PileUP!

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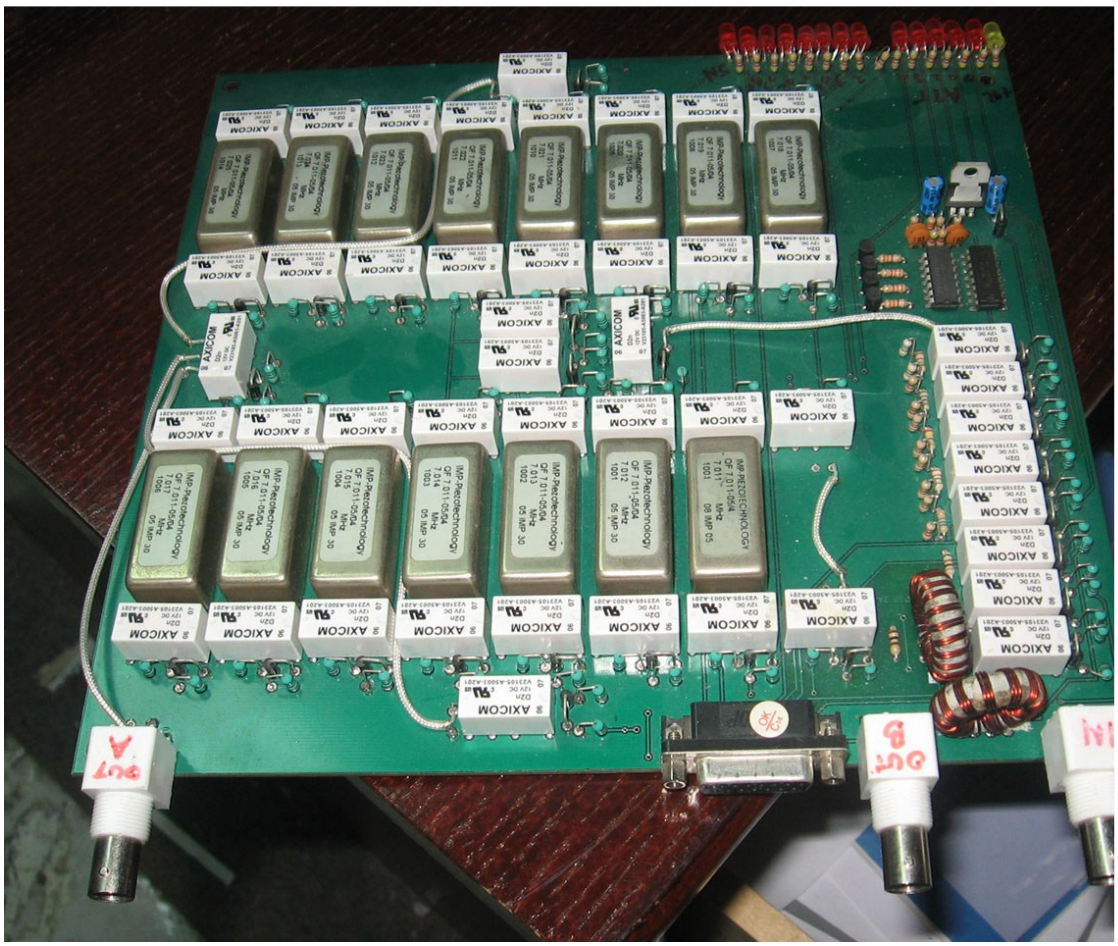

WRTC 2006: 40 m front-end unit @ PT5L by YT1NT and YT6A

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YW0DX -group. Tnx OH0XX. See more on page 27.

Editorial

The 12th CCF-OHDXF contest and DX meeting took place aboard m/s Gabriella on the waves of the Baltic Sea in January 19-21. We were around 100 participants. The following 11 DXCC-countries were represented: DL, EA8, G, HP, OH, ON, OZ, SM, YL, YT6, and W. Once again the atmosphere was cozy as old friends got together.

The meeting has been an essential part of CCF's activity. Over the years, I have enjoyed the eyeball QSOs with CCF members, presentations and the possibility of meeting many of the well-known contesters and DXers who have attended our meetings. The current format of the meeting, a 40-hour cruise on the Baltic Sea, received again positive feedback. The ferry leaves Helsinki early in the Friday evening and returns on Sunday morning, which means that anyone traveling a longer distance has to allocate the whole of Friday for the event, but it is possible to return home on the Sunday feeling light-hearted.

On the ferry I was taking part in conversations that ranged over several subjects in "serious radio contesting". I nearly fell from my chair, when I realized how much some are ready to invest in time and money to have a winning contest station. Some have said that radio contesting compares to motor sports, but I wonder if radio contesting is a sportsmanlike business? I understand the comparison to motor sports, but even in Formula I everyone drives on the same track, and the engines and the automation of the vehicle are built in accordance with some rules. I think this is why events like the WRTC are valued by contesters. Another aspect of HF contests that we discussed was the need of having 48-hour contests. I have done it myself a few times and I think it is unhealthy to stay awake for 48 hours. I read people's descriptions of their hallucinations in the e-mail reflector messages, but I don't find them very entertaining. On the contrary, if we'd have to select 36 or 40 hours of operation inside a 48-hour period, it would add one exiting element. We were all convinced that the winners would not change, and this rule-change would actually increase the number of serious participants in a 48-hour contest.

Contesters on board m/s Gabriella also spoke of the changing radio contesting. We all agreed that computers and the internet have transformed our hobby most. Rare DX-stations don't give their call as it is supposed to be known from the internet. Databases have displaced contester's experience and understanding of calls. Scanning receivers and CW decoders can watch for any odd openings on the upper, dead bands for example. Quick fingers that found the correct alignment of the PA's knobs have been superseded by automatic amplifiers – if you can afford one or two of these great inventions. Just recently I had the opportunity to watch the video made of the PJ9W M/M operation in CQWW Phone 1990. It convinced me that radio contesting in 2007 is much different from the early 1990's apart from our excitement and devotion. One big change is the availability of information. Anyone has access to an abundance of propagation data, logs, call databases, stories, DX-clusters, logging programs, technical publications etc. E-mail reflectors give the audience of hundreds of active and experienced contesters to ask questions from. It is just amazing. Just to compare, when I started in 1984, I had the paper logs of OH1AD from 1963-1974 and a couple of guys at the club to consult. Contesting has changed, yes, but it is still fun and it is largely thanks to the people involved.

ILKKA, OH1WZ

CCF-humour

Five surgeons were taking a coffee break and discussing their work. "I think accountants are the easiest to operate on," said the first surgeon. "You open them up and everything inside is numbered." "I think librarians are the easiest to operate on," said the second. "You open them up and everything inside is in alphabetical order." "I like to operate on electricians," said the third. "You open them up and everything inside is color-coded." "I like to operate on lawyers," said the fourth. "They're heartless, spineless, gutless, and their heads and their asses are interchangeable." "I like engineers," said the fifth. "They always understand when you have a few parts left over at the end…"

A customer called to say he couldn't get his computer to fax anything. After 40 minutes of trouble-shooting. The tech discovered the man was trying to fax a piece of paper by holding it in front of the monitor screen and hitting the 'Send' key.

A friend had a brilliant idea for saving disk space. He thought if he put all his MS-Word documents into a tiny font they'd take up less room. When he told me I was with another friend. She thought it was a good idea too.

Several years ago, we had **an intern** who was none too swift. One day he was typing and turned to a secretary and said, 'I'm almost out of typing paper. What do I do?' 'Just use copier machine paper,' the secretary told him. With that, the intern took his last remaining blank piece of paper, put it on the photocopier and proceeded to make five 'blank' copies.

My neighbour works in the operations department in the central office of a large bank. Employees in the field call him when they have problems with their computers. One night they got a call from a woman in one of the branch banks who had this question: 'I've got smoke coming from the back of my terminal. Do you guys have a fire downtown?

Person: Now what do I do?
Tech Support: What is the prompt on the screen?
Person: It's asking for "Enter Your Last Name."
Tech Support: Okay, so type in your last name.
Person: How do you spell that?

I needed to make a phone call while at the library. When I asked for change at the counter, I was told that they didn't give change for the phone, only for the copy machine. So I asked for change for the copy machine and she gave it to me.

A biologist, a statistician, a mathematician and a computer scientist are on a photo-safari in Africa. They drive out on the savannah in their jeep, stop and scout the horizon with their binoculars. The biologist: "Look! There's a herd of zebras! And there, in the middle: A white zebra! It's fantastic! There are white zebra's! We'll be famous!" The statistician: "It's not significant. We only know there's one white zebra." The mathematician: "Actually, we only know there exists a zebra, which is white on one side." The computer scientist: "Oh, no! A special case!"

Contest Techniques - Have We Found Them All
Ranko Boca, YT6A

Fortunately, the WRTC 2006 organizing committee was not conservative, and modified the WRTC rules, as used during the previous events. The new, less restrictive rules allowed technical innovations, which under the old rules would not have been allowed. The result was, that not only a team's experience and tactical cleverness was highlighted, but also their ability to use technical knowledge to come up with a good technology concept as part of the contest stategy. This broadened the scope of the WRTC contest and made Brazil more interesting.

Unfortunately, however, the rule changes were officially announced just four months before the WRTC event, which left us with only a short period for developing and producing the large amount of hardware required for the implementation of our ideas.

The door for real innovation was now open

The new rules allowed for two operators, two receivers but only for one transmitter, one PA and one antenna for any given band. What the rules did allow was almost unlimited station automation.

The simple question was: How to utilize two Ops and maximize the efficient use of 24 hours?

I have the great luck to have Sinisa, YT1NT, as a good friend. He is a genius when it comes to development. He is an excellent engineer with brilliant ideas as well as being very systematic. After it became clear that I would be one of the team leaders, we had many discussions dealing with strategy and technology, so that we could hopefully find a winning concept, which could be realized within four months. I invited him to be in charge of technical support as part of our team. We decide that Sinisa would design most of the components, assemble the MCU and write software. I would build the filters, SDB, audio distribution and switching boxes.

