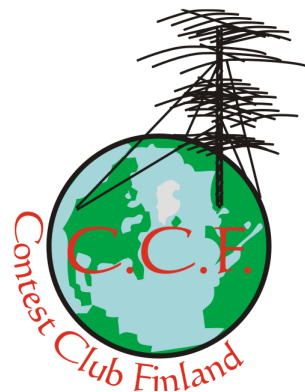


PileUP!

Volume 14(2) 2010



Budget-contester Mats, SM6LRR fed to mosquitoes
in SSA's portabeltest @SJ6R/P.

Theme issue:
Low-cost-contesting

PileUP! is the newsletter of Contest Club Finland by its members and others. Contribute! See details at the CCF website and e-mail reflector. Try using call@srsl.fi to reach the OH hams by e-mail.

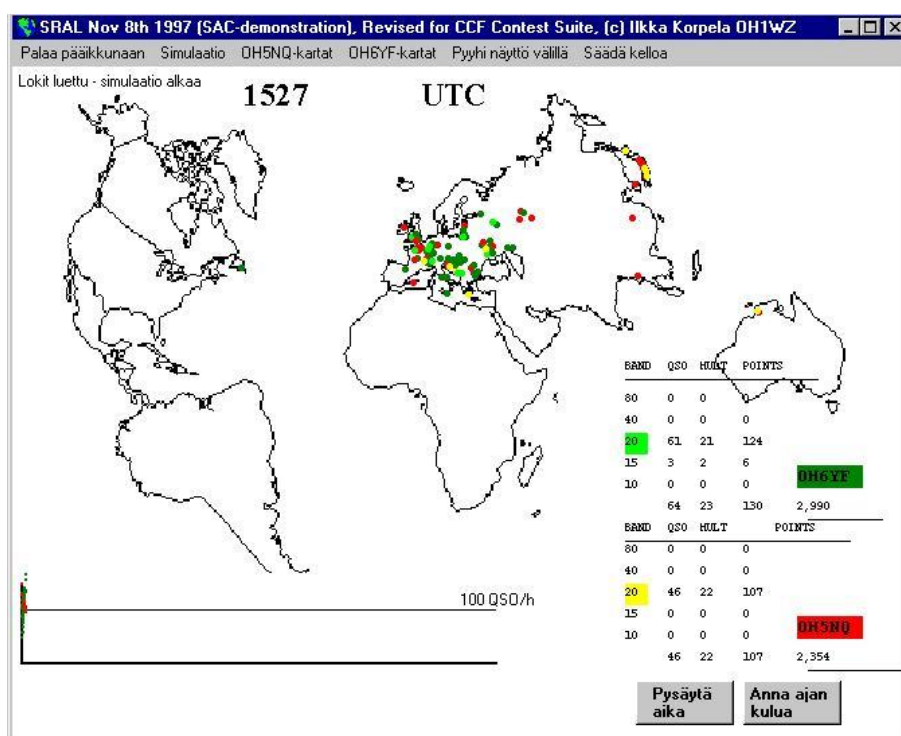
President	Jussi-Pekka, OH6RX	PileUP! 14(2) – Eds.	Ilkka, OH1WZ; Esa OH7WV,
Vice-President ...	Kari, OH2BP		Kim OH6KZP
Secretary	Janne, OH6LBW	RTTY.....	Kari, OH2BP
Treasurer	Mikko, OH4XX	OH-contesting.....	Tomi, OH6EI

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

Talkoo-PileUP! 14(2) Contents

3. From the Guest Editors - Toimitukselta
4. CCF Humour
5. Noob Contesting, Part 2 Ari, OH6MW
7. An Update on Solar Cycle 24 Carl, K9LA
9. CQ WPX Contest Online Score Dbase..... Randy, K5ZD
12. WRTC is Coming – Are You Ready? Harry, RA3AUU
14. ...Exclusive PileUP! Interview (WRTC)
18. Houston - We Have a Dupe in the Log! Ilkka, OH1WZ
20. Low Budget Contesting from Cyprus Mats, SM6LRR
23. A Linear Amplifier at Low Cost Esa, OH7WV
26. A Brief Analysis of Contesting Skills Jari, OH3BU
28. LCC Interview with Jukka, OH6LI Ilkka, OH1WZ
31. [Käsimatkatavaroin workkimismatkalle](#) Seppo, OH1VR (in Finnish)
33. [Kokemuksia OH-kilpailujen järjestämisestä ..](#) Jari, OH2BU (in Finnish)
38. Low Cost Vertical Esa, OH7WV
39. Introducing the CCF board
42. News and Stuff
47. [IARU 2010 – pistetääkö porukalla](#) Janne, OH6LBW (in Finnish)
49. DX Code of Conduct by FOC Bob, G3PJT
50. Fun Page
51. CCF-Tavarapörssi / CCF Flea market

TNX: G3PJT, IZ4AKS, K5ZD, K9LA, OH1VR, 1WZ, 2BH, 2BU, 2BP, 2BR, 2IW, 2UA, 3BU, 4XX, 6KZP, 6LBW, 6LI, 6MW, 7WV, RA3AUU, RA6LBS, SM3SGP, SM6LRR, VK4TI



Vintage contest visualizer from 1997 displaying maps and statistics of two participants in SAC CW. Screen shot displays QSOs and score after 27 minutes from the start for Harri, OH6YF (sk) and Peter, OH5NQ. A nice tool, back then, for making pair wise log comparisons.

From the Guest Editors - Toimitukselta

You are reading another talkoo-issue of PileUP! by a team of voluntary writers and guest editors. To boost interest in contributions, i.e., to prevent a situation where the editors write the articles, we decided to try another theme issue. Previously the topics have been about CCF-meetings or the SAC, but this time we detonated a real bomb and discovered **low-cost-contesting (LCC)**. The motivation for the selection of this topic was obvious for us – this is what most CCF-members do and must get their radio satisfaction from. Regular LC-contesters need to be promoted or otherwise we would not be serving the masses – yes you!

In our call for contributions, we did not identify precisely what is included in the theme. Why? Well, we wish to remain tolerant, to guest-operate the BIG stations, and not to build (more) barriers. We merely wanted to boost discussion on a topic that goes right into the heart of things.

In sports, most agree with the saying – **'May the Best Man Win.'** We think that we testers do agree also. Otherwise we would not have attempts such as the WRTC, would we? Radiosporting bears resemblance to car sports, although I think our sport requires more brains during the rally, but the share of pre-rally engineering and economic investments are high in both. Talking about equality, WRTC not only guarantees an equal local QTH and antenna environment – the ops are closely supervised 24 hours, because we don't trust anyone anymore in our sport. WRTC also brings the people to a small geographical area to share the same ionosphere. And, presumably, the winner amongst the WRTC testers is the best one around to comply with the saying above? Title holder!

Meanwhile, I did some thinking. **LCC** is a relative term. It has a different status in W5, VU2, YV, and OH2, or do you disagree? Contest rules promote LCC. Yes

they do! We have for example the QRP, LP, and TS categories, which all save the competitors some 8 000€ because that pair of automatic amplifiers is not needed. TS is for the majority of testers, who don't have the space for 2–3 towers – that's another 5–10 k€ in tower money. However, good antennas are needed in QRP. M/M, M/S, and M/2 are all LCC categories too! In their purest form, they foster the sharing of investments and the fun of building the station.

Hold it! I got another idea. The use of remote-controlled, collective RC stations could contribute towards LCC (although internet-SDR RXs are actually ruining everything). And if you think of it, guest-operating is the climax of LCC, at least if the operator just drops by at harvest time and escapes the investment program.

In car sports the money and beautiful women are not at the local April Rotally in Tuupovaara (cf. Mississippi Mud Cake rally). No, indeed not. To compare, I looked at the FIA website, and it showed the glamour of F1 and WRC on the front page with – interestingly – balancing road safety issues too. F1 and WRC involve 0.01% of rally drivers and they possess over 90% of the media. F1 drivers don't need the mud-rally people on the tracks. Ham F1-testers do need – oh yes we do! (ref. OH3BU)

What should we do? PileUP! tries to do its share by promoting thinking (yes, that inconvenient thing) and the role of LCC. Thinking is needed in realizing the true essence of radiosporting, which lies in both engineering and operating skills and this is where our appreciation should focus on also, not to forget joint efforts and social interaction, which are the essence of LCC. Together, in CCF and in other teams, we are more.

Cheers, Voluntary Talkoo-Editor,
OH1WZ



Huumoria

Skimmer (M. J. Ackson)

Contest's 'bout to start and an evil's lurking in your receiver
On your log screen, you see a sight that almost stops your heart
You try to scream but thrill takes the sound before you make it
You start to smile as real fun looks you right between the eyes
You're mesmerized

You're using skimmer!
And no one's gonna save the band from the beast
You know it's skimmer, skimmer night
You're running for your Q's inside a skimmer, skimmer tonight

You see the mults and realize there's no frequency left to run
You feel your hot amp and wonder if it'll ever cool down again
You close your eyes and let the beast run the Q's for you, ham!
And all the while you see more mults streaming on the screen
You're out of control

You're using skimmer!
There ain't no second chance against the thing with forty eyes, ham
Skimmer, skimmer night
You're running for your Q's inside a skimmer, skimmer tonight

Thousand hams calling, the mults are filling your log
There's no need bother listening by yourself
(Band's open wide)
This is real good stuff

But CC is out to get you, there's watchers closing in on every side
They will possess you unless you turn off that darn thing
Now is the time for you to put those headphones on, yeah
All through the night they'll save you from the terror on the screen
They'll make you hear

You were using skimmer!
I think they'll DQ you this time
Skimmer, skimmer's bad
So switch off skimmer!
Killer, diller, chiller, skimmer all are bad

This was skimmer, skimmer night
Ham, VFO can thrill you more than that
Skimmer, skimmer's off
So let me tell you delete that skimmer, ow!

The foulest stench was in the air
The funk of forty thousand years
And grizzly ghouls from every tomb
Were closing in to seal your doom

Now you need to fight on band
Your body starts to shiver
True contesters can resist
The evil of the skimmer

Help! (SDR) (Les Biit)

Help, I hear somebody,
Help, not just anybody,
Help, you know I need that DX,
Help!

When I was younger, so much younger than today,
We never needed anybody's help in anyway.
But now those days are gone, I'm absolutely allured,
Now I find I've changed my mind, and hearing is secured.

Help me SDR, I'm hearing noise
And I soon will loose to all DX-boys
Help me keep my score in honor roll,
Won't you please, please help me?

And now ham life has changed in oh so many ways,
Our self-esteem seems to vanish in the haze.
But every now and then I feel a bit insecure,
Is this right or have we been screwed?

Help me SDR, I'm hearing noise,
Fifty receivers aren't but toys.
Help me get my P5 in the log,
Won't you please, please help me?

When I was younger, so much younger than today,
I never logged the DX right away.
But now the days are gone, I'm hearing everything,
Now I find we've lost our minds, ham hobby is vanishing.

Help me if you can, I'm tuning down,
And I will sell my rigs if you're 'round.
Help us get our mind clean 'n sound,
Won't you please, please help me?

Help me,
Help me,
Oooooooo.



Hannu, OH1XX, made these QSOs on 160 without SDR help.

Noob contesting M/M (very extreme) with Old-Timers, part 2

Ari, OH6MW

- Hey Mr Boss Old Timer, some guys are saying something about me being outside of the band
- Yes son, what is your frequency now?
- It is 14349 kHz.
- OK, do you make contacts there?
- Yeah, good pileup all the time
- Don't worry be happy and work those guys.
- Some are just such nit-pickers, just like bookkeepers getting worried about every penny, some cluster guys about every hertz.
- Band edge police, pileup police, modulation police, cluster spotting police. Just forget your pills, choose your style and start worldwide complaining. It is so easy, any monkey can do that.
- You won't harm anyone being so close to the band edge and it is just fun to give grey hairs to those over-pedantic guys.
- Why are they shouting to me then? One guy even spotted me about it
- Don't worry, that spotting was just good to us.
- Lets make one practical test.
- OK, what kind?
- Change your callsign into sv1ars/a and keep calling.
- Huge pileup now, they all went crazy, calling me like animals. Beautiful!
- OK, you should try some split operating, call cq and say that you are listening up five.
- OK.
- How is it going now?
- Nice run, it is so easy to pick calls up here, still huge pileup.
- Hey guys, what are you doing?
- We are teaching our noob, how is 10 meters?
- Not much here, but they say on cluster that Mount Adolf is on 20m. I need that one. Can I go and work him with my own callsign Mr Boss Old Timer please, please?
- OK, qsy 20m and work him, DX is!
-
- Thank You Sir, that was the loudest Mount Adolf station I've ever heard. New one! Yippee!
- I'll go back to 10 now.
- Hey, ZZ9W is 30 dBs over s9 but can't hear me, I've been calling him for awhile. Need that mult.
- Maybe it is LDE
- LDE?
- Long delayed echo. He is not on the air actually. It could be his signal from the contest of the last weekend. Delayed about seven days.

- OK, I see. I have noticed these LDEs earlier too. How is it happening?
- Well, we old timers are still investigating it. Maybe the signal is bouncing between the Moon and Radio Arcala's videotape recorder for awhile and then suddenly it is released back to the band if someone is watching tapes in Arcala.
- Amazing! This is science.
- Run run run, we have the contest going on
- We are very close to breaking the old M/M record, only few points missing from that.
- Let me see, what multipliers we are still missing.
- For example, we don't have any VP8 Falkland
- OK, fine. I'll phone Bob and ask him to make some qsos with us.
- And then we don't have any VP8 South Orkney either.
- No-one with a phone and radios over there, but I'll ask if Bob could go there, Orkney is just around the corner for him
-
- Some Falkland multipliers now in the log, but Bob can't go to Orkney today, he has just ordered a pizza, waiting for the delivery, his boat has a leak and it is 4am over there.
- Ok, it happens. But no problem, this is extreme contesting. Bubba, take that radio and make some contacts and use the callsign VP8SO.
- Start from topband ssb. We'll try to find you there and then move you around, 80-40-20 and so on. After that search and pounce for a while.
- Make enough qsos, it is better to be in all DX bulletins than on the uniques list.
- Roger roger. Maybe we should send some urgent news about Orkney petition to NG3K and the OPDX bulletin.
- Yes, do that. Write that the petition group is only stopping by, making some qsos this afternoon and if weather permits they will take part in CQ WW. Multi-Single qrp, 4 squares for every band, elevated radials, stacked SteppIRs, low band beverages, some satellite sstv, JT65 eme, novice and qrs reception, online qsl-system, lotw, but no rtty, absolutely no rtty. Holiday style activity.
- Cool, OPDX will put out their Special Bulletin right away.
- One guy on the band said that we have been given a red card, what is this?
- I suppose it was the Queen of Hearts.
- Have you got any cards?
- I have three yellow ones.
- Yellows ? Sounds like a football system, I thought this is poker or something

This story has included some bad manners, bad bad boys. Don't behave like this at home or at your own contest station. The author and the publisher don't take any responsibility if you do. If you get into the troubles, blame your neighbors, not us. Good luck in the contest!

And DX is!

An Update on Solar Cycle 24

Carl Luetzelschwab K9LA

k9la@arri.net

In my article “Where is Cycle 24?” in the Volume 13 (1) 2009 issue of PileUp!, I discussed where Cycle 24 was and where it may be headed. Two good things have happened since then – it looks like we’re past solar minimum and it looks like Cycle 24 is truly in its ascent. Let’s look at the most recent data.

The first figure in my previous article had a plot showing the number of months the past five solar minimum periods spent at a smoothed sunspot number of 20 or less. Also graphed on the same plot was the status of the minimum period between Cycle 23 and Cycle 24, with the latest smoothed sunspot number data as of August 2008. Figure 1 in this article is an update of that figure, with the most recent smoothed sunspot number data being for September 2009.

