Contesting in Russia

CTU 2021 PRESENTATION BY UA9BA.

Although the title of my presentation sounds very ambitious and global, I in fact, will share my own contest experiences I've had through my 50 years of ham radio career. Along with my thoughts about the right ways of contesting I will present a few pictures of some big stations I had operated from. I will show the importance of planning the contest operations and will reveal some of my methods of realistic planning.

“PLAN OF THE OPERATION” WHAT IS THAT?

In this presentation by plan of the operation I will consider a time table chart
that contains the following information:

- band of operation (time to start and to finish the operation on particular band with precision to tens of minutes);

- mode of operation — running or S&P with target geographical areas shown;

- estimated number of QSOs to be made during each presence on the band;

- estimated number of multipliers with zones and country prefixes listed on a separate page to be worked per each presence on the band;

- positions of the antennas available at the station for each presence on the band;

- shifts of the operators in case of a MULTI OP situation per time and per operating psition (running, multiplier or in-band S&P).

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Thorough planning of the contest effort is especially desirable in most intense categories – M/S (Multi operator Single transmitter) and SOAB (Single operator All Bands). The SOAB of CLASSIC OVERLAY is especially sensitive to thorough planning of the operation.

The M/S effort is often an effort of a team that consists of guest operators and the hosts. The guest operators may be unfamiliar with the station's facilities. It is very desirable to provide them with scenario of the contest in writing at each operating desk. The scenario will be different on running position from the one on multiplier chasing position and yet different at an in-band positions. That sums up to 3 different scenarios for the M/S operation! With those scenarios in place, the guest operators won't get lost in the heat of the contest battle amongst numerous control knobs and whistles and will know what to do at any minute of the contest on any of the positions.

SOAB effort scenario is also very important. In case of a single radio operation (Classic Overlay) from somebody else's station well planned scenario is a MUST!

Score Records by CQ Zone

Select Zone:

Zone 17

submit

Data following the category are: callsign (operator), year of operation and total score. Click on the category to view other high scores for CQ Zone 17.
Years covered: Phone (1948 - 2020), CW (1948 - 2020).

All Time Score Records for CQ Zone 17

Multi-Operator

SSB	Call	Year	Score	CW	Call	Year	Score
Multi-Multi	EX9A	1978	15,364,085	Multi-Multi	RM9A	2018	19,523,108
Multi-Two	UP2L	2013	27,846,478	Multi-Two	UP2L	2013	25,735,413
Multi-Single High	UP2L	2015	19,342,103	Multi-Single High	UP2L	2015	18,734,025
Multi-Single Low	RD8D	2015	558,780	Multi-Single Low	RF9C	2019	4,659,304

Single Operator - High Power

SSB	Call	Year	Score	CW	Call	Year	Score
High ALL	UP2L	2012	12,286,230	High ALL	UP2L	2012	9,848,320

I will first show you what I mean by thorough planning of the contest effort using as an example my Single Op. All Band High Power zone 17 record breaking efforts from UP2L in CQ WW DX Contest 2012. The records are still holding up (see the bottom line of the table).


The antennas available at UP2L (some are being off the picture).
UA9BA


The antennas of UP2L at sun set.

Main 10m antenna with upper two rotatable and the bottom one fixed on Europe. 80 m 4SQ can be seen in the rear.

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Main 40m antenna

The upper one is a 5 element rotary on 27.5m boom at 42.5 meters up and bottom 2antennas are 4 element yagis sharing one reflector. Bottom two are beaming in opposite directions – one to the West, the other to the East. The matching circuits deliver power to the antennas with uneven amplitudes and phases.

UA9PM covers the 40 meter stack matching circuit with weather proof plastic box. The large black coil above is a RF choke type of balun for the open wire line that feeds the 160 m folded dipole off the end.

Main 80 m running antenna – 4 element wire yagi on 40 meter high tower. The elements are made of folded dipoles. VSWR and pattern are within tolerable limits across the whole European band 3.5 through 3.8 MHz The gain is better than 10.7 dBi, F/B better than 14 dB and VSWR is within 1.5:1. No sub band switching required.


One of the 14-30 MHz
LPAs at 20m up

Main 20 m antenna – a stack of 2 7 element yagis on 35 meter high tower. Next to it a secondary 40 m two 3 element delta loops sharing one common reflector.

One more 14-30 MHz LPA.

Main 15 meter antenna on 35 meter high tower with Uneven Amplitude and Phase Distribution stack-match circuit.

5 element 20m yagi with a stack of 5 over 5 10m yagis on the right side of the big 40 m tower.

