

WANSARC NEWS



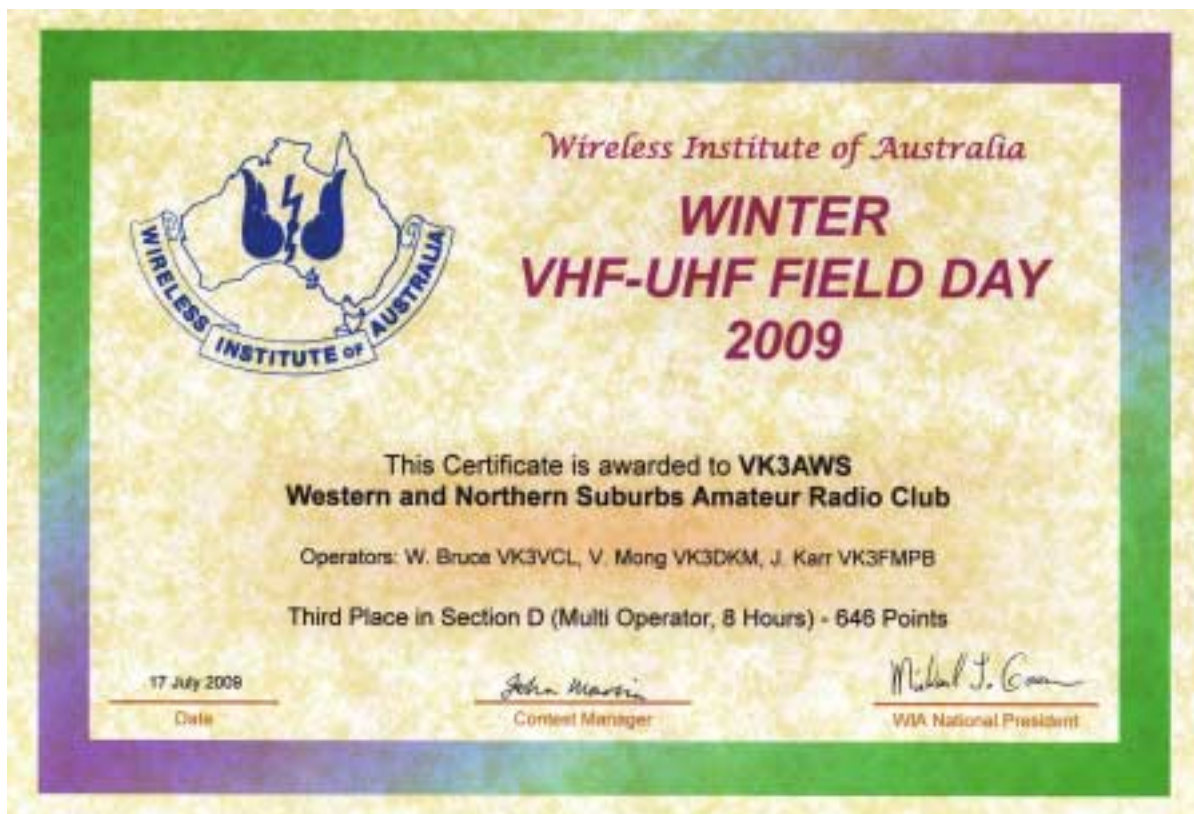
Wansarc is an affiliated club of the Wireless Institute of Australia

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Western and Northern Suburbs Amateur Radio Club VK3AWS
Incorporated in Victoria A7611S

WANSARC SUCCESSFUL IN MID WINTER FIELD DAY



Congratulations to Wayne VK3VCL, Victor VK3DKM and John VK3FMPB on their sterling efforts in representing WANSARC in the recent Winter VHF-UHF Field Day. With three successive wins in the 6 hour section of the John Moyle and now a 3rd in the Winter Field Day, WANSARC is buzzing with contest enthusiasm, so much so that plans are afoot for the next field day. More on the efforts of our contest trio on Page 6.

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Calendar for AUGUST 2009

- **Friday August 7 2009** — Come along to the club and spend a penny or two on some pre-loved equipment from Silent Key Bob VK3BU. All proceeds to the club.
- Dig deep!!!
- **Tuesday August 4,11,18,25** - CLUB VHF NET with re-broadcasts on 80 metres (3.647MHz) and 10 metres (28.470MHz), when available. Come on and join in and catch up with the latest member projects.

PRESIDENTIAL PROSE by Graeme VK3NE



Welcome to this months WANSARC Magazine.

Last Month we had the Christmas in July dinner which was well attended. Several wives, partners and friends came along to make this a successful family event.

The General Meeting this month will commence with a normal business section to bring us up to date with club finances and business. This will be followed by a disposal sale of residual items from the estate of our late member, Bob, VK3BU.

