

OZ4VO

when everything fail – CW will prevail

NAME Ole = QTH Pandrup =
RIG Mobile on Battery, XCVR Yaesu FT-891, PWR 30 – 50 Watt =
ANT 1: Small Loop Indoor = ANT 2: Random wire Indoor against an Artificial Ground =
Straight KEY L. M. Ericsson & Co Stockholm = Paddle KEY Begali Signature =
HF Bands: (160) – 80 – 40 – 30 – 20 – 17 – 15 – 12 – 10 Meters

THE OPERATOR

My name is OLE – born in 1941
I got B-license as a radio amateur in 1959 and A-license in 1969

I WAS INFECTED WITH RADIO VIRUS JUST BEFORE I BEGAN SCHOOL. I got some old radios (from 1920 to 1939) and I learned how a radio receiver was build by disassembling them. I built my first crystal detector receiver at the age of 10-11 and I built the first simple receivers with tubes before the age of 14.

BEFORE THE AGE OF 14 I KNEW I wanted to be a radio technician. But I could not find an apprenticeship so I joined the army at the age of 16 were I started training as a wireless operator and a radio technician.

DURING THE FIRST YEARS AS A RADIO TECHNICIAN I was servicing BCL radio- and television sets and professional HF and VHF radio equipment.

After furtherer education my profession became design, development and construction of professional HF and VHF radio equipment for ships, aircraft, man-packs and helicopter ports.

OCCATIONALLY I WENT ON THE AMATEUR BANDS using the professional equipment. I never had the possibility to build up my own amateur radio station except for a short period from 1979 to 1984 where I built a 1KW, 1.5 to 30 MHz, transistor PA stage and an automatic antenna tuner. During this period I was hardly active on the amateur bands except for a technical interaction with an amateur in Holland, one in the Shetland Islands.

FROM APPROXIMATELY 1985 I TOTALLY CHANGED MY PROFESSION. I started training people in Project Leadership as a “playing trainer” or “steh Geiger” as they said in Strauss' Vienna.

I WANT TO RESUME NY OLD HOBBY

But excuse me if I react and sound weird

NOW WHEN I AM RETIRED I want to resume my old hobby; Amateur radio communication and radio engineering.

60 YEARS AGO I WAS A BRASS POUNDER. Now I am retraining my old CW skills – from primarily by sight (visualization), writing everything, analytical – to primarily by hearing (auralization), head reading, memorizing, creative – and at the same time learning Electronic keying.

Quality first, and then speed –target on Straight Key, 16+ wpm and on Paddle Key, 19+ wpm.

MY PHYSECAL HEALTH is reduced (Parkinson, Osteoporose, Apoplexy) – vision, voice and motor skills
My handwriting is unclear and my vision is blurry so I have to remember everything. Therefore, I prefer to communicate in short phrases – **so excuse me if I react and sound weird**

MAIN INTEREST

The CRAFT of designing, building, optimizing and testing RADIO COMMUNICATION GEAR

The ART of RADIO-TELEGRAPHY – from FIST to EAR

On the 160, 80, 40, 30, 20, 17, 15, 12 and 10 meter bands

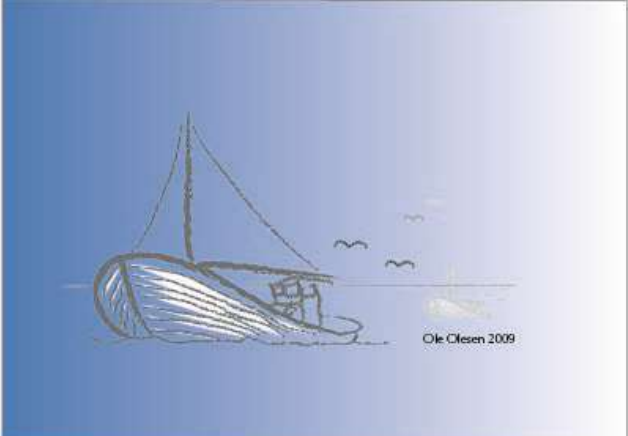
MY AMBITIONS ARE only to work a little with radio engineering, listen a lot to the amateur bands and occasionally connect with another radio amateur.

PLEASE NO QSL

I don't collect QSL's – my pleasure is QSO'ing with you

I don't participate in any competitions and I don't collect QSL's – my pleasure is QSO'ing with you.

IF IT IS IMPORTANT TO YOU to get a QSL card from me I can send one direct by post or by e-mail.