STRATEGY STATEMENT

The first step was to determine our basic requirement:

First and foremost, both operators must be as autonomous as possible while sharing TX, PA and antennas.This meant abandoning the traditional approach, used before:

- Searching and pouncing for multipliers
- Tuning VFO B to a desired frequency
- Filling the band map
- Preparing the station for the main op, allowing him to work multipliers very quickly.

We decided to make the second op a more equal operator, allowing the primary op to follow his own running strategy with minimal interruption by the secondary, who should, for example, work the S&P multipliers on his own.

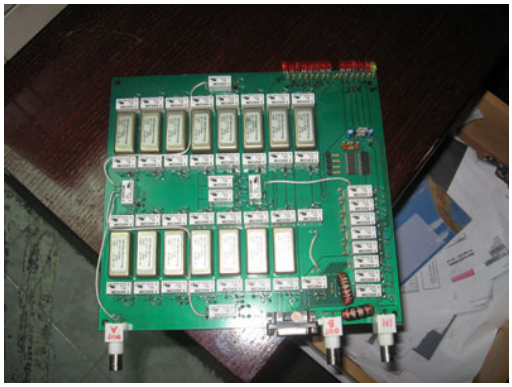
To realize that, we needed to have very complex station automation and new hardware had to be design and produced, creating new very unique station design, never seen before.

Based on the above, we could then ascertain what we would need and which tasks had to be solved:

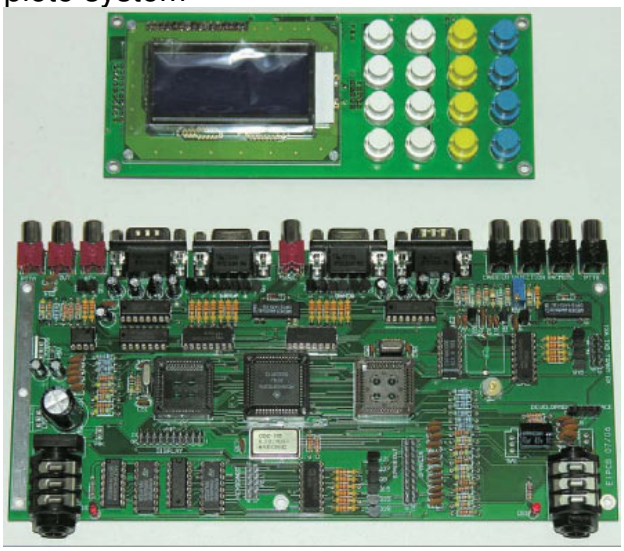
1) Design and build a triplexer filter along with other filters, capable of allowing both operators to simultaneously use a log periodic antenna for the 20m, 15m and 10m bands. This would allow the secondary operator to use the best antenna for searching and pouncing. Use of a nonresonant antenna could mean a 20dB less signal for S&P. This was something we had to avoid. Also the filter system would reduce the level of interference between the two operating positions.

2) Digitize an old analog R4C, so that it could be integrated in our digital system. We decide to use the R4C because of its general receiver performance, its superior rejection of out of band signals and various modifications, which we had already added to it.

3) Employ new multiple crystal front end filters` board for 40M. As most demanding band, 40M is also the most narrow one. Having no idea how it looks like from South Brazil, we decided to built it. More details in text below.



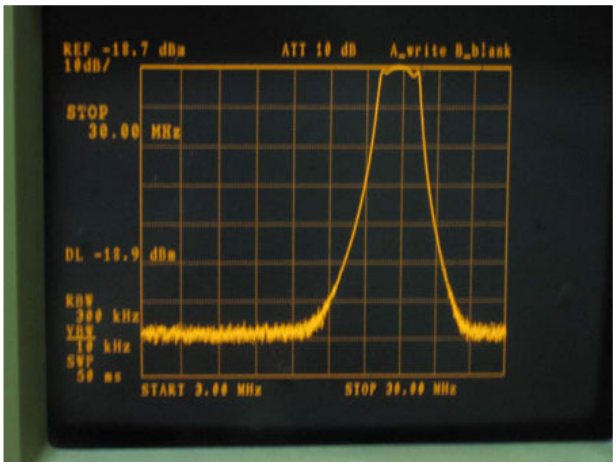
4) Develop MCU - Microprocessor based Control Unit to manage the complete system



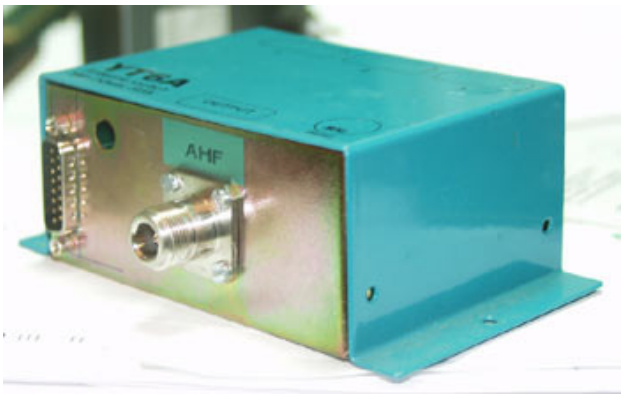
An easy task with only about two months left. hi hi.

STATION AUTOMATION

In greater detail, the automation of the station included:
- The MCU, a fully automatic controller for the station hardware, including both radios and all peripheral devices.
- An interface for the otherwise analog Drake R4C. Bringing the R4C into the digital age allows the storage and transfer of operating parameters between the Drake and the FT1000 via the MCU.
- High power triplexer filter system for the high bands.
- High power band pass filters, also to allow the simultaneous use of two radios with a minimum of interference. These filters were placed at the output of the PA, meaning they had to be able to handle 1500W with low loss, while providing typically about 70dB attenuation on neighboring bands. These filters were partially also used in the reception path.

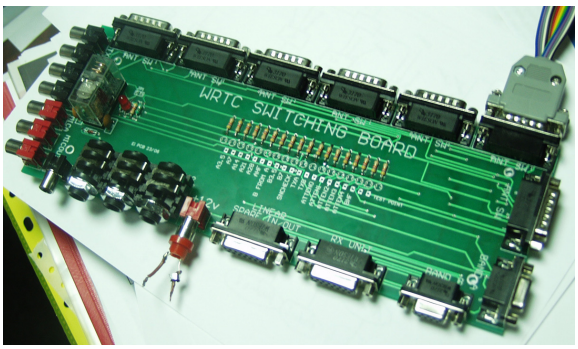


- Antenna switching boxes



Switching boxes controlled by the MCU. To switch the antennas and filters seven boxes were used, all designed for 1.5 kW.

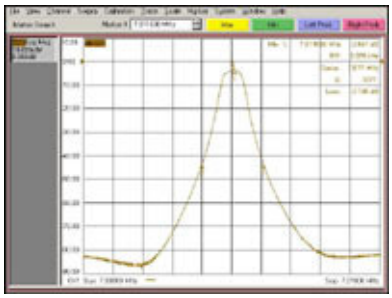
- Signal Distribution board



The Signal Distribution Board (SDB) - a very important piece of hardware. Imagine being a long way from home with 9

antenna filters, 7 switching boxes, 40M front end, and a copious number of cables for circa 50 interconnections, i.e. a real mess. And in southern Brazil we had to set up in a room for errors. The SDB provided male and female connectors and a "pinning scheme" so that it was not possible to use the wrong wire in the wrong place, and at the same time allowed most control cables to be identical.

- Selected frequency range front end filters



The 40M front end unit. This used a bank of 800Hz -3dB narrow bandwidth crystal filters in steps of one kHz. The filters ranged from 7011 to 7025 kHz, i.e. 7011, 7012, 7013, etc. This unit was used directly in front of the receivers and eliminated large, close in signal problems on the 40m band. This meant a real improvement in signal to noise ratios, because the RX only "sees" a tiny part of the entire band. The appropriate filters were switched in and out by the MCU based on the receiver frequency. While this was a real expense, there is no better solution for the 40m zoo.

Microprocessor Central Unit

The MCU provided:

- Communication with and control of the FT1000 using the CAT port of the radio.
- PTT and keying signals for the FT1000.
- Communication with the Drake R4C.
- Switching signals for the 7 switching boxes.
- Communication with both PCs, e.g. band and mode information.
- Switching signals for the crystal filter front end, when operating on 40m.
- Buffering operating parameters for each band, e.g. the attenuator setting.
- Sensing which band the PA is tuned to.
- Providing logic for the use and keying of the PA based on its present tuning and the band information from the radios.

The ACOM 1010 is not a linear with automatic tuning, so it was often better to "go barefoot" for a few seconds, and not waste time retuning the amp. To sense which band the ACOM was tuned to, we designed a PCB with optocouplers which we taped on the front of the PA (see picture ??).

- Lastly, the MCU provides two CW keyers and foot switches with the necessary logic to recognize which operator is operating his key and then switch the transmitter frequency, all filters, antennas, etc. and, if possible, key the PA for transmission. This also worked with the foot switches when operating SSB. The system switches the transmitter frequency, mode, antenna, filter, etc. with a latency of about 10 milliseconds. After transmission the FT1000 returns to the running RX frequency.

What does all of this mean?

- The OPs are almost totally independent.

- The running OP never encroaches on the S&P OP, because the S&P OP is always listening with R4C.
- The S&P OP causes a minimal interruption of about one second when he needs the transmitter, i.e. for the "PT5L" call sign or "RST". This almost doubles the on air time of the station.

USE FOR THE AVERAGE CONTESTER - What's new for General Contesting?

Some of parts of the above concept can be used for general contesting.

Firstly, efficient usage of interlaced multi bands yagis for two simultaneous tasks. Many of contesters are limited in space and can't put more than one or two towers. Triplexers can be used in SO2R configuration, using single tribanders, or multiband stacks by both radios in the same time.

