# Scout Radio & Electronics Service Unit

## Agenda - November Monthly Meeting

**Tuesday 8th November 2022, 7.30pm**

**BATCave, Legana Street, Mount Waverley**

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**Chair:**

**Minutes:**

**Meeting Opened:**

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**Attendees**

**Absentees**

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# Action Items Summary

| Expected Delivery | Reference | Description | Lead | Assist |
|---|---|---|---|---|
| ~~Sep 22~~ | ~~Sep 22 JOTA~~ | ~~Order JOTA Badges from Scout Shop~~ | ~~Andy~~ | ~~Kent~~ |
| ~~Oct 22~~ | ~~Aug 22 Program Planning~~ | ~~Carlton Rover Unit Plan night~~ | ~~Murray~~ | ~~Kent, Neil~~ |
| ~~Nov 22~~ | ~~Oct 22 Program Planning~~ | ~~Heany Park Joey Unit Plan night~~ | ~~Andy~~ | |

# Meeting Items

## Administration

### Chair's Comments

- Well done to all who made something of a challenging JOTA Season.
- Thank you to all for your contribution to the massive success we've seen in 2022. Take a break, spend time with friends and family, and get ready for a massive 2023.
- Congratulations to our very own Andy King on his new appointment effective 21/11/2022.
- It's taking 3 people to replace Andy's contributions to the team to allow him to focus on his new role.
- Executive meetings will be introduced in 2023 to take some of the business pressure off these meetings.
- Planning for 2023 will begin, please contact me if you'd like to add something to the agenda/calendar for 2023.
- December meeting - end of year wrap up dinner - suggestions welcome.

### Previous Minutes

Adoption of minutes of meeting held Tuesday 11th October.

### Finance

| Account | Balance on Monday 7th November 2022 |
|---|---|
| STEM - State Radio (Bendigo Bank) | $5,374.63 |
| Cheque Account (ANZ) | $0.00 |
| Savings Account (ANZ) | $0.00 |
| *Total* | *$5,374.63* |

- Further details are included in the finance report attached as *Appendix 1*.

### Work Health & Safety (WHS)

- Please ensure you remain on top of eLearning modules including WHS as they become due.
- First Aid Course arrangements for the team to be made over coming months.
- Access to powerpoints, doorways, etc. at the BATC.
  - Luke will following this up in 2023.
- Child Safety - we are all responsible for reporting suspect activity; this can be done anonymously through Scouts Victoria or directly through the Scouting hierarchy.

# Program Review

| | |
|---|---|
| **Formation** | Heany Park Joeys |
| **Section** | `Joeys` |
| **Date** | Thursday 3rd November, 5.45pm to 6.45pm |
| **Location** | Heany Park, Rowville |
| **Lead** | Andy |
| **Assist** | Murray |
| **Overview** | Fox hunting with puzzle pieces |

| | |
|---|---|
| **Formation** | Heany Park Cubs |
| **Section** | `Cubs` |
| **Date** | Thursday 3rd November, 7pm to 8.30pm |
| **Location** | Heany Park, Rowville |
| **Lead** | Andy |
| **Assist** | Murray |
| **Overview** | Fox hunting with puzzle pieces; phonetic activities and radio overview |

# Program Planning

## Program Activities - Dates Confirmed

### Energy Breakthrough Expo - Sarah Thom

> STEM is working in collaboration with Scouts Vic Marketing to run an expo at the Energy Breakthrough Human Powered Vehicle competition for schools in Maryborough (VIC) on Friday 18th and Saturday 19th November. There will be over 7000 school aged participants camping onsite for the event and many more (up to 20,000) visiting over the course of the event. Marketing are running abseiling tower, rope bridge etc. and STEM will be doing a variety of drop in and try activities similar to VicJam TechWorld. I am in need of people who are available to help on those dates and have the skills to run activities such as soldering. There is also scope to include radio-based activities if there are enough people available to staff them. Expressions of interest to Sarah this week please.

- Let Andy or Sarah know if you're interested in helping out with this.

## Program Activities - Dates/Details TBC

| | |
|---|---|
| **Formation** | Berwick |
| **Section** | `Cubs` |
| **Date** | |
| **Location** | Berwick |
| **Lead** | |
| **Assist** | |
| **Contact** | Vanessa Percy |
| **Overview** | We are a Cub Scout group and have not done any of this before. We have 26 Cubs in our group. I am a mother of one of the Cubs and was looking to send him to a day to learn about Communications please all so we can discuss what can be done |

- Luke, Glenn, and Alli may be available to assist with a weeknight activity. The Unit meets on Thursday nights.
- Potential to integrate bushwalking OAS items.
- Glenn has drafted a program and will send it through to Luke.

