

K9YA Telegraph

Robert F. Heytow Memorial Radio Club

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A Bigger Squeak

The NorCal 40A QRP Transceiver Kit

Philip Cala-Lazar, K9PL

In earlier *Telegraph* articles ("A Pipsqueak for all Seasons," June 2007 and "QRP," May 2005) I discussed my low power experiences with the rock-bound DC40A QRP transceiver kit (www.qrpkits.com) and the Ten Tec Argonaut 509. Prodded by an even

alignment. The receiver section checked out 100%, meeting all criteria outlined in the text. The transmitter was another story; the receiver muted when the rig was keyed, but zero output. I checked circuit voltages (a chart of PCB voltages is provided) and found the driver, a 2N2222 transistor, metered way high. The buffer, a JFET, measured per specs. The suspect component was T1, a toroidal transformer. I removed and rewound it and was rewarded with about 3-plus watts of RF output and a sweet sidetone.

more rugged winter here in the Midwest, I chose to go a bit QRO and add frequency agility. QRP kit product reviews and QRP list threads pointed to the Wilderness Radio NorCal 40A (www.wildernessradio.com) as my next QRP project.

Ordered on a Monday, the kit showed up in my mailbox the following Monday via Priority Mail. Unpacked and parts inventoried, the kit was complete and impressive. Following the well-written construction manual assembly was straightforward as my Hakko soldering station made quick work of tight spaces. Two entertaining and educational evenings later the rig was finished and ready for tuning and

*"...quick work
of tight spaces."*

The completed PCB resides in a handsome clamshell housing. The two covers are fastened with convenient plastic latches making access to the controls contained within easy.

Connected to my 40-meter dipole, signals spilled out of the headphones. Builders are advised to expect a 35 to 45 KHz tuning range. I selected 7.020 to 7.065 to include the QRP watering holes

at 7.030, 7.040 and 7.060.

The day of my first QSO with the new rig the thermometer settled around 0 degrees f. Tuning around, I heard a moderately strong KØ calling CQ; I answered, and received a reply. No matter my long experience

CONTINUED - SQUEAK ON PAGE 7



Inside This Issue...

<i>A Bigger Squeak</i>	<i>Page 1</i>
<i>Dictators and Amateur Radio</i>	<i>Page 2</i>
<i>Inspiring Youth</i>	<i>Page 4</i>
<i>How to Adjust and Use a Bug</i>	<i>Page 5</i>
<i>Field Day Comes but Once a Year</i>	<i>Page 6</i>

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Dictators and Amateur Radio

Behind the Iron Curtain

Francisc Grünberg, YO4PX



Amateur radio was always contemplated by dictators with distrust and fear, as a suspect and potentially dangerous avocation. The ability to transmit messages over the barbed wire of the “Iron Curtains” and across heavily guarded borders, where weapons are pointed more into the country than out, was associated in the Romanian People’s Republic, and in the other former or current totalitarian régimes as well, with the activity of spies on the enemy’s pay-

roll. In the dictators’ paranoiac imagination these spies, disguised as radio amateurs, were trying to undermine the “heroic effort of the people for the construction of the new society”: another name for the total control and submission of its citizens, the final endeavour of all régimes with socialist, communist, military, tribal or fundamentalist ideologies.

Risking the simplification inherent to any generalization, the degree of democracy present in a country is directly proportional to the number of its licensed radio amateurs, the liberties they enjoy and the administrative obstacles they may or may not confront. Today, an indication of such freedom is the absence of bureaucratic hindrances imposed on the importation of amateur radio rigs, getting a transceiver through customs at national frontiers, and the willingness to allow visitors’ time-limited amateur radio activities.

Western democracies acknowledge radio amateurs’ merit, as pioneers of the short waves to humanity’s benefit and for the services they rendered and continue to render to their communities. Laws in these countries grant radio amateurs and their equipment freedom of movement and activity thanks to reciprocal agreements. The CEPT Convention provided a huge step forward as it simplified operation for amateurs of the signatory countries.

In Spain amateur radio is considered a form of art. In Güimar, Canary Islands, a statue was dedicated to amateur radio, with a syrinx (panpipes) representing the five (in 1974) amateur short wave bands. Many American presidents proclaimed amateur radio a national resource.