Secondly, high isolation, high power, low insertion loss filters are a hallmark of the "professionalism" of any contest station. Filters with high performance characteristics, for high power, mounted after linear amplifier, directly in the antenna line are a most efficient way to prevent interference between radios and to cut harmonics. As you are switching antennas anyhow, with this concept you do not have any additional switching and no band decoders needed.

Thirdly, seamless, selected frequency range front end filters. As mentioned above, front end crystal filters can greatly improve the performance of your receiver by eliminating problems with intermodulation generated by strong signals near the receiving frequency. (Note by 4N6FZ: This is especially important in Europe.)

Lastly, station automation creates space for higher scores by increasing operator efficiency.

The contest is over! Drake R4C survived being confronted with "mighty" 500 Watts from Acom 1010 on the same coax. Our host Werner PP5QY enabled R4C to operate by bringing a transformer the night before the contest. Thanks, OM! Designed for 240 V, R4C didn't work on 200 V available.

12th CCF-meeting's PileUp-contest

Mikko OH4XX

On the first evening of the CCF-meeting, Toni OH2UA, Marko OH7KD and Mikko OH4XX organized a PileUP contest to warm up the participants. They had prepared two recordings and everyone in the seminar hall was given a pencil and a sheet of paper for logging calls. The contest was a bit unfair because of local QRM by an OH3-station. Some participants had been to the cocktail lounge, which surely boosted their performance. The log-check on the following morning was carried out with outmost exactitude under OH6RX's command. Here are the results. The audio files and the list of correct calls are available for the readers of PileUP! in the internet[1]

Results PHONE

Rank	Call	Score
1	**G4BWP**	**47**
2	**OH1WZ**	**44**
3	**OH6UM**	**40**
4	OH1NOA	36
5	OH2BH	33
6	SM0W	33
7	ON4IA	33
8	YT6A	32
9	YL7A	30
10	OH2MM	27
11	YL2GD	27
12	N6ZZ	26
13	K2WR	25
14	SM6U	25
15	OH6KN	24
16	YL3DW	22
17	OZ1AA	21
18	YL2KL	21
19	OH5TS	19
20	G4FSU	19
21	OH1RX	18
22	DL3DXX	18
23	OH6XY	17
24	DL5XX	17
25	OH2BP	15
26	DL5LYM	15

Results CW

Rank	Call	Score
1	**OH2MM**	**53**
2	**DL5XX**	**49**
2	**OH1WZ**	**49**
4	G4BWP	44
4	OH2BH	44
4	OH6UM	44
7	OH2KI	43
8	DL3DXX	41
9	YL3DW	37
10	N6ZZ	36
11	OH1NOA	36
12	YL2KL	35
13	YT6A	31
14	OH5TS	31
15	DL5LYM	31
16	OH1RX	30
17	OH6KN	28
18	OH6XY	26
19	YL7A	24
20	YL2GD	24
21	ON4IA	22
22	OZ1AA	21
23	SM0W	20
24	K2WR	20
25	G4FSU	8

Ville OH2MM, Pasi OH6UM and Fred G4BWP especially suffered from the QRM. Still their combined scores were close to OH1WZ's, who had positioned himself on a clear frequency in the auditorium and had not resorted to doping – his key to success.

If you manage to download the audio files from the web, you can test your skills and see if you can beat the scores listed here. There are several world top operators for you to win. However, in all fairness, avoid using headphones and have someone talk loudly next to you.

[1] http://www.helsinki.fi/~korpela/PU/

List of calls on page 26 of this issue.

Results CW & Phone

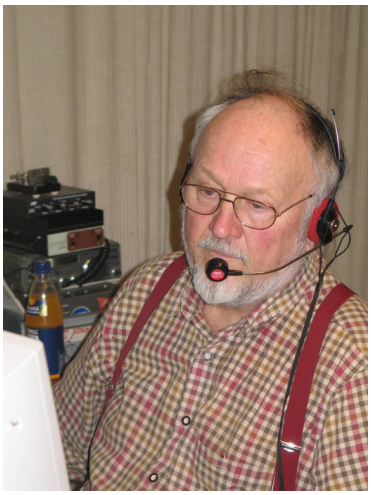
	Call	Phone	CW	Comb
1	**OH1WZ**	**44**	**49**	**93**
2	**G4BWP**	**47**	**44**	**91**
3	**OH6UM**	**40**	**44**	**84**
4	OH2MM	27	53	80
5	OH2BH	33	44	77
6	OH1NOA	36	36	72
7	DL5XX	17	49	66
8	YT6A	32	31	63
9	N6ZZ	26	36	62
10	YL3DW	22	37	59
11	DL3DXX	18	41	59
12	YL2KL	21	35	56
13	ON4IA	33	22	55
14	YL7A	30	24	54
15	SM0W	33	20	53
16	OH6KN	24	28	52
17	YL2GD	27	24	51
18	OH5TS	19	31	50
19	OH1RX	18	30	48
20	DL5LYM	15	31	46
21	K2WR	25	20	45
22	OH6XY	17	26	43
23	OH2KI	-	43	43
24	OZ1AA	21	21	42
25	G4FSU	19	8	27
26	SM6U	25	-	25
27	OH2BP	15	-	15

The Jury: J-P OH6RX, Mikko OH4XX and Aki OH1ZE. (OH2OT).

Pekka, OH1RY and Jaska, OH1MA. (OH1RX).

Ranko YT6A, #8 combined (OH2OT).

My indoor hobbies: Contesting and Music – some focal points between them. Peter, OH5NQ



By coincidence my first entrance in CQWW was in 1952 on AM-phone and also that year I bought my first LP-record, which was the Aram Khachaturian piano concerto. When listening to the concerto some years later, after having experienced some real contest pileups, it struck me how the last movement, *Allegro brilliante* , reminded me of a pileup where the pianist (Oscar Levant) tried hard to work the symphony orchestra pileup chasing him!

I experience the same kind of feeling when listening to the Oscar Peterson Quartet "A Night in Vienna concert 2003" where old-timer Oscar on the piano masters the pileup of Ulf Wakenius guitar, Niels Pedersen base and Martin Drew drums. In jazz I could give many examples of such intuitive crossovers! At WRTC 2002 in Finland, I found that Martin,VE3MR (P40MR), who knows Oscar Peterson, had the same intuitive feelings listening to his music.

Perhaps the first focal point between music and ham radio was the "CQ-Serenade" written by the late VE2QS, Maurice in conjunction with VE2BR. It was played first by VE2QS and his orchestra in 1951. Carola, OH5SM, got the record at a YLRL-meeting in 1958 and it was played at the QTH of OH5NW/OH5SM until the record was completely worn out. It was again well performed by a Finnish band at the WRTC 2002-openings.

As I write this, I am listening on my MP-3 at the compositions of Jan Johansson, SM6BOS and his piano-playing. Jan Johansson I remember from the late 1950ies on the bands. He was a student in electronics at the famous Chalmers Institute of Technology in Gothenburg, Sweden. However at the same time he was a top ham and a top musician, the first European member of the "Jazz at The Philharmonic" in New York. He played with Stan Getz and other prominent American jazz musicians. He was also a "crossover" between jazz and classics, having composed e.g. "Silentium for jazzgroup and symphony orchestra". I hope that my fellow hams that read this would go to the CD-store and get SM6BOS's records "Jazz in Swedish", "Jazz in Russian" and "Jazz in Hungarian". Jan died 9 November 1968 in a car accident on his way to a church-concert in Jönköping, Sweden.

But the inference works the other way as well. I find some voices on the band so musical, that it brings tears to my eyes and I enjoy it as music. So it was with the contest calls of Ricardo, CX2CO, the first afternoon calls by W3GM (whisky three good morning), the CW calls by Roger, W6RW and the grandiose calls by PY2CK and G2PU. Today the elegant and musical calls by ZS6CCY and the modest calls by the signal specialist Ian, VK3MO both bring me into a musical mood.

I think there are many of us who enjoy the rhythms of true pileups and many of us have a musical inference in the back of their mind.

Chasing the CQWW CW 80 m EU-record in 2002–2006 at OH2BH
Ilkka, OH1WZ

Nearly everyone in the audience at the CCF cruise this year raised their hand, when I asked them if anyone had ever entered a radio contest with the aim of breaking a record. Records are a driving force and this story is about our attempts on getting one that we had set our eyes on in 2002. That hectic WRTC-summer Martti, OH2BH had installed a 3-element K6MYC-yagi on a 48-meter rotable tower. In the autumn that year, Toni OH2UA had tested the antenna in the SAC contests, and I remember Toni's comment: "The antenna makes 80 meters sound like 40 meters with a yagi – and Ilkka – it is amazing – whatever you hear you'll likely log".

Rotary beams on 80-meters are rather rare. If my memory does not fail, Pekka OH1RY was the first to build a 3-element full-sized yagi in 1984 in OH. In the early 1990s, Toke OH6RM, Mr. Aluminum, built and installed 4-element versions in both Finland and Curacao (PJ9W, PJ9A) that were successfully used in contests. Nowadays there are several stations in OH that have a rotary beam for 80 meters, but sadly, they aren't much used for contesting.

Before using Martti's beam, I had experienced only 2- and 3-element 80-meter wire arrays made by OH5LF at his QTH and at OH5NQ. These antennas could be switched between two directions, and could be operated on a relatively narrow band segment. OH5LF had his 2-element fixed W/E – the optimal directions from OH that give you short path (SP) and long path (LP) to W/VE, JA and the multiplier pool in CQ-zones 8 and 9 (Figure 1).

