QUA FARC

January 2026

Franklin Amateur Radio Club Inc.
NZART Branch 10

VOLUME 35 ISSUE 1

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Webmaster: Steve ZL1TZP

Meetings: Club meetings are on the third Tuesday each month in the clubrooms, 19 Stadium Drive, Pukekohe, at 7.30 pm. Visitors welcome.

Committee meets on the first Tuesday of each month (excepting January) at 7.30 pm in the clubrooms.

Subscriptions: Individual $30, Family $40, due December
See club secretary for bank account number

Nets: HF Sunday 9 am, 3.700 MHz (Mike ZL1UOM); VHF Sunday 9.30 am, 146.900 MHz (Steve ZL1TZP); DMR on TalkGroup 5301, Wednesday 7.30 pm (Steve ZL1TZP)

NEXT MEETING

The January meeting will be held on Tuesday 20th. After the usual general reports and business Steve, ZL1SPR, has agreed to present to the January meeting. He will talk, and show a presentation that was given as part of an AREC training he attended recently.

If time allows Steve ZL1TZP will demonstrate sending and receiving a Winlink E-mail, via a local RMS demonstrate connecting to remote RMS via a local RMS.

Other meeting topics that members have suggested for the future are listed below. Are there any more?
Steve ZL1TZP trip to Japan, the Tokyo Ham Fair and experiences doing POTA in Japan.
QRZ.com, this could also include other online sites, ie e-QSL etc
FT-8 and other digital modes
POTA/SOTA, and portable setups.
Meshtastic / Meshcore
Planning for HF Field Days 28 February and 1 March.

SUBSCRIPTIONS

Subs have been coming in promptly, well done.

EXAMINATION SUPERVISOR

In order to get our number of approved examiners up to strength we need to appoint another one or two.

SOTA (Summits On The Air) and POTA (Parks On The Air)

Several of our newer members have been asking about SOTA and POTA. Here are some tips on where to get started. SOTA and POTA are amateur radio award programs, each with its own set of rules for participation; try https://ontheair.nz/
SOTA began in New Zealand in December 2015 with the North Island coming on line, and 6 months later the South Island joined. With over 5000 valid summits available for activation in New Zealand there sure is something for everyone. SOTA is arguably the 3rd largest amateur radio award program in the world

(following DXCC and IOTA) for amateur enthusiasts. But it is more than just an award. It is an excuse to bust out of the shack and take your radio outdoors. To set up an adhoc station, make contact with kindrid spirits, take in the fresh mountain air and enjoy the views.

- SOTA is the true test of "can I communicate with others with no prepared infrastructure" – handy if you are into disaster comms.
- SOTA is the ultimate in outdoor radio – it often involves hiking up hills and mountains
- SOTA is great for fitness – the summits usually involve some sort of climb
- SOTA has the best (and worst) shacks – with spectacular views

Some useful links:

- Main SOTA UK website http://www.sota.org.uk
- ZL-Sota Website: http://zl-sota.org
- ZL-Sota Facebook Group

The SOTA program encourages amateur radio operation from mountain summits. Key rules for activators include:

- **Activation Zone:** The operator and equipment must be within 25 vertical meters (approximately 82 feet) of the physical summit to qualify for points.
- **Contacts Needed:** At least four contacts (QSOs) must be made from within the activation zone to complete a *qualifying* activation.
- **Power Source:** Only portable power sources like batteries or solar power are allowed. Use of permanently installed electricity or generators is prohibited.
- **Location:** Operation from a motorized vehicle is prohibited. The goal is to encourage hiking and portable operation.
- **Access:** Operators must ensure they have legal access to the summit; private property rules still apply.
- **Modes/Bands:** Contacts on different bands or modes with the same station are valid, but contacts must be simplex (not via a repeater).

