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The Krenkel Medal Award Committee

Thank you very much for the enormous honor of being nominated for the Krenkel Medal Award.

Born in 1949, my interest for radio started at my age of 4: In my family's living room was a big radio receiver with complete shortwave coverage. And the little boy rotated the "radio wheel" on the 80 meters radio amateur band, and eagerly listened to the radio amateurs transmitting AM in 1953. Watching their son's interest, the parents gave their son the kit named "The Little Electrician". And their son made electric circuits with alarm bell, switches, lights, and battery. And some years later he got a radio receiver kit, where he had to learn to solder the different components, in order to finish building the transistorized radio broadcast receiver kit with long wave, medium wave, and VHF FM.

In the Boy Scouts he learned the Morse code. And in 1962, 13 years old, he got two walkie-talkies for the 27 MHz Citizens' Band (CB) from a friend of the family, bought in the far East. This was one and a half year before laws were established for the use of CB radios in Norway. The CB radios were used in scouting, mainly for security communications. Different kinds of field antennas were built to increase the radio coverage. When 27 MHz opened via the ionosphere (sporadic-E or F2) to DX, it was exciting to contact other CB-ers far away. This was a fantastic evolution to "radio scouting". **Twice** he was able to call on ambulances and rescue teams for **rescuing injured persons** with the help of his CB radios – one cross-country skier in the thick forest North of Oslo – and one boy scout on top of a high mountain in the wilderness of central South Norway – many years before the introduction of mobile phones!

In 1969, as scout master, I invited all my boy scouts to participate in Jamboree-On-The-Air (JOTA) from my home. I had invited a licensed radio amateur to help us come on the air on amateur radio bands. I already had a vertical and a 5 element Yagi beam antenna for 27 MHz on the roof, which could be used on the 28 MHz ten meters band. But for JOTA I had hoisted a W3DZZ multi-band inverted V antenna in the 15 meters tall flag pole. And we got plenty of nice radio contacts during JOTA.

But I discovered that I knew at least as much about amateur radio as the radio amateur I had invited to help us in JOTA. I had wanted to take the license exam many years earlier. But my parents had said NO: I should finish high school, before taking the amateur license exam – or amateur radio would take up all my time, and leave little time for school work. And I knew my parents were right! But in 1969 I had finished high school the year before, and started on university studies, wanting to become a professional geochemist – with amateur radio as a hobby. So now the time had come!

During the 1969 Christmas break I trained Morse decoding by listening on magnetic tapes. And repeated for myself the necessary radio and electronics theory. I remembered my high school days, when our teacher asked me to **take over the teaching in electrotechnology**, because "*you know this better than me*", as the high school teacher said. The amateur radio examiner asked me to draw schematics for a radio frequency oscillator and a radio power amplifier. And I asked him if he wanted me to draw diagrams for transistors or for electron tubes. "*Do you know both?*", the examiner surprisingly asked. And I said yes. "*OK, so draw both*", he said – and I drew both. The whole examination took about 5 hours – and I later learned that I had chosen the most critical examiner around – who never let candidates pass the amateur license exam. So, when he said that I had passed the exam, I was so happy, that I felt like I was walking on the clouds on my way home, with never touching the ground with my feet – now I was just a few days away from becoming a licensed radio amateur!

I got my license with the call sign **LA4LN** shortly before my one full year (1970) conscription for army service training – as a radio telegrapher. I became an army radio telegrapher of the highest class – and I trained the Morse code in military training during the day – and continued from the army camp's amateur

radio station during evenings and days off. When put on duty from a stationary military telegraphy station, I plugged in my home-made electronic Morse code keyer (called an “el-bug”; not common at that time) – and soon became known as the fastest military telegrapher around in the Norwegian Army.

My first signals on the amateur radio bands with my own call sign was with the walkie-talkies, where I had exchanged the crystals for 27 MHz with crystals for 28 MHz. But after becoming a military telegrapher of their highest class, my father financed for me a Sommerkamp FTdx500 transceiver (like Yaesu FTdx400). This transceiver I used, with military approval, from different military camps, with extensive homemade wire antennas in the trees.

But boy scouting was not over. I had been asked to be a Scout Master in Northern Norway, when doing my military service there. And a national boy scout jamboree camp was coming up during the summer of 1970. I was given permission to leave the military for running my amateur radio station from the national boy scout jamboree camp, and to give courses in amateur radio, Morse code, and semaphore, plus running security radio communications using amateur and CB radios for the boy scouts’ hike in the high mountains. And when back in the military in North Norway - of course, the local boy scouts had to participate in JOTA, with the LA4LN call sign and my own transceiver.