	TO Amateur Radio Station <input type="text"/>	FROM Amateur Radio Station OZ4VO						
	DR OM Confirming our two way connection TNX FER NICE QSO – Best 73 ES GL Sign <input type="text"/>	OP Ole Olesen QTH Stormgade 16, DK-9490 PANDRUP Denmark. MAIL OZ4VO@ole-olesen.dk						
	DATE yy mm dd <input type="text"/>	UTC hh mm <input type="text"/>	FRQ/BAND KHz/Meter <input type="text"/>	MODE <input type="checkbox"/> CW <input type="checkbox"/> SSB	R S T <input type="text"/>	RIG YAESU FT-891	PWR Watts <input type="text"/>	ANT Indoor <input type="checkbox"/> Loop <input type="checkbox"/> Wire

THE QTH

My QTH is Pandrup – Denmark

Pandrup is a small village in the northern part of Denmark near to the tourist site Blokhus (old coastal fishing site) and not far from Aalborg.

I LIVE IN A RETIREMENT HOME WITH ALMOST IMPOSSIBLE ANTENNA AND GROUND CONDITIONS and high level of QRN – a real cliff dwellers QTH.

For such conditions I built a small mobile amateur radio set, which can be packed in a cabin bag and set up anywhere e.g. in an apartment building, a retirement home, a nursing home, a holiday home, a camping site, a parking space, etc.

THE RIG

The core of my RIG is a YAESU FT-891 TRANSCEIVER

THE OPTIMAL POWER SUPPLY IS A RECHARGEABLE BATTERY. I tested different power supplies but they are too noisy. The condition and load of the battery can be monitored on a Power Panel with Volt- and Ampere meter. Not necessary but practical.

It is of great importance for power consumption that the antenna match is as perfect as possible, because at a perfect SWR ratio, the power consumption is lowest possible or, conversely, at a slightly poor SWR ratio, the power consumption is unnecessarily high.

I use a 12 V 36 AH battery as a suitable compromise for a portable set.



Manual tuner, antenna switch, SWR meter, paddle key, power panel, transceiver, straight key

THE ANTENNA

The cliff dwellers dilemma – usable antennas to get in the air from an impossible QTH

My antennas are:

3 – 30 MHz, four loop antennas indoor – with an home brew loop antenna tuner

And / or

1.8 – 30 MHz, a random wire antenna indoor 12 meters and an artificial ground wire 12 m – with an MFJ- 934 antenna tuner

WITHOUT A USABLE ANTENNA NO TWO-WAY CONNECTION – that's probably the biggest problem for a cliff dweller.

SINCE THERE IS A HIGH LEVEL OF QRN ON MY QTH I BUILD FOUR INDOOR LOOP ANTENNAS covering the range 3 to 30 MHz which can be set up anywhere and tuned with an MFJ-936B tuner or a homebuilt tuner. This configuration is independent on a ground plane.

AFTER MANY EXPERIMENTS WITH INDOOR WIRE ANTENNAS I ended up with a random wire of 12 m, suspended in the attic under the ridge approx. 5 meters above ground level.

And after many experiments with various ground planes I ended up with a tuned wire of 12 m along the baseboard in my shack – a tuned "ARTIFICIAL GROUND".

Usable lengths for the antenna and ground wires are 12, 18 or 24 meters.

The ground wire needs tuning at 160, 80 and 40 meters. Above 40 meters the ground wiring in the shack is sufficient as a ground plane.

THIS COMBIATION OF A RANDOM WIRE ANTENNA AND ARTIFICIAL GROUND can be tuned at all bands from 3 to 30 MHz – and with a 48 μ H coil in series with the antenna it can be tuned from 1.8 MHz – with an MFJ-934 tuner.

NONE OF THOSE MENTIONED IS AN EFFECTIVE ANTENNE SYSTEM, but it is a USABLE system. With a perfect match, the transmitter is tuned to the loss resistance in the artificial ground, the loss in the tuner, the loss resistance in the antenna wire, the loss in the surroundings and finally the RADIATION RESISTANCE. The overall antenna / ground system can be optimized by using better components.

BUT THEY WIL NEWER REPLACE A GOOD OUTDOOR ANTENNA

Until now, I have had a few two-way CW contacts across Europe with the random wire antenna on 160, 80, 40, 30, 20 and 17 m – and with the Loop antennas on 80, 40, 30, 20 and 17 m.

And under good conditions I heard even more long distance HAMS – e.g. from Mexico, USA, Greenland, Russia and Japan – on all antennas on the 40, 30, 20, 17, 15, 12 and 10 meter bands.