



*New Zealand Association of Radio Transmitters*

## **ZL1AA - AUCKLAND BRANCH 02**

**JUNE**

**2015**



**General meeting**



**SATURDAY JUN. 20 @ 13:30**

**Words of Wisdom, ZL1BRC  
DVD on the Manapouri project**

**Club Room will be open at 10:30 AM**

### **CY9 - ST. PAUL ISLAND**

Co-Leaders Randy, NØTG and Murray, WA4DAN announce they will team up Aaron, VA1AXC; Will, AA4NC; Jay, K4ZLE and Wayne, K8LEE for an operation from St. Paul Island in July of 2016. Permits to access St. Paul Island are granted only during July and August. Exact dates yet to be determined. Operation planned for 6 - 160m CW/SSB, perhaps some RTTY. Although a challenge given the time of the year, 160m will be attempted. A web site has already been set up for more at: [www.CY9dexpedition.com](http://www.CY9dexpedition.com)



**NOTICE: ASIA-PACIFIC SPRINT, SSB JUN 13**

**ZL1AA**  
**Auckland Branch 02**  
**PO Box 18003**  
**Glen Innes**  
**Auckland 1743**

**[www.qsl.net/zl1aa](http://www.qsl.net/zl1aa)**  
**[ZL1AA@nzart.org.nz](mailto:ZL1AA@nzart.org.nz)**  
**Skype: ZL1AA\_NZ**

## Club Officers

### President

Steve Miller, ZL1FS  
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021 0226-4981

### Vice President

Wes Printz, ZL3TE  
[ZL3TE@dxer.com](mailto:ZL3TE@dxer.com)  
027 227-7779

### Secretary

Wallace Bottomley, ZL1WAL  
[ZL1WAL@nzart.org.nz](mailto:ZL1WAL@nzart.org.nz)  
(09) 575-6383

### Treasurer

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### Elected Members

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Gwynne Rowe, ZL1AAR  
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## ZL1AA Information:

Branch 02 Clubroom is located at  
400 St Johns Road  
Kohimarama, Auckland  
(Off the beaten track / main road)

Google Earth:  
36.869730s, 174.843860e

Clubroom is open every Saturday from  
1030 hrs for members and guests to drop  
by for coffee and a chat! .

General meetings are held on the third  
Saturday of each month at 1330 hrs (except  
Dec / Jan).

Committee meetings are held on the first  
Tuesday of each month at 1930 hrs. ALL  
paid members are welcome to attend.

Affiliations:  
10-10 International  
NZART  
AMSAT-ZL

Club nets:  
Thursday:  
145.775 MHz @ 1930 Ray, ZL1AJR NCO  
Thursday:  
3.645 MHz @ 2000 Ray, ZL1AJR NCO

10-10 Down Under Chapter Net:  
28.530 MHz 2230Z Fridays  
(1030 NZST Saturdays)

## Branch Contacts:

Gwynne Rowe, ZL1AAR  
(09)-528-1177  
Steve Miller, ZL1FS  
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## Branch Examiners:

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## Web Master:

Andrei Chatalov, ZL1TM  
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## Librarian:

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(09)-528-1177

## Station Trustees:

George Marr, ZL1TUJ  
Wes Printz, ZL3TE

## Branch Technical Advisers:

Simon Watt-Wyness, ZL1SWW  
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## SUBSCRIPTIONS

- ❖ **Subscription Rates:**  
Regular ..... \$45 (discounted with a \$5.00 raffle ticket if paid by 31st March 2014)  
Youth Rate ..... \$20
- ❖ Post to PO Box 18003, Glen Innes, Auckland 1743, direct credit may be made into our bank account 12-3047-0076823-00, or pay the Treasurer or Secretary at the clubrooms.
- ❖ A pro rata rate is offered to a new member joining part way through the year. The financial year runs from 1 December to 30 November
- ❖ Receipts will be distributed either in person at meetings or via mail/E-mail.
- ❖ Branch financial year currently runs from 1 December to 30 November.
- ❖ A current Membership Application / Renewal Form is required with all payments to assist with accurate record keeping. Available from the Secretary, or by download [http://www.qsl.net/zl1aa/br02\\_mem\\_form.pdf](http://www.qsl.net/zl1aa/br02_mem_form.pdf)
- ❖ All members' information is kept confidential unless approval is given for it to be released.