**No action required currently**

| | |
|---|---|
| **Formation** | Bayside District Cubs |
| **Section** | `Cubs` |
| **Date** | *TBC, morning/afternoon weekend activity* |
| **Location** | |
| **Lead** | |
| **Assist** | Kent (PA equipment) |
| **Contact** | Karl Donald |
| **Overview** | See Appendix 2 |

- No further planning required by our team at this stage.
- Looking like occurring during Term 1, 2023

## Amateur Events

None this month.

## Training Courses

- Upcoming:

  - Foundation courses to be planned for 2023 to accommodate:
    - Interest from the 4x4 Team to host a course.
    - Interest from Mallee Mud Kamp attendees (x2)
    - Interest for Western Vic JOTA to have another course at Cooinda Burrong
    - Interest from MRP team members
    - Interest from Hurstbridge Scouts and Venturers
    - Follow up with registrants from previous course in Geelong who were unable to attend.

- General:

  - The Camp Warringal course reinforced that the residential model is good. We do not recommend day courses going forward for amateur assessments unless we know for sure that the pre-study level is there.
  - We may look at standard/advanced exams in 2023 by demand. These would work best by participants following one of the available courses (such as Ron Bertrand's CD) prior to the weekend, then having a 'cram and exam' weekend rather than attempting to cover all content in a course.

# Program Support

| | |
|---|---|
| **Event** | Cuboree 2023 |
| **Section** | `Cubs` |
| **Date** | 25 - 29 September 2023 |
| **Location** | Gilwell Park, Gembrook |
| **Lead** | |
| **Assist** | |

- Looking for some form of radio activity for 30 min sessions with 3 sessions each evening for 4 evenings. Cubs in Patrols of up to 10 with leader would book to complete the activity.
- *Update from Murray*
    - Half hour activity to run four times in an evening - Tuesday, Wednesday, Thursday.
    - Numbers anywhere from a Unit (36) down to a Patrol
    - Murray needs a team to run the activity, as he'll be busy in another capacity.
    - Maree Pascoe is one to reach out to. Bibby is happy to help. Alan K would be happy to be a remote station or similar from home.

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## JOTA-JOTI (Friday 14th to Sunday 16th October 2022)

- We sold 432 badges.
- 12 Activity Sites registered on VKJOTA

Review of activities.

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## Support Development

### ScoutHike Collaboration

Preliminary meeting held with ScoutHike. Operators will be required for 2023, likely to use a Commercial DMR network to facilitate data transfer. Conversations started with a representative from Motorola who approached us who has previously worked with Scouts NSW to deliver comms solutions for their ScoutHike event. Confirmed they have VHF DMR equipment available, price to be determined.

Advised Scouthike that a proper EOC is required to effectively manage the event across the remote sites to comply with a Scouts Vic Major Event requirements.

### New Licencee 'Welcome pack'

- Lead: Neil
- Thanks to Daniel for preparing some resources. Please provide any feedback you have directly to Daniel.

**Scout Radio Victoria Assets**

**Proposal: Purchase & Subscription to StarLink for Scouts Victoria**

Many of our events are providing opportunities to use more technology to integrate the great outdoors and adventurous activities with technical support and technical program opportunities simultaneously. To support this, obtaining a StarLink Service for hire to events throughout the year will allow "drop in" internet wherever skies are available to provide quality internet facilities.

There is currently a 50% sale until NYE on required infrastructure, making this an appropriate time to purchase assets, in addition to network extension accessories. Total inital investment ~$700 for a $1200 asset.

In a brief overview of events being held in 2023, we'd be able to recover the monthly cost of $140 by charging $150 for an event, and a cheaper hire fee for smaller activities to supplement costs. With approximately 9 events that could/would make use of these services, we'd have a sustainable source of income and provide a quality piece of equipment.

Potential Events include:

- Surfmoot
- ScoutHack
- Anything Goes*
- Hoadley Hide
- ScoutHike
- Mudbash
- StarTrek Survival
- Mt Dandenong Fantastic Race
- Cuboree/Kangaree
- Vic Gathering
- Amateur/Marine Courses
- Other Training Courses/hire requests

This product would very likely run at a profit based on the use outlined here.

**Filters**

Next steps for purchasing?

**New Equipment received**

Motorola have kindly donated 2x VX-1700's to Scout Radio Victoria. These units are commercial HF and are capable, yet not locked to Amateur frequencies between 1.6 MHz and 30MHz. These are available to borrow, but the unit should consider purchasing a FC-30 and FC-40 for reliable autotuning (~$800). These units would make great kits. To be explored in 2023.

# Program Enrichment

## Youth Net

Bibby and Juliet have suggested running a monthly "Youth Net" to give our youth members an opportunity to have their own conversations.

With targeted advertising, this could be a great opportunity to encourage regular Scouting membership engagement. Best starting point would be to make a Youth mailing list to allow coordination and reminders of the net timing.

Bibby is interested in being net controller, assisted by Juliet where required – fortunately, Bibby is a really good operator and will probably be able to manage effectively solo with little guidance and support required.

