QUA FARC

JANUARY 2019

VOLUME 27 ISSUE 1

Franklin Amateur Radio Club Inc NZART Branch 10

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Committee: Ted Doell ZL1BQA, Durlene Griffin ZL1ULK
Club examiners: Ian ZL1PZ and Tom ZL1TO.

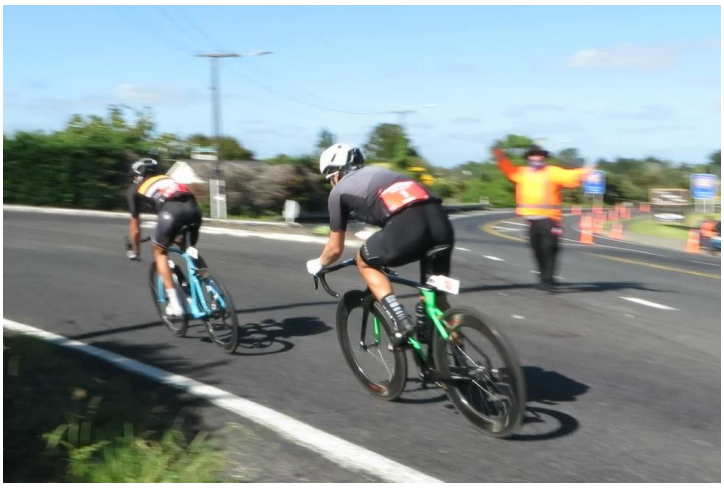
Web page: www.qsl.net/zl1sa/

MEETINGS: The club meets on the third Tuesday each month, in the clubrooms, Stadium Drive Pukekohe at 7.30 pm. Visitors welcome.

The committee meets on the first Tuesday of each month (excepting January) at 7.30 pm in the clubrooms.
Subscriptions $20.00, family $30.00.

Nets every Sunday at 9.00 am on 3.700 MHz and 9.30 am on the 146.900 MHz repeater. 2 metre frequencies are 145.775 MHz, then 146.625 MHz, and 146.900 simplex if repeaters off air.

Newsletter: Editor Tom ZL1TO tom.mcdonald@xtra.co.nz
A copy is sent to members and clubs in the Auckland area. Sent free of obligation by e-mail to anyone interested.



Tour de Ranges

Communications ran smoothly as 570 cyclists participated in this event around the Hunua Range on Saturday 12 January. Fastest rider in the 110 km event had an elapsed time of 2 hours and 35 minutes. The last rider came in at approximately 2 pm.

There was one injury incident on the coast north of Kaiaua, and some confusion at an intersection near Mangatawhiri.

Franklin contributed six operators. Thanks go to Doug ZL1TCL, Ian ZL1PZ, Bob ZL1BBZ, Peter ZL1PJH, Tom ZL1TO and Durlene ZL1ULK.

The photograph shows a pair passing through the McNicol Road intersection which was well supplied with cones and traffic control personnel.

In this issue

Club Notice Board

General meeting, Tuesday 15 January

The general meeting for January will conclude with 'pot luck' contributions from members.

Jock White Field Days, 23-24 February

A decision will be made at the January meeting on the venue and make up of our team.

Radio communications on Flight NZ 901

Most readers will be familiar with the episode in which an Air New Zealand DC10 on a sight seeing excursion with 257 on board, crashed into the northern slopes of Mt Erebus, barely 26 miles north of McMurdo on 28 November 1979.

Good information on the cockpit conversation for the last 30 minutes, and the performance of the aircraft for longer than that were obtained from the cockpit voice recorder and the flight data recorder. Communications from McMurdo were also recorded and made available.

There were two inquiries. One by the New Zealand Chief Inspector of Air Accidents, and a second was a Royal Commission of Inquiry. The conclusions of the two investigations had significant differences.

At the time of the DC10 crash, no navigator was required on the flight crew as the Area Inertial Navigation System and its output were used to navigate the aircraft. Also there was no radio operator, with the pilot and copilot handling radio communications.

Neither of the official enquiries took careful notice of the large amount of time the pilots spent trying, often without success to raise McMurdo Control on VHF 126.2 MHz and McMurdo Ice Tower on 134.1 MHz. Readers are referred to http://www.erebus.co.nz/Portals/4/Documents/Chippindale%20Transcript.pdf where you will see there was enough work to fully occupy a radio officer, and thus free the pilots to fly the aircraft.