Newsletter material submissions are welcomed and appreciated by your editor. You may submit material in a variety of file formats: .TXT .DOC, or just plain old E-mail. Photos are accepted also. Please submit material via E-Mail to: [ZL3TE@dxer.com](mailto:ZL3TE@dxer.com) I will use what I can with the space available at the time of newsletter editing.

# Auckland Unitary Plan Update

## The Submission Status

**2 June 2015**

- We had “informal talks” with council’s legal and planning team representatives on Thursday, 30 April 2015.
- There was no opportunity for further informal talks, and because of time pressure, the City Planner was not able to deal with us at the next scheduled Mediation Meeting, so we missed the opportunity to use Mediation to circumvent the Hearing Process.
- The Planner has now prepared her report for the Hearing Commissioners, and the report makes Amateur Radio Configurations (ARCs) permitted in rural and large lot residential, but in Residential Zones it remained Restricted Discretionary (which means that residential Amateur Radio Configurations (aerials & masts) still need a resource consent).
- Furthermore, the Planner also included “Development Controls” which were a copy of the old North Shore provisions. These provisions never did meet amateur’s needs - it allowed one 15m mast, and one other pole with a single wire aerial back to the mast. Allowable dimensions of aerials would have excluded about 50% of the things amateurs probably do at present.
- Consequently your steering committee has been very very busy writing Evidence Reports for the Hearings which will be in July. The assistance of Julie Goodyer, our lawyer has been invaluable.
- Julie is preparing an extensive challenge on legal issues – there are lots of clauses in existing legislation, and in international treaties, which require councils to make provision for amateur radio.
- The evidence Peter Loveridge and I are preparing contains a description of what Amateur Radio is, the challenge of HF long distance propagation, the needs of VHF, UHF and SHF, and the consequent need for aerial height. Our presentation to the commissioners will also challenge the Planner’s conclusions.
- Evidence has to be submitted to Council by 3 June 2015 and the Hearings will be one month later.
- Over the next month we will be collecting statistical data, in case we are asked specific questions by the judge and/or commissioners at the hearings in July.

*Douglas Birt ZL1BFS*  
*NZART Local Government Liaison Officer*  
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*Mobile 027 492 5189*

Looking for something to do on the weekend? Need to fill some more DXCC Challenge slots? work new Countries, work new modes? Why not operate a short while in a contest. There are several to choose from. More Information can be found here:

**<http://www.hornucopia.com/contestcal/weeklycont.php>**

### Jun 10-17

- DRCG WW RTTY Contest: Jun 13 / 14
- Asia-Pacific Sprint, SSB: Jun 13
- SKCC Weekend Sprintathon: Jun 13 / 14
- GACW WWSA CW DX: Jun 13 / 14
- REF DDFM 6m Contest: Jun 13 / 14
- ARRL June VHF Contest: Jun 13 / 15

### Jun 18-25

- All Asian DX Contest, CW: Jun 20 / 21
- SMIRK Contest: Jun 20 / 21
- Ukrainian DX Classic RTTY : Jun 20 / 21
- Stew Perry Topband Chall: Jun 20 / 21
- West Virginia QSO Party: Jun 20 / 21
- Kid's Day Contest: Jun 21

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**Every Month: NZART Official Broadcast: 3900 kHz LSB last Sunday of month at 2000hrs and at 2100hrs. (Also broadcast on the National Link and available on the NZART Website).**

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# Auckland Branch, 02 NZART (Inc.)