It is suggested to have it on a specific week night (i.e. 1st Tuesday of the month or something similar) and running over ScoutNet & the VKSCOUT echolink conference server.

For this activity to get the most entry point opportunities to access it, consider:

- if IRLP linking to ScoutNet can be done simultaneously with Echolink
- Possibly, even linking to TG1921 on DMR too down the track?

## Planning for 2023

- a date Date.

## Hamfests

- Revisit in February 2023
  - Sell old surplus equipment
  - Moorabbin - 6th May 2023

# Additional Business

**Meeting Closed:**

**Next Meeting: End of Year Dinner, Tuesday 13th December**

# Appendix 1

## Scout Radio Victoria - Finance Report

### November 2022 Meeting

### Prepared Tuesday 13 September 2022

### Account Balances

| Account | Balance on Monday 7th November 2022 |
|---|---|
| STEM - State Radio (Bendigo Bank) | $5,374.63 |
| Cheque Account (ANZ) | $0.00 |
| Savings Account (ANZ) | $0.00 |
| *Total* | *$5,374.63* |

### Savings Account (013599 268169069) - ANZ

| Date | Description | Debit | Credit | Balance |
|---|---|---|---|---|
| 11 Oct '22 | Opening Balance | | | $0.00 |
| 7 Nov '22 | Closing Balance | | | $0.00 |

### Cheque Account (013599 268166933) - ANZ

| Date | Description | Debit | Credit | Balance |
|---|---|---|---|---|
| 11 Oct '22 | Opening Balance | | | $0.00 |
| 20 Oct '22 | Peter Chaplin VK3SAJ Callsign 12 months | | $55.00 | $55.00 |
| 26 Oct '22 | Transfer to Bendigo Bank Account | $55.00 | | $0.00 |
| 7 Nov '22 | Closing Balance | | | $0.00 |

## Scouts Victoria STEM - State Radio (633000 190363002) - Bendigo Bank

| Date | Description | Debit | Credit | Balance |
|------|-------------|-------|--------|---------|
| 11 Oct '22 | Opening Balance | | | $5,995.08 |
| 11 Oct '22 | Transfer to STEM Purchases<br>Postage on Foundation Manual | $17.00 | | $5,978.08 |
| 11 Oct '22 | Scout Shop<br>JOTA Badges (300) | $360.00 | | $5,618.08 |
| 11 Oct '22 | Transfer to STEM Purchases<br>Postage on AR Badges to National | $8.10 | | $5,609.98 |
| 11 Oct '22 | John Zach<br>JOTA Badges and Callsign VK3SCP 12 months | | $125.00 | $5,734.98 |
| 12 Oct '22 | Mark Perkins<br>Purchase Radio | | $10.00 | $5,744.98 |
| 13 Oct '22 | Transfer to STEM Purchases<br>Parts for Fox Hunting Key | $2.90 | | $5,742.08 |
| 13 Oct '22 | Transfer to STEM Purchases<br>Fluro Starters for BATC | $4.50 | | $5,737.58 |
| 14 Oct '22 | Transfer to STEM Purchases<br>Prepaid Internet | $30.00 | | $5,707.58 |
| 15 Oct '22 | Philip Adams<br>Reimburse Amateur Exams | $630.00 | | $5,077.58 |
| 15 Oct '22 | 1st Mont Albert/9th Box Hill<br>JOTA Badges and VK3SBH Callsign 12 months | | $123.00 | $5,200.58 |
| 18 Oct '22 | Camp Warringal<br>Venue Hire for Amateur Course | $70.00 | | $5,130.58 |
| 20 Oct '22 | Keysborough Scout Group | | $30.00 | $5,160.58 |
| 20 Oct '22 | Philip Adams<br>Reimburse Callsign Recommendations | $200.00 | | $4,960.58 |
| 21 Oct '22 | Western Vic JOTA<br>VK3SAW Callsign 12 months | | $55.00 | $5,015.58 |
| 21 Oct '22 | Rachel Edwards<br>JOTA Badges | | $68.00 | $5,083.58 |
| 26 Oct '22 | Okindu W.<br>SPOT Hire | | $50.00 | $5,133.58 |
| 26 Oct '22 | ANZ Bank Account<br>Transfer from ANZ - VK3SAJ Callsign 12 months | | $55.00 | $5,188.58 |

| Date | Description | Debit | Credit | Balance |
|---|---|---|---|---|
| 1 Nov '22 | Interest | | $0.05 | $5,188.63 |
| 4 Nov '22 | Western Vic JOTA<br>JOTA Badges | | $118.00 | $5,306.63 |
| 7 Nov '22 | 1st Mt Evelyn<br>JOTA Badges | | $50.00 | $5,374.63 |
| 7 Nov '22 | Closing Balance | | | $5,424.63 |

