Western Suburbs Radio Club Inc.

October 2006 Newsletter

ZL1AC, Branch 03 NZART 3000 Great North Road New Lynn, PO Box 15-122, New Lynn.
President: Andrew Barnett ZL2ALW, Secretary: Ross Reddell ZL1VRR
Newsletter Editor – John Neill ZL1NE
VHF Club Net Wednesday 07:30pm 146.525 MHz, HF Club Net Fridays 07:30pm 3.623 MHz
Website http://www.qsl.net/zl1ac

Club Calendar

Monday	9th	October	Club Meeting - ATV – Making a Video Part 2.
Monday	30th	October	AREC Meeting at 7:30pm

October Club Meeting

Programme to be announced. Amateur Television – Making a Video Part 2.

September Club Meeting

The club carried out further planning on setting up the Amateur Television Studio and part 1 of how to make a video.

Irving Spackman, ZL1MO, now a silent key

Irving passed away on Thursday 17 September and there were many hams at his funeral to pay their respects. They came from the VHF Group, where Irving was a foundation member, from the Hibiscus Coast branch, the Western Suburbs Radio Club and from around Auckland. Irving obtained his licence in 1947 and developed a keen interest in VHF and UHF and later, in moon bounce and satellites. He was renowned for his technical knowledge, and his willingness to pass it on. For a number of years he edited the Satellite News page in Break In. He also held executive positions in the above branches. It should be remembered that the WSRC took Len Spackman's call ZL1AC, Len being Irving's father, and one of the first radio amateurs in Auckland. Our condolences go out to Mary Ann and family.

Waitakere Sprint 2006 Results

Call	Phone	CW	Total	Place
ZL1ALZ	39	22	122	1st
ZL2AJB	31	25	112	2nd=
VK2AEA	33	23	112	2nd=
ZL1BYZ	31	24	110	4th
ZL1KMN	31	23	108	5th
ZL1DK	30	21	102	6th=
ZL2AUB	32	19	102	6th=
ZL1WI	15	5	40	8th
ZL2SKY	30		30	9th
ZL1SK	26		26	10th
VK4HTM	24		24	11th
ZL1TW	23		23	12th=
ZL2CD	23		23	12th=
ZL4IM	22		22	14th
ZL1BFB	21		21	15th
ZL4PH	20		20	16th

ZL1VRR	17	17	17th
VK5BLS	14	14	18th
ZL2ALJ	13	13	19th=
ZL1MAT	13	13	19th=
ZL1NE	12	12	21st
ZL1DAC	11	11	22nd
ZL1AW	9	9	23rd=
VK5ZKT	9	9	23rd=
VK3JS	6	6	25th
ZL1ANY	3	3	26th

Club Nets

VHF Net 146.525 MHz 7:30pm every Wednesday, HF Net 3623 KHz +/- QRM/QRN 7:30pm every Friday. All are welcome to check in on the nets. The HF Net Roster can be found on http://www.qsl.net/zl1ac/wsrc-hf-roster.html.

6-Oct-06	**ZL1MW**	**Brian**
13-Oct-06	**ZL1JL**	**John**
20-Oct-06	**ZL1NE**	**John**
27-Oct-06	**ZL1ACZ**	**Barry**
3-Nov-06	**ZL1WI**	**Roy**
10-Nov-06	**ZL1VRR**	**Ross**
17-Nov-06	**ZL1MW**	**Brian**
24-Nov-06	**ZL1JL**	**John**

Merv's Great Southern Safari

I intend to leave for the South Island on Sunday 1st October 2006 (first day of daylight saving) for a six month "in my own time" safari. The trip to Wellington to catch the Cook Straight ferry is also totally free so that arrival in Wellington may take 3 to 7 days or whatever.

Radio wise I will be constantly (well almost) monitoring 80 and 40 metres plus 2 metres and the National network. I try to make a point of particularly doing a radio watch "on the hours, every hour" so as to have some sort of method or system instead of just plain random. Whilst traveling of course the radios will be listening non stop. My absence on the hourly watches will be purely because of 3 main reasons namely, shopping, sleeping or just walking around viewing the countryside. When walking around I will endeavour to monitor the National System where it is available to a hand held.

The H.F. frequencies I will mainly use are 3.677 MHz and 7.0625 MHz (the Counties Nets) plus 3.635, 7.070 and 7.075 MHz. limited mainly because of the narrow bandwidth of the Helical whips though both the 80 metre and 40 metre whips are adjustable to cover the full bands. I can switch effortlessly whilst mobile on the road from 80 or 40 because both whips are mounted separately on the vehicle and only require the flick of a switch and a memory change on the YAESU FT-897D to swap bands. But I will also be checking out from time to time the SPAM and OTC net frequencies. If the above frequencies are busy I will then take a look around 7.085 to 7.095 MHz. I even have a whip with 2 giant coils in it tuned so that I can attempt a 160 metre mobile contact on 1.850 MHz.