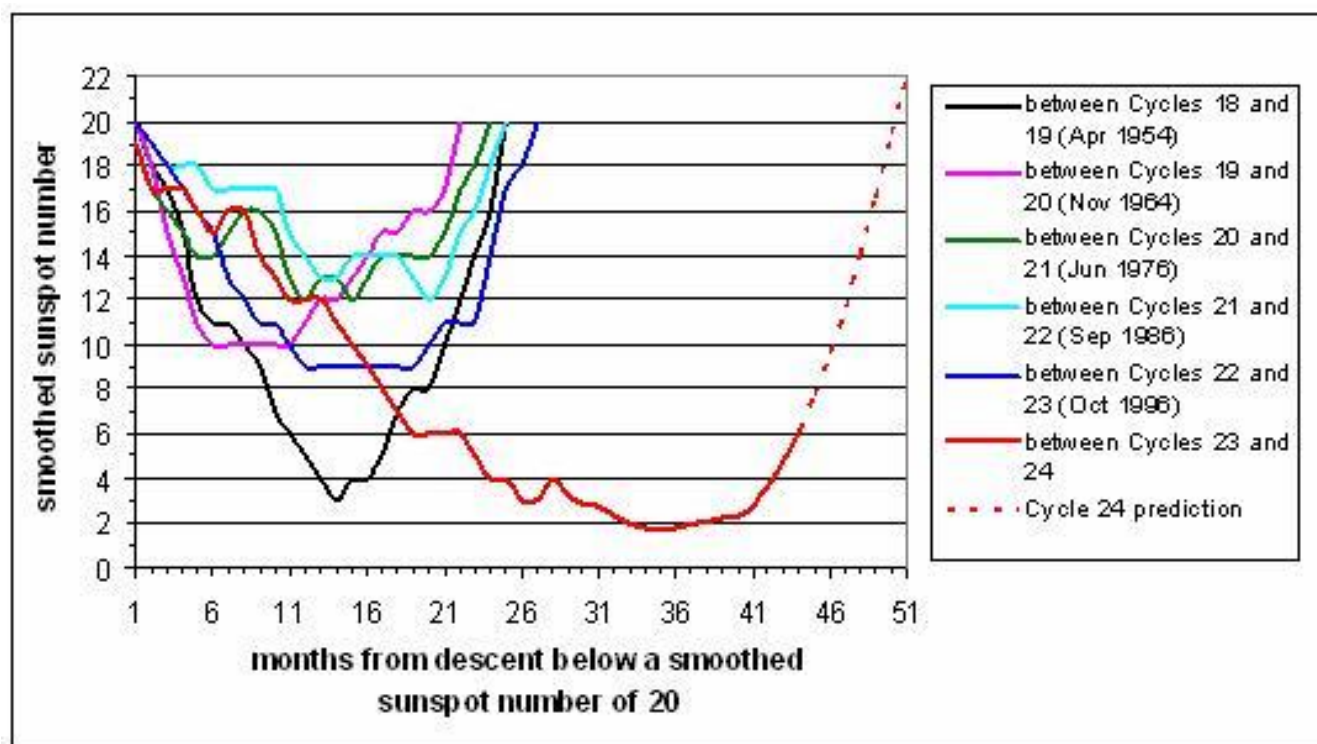


Figure 1 – Duration of Solar Minimum Periods

Figure 1 clearly demonstrates that the previous five solar minimum periods were relatively short (about 24 months) compared to what we’re experiencing now. In fact, plotting the predicted rise of Cycle 24 suggests that this current solar minimum period will have been twice as long (about 48 months) as the previous five. Although the minimum between Cycle 23 and 24 has been very unusual for our lifetimes, it appears that it will be only about one year longer than the average of 37 months for all solar minimum periods starting with the minimum between Cycle 1 and Cycle 2. Let’s be grateful that it wasn’t as long as the solar

minimum period between Cycle 5 and Cycle 6 – it was a whopping 96 months!

Figure 1 also shows that it is highly likely that we’re past solar minimum. It appears to have occurred in the thirty-fifth month after Cycle 23 descended below a smoothed sunspot number of 20, which puts it in December 2008. Adding to this is the rapid rise and predicted ascent in the smoothed sunspot number starting after the forty-first month (which was June 2009). Thus all the data is pointing to solar minimum being behind us, and Cycle 24 is in its ascent.

So when will 15m and 10m be back with consistent worldwide F_2 propagation?

That's not too hard to estimate, as we can use the current prediction of Cycle 24 and the fact that 15m should improve when the smoothed sunspot number rises above 25 and 10m should

improve when the smoothed sunspot number rises above about 50. Figure 2 is the latest Cycle 24 prediction, and it is at: <http://www.swpc.noaa.gov/SolarCycle/>.

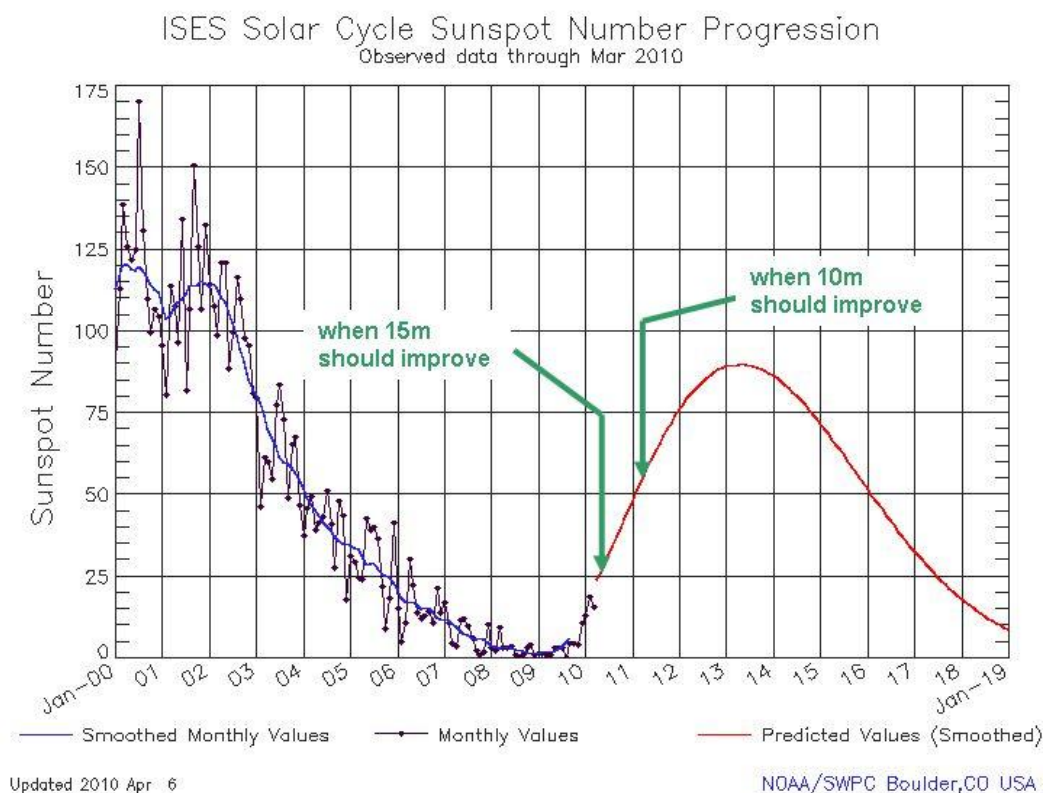


Figure 2 – When 15m and 10m should be back?

If Cycle 24 continues its predicted ascent, the smoothed sunspot number will rise above 25 in May 2010 – which is where we are right now. Remember that the smoothed sunspot number is six months behind the current month, as it is a heavily averaged value that uses monthly mean data from 6 months before to 6 months after the desired month.

Unfortunately right now we're moving into the northern hemisphere summer months, when the daytime MUFs (maximum usable frequencies) are lower than the winter MUFs. Thus we likely won't see improvements in 15m until this fall. Hopefully this bodes well for the CQ World Wide contests in October and November.

As for 10m, the smoothed sunspot number should rise above 50 in early 2011 (again with the caveat that Cycle 24 follows its predicted ascent). It's likely that

this year's ARRL 10 Meter contest will see a decent improvement, but the most improvement should be for the ARRL International DX contests in February and March of 2011.

Thus there's hope for those engaged in low cost contesting (whether by choice or by circumstance). By this time next year the higher bands should be much better, giving low-cost testers many opportunities to make many DX QSOs. You better start getting ready now – and enjoy it when it comes.

CQ WPX Contest Online Score Database

Randy Thompson, K5ZD

k5zd@cqwpvx.com



Two years ago, in April 2008, I was offered the opportunity to become the Director of the CQ WPX Contest. Since this has always been one of my favourite contests, it didn't take much thinking to accept the job. As a long time contester, I had always wanted the chance to learn more about what goes on behind the scenes in a major contest and to present contest information in new ways.

One of my first projects was to establish a web site at www.cqwpvx.com. This was to be the main contact point for distributing information about the contest. The design is simple and made to load quickly in any browser. Hosting was provided on a server operated by friends of the CQWW Contest.

Contests are a form of sporting event. As such, there are good scores and great scores. There are years with good conditions and record breaking efforts. There are other years that may not be so memorable. As we move through time, it is easy for all of the contests to blend together. You may remember a few special efforts, but it is easy to loose track of how you did over the years.

My first effort to present scores was to use basic html pages. All scores for each year were listed on a page in the same general order as they appear in the magazine. This got the job done, but took a lot of editing effort and the pages were very large – taking a long time to download.

The log checking software for the WPX Contest, written by Ken, K1EA, provided a very nice set of report files to use in checking the logs. There was also an Excel spreadsheet that had virtually every piece of information about a log from the callsign to the band breakdowns and more.

I once had a job to create a web site that was driven by a database. I kept looking at the output from the log checking software and thinking that there should be a better way to present the scores.

I am a numbers guy. I love to look at contest scores from around the world and imagine what challenges or thrills operators were experiencing during the contest. One of the things I always missed in the CQ WPX Results was the ability to see band breakdowns and operating time for each entry. My mission for January 2009 was to do something about that!

I am not really a software developer, but I do have some experience and enjoy the challenge making computers work for me. With a little help from Google, I was able to create a MySQL database and use the php programming language to create some simple web pages to display the data.

For each log, the database contains the callsign, continent, country, category, score, QSOs, multipliers, QSOs for each band, operating time, operator list, club name, and soapbox comments. I thought of how people like to look at scores and

then attempted to create filters that made it easy to slice or sort the data in interesting ways.

After the results appeared for the 2008 SSB Contest, an error was discovered in the scoring algorithm for single band entrants. It was nice to be able to correct the errors in the online database and immediately have all of the scores updated instantly. The online database is now the “system of record” for all WPX scores.

One of my dreams had been to use the database to generate online certificates. I mentioned this to an old friend, K5TM, and he accepted the job of figuring out a good way to do this. Tom suggested using data from the database to update an Adobe pdf file. Best of all, he found an open source php program to do this!

The On-Line Certificates were announced May 17, 2009 and were an immediate hit. Every log entry from 2007 and later could download a certificate in pdf format and print it out on any color printer. The certificates showed callsign, operator(s), category, and score. Where applicable, rank in country, continent, or World was also shown. Many people commented on how much they enjoyed being able to collect some wallpaper for their shack. In the year since, there have been over 9300 page views of the certificate download page.

Steve, N8BJQ, had been using Microsoft Access to manage the score listings when he was WPX director. This gave me an electronic library of scores back to 1999. I converted all of these and added them to the online database. Now you could type in your call and see a historical record of your operations.

At this point there was enough data to create a trend chart showing entries per year. The growth of contesting, and CQ

WPX in particular was very visible. (See <http://www.cqwpix.com/stats.htm>)

In August 2009, I posted a message on the cq-contest reflector asking for volunteers to type in older results from scans of the magazine pages. I was amazed when a number of people quickly stepped forward and offered to take on the job. Thanks to KQ2M, NN3W, N7AZ, WP3C, SV1RP, AB7E, KA3DRR, N1NK, JK3GAD, K4ZW, and K2DSL, the database for SSB was extended back to 1984 and for CW to 1988.

This effort provided scores far enough back into the past to tackle the final job – creating score records that would automatically update each year as new scores were added! On February 24, 2010, the new Records pages enabled visitors to look up records at the World, Continent, Country, and Call Area levels. For each region, the records are shown for all possible categories for both CW and SSB.

Start searching for records by visiting <http://www.cqwpix.com/records.htm>. Select the geographic region of interest from the drop down list at the top of the page and then click on submit. The drop down list includes every country from which a log has been submitted. If you want to learn more about a particular record, click on the hyperlink for the category to see a list of the all time high scores for that category and geographic region.

The final effort is underway now to push the records all the way back to the beginning of the contest. Help from SP5UAF, LB1G, K1ZR, N5IE, and W4AU have helped to enter the entire history of the WPX CW contest. That's every score from every year. More helpers are working on WPX SSB from 1983 to 1975.

In addition to records and looking up old results, the WPX online score database can be used during the contest to make your operating more fun. I like to set the filters to show all scores for my category and region of interest. As I operate the contest, I create little games for myself to see how quickly I can pass the next score on the list. It's easy at first, but becomes more difficult as you reach the upper echelons. It can be very motivational as you close in on a personal record or pass a contesting rival.

I hope you have enjoyed this look behind the CQ WPX web site. Don't forget to operate the CQ WPX CW Contest on May 29-30, 2010. Complete rules (in 15 languages, including Finnish and Swedish) can be found at

<http://www.cqwpix.com/rules.htm>.



Antti, OH7EA & Pasi OH2IW working the WPX CW contest @ OG8X in 2008. RF found its way through this room (right).



TIRED OF YOUR NAGGING XYL?
WANT TO WORK THE RADIO WHENEVER - WHEREVER?
BE A DX OF YOUR DREAMS IN A CONTEST?
Everything is possible at WWW.SECONDHAMLIFE.COM



shl/5H3DX



shl/9M6FUN m/s-team

Runs on all platforms. 256 kbps or faster. Java no longer required.
New features: You can buy sun-spots and social activities at the DX location.
Our computing resources guarantee 60 000 contesteer buddies in 3D.
3\$ per started Contest/DX-expedition. RTTY add 20\$.
N.B. We are not operational during the CQ WPX CW contest!

WRTC is coming – Are you ready?

Harry, RA3AUU

The Team behind WRTC 2010

The committee members who got the idea to bring WRTC to Russia are Roman RZ3AA, Andy UA3AB, Leonid RZ3DU and me. All of us have travelled a lot to see the world of HAMRADIO as well as having our own experience of organizing Russian Radiosport Championships. The Russian contesting community is growing these days so we thought it was a good moment to organize such an event in Moscow to bring more people to our hobby and to contesting in particular.



RRTC-2008 on the air. RV3BA, RA3CO, UA9OA – referee (Photo RA6LBS).

The organization

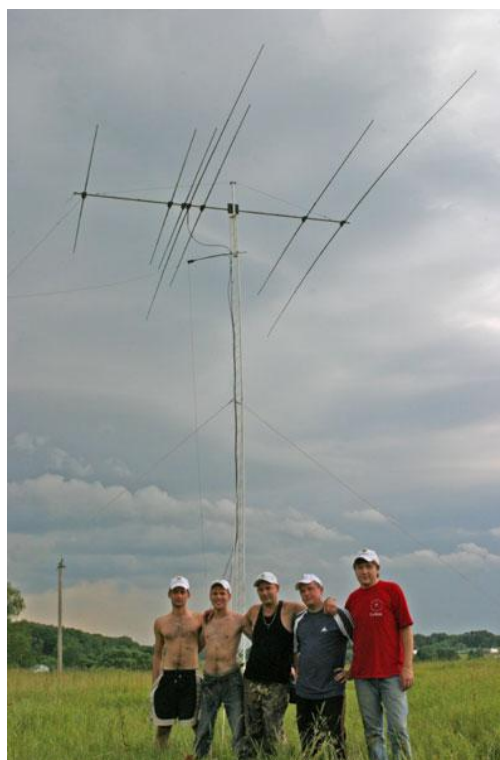
As mentioned above, we have organized Russian Radiosport Team Championships (RRTC) almost every year for 17 years now. The locations for these Championships have always been chosen throughout the country with some people travelling up to 4000 km by car in order to participate. Our teams are getting together on the same level playing field with almost no altitude difference. We change these locations every 2–3 years. The last three RRTCs were held in the same geographical area that will be used for WRTC, so we are quite familiar with what we are doing now. This area is

about 30km by 10km with 8–10 clusters for teams. I should also say that the number of teams participating in our events is 20–22. It means we need to multiply our efforts but of course with higher-level participants.

WRTC "Field Day style"

When we do our RRTCs, teams draw their locations and get there 2 days before the contest since they need to build their set-ups by themselves. They must build their station in a proper way to be competitive.

In the WRTC case, we have 50+ groups of volunteers (150–200 people) arriving to locations 3 days prior to the contest to set-up their own camps and build everything for WRTC competitors. We also have a group of antenna experts and tech experts who are going to drive through all the locations and help the volunteers.



RRTC-2008 participants in the field: RZ9SZ, RX9TL, UA9SSB, RA9SNU, and RX9TC (Photo RA6LBS).

For competitors it will look like a Field Day style operation but most likely they

wouldn't really feel it. According to our plan, all competitors will be delivered to their location early Saturday morning 8-9 hours before IARU contest. At their locations they will find very comfortable tents with tables and chairs, an electric fan, lights and necessary power outlets connected to a 2 kW power generator located some 30m away to avoid noise. Nearby the operating tent they will see blue house of WC/washing facilities. Antennas to be found on the 12 m tower are a 3-bander for 20-15-10 m bands on the top with a G-800 antenna rotator and two Inverted-V dipoles for 40 m and 80 m located on the same tower.

An interesting remark is that these set-ups will be distributed to Youth radio clubs around Russia free of charge after WRTC.

During the contest volunteers at each location are responsible for keeping the power generator up and running and as well as filling up on fuel. In this way the participants will concentrate on making QSOs.

Differences between previous WRTC and WRTC 2010?

Yes, there are a lot of unique aspects.

- It's the first time with absolutely the same geographical conditions which makes the playground equal for all teams.
- It's the first time when the word "Team Championship" is bigger than at any WRTC before, because 2 Team members will both be equally involved 24 hours.
- Of course, it's so-called Field Day style.
- All teams will be supported by volunteers who are mostly Russian contesters and DXers coming from all over the country. Some will spend 4–5 days on the road to help!!!

Facts and Figures

- 50 2-man teams and 1 referee at every location with 3–4 volunteers
- 50 tri-band Yagis, 50 + 50 dipoles, 50 antenna rotators, 5000 m of coax cable
- 100–150 guests from overseas and many from Russia

Wishes for WRTC 2010

First of all we are proud to have such an event in Russia and we wish all competitors good luck in a fair competition! Our big aim is to involve youngsters in contesting and we count on WRTC as a pushing-ahead facility. In this case we will get many young boys and girls to show them what contest GURUs from all over the globe do in the fields of Domodedovo.

How can people at home promote the success of WRTC 2010?

When such events happen to be on the radio competitors always appreciate hearing calls from people at their homes. They need more and more people calling to have higher QSO numbers. I am sure contesters all over the world will support WRTC competitors a lot. Competitors here will have special contest calls from the series R30A–R39Z, so when you hear such calls, please contact them.

