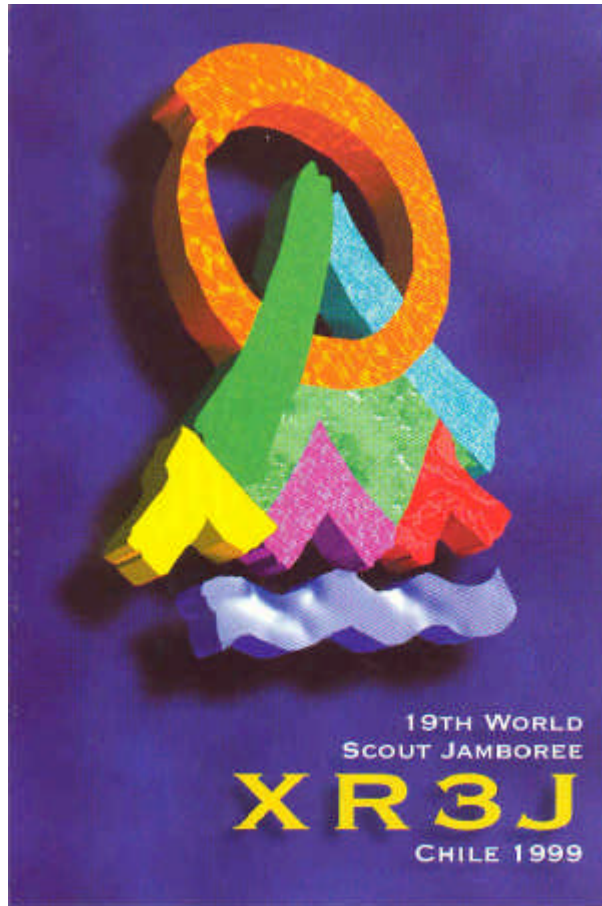


XR3J

Estación Radio Afición del 19o Jamboree Mundial

Programa 4732



En retrospectiva

Preparando por Richard Middelkoop, PA3BAR, Equipo JOTA Mundial, Ginebra.
Marzo 1999.



The amateur radio station XR3J at the 19th World Scout Jamboree

Purpose of the station:

- The station offered a program to Scouts about radio and radio techniques and allows them to actively participate in the radio contacts that are made.
- The amateur radio station was the voice of the Jamboree on the airwaves. It connected distant Scout groups to the atmosphere of the Jamboree, presented the activities to them and allowed foreign contingents at the Jamboree to relay news to the scouts back home.
- The station staff had portable radios available to assist with vital Jamboree communication links whenever needed.

During its period of operation XR3J made 3759 radio contacts with 119 different countries around the world. 500 electronic kits were constructed, many SSTV pictures were transmitted, a lot of messages were sent and / or received digitally. Staff was 16 from 10 different countries on 4 continents.

The activities in detail:

Each participant received an amateur-radio-activity passport (choice of english or spanish) in which the activities he or she completed were marked with a rubber stamp. The activity passport also has information about amateur radio and radio scouting that can be used by the scouts once they returned home after the Jamboree. It served as a resource booklet and a memory of the radio activities at the Jamboree as well.



Radio communication:

Taking part in the radio contacts.

Many scouts enjoyed the possibility to speak on the radio themselves. The radio operators took care of all the technical details and established contact with other amateur radio stations around the globe.

Especially during the first days of the Jamboree, we helped many scouts who wanted to get a message home to their parents, informing them of their safe arrival at Picarquín. Since international telephone connections were difficult from the camp site, our radio station provided a good alternative. We made many such contacts to various countries and each time succeeded to find a radio amateur willing to make a telephone call to the scout's parents. In some occasions he even connected the telephone directly to his radio and we let them speak directly.

With a number of scout amateur radio stations around the globe we kept an almost daily contact. In particular with the National Jamboree in New Zealand, with whom we spoke each morning at 03.00 hours and exchanged the latest news. Scout leaders from New Zealand were joining us in those contacts.

Due to our special radio call sign, XR3J was quite popular with many stations around the world. We experienced large pile-ups,

large numbers of stations calling us at the same time, whenever we made ourselves heard on the frequency. The advance publicity had greatly helped too. Many were very keen to catch a glimpse of the World Jamboree.