Minutes of Franklin Amateur Radio Club (Inc) General Meeting held in the Clubrooms Stadium Drive Pukekohe on 18 December 2018.

Chairman Mike ZL1UOM opened the meeting at 1948 hours.

Attendance: ZL1UOM, ZL1TO, ZL1PZ, ZL1PJH, ZL1GAC, ZL1TCL, ZL1WGL, ZL1TZP, ZL1ULK, David McNeil, ZL1LL

President Mike ZL1UOM extended a warm welcome to members and the visitor.

Apology: ZL1BQA Accepted ZL1WGL / ZL1UOM

Minutes: The minutes of the November meeting were approved as a true record. ZL1WGL / ZL1UOM

Correspondence

Inward: A person interested in the exam.

Douglas Birt – Material on Waikato Plan progress.

Newsletters from Branches 12, 29, 65, 66, 80, 86, as in December QUA

With Andy Baker and Coral Timmins (Auckland Council) re setting up meeting to discuss security around the clubhouse.
Apology from ZL1UOM – unable to meet with Council.
Calendars from RWB.
Report on correspondence received ZL1TO / ZL1GAC

Finance

Payments: FMG Insurance $629.63

VHF Group $1000 (for licences and Klondyke)

Receipts: Subscriptions as listed in December minutes, plus two more since.

Fire extinguishers. In view of the susceptibility of PPA (Pukekohe Performing Arts) wardrobe to arson we ought to be meticulous with our own fire protection measures.

The finance report was received. ZL1TO / ZL1PJH

The annual financial statement was signed at the committee meeting and is now being sent to Registrar of Societies.

Reports

AREC: Tom ZL1TO reminded our volunteers of Tour de Ranges cycle race on 12 January. There was a recent modification of the allocation of radio sites to place people in better locations relative to their QTH. Around 700 to 1000 cyclists can be anticipated to participate. Normal road rules operate, for which individual riders take personal responsibility.

Darlene ZL1ULK reported that Bob ZL1BBZ, Peter ZL1PJH, Ian ZL1PZ and herself had attended the Maramarua Hill climb on Sunday 9 December. Our volunteers were showered in dust as cars went by in the one minute hill climb. There were no incidents of cars going into trees, but one went into a bank near Ian. This was Peter's first car rally event, and all went smoothly.

General Business

Meeting with Auckland Council 11.30 am Wednesday 19 December. Strategy embargoed.

The meeting closed at 2123 hours

There was no committee meeting in January.

The Hastings Trophy

It is quite a few years since Franklin could put up a Field Day team to operate both voice and CW in the annual interclub contest.

From time to time we have been top team in the voice only section. Our last win was in 2017.

It has taken until December 2018 to get our hands on the trophy. Presently the trophy is at the engraver, and it will be promptly passed on to the winners for 2018, Papakura.

The 2019 winner will be determined after this year's contest at the end of February.

NZART

It's not them

It's us

Deorbit of Cosmos 2430

On Saturday 5 January a 'shooting star' was seen over the northern North Island, from Waipu, Coromandel and Tauranga. The fireball took minutes to pass overhead and ended in a shower of smaller pieces of debris. The event was a diversion for TV cameras at the New Zealand Sri Lanka cricket match in Tauranga. Initial reports suggested the event was a meteor, or shower of meteors.

Eventually it transpired that the event was the deorbit of the Russian military satellite Cosmos 2430. This missile early warning satellite had been launched on 23 October 2007. The orbit, in 2017, had an apogee altitude 40124 km and perigee altitude 212 km above the surface of the earth. This gradually decayed, with increasing atmospheric friction at perigee.

Readers who run satellite tracking software may wish to use the two line Keppler elements in a simulation:
1 32268U 07049A 17236.23481496 +.00004002 +00000-0 +55966-3 0 9997
2 32268 062.8739 302.5100 7517636 241.7299 025.6164 02.00708934072082

A predicted reentry time was published on the web site https://aerospace.org/node/6756 and was just one orbit in error. Upcoming predicted reentries include PSLV rocket body on 21 January and Iridium 90 on 29 January.