Prizes for those who stay at home?

In the nearest future we are going to announce rules for contesters worldwide to win special WRTC-2010 T-shirts. The major idea is to have a certain number of contacts with a certain number of WRTC participants. Of course, we also plan to have plaques for high scorers!

Watch the WRTC news on www.wrtc2010.ru website and in different contesting sources.

73, Harry RA3AUU

EXCLUSIVE PileUP! Interview

It was four years ago when in 2006 two Finnish teams - OH2UA with OH4JFN and OH6UM with OH1JT - were heading to Brazil for WRTC2006 to compete with the world's best of the best. They did not bring home the medals that we had hoped for, but we were disappointed that Lady Fortune had given them incompatible station locations. Now, one radio Olympiad later, July 8-12, 2010 members of the same quartet are on their way to Moscow with fresh ideas and with a fresh mindset – and with some serious questions about the technology they would use to be competitive. The Formula 1 spirit is here live and well!

Now the station locations really put competitors on an equal footing in close proximity on the same playing field with the same topography and close distance – so close that you can basically see the next team. Here the radio characteristics and the used technology may play a greater role than ever before, shifting the focus from an unfair location factor toward bringing in technology with related costs, thus theoretically making the event one where the participants again are not on an equal footing. The expected costs of the needed system amount to EUR 5000 – more than the cost of the entire trip for many.

One (organizers) cannot win 'em all but, at the very least, a juicy event is looming on the horizon.

PileUP! just interviewed **two** Finnish team captains and here is their story:

Gentlemen, PileUP! congratulates you on winning the qualifying round for the Northern region and capturing two slots out of five (5) that were made available to the Nordic and Baltic countries.

Q1: How do you rate the WRTC 2010 concept of bringing all the people into the

same playing field – operating in camping style in a tent with your own generator?

OH2UA: I think it's a great idea to have everyone on the same field. That at least should place all teams in an equal situation in terms of QTH. It will also be nice to have other teams in the vicinity in order to get a feeling of real competition.

OH6UM: The QTH factor to the results is now minimized, which should give more space to the operating skills. On the other hand I'm afraid that the seemingly more even playing field may prove to have evolved to a more than ever uneven playing field on the technical solutions side. Anyway, the WRTC weekend will be good practice for the traditional field day style SRAL summer camp being held once again in Räyskälä (about 100 km NW of Helsinki) next weekend after WRTC. Welcome!

Q2: It seems that technology will make a greater difference this year than ever before. How do you view that trend, and are you prepared to bring in the latest here with all the skills and costs it will take? What radios will you bring along?

OH2UA: I'm strongly against WRTC becoming the same kind of technology battle that radio sport "normally" is. I don't have anything against state-of-the-art technology but I feel that the original idea of WRTC is ruined when technical innovations give too much of an advantage to some teams.

I was really disappointed to see that some teams were chosen from Russia for offering the latest in terms of technology, e.g. triplexes and RF matrix, but that offer or information was not forwarded to all teams. I feel that if triplexes and stuff like that are allowed, then the organizers should provide that material to all teams. I think that with triplexes and similar accessories it is the same situation that arose in Brazil with amplifiers. We were

hoping to have a pair of FT5000's, but most likely we'll take a pair of FT-1000 Mark-V's.

OH6UM: Our team will use a pair of Icom IC-756Pro3 mods by Inrad. The most challenging device is the triplexer (sharing the tribander for both radios on higher bands). In reference to my answer in Q1, I don't necessarily like the trend. Innovations are a good thing, but in my thinking there is a conflict with the basic idea of WRTC. We will compete with what we have.

Q3: If you have to make a bet for three (3) teams winning the medals, which teams would you pick and in which order would you put them?

OH2UA: If I had to make a bet, of course I would put all my money on our own team ;). But otherwise, I am quite sure that this time the "local" teams will have a big advantage and therefore my list looks as follows:

Gold: UN9LW & UN7LZ
Silver: RV1AC & RV1AIP
Bronze: N6MJ & KL9A

OH6UM:
DL6FBL
RA3AUU :)
OH6UM

Q4: How do you set your own target – why is your target as it is?

OH2UA: In Brazil, we put a lot of effort into our station setup and felt that we were really prepared. Well, it all sucked - so this time we are trying a slightly different approach. We will be there to have fun, meeting friends and just hanging around. Most likely, we will get everything we have in the ham shack, pack it into big suitcases and see on Saturday morning what we have got and what kind of a station we are able to

build. If propagation sucks, we will be running with only one operator during night time; so, one operator will have time to visit the tents of other teams, chat around and see how they are doing.

OH6UM: Top ten. I know it. It feels better anyway. :)

Q5: Pileup is interested to know how you expect the two Finnish teams to do against each other? Do not be shy!

OH2UA: I am sure that we are able to beat the hell out of Pasi and Juha. Juha will be traveling to Moscow with Tonno (ES5TV) and other Estonians by night train, so I'm pretty sure that he will not be able to join the contest at all after spending a night in an "Estonian hospitality suite". So, if Pasi is operating alone, we won't have to worry about the other Finnish team.

Honestly, Pasi and Juha had bad luck in Brazil, and I really hope that this time around they are able to get a good station and make a great score. We have been operating quite a lot together, all the four of us, and Juha has been a role model to me and Marko when we operated from OH2U. So, there is very positive competition between our teams. But of course when the clock strikes 1200 UTC, it is contest time and we will try to beat every other team, including the other Finnish team.

OH6UM: Our OT team will beat the youngster team. Or vice versa - but only *if* we are unlucky. :)

Q6: When setting your target, what would be your expected percentage split between CW and SSB QSOs? Why is the split set that way? Which QSOs, CW and SSB, would you expect to move faster and in what time relation?

OH2UA: It will be maybe 70% CW and 30% SSB. That is because a large number of QSOs will come from Asia and Europe and those operators are normally better on CW than on SSB. Also, a less powerful signal from a WRTC setup prefers CW. The only band where there may be more Qs on SSB than on CW is 15M, if that band ever opens up.

OH6UM: CW 55%, SSB 45%. It is easier to get decent qso runs on CW when you are running low power, especially on low bands. (And Russians like CW too.)

Q7: How do you expect the local Russian teams to score?

OH2UA: This time they will have a lot of advantage. It is a familiar field to them - not only the field but they know the propagation best, and most of the teams have many years of experience from the Russian Championships.

OH6UM: Two of the Russian teams will finish in top ten. They have been practicing same type of 2-man operating for several years, with same technology and setups, on the same WRTC playing fields, under same type of conditions.

Q8: How do you feel about the language issue? Do you favor total freedom or strictly English?

OH2UA: Of course, if I could choose, I would go for Finnish only ;). But I think that English only is good since it is the most equal way to manage the issue. Of course, native English-speaking teams do have some advantage, but it is not a big issue since we are not running rates close to 400Q/h. One can only imagine what kind of advantage Russian-speaking teams would have this time.

OH6UM: Not an easy one... this is an eternal question. Our friends speaking

English as their native language already have an advantage on SSB anyway. On the other hand, allowing total freedom would give advantage to those who can speak fluent Russian, German and other European languages spoken by large and active ham populations. In WRTC-2010 the advantage would be emphasized especially on low bands. Solution: SSB should be banned from WRTC. :) CW IS! A bit more seriously speaking, allowing total freedom would honour the diversity of the whole ham community. Learning a couple of phrases and words in some new foreign languages could in fact be rather tempting too. And if you're not interested - there's always CW.

Q9: Have you ever been to Moscow or any other parts of Russia? What would be your advice to these that go for the first time?

OH2UA: Never been there. For other teams, I would like to suggest that they adopt the local drinking culture...

OH6UM: No I haven't, but my team mate has told me that they use grammas (g) instead of millilitres (ml) while measuring the vodka drinks...

Q10: How do you expect to handle sparks from Russian generators? No, we are just kidding!

OH2UA: Actually, we plan to bring in some of the latest technology with us. We have built IJSCO (Integrated Jamming System for Contest Operators) for WRTC 2010. We got the idea from those Russian generators and from Ranko's filter system that follows the VFO. It is quite a simple jammer following our VFO frequency and making broadband noise on all frequencies other than our own. Since all the stations are located in the same playing field, even a broadband jammer with low power is extremely efficient.

GL in Moscow, mates.



WRTC Team leader, Toni OH2UA



WRTC Veteran Pasi, OH6UM



To remind you of their origin, pictured left to right: Coach OH1WZ and OH2UA & OH6UM in Arkala.

“Houston, We Have a Problem! – I mean we have dupe in the Cabrillo log! Can we use the UBN-fix?”

Ilkka, OH1WZ

Last CQ WPX SSB contest I had the privilege of operating from OG7X, where, for the first time in my life, I used the N1MM logger. I guess my hosts had tuned it so that it allowed for entering duplicate QSOs in the log file. During my many travels I have seen and heard of other practices too. The worst being that amongst us we have ops who just won't log a dupe QSO! Well, what's the big excitement here now, many of you think, and probably with good reason?

Well, they brought down the Apollo 13 safely four decades ago – let me bring to light the dupe dilemma. First of all, and this is not a WPX-specific issue, a log stores all QSOs in a contest and the logs received by the coordinators are the facts used for deciding the winners. Let's leave this for a while.

Duplicate-QSO-panic (DQP) dates back to the time of paper logs. Equally said, it dates back to the time of no log-checking or at least to the time of painful log-checking. Non-removed duplicate QSOs mapped your log and you to the set of bad boys. Avoiding dupes was darn painful as I recall it. In ARRL DX contests I learned to keep separate dupe (yes, paper, for any possible young ham-contester) sheets for A#, W#, K#, N# by band, which became beneficial to avoid the nasty dupes on the second day, when everyone was CQing. If you were careless, you could 15–20% of them in your log. Others did the same paper exercise after the contest.

In 2010, we use computers to log the QSOs and the internet to send the log bits to the organizer. The same computer has great means for communication, which is so important to us. It is para-

doxical that the same technology that is boosting our scores and enables great log-checking, is actually simultaneously killing the hobby. But, that's how things evolve, and something new and exciting always comes up later although I (we) might not perceive it now.

OK, back to the logs received by the organizers with or without the dupes. In a contest such as the WPX, where the exchange consists of serial numbers, it is easy to resolve from the database of logs whether a valid QSO was made by station A and B. There is the time-tag (it is easy to correct for a few time-offsets in someone's log), the callsign and the sent and received serial numbers to look at. Now, if A and B have worked each other N times on a band, and the exchanged numbers match, we have one valid and N-1 zero-valued dupe-QSOs. Maybe A just wanted to please B or the other way around. No losses suffered. And we see that dupes can be regarded as harmless, and there is no reason not to log them.

In another scenario, we have two QSOs in the log of station B, which show the call of A. In the log check it turns out that the QSOs have a temporal match, even the numbers exchanged equal, but the log of A has the callsigns β and B, in that chronological order. During the second QSO, the operator at station B receives the syndromes of the DQP. If medicated for it the second QSO is in the log and the contest organizer is happy, and also station B has won. If not, the operator at station B might say “We have worked you on this band, blaa blaa blaa, but I give 59 ####” – and then he would NOT log the dupe. All of you now notice that this is unwise behavior, where A, B, and the organizer all suffer. So log your QSOs.

UBN Fix

UBN is not a general term for log-checking and penalizing, but rather that of the CQ WW DX Contest, where it has become an art, almost science, because the organizers do not have the same log-tags to look at, that we had in the previous example.

The ultimate purpose of log-checking is to verify that the signed log (yes, paper logs had the signature, where you admitted to have followed the rules and license conditions) is correct. By default, all logs should be OK, because of the signature and the Ham Spirit. Or?



Log investigation going on? (Disclaimer: The picture is not related to any particular contest)

Log-checking has evolved from plain dupe checking of the 1980s into a complex C.S.I. type of investigation, where, a log is by default distrustful until proven otherwise.

This tells me that things have changed, or that we now have better means of finding the distrustful testers.

I'm comfortable with a log check that finds those QSOs in my log, where I have made an error by logging the call or exchange wrong. If the organizer has 75% of the total number of logs with 90% of

the total number of contest QSOs in that contest, it means that the odds are on their side. I mean the odds for making the right decisions, particularly if the serial number is a part of the exchange. If I have logged station X, and the log of X is in the database, but doesn't show my call, I'm happy if that QSO is wiped away from the log. If X was a multiplier, I'm ok with the fact that I lose that multiplier, if there are no subsequent QSOs giving me that multiplier. I don't understand that I'd lose DL as multiplier if for some reason my first QSO in the contest with DR1A would not be in their log. Similarly, if the organizer has 90% of the QSOs in the database, it is not fair to penalize more than $100/90 \times$ QSO-points due to a non-valid QSO. My first QSO with DR1A is statistically independent of the next QSO with DR2A. I can't understand why some organizers have a non-linear penalizing system. "You are making mistakes, and we weight those bad QSOs more than your good QSOs" seems to be the take-home-message.

The systems work better if you don't panic when feeling the symptoms of the DQP. Set the "allow-dupes-to-be-logged" or whatever parameter in your software to TRUE.

Also, I encourage you to influence the log checking philosophy in your favorite contest so as to be efficient and fair.

Until the next log-cooking, 73
OH1WZ

Low Budget Contesting from Cyprus

Mats, R3/SM6LRR

My first intention was to work the CQWW 160 Meter CW Contest from my Summer QTH outside of Moscow, but when the temperatures approached -30°C outside and the house really is not suitable for comfortable staying during winter time, it was very easy to accept the offer of RA3AUU, to join him to Cyprus.

During the past years Harry has worked many operations from Cyprus, lately using the call P33W. During recent years, he and his Russian Multi Single team have rented a house from a local fisherman on the Northwestern part of the island. Nowadays he has a place of his own a little further west compared to the previous P33W location. While travelling by cars from the Mediterranean coastline, one quickly realizes that the QTH has been selected carefully and not only with the purpose of having a visual panorama. The house is located only some 4 km from the coastline, but still 350 meters above the Sea Level. All major DX directions have basically free visibility over the sea from the QTH.

The house itself is itself ready and fully suitable for living, but at the time we visited for the CQWW 160 Meter Contest, something was missing – namely a lot of steel and aluminum ;) Part of the purpose of the trip was to change that situation. Two tower sections were included in my luggage. Harry brought other funny-looking aluminum creations and sections of the 25-meter 160 m vertical had been brought during earlier trips.



25-meter-high vertical for 160 m.

The antenna is a smart and inexpensive construction of RA6LBS and it is possible to use on the 160CW, 160SSB, 80CW, 80SSB sub-bands, and on 40, using a special remotely-controlled tuning unit at the bottom of the antenna. It was already placed on the garage path, ready to be installed and to be filled with energy-rich HF.



Matching unit with extra coil.

Before we started this small project, we had promised to help our competitors in the local competition "The Cypriot 160 Meter Cup," namely C4N. Alex (5B8AD) and Alex RV6LNA had found their dream location just meters from the Mediterranean coastline. They had some problems erecting a similar type of simple 25-meter vertical, so we drove to their location (20 km east of our QTH), and assisted friends in emergency ;)

After half an hour of heavy work, the antenna was up, but also with the highest non-guyed section quite swinging in the strong breeze from the sea.

Before we left for a common C4N/P33W pre-contest dinner at the local PileUp bar in the town of Polis, we had a look into their temporary contest shack, located in a summerhouse that is rented out in July for three times the money it cost now in the middle of the winter. A symbolic and compulsory Russian liquid appetizer ended the visit in the shack. After the visit to C4N, we enjoyed the deliciously prepared Mediterranean seafood dinner together with our friends.



Harry, RA3AUU building a beverage.

The day after it was time for our Russian colleagues to reciprocate the help when erecting our vertical. We used only two tuned 40-meter-long radials and I was a little doubtful that this system would be good enough... My XYL has been

complaining a lot about my 100 radials in the strawberry plantations at the "datcha" near Moscow. Could this really be an efficient ground plane for the vertical? I was skeptical, but I decided to test only the radials as a 160 m antenna before we had been able to tune the tuning box. With this extremely simple antenna at the height of 1.5 meters, I realized that this QTH is something truly special. The Pile-Up that was created using this mediocre antenna on 160 was amazing!

I put my callsign 5B/SM6LRR on the air with this dipole for 160 and another one for 40 (4 meters up). The result was fantastic on both bands. Especially 40 meters bubbled with JA and Stateside stations and the pile-up seemed endless. Without exaggeration, I think this low dipole for 40 meters worked as well as a 3 element full-size yagi at Scandinavian latitudes. One soon realizes that we in the north of Europe are fighting with windmills in the same way as Don Quixote did, when competing in contests with superstations around the Mediterranean Sea!

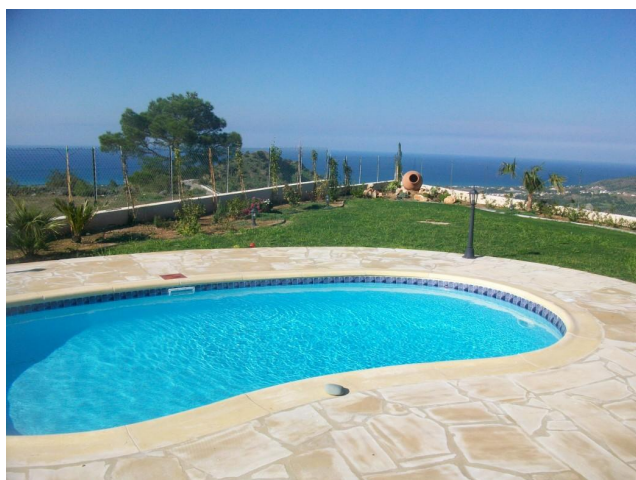


40 m dipole that gave us huge pileups to JA and W.