I have obtained from the National Library Archives a high resolution scan (on C.D.) of 2 South Island maps dated 1967 showing in great detail the usual map data PLUS ALL the Counties borders which I hope will make the Counties Nets a lot of fun and interest for me and Counties hunters.

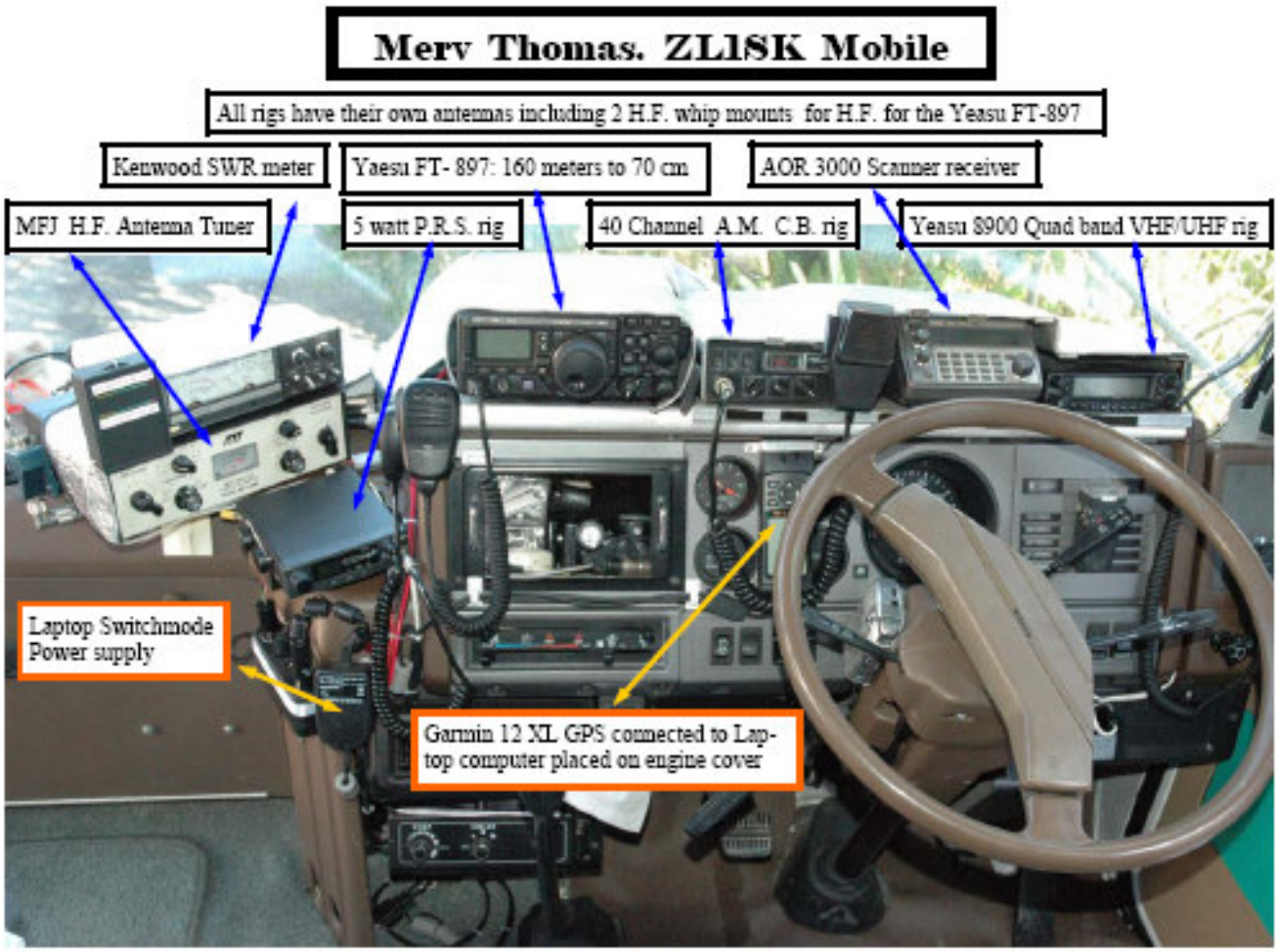
From October 1st. to December 20th. (when I fly home to spend Christmas with the family) my aim is to cover the top of the South Island as far as Christchurch where I will leave the motorhome and then fly back to Christchurch on January 2nd 2007 to continue the grand tour up to the planned 31st. of March.