The staff explained the scouts the amateur radio jargon and the technical matters about radio transmitters, antennas, radio propagation and radio language, helped by notice boards with the most common phrases and greetings.



The XR3J antennas overlooking the Andes

The radio conditions proved to be quite favourable during the camp: we were able to contact every corner of the globe without any problem. The antennas and equipment we had installed worked excellent.

Internet coupling:

We anticipated a coupling to internet so we could display our actual operating frequency on the XR3J web site. However, despite our determined crew trying and trying, we could not get it to work. The main problem was the quality of the camp telephone line which prevented a good contact with internet.



Plot chart.

A large world map which indicating the established contacts looked quite nice. It displayed immediately to visitors what we had been doing sofar. At the end of the camp there was a large red spiderweb around Picarquin, clearly showing the parts of the world that were in contact with the Jamboree.

Yes, we made it to Denmark”

QSL cards.

Each contact was confirmed with a QSL card. It contained the technical information of the contact and a short story about the Jamboree. These QSL cards are send via an amateur radio distribution system for QSL cards to all the radio stations we have had a contact with. The staff member in charge of them, QSL manager Yves, discovered an enourmous amount of letters in his mail box when he arrived home; all asking for a card of XR3J.

Listen to the world:

Your own receiver.

Three short-wave receivers were set up to enable scouts to listen in to world-wide radio traffic. Not only could they monitor the ongoing contacts in the radio station, but also listen in to other radio contacts and to foreign broadcast stations. Books with frequency lists to find these stations on the air were available.

In advance, short-wave world-service broadcast stations had been asked for their programme information. Radio Mexico International wrote back to us that they included greeting messages for the scouts at the Jamboree in a number of their programmes. Thousands of listeners around the world also heard these messages, which was good publicity for the Jamboree.

Each receiver was equiped with 3 sets of headphones. So more scouts could listen in at the same time.

One receiver was coupled to a computer with appropriate software to decode weather maps sent by satellites. It appeared to be difficult, however, to receive a clear signal from the sattelites to get a nice picture on screen.

Digital communications.

We had the full capability to send and receive digital messages via radio and email. At the start we had a good radio link working to a node station in Santiago. We ran several messages out by packet and email and received a good response on them. It was even possible to



Our qsl card manager at work sorting the cards.

connect XR3J via this network to other mailbox stations in various parts of the world, using a gateway in Santiago. After some days, however, the node station in Santiago was switched off for unknown reason and we lost our network connection.

Despite various attempts to reach another radio node, we had to abandon this activity for the remainder of the camp. There were no other possibilities within the radio network in Chile.

Radio-Scouting specials:

Fox hunt.

Five small transmitters were hidden on the Jamboree campsite. With a portable receiver scouts went out and tried to locate these transmitters individually. Each transmitter location had a separate marker attached to it, so we could check by the imprint of the marker on a fox hunt paper, whether the scouts had actually found the fox.

Finding one or more foxes entitled the scouts to receive the Jamboree fox hunt certificate. The first days it proved difficult to find all the foxes; some were really a bit far out, so we brought them closer to the station. One was very close, just 50 m away, and could always be found. We used an extra receiver to let them listen to the beeping sounds of the foxes first.

On each receiver the scouts could slightly tune the frequency and thus tune in to the different foxes. The fox transmitter were located at subcamp headquarters or with a contingent within a subcamp, so people were present to keep an eye on the transmitters. We brought them in every other day to charge the batteries.

Morse code competition.

A computer ran a competition to find out who was the fastest to read morse code letters. Our daily competition with a small prize for the winner was quite popular. We discovered that we had scouts at the camp site that could decode morse signals even better and faster than most operators at our station.

Electronics.

Scouts constructed a simple, yet attractive electronic circuit with flashing lights by using a soldering iron and several electronic components. We prepared a complete kit containing all the components and a battery.

We started out offering this activity to a maximum of 5 scouts at a time. It soon turned out that we had to double our capacity and we set up another table for the soldering activity. It took about half an hour to solder the kit together. Guaranteed working at the first try, unless of course, we weren't paying enough attention and scouts managed to solder components in the wrong places.

During the last few days we limited the numbers somewhat by asking scouts first to complete 3 other activities in the radio area before they could solder this electronic circuit. In this way we managed not to run out of stock until just before the closing ceremony. In total 500 of these circuits were built.