The day after we managed to tune the 160 m radial by adding some coils to those inside the tuning unit that seemed insufficient. When it was time for testing of the antenna, a powerful thunderstorm appeared on the horizon. The S-meter

headed for the very right corner and we realized that this vertical needs a companion in a good reception antenna. "By coincidence" Harry had built a fence exactly in the direction of USA, and we used this fence as a support for a beverage. The total length of the beverage was something like 130 meters and it was terminated by risking our lives walking down a deep canyon. It later proved to me an extremely valuable reception antenna towards the USA.

We were now ready for the great 160 meter battle!



P33W view to W/VE.

The year before, Harry had won the CQWW 160 CW Assisted section, so we had some hopes for a top position in the M/S section. However, after the first night of the contest we understood this would be very difficult, if not impossible. Instead of working 450 stateside stations like the year before, we only managed to work 80 stations from North America. The propagation did definitely not favor the Eastern Mediterranean Sea area. The winners in the 2010 contest would instead be found in the Western Part of North Africa. The key successes for them were much better conditions to USA and the fact that they could get inter-continental points for QSOs with NA, EU and Asia. We had the disadvantage both with worse stateside propagation and

also with the fact that Asian contacts only gave continental points.

After the first night, it was again time for a visit to C4N... The vertical had collapsed during the storm in the late morning hours. This was probably the last time the somewhat old vertical could be used. We managed to repair it for the last battle and also managed to erect it again in the gusty winds and rain.

All in all, we managed to work 1363 contacts in 36 states/provinces and 87 countries. This is hopefully enough to win M/S in Asia, but we ended up far down on the Worldwide list (at the best in 6th or 7th place). Nevertheless, this was a fantastic experience and it shows that one can be fairly competitive with actually quite simple tools (just a 25 meter vertical and a 130 meter beverage). I truly recommend this island as both a location for holiday and for a low budget contest operation. One only needs a glass-fiber mast of 18 meters, some copper wire, a kilowatt amplifier and a transceiver to fight efficiently against most European stations that use large 4 Square arrays and huge beverage systems in many directions.

Thank you for all the contacts both with P33W and 5B/SM6LRR. QSL cards for the latter are already on the way out when you read this article.

A big thank you to Harry, RA3AUU, for the hospitality and the possibility to work from his excellent QTH.

5B/SM6LRR, Mats

A linear amplifier at low cost

Esa, OH7WV

Having built a few amps, sometimes I've been thinking of how cheap I could actually put together a linear amplifier without sacrificing reliability. This PileUP!'s theme made me put my thoughts into the form of an article. I'm not providing schematics. This will be a grounded grid amp and there are thousands of pages of schematics available on the internet. You know what to do. This article is about ideas for doing that with as little money as possible.

Although an autotune amp would be nice for contesting purposes, a manual tune approach will provide the most wallet-friendly choice. However, I have included one automated function to ease the sleep deprived contesters' life: automatic band switching. The reason for that is that a high-quality and big enough ceramic band switch will cost almost the same as relays required for automatic switching. That approach is also described here. You have that band data available at your station, right?

Let's start with purchasing parts. Obviously the most expensive parts of any amp are the HV supply, the matching network components and the tube(s). Yes, I'm a tube guy from the tube era, transistors are for building FM radios.

Tubes. Ahhh....*the smell* and *the warmth* of radio. You have a lot of choices here but hey, this is about low cost. An 8877 alone costs more than I'm planning to use for the whole amp, so that and similar ones are out of the question. One more point: I am considering a legal limit box. Forget 3-500Z's and ZG's as well, they are darn expensive, even as used. My choice is 4-400A (QB4-1100).



Why 4-400A? First, sometimes they are available on eBay and hamfests for ridiculously cheap. I have obtained NOS tubes for \$10...\$30 apiece. In fact, the cheapest full power tube I have bought was \$6. I have bought a lot of used ones too and noticed if you buy one with a clear glass it is always a full output tube. Darkened glass usually means reduced output, not always but most likely. Second, the cooling of these tubes is very easy. A simple, cheap and low acoustic noise muffin fan keeps them cool enough. No need for chimneys. Chimneys are for the fireplace in your living room. Third, these tubes can take an unbelievable amount of abuse. I once tested some tubes in my DX amp (2*4-250A) by removing the tubes and putting in only one 4-400A. Running 3.8kV on the plate, one tube was capable of over a kilowatt out with a 100W +/- something drive and considerably more with higher drive. The plate goes red (and actually should as it keeps the tube healthy in terms of keeping it non-gassy) and an extended drive can get it orange and then sort of white. Ok it's darn hot but the tube doesn't mind. If it eventually would, replacement is easy and cheap. It never gets that hot in a CW or SSB contest; I don't know the digital modes as I only do CW and SSB. Here I need to make one note. Even though you can get quite a lot of power out, at some point the signal starts to get distorted, so we are going to need some margin in the design. A clean legal limit signal can be easily be obtained with two tubes.

Yeah...it's a tetrode but it can be cathode-driven with grid and screen grounded. No need for a screen supply or

metering. If you want a grid current meter, use the usual GG method. In fact, with these tubes there is really no need for grid or screen current metering at all. All you need is a power meter which everyone has anyway. You can also forget fancy protection circuits. This tube can handle significantly more than the specified 35W screen and 10W grid dissipation. I have run my DX amp extended periods with the grid current meter pegging without any damage; the original tubes installed in 1992 still provide full output. Simply tune the amp to max output and that's all you need to care about.

Other choices? I have been considering a single GS35B, 4-1000A, or 3-1000A. All of them will require considerably more money. Cooling them is not as easy, although this would be the least of the issues with them.

At this stage let's review the potential cost accumulation. I'm not counting any S&H charges here as they will vary; I'm only considering the actual component prices. 2pcs 4-400A off eBay at \$10 each gives the power for \$20. 2 sockets off eBay is in the order of \$15. Oh... cooling. A muffin can be found at \$10. Now we have the basics covered for \$45.

The second consideration is the matching network. Single band or all band? Consider leaving out all band switching if you run single band. In any case, you can forget vacuum variables. With plate voltages up to 4kV and power levels below 3kW or so you can use air variables. The tune cap will require an air gap large enough to prevent arcing and low enough base capacitance to make this thing work on 10 meters, 10 pF or close would be desirable. Tune and load variable capacitors can be obtained for \$20-\$50 total off eBay or from a hamfest. New ones are available but considerably more expensive.



OH1XX's Homebrew LC DXing PA.

Most stations have the band data readily available so that can be utilized to drive relays selecting the coil tap, or taps if you wish to go with Pi-L. I have never tried to use open contact relays for coil tap switching and I assume it won't work with very high voltages appearing over the contacts. Vacuum relays would be the way to go even though it is quite an expensive way. V2V type relays are one of the most economic choices I know of. One typically costs in the order of \$27. A contest amp will take 5 relays (Pi) or 10 relays (Pi-L) minimum. If V2V's are to be used, that will bring your bill to the \$135 or \$270 ballpark, respectively. Most likely the latter if you are doing SO2R wishing for all harmonic suppression you can get, but let's go the cheap way and assume that your band filters provide the band separation.

Total so far: \$200.

The high voltage supply is the next consideration. I already have a beefy enough HV supply so I wouldn't need a new one at all. Significant cost savings here. If you have any amp sporting a 3kV+ internal/external supply and capable of providing enough juice for this

project, use it. Add a Millen or similar HV connector and there is your HV supply for your new amp. A few bucks takes care of this. Filament supply? Find a big enough used transformer that has a 24V secondary. Strip the 24VAC winding down to provide 18VAC and that'll be your supply to relays. With a rectifier and filter of course, maybe even a regulator. On top of that, wind either a 5V 30A or a 10V 15A winding. Toroidal transformers are easier to wind than E-I cores. I have never tried but I believe connecting the two filaments in series is ok, at least if both tubes have never been in service and have similar enough filament resistances. This stage will add maybe \$30 to our bill totaling \$230 now. We're almost there. We'll need input matching. Input matching keeps your signal clean of IMD and maintains linearity. This won't take more than \$20. Blocking cap, plate choke, input/output RF relays and associated other small stuff may be in the order of \$100, tops.

For the mechanics you can choose a junkyard electrical box from take away for \$10; a fancy box made and painted to your order in a metal shop will cost \$100 and considerably less if you have a buddy working for them. Now we have the total around \$330 to \$430 depending on personal preferences around the mechanical implementation.

Want single band? Can't get much simpler and cheaper as band switching can be omitted. Using the stuff described above a single band amp would cost less than \$200.

So, there you have it: a legal limit amp for a mere 300 bucks. Now you ask me why did I do all that work 'cause I could buy an old MLA-2500 or SB-220 for only a couple of hundred bucks more? Because this is cheaper and it is FUN to build your own gear. And this one has automatic band switching. That's why.



A new model from Ten-Tec? No. This is the latest one I built from scratch for about \$1300 (1000 euros) a few years ago. The most expensive parts for this were the HV transformer at around \$400 (a bit over 300 euros) and military grade graphite anode 4-250A's at around \$250 (200 euros) a pair.

A Brief Analysis Of Contesting Skills

Jari Jokiniemi, OH3BU

The best operator wins. It is as simple as that, as the best operator is defined to be the one who wins. One might say that this is self evident and thus there is no point in saying it. But let me once more emphasize explicitly and for good that it is always the best operator who wins. Whatever you may think about the electric black out that happened to you in the last CQ WW, or the unbelievable aurora borealis that dampened the 10 meter band for you just when you had finished your sleep period, or whatever thoughts you have against your long-awaited cousin who popped up at your house just when you were supposed to run the best JA pileup in decades, if you came in second, you were not the best. You just did not have the necessary skills to make it to the first place. Period.

But what exactly are the skills that we so prudently measure in our beloved contests? I am sure we all agree that operating skills are definitely one important factor. A guy who copies the calls quickly and accurately, will beat a guy who needs constant repeats to dig out that rare multiplier. A guy who sends perfect CW at 60 WPM when woken up at night by a police squad clearly has an advantage. The one who knows when to point antennas over the pole to get one more multiplier on 10 surely knows how to use propagation in his favor. Nowadays, one cannot claim even mediocre success if one is not able to run two radios flexibly. One should not underestimate the raw power of operating skills. One should, however, not overestimate them either.

The best pile up operator is no good if he cannot sustain the rate for hours. In fact, being able to run a pile up for 10 hours is not really anything extraordinary. The real men can run pile up for 48 hours straight. While simultaneously optimizing band changes and estimating the gaso-

line level of their generators. After all this, a truly good operator is almost as fresh as when the contest begun. We could claim, without anyone being able to claim otherwise, that sheer stamina is undoubtedly a quality that a winner needs. Sisu perkele!

These were some of the physical qualities of an operator. However, to be realistic, we cannot forget what a good station does to the score. When you have a 6 over 6 over 6 on a 40 meter high tower set up in a Caribbean island, a loser with just a trap tribander at 12 meters in a crowded European city lot cannot compete. To get an island in the Caribbean and a 40 meter high tower with 6 over 6 over 6 takes a considerable amount of money. It shouldn't be any surprise that money equals skills. Hey, this is how we judge our compatriots all the time. A lot of money = good, no money = bad. This is exactly the way we reward any profession, money, money, money. Have you ever heard of a top class lawyer or surgeon earning less than a pizza taxi driver or a garbage collector? I bet you haven't. It is now obvious, that for example Bill Gates would be a great contesteer if he ever decided to become a ham.

So in order to do well in contests, you'd better earn well. This way we will come to the mental qualities of a winner. Let's face it; it is all about being clever. Look at any largish corporation that is listed in NYSE. Do you see as CEOs any poor morons with an IQ less than the size of their shoes? No. You see grey haired extremely masculine men who have two doctoral degrees plus an MBA. And you see loads of money. You see it in the size of their houses, you see it in the engines of their Ferraris, and you see it in the hotels they stay over night in when traveling to exotic places you can't even pronounce. Their wives look better and younger than yours, too. Thus, a good contesteer must be clever.

A good tester is innovative. You may find some loop holes in the contest rules and you may use them to your benefit. At one point of time, some many years ago, our dx cluster network was a new system. If you were the first on line to use this (then new) technology, you were on your way to victory. Nowadays the less qualified have put some rule-based restraints on using dx clusters, so it may not be the big thing any more. But once again, hey, an innovative guy is not limited by the rules. Innovate man, innovate. Do you think you can be caught by using the dx cluster illegally? Ok, you just might. But what about running 25 kW? Right, I admit, it is nothing new and won't give you any advantage any more. But this is how the world is run. To really make it big you have to invent something the others don't know. Contests are no different.

Ok, you need some half a million euros to buy a decent station, but it just might be so sad that you don't have this extra money and, besides, you might be one of the Average Joes rather than one of the rich, the bold, and the beautiful. What to do? Well, all hope is not yet lost. Any basic business book tells us that time equals money. In fact, every ad that sells us new gadgets like vacuum cleaners or breadmakers can tell us the very same. The word is balanced in the sense that, usually, those who have truck loads of money are so busy earning more that they don't have any time for highly esteemed purposes like contesting. This is where an ordinary high school teacher can stand tall. In Finland, their summer holiday is about two and half months. That is plenty of time for building a station. Well, the summer holiday for most everyone here is a full month, which is double more than people dare to use in some more money-blessed countries. Use ten of your summers to search the flea markets for used towers and building your station, and I guarantee that your

signal will twist the S-meter needles in the Pacific.

Now, let's do some simple math. Let's denote $E = \text{score}$, $T = \text{time}$, and $C = \text{money}$.

$$\text{Score} \Leftrightarrow E = \text{mult} \times \text{points}$$

Our logging software tells us that

$$\text{points} = \text{mean_qso_point_value} \times (\text{qsos} / \text{hour}) \times \text{hours}$$

Because time is money, we now know that

$$\text{points} = \text{mean_qso_point_value} \times (\text{qsos} / \text{hour}) \times C$$

Our rate depends on the size and location of our station, which on the other hand is known to be defined by the amount of money that we have. So we understand that

$$\text{points} = \text{mean_qso_point_value} \times C^2.$$

Considering that there is only a certain amount of multipliers available in each CQWW and that the mean qso point value does not vary too much in a given location, we can replace the term $(\text{mult} \times \text{mean_qso_point_value})$ with a constant M . This holds true when the operator is doing all the things the best possible way, i.e. catching all the multipliers that one can hear with the second radio, and running DX whenever there is propagation. In other words, this is true for most everyone in the top ten. Thus, we are roughly correct in concluding that

$$E=MC^2.$$

Einstein had to use somewhat more complex algebra to find out this basic rule that explains everything truly important in contesting success.

So let the winner be the best operator money can buy!

**LCC-interview with Jukka OH6LI aka
OH4A aka OH0V**
Ilkka, OH1WZ



Maik, DJ2QV and Jukka, OH6LI celebrating another CQ WW CW EU-win @ OH0V.

OH1WZ: Jukka, thank you for letting PileUP! interview you for the LCC theme issue. I must admit that the visit to your station for the WPX SSB contest in March was one of the reasons for the choice of theme. I was really impressed when I saw the 0€ second hand 12 V battery driven hand drill that turned the 45 m tower with a full size 40m stack and other antennas at your QTH. Before this, I remember well my visit in late the 1980s to your student flat in OH3, where a PA project messed up the student flat shared kitchen, if I remember right. Jukka, before I start asking you stuff, I must introduce you to our readers. Jukka got his callsign OH6LI in 1982, at the age of 14 and has been an active contester since 1982. Already as a student at TUT (1987–1994), Jukka saw to it that the club station OH3TR was competitive and on the air in contests with several top scores in ARRL DX contests. At that time OH3TR was not on the air in CQWW. Jukka operated

CQWWs with calls like OH1AF, 4J1FW, OH1MMM and PJ9A during that period. Jukka has been on the air since 1997 from Mountain Geta on the Åland Islands, where Jukka has maintained a contest station. From OH0V, Jukka currently holds CQ WW CW HP records in Europe on 21 and 28 MHz, done with home-made antennas and small, only 23-m-high crank-up towers. There are also other records in the assisted and low-power categories done by Jukka and Maik DJ2QV in CQWW contests. The Geta Mountain QTH thus has several SOSB EU-wins. In addition to the SOSB-station OH0V, Jukka has patiently built a competitive SO2R station in Kisko, SW Finland, at the family summer-cottage QTH. The call at the cottage location is usually OH4A.