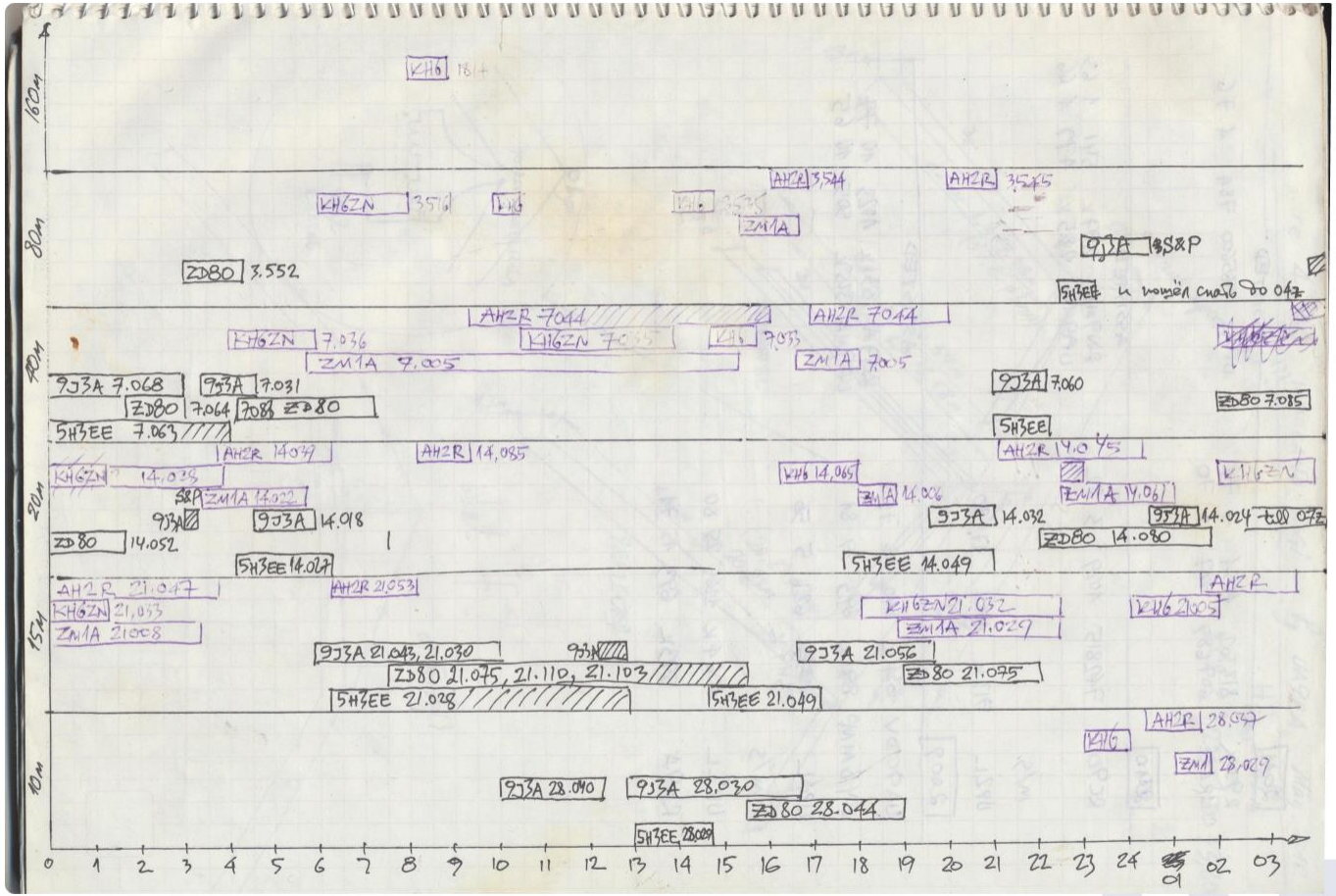

R8AA Oleg with visual inspection at 80 m 4SQ site.

A central post for the 6 direction beverages.

