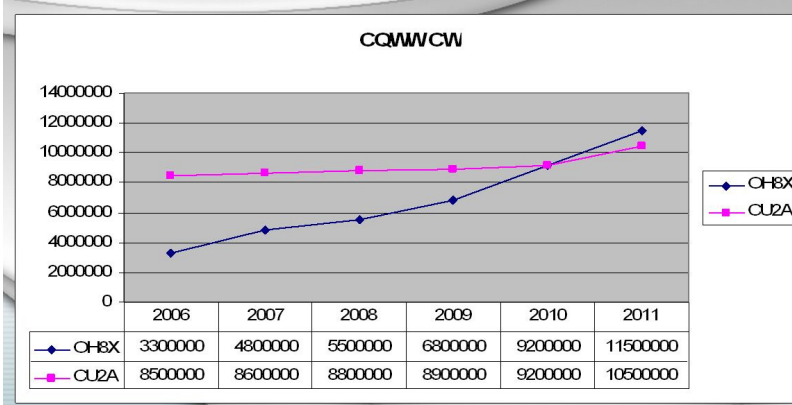
Why Become a Newfangled Radio Operator?

- sensing / interacting with community
- challenging, developing and excelling oneself
- achieving, succeeding, developing
- seeking food for imagination
- meeting new people, becoming part of a global community
- handling ICT / technology revolution
- utilization of state-of-the-art technologies in unique application

TARGET CQ WW SSB



TARGET CQ WW CW



OH8X targets in CQWW contests, SOAB HP

Short Arcala Technical Description

Veijo, OH6KN

Key focus of Arcala is a world leading SO2R setup. The used technology is utilizing the learnings from leading edge communication industry in Finland, but also utilizing the pioneering antenna work of Frank W6KPC and Simon OH8OS.

As it goes without saying, both stations are fully automatic including amps and antenna selections, but with new visual twigs to it – the main user interface is based on a PC with multiple touch screens. Thus, the operator – the formula driver – can focus 100% to the QSOs and multipliers without worrying about the underlying complex technology!

The antenna system consists of 6 towers and 40 antennas. The antennas can be selected freely for radios A and B. There can be simultaneous beaming up to 4 directions and the multiple antennas can be programmed for independent rx and tx scrolling. The automation is based on single chip processor technology and touch screen based PC user interface. But despite of the complexity, lot of attention has been paid for fail-safe technology to ensure a trouble free race.

Contesting is the key driver for Arcala, but there are also other drivers: remote usability and technical progress. Through full remote controllability the station can be used between the contests to chat loudly with the DXs and hunt for the remaining band points. Through co-operation with various academic organizations we will utilize the latest signal processing and phasing technology to squeeze the last available decibels from the big antennas and unpredictable band conditions.

PileUP! visited OH8X

Ilkka, OH1WZ

In April a group of Northern contesters met in Oulu, OH8-land, to discuss serious radio sporting in the far North. Our hosts were Juha, OH8NC and Veijo, OH6KN - two gentlemen responsible for the Arkala OH8X-station. PileUP! was present at the meeting.

In a two-day seminar the topics covered propagation, training and coaching, operating optimization issues, medical questions and technical matters as we tried to figure out the essence of radio sporting. Kari Heikkilä, an experienced and famous Finnish ice hockey coach, gave us advice on team work and on achieving goals as a group.

Although we did not come up new individual findings - the seminar once again

verified my understanding of radio contesting: as in many other sports, achieving high goals requires a lot commitment, multifaceted expertise and preparatory work. You can go in for the fun, or for the sports and fun, and everything in between.



Kari Heikkilä told how important it is that the athlete (operator) has an OK from XYL, that the sport (hobby) is in balance

with other aspects of life, everyone in the team is supporting the target and knows his/her role etc.



Antti, OH7EA and Ville, OH2MM. Ville, a medical doctor and a winner of many 48-hour contests emphasized the importance of good condition and preparatory measures, which involve diet before and during the performance and pre-contest sleeping patterns.



The post-seminar tour's target was the Arkala station, where Veijo, OH6KN showed some of the technical solutions for station automation and sophisticated antenna switching. New plans are on their way to be implemented. These will enable more operator friendly and efficient SO2R operating.