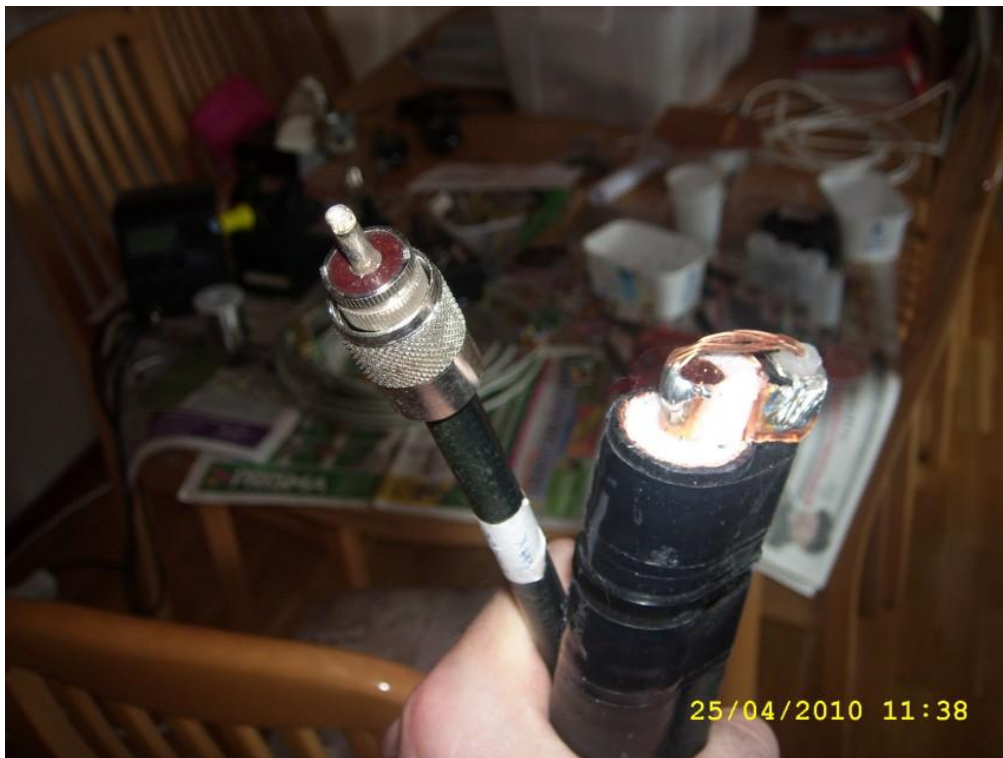
OH1WZ: Jukka, how much does a decibel cost?

OH6LI: $e=mc^2$.. that is, the efficiency is motivation times some commitment factor

into the second power. Usually, the cost is the king and then one can just calculate how much he gained with the investment. My ham hobby costs all I can spare. Some others just invest a small share of their fortune, but I play this by

poker terms. I throw all in.

OH1WZ: On HF most use fancy and expensive coaxial cable connectors, but I have heard of the LI-nnection, what is it?



LI-nnection.

OH6LI: You see, on HF, the UHF connector is all you need as long as you play with legal power. Good UHF connectors do not cost much. You can connect RG213 grade cable to it. But for the real LCC, we have previously gotten 7/8" 50 ohm hardline for a relatively low cost price. UHF does not connect to 7/8". The LI-nnection is at the connection of the cables. Prepare cable ends, tape together, tie wrap, do the copper works and solder. Cut the RG213 grade cable to the required length and place an UHF connector. Place a cap on top of the LI-nnection and you are ready to go. This works up to 144MHz. Not many use UHF connectors on 144MHz, though – so the 7/16 connectors for 7/8" hardline are maybe worth the money and effort above 100 MHz.

The LI-nnection is simple and faster to make than the "official" 7/16 or N-type

connectors.

OH1WZ: Can you tell the readers more about the tower rotating system that you use?

OH6LI: I use a few systems .. actually all my current rotors on mainland Finland differ from each other. The backbone is the hugely over-rated main gear. The tower stands on the main gear. The main gears are from metal-recycling companies. They cost like 300€ or less. Some can be even free. The expected life of this kind of a gear must exceed your tower's usage span by a margin.

The only real challenge is to make the mechanical fitting between the gear and the tower. It is always a team-made custom metal works, when operating within the LCC spirit.

A practical example of what and how we

make this happen at OH4A: Earlier I had a three-phase motor turning my 45 meter high tower, but it was too fast for the 40m fullsize stack; I had to change it and all we found within the OH4A team, was an old battery powered drill that we could think of using. Me and Jari, OH6QU spent an afternoon at the tower base and fitted the hand-drill to replace the three-phase motor, using the small drill. To our surprise it worked pretty well. To my great surprise, it has served without any service need for over six years now.

To me, the core of LCC is to use what you have and get along with it. In case there is a need to have something that looks really good to a professional eye, then you need to start either time consuming pruning or pay money.

What I have learned, is that you can build good and reliable equipment with the smallest possible monetary budget. Also, your brain gets some agility exercise along the way.

OH1WZ: What is your LCC tip of today?

OH6LI: Take a look at your material storage - I know many have a lot of stuff buried in the garage. Then think how you can improve your station with all the hardware you have there.

OH1WZ: OK, thanks, and while we are at it, what is your LCC tip-of-tomorrow?

OH6LI: If you feel like you need something new, instead of just buying the toy, at least spend a moment thinking about what if you would build it yourself. Or if you would realize your plan, using something less-usual but lower-cost method or equipment.

My personal Contesting Tomorrow is atop Geta Mountain. That station is unfortunately to some extent growing outside the LCC ideology. I have no real material storages there and I need to implement everything in a more repeatable way.



OG7X LCC-Multi/2 in WPX SSB 2010 @ OH4A. OH6LI, Jukka & OH1WZ, Ilkka are operating, while Ms. Frostell supervises on the wall.

Käsimatkatavaroin workkimismatkalle Seppo Sisättö, OH1VR



Curacao

PJ2/, PJ4/, SV9/, EA8/, CU2/, KH6/, W6/, 5B4/, /VP9 jne. - eli kohteita, joista olen workkinut loma- ja työmatkoilla. Toki joukossa on pelkkiä workkimismatkojakin. Useimmat näistä matkoista olen tehnyt käsimatkatavaroin, joissa on mukana toimiva radioamatööriaseama. Minulle nimittäin matkan vastenmielisin osuus on matkatavaroiden odottelu pitkän lennon jälkeen. Se syö miestä ja sitä olen torjunut opettelemalla joustavamman matkustustavan, josta seuraavassa kerron.

Ääneen pääsemiseen ulkomaisesta kohteesta on monia tapoja, joista helpoin on tietysti aseman vuokraaminen/käyttöön saaminen paikalliselta radioamatööriltä. Silloin riittää vain matkalipun ostaminen. Sitä vaihtoehtoa en seuraavassa käsittele ja on myös syytä korostaa, että kerron tässä vain omista kokemuksistani ja menettely-tavoistani. Kuinka ne sopivat joillekin muille on aivan eri asia. Se on tämän lukijoiden syytä muistaa.

LUPA. Radioamatööri-toiminta edellyttää lupaa. CEPT kattaa kymmeniä kohteita, joista workkimiseen riittää voimassa oleva suomalainen radioamatöörilupa. Se tai luvan kopio on tietysti oltava mukana matkalla. Viestintäviraston verkkosivuilla

on luettelo CEPT-maista ja ko. käytäntöä noudattavista CEPT:n ulkopuolisista maista. Veikon OH2MCN:n sivuilla on taas erittäin kattava ja ansiokas selvitys eri maiden lupamenettelyistä - kannattaa tutustua!

KOHDE. Minulla ei ole koskaan ollut ongelmia hotellin kanssa antenneistani. Ehkä kysymys on hyvästä onnesta, sillä päinvastaisistakin kokemuksista olen kuullut. Tärkeintä on aina ennen antennipuuhien ryhtymistä sopia asiasta hotellin kanssa. Jos puuhaan ryhtyy ilman sitä, voi lopputuloksena olla QRT -matka. Esimerkiksi viime huhtikuussa sain Kreetalla hotellista miehen avukseni antennin laittoon ja viikkoa myöhemmin sen alas ottamiseen. Palkitsin kaverin kymmenellä eurolla.

Matkatoimistojen esitteissä on yleensä sen verran valokuvia hotelleista, että antennin sijoitus suunnittelua voi tehdä jo kotimaassa. Matkatoimistojen kanssa en ole antenniasioista keskustellut Azoreita lukuun ottamatta ja sekin johtui vain tutusta kohdepäälliköstä.

RADIO. Käsimatkatavaroilla liikuttaessa kysymykseen voi tulla vain pieni transceiver: IC-7000, TS-50, FT-857 tai -897, K3 jne. riippuen siitä, paljonko tarvitsee tilaa vaatteille yms. tarvikkeille. Unohdamme usein, että pesula ei ole suomalainen keksintö. Niitä on muualakin ja t-paitoja yms. on kohteissa kaupan muutamalla eurolla. Kaikkea ei tarvitse raahata mukana Suomesta.

Viime kuukausina olen matkannut kahdella eri laitekoonpanolla: a) IC-7000 + LDG:n AT-7000 antenniviritin ja MFJ-4125 virtalähde tai b) K3 ja MFJ-4125.

Mukana olleesta tietokoneesta riippuen olen käyttänyt hyvin pienikokoista microHAM USB II sovitinta tietokoneen ja radion välissä. Sähkötyökaluja en ole

matkoille ottanut sen painon vuoksi vaan olen tyytynyt sähköttelemään tietokoneen näppäimistön kautta. Lokiohjelmana käytän nykyisin win-testiä - vain pienessä Toshiba Libretto 100:ssa käytän CT:tä + RS-232 liitäntää (oli mm. mukana huhtikuussa SV9:ssa). Heilin kevyt headset on matkojen vakiovaruste.

Tietokonelaukun saa koneeseen sisään hyväksytyn kokoisen käsimatkatavara-laukun lisäksi. Se tuo runsaasti - kyllä! - uusia mahdollisuuksia. Toki on totuuden nimissä todettava, että käsimatkatavarojen paino on minulla ollut aina poikkeuksetta yli sallitun mutta jos laukut eivät pahasti pullistele ja käsittelet niitä kuin höyheniä (hi) ongelmia ei ole.

ANTENNI. Tein ensimmäisen Märketin matkani helmikuussa 1993. Melkoisen pohdinnan jälkeen hankin silloin Frizelin FD-4 windomin antennikseni. Virittimen avulla se on käyttökelpoinen taajuuksilla 3,5 - 50 MHz. Tänä vuonna se on ollut mukanani sekä Curacaolla että Kreetalla. 'Magic wire' on nimitykseni tälle 41 metrin langanpätkälle. Vuosien kuluessa olen ajanut sillä kymmeniätuhansia kusoja sadan watin lähetysteholla. Syöttöjohtona minulla on noin 25 m pätkä foam koksia.

Seuraava vinkki menee otsikkoteeman ohi mutta lienee kertomisen arvoinen:

Japanilainen RADIX valmistaa erittäin kevyitä retkiantenneja. 3-5 kiloa painavat ja noin puolitoista metriä pitkään laatik-koon pakatut HF-biimit saa kasaan nerok-kaan rakenteen vuoksi jopa ilman työkaluja ja metrimittaa muutamassa minuutissa (siipimutterit). Näitä myydään vain Japanissa ja siksi olen joutunut turvautumaan sikäläisiin ystäviini niiden hankinnassa.

Antennit eivät ole pysyvään asennukseen sopivia ilman puomin vahvistamista mutta muutaman päivän kilpailu- tai retkikäyttöön ne ovat erinomaisia.

Esimerkiksi 2002 minulla oli kolmielementtinen kympin RADIX muka-nani PJ4:ssä. Sain hotellista seitsemään metriin yltävät tikkaat mastoksi, jonka sidoin naruilla aitaan ja lopputuloksena oli yli 3000 kusoja CQ WW:n fonessa sadan watin luokassa. Antenni ei tietenkään kulkenut käsimatkatavaroissa vaan lentokoneen ruumassa. Azoreilta olen workkinut saman tehtaan 3-el/15 m biimillä.

TURVATARKASTUS. Edellä kuvatun laitevalikoiman kanssa on syytä varautua laukun sisällön tutkimiseen lentokenttien turvatarkastuksissa. Joskus tarkastajat haluavat uudelleen ajaa koneesta läpi radion ja joskus taas antennivaijeri on kiinnostuksen kohteena. Aina kaikki on sujunut nopeasti ja korrektisti – hatunnos-toni tarkastajille.

TULLI. Aikaisemmin minulla oli matkoilla mukanani tullissa leimattu lista, jossa oli luettelo laukussani olevista laitteista sar-janumeroineen. Joskus hankin leiman menomatkalla mutta sittemmin kävin jo ennen matkan alkua tullissa leimaa hakemassa laitteiden kanssa. Nyt asian voi hoitaa verkon kautta sähköisesti.

Ennakkosuunnittelu on radioiden kanssa matkalle lähdettäessä avainasia. En koskaan lähde liikkeelle ilman, että en olisi testannut ennen pakkaamista laittei-deni toimintaa. Erityisesti kaapeleiden liit-timien kanssa on oltava tarkkana. Iso rulla sähkömiehen teippiä sekä muutama kymmenen metriä ohutta narua kuuluvat myös vakiovarustuksiin. En liene edellä kertonut jo matkoilla olleille mitään uutta. Toivottavasti juttuni antaa kuitenkin jotain suunnittelun suuntaa ensi reissuaan pohtiville.

Kokemuksia OH-kilpailujen järjestämisestä – Kalakukko 2007

Jari, OH2BU/OH7RF

Pohjois-Karjalan Radiokerho ry, OH7AB, hallitus

Esitän, että:

1) OH7AB järjestää vuoden 2007 Kalakukkokilpailun ammattimaisesti ”korkealla profiililla”, läpinäkyvästi, oikeudenmukaisesti ja rehellisesti.

2) Kilpailua markkinoidaan erityisesti RA-lehdessä ja postituslistoilla. Markkinointiin käytetään muitakin keinoja, mm. kutsutaan henkilökohtaisilla kirjeillä kilpailijoita mukaan.

Kilpailun markkinoinnin edistämiseksi arvotaan myös tavarapalkintoja.

3) Kilpailun säännöt pidetään pääosin perinteisinä, mutta niihin tehdään pieniä tarkennuksia:

- kilpaileminen tehdään helpoksi ja hauskaksi, ilman turhaa ”nipottamista”;
- tulosten valmistuttua julkistetaan ns. ennakko-tulokset ja 3 viikon valitusajan jälkeen lopulliset tulokset. Tänä aikana kilpailijat voivat vaatia oikaisua tuloksissa mahdollisesti oleviin virheisiin. Myös näin varmistetaan kilpailun tulosten oikeudenmukaisuus.

4) Lokien lähettämiseen kannustetaan mm. ”karhuamalla” ja lähettämällä kaikille osanottajille muistutukset palautusajasta.

5) Paperilokit muutetaan välittömästi niiden saavuttua sähköiseen muotoon ja lähetetään kilpailijalle tarkistusta varten luettavaksi.

6) Kilpailun (ennakko)tulokset julkistetaan mahdollisimman nopeasti. Tämä tarkoittaa hyvin valmisteltua ja tarkistettua tulosten laskemista ..

7) Kaikkien kilpailijoiden lokit julkistetaan ennakkotulosten yhteydessä OH7AB:n kotisivulla. Näistä lokeissa on nähtävissä kaikki kusot, tehdyt virheet, mikä olisi ollut esim. oikea sanoma ja mikä on väärin saatu sanoma jne.

Lokien julkisuutta ei kerrota etukäteen vaan ne julkaistaan yllätyksenä kilpailijoille vasta ennakkotulosten yhteydessä. Tällä varmistetaan edelleen tulosten rehellisyys ja läpinäkyvyys sekä estetään selkeät suosimiset ja väärinkäytökset.

Olkon tavoitteemme: (NRAU-Baltic 2006 lokit)
<http://www.sk3bg.se/contest/res/r06nrau-ubn.htm>

8) Palkinnot postitetaan nopeasti tai annetaan viimeistään kesäleirin kilpailufoorumilla.

9) Nimitetään viiden hengen kilpailutoimikunta, joka vastaa kilpailun järjestämisestä sekä etsitään kerhon piiristä henkilöitä, jotka ovat valmiit auttamaan:

- paperilokien syöttämisessä,
- kilpailun tavarapalkintojen hankinnassa,
- lokien julkistamisessa OH7AB:n kotisivulla.

Pilvijärvellä 23.1.2007

Jari, OH7RF (OH2BU)



OH7AB:n hallitus vastasi tammikuiseen kirjeeseeni päivää myöhemmin ”Tahdon” ja nimesi toimikuntaan Tommin, OH7JJT; Masan, OH7MN; Jarin, OH7RF/OH2BU; Jarkon, OH7HKS ja Manun, OH7UE. Lisäksi kerhon jäsenistöstä monet ilmoittautuivat vapaaehtoisiksi työntekijöiksi. Näin alkoi Kalakukko 2007-kilpailun järjestäminen.

Sääntöjen kehittäminen

Toimikunta viimeisteli sääntöjä /1/, pyrkien sellaisiin, jotka olisivat esikuvana myös muille kotimaisille kilpailuille. Vanhat ns. kateellisuuspykälät poistettaisiin ja filosofia, että järjestäjä lähtökohtaisesti epäilee jokaisen kilpailijan petkuttavan, käännettäisiin luottamukseksi kilpailijoihin. Säännöistä tehtiin helpot ja luettavat. RTTY-osion järjestämisestä keskusteltiin pitkään mutta aika oli siihen kypsä vasta kaksi vuotta myöhemmin.

Kilpailu siirrettiin tarkoin harkiten toiselle pääsiäispäivälle eli maanantaille, koska silloin ei olisi muita kotimaisia (mm. Peruskilpailu) tai ulkomaisia kilpailuita, ja pääsiäismatkoille lähteneet olisivat ehtineet kotiin kilpailua workkimaan. Päätös oli onnistunut ja sai kiitosta. Kilpailun säännöt lähetettiin CCF:n lisäksi kommentoitavaksi Kuopioon ja Varkauteen, järjestämisvastuuhan kiersi silloin näiden kolmen kerhon kesken.

”Kalakukko 2007” -logo

Arto, OH7BD, esitti profiloitumiseksi omaa logoa – idea, joka otettiin kiitollisuudella vastaan.