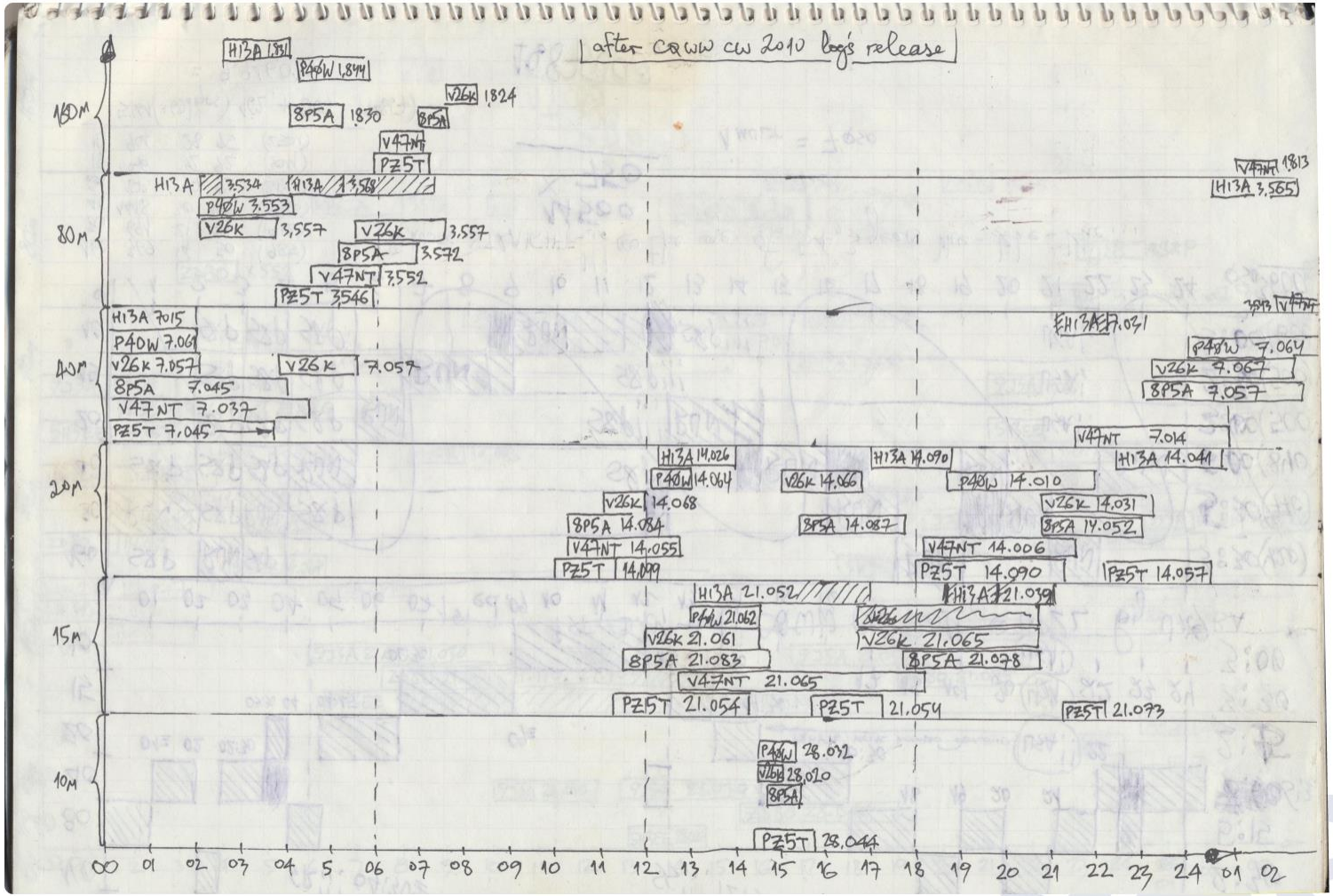
Grigori UN9LG the owner and main driving and executive force of UP2L. Grigori had built the station from the scratch and maintains it solely by himself.

As one can see there are a few antennas available. Basically, 2 towers per band separated enough for the in-band operation plus two 14-30 MHz LPAs. For the receiving antennas on LF there are 6 direction beverages, each 300+ meters long. This is a world class station built by Grigori UN9LG. It has proven its world class ranking in a number of international contests and one of the components of the success is thorough planning of each serious operation. As an example of such approach to thorough planning I will describe my preparation for the CQ WW DX Contests from UP2L. In this presentation I wanted to show some artifacts of thorough planning, but unfortunately there are just few that are available these days. I found some, though. So, I will use those that I found in my old notebooks for notes.

To stretch the importance of pre-contest preparation I will show you two pages from my 10 year old notebook where I studied the logs of the most difficult and most wanted DX stations from Central America, Africa and Oceania to learn how they move around the bands throughout the contest and when they are running and S & Ping. I thought with that knowledge I would be better off when planning which way and when to point antennas whilst running or S & Ping myself. It is vitally important for the high scoring **UNASSISTED** operator to know what DX stations to expect to be on the bands at any time of the contest. It is also important to know their habits – do they run the pile ups, or do they S & P, like many Africans from zones 39, 38, 37 and 36 do at the small hours 00-04. So, in order not to miss those searching Africans, one must have at least one antenna pointed down south and be ready for a call from juicy DX.