Detailed rules can be found on the official SOTA website.
https://www.sota.org.uk/Joining-In/General-Rules

POTA

The POTA program focuses on operating from designated public lands, such as national or state parks. Key rules for activators include:

- **Contacts Needed:** An activator needs a minimum of 10 contacts to successfully log an activation.
- **Location:** The operation must take place within the official boundary of a designated park or public land.
- **Power Source:** The rules are generally more flexible than SOTA, allowing for various power sources, but the spirit of portable operation is encouraged.
- **Etiquette:** POTA encourages a "DX Code of Conduct" style of etiquette, prioritizing site-to-site contacts when possible, and avoiding tuning up on an active frequency.

More information and official rules are available at http**//parksontheair.com/**

WHEN EMERGENCY COMMUNICATIONS REALLY MATTERED

In the United Kingdom Raynet is the equivalent of New Zealand's AREC. The BBC recently reminded us of a major Raynet incident from 38 years ago

'You're on standby for Lockerbie' - volunteers recall their role after Pan Am bombing

When Anne and Ross Campbell were watching the news on the night of 21 December 1988, they already had "go-bags" ready.

The Ayrshire-based couple were part of the Radio Amateurs' Emergency Network (Raynet), a UK-wide radio communications service.

Staffed by volunteers, it was formed in the aftermath of the North Sea flood in 1953 with a simple aim: during major events and emergencies, licensed Raynet operators would step in to provide essential radio communications.

When news broke that an aircraft had crashed in a small Dumfries and Galloway town, Anne and Ross got the call from their local controller: "You're on standby for Lockerbie."





Ross and Anne Campbell in the Raynet group then and now

Ross and Anne Campbell were part of the Radio Amateurs' Emergency Network (Raynet)

At the time of the disaster, Anne and Ross, along with friends Tom Stewart and William Jamieson were all keen radio enthusiasts in their 20s and 30s. And they were all members of Ayrshire's Raynet chapter.

"You worked away, doing exercises for the council and road races, but you always had in the back of your mind, there could come a general emergency," said Ross.

He had been involved in the group for a couple of years at the time but added: "You never imagined something like Lockerbie."

Pan Am 103, a Boeing 747, was flying from Heathrow to New York when a bomb exploded in the skies above the town, killing all 259 passengers and crew on board – as well as 11 people on the ground.

It remains the biggest terror attack to have taken place on British soil.

Anne and Ross were both involved in the rescue effort

As part of the search and rescue efforts, hundreds of volunteers arrived at the scene to help – including many from Raynet.

Their expertise – and equipment – was desperately needed.

Ross said: "Strathclyde Police radios had their own frequency.

"Dumfries and Galloway Police had a separate one.

"Every police service had their own, as did ambulance services, so they couldn't communicate with one another."

Each search party at Lockerbie was teamed with a Raynet operator who would send messages back to Lockerbie Academy, the disaster control room.

They accompanied search and rescue dogs, air accident investigation units, the FBI, and the police.

Volunteer Tom, who had been in the fire service for 10 years, made the call to Anne, Ross and William to tell them to report to the scene the following morning.

The young Ayrshire Raynet volunteers were called up to help with the Lockerbie recovery operation

Anne and Ross were both stationed at Tundergarth, in the field where the plane's nose cone lay.

For William, one of the most striking moments was passing on the message that his team had found evidence of an explosion.

"We came across a baggage container, and from the damage to the container, they knew instantly there was a bomb.

"I was asked if I could radio in saying we had found evidence of a bomb, but because the press were there, they were going to be listening, and I advised them I couldn't send that message because it would be on the telly before we even got back.

"We changed it to asking for an urgent recovery of that item."
He told BBC Scotland: "The assistance Raynet provided the police and other emergency services in the aftermath of the darkest day Lockerbie has ever endured will never be forgotten.
"We are grateful for their support and expertise that afforded vital communications between emergency services at such a critical time."