Repeater and internal frequencies.

For communications at the campsite within the team we used a 2 m frequency. There was also a repeater nearby that covered both Santiago and the camp site, operating on 146.790 MHz. Its use, however, was not popular, since any communication not in spanish appeared to be blocked by local operators



“Did I solder this right.....?”

Emergency communications

Luckily the camp did not suffer a major emergency and we did not have to provide emergency services.

One afternoon during the camp we ran a communication service by radio between a temporary Human Resources tent and their office elsewhere on the camp site. This was needed to assist the registration process of IST staff.

The camp medical staff did call upon us to provide communications during the closing ceremony. With very short advance notice, the XR3J team managed to put all 5 first-aid posts on the air, staff a command post with bilingual communication to the ambulance service and provide a radio link to the camp hospital. It proved important that we had radios capable to transmit outside the amateur bands as well. Only small injuries had to be dealt with and in some instances the ambulance service was called. The system we put up proved to work fine and the medics were happy with it.



Reception: "welcome at XR3J....."

Ham party

On 2 January we organised a reception party for all scout radio amateurs on the camp site. In total 32 scout radio friends visited the station that evening:

Argentina: LW2EVD, LU7FIA, LU3ARE, LW6DPT; *Austria:* OE3PBD; *Bolivia:* CX2FM; *Brazil:* PY5VIL, PY5OMA, PY4WGN, PY3ARD, PY5CA, PU2PTO; *Chile:* CE3ROS, CE3TIK, CE3FTP; *Guatemala:* TG9AMD; *Italy:* I8TPT; *Mexico:* XE2RVJ; *Netherlands:* PE1JLB, PD1ANI, PE1OZQ, PE1PBU; *Paraguay:* ZZ5BPE, ZZ5GWM, ZZ5LSK; *Spain:* EA3FAP; *Switzerland:* HB9WNQ; *United Kingdom:* G4TDF; *USA:* KB9RGY, N8RQX, KE6YPF

The programme started with a quiz about the JOTA history. Ben Cook, KE6YPF from the USA won the prize, a JOTA history book written by Len Jarrett.



The yellow-T-shirt XR3J team.

Team evaluation XR3J:

The atmosphere:

The organisation culture in Chile was different than most of us were used to. The first spanish word we learnt was: mañana. During the preparation it became clear that not everything we asked for could be in place upon the team's arrival. In particular because all preparations had to be done without any chilean radio amateur staff involved in it. We had a team of 16 people from Switzerland, Netherlands, Denmark, UK, US, Luxemburg, New Zealand, Finland, Brazil and Argentina. We prepared ourselves for an arrival to find absolutely nothing there. And behold: there

were 2 tents, 2 antenna masts of 20 m high with antennas, 2 lower masts with multiband T2FD antennas, electricity and we managed to arrange 3 mountain bikes (to get the rest of the equipment....). So we were doing alright. We assigned staff to assemble the rest of the equipment the first days. We got quite good at that, especially with the help of our chilean hosts and our staff from Argentina who spoke the same language.

The XR3J team ranged in age from 17 to 66, with different cultural background and experience. This was done on purpose; in particular younger staff was hired to transfer experience and knowledge to them by a number of more experienced scout radio operators. From the first days onwards we all knew exactly what to do, with a clear goal and well organized. The team was visible with bright yellow XR3J shirts, white jackets and caps, with added much to the atmosphere and team spirit. The improvisation talent of this group of scout leaders was impressive. After 3 days we had the feeling we could get anything done. And we did. We either obtained somehow what we needed, or made a work-around. Much help was the material that came in from various parts of the world with the contingent transport: top model transceivers from Ten-Tec in the USA arranged by Shelly, all the kit building needs from Holland arranged by Sjaak, the "international " fox hunt with transmitters from Holland (Jos), receivers from New Zealand (Jim) and Finland (Banda) and batteries from the UK (Lisbeth) [and it all worked together!], all the packet and SSTV equipment from the UK(Frank).

Yes, we had some challenges: different AC plugs from all those countries for a start, internet we could not get started, email we managed to route over a packet link first to Santiago then into the network (impressive and worked ok till someone in Santiago pulled a plug after 3 days...). The main thing was, however, to keep an open mind and improvise where needed.