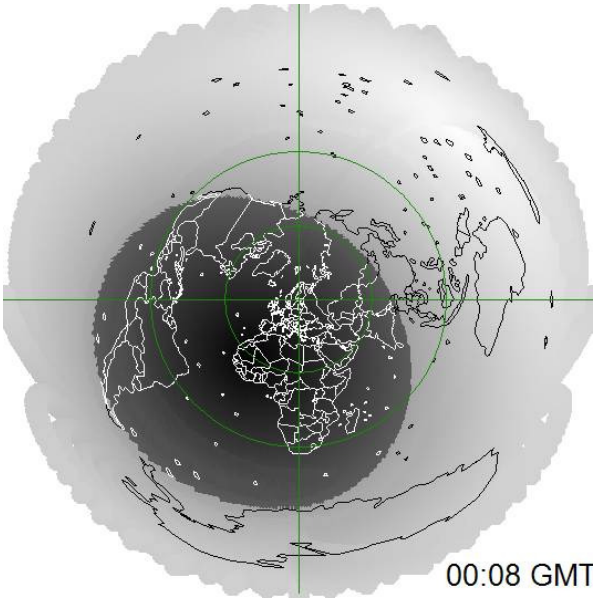


Figure 1. In CQWW the multiplier pools reside in Europe (180º-270º) and in the Caribbean (260º-300º). From OH, the SP to East coast W is roughly 300º and to JA it is 60º. A 2-element array that is installed for E/W is nearly optimal.

The aim

So, in 2002, we decided to `bring home´ the 80-meter EU-record in CQWW CW in order to embellish the table of EU-records in SOA/SB HP that has quite many entries by OH-operators:

A	CU2A (OH2UA)	2005
28	OH0V (OH6LI)	2000
21	OH0V (OH6LI)	1999
14	OH2BH (OH1WZ)	2000
7	T9/9A5E	2004
3.5	ON4UN	1993
1.8	OH0MEP	1995

SOSB? Some say that SOSB should be banned. It is too dull. I agree that SOAB can be less boring, but when you

are striving for a record, using a 3-element beam on 80 m and getting some sleep during the contest – there is even some fun in the boredom. At least we always felt excitement. Maybe it as an afterthought justifies for our effort.

Investigations on feasibility

ON4UN had made the existing record in 1993. It was our primary target:

Score	630,568
QSOs	2119 (49.8% / 1056 DX)
Zones	35
Countries	114

We had OH3BZY's OH-record from 1995 as an intermediate goal:

Score	366,360
QSOs	1383 (43.7% / 598 DX)
Zones	35
Countries	107

Very soon we realized that both in 1993 and 1995 good scores were from Europe on 80 meters. Especially the 1995 geomagnetic data looked exceptional (Table 1). Often, but not always, when the geomagnetic field is quiet, the direct polar path from OH to W/VE is usable. That's when OH3BZY worked 300+ W/VE-stations, 200 JAs, NL7G and 10 stations from zone 3, all short path.

Table 1. Daily A-indexes and 3-hour K-indexes before and after CQWW CW 1995.

	Middle Latitude		High Latitude		Estimated	
	-- Fredericksburg -		-- College --		- Planetary ----	
Date	A	K-indices	A	K-indices	A	K-indices
21 Nov 95	2	1-1-1-0-1-1-1-0	*	*-*-1-1-0-0-0-0	2	0-1-1-0-0-1-0-0
22 Nov 95	4	1-1-1-2-1-1-1-2	*	*-0-*-3-3-*-*-*	4	0-1-0-1-1-3-1-1
23 Nov 95	4	2-1-1-2-1-1-1-1	*	1-0-*-2-*-0-0-0	3	1-0-1-2-0-1-1-1
24 Nov 95	2	1-0-1-0-1-1-0-1	*	*-*-0-*-0-1-*-0	1	0-0-0-0-0-1-1-0
25 Nov 95	**2**	**1-1-0-0-0-0-1-1**	**0**	**0-0-0-1-0-0-0-0**	**1**	**1-0-0-0-0-0-1-0**
26 Nov 95	**1**	**1-2-0-0-0-0-0-0**	**0**	**2-0-0-0-0-0-0-0**	**1**	**1-1-0-0-0-0-0-0**
27 Nov 95	21	1-1-3-6-4-3-3-2	*	0-0-3-8-5-5-*-3	21	1-0-3-6-3-3-3-2
28 Nov 95	8	1-3-2-2-1-2-2-3	8	2-1-2-3-2-3-2-2	8	1-3-2-3-1-2-2-2
29 Nov 95	14	4-2-4-3-1-3-2-2	*	2-*-*-*-4-*-2-2	13	3-2-5-3-2-2-2-2

Figure 2. CQWW Phone 2000 at OH0BH – disaster of the second night. VHF-contester's dream – HF-contester's nightmare. (OH1WZ).

The high-latitude A-index had stayed very low before the contest in 1995, and it was 0 for both days. This is a very rare phenomenon and so we soon realized that 1995-like conditions might not be available unless we are very lucky.

The aurora and the auroral absorption are crucial for OH–W/VE contacts. OH2 is a little too close to the auroral oval (600 km due south). Even moderate aurora blocks the path to NA (see Figure 3). The whole of Pacific in zone 31 is tough to reach on 80/160 from here as well as zone 1 in Alaska.

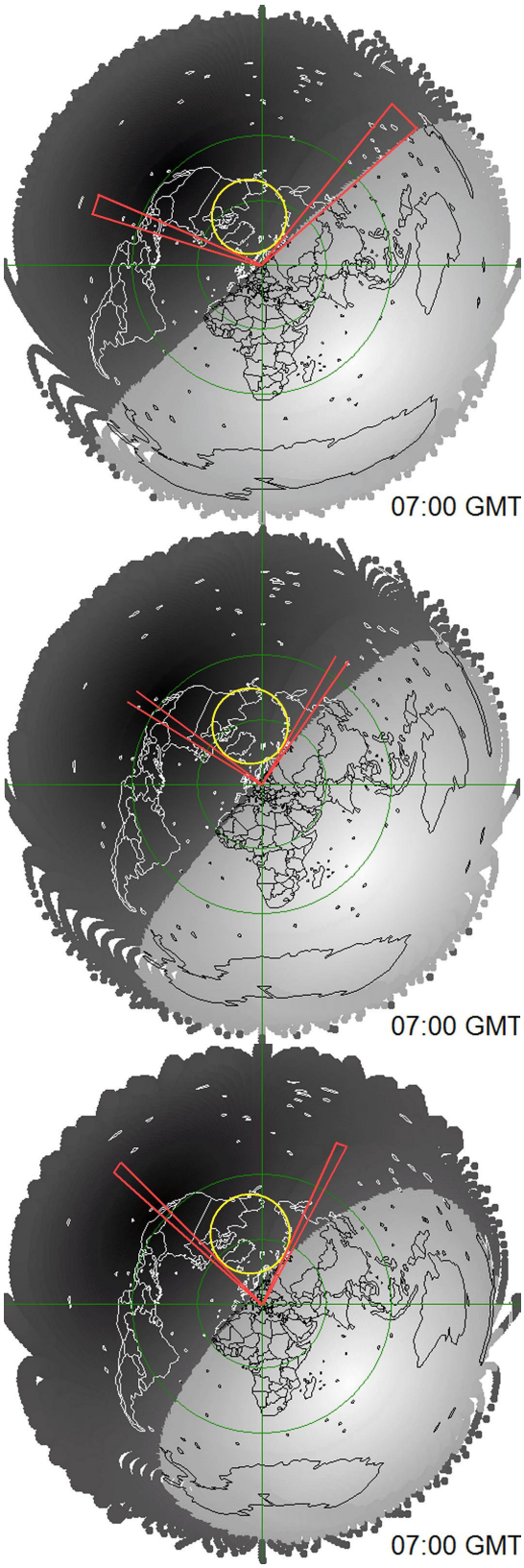


Figure 3. The auroral oval as seen from from OH2BH, SN3A and YT6A. The yellow circle depicts a shrunken auroral oval. The red lines give the directions (sector borders) blocked by low and strong aurora.

The polar path is something we in OH sometimes can make use of on 14-28 MHz. The odds for polar path are better for stations that are right below the oval, e.g. for SM2s and OH8s in Scandinavia.

The path to JA is less affected by aurora, but during geomagnetic disturbances, when the K-index is around 4-5, even JA-path is attenuated heavily.

Aurora does not block any of the important directions for multipliers, which makes OH2 into a fair multiplier-QTH. It is 5000 km to places like VO1, EA8, UA0A, JT and ST2. Similarly JA, W and VE are 7500 km away and it is 15000 km to LU, KH6, VK and ZL. Europe is mostly outside reach during the daytime D-layer propagation, which is different from stations like ON4UN, SN3A or YT6A. Maps of Figure 3 tell you why stations from Central Europe are better heard in W/VE – better than for example stations in SM2, OH7, UA1A, UA1N, UA4 or UA9X.

In the end of November, it is possible to operate nearly 20 hours each day because of short daylight. This is a slight advantage especially for QSOs to east. It is dark between 1345Z and 0645Z. The band opens up at 13Z towards zones 17, 18, 23, 24, 25 and 28. Last stations at 08Z are from Europe and zones 5, 8, 9 and 40.

OH2BH in Nummi-Pusula

Martti's countryside-QTH is a typical forest-QTH in Finland. The antennas see a 500 m wide lake in the East but there is forest in all other directions. Tilly soils prevail in the area and the landscape is hilly. In this respect it is not an optimal low-band QTH.

Operating takes place in a container, which is equipped with a SO2R system for SOAB-operations. A FT1000MP with an Alpha 8877 PA was used in every attempt in 2002-2006. The antenna is a shortened 3-el yagi that has a 6 dB gain

over dipole. The F/B ratio is 15-20 dB and the bandwidth is ± 35 kHz around 3530 kHz or 3775 kHz. The boom length is 20 meters and the elements are 32 meters long.