For whole decades BY1PK was the only workable station in China — until silenced by the infamous Cultural Revolution. Now we hear many BY calls and, on the VHF and LF bands, thousands of licensed QRP stations. No doubt the tenacious efforts of Martti Laine, OH2BH played a decisive role in this opening to the world.

After many years of silence in Saddam Hussein’s Iraq, a single station, YI1BGD was licensed. This followed a demonstration by Erik Sjölund, SMØAGD, who made some 50 contacts before Iraqi officials who were amazed by the number of hams eager to contact a new country.

North Korea authorized only a few sporadic operations, the most productive being the activity of Ed Giorgadze, 4L4FN. He made more than 16,000 QSO’s before the authorities shut him down. KA2HTV’s recent failure doesn’t offer much hope the situation will soon change.

Myanmar’s (Burma) military junta is quite reluctant to issue licenses to foreign operators. But they are occasionally heard, especially when intended to convince the generals that liberalizing amateur radio could boost the country’s image to a world concerned by human rights violations.

Contact with an Albanian station was an unattainable dream during the Stalinist dictatorship of Enver Hodja. Now there are some active stations thanks to powerful associations that championed getting a ZA call sign on the air after many decades.

In Poland all amateurs were forced to hand over their equipment following the imposition of martial law, inspired by the Soviet Union, in December 1981. General Jaruzelski stifled in bloodshed the protests

“...a huge step forward...”



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of the trade union Solidarność, and the SP prefix was absent from the bands for almost two years.

Turkey for many years was prominent on the Most Wanted Countries List, now a few local stations and occasional visitors can be worked from TA-land.

Under the Taliban régime licensing a YA station was hardly conceivable in a country where the most elementary human rights were violated. Now hams working for international organizations are sporadically active from Afghanistan.

But where tradition is shattered, short instruction courses and donated gear cannot replace the passion and knowledge transmitted from generation to generation, from mentor to disciple, which ensures the perpetuity and development of the hobby. Hopefully, the spirit will reignite in Libya, Yemen, Rwanda, Iran, Sudan, Mount Athos, Somalia, Congo, Cambodia, Laos, countries and entities where amateur radio activity is inexistent or drastically restricted.

There are cases when the oppressive régime feels itself impregnable and magnanimously allows the licensing of a few “reliable” residents, intimates of the power wielders, for propaganda’s sake to defend itself from the international amateur radio community’s disapproval. Some dictatorships, after lengthy negotiations, authorize time-limited activities for foreign operators present as United Nations officials, NGOs or peace-keeping forces.

In Romania the dictatorial régime branded amateur radio as well. For 45 years the state of one’s “dossier” was decisive in obtaining a license. In the 1950s those applicants who hadn’t a “healthy origine” (i.e., originated from a family of workers or peasants) could experience huge difficulties, and not only in the realm of amateur radio. Family members living in the West, unfavourable information from the schools’ secretary of the Communist Party, from the college or employer’s “cadres office” (today’s personnel office) regarding the applicant’s lack of enthusiasm and attachment to the “Party Line,” denunciations, containing mostly mendacious and misinterpreted information — all were grounds for denial without explanation of the application or suspension of a previously issued license.

Truly impartial historians of Romanian amateur radio should record its decades-long constraints as subordinate to the army. This practice followed

piously on the heels of the Russian pattern. The *Securitate* (the former Romanian secret police) exercised relentless control of the licensing procedure through the so-called Higher Radio Commission, overseeing the entire activity of the radio amateurs, beginning with the assignments in leading positions in the county clubs and in the Romanian Amateur Radio Federation and ending with the accurate inventory of the equipment owned.

In the 1980s the Radio Control Centres launched a series of residential inspections and license suspensions for varying periods of time. Was it merely coincidence that many holders of those suspended licenses were also members of reputable foreign clubs? This group included the most active and notable amateurs, authentic ambassadors of Romania on the air.

Yearly “informative materials” drawn up by the *Securitate* and presented with the force of “truth” cited “negative aspects,” like “relations with foreigners” (regulated by notorious *Law 23* requiring compulsory detailed reports about the nature of these relationships and their progress), the correspondence of amateurs, alike the correspondence of all other presumptive “unfaithful” citizens, was inspected and systematically censored. Receiving a transceiver from friends or relatives in Western countries was a terrible humiliation

and a matter of suspicion—an opportunity for blackmail.