## Minutes of General Club Meeting

**Date / Time / Place:** Saturday 16th May 2015 1340 hours / Clubroom

**Attendees:** Gwynne ZL1AAR presiding; Wallace ZL1WAL, Ray ZL1AJR, Logan ZL1LMN, Japie ZL1JJN, Bob ZL1AFU, Selwyn ZL1BRC, Simon ZL1SWW, Oliver ZL1AAW, and visitors Harry Pompe ZL1BK and Robbie Dickson as per the Attendance book.

**Apologies:** Steve ZL1FS, George ZL1TUJ

Sustained ZL1WAL / ZL1AAR

### Minutes:

- General meeting on Saturday 21st February 2015 Taken as read and approved ZL1AAR / ZL1WAL

### Finance:

- The Finance report as presented at the Committee Meeting on 3rd May was tabled.
- Subs are owed by 20 members. There are another 30 NZART Members who are attached to our Branch but we do not know their phone numbers or their e-mail address. We write to them, but few reply.
- Public Liability Insurance cover \$2 million, premium \$275.14, has been accepted by the Committee.
- Sale of asset Kenwood TS570D to Oliver ZL1AAW for \$540.00 (being over \$300) and recommended by the Committee. Approved ZL1WAL / ZL1AAR

### Reports:

- Events since the previous General Meeting:
  - o JWFD: Gwynne, who managed our team, said he did not have CW operators, so without CW points, we finished 4th. He observed that had we entered for the Hasting Trophy (phone only), we would have won it. He acknowledged the donation by Mrs Nicoll of a new tent. It was a fine and convivial day, enjoyed by newcomers who have since joined the Branch.
  - o Inter-Branch ARDF competition on 21st March in the Pony Club. The winner was Harry Pompe ZL1BK representing Auckland VHF Group. Harry won it in 2014 at Cornwall Park.
  - o World Amateur Day on 16th April. It was rained out.
- Exams have been passed by Oliver ZL1AAW, and Lyndon Thompson (call sign not yet allocated).

### Remits:

1. To set up a working group to investigate and report on measures to encourage Hams in NZ. Supported 9/ 0/ 0
2. To investigate updating questions used in examination database. Supported 9/ 0/ 0
3. To relax dates (instead of Queen's Birthday) for NZART's AGM and conference. Supported 9/ 0/ 0

Gwynne ZL1AAR, to be our delegate with powers to use his discretion when voting on these remits.

Approved ZL1WAL / ZL1BRC

### Suggestions:

- Because our Branch nets are poorly attended, the Committee is asked to revise times / format. The web page has been updated to show change of net times: Thursday VHF 1930 and HF 2000.
- It was observed that the TR9130 used at position 4, does not appear in the Balance sheet. Its ownership was questioned, so we need to determine if this item has been donated or loaned.
- Intermittent power cuts are a nuisance. It was explained Auckland Council apologized when they changed suppliers and the meter at 400 St Johns Road was omitted from the list. Since then we have written to Council offering to trace and measure the usage, but they have not replied to consent to this. Meanwhile, the Pony Club has agitated to Council to get the power reconnected each time.
- A special effort should be made to get better attendance when Gary Bold ZL1AN addresses us in **July**.

The meeting closed at 14:45 hours.

This meeting was preceded by a BBQ, thanks to Gwynne ZL1AAR for supplying it and cooking.

### Address:

- We were unable to contact Hannes ZL1LW to take up his offer to talk to us about the Meshnet project. Instead, Simon ZL1SWW stepped up to give us an impromptu explanation. It connects nodes using encrypted fault-tolerant links by line of sight. The internet may be used to tunnel to other nodes.
- Simon, ZL1SWW used his laptop to demonstrate the nodes that are registered world-wide. He also explained the Ubiquiti device, flashed with meshnet firmware. He showed a photo of it installed at his QTH.
- Finally, Simon demonstrated DStar that operates at Musick Point and through this repeater may link world wide.