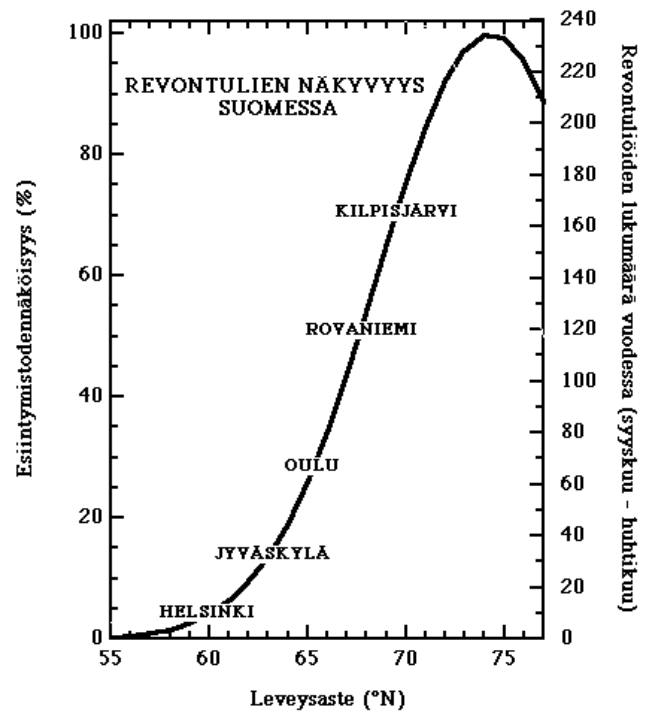
Something that is called the M5-tower (42 m) seen against 150-200-yr-old Koillismaa-type of spruce-pine forest. The station is situated some 100 m a.s.l. and on a clear day the city of Oulu is visible in the horizon. That's a distance of about 30 kilometers.



The site has gravel soil.



And there is an 80-m 2-element yagi some 100 meters above it (2/2el).



Visibility of Aurora Borealis (in probability 0...100%, "auroral nights" 0...240 in September-April) as a function of location Latitude (55N-77N) in Finland. Arkaala is at 65°11'N and Aurora is a frequent visitor. Source: www.ava.fmi.fi

News

K3LR



Tim, K3LR reports that he has spent his summer vacation on the project: "Ready for the CQWW Contest this Fall". 9 antennas with 7 rotors all on one tower:

- 80 meter rotating dipole on top at 240'
- 6/6/6/6 OWAs (Optimized Wideband Antenna) = 24 elements for 20 meters at 230'/170'/110'/50' with 21 dBi of gain!
- 2/2 on 40 meters (W6NL design Moxons) at 185'/120'
- 6/6 M2 on 15 meters for 2nd station at 80'/40' fixed SE

DSP Has Destroyed Amateur Radio

Jari Jokiniemi
oh3bu@sral.fi

I am seeing the demise of amateur radio as we know it. Instead of listening the bands oneself and getting the self-evident joy of hearing the dx and multiplier oneself, people are now just playing with their computers and letting the others to do all the work. This is the predicted outcome of consistent lowering of the standards. It begun by 5 wpm cw test and then continued by taking cw away altogether. I am sure that in no time at all cw will be forbidden totally on our beloved bands. The whole society has gone into laziness of getting everything right away without doing hard work for it like we did in the past. People only want to shoot fishes in a barrel instead of doing some real fishing oneself.

I am, of course, talking about the evils of digital signal processing, or DSP, as the computer nerds call it. DSP takes away the noise, which removes the need to hear the weak ones by oneself. DSP creates tens or even hundreds of filter forms with just computing instructions, so called software. This is no amateur radio at all. This is mobile phone technology spoiling our way of life. Gone are the days when the notables like Fox Tango Corporation made the difference between the good radios and the toys. With DSP any pimple faced kid can have all the filters there could ever be without even paying for it. They are already talking about taking away all analog stages altogether. And the bands are crowded from edge to edge because of this lowered financial standard for getting in the air. It was bad enough when they introduced repeaters, but now they are even doing moonbounce with these software toys. When I was young, moonbounce was restricted to real technical talents.

It wouldn't be that bad if it only were about DSP. But through the years we have seen constant flow of small so-called innovations than take away the pride of building ones own equipment and winning the only respected contest category, single operator high power all band, by ones own skills instead of Formula 1 style professional teams. This is supposed to be amateur radio, not professional radio. I could accept your spouse doing some food for you during the contest, but a whole team doing all your antenna works, building the station and everything, that is really too much. It is also unfair, as it presumes either good relations with your buddies or having a lot of money.

The other really, really bad thing for us is the growing popularity of remote controlled stations. This is not much different to DSP technology-wise; just the interface is a bit different. You have the computer close to your radios, you do some processing, and then you actually sit in your arm chair somewhere else. Ok, I wouldn't object it so much if it only were to demonstrate that you can play with these gadgets in your own house. But it's really much worse. Gone are the days when you traveled to distant places to participate in your favorite contest, you paid your dues like the plane tickets etc., you suffered jet lag as we are supposed to do, and then sweating in the heat of Caribbean you worked the contest the hard way being eaten by mosquitoes. Like men do. Now the guys are not only saving money by not traveling but they are also enjoying the comforts of their homes all the time during the contest. This must stop!

Yet another evil from those followers of Bil Gates Cult is the packet radio. The word packet radio is in fact misleading, as most of that traffic is in fact routed through the very same creatures of Evil like DSP and remote control, i.e. com-

puters. It takes only a few minutes for the pileup to grow whenever someone spots a rare multiplier. I can hardly describe how humiliating it is to be only one of the hundreds of callers instead of being the only one to make it through. Almost all the operators are warned beforehand about the coming peditions, so they know what to look for. When I was young, only the few and selected true dxers and testers knew the peditions beforehand. They used telephones, DX News Sheet, and the personal network, like the real operators of any influence still do. It is so unfair that now everyone knows within minutes because of the communists who made and operate the network.