Due to the generosity of Norma and her family, the proceeds of the sale will remain with the club.

Several of the larger value items will be auctioned with the remainder divided into two categories. Some at a fixed price. Some will be sold on a "gold coin donation" basis.

As this event is a money raiser for the club please make sure you have your **"long arms and shallow pockets"** with you on the night.

73 de Graeme VK3NE, President, WANSARC

WANSARC COMING EVENTS

FRIDAY AUGUST 7, 2009 — So your pockets still have some change from the last round of HAM-FESTS? Want to snap up a bargain AND contribute to the financial stability of WANSARC at the same time?

Then come along to the next meeting, dig deep and participate in an auction of a wide range of pre-loved equipment from the estate of silent key, Bob VK3BU. On offer will be some VHF/UHF transceivers, test equipment, power supplies, speakers, transformers and much much more.

All reserve prices for equipment at auction will have a VERY realistic reserve while other items will be at LOW fixed prices, starting at only a \$1.

So come along to the next meeting, commencing at 1930 hours sharp, at the ERN ROSE MEMORIAL PAVILION, SEAVER GROVE, RESERVOIR. If you are really lost, squawk on 146.450MHz and someone will undoubtedly squawk back at you!!

Reflections contributed by Matt James



PARTNERSHIP

"You give me half the fish, and I'll tell my mom to let you live."



I hope to God
that's Batman

THE RESTLESS SUN—ORDER AND CHAOS by Peter VK6YSF

The somewhat orderly solar cycles that have been observed for a little over three hundred years or so have ebbed and flowed producing some very intense solar maximum (Peak sunspot and solar activity) and sometimes almost not shown at all. The low intensity solar cycles, particularly when there has been a succession of them appear to have a connection with general climatic conditions on Earth. Periods such as the Maunder Minimum from about 1650 to 1715 saw very few reports of sunspots and coincided with the coldest part of the period known as the Little Ice Age.



The absence of sunspots or a very active Sun in terms of sunspot activity seems to have very little observable change in total solar output; therefore a connection between sunspot activity and the Earth's climate has struggled to gain credibility. The mechanism may not be entirely understood, but historic records of climate and sunspot activity seems to indicate a connection.

The sunspot connection may at the very least be a contributing factor as it may have been during the relatively recent Dalton Minimum. The Dalton Minimum was a period of low solar activity, lasting from about 1790 to 1820 that also coincided with a period of lower than average global temperatures.

The cooler temperatures were exasperated by the eruption in 1815 of Mount Tambora on the island of Sumbawa, in what is now Indonesia. This made the winter of 1816 one of the most miserable and deadly on recorded. The volcanic eruption clearly made things worse, but the cold spell was well underway from about 1810.

A determination of solar activity for the last 11,000 years has been made using the carbon 14 proxy record.

The Earth is constantly being irradiated by cosmic rays from deep space and these rays produce in the atmosphere a material known as carbon 14 which is absorbed by trees among other things. Trees even dead trees retain a record of the levels of carbon 14 being produced over a very long period of time. Charged particles from the Sun which are greater during periods of high sunspot activity repel the cosmic rays and therefore the more sunspot activity there is the less carbon 14 is recorded in the tree rings.

Using the carbon 14 level records the sunspot number estimates have been pushed back as far as 11,400 years into the past.

This determined record of solar activity sees a striking correlation between low solar activity and a series of well document cool climate periods during this time.

Seeing order in the chaos

These seemingly random periods of low sunspot activity may have more order and predictability than appears at first glance.

An interesting paper written by I. Charvátova in 1999 regarding *Celestial Barycentrics* (The orbital mechanics of the solar system) speculates about much longer duration cycles that impact on the behaviour of the sun and by extension the earth's climatic conditions.

Not generally appreciated is the fact the planets of the solar system do not actually orbit around the sun, they including the sun orbit around the centre of the solar system's total mass. The Sun representing 99.8% of the total solar system's mass orbits around a point very close to the centre, however it can be more than a Sun diameters from the central point.

The mechanics of objects orbiting around the central point of the mass in a celestial system can be more clearly seen when the orbits of binary stars are observed.

THE RESTLESS SUN—ORDER AND CHAOS (continued)

Take a two star system where both stars are identical in mass, both stars will orbit around a point half way between each other.

Our sun is influenced by the distribution of the total solar system's mass, but primarily by the positions of the four largest planets in order of mass, Jupiter, Saturn, Uranus and Neptune. The below plot the Sun's position in relation to solar systems centre point over a fifty year period from 1945 to 1995 clearly shows the dynamics of this tug of war between the system heavy weights. See Fig. 1.

It is in fact by observing the wobble of distant stars that astronomer are able to determine if that star has planets, the size of the planets and the orbit of the planets about the star. This technique is the method that has resulted in the discovery of all the so called exoplanets (Planets outside of our solar system) to date.