Concluded at 16:30 hours.

## Auckland Branch 02, NZART (Inc.) Minutes of Committee Meeting

**Date / Time / Place:** Tuesday 2nd June 1930 hours / Clubroom

**Attendees:** Steve ZL1FS presiding, Wallace ZL1WAL, Gwynne ZL1AAR, Ray ZL1AJR, Japie ZL1JJN, and Logan ZL1LMN.

**Apologies:** George ZL1TUJ.

Sustained ZL1WAL/ ZL1AAR

**Minutes:** of the previous Committee meeting on Tuesday 5th May 2015

Approved ZL1LMN/ ZL1AJR

### Correspondence In:

- Newsletters: Franklin, North Shore Suburban (by post); Hibiscus Coast; Auckland VHF Group (by e-mail)
- Branch reflector of Newsletters from North Canterbury, Hastings / Napier, Rotorua, Hamilton
- Selwyn: Opinion about Robbie Dickson (a 12 year old)
- Bundle of QSL cards from ZL1 Bureau
- Auckland Council: Licence to Occupy
- Peter Nicoll agrees to help redraft the Licence
- Film Company asks to buy radios / components as props
- Soren Low wants to study for licence exam
- Update by Douglas Birt of Unitary Plan hearings to be held later this month.

### Correspondence Out:

- Soren Low with Selwyn's tutorial notes
  - Vaughan ZL1VH: NZART do not have an Honorary Solicitor
  - Committee with first redraft of Licence to Occupy
  - Peter Nicoll with second draft of Licence to Occupy
  - Graham Barton ZL1GMB re Venture Scouts visiting 6-10th July for a fox hunt.
  - Vaughan & NZART-HQ reminding that nomination for Young Amateur of the Year award was submitted.
- Received and approved ZL1WAL / ZL1FS

### Finance:

- Finance Report.
  - Application for funds from Pubs Charity: Awaiting quotations for rotator cable.
  - A separate application will be made for a 35W solar panel and 30A regulator.
  - Sale of components: Steve will select items suitable for the Film Company.
- Adopted ZL1WAL / ZL1AJR

### General Business:

#### • Reports:

- **AREC:** Japie provided notes by David Wilkins ZL1MR suggesting modernization in NZ to use DMR equipment and backbone repeater. It referred to a paper analyzing failure of Comms during disasters.
- **NZART Conference:** Attended by Gwynne ZL1AAR, Wallace ZL1WAL and Logan ZL1LMN. Gwynne reported that all three remits were passed. Forums attended were: Progress by AMSAT-ZL; DMR; QSF digital mode; Youth.
- **Change to Constitution** ("Review" replacing "Audit" approved at AGM in 2014). Signatures are required by Officers for submission to NZART-HQ for approval and to Registrar of Incorporated Societies.
- **Licence to occupy:**
  - Our 1970 agreement was circulated. Changes will be required to the "Licence to Occupy" to match it.
  - Terms that need to be redrafted are: Fee = \$1; Term = 7years; Delete Maintenance of sealed area; Charges for electricity and water are to be apportioned by usage; Reimbursement for Insurance.
  - Legal advice and representation should be sought. Secretary to seek pro bono services and instruct:
    - o Acknowledge receipt of the draft
    - o Refer Auckland Council to our 1970 agreement stating that these new terms do not match it.
- **Maintenance**
- Electricity usage averages 3.1 units /day since October 2014.
- Solar panels: Gwynne can obtain another panel at the same price.
- Painting – North wall. It has been scrubbed; scaffolding and plank is ready.
- Level floor – to be scheduled. Steve has lent his bottle jack for the job.
- Corner pile on which under-floor access door hinges – Nenad to coordinate.
- Possum – need to catch / kill it.
- Steve asks to be relieved from his duties doing maintenance (because his efforts get interfered with).
- **Computers / network / phone line**
- Cancelled with Orcon; Compass was the selected ISP at the last Meeting. Naked 50 Gb for \$55 /month.
- Remotely operated station: It is off the air because the CAT interface KIO3 board has a fault.
- Paul ZL1AJY has been authorized by George to liaise with Elecraft to replace / upgrade the board.