I could now conclude that most of the bad things in our hobby are the consequence of having computers all around. They even use computers for logging. Earlier it required skills to type with our right hand and send cw with your left hand, or the other way around, if you were left-handed. The alternative was to switch between the paddle and the pen during the action. You could make a difference by using a proper pen. Now it is again the computer that takes away the differences of the operators. Most of the contests now even require you to send the logs in electronic format. That is really blasphemy! Not only are you allowed to log electronically, you are required to do so. It is just too easy now. No wonder that the QSO rates have been inflated. Besides, the joy of experimenting with antennas is also gone because of computers. Nowadays, one just plays with some modeling programs and the antenna works right away. Earlier one had to be an expert to know if an antenna worked or not. One had to tune and tweak, and the formulas to make them work were secret. Stacks were only for the insiders. Real operators had low-hanging dipoles and end-fed wires. If you couldn't work the PJ4 with those,

you were not good enough operator to go to the dx convention. I miss those days when skills and aptitude were appreciated.

Computers are not the only disease we have. There is now this big-money habit of our hobby called SO2R. That means that you are not using one radio during the contest but you in fact have two. That gives an unfair advantage, especially if you consider that radios are nowadays so cheap that almost anyone can afford them. Besides, there are commercial switchboxes and controllers and filters that make this all just a plug and play game. Where is the pride in building ones station oneself! After Heathkit came the Japanese transceivers and they have made our specially skilled hobby to be just a format of CB, you buy the radios from the shop and plug them to the wall and on the air are you. You don't even have to know how to tune them properly, because the Japanese begun to use transistors and made automatic tuners. They essentially killed the American hard-working industry almost totally. They even make amplifiers, now. Only the old timers and the poor build their own amplifiers any more. Where will this end?

Special receive antennas are yet another unfair advantage. It was ok when only a few top band gurus had those, but nowadays everyone in the top box uses beverages. Even worse, some have special receive vertical arrays. They make them commercially, too. This is yet another proof of lowered standards, one buys everything and builds nothing oneself. I still remember fondly my first home-made straight key. I used the remainings of a jig-saw for that. Now we deny the young ones the pleasure of inventing something by themselves. They can't even solder a PL-239 connector to a cable; just write stupid DSP algorithms with their computers. Earlier you had to learn

the basics before you were allowed to enter the bands, you had to know cw and how the tubes work. When you got your license, you were limited to crystal control so that you wouldn't transmit out of the bands. This was totally feasible as it would have been difficult to build a stable VFO with the WW2 surplus components. I still cannot understand why they allowed the novices to work with the synthesizer radios early eighties. The novices could then work in any allowed frequency just like the generals did. Later, the novices even got to SSB. More rights were given for nothing. Listen to 14195 to conclude yourself were this all lead.

And remember where it all begun. We, the ordinary testers, were right in preserving AM when the wacko heads went for SSB. Only the masses of commercially made Collinses for the rich and Heathkits for the poorer ones forced us to give up our glorious AM history. I have heard that some of the most influential old timers tried to ban electronics keyers. Unfortunately, he did not succeed, and that really opened the Pandora's Box. Then came the VOXes, then came the beams, then came the peditions, then came the log checking, and then came the cheaters. What would the world look like if the lightened ones could have stopped two meter networks and rotating towers, and if the radios still glowed?

I am so proud that we, the ordinary testers, still preserve the traditions and fight against new and suspicious things. Just like our fathers did. ♠

News OH0Z Åland Islands



Oheisena pari OH3BHL:n ottamaa kuvaa Zetalta.

Antennikalusto on nykyisin seuraavanlainen:

Kolme pyörivää mastoa, joissa on 10m: 4/4/4/4, 15m: 3/3/3/3, 20m 3/3, 40m 2/2 + 2el sekä yläbandien pääantennina 5 kpl stakattuja tribandereita (ylin 45m). Kaikki yagit ovat Suomen Antennin valmistamia. Tehonjako ja SO2R ovat luonnollisesti käytössä.

73 Ari












Palautusosoite / Returneras till:
Ilkka Korpela
Bölsinniityntie 13
06830 Kulloonkylä

Scandinavian Activity Contest 2007

Promoting amateur radio activity within Scandinavia and encouraging radio communications between Scandinavian and the rest of the world.

CW: September 15-16
SSB: September 22-23
Saturday 12:00 - Sunday 12:00 UTC
SOABHP, SOABLP, SOABQRP, MOST
3.5 - 7 - 14 - 21 - 28 MHz
RST + serial

Scandinavian prefixes:

	Svalbard and Bear I.	JW
	Jan Mayen I.	JX
	Norway	LA - LB - LG - LJ - LN
	Finland	OF - OG - OH - OI
	Åland Is.	OFØ - OGØ - OHØ
	Market Reef	OJØ
	Greenland	OX
	Faeroe Is.	OY
	Denmark	OZ
	Sweden	7S - 8S - SA - SB - SC SD - SE - SF - SG - SH SI - SJ - SK - SL - SM
	Iceland	TF

Rules, go to: <http://www.sk3bg.se/contest/sacnsc.htm>