Markkinointi

Säännöt saatiin maaliskuun Radioamatööri-lehteen **/2/**, hyvissä ajoin ennen kilpailua ja huhtikuun lehdessä **/3/**, - sopivasti ennen kilpailua - oli vielä muutaman palstan muistutus logoineen. Kilpailun brandauksen kannalta olisi ollut kiva saada logo lehden kanteen.

Kilpailua ja erityisesti palkintoarvontaa mainostettiin CCF-, OHDXF- ja Fin-Ham-sähköpostilistoilla **/4/**. Arvontapalkintojen määrän kasvusta lähetettiin erillinen sähköpostitus. Markkinointia auttoi myös CCF:n johdon viestit **/5/** listalla. Lisäksi lähetettiin omakutsulla sähköpostikutsu lähes kaikille niistä, jotka olivat osallistuneet viiden edellisen vuoden aikana joko Peruskilpailuun tai muihin kotimaisiin kilpailuihin.

Palkintojen kerääminen

Tavarapalkintojen kerääminen osoittautui lopulta pelättyä paljon helpommaksi. Lähes kaikki kotimaiset laitekauppiaat tulivat mukaan ja tiedon levitessä eräät jopa soittivat ja tarjosivat palkintoja. Tavarapalkintojen määrän tavoitteena oli 20, mutta lopulta niitä kertyi 53 kpl, yhteisarvoltaan noin 1.020 €! Käytännössä jokainen yhteydenotto – soitto tai sähköposti – antoi myöntävän vastauksen. Eräät jopa antoivat sillä ehdolla, ettei antajan nimeä näy tuloluettelossa.

Kilpailu tuli ja meni

Kilpailun alkaessa eniten perhosiä oli varmaan järjestäjillä. Vaikka huhut antoivat kertoa, että kilpailijoita olisi paljon, yllätti suosio jopa järjestäjät:

- SSB-osaan osallistui 122 asemaa
Pidettyjä yhteyksiä oli 10716.
- CW-osaan osallistui 69 asemaa.
Pidettyjä yhteyksiä oli 5504.

Pikaisen historia-analyysin mukaan kotimaiseen kilpailuun oli viimeksi osallistunut näin paljon asemia kevään 1985 Kalakukossa. Referenssinä todettakoon, että kevään 2010 Kalakukossa oli 55 SSB- ja 33 CW-lokia, vajaa puolet kolmen vuoden takaisesta.

Lokit saapuvat ...

Välittömästi kilpailun päätyttyä ne henkilöt, jotka osallistuisivat lokitalkoisiin tai tarkistuksiin, lähettivät kopiot lokeistaan OH7AB:n puheenjohtajalle. Näin haluttiin heti ampuja alas väitteet siitä, että tarkistajat voisivat vaikuttaa tuloksiin. Ensimmäiset lokit tulivat jo kilpailun aikana ja heti kilpailun jälkeen sähköpostilaatikon täytti kymmenkunta lokia. Lokien käsittely alkoi välittömästi. Lokeille tehtiin ”ulkoinen tarkistus” – päivämäärät, kellonajat, bandit ym. Mikäli joku tieto puuttui – esim. kilpailuluokka – lähetettiin välittömästi kysely sähköpostilla ja muutamissa tapauksissa soitettiin perään.

Kun loki oli syötetty tarkistusjärjestelmiin, lähetettiin jokaiselle kuittaus lokin saapumisesta **/6/**, kiitos osallistumisesta kilpailuun, ilmoitus montako yhteyttä lokeista löytyi sekä vastaava määrä ns. arvontalipukenumeroita. Jokainen vähintään kymmenen yhteyttä pitänyt sai 10 arvontalipuketta sekä jokaisesta viidestä lisäyhteydestä yhden lipukkeen lisää. Bonusta sai, kun osallistui sekä CW- että SSB-osaan. Jokaisella osatekijällä haluttiin kannustaa osallistumaan kilpailuun.

Kuittauksessa mainittu yhteyksien lukumäärä sai kaksi asemaa tarkistamaan lokinsa ja huomaamaan, että heiltä oli osa yhteyksiä jäänyt lähettämättä. Arvontalipukenumeroiden lähettämällä

saatiin kilpailija odottamaan ja ”jännittämään” tuloksia.

Lokien karhuamista

Tulleista lokeista ja niistä löytyneistä kutsuista pidettiin lähes reaaliaikaista listaa OH7AB:n kotisivulla. Tulleiden lokien listan pidetessä, lokinsa lähettämättömien lista vastaavasti lyheni ja paine lähettää loki kasvoi. Painetta kasvatettiin lähettämällä kilpailua seuranneella perjantaina sähköposti niille, joilta lokia ei vielä ollut tullut. Jos sähköpostiosoitetta ei ollut, soitettiin ao. henkilölle. Perjantai valittiin tarkoituksella ja vihjaten, että tulevana viikonloppuna olisi hyvää aikaa lähettää se loki. Lisäksi bulletiin 21.4.2007 saatiin muistutus palautusajan loppumisesta.

Kaksi päivää ennen palautusajan loppua lähetettiin sähköpostilla uusi muistutus. Ja vielä päivää palautusajan päättymisen jälkeen. Tulos:

- SSB-osassa vain seitsemältä asemalta ei saatu lokia ja vain tasan 100 yhteyttä jäi tarkistuksen ulkopuolelle. Lokeista löytyi peräti 99,1% pidetyistä yhteyksistä.

- CW-osassa vain kolmelta asemalta ei saatu lokia vain 66 yhteyttä jäi tarkistuksen ulkopuolelle. Lokeista löytyi 98,8% pidetyistä yhteyksistä.

Tarkistusohjelmista

Ennen kilpailua käytiin railakasta kirjeenvaihtoa ympäri maailmaa luotettavan tarkistusohjelman löytämiseksi. SM3-CER:n ohjelma oli paras löydetty, mutta siihen olisi pitänyt tehdä silloin muutoksia.

Riston, OH3UU, tarkistusohjelmasta olimme kuulleet paljon kritiikkiä ja arvostelua, mutta ”paremman puutteessa” päätimme käyttää sitä. Rehellisyyden nimissä – kun lopulta ymmärsimme ohjelman sielunelämän ja hyväksyimme eräät fiksaatiot - se toimi huomattavasti mainettaan parem-

min ja oli varsinainen työjuhta yhteyksien tarkistamisessa, vaikkakin vaati työtä lopullisten tulosten tarkistamisessa.

Etukäteiskritiikistä pelästyneinä syötimme lokit Riston ohjelman lisäksi vielä Excel-taulukko – käytimme siis kahta tarkistusjärjestelmää. Syöttämisen jälkeen tarkistimme, antoivatko kumpikin ohjelma saman tuloksen ja mikäli eroa oli, etsittiin syy ja korjattiin se. Yleensä syy oli jompaankumpaan järjestelmään soveltumaton ”blanco” tai tabulaattori tai vastaava. Näin jälkeensä arvioituna Excel-järjestelmä oli turha vaikkakin näppärä varmistus.

UuTestillä tehdyt lokit menivät sujahtaen järjestelmiin, Fintest-meni melko pienellä lisätyöllä kuten N1MM ym. ohjelmat. Word- ja Excel-lokit muutettiin *.txt –muotoon, sarakoitiin jne. Työläin ”sähköinen” loki oli käsin kirjoitettu loki, joka oli skannattu jpeg-muotoon ja lähetetty sähköpostin liitteenä. Lokien valmistelu vei keskimäärin 3-4 minuuttia per loki. Tämä kuuluu järjestäjän ”työvelvollisuuteen” ja filosofiaan, että kilpailija on asiakas ja asiakas on aina oikeassa.

Paperilokit

Joensuun tiimi:

Arto, OH7BD; Tommi, OH7JJT; Pepe, OH7FAE; Masa, OH7MN; Manu, OH7UE; Pekka, OH7GYN; Jarkko, OH7HKS; Alpo, OH7VL; Vili, OH7MJU; Eikka, OH7ER ja Masa, OH7MN;

syöttivät juoksevasti paperilokit sähköiseen muotoon UuTestillä. Useimmille paperilokin lähettäneille laitettiin postitse kopia lokista tarkistusta varten sekä tietenkin kiitokset ja arvontalipukenumerot.

Paperilokien syöttäminen sähköiseen muotoon kuuluu mielestämme myös järjestäjien ”työvelvollisuuteen”. Vuoden

2009 Kalakukossa automatisoimme tämänkin työn ns. "vastatarkistuslokilla."

"Vastatarkistus-" eli käänteinen loki

Olimme jo etukäteen päättäneet, että palautusaika on viitteellinen ja jokainen loki - tuli se kuinka myöhässä tahansa - otetaan huomioon, mikäli se ei hidasta lopullisten tulosten valmistumista. Ainoa loki jota emme hyväksyneet, tuli elokuun alussa, noin kolme kuukautta tulosten julkistamisen jälkeen Noin kymmenelle asemalle lähetimme ns. käänteisen lokin täydennettäväksi **/7/** ja vahvistettavaksi.

Mikä on käänteinen loki? Kun muut ovat lähettäneet lokinsa, löytyy niistä yhteydet myös niistä asemista, jotka eivät lokia ole lähettäneet. Keräsimme nämä yhteydet, vaihdoimme sarakkeet keskenään ja pyysimme asemaa täydentämään siitä mahdollisesti puuttuvat yhteydet ja muilta osin vahvistamaan tai korjaamaan lokin. Näppärää, eikö totta? Kymmenelle lähetetylle käänteiselle lokille saimme kahdeksan vahvistusta!

Vuoden 2009 Kalakukossa sovelsimme käänteistä lokia paperilokien käsittelyyn. Kun paperiloki tuli, meillä oli siitä jo tämä käänteinen loki, täydensimme siihen muutaman puuttuvan yhteyden jne ja hallelujaa! Jos paperilokin syöttämiseen aiemmin kului 30-45 minuuttia, nyt teimme sen viidessä minuutissa, koska suurin osa tiedoista oli jo tullut muiden lähettämistä sähköisistä lokeista! Miksi paperilokit eivät siis jatkossakin kelpaisi?

Tulokset valmistuvat

Koska jokainen loki oli syötetty järjestelmään heti sen tultua, oli meillä reaaliaikainen tulos joka hetki käytettävissä samoin se löytyi OH7AB:n sivulta **/8/**. Viimeisiä paperilokeja odotettiin keskiviikkolilapäivään ja viimeisen lokin tultua olivat tulokset valmiina puoli tuntia sen jälkeen.

Käytimme kuitenkin vielä päivän tupla- ja tripletarkistukseen.

Tulokset – tai paremminkin ennakkotulokset SSB ja CW – sähköpostilistoille sekä tietenkin OH7AB:n kotisivulle perjantaina, neljäntenä päivänä viimeisestä palautuspäivästä. Samoin 3. tason erittelyt. Pelkkiä tuloksia ei julkistettu vaan mukaan liitettiin järjestäjien parin sivun mittainen luonnehdinta kilpailusta, olosuhteista ja lokien tarkastuksesta – mistä saimme erityisiä kiitoksia!

Myös SRAL:n bulletiniin 28.4.2007 lähetettiin kärjen tulokset, mutta bulletinin lukija harmiksemme hyppäsi niiden yli todeten: "Mitä tällaisia lukemaan, kai ne sieltä netistä löytyvät?" Kisojen luonnehdinta ja tulokset eivät myöskään koskaan saavuttaneet RA:n palstoja.

Seuraavana päivänä jokaiselle osallistujalle lähetettiin henkilökohtainen sähköposti **/9/**, jossa ao. kilpailun luonnehdinnan ja kolmannen tason tulosten lisäksi oli hänen henkilökohtainen tarkastusraporttinsa.

Tulosluetteloita tehtiin kolmea eri tasoa: 1. tasossa oli pelkät loppupisteet **/10/**, 2. tasossa mukana oli kertoimet **/11/** ja 3. tasossa **/12/** osallistujien virheet oli luokiteltu virheluokittain esim. "virhe vastaanotetussa sanomassa", virhe lähetetyssä sanomassa" jne. Lisäksi jokaiselle asemalle laskettiin henkilökohtainen virhe-%.

Julkiset lokit ja tarkastusraportit

Yllätyksenä kilpailijoille mutta alkuperäisen suunnitelman mukaisesti kaikki lokit, paitsi tarkistuslokit, julkistettiin OH7AB:n kotisivulla. Läpinäkyvyys, tulosten oikeellisuus ja oikeudenmukaisuus haluttiin tälläkin tuoda vahvasti esiin. Paras voitakoon. Mutta rehellisesti.

Tarkastusraportissa /13/ on jokaisen yhteyden kohdalle merkitty ”Yhteys virheetön,” jos yhteys oli ”OK”. Jos sanoman vaihdossa, kutsuissa tai jossakin muussa kohtaa oli virhettä, kerrottiin myös mikä oli virheen syy ja mikä olisi ollut se oikea sanoma tai kutsu. Tarkistusraportin lopussa on vielä yksilöity ”tuloslaskelma”! Kaikki tarkistusraportit löytyvät edelleen OH7AB:n sivujen kautta.

Ymmärtäväinen tarkastaminen

Järjestelytoimikunta osoitti empaattista ymmärrystä ja korjasi automaattisesti lokeissa olleet karkeat syöttövirheet esim. väärät kellonajat (SA/UTC) sekä numeron ”0” kirjoittamisen kirjaimen ”O” sijasta. Kahdessa tapauksessa korjattiin lokissa ollutta sanomasarjaa, koska annettu numero heitti yhdellä tai kahdella koko lokissa verrattuna vasta-asemien saamaan numeroon. Selkeä lokin kirjoitus- tai syöttövirhe, jonka ei kuitenkaan tule antaa pilata tai dismotivoida keneltäkään hyvää kilpailua.

Kilpailun säännöissä oli ensi kertaa käytössä ns. viiden yhteyden raja – aiemman kymmenen sijasta - eli aseman tuli löytyä vähintään viidestä lokista kelvataksaan pisteisiin. Raja oli ehdottoman oikeaan osunut. Rajan alle jäi vain neljä varmasti tunnistettua asemaa.

Tavarapalkintojen arvonta

Tavarapalkinnot arvottiin seuraavan viikon keskiviikkona OH7AB:n kerhoillassa, Petrin, OH7FAE, tekemällä arvontaohjelmalla. Arvonnasta kerrottiin sähköpostilistoilla ja kaikille palkinnon voittaneille lähetettiin seuraavana päivänä sähköposti onnitteluihin /14/ ja kerrottiin alustavasti, miten ja koska palkinto toimitetaan.

Pienet palkinnot postitettiin lähes välittömästi, suurimpien kanssa jouduttiin odot-

tamaan sopivaa ”Ham Express”- kuljetusta tai kesäleiriä.

Kahden viikon ”reklamaatioajan” kuluessa tuli kolme kyselyä, joista kaksi oli selvennyspyyntöä tarkistusraporttiin. Kolmas yhteydenotto oli aiheellinen; Tarkistusohjelmassa oleva bugi antoi ihan ensimmäisenä syötettyyn yhteyteen väärät pisteet. Tulosjärjestykseen 5 pisteen bugi ei vaikuttanut.

Kerhon yhteisprojekti

Kerhon – OH7AB – kannalta kilpailun järjestämisellä oli kerhon henkeä ja ”Ham Spiritiä” vahvistava vaikutus. Oli yhteinen tekemisen kohde, syy tulla kerhoiltaan ja ponnistaa muiden mukana. Jokainen auttava käsi tiesi olevansa mukana tekemässä jotakin, josta puhuttaisiin vielä pitkään. Kuten Pile-Up -lehdessä kolme vuotta myöhemmin.... Kerhon talouden kannalta kisan järjestäminen ei välttämättä ollut antoisaa. Kerhon kassasta kilpailu vei noin 400 euroa, jonka lisäksi mukana olleet pulittivat varmaan saman verran omista lompakoistaan. Palkintojen postitus, kunniakirjat ym. veivät kaikki osansa. Työtunteja on turha laskea tämän tasoisesta projektista, jossa tavoitteena oli 100 %:n laatu ja 100 %:n asiakkaiden – osallistujien – tyytyväisyys. Työtunteja, aamuun valvottuja öitä ja Excelin söpellystä oli arviolta 250-300 tuntia.

Sydämellinen kiitos kaikille kilpailun sponsoreille, tavarapalkintojen lahjoittajille ja erityisesti OH7AB:n tiimille. Erityiskiitos Jussille, OH7FQQ, kerhon kilpailusivujen virittämisestä Pile-Up'ia varten huippukuntoon. Ja kiitos kaikille osanottajille, jotka tekivät kilpailusta onnistuneen.

SoapBox

SoMMooRo!
Kerron mitä mieltä olen kaikesta tästä.
Lyhyesti UPEAA! ...
Ape, OH3TM

Lisää kommentteja viitteessä /15/.

Viitteet/lisämateriaali:

/1/ Säännöt

http://oh7ab.fi/kilpailut/Kalakukko%202007/kalakukko2007_s.htm

/2/ Kilpailukutsu RA-lehdessä 3/2007

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_2.pdf

/3/ Muistutus RA-lehdessä 4/2007

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_3.pdf

/4/, /5/ Markkinointia sähköpostilistoilla

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_4.pdf

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_5.pdf

/6/ Lokin vastaanottokuittaus

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_6.pdf

/7/ Tarkistuslokipyyntö

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_7.pdf

/8/ Reaaliaikainen tulospalvelu

<http://lists.contesting.com/pipermail/ccf/2007-April/006084.html>

/9/ Tulokset ja tarkastusraportti

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_9.pdf

/10/, /11/, /12/ Tuloslueletot tasot 1, 2 ja 3

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_10.pdf

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_11.pdf

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_12.pdf

/13/ Tarkastusraportti OH1WZ

<http://oh7ab.fi/kilpailut/Kalakukko%202007/logit/cw/OH1WZ%20CW.pdf>

/14/ Onnittelukirje arvonnassa voittaneelle

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_14.pdf

15/ SoapBox kommentteja

http://www.helsinki.fi/~korpela/PU/Audio/kk_2007_15.pdf

Low cost vertical!