# Appendix 2

## Outstanding Program Requests

| | |
|---|---|
| **Formation** | Moreland Darebin District Joeys Day/1st Reservoir |
| **Section** | Joeys  Cubs |
| **Date** | |
| **Location** | |
| **Lead** | |
| **Assist** | Andy, Alli, Luke, Kevin, Neil |
| **Contact** | Alison (District Leader) |
| **Overview** | Activity day for 12 Joey Units in Moreland Darebin District. |

- Andy will touch base to gauge interest in revisiting this activity request, and to see if they are on board to assist with organising the day.

| | |
|---|---|
| **Formation** | Pascoe Vale |
| **Section** | Cubs |
| **Date** | *Monday nights* |
| **Location** | Cumberland Road, Pascoe Vale |
| **Lead** | |
| **Assist** | Kent |
| **Contact** | Wu Phie |
| **Overview** | "I would like to introduce our Cubs to the world of amateur radio, its potential and how it fits in with Scouts and the wider world. Do you have activities/ services which fit this? How do book some of SRESU time and resources? When is the earliest time I can book in? What is required on our end? I look forward to discussing with you." |

| | |
|---|---|
| **Formation** | 1st Glen Iris |
| **Section** | Scouts |
| **Date** | *Wednesday evenings* |
| **Location** | |
| **Lead** | Luke |
| **Assist** | Murray? |
| **Contact** | Mike Lukins |
| **Overview** | 50 scouts. "What do you offer that would be interesting / fun for a scout troop such as ours?" |

| | |
|---|---|
| **Formation** | 4th Brunswick Scouts |
| **Section** | Scouts |
| **Date** | *Monday evenings, 7pm - 9pm* |
| **Location** | |
| **Lead** | |
| **Assist** | |
| **Contact** | Kim Anderson |
| **Overview** | 30 - 40 scouts. "We'd love to run a fox hunting night or electronics kit building night." |

| | |
|---|---|
| **Formation** | 1st Wheelers Hill Scouts |
| **Section** | Scouts |
| **Date** | |
| **Location** | |
| **Lead** | |
| **Assist** | |
| **Contact** | Brooke Whiteside |
| **Overview** | Looking for "a few radio activities" on a Saturday. "How long do these activities take?" |

| | |
|---|---|
| **Formation** | 1st Alfredton |
| **Section** | Scouts |
| **Date** | Term 4? |
| **Location** | Ballarat District |
| **Lead** | TBA |
| **Assist** | |
| **Contact** | Sarah Brackenridge, AGL/SL |
| **Overview** | Request for Radio Team visit to a Scout night, details to follow |

- Ideally we would aim for an activity pre-JOTA with involvement from the Ballarat Amateur Radio Group to build on this relationship.

# Appendix 3

## Resource Pack

Prepared by Daniel Gutsell.

# JOTA Youth Operators Guide

To make a radio call, work through these steps in order. If you get stuck, then the operator will help you out.

## Call CQ

Call the following on the radion " CQ CQ CQ , THIS IS { your callsign } CQ CQ CQ THIS IS { Your call sign phonetics}

## No reply?

Call again

## Reply?

Then quickly write down the calling callsign in the logging form attached and call them back!

## If they ask

MY QTH IS _____

My radio is a _____

## Logging

Now that you have made a contact, LOG IT! Your operator will be able to help, they will have a log running either in a notebook or digitally.

Remember that nothing is guaranteed with radio, and you may not get a reply, or may get many. Sometimes you'll be able to hear a station, but they won't be able to hear you. You just have to keep trying, and you'll get contact with someone eventually.

# Q Codes

These are used by operators to give a standardised and fast way to ask or answer a question. Even operators who don't speak english will usually understand these. We have listed the most common ones below.

| Q CODE | MEANING |
| --- | --- |
| QRZ | WHO IS CALLING ME |
| QSL | ACKNOWLDEGED |
| QRM | INTERFERENCE |
| QRP | DECREASE TRANSMIT POWER |
| QRO | INCREASE TRANSMIT POWER |
| QSY | CHANGE FREQUENCY TO ..... |
| QTH | LOCATION |
| QRX | STANDBY |
| QRV | ARE YOU READY? |

# What's a callsign?

Amateur radio operators use callsigns to uniquely distinguish themselves from each other. Each country has a pool of callsigns from which they can allocate.

A callsign is used rather than names because they are unique due to being issued by the government. They are also able to be used regardless of what language you speak.

In Australia, all callsigns you will hear during JOTA weekend will be of the following format

## VK#XXX

Where VK is the prefix, this is the prefix all australian callsigns will use.

The "#" indicates a number, this will indicate the state that the callsign was issued in.

The "XXX" will either be two or three letter, being the operators unique callsign. These are sometimes randomly assigned, but are often picked out by the operator for a reason, IE their initials, or to indicate the name of a group or site.