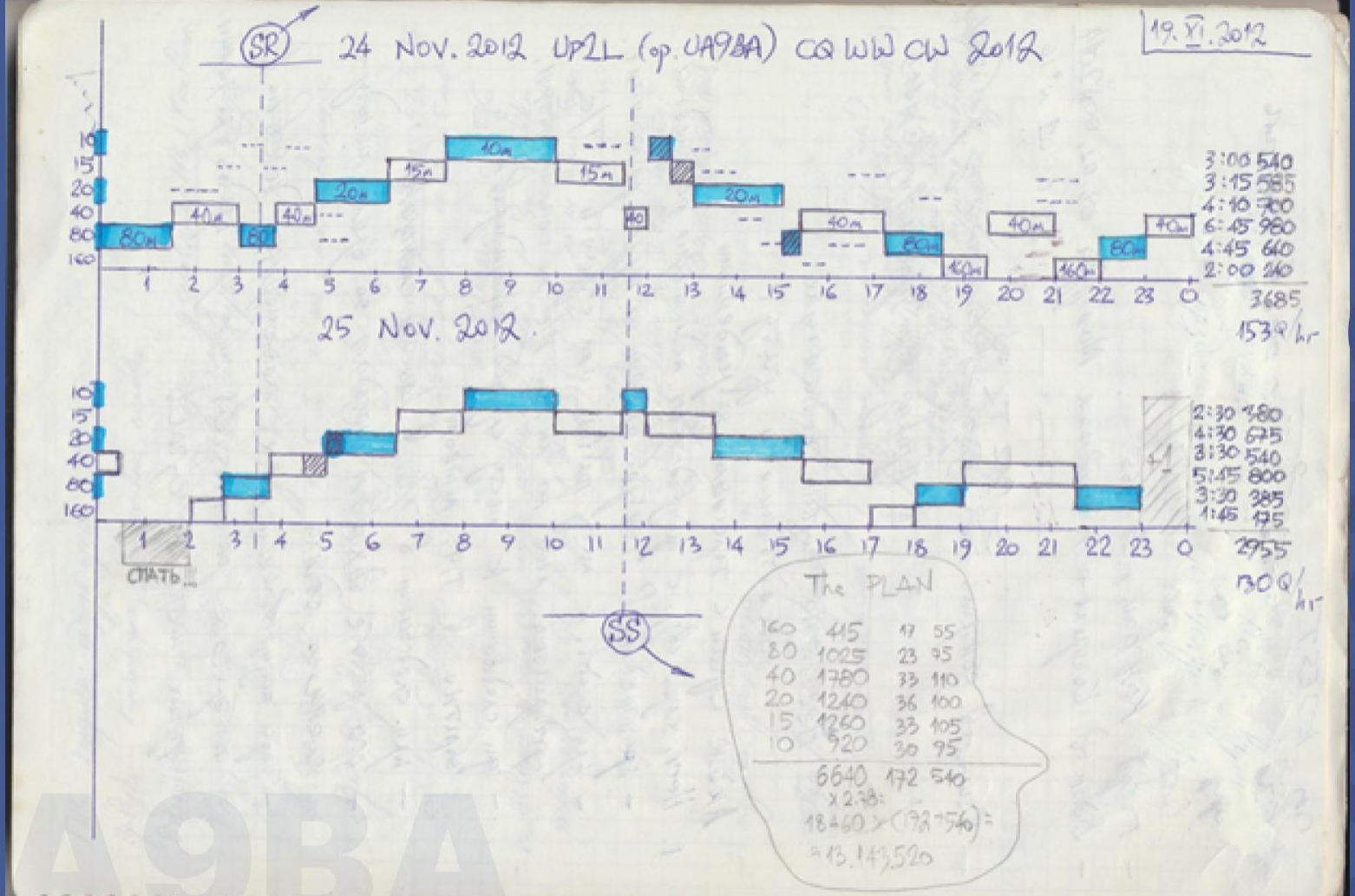


Band by band activity of Africans and Oceanians in CQ WW DX CW 2010. The call signs are put inside rectangles. Length of rectangles equals the time the DX was on the band. There are also frequencies shown inside the rectangles. Those are run frequencies. One might ask “A run frequency? What’s so important about it?” Well, look at ZD8O run frequencies. You see he never run below 7.064 MHz, or below 21.075. He’d been at lengthy periods above 21.100 MHz. So, when S & Ping you know that higher portions of the bands are as fruitful as any other frequencies.



Analysis of the activity of Caribbean stations in CQ WW DX CW 2010.

The charts show both days of the contest CQWW DX CW 2012. As you see in the upper right corner of the pages there are dates when these charts were drawn. The earlier one is dated 19. Nov. 2012. The latter one was drawn on 20. Nov.2012. First one was very simple with just periods of run times per bands and proposed numbers of QSOs per band and per day 1 and day 2 of the contest. You can see those numbers on the right side of the chart. And as the result a summary table for the expected result under the chart. The 2nd chart is more detailed version of the first one. Numerical indication of run time inside rectangles was added. The names of the continents on non-working bands are for the 2nd Radio were added. Tables in the upper right corner of the page show the planned summaries and the claimed ones. One can see that the planned numbers are about 12% higher for QSOs and 10% for multipliers. That's a good indicator of a well planned operation. There were many man hours put into analysis of other logs from the area before these charts were drawn. For instance, logs of Vlad UP0L as well as the others. I must admit that planning is a very time consuming undertake, but it is well worth it.