I have spent the last 3 to 4 months preparing photos, maps, historical data, GPS co-ordinates (of Towns, Ham repeaters, the many locations that my mother lived in around Canterbury and Otago as a child, historical gold and coal mines and townships, DOC and free camp sites, etc; etc; etc;) all of which are safely stored on 2 CD's.

So if any of you feel like trying to contact me by radio at any time I will be more than thrilled to have 1 or 15 or more overs with you.

Merv Thomas ZL1SK

Merv's Well Appointed Motor Home



AREC Meeting

The AREC section meeting is to be held on Monday 30th at the WSRC club rooms. There a few pages of the Blue AREC folder to be updated. Current names and call signs of the members will be issued. Also a new AREC prefix's in the ZK1 series instead of the ZL1 that we have been used to over the many years, will be issued. There is also a new AREC frequency in the 5 MHz HF range. There will some time spent with some revision to refresh memories on operational procedures.

AREC Now's what is up and new.

AREC will now have a ZK prefix before your assigned letters EG ZKEK, ZKEKR. A document giving the rules about call signs, PIB46, is expected to be published by MED RSM in the near future. Full details will have to wait until publication but

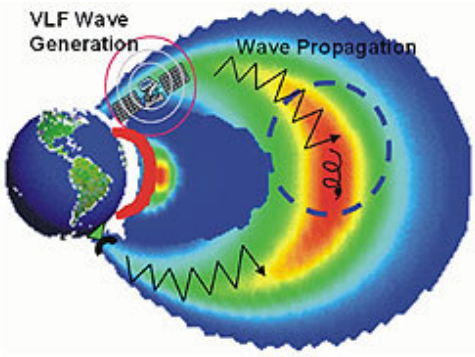
verbal approval has been given for one change to be implemented now. The ZK prefix has been relinquished by the Cook Islands and it is now to become available for NZART to administer. The intention is that NZART in turn will permit the ZK1 to ZK9 series (or an appropriate part of the same) to be allocated for use by AREC replacing the ZLE series that has been used throughout the long history of AREC. Details of this arrangement will be advised to NZART members in due course.

NZ Amateur use of two 5 MHz Defence frequencies

Arrangements have been made with the licensee for AREC to be permitted access to two spot frequencies near 5 MHz. The agreed "Rules for Access" are on the sheet attached. This is a new form of "sharing" of a licence by amateurs.

Please note that it is requested that reports be made about the use of these two spots. It is known that at an appropriate time in the future, IARU proposes to seek an amateur band around 5 MHz. Having a collection of reports on NZ's experience will be of assistance at that time.

"Radiation Belt Remediation" Plan Could Affect HF Propagation, Study Suggests



A diagram of a radiation belt remediation system in operation (after Mozer).

NEWINGTON, CT, Aug 15, 2006 -- A **New Zealand** university research group believes a US Defense Advanced Research Projects Agency (DARPA) "Radiation Belt Remediation" (RBR) plan could cause major worldwide disruptions to HF radio communication and GPS navigation. DARPA reportedly envisions the (RBR) system as a way to protect low-Earth orbiting (LEO) satellites from damage caused by severe solar storms or even from high-altitude nuclear detonations. The New Zealand-based research group suggests, however, that policymakers need to carefully consider the implications of the project. Headed by Otago Physics Department researcher Craig Rodger, the research group says RBR could significantly affect radio propagation from several days to a week or longer.

"We've calculated that Earth's upper atmosphere would be dramatically affected by such a system, causing unusually intense HF blackouts around most of the world," Rodger said in an Otego University news release. "Airplane pilots and ships would lose radio contact, and some Pacific Island nations could be isolated for as long as six to seven days, depending on the system's design and how it was operated." GPS would likely also be disrupted on a large scale, he added.

Physicist and researcher Craig Rodger of the University of Otago in Dunedin, New Zealand.

Flushing Particles Using VLF Signals

System tests would employ extremely high-intensity, very low frequency (VLF) radio waves to "flush" particles from radiation belts and dump them into the upper atmosphere. The disruptions would result from the deluge of dumped charged particles temporarily changing the ionosphere from a "mirror" that bounces HF radio waves around the planet to a "sponge" that soaks them up, Rodger says.

The group's paper, "The atmospheric implications of radiation belt remediation," appears in the August edition of the international journal Annales Geophysicae. Otago University researchers collaborated with the British Antarctic Survey, the Sodankylä Geophysical Observatory in Finland and the Finnish Meteorological Institute in its preparation.

