



Western Suburbs Radio Club Inc.

August 2005 Newsletter

ZL1AC, Branch 03 NZART 3000 Great North Road New Lynn, PO Box 15-122, New Lynn.

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VHF Club Net Wednesday 07:30pm 146.525 MHz, HF Club Net Fridays 07:30pm 3.623 MHz

Website <http://www.gsl.net/zl1ac>

Club Calendar

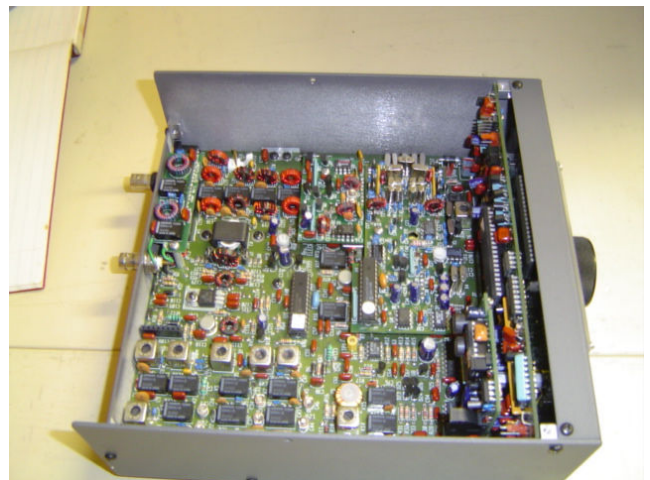
Saturday	6 th	August	Waitakere CW Sprint 100 to 1100
Monday	8 th	August	Club Evening – Ian Sangster on the Dayton Ham Fest
Monday	29 th	August	AREC Meeting at the Clubrooms – Topic F# Radio Training and Message handling.
Monday	TBA	Aug/Sept	Mid Year Dinner
Monday	12 th	September	Club Evening – Programme to be announced
Saturday	5 th	November	Western Suburbs Radio Used Equipment Sale – Rosebank School Avondale
Saturday	3 rd	December	VHF Contest
Sunday	4 th		

July Club Evening

At the last club meeting Ken McCormack spoke to us on his two K2 Elecraft radios that he purchased as kitsets. All the components were supplied in the kitsets along with the instructions to assemble them. As the photo's show, his workmanship was impeccable and he told us that they only needed some small adjustments to get them on the air. In his CW contests he uses the two rigs, to send with one, while he is looking for further stations on the other. A good crowd turned up and were thoroughly interested in what Ken had two say. The photos below show the K2 Elecraft radios.



K2 Elecraft Transceiver



Inside the K2 Elecraft Transceiver

August Club Meeting

The August Club Meeting will be a talk from Ian Sangster on his recent trip to the USA and a visit to the Dayton Ham Fest.

Waitakere Sprints 2005

The Western Suburbs Radio Club Waitakere Phone Sprint was held on Saturday July 30th 2005. Logs should be sent to ZL2ALW@yahoo.com, not ZL2ALW@post.com as previously advised. The CW Sprint will be on Saturday August 6th 2005 at 10pm. The contests are of one-hour duration on 80m, and are open to all licensed amateurs in ZL, VK and Oceania call areas.

WSRC AREC Meeting

A meeting of the Western Suburbs Radio Club AREC group will be held at the club rooms Monday 29th August at 19:30. Topic for discussion is the operation of F3 Hand-held radios and some message handling. All club members welcome.

AREC WSRC Sunday 17th July

On Sunday the 17th three members of our Branch 03 AREC section went to Piha, namely ZL1SK, ZL1RCA and ZL1VRR, to assist with radio communications for the Auckland SAR (Search and Rescue) teams, who were there to gain some practical experience in bush craft and radio communications. The radios used were F3 I-Com hand-held sets with special pack antennas. The SAR members were divided into seven teams who then had to plot their way round the course reporting to base by radio once markers were found en-route. It was also an opportunity to capture some video footage of AREC activities that was initiated by the Branch 03 committee.