*(June Committee Minutes Continued on page 6)*

- **Antennas:**
- Tower: Fit rotator and quad antenna. Paul ZL3WPK has moved to Waiuku and resigned. This project is delayed pending grant for Coax and rotator cable.
- QSL cards: A bundle of cards has arrived and these are ready for collection by Members.
- Exams: pass by Lyndon Thompson, ZL3DW.
- Montgomery Cup: It has been taken by James ZL1KNI for engraving (Branch 77 Te Aroha) and will be returned for our safekeeping.
- **Future Events:**
- Speakers: These need to be scheduled by the President:
  - o Hannes ZL1LW or Robert ZL1FLY about Meshnet
  - o Gary Bold ZL1AN about Small antennas for city QTHs or writing technical papers.
  - o CD about Dick Smith balloon trip
  - o CD about South Island
- 6-10th July: Operators required for QSOs with Venture Scouts being taught at Branch 29.
- 17-18th October: Operators for QSOs with JOTA run at Camp Maynard by Branch 29.
- Contests to be run from clubroom: e.g. Memorial (July); Oceania DX (Oct); Operators Interest?

Meeting concluded at 2130 hours with supper provided by Ray ZL1AJR and Mrs Nicoll.

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### Solar Dynamics Observatory Sees 'Cinco de Mayo' Solar Flare

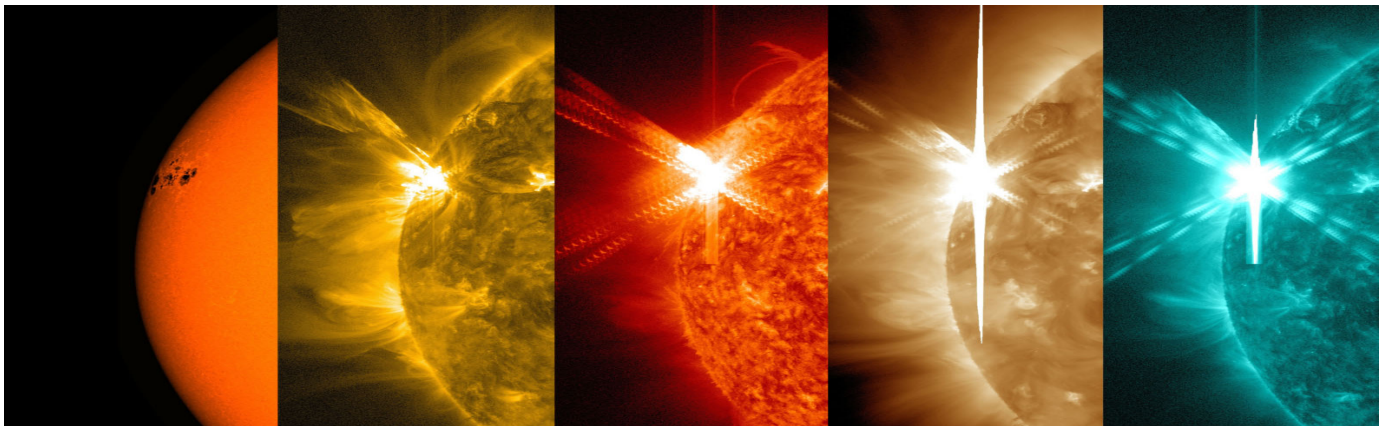


Image Credit: NASA/SDO/Wiessinger

NASA's Solar Dynamics Observatory, which watches the sun constantly, captured these images of a significant solar flare – as seen in the bright flash on the left – peaking at 6:11 p.m. EDT on May 5, 2015. Each image shows a different wavelength of extreme ultraviolet light that highlights a different temperature of material on the sun. By comparing different images, scientists can better understand the movement of solar matter and energy during a flare. From left to right, the wavelengths are: visible light, 171 angstroms, 304 angstroms, 193 angstroms and 131 angstroms. Each wavelength has been colorized.