The chilean hosts were doing their utmost to help, but in some cases they just couldn't; not all radio / internet services or equipment were available in remote area's in Chile. With this in mind we took pride in overcoming the organisational tricks. And this made it work.

International telephone contacts were very difficult the first 3 days. Far too few lines to accomodate all the 34000 scout calls home to inform of their safe arrival. Again XR3J was ready, we had HF running and helped out making contacts to scout's homes in various countries...! You should have seen the scout's faces when they saw us do this and let them speak to home countries, sometimes directly to their relatives, or to a next door neighbour ham station. Radio propagation condttions were helping us very much with sound contacts into every corner of the globe.

We ran the station 24 hours a day. This meant also running night shifts. Sleeping during day time was difficult, however, on the noisy and very hot camp site. We found a solution to rest in the shade of the quiet garden at "casa WOSM" just outside the camp gate.

Impressive how the group reacted to a call for help by the medical staff just before the closing ceremony to set up communica-

tions for them. We managed this with very short advance notice.

To see this determined group of scouters at work was different and a very enriching experience to all of us.

Yves remembers: *"someone asked me, as I was showing slides of XR3J activities, what was my best "souvenir" as radio operator. Probably this german scout, named Mark, sitting with me as I was working a pile-up with Europe. I asked him in german from where he was in Germany. From Stuttgart, he told me. I took the mike and asked the pile-up to stand by because I was looking for some station in Stuttgart. Then only one station answered, it was the scout HQ station of Stuttgart and Mark spent 10 minutes to speak with his scout friend at home !"*



The South-African contingent speaking with Cape town.

Statistics of the radio contacts

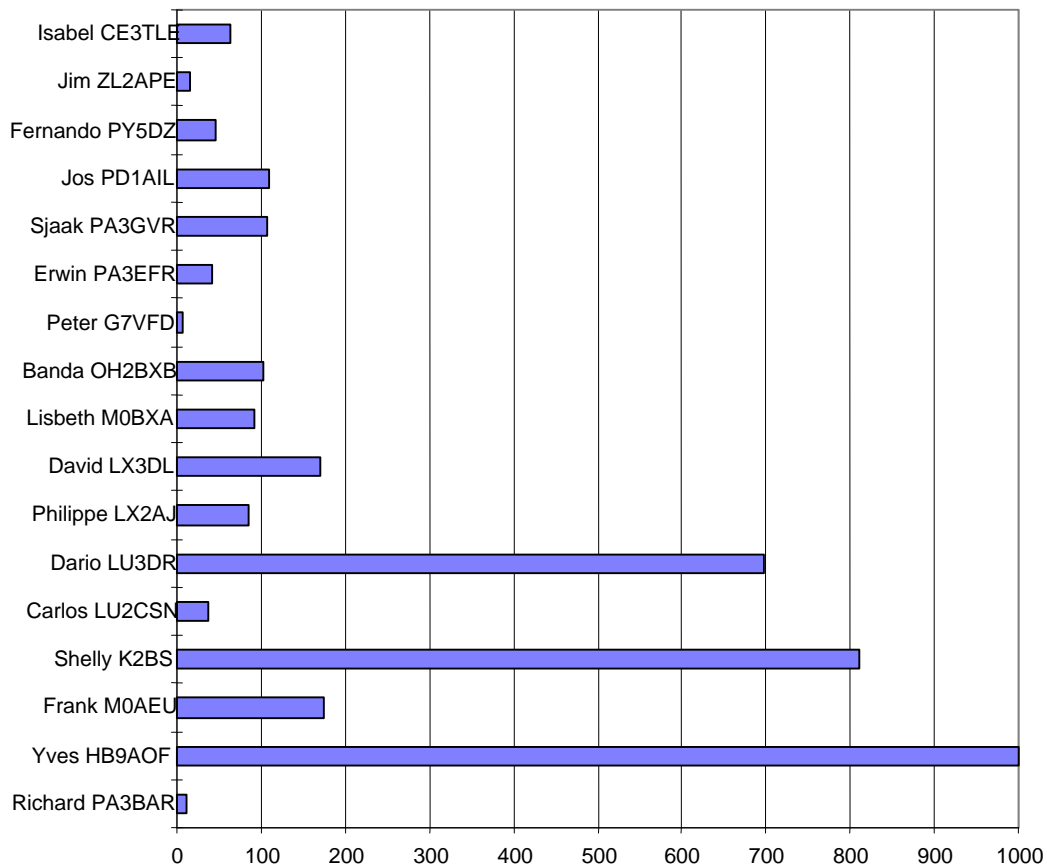
The figures below illustrate the radio contacts made during the Jamboree.