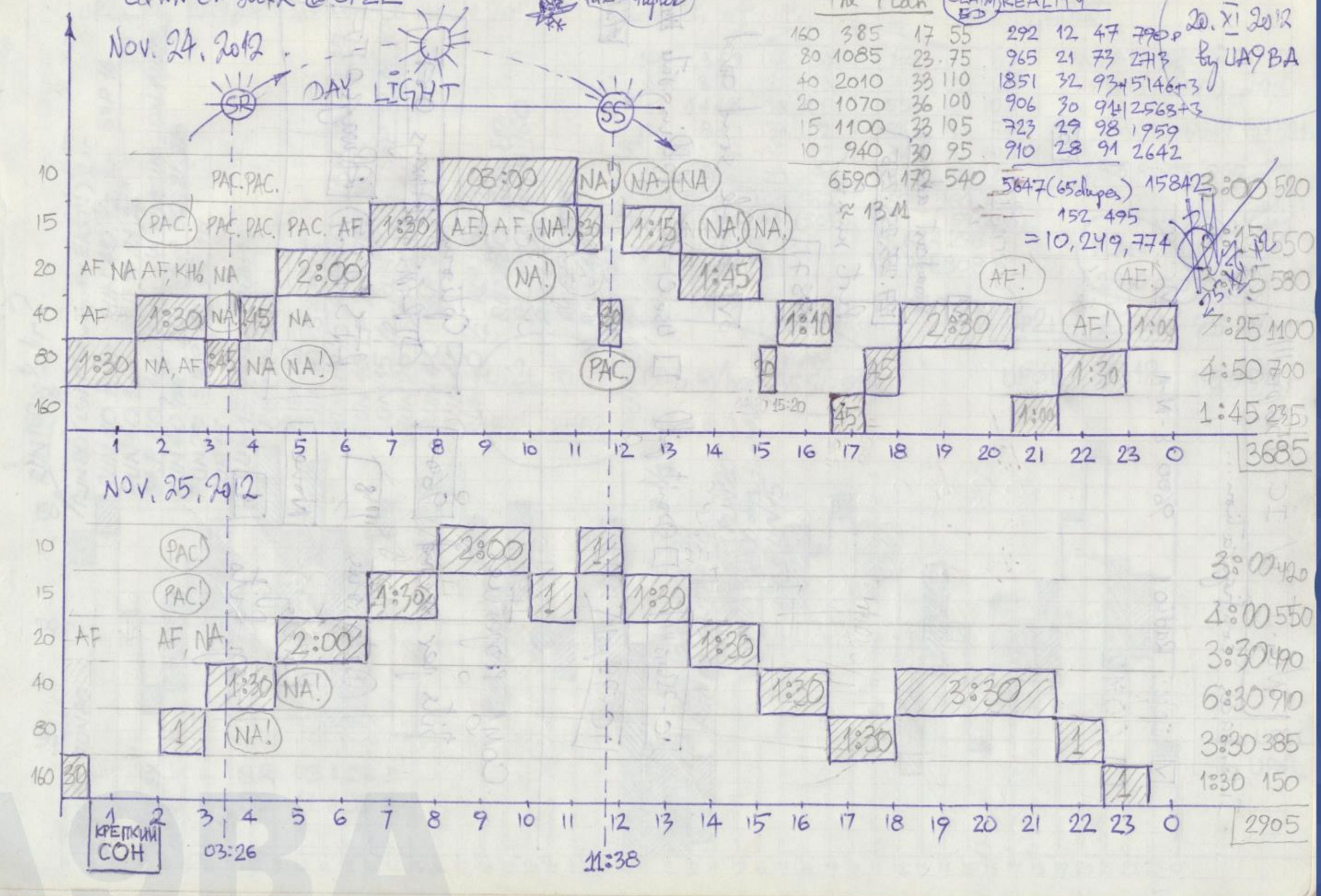

SR
24 Nov. 2012 UP2L (op. UA9BA) CQ WW CW 2012
19.XI.2012
80m
40m
20m
15m
10m
3:00 540
3:15 585
4:10 700
6:45 980
4:45 640
2:00 240
3685
1539/hr
25 Nov. 2012.
2:30 380
4:30 675
3:30 540
5:45 800
3:30 385
1:45 175
2955
800/hr
СПАТЬ...
SS
The PLAN
160 415 17 55
80 1025 23 95
40 1780 33 110
20 1240 36 100
15 1260 33 105
10 920 30 95
6640 172 540
x 2.38:
18460 x (172+540) =
= 13.143.520