VK0 -- Australian Antarctica, Heard Island, Macquarie Island
VK1 -- Australian National Capital - Canberra
VK2 --New South Wales
VK3 --Victoria
VK4 --Queensland
VK5 --South Australia
VK6 --Western Australia
VK7 --Tasmania
VK8 --Northern Territory

Some callsigns you may hear over the weekend

VK3MRP/SCM Mafeking rover park
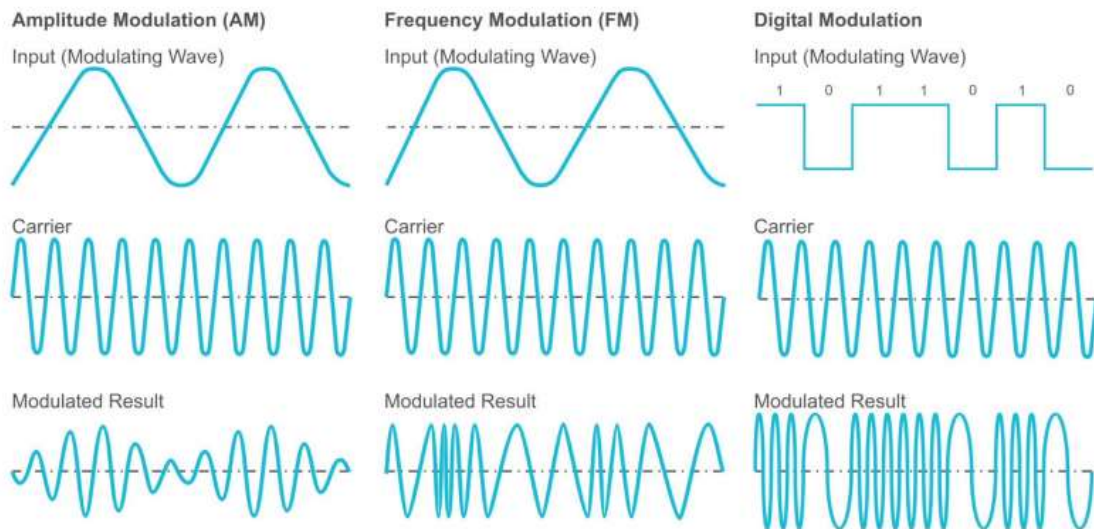VK3SCP Clifford Park
VK3SAW Western Vic JOTA Group
VK2WMT Western Sydney JOTA Group
VK3SCH Sydney Scout Regatta
VK6HC WA JOTA Site

You will hear a few weird terms thrown around this weekend, but one of the most basic ones you might hear is "Modulation" This describes how the sound from your voice gets mixed with the radio waves and transmitted. The operator should be able to describe to you how this works, but if you can't follow along, that doesn't matter anyways, just have fun.