Solar flares are powerful bursts of radiation. Harmful radiation from a flare cannot pass through Earth's atmosphere to physically affect humans on the ground, however -- when intense enough -- they can disturb the atmosphere in the layer where GPS and communications signals travel. This flare is classified as an X2.7-class flare. X-class denotes the most intense flares, while the number provides more information about its strength. An X2 is twice as intense as an X1, an X3 is three times as intense, and so on.

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### 4K - AZERBAIJAN

The 2015 European Games will take place in Baku June 12-29. A number of Special Event stations will be on the air during this time frame: 4K2Ø15EUG (QSL via 4K6OF); 4K15EUG (QSL via 4K6OF); 4JG1EU (QSL via 4K4K); 4J15EUG (QSL via 4J6RO); 4K2Ø15BAKU (QSL via 4J6RO); 4J2Ø15BA- KU (QSL via 4K4K) and 4J2EUG (QSL via 4J3DJ). The "Odlar Yurdu" is available for QSOs made during the month of June 2015. Details may be found at :

**[www.qrz.com/db/4JG1EU](http://www.qrz.com/db/4JG1EU)**



## Propagation Forecast Bulletin 23

From Tad Cook, K7RA  
Seattle, WA June 5, 2015  
To all radio amateurs

SB PROP ARL ARLP023  
ARLP023 Propagation de K7RA

For seven days from May 28 through June 3, average daily sunspot numbers dropped from 56.1 the previous week to 34.3. Average daily solar flux barely changed from 97.6 to 97.8 over the same two weeks. But both numbers show a rising trend in recent days.

Predicted solar flux is 125 on June 5, 130 on June 6, 135 on June 7 to 11, then 130, 120 and 110 on June 12 to 14, 100 on June 15 and 16, 95 on June 17 to 22, 90 on June 23 to 25, 95 on June 26 to 28, 100 on June 29, then peaking at 120 on July 7 and 8 and dropping back below 100 after July 13.

Predicted planetary A index is 5, 8 and 12 on June 5 to 7 then 15, 25 and 15 on June 8 to 10, then 10, 5 and 8 on June 11 to 13, then 15 and 12 on June 14 and 15, and 5 on June 16 through July 3, then 10, 25, 20 and 12 on July 4 to 7.

OK1HH predicts the geomagnetic field will be quiet to unsettled June 5, quiet to active June 6 to 9, disturbed on June 10, quiet to unsettled June 11, mostly quiet June 12, quiet on June 13, active to disturbed June 14, quiet to active June 15 and 16, quiet on June 17 to 21, quiet to unsettled on June 22 to 25, quiet to active June 26, active to disturbed June 27, quiet June 28 to 30, and mostly quiet on July 1.

OK1HH predicts increasing solar wind on June 12, June 16 and 17 and June 27 and 28, with reduced prediction reliability during the latter two periods.

On May 28 the daily sunspot number was 11, the lowest non-zero sunspot number possible. This means there was just one sunspot group visible. There are no sunspot numbers between 1 and 10, because there is a value of 10 for each sunspot group, and a value of 1 is added for every sunspot in the group.

The last time the daily sunspot number was 11 was July 16, 2014 and the following day the sunspot number was zero. Note that this was just a few months after the peak of cycle 24, which I reckon to be around February and March 2014 using our three month moving average.

Prior to that we look back to January 14 and 15, 2011 to find the sunspot number at 11 on both days, on the rising side of cycle 24.