The orbit of our Sun around the central and moving centre mass of the solar system generally forms a well ordered pattern referred to as a *Trefoil*. See below (**Fig 2**) the pattern that is referred to as a Trefoil pattern.

FIGURE 1

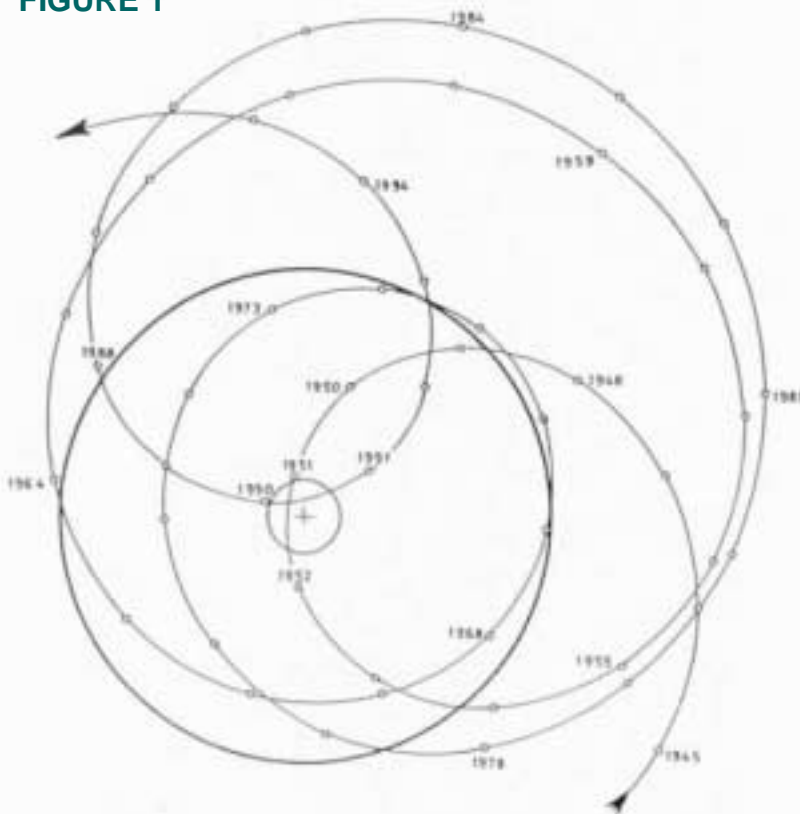


Figure 1: The sun's diameter is marked by a thick circle. The position of the centre of mass relative to the sun's centre marked by a cross and the respective years is indicated by small circles. Figure 2: Trefoil pattern sometimes referred to as the Trefoil Knot.

within the motions of the Sun around the centre of mass within these periods.

The diagram overleaf (**Figure 3**) shows the Sun's path around the centre of mass of the solar system for defined periods of time starting in the year 1192 to the year 2134. The six upper plots show the Sun's path in the orderly Trefoil type pattern. The lower five plots show the disordered path and the related grand minima that also saw a temperature plunge on Earth.

The Trefoil pattern or something resembling it is the norm and appears associated with long periods of relatively consistent solar cycles, however every now and then this pattern is disrupted and a period of disordered motion grips the Sun. This abnormal disordered period appears to be associated with

FIGURE 2



less sunspot activity and generally lower temperatures here on Earth.

The study by the author proposes that the 4 most influential planets orbiting around the our Sun produce a number of repeating cycles,, a 2402 year cycle, a number of 178 year periods within the 2402 years, and a 370 year period also within the 2402 year cycle. They also reveal the order and chaos

THE RESTLESS SUN—ORDER AND CHAOS (continued)

Of interest to us right now is that we are entering (since 1985 and on going too until 2040) one of these periods of "disordered" motion. What is most interesting is that the last four "disordered" periods coincided with the "Wolf", "Spörer", "Maunder", and "Dalton" climate minimums.

The table below clearly shows that while the grand minimums are not all that common they can however last some time.