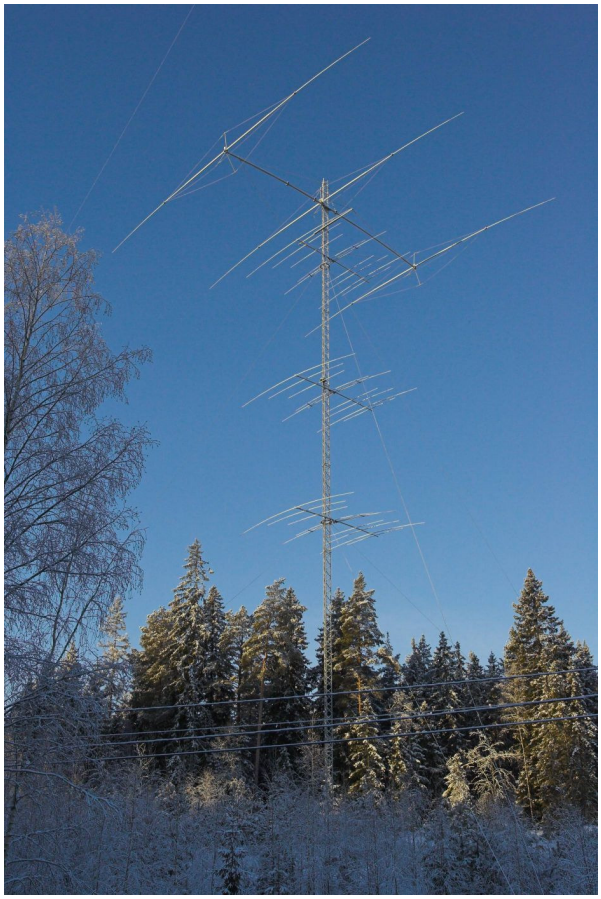


Figure 4. The 48-meter tower with the K6MYC-beam up at the top. The other 3 antennas make a stacked array of tribanders for 14-28 MHz. Photo OH2BH.

Figure 6. Toni OH2UA pictured here inside the container in July 2002. The Alpha PA is on the right. Photo ON4UN.

Our analysis revealed that the following QSO pools (we call them buckets) would be available:

JA	200-300
W/VE	400-500 (good cndx)
Asia	150-200
Africa	20
Oceania	20
Zones 6-13	50
Europe	1000

This gives 1100 3-point DX QSOs and a total of 4300 points. With a beam, we thought that it is possible to work 130 countries and 35 zones. 4300 x (130+35) = 709.500 became thus the target score.

Figure 5. The shack, a container with one of the 42-m rotable towers in the background. Photo ON4UN.

The maximum number of W/VE contacts in CQWW CW from OH had been OH3BZY's 300 and we needed 450. This number in our plan was the most optimistic. We thought that an XE- or C6- station can log around 1000 W/VE QSOs, but this population includes guys with 20 watts and a multiband vertical.

From OH2 it is possible to make a 2-way QSO with some of these stations if they are in W1-W4, VE1 or VE3, but only under optimal conditions. Our bucket did not have many stations in W6 or W7. That path is attenuated so much. The stations that come through on the SP are actually easier to work over the LP.

Preparing for the contest

Although it is "only SOSB" I still prepare for the contest and search the internet for calls that can be active in the contest. NG3K's site is good as well as the DX-cluster. I have a list of DXCC-entries and it gets filled by calls. This way you know the multipliers in advance – a large portion of them. During the contest I simply cross the calls or multipliers as they are worked. And yes, it is on one sheet of paper, but there's plenty of time to fill the list. Then on the second day, the list can be used for "you-have-to-work-these" lists of needed mults per continent. And I don't copy-paste the calls from the internet, but use paper and pencil. That's how I learn the calls. I don't lock myself in the toilet with the list though, which is known to be done by world winners in OH. In CQ WW 2006 I heard a weak "MR" at 2118Z Sunday. The yagi was pointing east. I had T88MR on my list of needed Oceania mults, and that's what I wrote in the call window of TR-log. Then I heard "T8…R 59927" – the last remaining multiplier in log from that direction! DX-cluster infos can be filtered for stations that have been active before the contest on a certain frequency range. I listed and studied the calls that had been reported on 3500-3550 kHz during the last two weeks.

Another source that I follow is the NOAA's Space Environment Center website. The 3-day forecast of geophysical activity is rather reliable. After the contest it is also interesting to compare notes of monitored signal strengths and the 3-hour K-index.

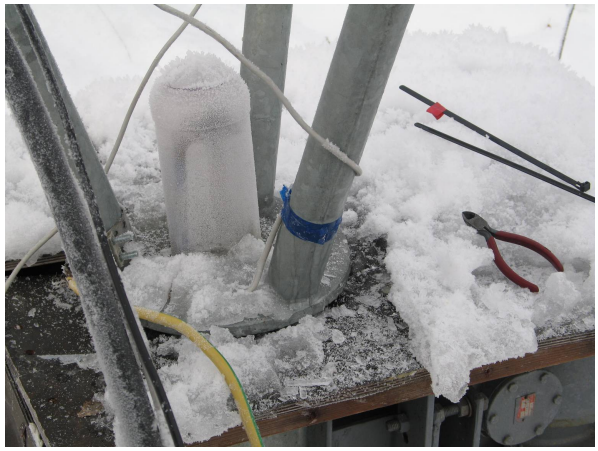


Figure 6. The base of the tower. November 2006. (OH1WZ)

Results of the 2002-2006 experiment

3.5 MHz	
SO2R	403,368
S57AW	310,310
UN7CW	303,831
W1MK	284,050
OH2BH	271,998
YLØA	253,920

3.5 MHz	
EA8/OH4NL	784,254
OH2BH	403,662
EY8MM	376,406
S5ØC	356,130
ERØND	345,276
YU7AV	338,259

3.5 MHz	
CN2R	1,037,704
EA8/OH4NL	693,264
SN3A	541,650
OK2RZ	511,820
A61AJ	432,279
OH2BH	408,455

3.5 MHz	
CN2R	1,206,128
OJØB	608,896
OH2BH	593,922
9A9A	583,360
SN3A	581,532
S50C	467,166

Figure 7. World top scores 2002-2005 CQ WW CW SOSB 80. In 2003 OH2BH was #1 in EU.

EA8/OH4NL(OH2BYS)	7876	37	121	32	1,244,408 CCF
VY2ZM	2537	34	109	29	981,266 YCCC
4O3B(OH2BH)	3080	37	123	38	846,039 CCF
SN7Q(SP7GIQ)	2599	37	116	36	708,543
CS2R(OK2RZ)	2775	33	108	29	688,785 GPDX
M6T(G4PIQ)	2514	34	109	37	604,318
OH2BH(OH1WZ)	2210	37	127	39	580,000 CCF
GM0GAV	2166	36	115	28	558,296 GMDX
VE3NE/2(@VE2CSI)	1646	24	95	34	472,579 CCO
EA3AKY	1950	32	91	30	424,965 Lynx DX Group
9A6A	1764	28	98	34	322,308 Croatian CC

Figure 8. Claimed scores in 2006. An incomplete list: 6Y3R and YL0A are missing at least.

Table 2. Summary of results from OH2BH in CQ WW CW SOSB80.

	Year					
	2002	2003	2004	2005	2006	All
QSOs	1263	1901	1891	2352	2265	9667
Multipliers	118	114	118	124	127	186
Zones	30	33	33	35	37	39
College A	37 / 32	7 / 14	28 / 23	1 / 24	21 / 17	-
Score	300.000	430.000	440.000	640.000	580.000	-
W/VE	148	238	247	398	238	1269
JA/HL	98	88	82	232	164	664
Zone 3 /SP	11/0	13/0	18/2	11/2	12/2	65/6

College A is given for day 1 and day 2. Number of contacts to zone 3 is given separately for those over the SP. Scores are raw scores before UBN. E.g. in 2005 UBN-check dropped the score below OJ0B's. The 2002 operation lasted for the first 30 hours only.

2005 was the best year. That year the claimed score went above ON4UN's record from 1993, but did not survive the UBN check. The geomagnetic conditions were favorable on the first day (Table 2) and the number of W/VE contacts was almost 400, which was only 50 down from the target. That year my contest tutor from the 1980s Pertti, OH2PM was active as OJ0B. It was exciting to compare scores during the contest.

The best year for multipliers was 2006. The goal of 130+35 was nearly met, but the conditions to NA were not there, which is seen in the QSOs. In 2005 I had the feeling that I had certainly worked all JA-stations that had an antenna for 3.5 MHz. That's about 250 JA-stations. In 2000 when I worked SOSB 14 MHz from OH2BH there were 600 JA-stations on that band. This is the JA-bucket nowadays.

Table 2 also indicates that it was mostly LP to zone 3. Quite opposite from 1993 when OH3BZY worked all his over the SP.

CQ WW is a nice contest because you can do DXing in it. A total of 186 different multipliers were found in the logs (Table 3). I never worked an XE-station. That is the missing zone. I remember listening to XE-pileups but never made it. KL7 and KH6 were worked only in 2006, when I had learned their timing. They are both directly to the north from OH, but I worked them during a LP opening to the West Coast with the antenna pointing east. It took five years or 220 hours to learn. DXing and chasing multipliers is really fun. In 2006 the following DX- stations answered my CQ: XU7ADF, VQ9JC, AH2R, 9N7JO, KH0/7N4JZK, VK9AA, 9M6XRO, 4S7JNG, 9M2CNC, EA9PY, 3B8/OM0C, CX7BY, OY4M, HP3XUG, PZ5ZY, ZS4TX, VP2MDG, T88MR, D44AC, CU2AF, 3G1X, VE7CC,

LR2F, DS5USH and VK2ATZ. Most multipliers were however worked by the search & pounce technique as I never learned to use 2 VFOs.

Table 3. 186 country multipliers that were worked in 2002-2006 @ OH2BH on 3.5 MHz.