For base at Piha, we used Merv's bus and a simplex frequency in the Emergency band. A two-section aluminium pipe mast went up 10 meters into the air to get over the bush canopy. The communication with the teams was excellent. The teams were out in the bush for about 3 ½ hours. There were three observers out in the field watching and listening to the teams as they called into Base. All radio communications were recorded on a log sheet as each team checked in with a map grid references and when a check marker was found.

At the end of the exercise there was a de-brief for the teams with the exercise leader explaining some of the mistakes that had been made while out in the field. The teams contained a mixture of new recruits and experienced members and the exercise proved beneficial to both SAR and the Radio operators.

Merv took the opportunity to video some AREC and SAR activity to provide photographic catalogue of activities, which has been edited into an 18-½ minute documentary. Currently there is almost no photographic record available. Richard ZL1BNQ suggested that a SAREX (Search and Rescue Exercise) at Piha might be worth filming. The film is scheduled to be shown at the Papakura AREC and Western Suburbs branch meetings.

Ross ZL1VRR



Connecting Pack Antenna to F3 Handheld Radio.



Plotting Grid References on a Topographical Map

Other Club Newsletters

There are a number of Newsletters from other Radio Clubs on side table in the clubroom. Read these at the next club meeting and make yourself aware of what is happening at other clubs.

The Red Planet is about to be spectacular!

This month and next, Earth is catching up with Mars in an encounter that will culminate in the closest approach between the two planets in recorded history. The next time Mars may come this close is in 2287. Due to the way Jupiter's gravity tugs on Mars and perturbs its orbit, astronomers can only be certain that Mars has not come this close to Earth in the Last 5,000 years, but it may be as long as 60,000 years before it happens again.

The encounter will culminate on August 27th when Mars comes to within 34,649,589 miles of Earth and will be (next to the moon) the brightest object in the night sky. It will attain a magnitude of -2.9 and will appear 25.11 arc seconds wide. At a modest 75-power magnification, Mars will look as large as the full moon to the naked eye. Mars will be easy to spot. At the beginning of August it will rise in the east at 10pm and reach its azimuth at about 3 a.m. By the end of August when the two planets are closest, Mars will rise at nightfall and reach its highest point in the sky at 12:30am. That's pretty convenient to see something that no human being has seen in recorded history. So, mark your calendar at the beginning of August to see Mars grow progressively brighter and brighter throughout the month.

Share this with your children and grandchildren. NO ONE ALIVE TODAY WILL EVER SEE THIS AGAIN

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>

5-Aug-2005	ZL1MW	Brian
12-Aug-2005	ZL1NE	John
19-Aug-2005	ZL1ACZ	Barry
26-Aug-2005	ZL1WI	Roy
2-Sep-2005	ZL1VRR	Ross
9-Sep-2005	ZL1MW	Brian
16-Sep-2005	ZL1JL	John
23-Sep-2005	ZL1NE	John
30-Sep-2005	ZL1ACZ	Barry

Airline cabin announcements

All too rarely, airline attendants make an effort to make the in flight "safety lecture" and announcements a bit more entertaining. Here are some real examples that have been heard or reported:

1. On a Southwest flight (SW has no assigned seating, you just sit where you want) passengers were apparently having a hard time choosing, then a flight attendant announced, "People, people we're not picking out furniture here, find a seat and get in it!"
2. On a Continental Flight with a very "senior" flight attendant crew, the pilot said, "Ladies and gentlemen, we've reached cruising altitude and will be turning down the cabin lights. This is for your comfort and to enhance the appearance of your flight attendants."
3. On landing, the stewardess said, "Please be sure to take all of your belongings. If you're going to leave anything, please make sure it's something we'd like to have."
4. "There may be 50 ways to leave your lover, but there are only 4 ways out of this airplane"
5. "Thank you for flying Delta Business Express. We hope you enjoyed giving us the business as much as we enjoyed taking you for a ride."
6. As the plane landed and was coming to a stop at Ronald Reagan, a lone voice came over the loudspeaker: "Whoa, big fella. WHOA!"
7. After a particularly rough landing during thunderstorms in Memphis, a flight attendant on a Northwest flight announced, "Please take care when opening the overhead compartments because, after a landing like that, sure as hell everything has shifted."
8. From a Southwest Airlines employee: "Welcome aboard Southwest Flight 245 to Tampa. To operate your seat belt, insert the metal tab into the buckle, and pull tight. It works just like every other seat belt; and, if you don't know how to operate one, you probably shouldn't be out in public unsupervised."