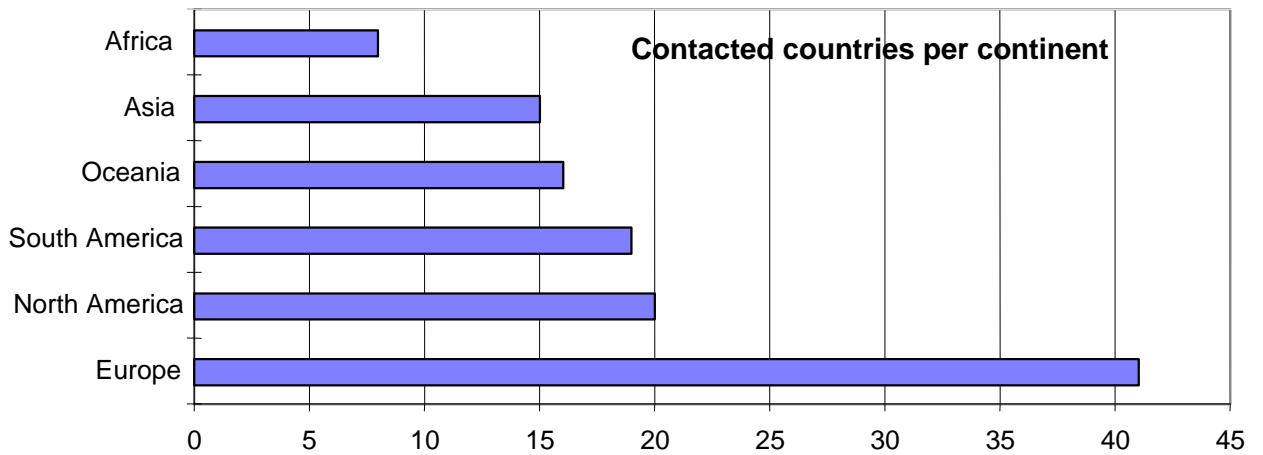
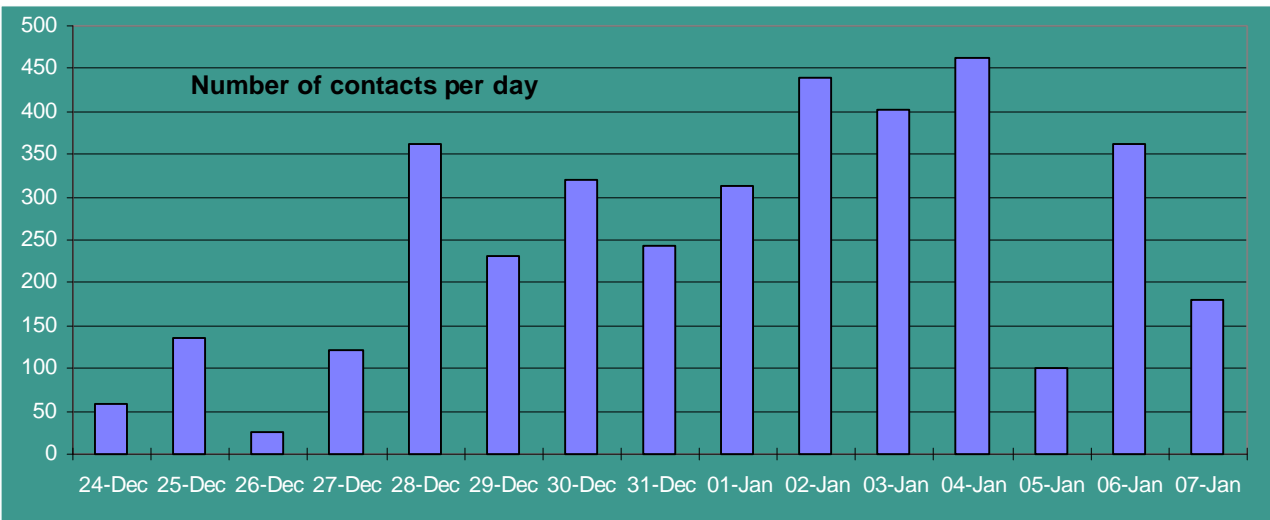
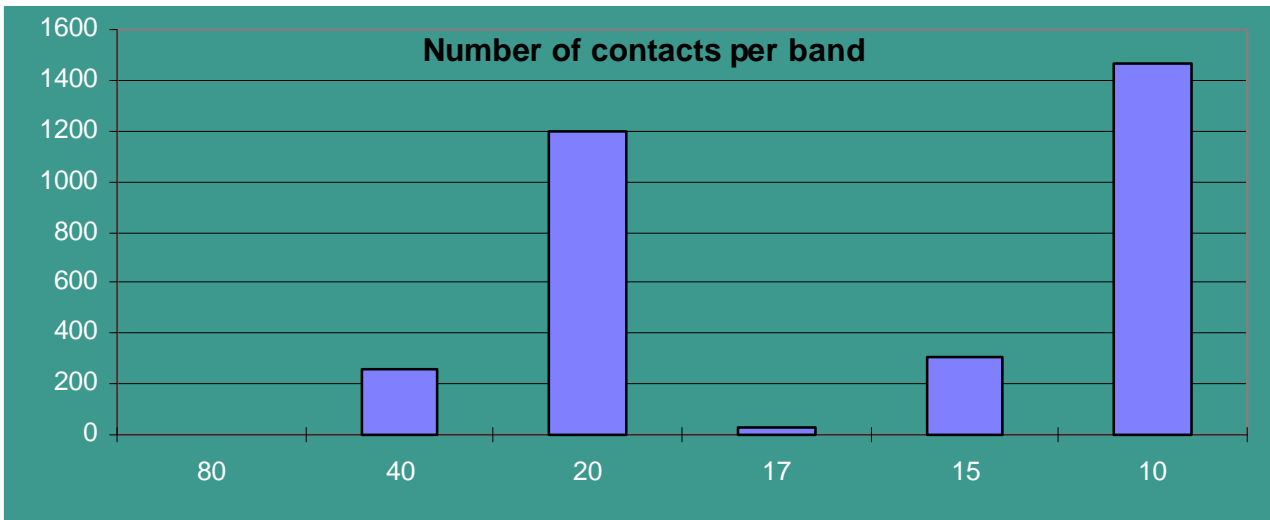
The most popular amateur radio bands were 10 m and 20 m. The propagation on those bands allowed long-distance contacts during the entire camp. Regional traffic was run on 40 m mainly.