CQ WW CW 2012 @ UP2L

Чик - Чирик

20. XI 2012 by UA9BA

The Plan				CLAIMED REALITY			
160	385	17	55	292	12	47	790p
80	1085	23	75	965	21	73	2713
40	2010	33	110	1851	32	93+	5146+3
20	1070	36	100	906	30	91+	2568+3
15	1100	33	105	723	29	98	1959
10	940	30	95	910	28	91	2642
	6590	172	540	5647 (65 dupes)			15842
	≈ 13 M				152	495	
				= 10,249,774			



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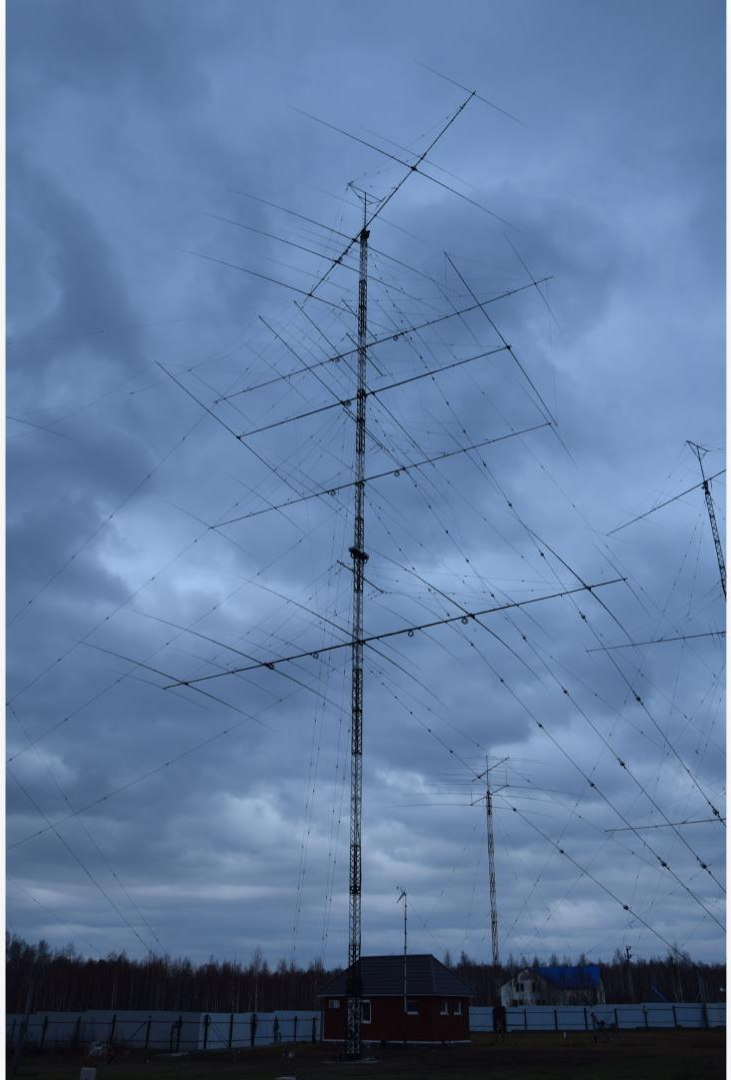
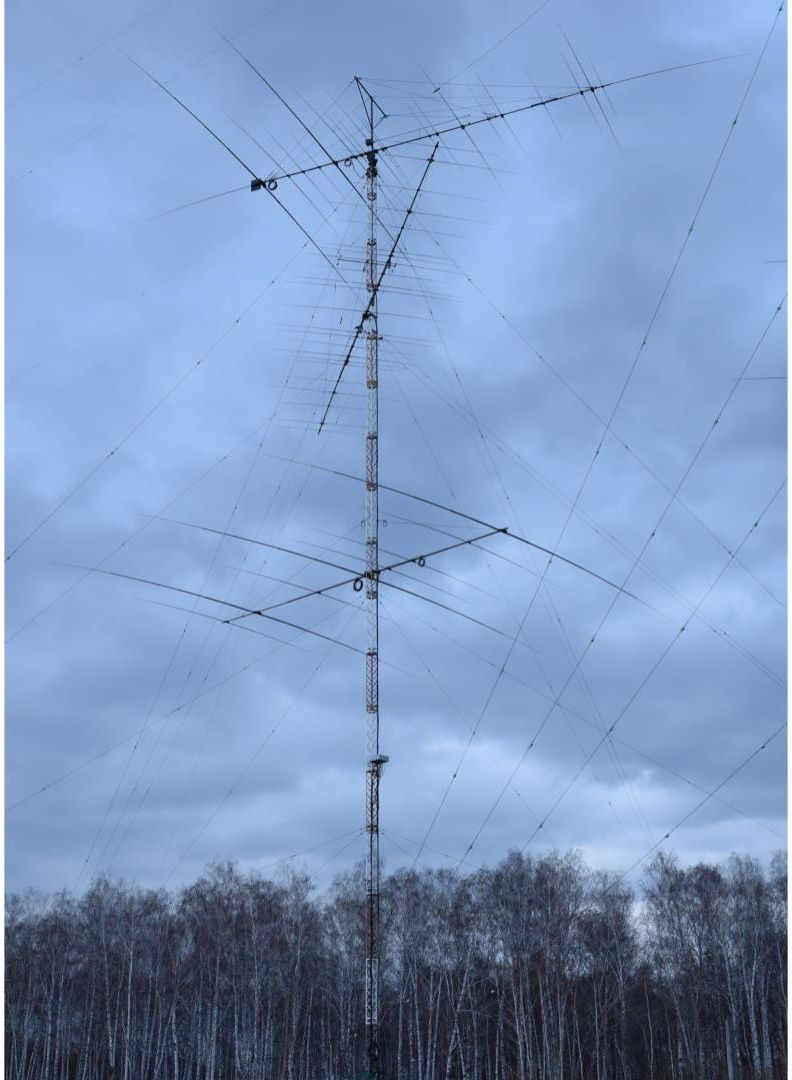
You must know this little story. I made a plan for Multi -Two effort at UP2L for CQ WW WPX SSB 2014. We claimed almost 50 million point score and it was only 100 000 points off the planned one! NO, no! I am not a magician and don't possess a crystal ball that tells the future. I am just a regular human being. I am sorry I don't have artifacts of that particular operation. But I can name few authorities that witnessed it – Grigori UN9LG, Gena UA9MA, Nick UN4L, Larry UP4L and a bunch of other team mates. You can ask them. They all had jokes about my plan at the BBQ party prior to the contest because the numbers seemed too high for them. So, you can imagine how much shocked they all were, when the dust settled down and the numbers coincided. By the way, that score is still holding up as Asian record in Multi-Two category. I consider this little story as a good example of what a good plan can do.