9. "In the event of a sudden loss of cabin pressure, masks will descend from the ceiling. Stop screaming, grab the mask, and pull it over your face. If you have a small child travelling with you, secure your mask before assisting with theirs. If you are travelling with more than one small child, pick your favourite."
10. "Weather at our destination is 50 degrees with some broken clouds, but we'll try to have them fixed before we arrive. Thank you, and remember, nobody loves you, or your money, more than Southwest Airlines."

Fluorescent Tubes By G8MNY

How Tubes Work

The tubes are coated with some fluorescent powders on the inside that glow to make up the colour balance for that type of tube (Warm White, White, Daylight) when the coating is bombarded with fast moving gas ions in a very low pressure. To make the gas ions (Hg) a high voltage is applied after first heating the tube with the end heaters. This heating encourages the low-pressure gas to strike an arc (plasma) when a high voltage is applied across the tube. The heaters stay hot with the very high gas temperature of the arc, but due to the low pressure there is little heat transference to the glass.

As the tube ages the heaters eventually burn out leaving tungsten blackening on the glass, and an arc can no longer be initiated or maintained. To increase the heater lifetime heater guard plates reduce the ion velocity near the heaters.

To encourage the arc striking it is important that the fitting be earthed as this helps propagate the initial arc down the tube. To aid this some makers put a metal strip down the outside of the tubes that is connected to the end caps. With the right type of matching holder these are earthed, otherwise just the nearby body of the lamp fitting has to do.

There are 2 mains iron ballast types other than electronic ballast types. For rotary workshop work, 3 tubes are normally used one per mains phase so that strobe effects do not occur with synchronous motors.

12V DC types are all electronic, high voltage DC types used to be used with resistive ballast and needed the tubes regularly tuned around as they burned out one end.

Advantages..

1) 3-5 times more efficient than normal tungsten lamps once warmed up

Disadvantages.

2) The light is more difficult to focus with reflectors than tungsten lamps.

3) 100Hz flicker is more pronounced than tungsten Lamps.

The ballast choke is designed to give the correct heater current (1A) when the starter shorts and also give the correct arc current (lamp rating) when running. The capacitor is optional depending if the mains power factor (due to inductive ballast) needs to be corrected, and even then usually only to a PF of 0.85-0.9.

Starter Type (including the older heavy energy saver lamps)

The starter is a small neon/argon tube that immediately strikes and passes a small current when mains is applied to it. It has a normally open bi-metal contact inside the starter that form the electrodes, these quickly heat up from the gas plasma. When it is hot after a few mains cycles the contacts close for 1-2 seconds, this puts high current from the choke through the heaters, which should cause them to glow. Often a small capacitor is included to reduce spark QRM and contact pitting.

When the starter contacts cool down the break and if there is still mains current flowing (not at the wrong part of the mains cycle) high back EMF from the choke is applied via the mains across the tube. If the tube fails to strike the start cycle repeats.

Common Faults

- a) Burnt out heaters causes no start cycle. Blackened ends confirm age.
- b) Old tubes with blackened ends need higher than normal strike voltage and can fail to start with a starter of too lower strike a voltage (wattage).
- c) Fail to start when cold. Try earths, touching tube with finger, and warming!
- d) Welded starter contacts cause permanent glowing and no start cycle.
- e) Burnt out choke due to shorted starter and silly fuse rating. Also a DC component from old tubes can saturate the choke and lead to overheating failure.