3B8	8Q	CN	F	HK	KL	PA	TG	VP2V	ZC4
3D2	9A	CT	FG	HL	KP2	PJ2	TI	VP5	ZD8
3V	9H	CT3	FJ	HP	KP4	PJ7	TK	VP8/H	ZF
3W	9K	CU	FM	HS	LA	PY	TZ	VP9	ZL
4J	9L	CX	FP	I	LU	PZ	UA	VQ	ZP
4L	9M2	CY0	FR	IG9	LX	R1MV	UA1N	VR	ZS
4S	9M6	D4	FY	IS	LY	S0	UA2	VU	
4U1I	9N	DL	G	IT9	LZ	S5	UA9	XT	
4U1V	9V	DU	GD	J3	OA	S9	UK	XU	
4W	9Y	EA	GI	J7	OD	SM	UN	XW	
4X	A4	EA6	GJ	J8	OE	SP	UR	YB	
5A	A5	EA8	GM	JA	OH	ST	V2	YI	
5B	A6	EA9	GM/S	JD1	OH0	SU	V3	YL	
5H	A7	EI	GU	JT	OJ0	SV	V4	YO	
5U	BV	ER	GW	JW	OK	SV5	V5	YU	
5X	BY	ES	HA	JY	OM	SV9	VE	YU6	
6W	C5	EU	HB	K	ON	T8	VK	YV	
6Y	C6	EX	HB0	KH0	OY	T9	VK9C	Z3	
7X	CE	EY	HC	KH2	OZ	TA	VK9X	ZA	
8P	CM	EZ	HI	KH6	P4	TF	VP2M	ZB	

Table 4. Continent-buckets – potential on 3.5 MHz.

Bucket	2002	2003	2004	2005	2006
Africa - zones 33-39	19	22	14	21	25
South America 9-13	18	14	22	25	26
North America 6-8	14	24	19	18	18
Asia 17-19	82	124	128	139	150
Middle East 20-21	17	16	14	17	20
SE Asia 22-24, 26	9	12	16	16	18
JA / HL 25	98	88	82	232	164
Oceania 27-32	10	16	20	22	20
Europe 14-16, 20	838	1297	1301	1430	1526

Table 4 gives a further analysis of the logs in 2002-2006. The maximum number of 232 JA-stations in 2005 is at the saturation level – as I know that 4O3B logged 249 in 2006. We thought in the beginning that 1000 Europeans is a good number, but it turned out that there is more potential in Europe. This makes CN2 or EA8 good locations – you have 1500 3-point Europeans to call you within 600 – 4500 km. Radio contesting is a hobby in W/VE, Europe, Asiatic Russia and Japan. These areas make 95% of the contacts. You have about 20 stations from the other areas listed in Table 4. Africa is mostly zone 33 and all other zones are really rare and I usually had 1 or 2 zones missing from Africa (Figure 10).

We never got the European record because the 450-QSO target of W/VE-stations was never accomplished. Figure 9 displays all the 1269 W/VE contacts. In 2005, the first night and the last 3 hours of the contest were productive. In 2004,

not a single W/VE qso was made in the last hours of the contest because of aurora. The graphs in Figure 9 show how the propagation is “living”. The band opens to VO1 at 20Z and closes down 12 hours later. However, because of JA-sunrise at 21-2130Z, the beam is turned to NA only at 2130Z leaving 10 hours per night. In the afternoon, at 1400-1545Z, the LP to NA can be open. At this time, the band is open to JA during their late evening, and it is difficult to decide where to beam. First station to work was usually W6RJ or N7UA.

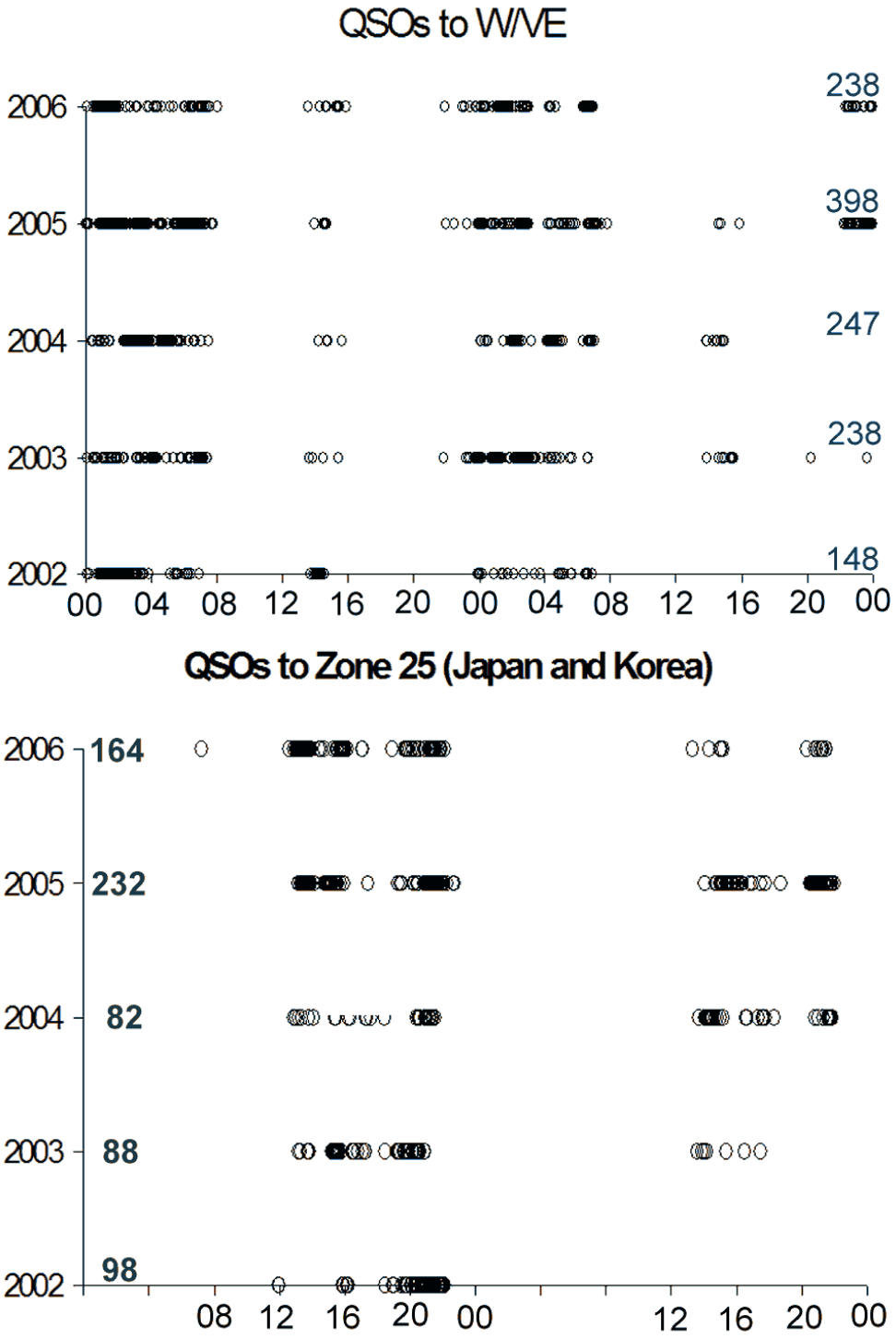


Figure 9. Contacts to W/VE and JA/HL 2002-2006. The horizontal axis gives the time in UTC and QSOs of each year are plotted on separate lines.

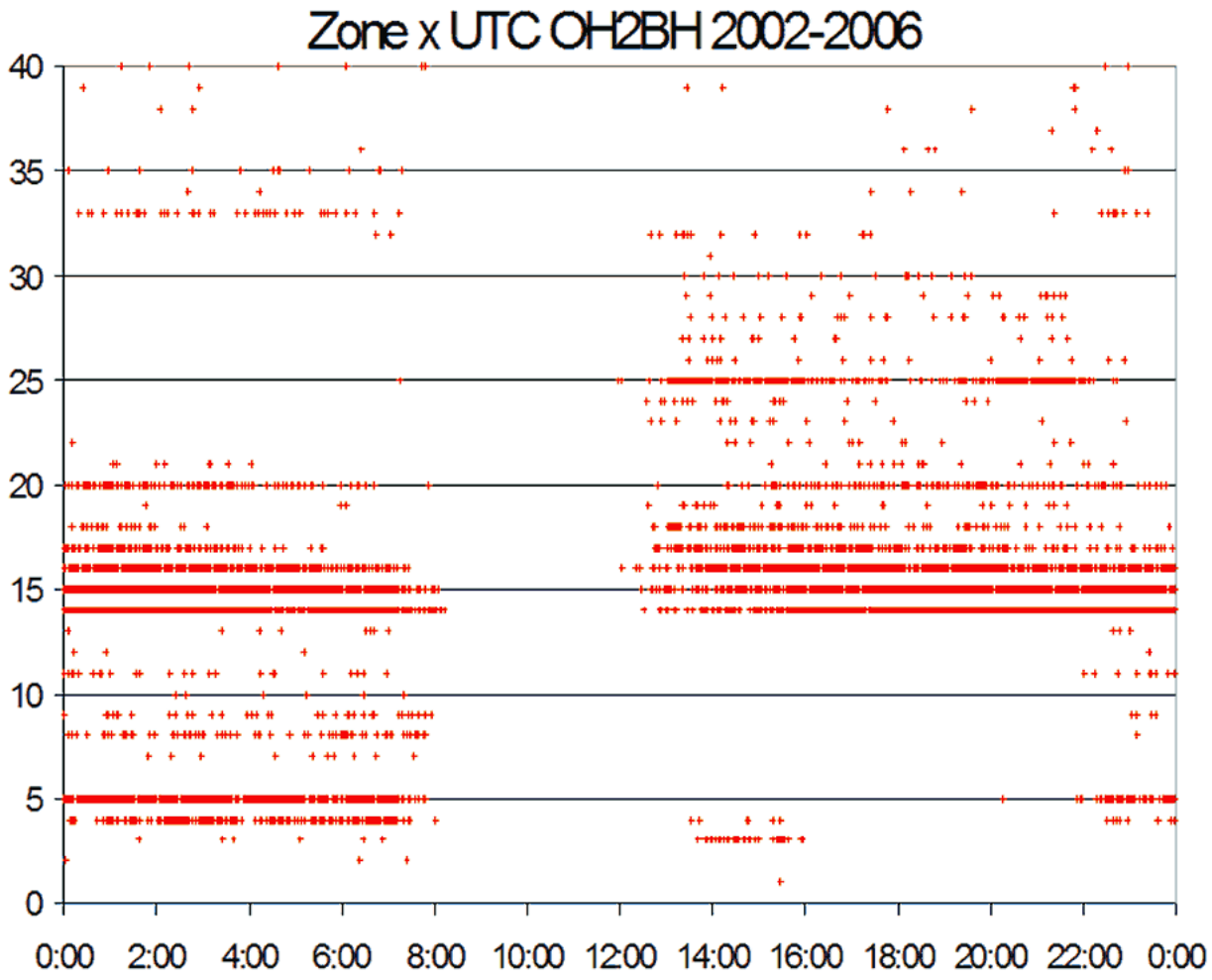


Figure 10. Time x zone distribution of all 9667 QSOs from 2002-2006 @ OH2BH on 3.5 MHz.