One day, 5 January, suffered from less favourable propagation conditions due to flare activity of the sun; this resulted clearly in less contacts made that day.

The contacted countries were well divided over 6 continents.

Number of contacts per operator





Staff list

station manager:

Richard Middelkoop PA3BAR (42) World Scout Bureau

assistant station managers:

Yves Margot HB9AOF (49) World Scout Bureau

Frank Heritage M0AEU (32) United Kingdom

Jim Parnell ZL2APE (66) New Zealand

Shelly Weil K2BS (65) USA

Carlos G. Sanchez Napal LU2CSN (42) Argentina

Hannu Antero Rättö (Banda) OH2BXB (36) Finland

Erwin van der Haar PA3EFR (34) Netherlands

Dario Omar Sanchez Abrego LW1ECO (33) Argentina

Lisbeth Bianchi Jensen OZ1JRD (30) Denmark

Sjaak van Dam PA3GVR (27) Netherlands

Jos Leurs PD1AIL (21) Netherlands

David Luty LX3DL (20) Luxemburg

Fernando Brodeschi PY5DZ (18) Brazil

Peter Westwood G7VFD (18) United Kingdom

Philippe Luty LX2AJ (17) Luxemburg

Isabel Carreño Arellano CE3TLE Chile



The XR3J crew from left to right
 in the back: ZL2APE, LX3DL, OH2BXB, PD1AIL, PA3GVR, PA3EFR, LX2AJ, G7VFD, LW1ECO, M0AEU
 in front: LU2CSN, CE3TLE, HB9AOF, OZ1JRD, PA3BAR, K2BS, PY5DZ