A low earth orbit satellite completes its 40000 km circuit of the earth in around 90 minutes, or 12 km/s. Meteors typically skim the earth much faster, at 16 to 72 km/s.

NEWSLETTERS FROM OTHER BRANCHES

80. 4 element tribander and 7 element 6 m Yagi overhauled. 16 January plan for field days. 19 January Chairman's BBQ. 30 January Earth Station meeting.

86. Cover – Coast stations of New Zealand 1911 to 1993. Replacement antenna rotator. Extension of 60 m trial until 24 July 2019. H Night report. History of NZ coast stations. Report on Awanui Radio; then and now. Ameritron AL-811 wanted.

On the horizon – 2019

23-24 February —

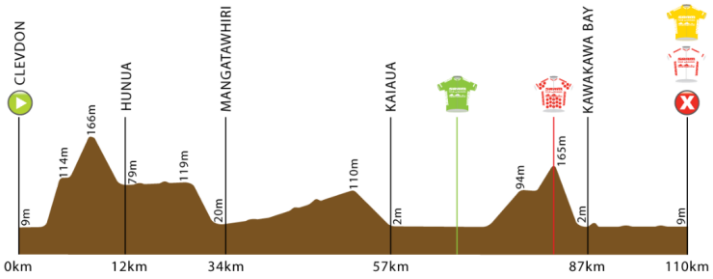
NZART Jock White Field Days

1-2 June 2019 —

NZART Conference

Tour de Ranges

Just in case you thought that cycling 110 km in under 3 hours is nothing to shout about consider the diagram below which shows the altitude profile of the course. Twice in the circuit riders had to climb from near sea level to 165 m above the sea.



And below is another illustration of the SRAM cycle race. This one is part of an Eventfinder advertisement.

Nemesis Star Theory:

The Sun's 'Death Star' Companion

Condensed from SPACE.com July 20, 2017

Nemesis is a theoretical dwarf star thought to be a companion to our sun. The theory was postulated to explain a perceived cycle of mass extinctions in Earth's history. Scientists speculated that such a star could affect the orbit of objects in the far outer solar system, sending them on a collision course with Earth.

While recent astronomical surveys failed to find any evidence that such a star exists, a 2017 study suggests there could have been a "Nemesis" in the very ancient past.

The argument for Nemesis

In the early 1980s, scientists noticed that extinctions on Earth seemed to fall in a cyclical pattern. Mass extinctions seem to occur more frequently every 27 million years. The long span of time caused them to turn to astronomical events for an explanation.

In 1984, Richard Muller of the University of California Berkley suggested that a red dwarf star 1.5 light-years away could be the cause of the mass extinctions. Later theories have suggested that Nemesis could be the cause of the mass extinctions.

Later theories have suggested that Nemesis could be a brown or white dwarf, or a low-mass star only a few times as massive as Jupiter. All would cast dim light, making them difficult to spot.

In a survey of the sky, NASA's Wide-field Infrared Survey Explorer "WISE" found many brown dwarfs, but none as close as 1.5 light years from our sun.

Scientists speculated that Nemesis may affect the Oort cloud, which is made up of icy rocks surrounding the sun beyond the range of Pluto. Many of these chunks travel around the sun in a long-term, elliptical orbit. As they draw closer to the star, their ice begins to melt and stream behind them, making them recognizable as comets.

If Nemesis traveled through the Oort cloud every 27 million years, some argue, it could kick extra comets out of the sphere and send them hurling toward the inner solar system — and Earth. Impact rates would increase, and mass extinctions would be more common.

The Kuiper Belt, a disk of debris that lies inside of the solar system, also has a well-defined outer edge that could be sheared off by a companion star. Researchers have found other systems where a companion star seems to have affected the shape of the debris disks.

The dwarf planet Sedna lends further credence to the existence of a companion star for the sun. Sedna has an orbit of up to 12,000 years. Scientists have suggested that a massive object such as a dim star could be responsible for keeping Sedna so far from the sun.

Another theory is there is a huge ice giant, nicknamed "Planet Nine," that is at the edge of our solar system. Such a body might be stirring up smaller icy bodies in the Kuiper Belt. A search for Planet Nine is ongoing.