When returning to the civilian life in Oslo in 1971, I was called to a meeting for organizing radio activities for boy scouts in Norway. The others had mainly experience from amateur radio and JOTA. But I had experience from security radio communications using amateur and CB radios for boy scouts, and of course from military communications. We decided at the meeting to present a broad program of all these radio activities to the Norwegian boy scouts. But before we quit the meeting – what should we call this activity? ***I proposed: “Radio scouting”. This became the name on these activities – and was later adopted as the international name on such activities.*** We started a national radio scouting committee, with me as one of the members, accepted by the Norwegian Boy Scouts’ Association – and I was given the task of **writing a monthly radio scouting column** in the magazine of the Norwegian Amateur Radio Relay League (NRRL), and to be **the net control for the Norwegian Scout Net** on 3740 kHz every Saturday afternoon. In addition, I was participating every Saturday morning in the World Scout Net on 14290 kHz (both nets from I got my amateur radio license in January 1970, until I left for USA in 1978; but continued for some years after coming back to Norway in 1982). For 2 years I transmitted **weekly CW training for radio scouts** (and others) from the call sign LA1SS (using the Oslo University Club Station LA1AD, being the club’s HF Manager) on 80 meters.

On many national boy scout jamborees I was in charge of putting up and operate an amateur radio station, and to give courses in amateur radio to the boy scouts – also running separate courses in amateur radio for boy scouts almost every year. Many boy scouts became radio amateurs after participating in my courses – also including the present Vice President of IARU: LA2RR! In **1975 the World Scout Jamboree** was held in Norway – and I was in charge of the large amateur radio station **LC1J** covering all amateur radio bands from 160 m to 70 cm, and with separate radios and antennas for CW, SSB, RTTY, SSTV (my own radio station), and via the OSCAR-6 and OSCAR-7 satellites – plus **my own constructed portable 2 m FM Jamboree Repeater LA5JR**. I had constructed a monster wire beam antenna pointing to the West, with 3 elements on 80 m, 5 elements on 40 m, and 9 elements on 20 m, published in a 2-part article in NRRL’s magazine “Amateur Radio” with my computer modeling here, as a 40 years commemoration:

<http://jotajoti.no/wordpress/wp-content/uploads/2015/11/Super-Giant-Yagi-Antenna LC1J Amateurradio Vol-80 No-5 2015.pdf>

and Part 2 here:

<http://jotajoti.no/wordpress/wp-content/uploads/2015/11/Super-gigant-yagi-antenne LC1J Del-2 Amat%C3%B8rradio Vol-80 No-6 2015.pdf>

In 1976 I edited a hard-bound **“Handbook of Radio Scouting”** with 114 pages, where I had written about half the book. For my own Scout Association I have been in charge of radio scouting since 1971 (a total of 47 years) – I was the **national JOTA organizer 1975 – 1978, and again from 2015 – now**. In 2006 I organized the 7th European Radio Scouting and Internet Seminar (ERSIS) in Oslo, with the special call LA7ERS. Lots

about radio scouting in Norway (with pictures) can be found on my web page (in Norwegian) www.tinyurl.com/radiospeiding. My 7th ERSIS web page is here: www.tinyurl.com/radiospeiding/ersis.htm.

In the military in 1970 I had also been trained in radio teletype (RTTY), and of course I started up with **RTTY** when I got back home. I joined the Scandinavian Amateur Radio Teleprinter Group (SARTG), and I became their **Norwegian SARTG Liaison from 1975 to now**. Another interesting mode being introduced was Slow Scan Television (SSTV), so from 1972 I had my own station doing **SSTV**. From 1972 permission was given to establish FM repeaters, and I participated in establishing the 2 m repeater LA5GR in 1972. Before this we experimented with repeaters, and used them when providing radio communications for the annual “Telemark Around” international bicycle road race that year (and for 5 years total on my behalf). Packet Radio (AX.25) was introduced by TAPR (Tucson Amateur Radio Group) – and I started with AX.25 and with membership in TAPR, developing some AX.25 digipeaters at high mountains. I became **Packet Radio Manager in SARTG from 1982 to now**; and for 3 years I was **president of the Norwegian Packet Radio Group (LAPRG)**.