When I make up those plans I go through many logs. Those logs could be the ones of my own from previous years with similar phases of sunspot cycles or of my rivals from the local area. Zone 17 is a highly competitive region and many serious contest efforts take place in every big contest. I partly covered the information about what I am seeking in those logs. I will now reveal a one more approach of mine to planning. I analyze the logs for the best time periods for each band in terms of running in first place. When I study the best logs I extrapolate those rates to my case. When extrapolating those numbers I consider the ionosphere forecast, station's hardware, my operating abilities or someone else's if a Multi op case. No formulas, though, just my own experience and intuition. That's how I get those expected numbers of QSOs per band and finally per contest. I also look for the times of most intense multiplier periods. Sometimes even in the area with many participants like a UA9 for example it is very fruitful to show on the band being the first station from the area, so everybody would want to work you as a new multiplier and even some rare DXs! So, this is what I look for in those somebody else's logs. I draw many local charts per band per certain period of time and then I have those 48 hour charts as you've just seen on previous slide. For the log analysis I use the SH5 software.

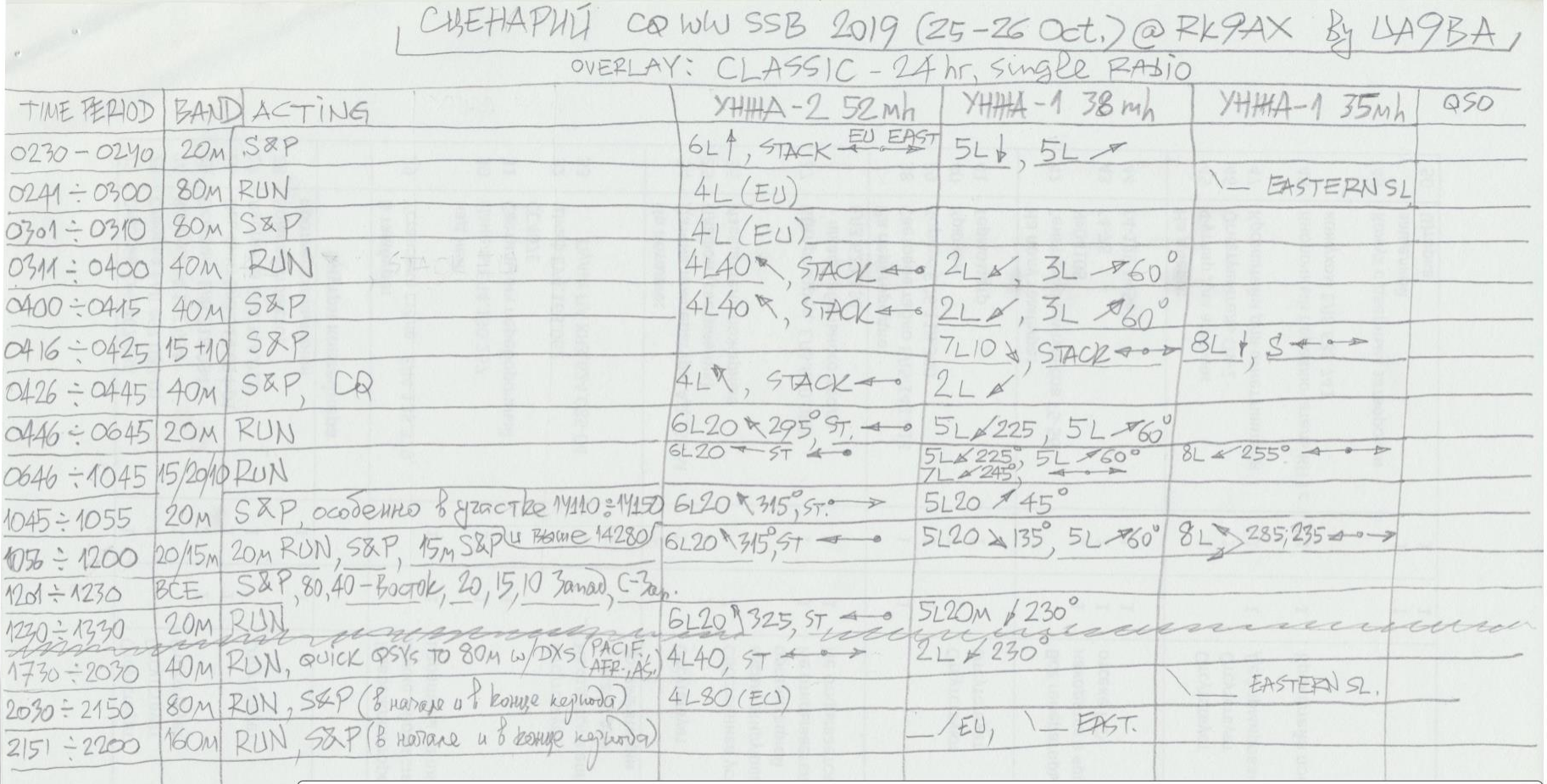


I thought it would be appropriate to stop by another example of planning from my experience. That is my operation for the first time from big station of Damir RK9AX in the CQWW DX SSB 2019 in an overlay category CLASSIC. All the stacks incorporate the UAPD feed system (Uneven Amplitude and Phasing Distribution) https://dxnews.com/ua9ba-stacking-yagi-part-1/ https://dxnews.com/ua9ba-stacking-yagi-part-2/ https://dxnews.com/stacking-yagi-antennas/ There are three towers packed with antennas: 52 meter high tower with rotatable 4 element full sized 40 m yagi interlaced with 6 element 20m yagi, 40m rotatable