On Radio Havana Cuba's 57th anniversary, founder Arnie Coro recalls how Cuban ingenuity solved hurdles of the start-up period



Script of Radio Havana Cuba's Dxers Unlimited

Mid-Week Edition

Tuesday 1 May 2018

By Arnie Coro radio amateur CO2KK Hola amigos radioaficionados... hi my radio hobby friends all around the world... YES, it is time, right now to enjoy about ten minutes of all radio hobby related information coming to you from Havana, Cuba. I am your host, Arnaldo, Arnie, Coro and here is item one of today's show:

Yes, Happy Birthday Radio Havana Cuba.... si amigos, yes my friends, oui mes amis..... our beloved station is celebrating today its fifty seventh year on the air... And for me, this is a very significant moment, because I was an 18 years old junior radio technician in 1961, when our signal went on the air on the first day of May of 1961, under the name of Radio Havana Cuba.... I remember very well my regular visits to the still to be finished Bauta transmitting station, where our first transmitters and antennas were in the process of being installed, with the technical advice from a senior Brown Boveri Corporation engineer, known to us as Mister Faust. My command of the English language helped a lot to communicate with Mister Faust who gave to the installers all his know how about high power short wave broadcast transmitters. Cuba had bought to Brown Boveri of Switzerland four transmitters. Two were capable of delivering 100 kiloWatts and two smalller ones ran 10 kiloWatts... Several other accesories were part of the business deal with the Swiss company, that included the technical advice and training of the Cuban engineers and technicians involved in the complex installation. And yes, amigos, we learned a lot, allowing us to put the four transmitters on the air and provide high quality maintenance and the ability to solve the inevitable breakdowns that do happen at all broadcast stations, usually at the worst possible time.

I can close my eyes, now at 75, and literally see the glow of the huge BTL25 type high power triodes final grounded grid amplifiers that delivered more than 100 kiloWatts to the antennas.

More about the early days of Radio Havana Cuba, a testimony, direct and from the source, coming up in just a few seconds.

(RADIO HABANA CUBA interval signal)

This is Radio Havana Cuba celebrating its 57th anniversary on this first day of May of 2018 amigos... And here is more about the early days of our station and how with the now well known Cuban ingenuity we solved the many hurdles that happened every day during the start up period... We had no studios of our own, so we obtained help from Radio Progreso and borrowed two studios from our sister station located on the first four floors of the same building. Studio 5 a large size NAB type broadcast studio built under the supervision of Cuban master radio engineer and my mentor, Carlos Estrada, was used for recording especially prepared music scores, that nowadays are treasured as most valuable heritage of the Cuban broadcast institute, and studio 8, where we recorded the newscasts.... We ended up every day with two quarter inch tape 2400 feet reels, that contained the Spanish and English programs. Then a messanger drove a small Volkswagen Bug from downtown Havana, to Bauta, a small village some 20 miles west of the city. At the transmitting station we had two Phillips quarter inch tape professional tape machines that were connected to an also Phillips made sound mixer board, that provided the required audio output to the line amplifiers that fed the transmitters.

The trip took about three quarters of an hour under normal weather, but it could last twice as long during bad weather , because the Central Highway communicating La Habana with the western part of Cuba was , and still is very narrow and with many curves.... As expected we had to use that pony or VW express courier until finally engineer Estrada negotiated with the telephone company a pair of long distance radio broadcast quality lines, I still remember their registration numbers... LR 1715 and LR 1716, that was what we had to tell the phone company repairs department every time we had problems with the audio feeds... Then a few months later we received two Brown Boveri UHF studio to transmitters links, and installed them at the rooftop of the nearby to our station Habana Libre Hotel that provided a clear unobstructed path to the Bauta transmitting station new tower, especially installed for that purpose.... Then our signal quality improved and the studio to transmitter links were under my care for quite some time...

Nowadays we send our studio signals to the transmitting stations using highly reliable fiber optic cables...

(short musical interval)

You are listening to Radio Havana Cuba, this is a very special anniversary edition of Dxers Unlimited... I am Arnie Coro and here I am happy to share with you some of the happenings and anecdotes of the early days of Radio Havana Cuba.... At the Bauta transmitting site we counted with a very experienced antennas enginners, Doctor Engineer Jose Antonio Valladares who was also a senior professor at the University of Havana school of electrical engineering.... Valladares enjoyed teaching a lot... he would tune and antenna for minimum standing wave ratio, and then ask us, the trainees to do it again from scratch... We had to learn how to work with the complicated Smith Chart and also how to measure the standing waves on the 350 ohms transmission lines with an odd instrument on wheels that traveled along the line for find maximums and minimums of the radio frequency voltage, required to calculate the standing wave ratio. The excellent protection circuits of the Brown Boveri transmitters will trip them off the air if the SWR went above about one point seven to one, and both Mister Faust and engineer Valladares insisted in achieving the lowest possible standing wave ratio... they said we want to see a purely resistive RF load !!! Amigos, and that was not an easy task at all.... We had installed a broadband dipole antenna for our 11760 kiloHertz 25 meters band frequency, and one of my first tasks working on how to learn to tune the antennas, was to adjust a quarter wave stub, located next to the antenna 350 ohms line feedpoint, so that a perfect one to one standing wave ratio was achieved.... Because it was a single element antenna, it could be done much faster than the time it took to tune up the phased dipoles array designed for optimum coverage of the Caribbean....Nowadays we still use a single element dipole for our Tropical Band 5040 kiloHertz frequency, and it was installed close to the ground in order to optimize the high angle radiation required for coverage of the Cuban archipelago.... But as engineer Valladares explained to us, the vertical pattern also has a smaller lobe at a lower take off angle, and that explains why 5040 kiloHertz can be heard so far away... of course the feeding that dipole with 100 kiloWatts also helps a lot so that Dxers around the world can pick up Radio Havana Cuba even when the number of sunspots is very low... By the way the average sunspots number for the month of April was 8.9, a very clear reminder that we are now deep into the period of minimum activity for solar cycle 24...

(Short musical interval)

Of course that there are many more anecdotes about the early days of our station, like for example, why I was asked by RHC 's Director Marcos Behmaras, to read an English language newscast one day that our regular announcer called in sick... Marcos said: Arnie, I know you went to an English language school, maybe you could help us and share your time between the engineering department and on the air announcing... something that lead eventually to the creation of this Dxers Unlimited show, and our Breakthrough science and technology feature...

Asked by a colleague when I was planning to retire, my reply was that working at the ICRT, the Cuban broadcast organization was something that I enjoyed very much... As a matter of fact even after having to undergo recently major surgery, I have managed to stay on the air, to celebrate this 57th anniversary of Radio Havana Cuba....looking forward to 2021 when our station will be 60 years old...

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Radio Habana Cuba