The diagram below explains the various ways that radio waves are modulated to send a signal. Not shown are two very common methods, Morse Code, also known as CW, and Single Side Band, usually abbreviated to SSB. Morse is basically AM, but rapidly switched on and off. SSB is effectively AM, but divided in half.
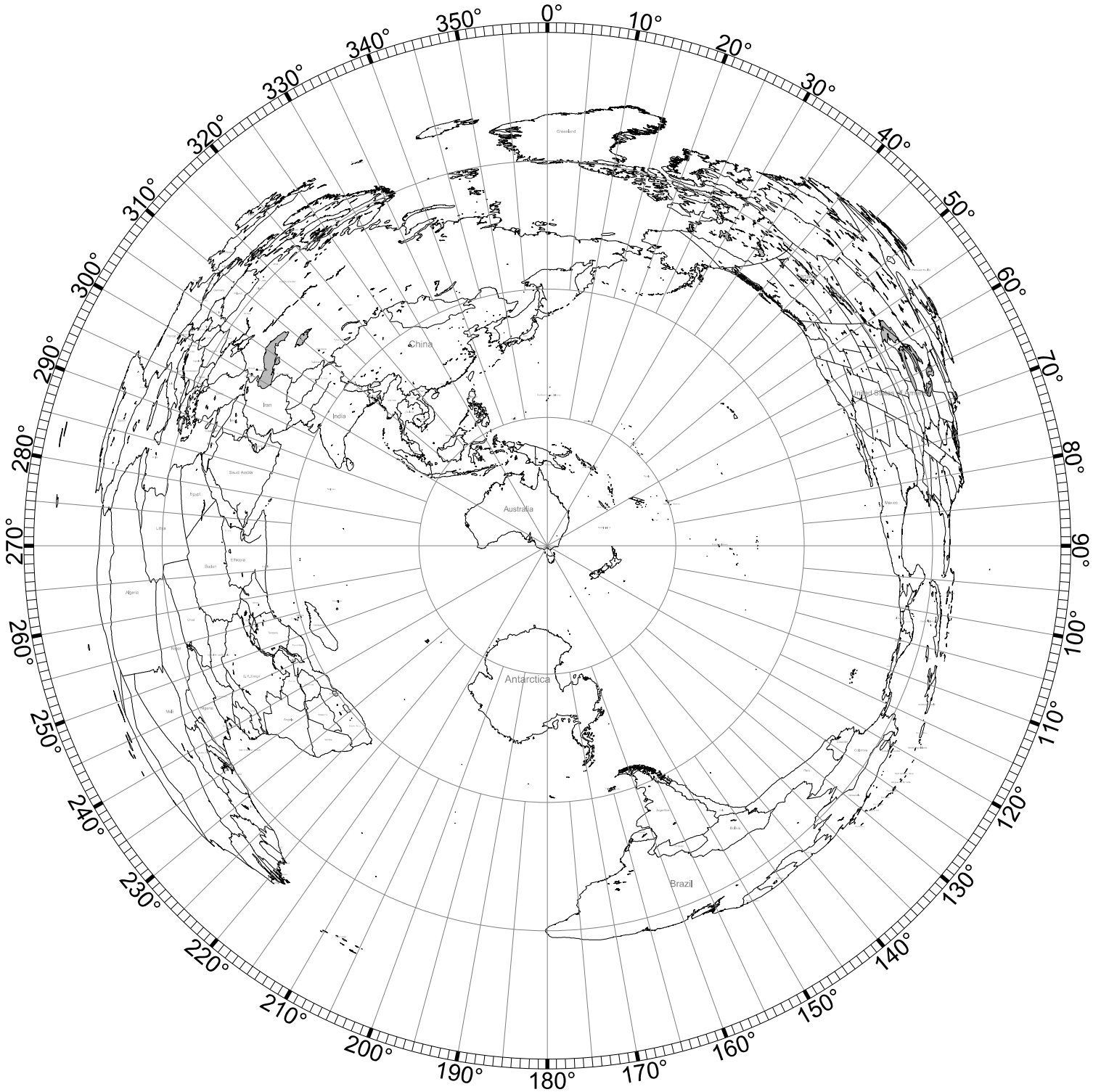
AAA-ALZ: United States
AMA-AOZ: Spain
APA-ASZ: Pakistan
ATA-AWZ: India
AXA-AXZ: Australia
AYA-AZZ: Argentina
A2A-A2Z: Botswana
A3A-A3Z: Tonga
A4A-A4Z: Oman
A5A-A5Z: Bhutan
A6A-A6Z: United Arab Emirates
A7A-A7Z: Qatar
A8A-A8Z: Liberia
A9A-A9Z: Bahrain
BAA-BZZ: China
BVA-BVZ: Used by Taiwan
CAA-CEZ: Chile
CFA-CKZ: Canada
CLA-CMZ: Cuba
CNA-CNZ: Morocco
COA-COZ: Cuba
CPA-CPZ: Bolivia
CQA-CUZ: Portugal
CVA-CXA: Uruguay
CYA-CZZ: Canada
C2A-C2Z: Nauru
C3A-C3Z: Andorra
C4A-C4Z: Cyprus
C5A-C5Z: The Gambia
C6A-C6Z: Bahamas
C7A-C7Z: World Meteor'l Org
C8A-C9Z: Mozambique
DAA-DRZ: Germany
DSA-DTZ: South Korea
DUA-DZZ: Philippines
D2A-D3Z: Angola
D4A-D4Z: Cape Verde Islands
D5A-D5Z: Liberia
D6A-D6Z: Comoros
D7A-D9Z: South Korea
EAA-EHZ: Spain
EIA-EJZ: Ireland
EKA-EKZ: Armenia
ELA-ELZ: Liberia
EMA-EOZ: Ukraine
EPA-EQZ: Iran
ERA-ERZ: Moldova
ESA-ESZ: Estonia
ETA-ETZ: Ethiopia
EUA-EWZ: Belarus
EXA-EXZ: Kyrgyzstan
EYA-EYZ: Tajikistan
EZA-EZZ: Turkmenistan
E2A-E2Z: Thailand
E3A-E3Z: Eritrea
E4A-E4Z: Palestine
E5A-E9Z: Not allocated
FAA-FZZ: France
GAA-GZZ: Great Britain
HAA-HAZ: Hungary
HBA-HBZ: Switzerland
HCA-HDZ: Ecuador
HEA-HEZ: Switzerland
HFA-HFZ: Poland
HGA-HGZ: Hungary
HHA-HHZ: Haiti
HIA-HIZ: Dom Republic
HJA-HKZ: Colombia
HLA-HLZ: South Korea
HMA-HMZ: North Korea
HNA-HNZ: Iraq
HOA-HPZ: Panama
HQA-HRZ: Honduras
HSA-HSZ: Thailand
HTA-HTZ: Nicaragua
HUA-HUZ: El Salvador
HVA-HVZ: Vatican City
HWA-HWZ: France
HZA-HZZ: Saudi Arabia
H2A-H2Z: Cyprus