But not only amateur radio was subject to thorough supervision. The presidential couple Ceausescu deemed profoundly undesirable: computers, video recorders, TV antennas pointed towards Bulgaria, Serbia and Hungary, TV satellite dishes, books, magazines and newspapers from abroad, everything enabling the free circulation of ideas and information, not to mention the free movement of Romanian citizens.

We don’t have yet sufficient and complete information about the Stalinist trial of George Craiu, YO3RF,



“...an
opportunity for
blackmail.”



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CONTINUED - DICTATORS ON PAGE 8

Inspiring Youth

School Radio Club YO9KVV

Aurel Chiruta, YO9FNR (club manager)



YO9KVV is the callsign of the school radio club in Valea Calugareasca, Prahova County, Romania. The club is an outgrowth of the school's technical workshop for electronics and radio construction and was established in 1980. At first, the workshop suffered from scarce material resources and lacked a proper room. However, the children's enthusiasm convinced the school's administration to provide a dedicated space, which we

set up with our own resources and the children's parents' assistance. Some parents went on to become radio amateurs.

The first receivers we built were synchrodyne for 40 and 80 meters. In 1985 we founded a shortwave listener radio club, YO9-585/PH, which took part in many national and international contests with good results.

In 1986 the activity leader and other club members passed the examination for the amateur radio certificate, however, due to the situation in the country it was not possible to obtain the transmitter licenses as well. Nevertheless, we continued to build radio equipment and participate in contests as shortwave listeners. We also built our first A-412 transceiver, a well-known homemade rig in Romania, designed by Nicoara Paulian, YO3NP, and built in those years in hundreds of copies by YO amateurs.

After the events of December 1989 and thanks to our newfound freedom we finally obtained our transmitter licenses and this greatly accelerated our activity. The club room was rearranged, the antennas rebuilt and the "famous" A-412 put to work, this time including its transmission side, leading to more participation in contests and energizing all our activities. New children joined the club and studied

for the exams. Stefania, YO9GJY, got her license at the age of 9 years, becoming in 1994 the youngest amateur in the country and our club station's first national champion.

In 2005, after intense theory and practical preparation, 13 of our young members obtained their licenses, forming the nucleus of the club's hardcore operators.

It must be said we received valuable help from Romanian amateurs and from amateurs abroad, George, WB2AQC, an ex-YO, was permanently on our side. At the present time we have 24 licensed hams and 11 shortwave listeners.

Since Valea Calugareasca is situated in a well-known wine growing region, we organized an annual marathon contest, "The Road of the Wine," using the special callsign YP9VIN. Between September 1-30, 2007, 997 different stations contacted YP9VIN. For the fifth running of the contest 160 amateurs from all over Romania participated, now able to meet personally after so many on-air contacts.

We try to attract as many new youngsters as possible to amateur radio, the wonderful pastime that engenders better communication among people.

Listen on the bands for YO9KVV and YP9VIN, QTH Valea Calugareasca, Prahova County, Romania! ■

*"...better
communication
among people."*



School Radio Club YO9KVV



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How to Adjust and Use a Bug

5

Dean Lewis, WA3WGV

Real hams use semi-automatic keys (“bugs”) for CW. Keyers are so clinical; so sterile; no personality, and they all sound the same. Straight keys are better, but there again, only the personality of the *operator* comes through, not the quirks and traits of the *key itself*.

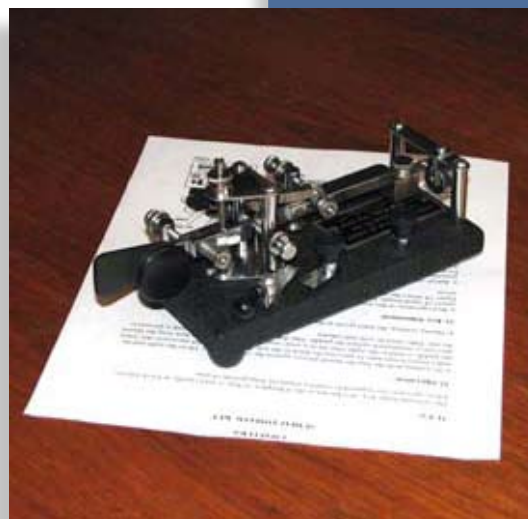
The first mistake new bug owners make is working slowly and painstakingly through all those adjustment procedures that come with the key. Sure, you have to install the lever, but that’s really about all you need to do. Anything further and your bug will sound just like all the others out there, with no personality of its own, as the factory intended. You don’t stop at gas stations for directions, do you? Why, then, would you take all that time to follow *someone else’s* advice on how to adjust *your* key?