is stacked with two 3 element 40m yagis at the bottom that are interlaced with two 5 element 20 m yagis, there are two more pairs of 5 element 20m yagis, so the 20m stack has 4 layers of antennas, in between of all that there is a 4 element 80m yagi fixed on EU of wide band design that incorporates tubing elements with wire ends. All fixed 40 and 20m antennas are bi-directional fixed to West and East all sharing common reflectors.



Another tower available at RK9AX's ranch is a 43 meter high one with rotatable 5 band antenna (80m through 10m), a pair of 15m and 10m interlaced 6 element yagis in bi-directional combination, each stacked with the rotatables, for the bottom antenna there's a 3 element 40m yagi interlaced with 5 element 20m yagi fixed to North-East-East at 65 deg stacked with the rotatable top 2 element 40m yagi and top 5 element 20m yagi. The tower also carries two sloping dipoles ala UA9BA for 160 switchable "West" or "East" or "Both"
https://dxnews.com/ua9ba-160m/

The 3rd Tower 35 meters tall carries 3 layer stack of 15m antennas and two sloping dipoles for 80m band.



As you see there are many antennas available at RK9AX's ranch. So not to get lost I had to come up with the following scheme of when throughout the contest which antenna combination should be in place. The text is half English – half Russian. So I'll verbally explain some of what's written here. This effort resulted in 2nd place in the world after Robert's S53R winning effort from Afganistan as T6A.

The interior view of the shack of RK9AX gives an idea of how elaborate the controls are.

All in all I think that spending hours while working out a plan for a serious efforts in big contesting events such as all of CQ contests is well worth it. Well done plan in most cases works out very well. It saves one from annoying mistakes. Deviations from the plan occur mainly due to unpredictable propagation condition changes or other force major circumstances.

Thank you!

Questions?

Images: UA9BA

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