H3A-H3Z: Panama
H4A-H4Z: Solomon Islands
H6A-H7Z: Nicaragua
H8A-H9Z: Panama
IAA-IZZ: Italy
JAA-JSZ: Japan
JTA-JVZ: Mongolia
JWA-JXZ: Norway
JYA-JYZ: Jordan
JZA-JZZ: Indonesia
J2A-J2Z: Djibouti
J3A-J3Z: Grenada
J4A-J4Z: Greece
J5A-J5Z: Guinea-Bissau
J6A-J6Z: St. Lucia
J7A-J7Z: Dominica
J8A-J8Z: St. Vincent
J9A-J9Z: Not allocated
KAA-KZZ: United States
LAA-LNZ: Norway
LOA-LWZ: Argentina
LXA-LXZ: Luxembourg
LYA-LYZ: Lithuania
LZA-LZZ: Bulgaria
L2A-L9Z: Argentina
MAA-MZZ: Great Britain
NAA-NZZ: United States
OAA-OCZ: Peru
ODA-ODZ: Lebanon
OEA-OEZ: Austria
OFA-OJZ: Finland
OKA-OLZ: Czech Republic
OMA-OMZ: Slovak Republic
ONA-OTZ: Belgium
OUA-OZZ: Denmark
O2A-O9Z: Not allocated
PAA-PIZ: Netherlands
PJA-PJZ: Netherlands Antilles
PKA-POZ: Indonesia
PPA-PYZ: Brazil
PZA-PZZ: Surinam
P2A-P2Z: Papua New Guinea
P3A-P3Z: Cyprus
P4A-P4Z: Aruba
P5A-P9Z: North Korea
QAA-QZZ: Service Abbreviations
RAA-RZZ: Russia
SAA-SMZ: Sweden
SNA-SRZ: Poland
SSA-SSM: Egypt
SSN-STZ: Sudan
SUA-SUZ: Egypt
SVA-SZZ: Greece
S2A-S3Z: Bangladesh
S5A-S5Z: Slovenia
S6A-S6Z: Singapore
S7A-S7Z: Seychelles
S8A-S8Z: South Africa
S9A-S9Z: Sao Tome e Principe
TAA-TCZ: Turkey
TDA-TDZ: Guatemala
TEA-TEZ: Costa Rica
TFA-TFZ: Iceland
TGA-TGZ: Guatemala
THA-THZ: France
TIA-TIZ: Costa Rica
TJA-TJZ: Cameroon
TKA-TKZ: France
TLA-TLZ: Cntrl African Republic
TMA-TMZ: France
TNA-TNZ: Congo
TOA-TQZ: France
TRA-TRZ: Gabon
TSA-TSZ: Tunisia
TTA-TTZ: Chad
TUA-TUZ: Cote d'Ivoire
TVA-TXZ: France
TYA-TYZ: Benin
TZA-TZZ: Mali
T2A-T2Z: Tuvalu

T3A-T3Z: Kiribati
T4A-T4Z: Cuba
T5A-T5Z: Somalia
T6A-T6Z: Afghanistan
T7A-T7Z: San Marino
T8A-T8Z: Palau
T9A-T9Z: Bosnia-Herzegovina
UAA-UIZ: Russia
UJA-UMZ: Uzbekistan
UNA-UQZ: Kazakhstan
URA-UZZ: Ukraine
VAA-VGZ: Canada
VHA-VNZ: Australia
VOA-VOZ: Canada
VPA-VQZ: Great Britain
VRA-VRZ: China
VSA-VSZ: Great Britain
VTA-VWZ: India
VXA-VYZ: Canada
VY0: Terr of Nunavut, Canada
VZA-VZZ: Australia
V2A-V2Z: Antigua-Barbuda
V3A-V3Z: Belize
V4A-V4Z: St. Kitts-Nevis
V5A-V5Z: Namibia
V6A-V6Z: Micronesia
V7A-V7Z: Marshall Islands
V8A-V8Z: Brunei
V9A-V9Z: Not allocated
WAA-WZZ: United States
XAA-XIZ: Mexico
XJA-XOZ: Canada
XPA-XPZ: Denmark
XQA-XRZ: Chile
XSA-XSZ: China
XTA-XTZ: Burkina Faso
XUA-XUZ: Cambodia
XVA-XVZ: Vietnam
XWA-XWZ: Laos
XXA-XXZ: Portugal
XYA-XZZ: Myanmar
X2A-X9Z: Not allocated
YAA-YAZ: Afghanistan
YBA-YHZ: Indonesia
YIA-YIZ: Iraq
YJA-YJZ: Vanuatu
YKA-YKZ: Syria
YLA-YLZ: Latvia
YMA-YMZ: Turkey
YNA-YNZ: Nicaragua
YOA-YRZ: Romania
YSA-YSZ: El Salvador
YTA-YUZ: Yugoslavia
YVA-YVZ: Venezuela
YV0: Aves Island, Venezuela
YZA-YZZ: Yugoslavia
Y2A-Y9Z: Germany
ZAA-ZAZ: Albania
ZBA-ZJZ: Great Britain
ZKA-ZMZ: New Zealand
ZNA-ZOZ: Great Britain
ZPA-ZPZ: Paraguay
ZQA-ZQZ: Great Britain
ZRA-ZUZ: South Africa
ZVA-ZVZ: Brazil
Z2A-Z2Z: Zimbabwe
Z3A-Z3Z: Macedonia
Z4A-Z9Z: Not allocated
1AA-1ZZ: Unofficial - disputed
2AA-2ZZ: Great Britain
3AA-3AZ: Monaco
3BA-3BZ: Mauritius
3CA-3CZ: Equatorial Guinea
3DA-3DM: Swaziland
3DN-3DZ: Fiji
3EA-3FZ: Panama
3GA-3GZ: Chile
3HA-3UZ: China
3VA-3VZ: Tunisia
3WA-3WZ: Vietnam