It’s really all in the *use* of the bug. There are very different rules for good CW using this type of key, and they’re different from those for using an electronic keyer or a straight key. If you’re used to using one of these other CW devices, forget everything you learned.

An encouraging word about code speed at this point: don’t worry about it. Although a bug doesn’t work well below about 20-wpm (the pendulum just won’t vibrate any slower than that for the dits), there’s always Farnsworth spacing. That’s where you send each letter at about 20-wpm, but space out the letters and words to the equivalent of whatever your (slower) speed might be. With the elimination of the Morse requirement for all classes of ham license, we’re now hearing operators on the HF bands who’ve had absolutely no training or experience in the code, and they’re quite right in learning it on the air, and with a bug; sort of “on-the-job training.” Just open the box, plug it in, and fire it up on the low end of 40-meters.

Now, to where the key’s own personality comes in. The instructions packed with the bug will go into great detail about adjusting the position of the pendulum (that part that vibrates and makes dits when you push the paddle to the right) so the damper out at the end that’s mounted to the base will stop the vibration when the paddle is released to its centered, neutral

position. If your particular bug is so inclined, the end of the lever may not rest against the damper the same as all the others. In this case, you’re likely to get some extra dits (“well, duh!”). But if you’ll notice, Mr. Morse seems to have provided for this when he invented the code: that’s what the dah is for, following the dits in many of the letters! The answer is to quickly and firmly push the paddle over to the left for the following dah, and *hold it there*. The longer dah not only erases the extra dits you just sent, but it will stop any additional dits from being formed (and you thought you didn’t have any control over the mechanism!).



“...what’re these guys thinking?”

Hence, the number three (di-di-dit-dah-dah) may properly and correctly come out as di-di-di-di-dit-daahh-dah. Beware of one potential pitfall: spacing between the dits and the following dah in a letter or number. Only a real “lid” sends the number three as di-di-dit dah-dah, which sounds like “SM.” I’ve actually heard this on the

air; what’re these guys *thinking*?

A word at this point about maintenance. The instructions also talk about keeping the contacts clean. Well, just how do they think the contacts will get dirty in the first place? If you think adding all those scratches to your contacts will do them any good, go right ahead. But as the key gets older and more used, your otherwise-routine dots and dashes will take on a “voice” of their own, and everyone on the air will know it’s *you*!

In closing this tutorial, I’d just like to comment on how disappointed I’ve been that, with so many new (and old) amateurs getting on HF CW for the first time these days, it’s amazing how many CQs sent with a bug still go unanswered, and how many contacts result in such short QSOs. ■



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Field Day Comes but Once a Year

A Deadly Chance to Soak Your Gear

Rod Newkirk, VA3ZBB/W9BRD



That couplet was penned, I believe, by ham radio's patron nemesis, a heartless clown named Murphy. He runs the FD weather lottery, you know. If he misses you this year, he'll drown you next time. The yellowing pages of my own Field Day diary log more fun than QSOs. Serious outlets gradually relaxed into more leisurely picnics. Club jesters, fueled by pop and hotdogs, then found time for gags and practical jokes.

I can't forget one Connecticut Wireless Association affair a half-century ago when the Father of Field Day, ARRL's Ed Handy, W1BDI, was blasted out of his operating position by an enormous truck klaxon wired under his chair by W1TX. It was an admirable stunt because it had to work first shot without a trial run. Ed's first twiddled bug test VVV nearly deafened all observers.

My first FD after four long years of wartime QRT was especially joyful, I joined W9MFY (now K9JQ), W9BUD and future brother-in-law, W9VES, at the former's cottage in northern Indiana. We hauled a junky collection of odds and ends to an open-air site near the Lake Michigan shore. Trudging through a half mile of sand with a monster truck battery almost disabled the four of us.

The event coincided with W9MPY's honeymoon. Despite Jim's divided attention, we did quite well with a few watts and bush-hung wires. W9VES had just arrived home that day after Navy discharge. His mom barely had time to give her wandering son one hug before we kidnapped him for the weekend. Jim's dad checked out our site and declared us a bunch of waterlogged mud hens. The label stuck.