In 1982 I put up the first licensed “**remote base**” **10 meters <=> 2 meters repeater** in Europe: LA8OR, which was up and running for some years, with good results. (The call is now used for a different repeater).

For the NRRL the tasks have been many. **From 1971 and until today** I have written an article or column in **every monthly issue** of the NRRL Magazine “Amateur Radio”. These have been **technical articles** about different antenna types; an important article about varactor tuning of the radio orienteering receiver (because earlier portable radio sets for this purpose had a variable capacitor for changing frequencies – which broke when the receiver fell to the ground); digital modes; DXing; radio scouting; and about HF and VHF matters. Some of these articles have been published also in the Swedish “QTC Magazine”, the Danish “OZ Magazine”, the British “RadCom Magazine”, the American ARRL “QST Magazine”, and the American “CQ Magazine”, as well as the American “DX Magazine”, and the British “DX News Sheet”.

The NRRL official duties have been “Radio Scouting Liaison”; NRRL IARUMS (IARU Monitoring Service) Manager (for 8 years); weekly **NRRL Bulletin Editor** and weekly NRRL Bulletin Broadcaster in RTTY, ASCII, and AX.25 Packet Radio (1982-1986); weekly NRRL Bulletin Broadcaster in SSB (plus stand-in for some bulletins in CW) for 3 years; and NRRL Bulletin Broadcaster in SSB monthly from 1998 to now; NRRL DX Manager and **DX Editor from 1992 to now**, with **weekly DX bulletins from 1982 to now** on LA-DX-GROUP’s weekly DX-net – and by **now 748 weekly written DX bulletins**; **NRRL President** 1998-2000; NRRL **HF Traffic Manager** 1999-now; **VHF Manager** for 2 years; mentor for disabled radio amateurs via the LA5LG Assistance Fund. And leader + instructor at amateur radio courses. I contributed about digital amateur radio in NRRL’s textbook, and in a separate booklet; and on antennas in NRRL’s antenna book.

During my 4 years in USA at The Pennsylvania State University I became a *Board Member* of the local club, and the **Editor** [while not native English speaking] of the Club’s Newsletter of the Nittany Amateur Radio Club (in Pennsylvania); and **weekly bulletin broadcaster on 2 meters SSB** for the club “*Sidewinders on Two Radio Club*” <http://www.swotrc.net/TheSWOTRCHP.aspx>

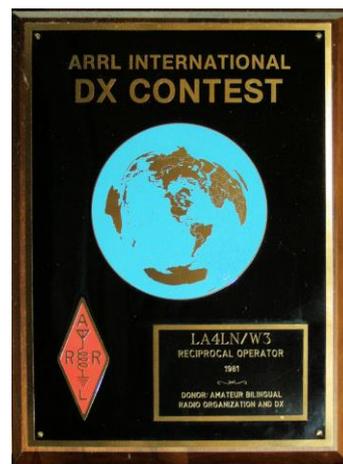
Many times a year since 1970 I have every year given **talks and presentations** about different aspects of amateur radio in all Nordic countries, European countries, and at different places in USA. Topics have been radio propagation, antennas, and DXpeditions. As a service to other radio amateurs, a help for HF- and VHF-propagation was made and put on my web site: www.tinyurl.com/radiohjelp [“radiohjelp” = radio help].

DXpeditions - Other calls held by LA4LN: DL/LA4LN, EI4VBH, F/LA4LN, G5BLT, G0/LA4LN, GM5BLT, GM0/LA4LN, HB9/LA4LN, HB0/LA4LN (Liechtenstein), I/LA4LN, JW4LN (Svalbard and Bear Island), J37ZF (Grenada), J6/LA4LN (St. Lucia), J73ALN (Dominica), J8/LA4LN (St. Vincent), KH6/LA4LN (Hawaii), KH8/LA4LN (American Samoa), KL7/LA4LN (Alaska), LA4LN/SM and SM/LA4LN, LA4LN/TF (Iceland), LA4LN/VE, LA4LN/W, LC1V, LC4LN, LH2UB & LH2VB (professional non-amateur licenses); LI4LN, LZ/LA4LN, MM/LA4LN (Scotland), OE/LA4LN, ON8XJ, OH/LA4LN, OH0/LA4LN (Aaland Island), OY/LA4LN (Faroe Islands), OZ/LA4LN, PA/LA4LN, T32T (East Kiribati; 1992 only; the call was re-issued), XE1ISC (Mexico), ZS6/LA4LN (South Africa), 8P9CR (Barbados), 9A/LA4LN, 9Y4/LA4LN (Tobago Isl.).