Do you see a pile of soda cans in the picture on the right?

I see a section of a vertical antenna.

Next time you enjoy your beer or soda, don't throw away or return the empty cans for recycling. Make a DX use of 'em. I got this idea recently while sitting on the couch watching TV and enjoying a can of beer. The next day after work I rushed to put together a quick prototype to verify the feasibility.

Drill two holes in the bottom of a can and use a long enough (magnetic) screwdriver to install self tapping sheetmetal screws from inside the top can. Even one screw per joint actually gives a very sturdy construction but I'd make it with two. Try it and you will be surprised. Remove some of the opening tabs carefully and use them as guy wire attachment points (see Photo 2). For permanent installations you might want to use stainless screws.

Paint to your favourite or camouflage color. Or just leave it as it is. Some brands are nice and green to go along with the Flora in your garden.

Low cost? You bet. You would buy that beer anyway. Does it work? Of course, it is aluminum. (Field tests to be performed later).

This is no joke. Have fun building! Warning: do not prepare too much antenna material at a time. 73 OH7WV.



PileUP! esittelee CCF ry:n hallituksen jäseniä – **Introducing the CCF board**

Jussi-Pekka Sampola, ... OH6RX
 Mikko Pöyhönen, OH4XX
 Kari Hirvonen, OH2BP
 Patrik Willför, OH6GDX
 Janne Karresuo, OH6LBW



President J-P, OH6RX @ B1Z.



Secretary, Janne, OH6LBW @ OH6M. (OH6AH archives)



Vice President Kari, OH2BP is well known to the JA hams since February 2010.



Treasurer Mikko, OH4XX @ CCF meeting 2008 (by OH1ZE)

Olemus CCF hallituksessa? **Your role in the CCF board?**

OH6RX: Dear Contester, This is my third season (A season in CCF goes on two years batches) in BOD – I joined the BOD so that I would have chance to participate & affect OH-contesting activity and future in a positive way. Due to my business life commitments, my performance has been lousy recently, even if we made our first abroad CCF Riga contest happening, which I have heard was a success? Maybe I wasn't so good as MC due to too much Jetlag, but at least we made an ES-LY-YL get-together possible after 50 years. I hope this helped Baltic contesters to tide up good relationships with each other and also between fellow contesters from Scandinavia.

OH6LBW: Putosi sihteerin pallille pakon sanelemana ehtona. Yrittää hoitaa leiviskänsä niin hyvin kuin mahdollista.

OH2BP: I represent the third contesting mode beyond SSB and CW. I have some experience of RTTY since the early seventies with a back-up logbook of 250K RTTY Contest Qs. I am the regional

Ombudsman of SARTG (Scandinavian RTTY Contesters organization).

OH4XX: This is my 3rd season on CCF board and also the 3rd season as CCF treasurer. I have also been quite actively updating the CCF web pages with events as well as domestic contest rules.

Tavoitteita ja kehitysajatuksia kontes-titoiminnassa? Your objectives and development ideas in contesting?

OH6RX: At this stage, I don't have any big goals or development programs, I just want to keep my operating skills at least on the same level at which I'm today, and operate national and world-class contests among friends – recently this means in my case OH6-cottage handicap-operations and world-class M/M from EA8 – Thanks to Pekka & Taina. I hope we did it?

OH6LBW: Tavoitteiden asettaminen ol-koot maltillista ja reaalista. Isommissa ki-soissa (48H) ne tavoitteet ovat yleensä siellä top 10-15 sakissa tämän maanosan tuloksissa ajettavalla bandilla ja luokassa. Sitten tulevat toki muutamat tunnetut 24 tunnin rypistykset, joissa se top 6 porukka on alin mahdollinen tavoite. Kisoissahan ei ole kuin voitettavaa. Mutta kaikessa olkoon realiteetti matkassa. Kehittämi-nen... Jaa a. Tehtäköön porukalla kil-pailutoiminnan eteenpäin viemiseksi töitä niiden asioiden kohdalla, missä on teh-tävää. Joukossa olkoon voima jätän yk-sittäiset sooloilut kilpailujen osalle. Kehit-täminen tapahtukoon porukassa.

OH2BP: Rules are not anymore up to date. I've put forward some new aspects, like letting go the redundant 599 RST, reshaping the QSO point calculation to be based on the true distance calculated by QRA locator as a part of the message, as opposed to the current system based on the geographical continental borders. Just to mention a few fair solutions.

OH4XX: Hopefully manage to get my home station finished so that I can contest from there with full swing. I do enjoy multi operations due to its more so-cial nature and on the other hand they would be good to train newcomers in hardcore contesting.

Operointiperiaatteista? Principles of operating?

OH6RX: Hard work will pay the bill – valid in business life and in Contests! Never give up.

OH6LBW: Periksi ei anneta, kuvia ei ku-marreta, keskitytään vain siihen mikä on itsestä on tällä hetkellä hauskaa. Nyt se on kilpaileminen singleband 40-luokassa kilpailukykyisellä kalustolla. Setä tunne-taan kisoissa myös hieman kuumakalle-maisesta luonteestaan, josta löytyy erinä-köisiäkin todisteita OH6M:n porukan kes-kuudesta. Kilpailujen tiimellyksessä tämä nousee esiin melko usein :-).

OH4XX: The first and most important objective is that I enjoy it. I like to get pile up going and log fast and keep errors at a minimum. You won't hear me running any contest in the 160 QRP class.

Tulevaisuudesta How do you see the future?

OH6RX: Who knows? The crystal ball shows te rest. Some plans but I'm now focusing on living my life. It would be nice to really focus on full-time contesting and kick others' asses! I had to resign from my opportunity to be a WRTC2010 referee, due to uncertainties related to my presence in Europe/Moscow.

OH6LBW: Jalat maassa.

OH2BP: In order to keep old faithful aging operators involved and to encourage new OT operators it might be useful to have 8

h of work & 8 h of rest periods as a new category of a half serious and more comfortable way of taking part. Maybe QRP & Field Day operators would need something fitting for their needs.

OH4XX: I'm probably going to retire from the CCF board after this year, but am going to be active in DX and domestic contest as other commitments permit.

Millä kutsuilla ja mistä olet work-kinutt? Callsigns you've used?

OH6RX: I have had the chance to be part and one of the operators in the following operations: AO8A, B1Z EB8AH, OG6K, OH0V/K... Who knows if P5 is next? At least my home is in HL1 these days.

OH6LBW: Viimeisen viiden vuoden aikana olen ollut kisoissa aktiivinen lähinnä OH6M kutsulla. Tosin pari OH2HQ-operaattiotakin mahtuu mukaan ajamieni kilpailujen kirjoon. 16-18 vuotta sitten myös privaattikutsuni OH6LBW oli jollain tavalla aktiivinen kisoissa.

OH4XX: I started at OH7AAC in 1992, after that I have been mostly operating at OH7M with a couple of visits to OH0A, OH7AA, OH4A, CT9L, and OH0Z.

Yhteystiedot / Contact-info

Jussi-Pekka Sampola, OH6RX
+358- 40-8371232

Janne Karresuo, OH6LBW
+358-50-591 7983
e-mail: mainosforce@netikka.fi
www.mainosforce.fi

Kari Hirvonen, OH2BP
+358-50-68800
www.alpha.fi/oh2bp

Mikko Pöyhönen, OH4XX
oh4xx@sral.fi

K.S. Sainion muistokilpailu

16.5.2010 tunti
SSB-, CW- ja RTTY-modeilla
alkaen kello 10 SA.

Kts. contestclubfinland.com.

Kisaisäntä Tomi, OH6EI.

Nuoret Kalakukkokisassa

Tulimme muutaman nuoren kanssa kokeilemaan Kalakukkokisaa, kun sellainen sattui sopivasti samaksi päiväksi, jolloin oli muutenkin tarkoitus osallistua peruskilpailuun. Emme kisailleet "verissä päin", vaan nautimme siitä, että saimme mukavasti kusoja eri puolille Suomea. 80 m antoi workittavaa sopivasti, haukottelemaan ei ehtinyt. 40 m ei antanut yhtään kusoa, kun siellä ei OH-asemia kuulunut. Kaiken kaikkiaan yhtä mukava kisanan siitä tuli kuin peruskisastakin. Tästä on hyvä ponnistaa varsinaiseen kilpailuluokkaan, jos kilpailukärpänen sattuisi kunnolla puraisemaan. Kuullaan kotimaan kisoissa!

73 Jukka OH2BR ja muutama nuori hami

Course on editing journals 100€

And you learn how to fill empty spaces.

NEWS AND STUFF

LETTERS FROM READERS

The best low-budget-contest tip is, don't build your own station. Most of the best testers in the world do not have their own station, instead they go guest operating.

Try to get in contact with an active contest club or station owner and try to get a time slot in some minor contest, preferably a sprint contest (EU Sprint, NRAU, Månadstesten) which does not require 48-hour support from the station owner.

Show interest in helping out at the station, and by time you will be awarded with time in the hot seat in a major contest.

BR, SM3SGP

New theory on Stellulite

Sokorro, New Meksico. May 2, 2010. (Foxtrot News). Astronomers at the VLA have made a quantum-leap discovery, which brings mankind closer to a solution for a problem that has tormented us since the introduction of plastic surgery. Dr. Ralph E. Crofthill explains: "For years, we have been making interferometric observations, which have exposed a large number of employees to cosmic rays – I have witnessed the drastic effects in our female staff. It has to be some form of interstellar matter – in our report we call it Stellulite. We are currently searching for the antistubstance in collaboration with the CERN laboratory".

MORE LETTERS FROM READERS

Howdy PileUP! readers!

It's **Bill** here again. Thanks for the response in PU! 1/09 to our DXCC-inquiry. Me and the boys at the Mud River ARC have been reading your fantastic contest journal with huge pleasure. And I am so pleased to announce that we are into contesting too. The biggest thrill was that we realized that to do it, we need the antennas, a radio and a PC for logging the Qs. We even got ourselves the latest logging software by ThinTest. All this was fabulous, but I have to tell you that we missed the whole of ARRL DX contest because we couldn't get the darn box to log anything. It just kept saying "press any key", and we did not find the "Any" key anywhere. The one resembling "Any" was "Alt, should we use that? And while we are at it, do you know why our password is always asterisk, asterisk....?"

ANNOUNCING A CONTEST

The 2010 Australian Shires Contest

Held the "second" full weekend of June every year. <http://www.vkshires.info>

Starts: 06.00 UTC Sat, June 12, 2009
Ends: 06.00 UTC Sun, June 13, 2009

Objectives: The objectives of this contest are for amateurs around the world to contact as many VK shires as possible in the contest period. The rest of the world can only work VK.

Bands:

3.500 - 3.700 MHz

7.000 - 7.250 MHz

14.000 - 14.250 MHz

21.000 - 21.350 MHz

28.000 - 28.600 MHz

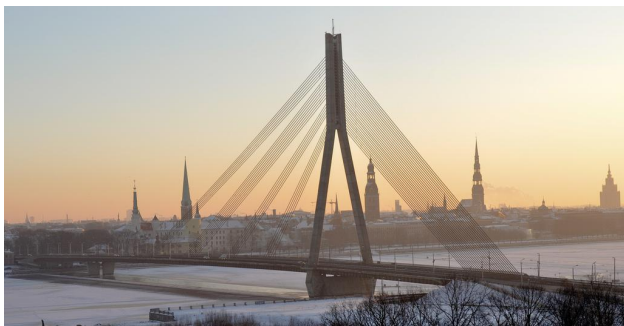
Modes:

SSB and CW

MORE NEWS AND STUFF

CCF's Riga meeting was a great success

The presentations by YL2GD, LY9Y, ES5TV, OH1RX, SM6LRR, OK1DIG, OH2BP, and YL2KF are available at contestclubfinland.com as well as links to photos by paparazzis YL2KF and IZ4AKS. Thanks to all who made the event possible and to the organizers of the first ever CCF RTTY Contesting School. Looking forward to the January 2011 event.



Riga sunrise by IZ4AKS.



Top SARTG RTTY Contesters: OH2BP Kari; YL2KF Vilnis; YL7A Yuris (YL2GM); and OK1DIG Daniel (OL6X)

SAC SSB in October?

www.qrq.se/sac/ says "SSB 9.–10.10.2010, 1200 – 1200 UTC".

Rumours also say that the SMs will probably not be that competitive this year because of the national hangover that will follow the royal wedding in the summer. Maybe this is why the SSB part is moved to a later date?

May 8, 2009 -- Solar Cycle 24 Prediction Update

The Solar Cycle 24 Prediction Panel has reached a consensus decision on the prediction of the next solar cycle (Cycle 24). First, the panel has agreed that solar minimum occurred in December, 2008. This still qualifies as a prediction since the smoothed sunspot number is only valid through September, 2008. The panel has decided that the next solar cycle will be below average in intensity, with a maximum sunspot number of 90. Given the predicted date of solar minimum and the predicted maximum intensity, solar maximum is now expected to occur in May, 2013. Note, this is a consensus opinion, not a unanimous decision. A supermajority of the panel did agree to this prediction. NOAA SWPC.

Surffaaja testaa.

Kylläpä oli hyvät kotisivut kerholla.
Vilkase: www.oh7ab.fi

**Air Bubbled
3-500Z tubes
100€**

This could be an ad if PileUP!
had them.

STUFF



The look on OH1WZ's face says it all when he was wakened up by OH6LI during WPX SSB to work the Qs. "Yes Sir, we are ready and fresh! No porridge needed – I'm hungry to run JAs on 15 for breakfast" (OH6LI)



Kim, OH6KZP of the OG7X operation doing the pre-contest strategy session (OH6LI).

LATEST NEWS FROM THE DX SUMMIT DESK OF RADIO ARCALA

<http://www.radioarcala.com>

A small group of people noticed the soft launch of the first in a series of two-way communications with the renowned DX Summit of OH8X, allowing masses of people to specify their desired information out of the DX data flow after registration. As it was expected that the system might face some kind of a bottleneck, given a sudden surge of traffic, a total of 500 users were taken onboard in the first wave. This number of users came in just a moment after the service was opened. The soft launch was successful and now at 1000 UTC, May 15, 2010 on the hour of the Dayton DX Dinner the function will be opened for an unlimited number of users – welcome on board at www.dxsummit.fi

Now that we have the needed platform and capacity, we will be seeking new application ideas. Please note that there is a new discussion forum at the above address thrashing out and seeking new application ideas – this forum is monitored by the software folks of Radio Arcala.

NEWS OF RADIO ARCALA'S EXTENDED MEMBERSHIP

While radio contesting represents the spearhead of Radio Arcala activities as a show case of another “Extreme Sport”, their innovation base runs much deeper. It includes bringing Amateur Radio into the Internet in a new way but also bringing the Internet into the core of Amateur Radio with the aim of revitalizing Amateur Radio among today's youth. Also the sights are set on remote control technology which represents a welcome option for new communities to establish a remotely controlled station. Radio Arcala's three locations are now remotely operable by their membership. They are busy partnering with those entities that can handle and productize needed components for a remote system; see OM Power Internet controlled amplifiers as well as Microbit remotely controlled radio devices at www.om-power.com

Radio Arcala is pleased to have seven gentlemen and fine operators to boost Radio Arcala's several innovation ideas and radio competitions as well as their presence in the IARU community as well as in Azores, USA, Japan, Germany and Sweden respectively.



Hans Blondeel Timmerman, **PB2T** is joining RA in their mission of revitalizing Amateur Radio with a youth dimension. Hans is President of IARU Region I and President of EUDXF - not stranger of operating radio in a heat of competition.



Mike Styrefors, **SM2O** as an expert of IP controlled radios and accessory applications. Mike is developer of natural taste and straight driven radio controllers with no PCs involved. Next in line is S/W driven radio and making two contest graded radios talk to each other over the world wide web; See <http://remoterig.com/>



Jose Melo, **CU2CE**, is the original founder and host of the CR2X/CU2A operations from the Azores. He is a 160M powerhouse and always ready for a good Top Band run but also an asset for making sure that the operator in motion feels

comfortable and can enjoy an uninterrupted run. Jose is busy with his bank's wealth management operations and rarely gets home for sunset openings.



Francisco Gil, CU2DX, knows how to get his own super-station up to satisfy his professional telecoms appetite, and you just cannot miss his huge 80M beam along the highway. Call Francisco and there will be an immediate solution to everything with a smile! Francisco likes contesting as it ties in well with his analytical approach. Now back on his island of origin, Francisco is in charge of real-estate development.



Carsten Esch, **DL6LAU** will bring RTTY activity to Radio Arcala, and both CR2X and OH8X will soon hit the digital front. Carsten is a multi-talented contester and seasoned visitor to the North and resonates well with the harsh life and frozen landscapes of the Far North.



Jeff Steinman, **N5TJ**, three-time WRTC winner and current holder of both CW and SSB SOAB World Records will return now to the European scene. Jeff is a telecom professional, based in Texas but now working for a telecom company in Northern Europe.



Kazunori Watanabe, **JK3GAD** will activate OH8X in Asian-based contests, such as the All Asia and JDX contests, adding Japanese flavor to the OH8X signal and into the hearts of his countrymen and Japanese media. Kazu is a seasoned traveler and comes from the fine AH2R team.