3XA-3XZ: Guinea
3YA-3YZ: Norway
3ZA-3ZZ: Poland
4AA-4CZ: Mexico
4DA-4IZ: Philippines
4JA-4KZ: Azerbaijan
4LA-4LZ: Georgia
4MA-4MZ: Venezuela
4NA-4OZ: Yugoslavia
4PA-4SZ: Sri Lanka
4TA-4TZ: Peru
4UA-4UZ: United Nations
4VA-4VZ: Haiti
4WA-4WZ: East Timor
4YA-4YZ: Int'l Cvl Aviat'n Org
4XA-4XZ: Israel
4ZA-4ZZ: Israel
5AA-5AZ: Libya
5BA-5BZ: Cyprus
5CA-5GZ: Morocco
5HA-5IZ: Tanzania
5JA-5KZ: Colombia
5LA-5MZ: Liberia
5NA-5OZ: Nigeria
5PA-5QZ: Denmark
5RA-5SZ: Madagascar
5TA-5TZ: Mauritania
5UA-5UZ: Niger
5VA-5VZ: Togo
5WA-5WZ: Western Samoa
5XA-5XZ: Uganda
5YA-5ZZ: Kenya
6AA-6BZ: Egypt
6CA-6CZ: Syria
6DA-6JZ: Mexico
6KA-6NZ: South Korea
6OA-6OZ: Somalia
6PA-6SZ: Pakistan
6TA-6UZ: Sudan
6VA-6WZ: Senegal
6XA-6XZ: Madagascar
6YA-6YZ: Jamaica
6ZA-6ZZ: Liberia
7AA-7IZ: Indonesia
7JA-7NZ: Japan
7OA-7OZ: Yemen
7PA-7PZ: Lesotho
7QA-7QZ: Malawi
7RA-7RZ: Algeria
7SA-7SZ: Sweden
7TA-7YZ: Algeria
7ZA-7ZZ: Saudi Arabia
8AA-8IZ: Indonesia
8JA-8NZ: Japan
8OA-8OZ: Botswana
8PA-8PZ: Barbados
8QA-8QZ: Maldives
8RA-8RZ: Guyana
8SA-8SZ: Sweden
8TA-8YZ: India
8ZA-8ZZ: Saudi Arabia
9AA-9AZ: Croatia
9BA-9DZ: Iran
9EA-9FZ: Ethiopia
9GA-9GZ: Ghana
9HA-9HZ: Malta
9IA-9JZ: Zambia
9KA-9KZ: Kuwait
9LA-9LZ: Sierra Leone
9MA-9MZ: Malaysia
9NA-9NZ: Nepal
9OA-9TZ: Zaire
9UA-9UZ: Burundi
9VA-9VZ: Singapore
9WA-9WZ: Malaysia
9XA-9XZ: Rwanda
9YA-9ZZ: Trinidad and Tobago

(Formatted Nov 2011 by KA4FCC)

# Azimuthal Map

## Center: 37°30'0"S 145°0'0"E

Courtesy of Tom (NS6T)

**Mafeking Amateur Radio Group**
Station Log Sheet

| Log for Station: | VK3SCM | FND / STD / ADV (Circle) | | | | Station QTH: | Located at Mafeking Rover Park, Caveat VIC | | **Grid** | QF22SW |

| Date | Time | Contact Callsign | RST sent | RST rec'd | Mode | TX/RX Frequency | Information | Serial | Operator |
|------|------|------------------|----------|-----------|------|-----------------|------------|--------|----------|
| 20$$##$$ | 13:13 | VK#XXX | 599 | 599 | LSB | 1.234mHz | | 0 | XYZ |
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