Chase is over – 4O3B in 2006

I don't know if Martti had realized the facts earlier than I did, but in November last year OH2BH ended up competing with OH2BH @ YT6A (4O3B). There Martti had a QTH 600 m a.s.l, a 2-element yagi and a Henry PA. The Montenegro log showed 707 W/VE QSOs against 238 from Finland and 249 JA-stations vs. 164. Martti and Ranko claimed 846.000 points, which has a marginal of 200.000. The record is on its way home but not the way it was planned at the start.

Concluding words

Our experiment failed, and it seems that breaking the EU-record 600 km south from the auroral oval is not an easy task. OH is an excellent SOAB- location in EU during sunspot maximum, or one could say that the spots even out the differences during maximum. However, the improvement is mainly in the polar path openings on 14-28 MHz. Making #1 EU-scores on 1.8 MHz or 3.5 MHz is only possible if there is not tough competition as it was in 2003 (OH2BH), or when the aurora is minor as in 2005 (OJ0B). 7 MHz is a band, on which the best scores from OH have not yet been made. It is a band that stays open 48 hours in the end of November in OH and OH0. I look forward to great scores from stations like OH0R, OH2U, OH5Z and OH8X. It is exciting to chase records and there are many records to tackle. Simplest ones are your personal records and it is often in simple things that gratification resides.

Shooting Fishes in a Barrel and Other Misconceptions

Jari Jokiniemi, OH3BU
http://www.kolumbus.fi/oh3bu/

SURGEON GENERAL'S WARNING: This article contains highly provocative statements that may cause anxiety, increased aggressiveness, or even a heart attack. If you are in your sixties, if you have high blood pressure or heart problems, or if you use psychopharmaceuticals, it is advisable not to read this article. If you are in doubt, please search for medical assistance before reading.

I see an unwelcome phenomena ruling our media. It is the passionate admiration for the rich, the bold, and the beautiful. I am not talking about the TV series with dramatic personnel relations. I am talking about ham radio contesting and the way we not only praise the winners but in effect we undervalue the ordinary ones. What makes me say so? Many things I see around, but let me take just one little example. Do you happen to know the winner of WPX 2006 SSB in Tribander Single Element Single Band 40 Meters class? No wonder that you don't. The Tribander Single Element winners were not shown in the top box of the results at all.

Why so? Is it that we don't have anyone operating single band with a tribander, despite of the majority of all amateur radio stations having modest stations, typically a small tribander in low height or even wires only? Is it because UPM does not make enough paper to allow printing the results in full? How come we still have plenty of space to print verbose who came first, the second, and the third in the Single Operator All Band High Power class - even as that information is clearly seen from the top box without any explanative texts at all No. This is not so. This can only be explained by a very simple but not very pleasant reason. We don't pay enough attention to others than the big winners. While this particular case is apparently an honest mistake, as the TSSB results were ok in the CW part, it does not comfort the little gun who made his best and actually won his class equally to the big gun who won the whole game in SOABHP.

We obviously seem to believe that it is only the big guns that matter. It is the big stations and 48 hours straight on chair that makes the contests. We value only the efforts of the very few and limited. The small guns who, in fact, are the great majority, are there only to feed contacts to the hungry big guns. The little pistols are forgotten. On top of this, our big guns have guts to claim that a small gun using packet to find new ones is being spoon fed. Anyone ever having used a high six over six stack knows what is the difference to a small trap yagi at 12 meters in, first of all, getting through pileups, and secondly, having a pileup of one's own. For sure, it is the big gun himself who is shooting fishes in a barrel. Actually, he is not only shooting the fishes in a barrel. He is net fishing them with his luxury motor boat. And still most all our media wastes huge bandwidth on complaining about packet radio and those changing their class based on what they hear others participating. I think that you understand, though you might not admit, that these are basically the only weapons a small gun has against big guns.

I would like to everyone make a little mental exercise. Assume that the results were printed as follows: There is a top box that lists top ten contenders in QRP and Low Power classes with all their variants. The text describing the contest begins with the toughest class of them all, which as everyone knows, is the QRP Single Band 160 m. There is a half-page photo of that winner. Then the text goes on to explain who went where to

win the Low Power class in every single continent. The article would praise how packet has changed contesting for the better and how disgusting it is that still we have some old farts not using it. There is a photo of a guy in Outer Uzbekistan who participated in the contest just to test his new low speed internet connection to his tent. There would also be a colorful picture of a fellow with his cat and radios located somewhere in Alaska, saying how thrilled he was once again to make some 300 contacts on 20 meters while simultaneously being the host of his 60th birthday. Another article would show some guys installing a dipole to a 12 meters low tree and operating the contest with a homebrew 20 watts transceiver kit while teaching CW to the local scouts in Vermont. There would not be a single word about Single Operator High Power All Band class. This particular class would meet complete silence about its very existence. A guy traveling to P40 to win would go unnoticed. I bet the vocal big guns would be furious. They would feel insulted about working hard for the contest, winning their precious classes, and not been publicly noticed at all for their investment in time and materials.

Why is this happening to TSSB and why does it look like to bash the Assisted is almost the current official policy of the contesting community? Is it because there are so many big guns that we would be against the great majority? Is it only an accident, so that the small guns are being ignored just because nobody ever thought about them? Or is it even something else? Think about the following observations. It is the big guns making to the top ten of SOABHP who write the rules, it is the big guns who check the results, and it is the big guns who print the results. Who else than the big guns speak at Dayton and SRAL Contest Forum. And when you happen to find one who is not a big gun himself, I bet he is at least big gun minded. No wonder that the small guy is left unnoticed.

I would like to ask that why, whenever there is any equalizer like packet spotting or antenna limitations, there is a huge public outcry to ban it or at least deny its existence rights, if not in legal sense, then at least morally. As a consequence of this perhaps non-intentional but still very real non-publicity, the most expanding class in popularity just a few years back, namely the Tribander Single Element class, has gone into non-visibility in record speed. I find it hard to believe that all the guys with antenna restrictions would have built bigger stations to not qualify any more. Also it is quite strange that Assisted class has remained a small minority for much more than a decade despite of cheap internet connections being now commonplace almost everywhere. I wonder if the everlasting packet cheating discussions and totally non-existing promotion have anything to do with it. If there is a better explanation, please let me know.

The most common argument for the superior visibility of the SOABHP class that I hear in e.g. contesting.com is that the big guns deserve their fame. They have worked hard to build their stations. They have spent countless hours to install several towers and monster antennas. They have mastered the art of system design and they have learnt to run effectively their two-radio systems that at best can simultaneously listen to the very same band they are transmitting on. The very most determined ones have built their super stations into rare Caribbean islands like PJ7 or P40 or what have you. They have spent huge amounts of their hard-earned money for the hobby, so isn't it only fair that they get their hour in the spot light? They are the best of the best, aren't they?

Well, yeah. They are good operators, no doubt about that. They even may be the best of the best, very possibly. I can't tell. But all these qualifying criteria based on the level of investment suggest that we could as well say that the winner bought his medal in CQWW rather than won it. Being rich is not really equal to being good, though they are not contradictory properties either. And why not enjoy your wealth. It is ok to enjoy what you have, that is why we work, don't we. If you have more than someone else and you invest it to towers and radios, all the better to you, no problem with that. And yes indeed, as I often here a reminder, there are also big low-budget stations. When searching hard enough, one always finds a poor nurse or a poor teacher who has built a super station with almost no money at all. All the good for him. That is admirable, indeed.

The point is that also the guy winning some other class than SOABHP is very likely to be a good operator. Maybe, just maybe, he could have done well also in SOABHP had he had the same location and antennas than the guy whom we now celebrate so much. So don't talk to me about operating skills here when you haven't even tried to make to playground at least remotely equal. Determination is not enough if you just don't have the resources to build your station or to travel to better places. And yes indeed, it may be possible that in America everyone has a chance to become rich, I can't really tell, but surely that is not the case everywhere.

The winners don't go to rare islands by coincidence, they don't build domestic super stations by accident. They do it all in big scale because they know what it takes to win, and they want to win. It indeed takes huge commitment, perhaps a lot of money but at least a lot of time, and that effort is admirable. But it is not an option to all. Ok, someone always reminds that there is a possibility to do some guest operating. Maybe, maybe not, but there are valid reasons for still operating at your home. There are people who just want to operate from home, even if a bigger station was available for loan. And there are various valid reasons for not having big beams. Some of them may be by choice, like it may be better for the family and overall quality of life to have only 20 minutes commute to work instead of an hour. It may be that you have antenna restrictions so that you can't put up the stack of your dreams even if you could afford to it. You shouldn't complain if you have chosen not to invest enough time to win the contest, right. I am not complaining about that.

I am complaining that whatever equalizing elements we finally have written into the rules, they are not treated equally by us. We have the different contest classes. E.g. in WPX we have the Tribander Single Element class which in my humble opinion is the most significant development in contest rules in at least 20++ years I have been around in amateur radio. The QRP and Low Power classes are also attempts to the same direction, though at least LP has already gone to similar hardware levels than HP. I also see the Assisted class partially covering the same aspects, to accommodate someone whose interests are different from those of the SOABHP top ten level participants.