When Pan Am Flight 103 exploded over Lockerbie, Scotland, on 21 December 1988, the tragedy was immediate and overwhelming. The Boeing 747, en route from London to New York, was destroyed by a terrorist bomb, killing all 259 people on board and 11 residents on the ground. The disaster scattered wreckage over a vast area, stretching the capacity of emergency services to its limits. In those first critical hours, communication was as vital as medical aid — and it was here that a small group of amateur radio operators from the Raynet, the UK-wide radio communications service, played an unsung but crucial role.
According to BBC archival reports and retrospective features marking the disaster's anniversaries, the Raynet amateur radio community became an unexpected lifeline in the chaos. Their skill, equipment, and readiness to operate under pressure helped bridge communication gaps when official channels were overloaded or disrupted.

In 1988, emergency communications infrastructure was far less robust than it is today. Mobile phones were rare, digital networks were in their infancy, and rural areas like Lockerbie relied heavily on landlines and radio. The sudden influx of police, fire, ambulance, and military personnel created a surge in demand for communication channels.

CONGRASULATIONS BARBARA KNOWLES

Barbara Knowles has received the King's Service Medal in the New Year's Honours List for services to the community and to Members of Parliament. Barbara retired last year after 40 years of service in the electorate office of the three Members of Parliament that have represented our area since 1985.



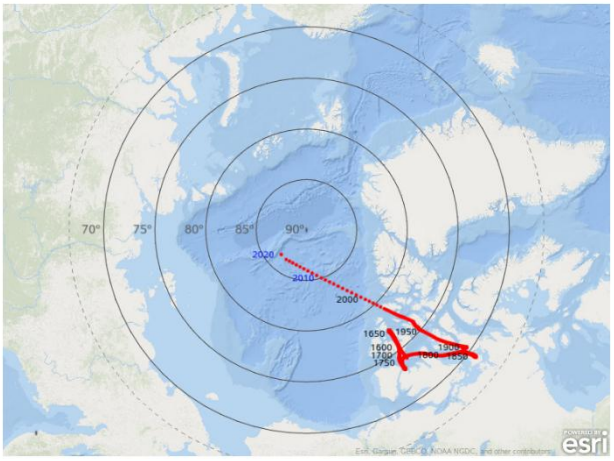
Barbara has been a great friend of Franklin Amateur Radio Club. Barbara was one of the driving forces behind the NZART Conference held in Pukekohe in 1986 and as Social Secretary for Franklin Amateur Radio Club. Barbara's husband Bob ZL1BAD (now silent key) was for many years NZART monitoring service coordinator, and it was Bob who got our newsletter going, and was editor for the first three years.