Radio Arcala is pleased to have these people joining its ranks in many interesting endeavors.

IARU 2010 - pistetääkö porukalla paremmaksi?

Janne, OH6LBW

Honouring Stations with six or more QSOs with us (Stns with 12 QSOS in bold):

5B4AII, **9A0HQ**, 9A2TN, A71A, **A08HQ**, **CR5HQ**, CX1AA, **DA0HQ**, DD5A, DF1IAQ, DF6QV, DF7BL, DJ1AA, DJ2YA, DK2AT, DK3GI, DK4WF, DL0P, DL0SOP, DL1DXA, DL1NKS, DL1RYD, DL4CF, DL4JWU, DL5AYI, DL5DXS, DL5JS, DL5MEV, DL7GW, DL8UVG, DL9ZWC, DM3K, DM7MM, DR4A, E77R, **E7HQ**, EA8OM, EI0HQ, EM5HQ, ER3AU, ER7HQ, F6BEE, **GB7HQ**, GM0NBM, H2Q, HA1Q, HA1TNX, HA5BKV/P, HA5OAF, HB9HQ, HE8CIC, **HC0HQ**, HG1S, HG1W, HIG6N, IK3XP, IO4T, IR3Z, IR4E, IU4HQ, IZ3ENH, LN2HQ, LN9Z, LR4D, **LX0HQ**, **LY0HQ**, LZ3FN, LZ7HQ, LZ9R, M0RTI, MD0CCE, MM0DXH, **OE1A**, OG1M, OG6N, **OH1MA**, OH1XY, OH5KW, **OH6MW**, OH6RX, OK1JOC, OK1OUE, OK2KG, OK3C, OK5MN, OK6Y, OK7RJ, OL7T, **OL9HQ**, OM0A, OM3YCA, **OP0HQ**, OR2A, OT5P, OZ1HQ, P33W, PA6HQ, PA6OI, RA3CO, RA3NC, RA3UT, RG6G, RG9A, RK3DH, RK3DZB, RK3GYM, RK4FWX, RK9CWW, RM3Q, RS3A, RT3T, RU3SE, RX3AEX, **S50HQ**, S59AA, SK7OA, SK9HQ, SM6FUD, **SN0HQ**, SN1I, SO5A, SO8T, SP1KRF, SP2GWH, SP5EOT, SP7MC, SP9RQH, SX0HQ, TM0HQ, UA4RZ, UA6LP, UA6LV, UA9WIK, UN1HQ, UR7EQ, UR7EY, UR7GO, US3IZ, US5D, UT0EA, UT2UZ, UT4XU, UU4JXM, UU5WW, UW4E, UW5Q, UZ2M, **YL4HQ**, YO2MAX, YO4KCC, YO4RST, YO5AIR, YO5OAG, **YR0HQ**, YR8A, **YT0HQ**, YT1T, YT1UM, YT2AAA, YT3M, YT3R, YT5M, Z30HQ, ZW5HQ.

10180 QSOS

410 MULTIPLIERS

13,851,440 POINTS

and...

a lot of FUN!

OH2HQ



IARU HF Championship 2009 • HQ • SRAL

Heinäkuun 10.–11. 2010 koittaa jälleen aika, jolloin on mahdollista päästä nauttimaan vauhdin hurmasta paikallaan istuen, vaikka pienemmältäkin asemalta. Nimittäin on jälleen aika IARU HF kisan. Vaikka tähän onkin vielä runsaasti aikaa, niin alan jo tässä vaiheessa peräänkuuluttamaan asemia mukaan operaatioon. **Viime vuoden tiimille annan ison kiitoksen vielä näin jälkikäteen ja julkisesti. Pojat!- Teitte mahtavaa työtä.** Tasaväkinen tiimi oli suurin vahvuutemme ja kaiketi se suomalaisen sisukin jossain jylläsi. Sitä tarvittiin erityisesti, koska appelsiinin pinnalta oli turha etsiä pilkkuja. Mukavia avauksia toki saatiin kympillä, viidellätoista ja kahdellakymppilläkin.

Viimeksi tiimi saatiin kokoon vajaassa kahdessa viikossa, jolloin tavoitteiden asettaminen on suhteellisen hankalaa. Voimme olla hyvinkin tyytyväisiä siihen, että meillä oli asema äänessä jokaisella

bandilla ja modella sekä 19. sijaan HQ-asemien sarjassa, minkä saavutimme. Ehkä olisi ollut mahdollisuus poimia edestä 1-2 asemaa ja nousta hieman korkeammalle, ellei tekniikka olisi puuttanut peliin. Se olisi taasen vaatinut vähintään 1500 qsoa lisää, joten tiukalle olisi mennyt. Mutta spekuloinnit sikseen. Olisiko sillä parin sijan parannuksella ollut mitään suurempaa egoa kasvatavaa merkitystä. Ehkä olisi ehkä ei. Kisa on kisattu ja lopputulokset on melkein julkaistu. Kun URE:n protesti on käsitelty, niin sitten tulokset ovat viralliset. Ai niin meinasin unohtaa. Voittimme me SSA:n eli rakkaan länsinaapurimme liiton tässä skabassa.

Ettei homma menisi hätäseksi kuten viimeksi kävi, niin heitän jo nyt pallon teille arvon kontesterit. Eli ilmoittautumisia saa laittaa jo tulemaan (janne.karresuo@gmail.com) e-mailiosotteeseen. Kuviot ovat samat kuin

viimeksikin. 160 hoidetaan yhdellä asemalla. 80, 40, 20, 15 ja 10 kaksi asemaa/bandi. Toinen hoitaa CW:n ja toinen SSB:n. "Etuosto-oikeutta" käyttäen varaan 40:n CW:n jo OH6M:n asemalle :-). Muut jäävät vapaaksi riistaksi. Ohessa lista vielä **vapaina** olevista bandista ja modeista.

160 CW ja SSB

80 CW

80 SSB

40 CW OH6M, opr. OH6LBW

40 SSB

20 CW **OH5Z**

20 SSB

15 CW

15 SSB

10 CW

10 SSB

Eli ei muuta kuin ilmoittautumisia tulemaan. Tavoitteena ei ole tälläkään kertaa ajaa kisaa otsa rypyssä ja verisuonet päässä pullistuen vaan nautiskella kisaamisesta 24 tuntia. Jokainen tavallaan... Niinhän se parhaiten toimii.

IARU 2009 HQ-tulokset ennen Espanjan liiton, URE:n protestia koskien DA0HQ:ta

	Score	QSOT	Kertoimet
1. DA0HQ	25,508,500 C	26,131	500
2. AO8HQ	25,263,261 C	11,461	461
3. SN0HQ	23,403,215 C	19,899	505
4. OL9HQ	23,156,095 C	17,079	499
5. GB7HQ	22,657,658 C	15,738	479
6. TM0HQ	22,467,320 C	16,744	460
7. 9A0HQ	20,882,073 C	16,347	487
8. IUxHQ	20,732,266 C	16,453	482
9. S50HQ	18,396,669 C	14,107	489
10.E7HQ	17,867,024 C	14,536	469
11.YT0HQ	17,735,760 C	15,194	459
12.LY0HQ	17,420,838 C	12,950	463
13.YR0HQ	16,237,134 C	13,951	482
14.PA6HQ	15,909,894 C	11,634	429
15.HG0HQ	15,717,930 C	12,982	465
16.YL4HQ	15,520,960 C	11,502	455
17.OE1A	15,343,384 C	12,806	454
18.LX0HQ	14,422,980 C	10,956	410
19.OH2HQ	13,608,720 C	9,986	410
20.CR5HQ	13,499,660 C	9,955	404



DXer and contester Hannu, OH1XX pictured with his Xtal-TX from 1963.



The First Class CW Operators' Club

Dear Ilkka, OH1WZ

2 April, 2010

Improving HF DX operating behaviour

I am writing to raise a matter of increasing concern about the standard of on-the-air operating. A number of your members have, I'm sure, commented to you that there is now a serious problem with operating behaviour, especially when calling DX stations in pile-ups on the HF bands.

As President of the FOC, I and Randy, W6SJ, in partnership with leading DX operators, have decided to take initiative to encourage all DXers to work together to improve standards. To this end we have created the following simple DX Code of Conduct, which I would ask you to bring to the attention of your members. If we all pull together to improve standards then we will all be able to work more DX and have more fun on-the-air.

More information is available at the FOC website <http://www.g4foc.org/> and <http://www.on4ww.be/OperatingPracticeEnglish.html>

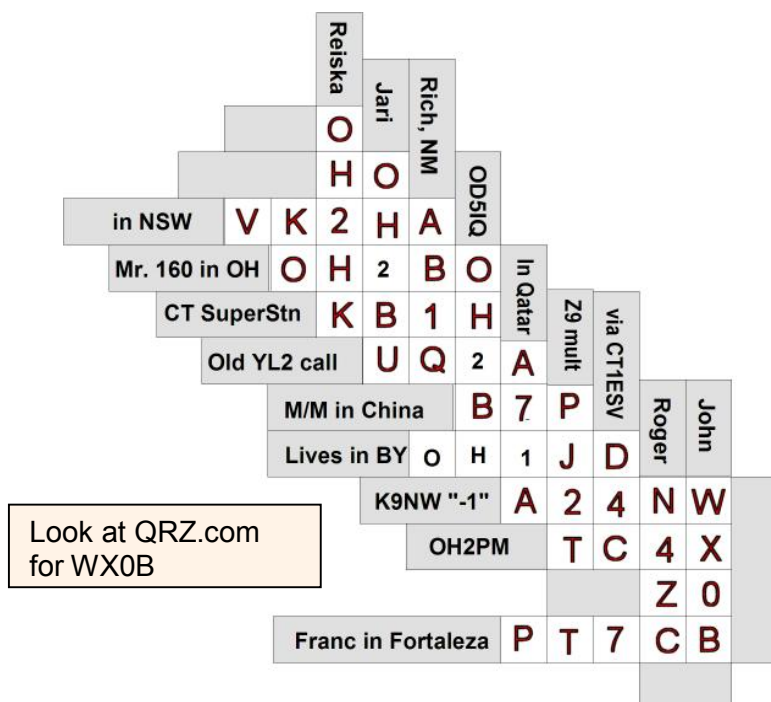
Thanks for your help and 73, Bob Whelan, G3PJT, President, FOC.

DX CODE OF CONDUCT

1. I WILL LISTEN, AND LISTEN, AND THEN LISTEN SOME MORE
2. I WILL ONLY CALL IF I CAN COPY THE DX STATION PROPERLY
3. I WILL NOT TRUST THE CLUSTER AND WILL BE SURE OF THE DX STATION'S CALL SIGN BEFORE CALLING
4. I WILL NOT INTERFERE WITH THE DX STATION NOR ANYONE CALLING HIM AND WILL NEVER TUNE UP ON THE DX FREQUENCY OR IN THE QSX SLOT
5. I WILL WAIT FOR THE DX STATION TO END A CONTACT BEFORE CALLING HIM
6. I WILL ALWAYS SEND MY FULL CALL SIGN
7. I WILL CALL AND THEN LISTEN FOR A REASONABLE INTERVAL. I WILL NOT CALL CONTINUOUSLY.
8. I WILL NOT TRANSMIT WHEN THE DX OPERATOR CALLS ANOTHER CALL SIGN, NOT MINE
9. I WILL NOT TRANSMIT WHEN THE DX OPERATOR QUERIES A CALL SIGN NOT LIKE MINE
10. I WILL NOT TRANSMIT WHEN THE DX STATION CALLS OTHER GEOGRAPHIC AREAS THAN MINE
11. WHEN THE DX OPERATOR CALLS ME, I WILL NOT REPEAT MY CALL SIGN UNLESS I THINK HE HAS COPIED IT INCORRECTLY
12. I WILL BE THANKFUL IF AND WHEN I DO MAKE A CONTACT
13. I WILL RESPECT MY FELLOW HAMS AND CONDUCT MYSELF SO AS TO EARN THEIR RESPECT.

FUN PAGE

CrossCall puzzle in Vol. 14(1).
The editorial office received 0 (right) answers.



Edellisessä PileUp!-ssa oli myös kaksi lukijakilpailua.

Tietävästi vastauksia, sen enempää oikeita kuin väärääkään, ei ole tullut. Toimitus päättää että joko lehteä ei lueta tai lukijat eivät vaan tiedä. Oikea vastaus kilpailuun yksi on Pertti, OH2PM. Kysyttiin kuka on isäntä mastossa. Toisessa kilpailutehtävässä kysyttiin kuka on renki mastossa ja kenen mastossa. Masto kuuluu WX0B:lle jossa renki OH7WV roikkuu. Palkintona olleet tiskivuorot jaetaan kaikkien varjoleirille osallistuvien kesken.

Reader Contest:

1. LDE stands for

- a) Los Dipolos Enormos
- b) Long Delayed Echo
- c) Local Data Error

2. Carl's (K9LA) family name is spelled?

- a) Lützelshcwaß
- b) Luetzelschwab
- c) Lutselswap

3. Which Contest will we all work on June 12-13?

- a) Australian Sires Contest
- b) Low-cost Residential Area Contest
- c) Australian Shires Contest

4. The next Nobel Prize is likely to go to the inventor of the Stellulite theory?

- a) Dr. Ralph E. Crofthill
- b) Dr. Ronald D. Softmill
- c) Dr. Donald B. HardCrofter

5. On what frequency was Son when Mr. Boss Old Timer caught him?

- a) 14 349 kHz
- b) 14 100 kHz
- c) 14 351 kHz

6. The WPX CW Contest is to be held on May 29-30. Rules name self-spotting under item IV. Is it ok to?

- a) Ask to be spotted Yes / No
- b) Beg to be spotted Yes / No
- c) Pay someone to spot you Yes / No

7. In life some 10 rules would suffice, but for DXing more are required. Since there are so many of them we can't remember them all. So, would you (select or answer YES/NO)

- a) Come to frequency with TX or RX on?
- b) Call the DX when you hear it through an internet SDR located half way between you and the DX, but not locally?
- c) Answer the DX when he comes back to "London Fox" as "London Socks" when your suffix is "Lima Sierra"?

8. True or false. Early, low-cost no-connector coaxial connections

- a) Were originally called Sovjection T / F
- b) by OH3BU T / F
- c) Have a loss of -0.4dB on 3699 kHz T / F
- d) Were actually invented 2 minutes after the coaxial was invented T / F

CCF-tavarapörssi / Flea Market

Myydään / For sale:

A used Marconi 27 kW amplifier to make room for the big one. Call +86 666 666, BY2S.

Looking for **amps, tubes or cables**? Why go elsewhere to be cheated. Come here first. JYS-MYY.com.

Now **3-5000Z tubes** for the best price. Stock up and save. Limit: one. Offer expires December 31 or while supplies last. JYS-MYY.com.

For QRP testers **Henry 5K classic amplifier**. Only used by a non-smoking old lady each Sunday after church service. Email to UP5LID@reality.tv.

Our good old dog **Sam**. We can't keep it anymore. Sam eats anything and is fond of children. tom@contesting.com.

One seater **helicopter**. Perfect for hoisting tower sections or antennas in limited space. Approval by the aviation authorities (pending since 1999). Runs a Brag&Stutter magnum engine. Email captain@innovation.crzy

Ostetaan / Want to buy:

Transformer on 100kW toroidal core. 9-phase 380VAC primary, 3 secondaries at 10kVAC / 5A each.
realtubeshavehandles@legallimit.com

Vuokrataan / For rent:

Contest QTH in 5Z4. Mt. Kilimanjaro, the breathtaking backdrop for the Serena Lodge. Swim in the lovely pool, while you drink it all in. The hotel has bowling alleys, tennis courts, comfortable beds, and other athletic facilities.
RentAShack@contesting.com

Työtä tarjolla / Job offers:

Is this your opportunity? KP4AO is looking for a **cleaner** with experience in the disposal of lifeless avifauna. Job #: 0007A.

Palveluja / Services:

Ammattiauttaja. **Korjaan kaikenlaiset radiot** puhelimitse. Soita Radiomeedio 07-696969. 10 euroa min + ppm

Tapahtumia / Events:

SRLA-ryhmäterapiaa Kakkosten klubilla Ti 30.5. klo 18:00 alkaen. Neurooseista ja luonnehäiriöistä väitellyt dosentti Esa-Pekka Porhonen aloittaa niistä, joilla on 335 maata kuitattuna. Kortteja ei tarvita, mutta tyttöystävät tai äidit ovat tervetulleita mukaan. Koko kesän jatkuvat Porhos-tilaisuudet on tarkoitettu kaikille, joilta on ilo kadonnut harrasteesta tai harraste on muodostunut ainoaksi elämäniloksi.

Commercial ad. The new MAGIC antenna gives you 17 dB gain on all bands 160–10 meters. No radials, no tune, no need to sweat. Only 15 minutes a day gives you the most admirable muscles the pile ups have ever seen.

See yourself the before and after pictures at www.scam.april1.com. In addition to this great device, the first 100 orders in May receive a hand written label pin with "ID10T" carved by a genuine wine bottle artist plus a complete dictionary of diet colas in CD.

Palautusosoite / Returns to:
CCF ry c/o
Mikko Pöyhönen
Niittymäentie 9
77630 LEMPYY

VASTAANOTTAJA, Addressee



Hearing is everything. **OH1XX's** K9AY loop with 2 x 110 kV + 3 x 20 kV lines in the background. **Hannu** was the first to work 300 countries on 160 m in OH and OH1XX is also in many contest log books too since 1963.