We mud hens tried the same location the following year with less luck. Jim brought along a weather balloon, giving us visions of a truly commanding signal from high in the sky. Its inflation from a bubbling hydrogen bottle took twenty painful minutes, a two-hands job. By the time I had finished the assignment, a gazillion mosquitoes had their way with me. Those sand dunes skeeters are gun ships with harpoons. Before morning Mr. Murphy did his monsoon thing.

At first light we looked skyward for our balloon skyhook. We found it draped across the soggy sand, never having risen above a nearby dune's downdraft. We had collected a logful of contacts anyway, a victory of optimism over reality. That was the mud hens' swan song; our lives took us different ways. Recent chats with W9BUD, now K5BJ, informed me that our dunes doings cured Larry of any future Field Day aspirations beyond Class 1-D.

*"...a magnet
for dire
developments."*

Some other FD reminiscences are scary. W9VES told of a later Potomac Valley Radio Club entry when he dutifully threw a long-wire radiator over a supposedly abandoned power line. Stooping to pick up the weighted end, he found it hissing, snapping and steaming in a mud puddle: several hundred volts at least. On another occasion his team brought out stuff on the night before Field Day. Twilight turned pitch black before the task was completed. Next day he learned that the pretty fireflies they had seen actually were water-reflected starlight. A few more steps in the darkness would have plunked them into a deep concrete reservoir.

Little Phil seemed to be a magnet for dire developments. Once with PVRC he was holding a 16-foot 2x2 anchored in what he thought was a gopher hole. When he relaxed to scratch an itch, the stick completely disappeared downward, never to be seen again. Maybe those robust Maryland gophers needed it for their own Field Day. Incredibly, Phil had performed

CONTINUED - FIELD DAY ON PAGE 8



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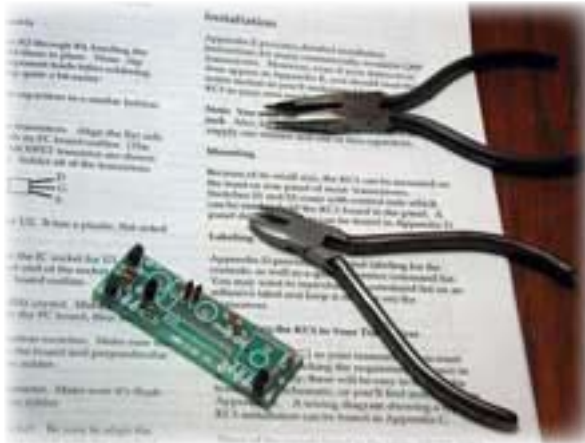
with QRP operation, I'm still a bit surprised to get a response to my call, no fills requested, and especially when, as in this case, I receive an RST 589 report. The other op, located in Detroit Lakes, Minnesota, was using some heavy metal: an E.F. Johnson Viking Ranger transmitter at 75 watts and a Hammarlund HQ-110 receiver—he, too, was RST 589. On the other hand, my gnat-weight rig was drawing its power from a 12-volt, 1-amp wall wart—with plenty in reserve.



Next was a NorCal 40A to NorCal 40A sked arranged with a local ham, Don, KB9WBM, (See: *K9YA Telegraph*, “Old Man and the CW,” May 2004, pg. 4). We successfully worked via ground wave, with highly attenuated signals, the few miles between us before QSY'ing to 2-meters simplex to discuss tips and techniques.

A more challenging test arrived over the Super Bowl Sunday weekend (February 3-4). It was a concatenation of contests and state QSO parties; nevertheless, I enjoyed several QSOs and ragchews through it all. The

NorCal 40A's excellent receiver characteristics made extended operating fatigue free as many QSOs followed, mostly to the Midwest, VE3 and the southeastern United States with some earning RST 599 reports.



Adding the KC1 memory keyer and frequency counter (it speaks the frequency in Morse with a button press) made the NorCal 40A a standalone QRP traveler. My KC1's operation was stymied for a bit because when using the keyer, paddle plugged into a second and newly installed jack, the receiver took several seconds to recover from muting. A straight key plugged into the rig's original jack (J3) did not impart this delay. Following a closer reading of the kit's instructions and reference to the circuit diagram I removed the KC1's muting line to the “junction of D1-D2” and now the original and excellent QSK returned.