These classes do not get almost any publicity at all. They are not promoted. The participants are not interviewed in ham radio magazines or in contest meetings. No heroic stories are written about them. They are practically speaking ignored despite of them existing in the rules. This is what makes me feel bad about our great little community. We are really focusing only on the bold and the beautiful, even as most of us are some-

thing else. While we are so well promoting the big guns we are the same time in practice demoting the small guns. We are not inviting new blood to our aging hobby.

If we want contesting to live after us, this has to change. All I want is that the small guns have equal treatment to the big guns. No more, no less. Just equal and fair treatment. It shouldn't be too much to ask from a community that is obsessed with equal and fair log-checking processes.

Pertti OH5TQ, CQ WW SSB 2006. Wire arrays @ OH5Z needed retuning during daytime. It's not an easy exercise in an arboretum-QTH.

Pertti keeps a brilliant DX/Contest blog at http://oh5tq.blogspot.com/ [Finnish].

Sinisa, YT1NT constructing PT5L's equipment for WRTC 2006. Photo YT6A.

CCF PileUP Contest – Lists of correct calls
Audio files: www.helsinki.fi/~korpela/PU/
CCF_PileUP_CW.mp3
CCF_PileUP_Phone.mp3

CW 78 calls

DL9URZ
WA3SXV
IK0CNA
IP9IHP
YT0A
W9SWS
K3KO
K8IA
DL9URZ (DUPE)
WA3SXV (DUPE)
DK4AN/M
DL2ABH
K2BA
N0AT
DC9ZP
F5PLC
W7CT
K9OR
AF4UU
WA9Z
DL2WJT
W2YK
NG8U
GW3NAS
K5KA
N3AD
DL1NE
DM3K
W3AU
N6MU
WA6TLA
OZ7YL
DL6UNF
DL8NBJ
F5JXU
UZ7U
UV5U
W6RK
WN9O
WE9V
WA3NKO
I2OGV
OK1LO
N2SQW
K1IR
N4WW
G0I
W5EK
N4ZZ
LY7A
DK2QF
F6KSY/P
DJ1RI
DD1JN
SP9AJM
EA3BOW
GM3CFS
LU4DX
DQ4W
K3LR
KI3O
DJ1ZU
N1DG
W1WEF
AD4EB
PS2T
W4IX
K4EA
VE1ZJ
K5NA
N8EA
N3AD
W4RX
N4KG
PY5KD
W3UM
SA6DY
VA2AM

Phone 69 calls

M0DRC
KC0GL
VE3XN
AB8PD
W7JAM
IZ4COW
K2FU
AB3AH
W1ZA
N0AT
AA7ML
VA7GS
K5MKB
NB7V
W1DAR
WC1M
K6RIM
W0RK
NY3C
W0DM
K5MO
K6WRF
W7YTZ
K1RV
WA0EBZ
W1IKO
KA2D
WA0DDC
WT5C
W7VV
KG7H
ND0B
VE3GN
K2BF
W7WW
NU7J
K4JT
W1WKO
N3NR
W7MM
KI7BP
W3LL
W3NO
WA2YMM
N7IV
K3ATO
K1TH
K6DJ
WQ5C
W7TJ
W3PP
W9LA
K1RE
K1RX
KA1EKR
K0QQ
WB2OQQ
VE6RCI
WA7RZW
N0LRA
N0XA
DL1NKS
G6UBM
DL8SQ
HG6N
PA3FQ
F5KEE
M2H
CU2U?

The YW0DX Team wish to thank all those who took part in this challenging operation:

- Armada de la República Bolivariana de Venezuela
- Comision Nacional de Telecomunicaciones (CONATEL)
- Base Científico Naval Simón Bolívar (in Aves island)
- Dirección de Hidrografía y Navegación de la Comandancia General de la Armada
- Oficina Coordinadora de Hidrografía y Navegación de la Armada (OCHINA)
- Dirección de Telematica de la Armada Fragata ARBV "General Soublette" (F-24)
- Ministerio de Relaciones Exteriores
- Venezolana de Industria Tecnologica (VIT)

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The operators were:
FRANCO VENNIRO (YV1FM),
PASQUALE CASALE (YV5KAJ),
OLLI RISSANEN (YV5WW),
GREGORIO ALMONTE (YV5OHW),
REINALDO MENDEZ (YV8AD),
RAFAEL GIANNI (YV5RED),
JULIO RIVERO (YV1RDX),
TOMAS PEREZ (YV1CTE),
ALEXIS DENIZ (YV5SSB)

This DXpedition was a success although there was not much time to operate and we had fewer operators than expected. Hence we had to adjust our operating plan and concentrate on the low bands and RTTY. As a result, for the first time in its history, Aves Island participated in a contest (CQ WW RTTY WPX).

Unfortunately, the planned schedule of our Naval Army could not be altered, and therefore our length of stay on the island had to be cut short. Our on-the-air time was subject to numerous interruptions due to maintenance required to keep the local generators running.

Aves Island was on the air from 8 - 13 February, 2007. Despite the difficulties involved, our final score reached 22.000 QSOs - quite good for just 70 hours of operating. Regrettably, propagation conditions on the high bands were not favorable. Anyway, heavy pileups on 160m and 80m proved an unforgettable experience.

Once again, a big thank you to one and all.

Looking forward to our next adventure,
Alex, YV5SSB, Team Leader

Contest news

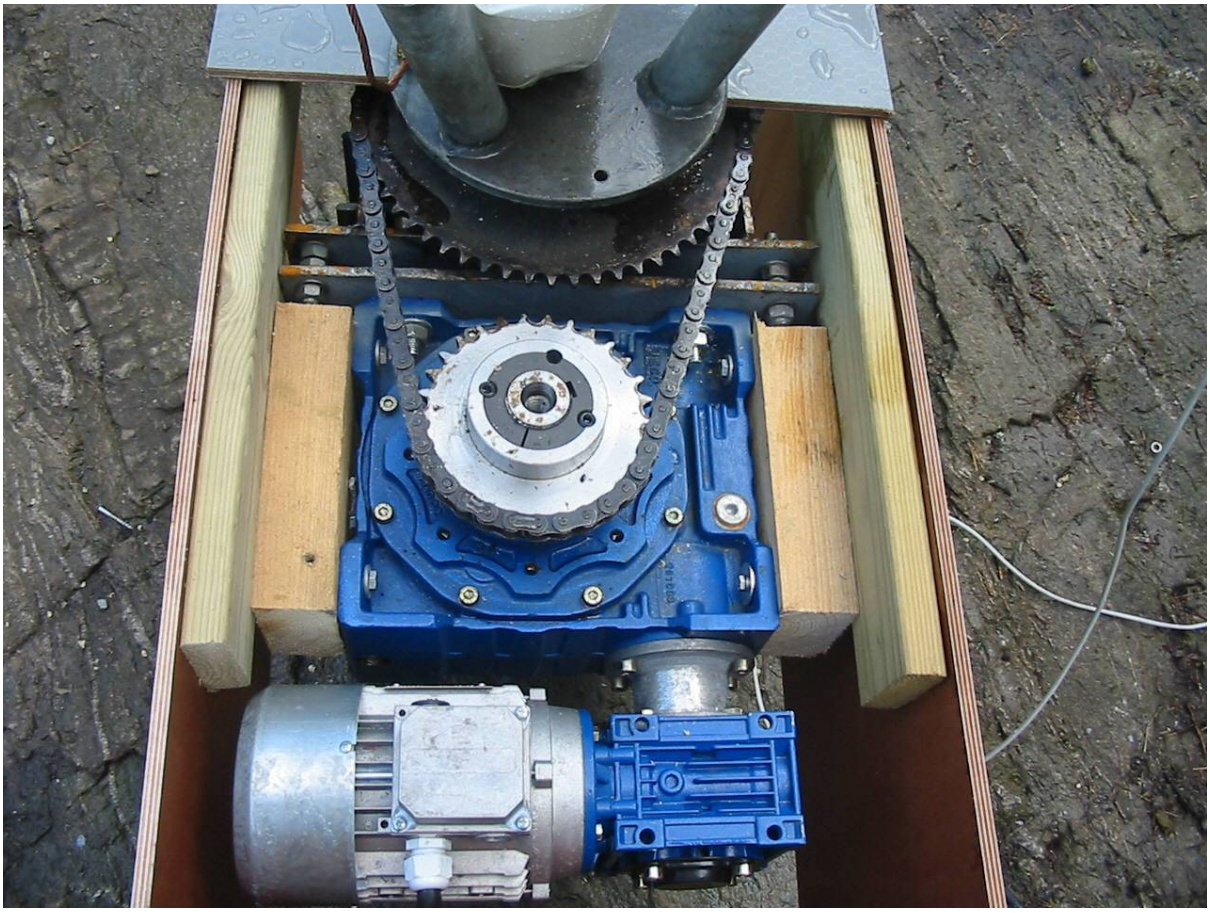
LZ DX Contest

AB Mixed				
#9	OH1RX	644	115	249.550
AB CW				
#6	OH6M	947	130	323.180
#29	OH2LU	381	91	123.760
AB SSB				
#54	OH8GZQ	21	13	624
80M Mixed				
#24	OH6GAW	88	17	3.621
15 M Mixed				
#8	OH7FF	45	17	3.944
SWL				
#7	OH1-688	31		804

CQ WPX CW – World scores

SOAB HP		
#9	CU2A (OH2PM)	8.153.512
(New European record)		
160 M HP		
#4	OH2BCI	177.287
#7	OH4MDY	142.329
M2		
#5	OF6AA	13.293.230
M/M		
#6	OH0V	8.859.779

Palautusosoite / Returneras till:
Ilkka Korpela
Bölsinniityntie 13
06830 Kulloonkylä



Engineering work of art: OH5LF's rotator system for his 42-m tower.