Look here for a long range forecast of smoothed sunspot numbers: <http://1.usa.gov/1HOVIDP>. These are International Sunspot numbers, on a different scale from the ones we present in this bulletin. Note it shows the current cycle peaking in March and April 2014, just like our 3-month moving averages of daily sunspot numbers. Four years in the future we see the next cycle minimum in summer 2019.

We keep track of a 3-month moving average of sunspot numbers to spot trends and figure our cycle peaks and minima. At the end of May we now know the most recent 3-month average.

The average centered on December 2014 through April 2015 is 107.8, 98.2, 78.1, 68.2 and 72.4, so we saw a small uptick in the latest numbers. Now to make us all feel better, I will cherry pick data. The monthly sunspot averages for March, April and May 2015 were 61.7, 72.6 and 83. No foolin'.

Sunspot numbers for May 28 through June 3 were 11, 23, 27, 47, 38, 39, and 55, with a mean of 34.3. 10.7 cm flux was 93, 92.3, 95, 94.3, 100.4, 101, and 108.5, with a mean of 97.8. Estimated planetary A indices were 7, 7, 5, 5, 8, 3, and 4, with a mean of 5.6. Estimated mid-latitude A indices were 8, 5, 5, 6, 9, 4, and 5, with a mean of 6.

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### 4W - TIMOR LESTE

Announced on Sunday, James, 9V1YC and Wilbert, PE7T / ZL2BSJ will be active June 6 to 16. They will be working 80-10 on CW/ SSB. James will be 4W/N1YC and QSL via W5UE; Wilbert will be 4W/PE7T and QSL via PA Bureau. Both logs will up-load to LoTW.

## Icom launch IC-7851 HF/50MHz Transceiver - The Pinnacle of HF Perfection

If you missed your chance to purchase the Limited Edition 50th Anniversary IC-7850, here is your chance to get the next offering from Icom. Icom have a strong heritage of building the most sophisticated Amateur radio transceivers. Decades of technical expertise and engineering experience have brought top of the range models from the IC-781 to the IC-7800. Icom now are pleased to launch the latest generation of high end HF transceiver called the IC-7851!



The IC-7851 is the company's new flagship amateur radio and incorporates a new local oscillator (LO) design, an optimized roofing filter, enhanced spectrum scope to name but a few of its many functions. Raising the bar for HF operation, the IC-7851 is ideal for contesters, DXers and the serious amateur radio operator. Icom's new radio features a new LO design which utilizes a Direct Digital Synthesizer (DDS) along with a Phase Locked Oscillator. This configuration reduces phase noise and achieves a reciprocal mixing dynamic range of 110dB. A 1.2 kHz optimized roofing filter overcomes the gap of a narrower roofing filter in an up-conversion receiver and greatly improves in-band adjacent signal performance.

The IC-7851 also features enhanced spectrum scope functionality. A dedicated Digital Signal Processing (DSP) unit is used for the Fast Fourier Transform (FFT) spectrum to provide faster sweep speeds and finer accuracy. Audio scope and dual scope functions, combined with a high-resolution spectrum waterfall display, provide twice the speed, sensitivity and control to give operators a performance edge.

Other radio highlights include USB-enabled click and enhanced PC control. When combined with the optional Icom RS-BA1 software, the IC-7851's internal server promotes remote base station operation. The radio can connect directly to a router and does not require a second computer for audio or rig control. The IC-7851 also continues various benchmarks established by Icom's celebrated IC-7800 such as +40dBm iP3 (3rd order intercept point), 200W output power at full duty cycle and more.

The radio is available to order from all authorised IC-7851 Amateur radio dealers To find out more about this transceiver please visit our specially designed IC-7851 web pages which give a complete list of radio features, brochures and manuals of the Icom IC-7851

<http://www.icom.co.jp/world/products/amateur/hf/ic-7851/>

[http://www.icom.co.nz/products/amateur/files/IC-7851\\_LT.pdf](http://www.icom.co.nz/products/amateur/files/IC-7851_LT.pdf)