Sleight of HAND

Unclassified US Department of Defence budget documents from earlier this year propose at least initially using the High Frequency Active Auroral Research Project (HAARP) near Gakona, Alaska, "to exploit emerging ionosphere and radio science technologies related to advanced defence applications." HAARP is jointly operated by the US Air Force and the US Navy. The project appears to be included under a program called "Sleight of HAND" (SOH).

"The effects of High Altitude Nuclear Detonations (HAND) are catastrophic to satellites," the budget report explains. "HAND-generated charged particles are

trapped for very long periods of time, oscillating between the earth's north and south magnetic poles. This enhanced radiation environment would immediately degrade low-earth orbiting (LEO) spacecraft capability and result in their destruction in a short period of time."
The military budget documents refer to the SOH program as "a proof of concept demonstration" of technology and techniques to mitigate the HAND-enhanced trapped radiation, with the goal of accelerating "the rate of decay of trapped radiation from the LEO environment by a factor of 10 over the natural rate of decay."
Phase 1 of SOH would use a high-power ground-based source of VLF radiation - at least initially using the HAARP facility - "propagating through the ionosphere to deflect the trapped radiation deep into the atmosphere." If that proves valid and cost-effective, space-based demonstrations and tests apparently would follow.

Proposal Piques Interest of Amateur Radio Community

The New Zealand research paper caught the interest of at least one newspaper, the New Zealand Herald, and word of the plan soon was circulating within the worldwide Amateur Radio community. ARRL Propagation Report Editor Tad Cook, K7RA, investigated and filed a special propagation bulletin August 15.
"When I first heard of this on Monday morning, I thought it must be something from a fringe Web site peddling dark conspiracy theories," Cook commented, "but the newspaper reporting the news is real, and so is the team of scientists from New Zealand, the UK and Finland." Cook contacted Rodger to learn more.
"He proved very cooperative, accessible and helpful and told me RBR is a serious project, that 'money is starting to appear to investigate it in more detail,' and 'US scientists with military connections are treating it seriously'," Cook reports.


A section of the HAARP facility antenna system near Gakona, Alaska. [HAARP Photo]

Sheer Energy

Cook says he shared with Rodger speculation by *QST* Contributing Editor Ward Silver, N0AX, to the effect that "the sheer energy needed to accomplish [RBR] would tend to rule it out from the start, and I don't know where they would erect the necessary antennas."
Responded Rodger: "This would be true, but they are hoping to rely on some of the non-linear processes in space plasmas, stealing the energy from the radiation belts to get the wave amplitudes high enough. We know this is possible - in theory - as it happens naturally already. We don't know how *easy* it will be to get it happening under our control."
Rodger says there are two plans to erect the necessary antenna. "One is to fly VLF antenna in space. This could be a power problem," he told Cook. "But for ground-based systems, you probably already know that most major naval powers have *big* VLF transmitters dotted over the globe."
Two US Navy VLF transmitters have power output capability in the megawatt range, Rodger remarked. "While these are designed to keep the signals mostly under the ionosphere, it shows the possibility for building big powerful antenna." No mention of HAARP appears in the group's research paper.

Ozone Layer Impact Minimal

The research group also calculated RBR's potential to affect the ozone layer but found that ozone depletion would be short-lived and similar to that resulting from natural processes such as large solar storms and volcanic eruptions.

Israel to impose tough new rules on amateurs

(Aug 3, 2006) -- According to the Radio Society of Great Britain (RSGB), Israeli authorities have imposed "draconian new rules" on radio amateurs. Effective January 2007, many of Israel's radio amateurs will not be able operate their radio equipment unless it has been inspected and authorized by government officials. The requirement follows ratification of a new law aimed at preventing harmful radiation from radio equipment, RSGB says. Amateurs who operate only VHF and UHF equipment at an output below 20 W are exempt. Radio amateurs also will have to obtain permits to erect antenna support structures, and these will only be granted if the licensee can demonstrate that the installation will not cause harmful radiation. The new rules provide that operation of Amateur Radio equipment without the proper permits will be considered a criminal offense. According to a spokesman for Israeli amateurs, the harsh new rules followed in the wake of public concern regarding the safety of cellular telephone masts. The RSGB notes that no study has shown any evidence of harmful radiation from cellular or from Amateur Radio installations. Earlier this year, Moshe Galili of the Israeli Ministry of Communications told the Israel Amateur Radio Club annual general meeting that his agency was working toward an across-the-board exemption for Amateur Radio with respect to the non-ionizing radiation law adopted last December, which covers RF sources as well as magnetic and electrical fields from power lines.