The manual includes several pages of suggested modifications, a “theory of operation” section and a QRP primer. ■

The Magic of it All

There's an unsung hero in most every QRP QSO. Too frequently the amateur community awards all the credit for these low power contacts to the op running five watts or less. Lost in the applause is the operator on the other end—running QRP or not—it takes two to make a QSO, anything less is CQ'ing in the wind.

Especially during this low point of the solar cycle it takes a special kind of operator, one prepared to bend an ear through QRM, QRN and QSB to copy what is often a very weak signal. These are the hams who recognize not every signal is going to pin their

receiver's S-meter and who are willing to work to pull that signal out of the mud. It is not easy; to successfully manage this feat requires a skill and patience born of much on-air practice.

Why do they persist? I like to think they are recalling the wonder that first brought them to amateur radio—the inextinguishable magic made of communicating long distances with little more than a handful of components and a strung length of wire.

So while we're applauding the QRP operator for his peanut whistle accomplishments let's also give full props to the headphones on the other end. ■



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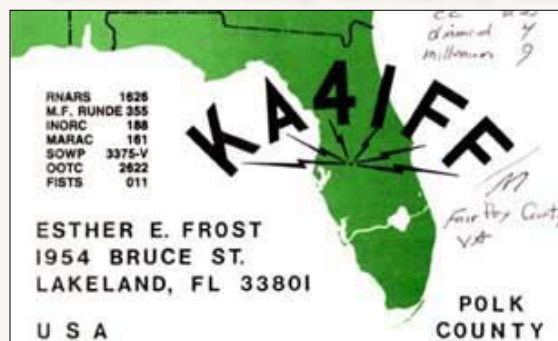
this magic act once before, making half a W9MFY dipole vanish down a Chicago apartment building's three-story standpipe, broken insulator and all.

Back to another long-ago ARRL FD, I recall the annual spirited competition with the South Lyme Beer, Chowder & Marching Society, the League's elitist front office. CWA's planning committee sooner or later got around to dietary considerations. There was the inevitable good-natured debate between our dry versus wet beverage factions. Consensus invariably arrived at the same conclusion: tipplers would foot their own bill.

This time the chosen site was Dennis Hill, one of Connecticut's highest locations, replete with comfy hostel and bunk alcoves. Its giant refrigerator was immediately loaded with hard and soft libations. For fast cooling on a hot day, somebody turned the temperature control to 11 on a scale of 1 to 10. In a few hours the fridge became a freezer full of colored slush and broken glass.

The liquor, however, was unscathed, intact and secure. We all took this as ample proof that Murphy was no teetotaler. ■

Esther Frost, KA4IFF, SK



Esther Frost, KA4IFF, whose professional fist and gracious conversation blessed the amateur bands for decades, is now SK. She was 91 years old.

Esther was a WAVE during WWII and more recently a member of RNARS, INORC, MARAC, OOTC, SOWP and FISTS #11.

Every member of the *K9YA Telegraph* staff has fond memories of their QSOs with Esther. Her absence from our bands is sorely felt as we pass our condolences to her family.

and the ordeal of his imprisonment. We don't know the truth about the conviction of YO7DZ. I don't think amateurs are aware of the fact that in the 1987 anticommunist uprising in Brasov, two years before the revolution and the régime's collapse, a ham was among the participants. He was charged during the inquiry with "subversive communication with the West," although he was a short wave listener and possessed only a receiver! After 1989 he also faced a defamation lawsuit, because he thought he recognised a member of Parliament on the TV screen as his torturer. We don't know how many persons abandoned hope after their failed attempts to obtain a license.

To understand the past a people must become acquainted with it and finally to admit it. With no hard feelings, no resentments, but fully aware of the truth. This truth must not be silenced and buried under the dust of archives. I think it's important to be uttered, recorded and known, in order to avoid all the tragic mistakes of the history.

This article was published in Romanian on the Web site www.radioamator.ro in October 2005 and in the Radiocommunications and Amateur Radio magazine in May 2007. The K9YA Telegraph published from the same author "The Race with Obstacles" in English translation in January 2008. ■

Ham Quips

DICK SYLVAN, W9CBT



LET'S SEE IF WE CAN FIND A COOLER PLACE FOR FIELD DAY NEXT YEAR



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