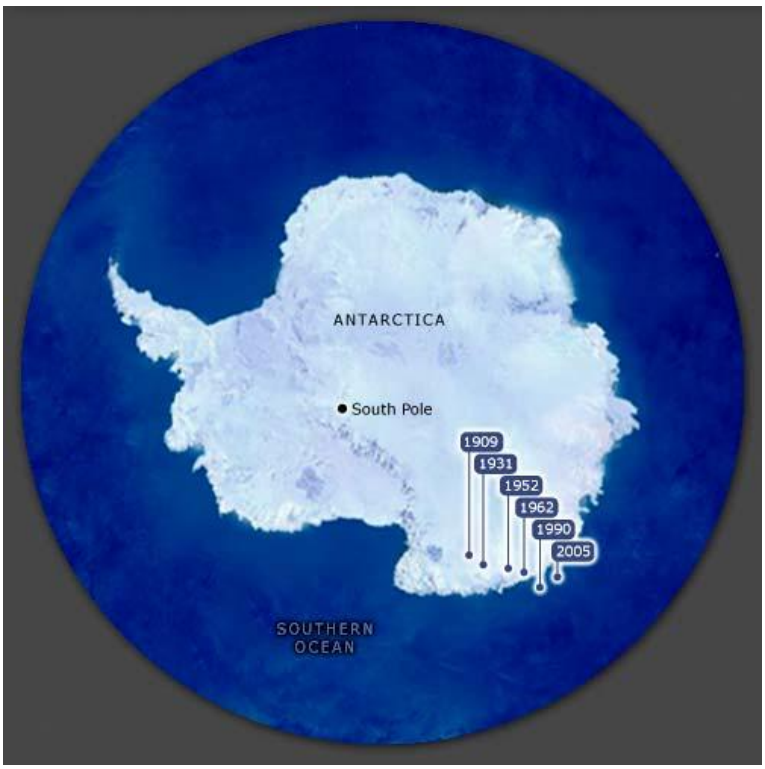


World Magnetic Model Receives Upgrade

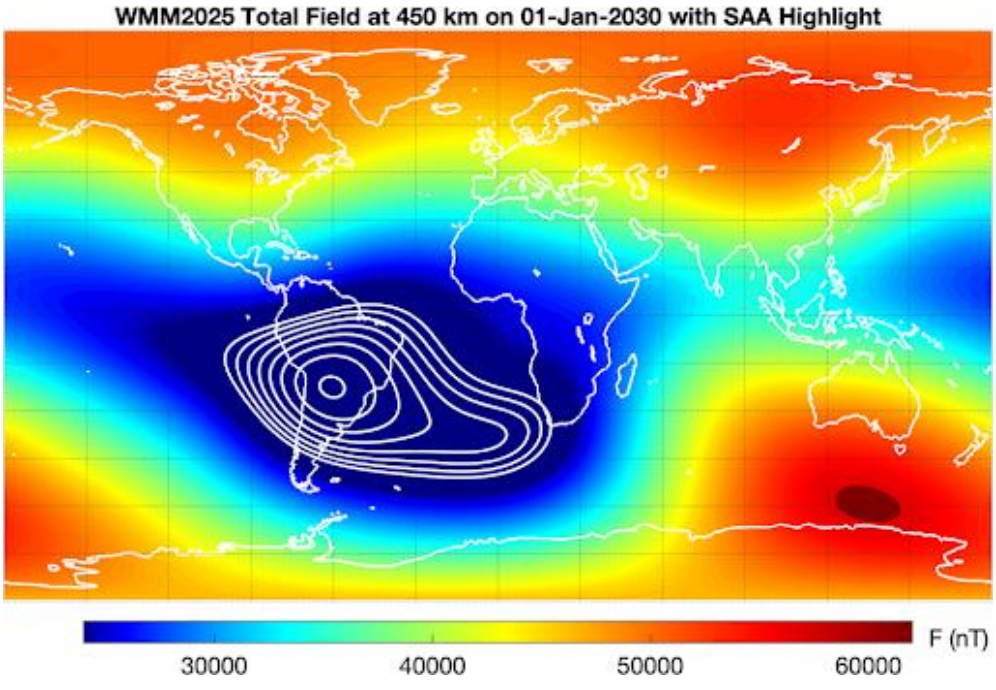
Your Editor has been working on making a spreadsheet to calculate where a navigator will draw his position line, based on observing the altitude of the sun above the horizon. In order to check against the measured compass bearing of the sun he needs to have a model of the direction of magnetic north for different locations, and in a range of years. So far a formula for finding magnetic variation has not shown up on the internet – but there are tools available on the web to do online calculations. Some of these come from NOAA and NCEI. (National Oceanic and

Atmospheric Administration and National Centers for Environmental Information). The magnetic poles drift at the speed of a snail due to convection currents in the earth's outer core, (compared to tectonic plates which drift at the speed of a growing fingernail). The magnetic pole locations in recent years are shown in the maps below.





Now, unrelated to the navigating project, amateurs may be interested in how the World Magnetic Model is making a prediction for intensification of the South American anomaly, where the magnetic field intensity is weakest. This may have an effect on radio propagation. Lets see. Below is data selected from the NOAA web site:



At left is the WMM2025 prediction of total magnetic field intensity (F) at 450-km altitude for January 1, 2030. The South Atlantic Anomaly (SAA) region is highlighted with white contours ranging from 18600 nT to 22100 nT in 500-nT increments, illustrating the predicted intensification (appearance of the 18600 nT contour) and broadening of the anomaly compared to 2025.

- The WMM predicts an intensification of the South Atlantic Anomaly (SAA) between 2025 and 2030.