Station Manager / QSL Manager for: JW1V, LA1V, LA3JAM, LA3SS, LA4JAM, LA4SS, LA7ERS, LC1J, LC1V, LC4JAM, LC4LN, LI1V, LI4LN, LN1V. Station and QSL Manager for LJ2T. See these stations on www.grz.com for more information and pictures.

Have operated as **JW4LN** and **JW1V** from many places in **Svalbard in the Arctic** at many expeditions from 1971 and on: From the islands of Spitsbergen, Hopen, Kong Karls Land (King Carl's Land), and Bear Island; and as **KL7/LA4LN** from **Alaska**.

Winner of many amateur radio contests: For many years LA4LN has been the best Norwegian station in CQWW Contests in SSB, CW, and RTTY. In 1981 **LA4LN/W3** won the ARRL DX Contest for portable ops, when operating portable from Pennsylvania, USA (see plaque picture to the right). A special interest for VHF made him win the **NRAU Nordic Activity Contest (NAC) for Norway** on different VHF bands for many years. The annual champion is the one with **highest total score from all monthly contests during the year**. He



won **2 m** with the call LA1AD for 1975. For 1997 and up to now LA4LN has won *all years (minus just one)* NRAU NAC for **6 m**, and *all* NRAU NAC for **4 m** from 2010 to now. Some of the years special calls were used: LI4LN, LA1V, or LN1V. (The two latter call signs for the National Guard's Amateur Radio Club, where LA4LN is the founder and chairman; cf. his use of the call sign JW1V from Svalbard). LA4LN is listed with about half the number of new "first" countries contacted on 4 m (70 MHz) from Norway, and also a number of "first" countries contacted on 6 m (50 MHz) from Norway. LA4LN has made contacts with *all* DXCC entities on HF, more than 150 DXCC entities on 50 MHz, and 47 DXCC entities on 70 MHz.

Internationally LA4LN was the **host of the IARU Region 1 Conference 1999 in Norway** arranged by NRRL, of which LA4LN was the President. He has participated in all IARU Region 1 Conferences and Interim Meetings from 1999 to now. He has made a number of proposals to IARU Region 1, with most of them being approved. He is also a member of the **IARU Region 1 Bandplanning Committee**.

Professional career: Education with University Degrees at the University of Oslo, evaluated at least equivalent to **Ph.D. in Geology with mineralogy, petrology, and geochemistry**. Since 1984 employed by the University of Oslo as **Associate Professor of Geochemistry, with Resource and Environmental Geology**; and **Head of the Geological Museum** and **Head of the Natural History Museums** (a total of 12 years); all at the University of Oslo, Norway. He has written many professional and popular papers within his expertise.

Military career: Basic military training in the Army's Signal Corps as a radio telegrapher of highest class, obtaining the rank of Corporal (in 1970). Asked for transfer to the National Guard, and took many courses at military schools, reaching the rank of **Captain** (in 2000). Has served in different posts, including second in command for signals at regiment level, and has been used extensively as instructor in radio communications at different military schools and military units. He participated in writing the Radio Regulations for the National Guard of Norway. In 1973 he joined the newly founded **Army Signals Fellow Club (HSBKF)**, became its board member in 2001, and its **Chairman** in 2006 until now (elected to be in this position until 2020). In 2004 he took the initiative to expand the club to cover all signal soldiers in the country, with a name change **Signal Soldiers Fellow Club (SBSF)**, for which he also has been **editor** of their quarterly magazine and **webmaster** for www.sbsf.no. From 2007 to 2015 he was a board member for the **Military Signals Museum**, where he contributed old signals units from the National Guard for an exhibit in the museum. He was also able to have the old Army's Radio School call sign **LJ2T** be transferred to the Museum, so that it can be used on amateur radio from the Military Signals Museum; website www.sbsf.no/mkj.htm. Board member of NMKF veterans.

Other activities: He plays the recorder flute, played trumpet in school orchestra from 1957 to 1968, played guitars since 1963: solo guitar in the beat music band "The Leaches", and plays 12-string rhythm guitar, and 4-string bass guitar. Has played in cabarets at the University of Oslo, where he also has written songs and plays. For national boy scout jamborees he has composed and made poetry for the official camp songs. He purchased his first computer in 1978, and automatized the mass spectrometers at Penn State University.