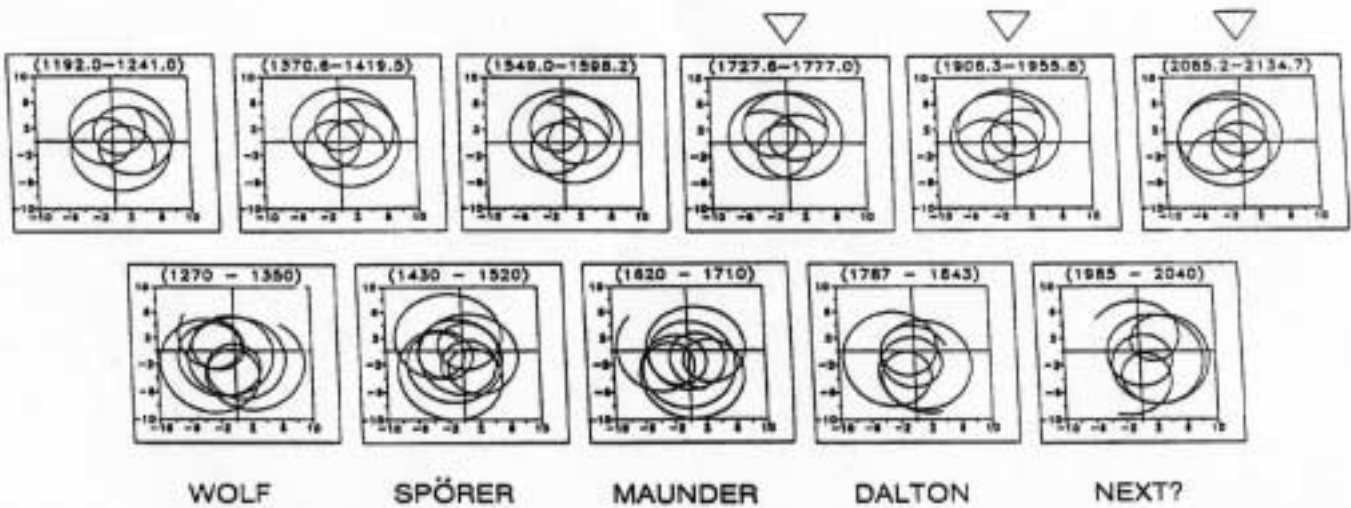


Figure. 3: Diagram of the Sun's path around the centre of mass of the solar system for defined periods of time starting in the year 1192 to the year 2134.

Duration centre year	Duration in years	Name
1810	40	Dalton
1680	80	Maunder
1470	160	Spörer
1305	70	Wolf

What's this have to do with radio?

The solar cycles clearly have everything to do with radio propagation as it is typically experienced on the HF and low VHF bands. However such long duration cycles that are at a minimum several generations in length are difficult to apply practically to ham radio operations. It is more a point of interest in the ongoing speculation of what the next cycle will bring and how this marvellous natural feature may in fact work! It is of particular interest with respect of the new cycle 24 and how it might develop with the view that we are well into a period of disordered motion as proposed in the author's paper. We may have front row seats into a greater understanding of not only the solar cycles, but also to the effects on the Earth's climatic conditions by the subtle affects of these solar cycles.

A grand minimum would make the depressed HF conditions that we have been experiencing for 2008 the norm for the next generation or three. All this may be a bit depressing if you like me were looking forward to nice big solar max, but maybe we have more to worry about other than not seeing that fantastic F2 opening to Hawaii on six metre! If the past is any guide a grand minimum would likely disrupt food production, promote famines and for those living in the extreme northern and southern latitudes could be directly life threatening.

The arguments proposed in Charvátova's paper are far from holding centre stage, however the test of time and observation will determine its place in our understanding of the relationship that the Earth and her occupants have with the greater universe

For reference /more information contact Peter Miles—VK6YSF <http://members.optushome.com.au/vk6ysf/vk6ysf/main.htm>

WANSARC and the Mid Winter Field Day by Mark VK3PI

When the club's original plan of fielding a station in the Mid Winter Field Day was in danger of failing, in stepped **Wayne VK3VCL**, **Victor VK3DKM**, **John VK3FMPB** and a friend of Wayne's interested in radio.

In the space of 72 hours Wayne secured a "covert" location to the south west of Bacchus Marsh with a height advantage and at short notice rustled up a very small, but dedicated crew, to put VK3AWS on the air in the Mid Winter Field Day contest.

VK3AWS competed in Section D, Multi-Operator 8 hours section and to the teams delight when the results were announced recently, VK3AWS had scored a 3rd in this section. VK3XPD from QF locator QF31 won this section with 1849 points, VK5LZ of the Elizabeth Amateur Radio Club in South Australia came second with 1344 points and VK3AWS third with 646 points.

Congratulations on behalf of all members to Wayne, Victor and John for their efforts.

A number of other club members were active during the event. **Trevor VK3FTDX** and **Rod VK3MRT** operated from Craigeburn with some good signals on VHF/UHF. **Mark VK3PI** contributed a few contacts in between home taxi duties for his teenage kids.

John VK3ACA was 8th in Section E, Home Station with 543 points from contacts on 2 metres and 70cm—well done John!!

Well done again and let's see if next year we can pull together a bigger team and give the 1st place a shake up!!



Left to right 1. Wayne VK3VCL and Victor VK3DKM erect the field day antennae—note 6mx turnstile antenna in the hands of Victor 2. John VK3FMPB calls CQ during the contest 3. The antennae used during the Field Day with the turnstile at right on the smaller mast.



CLEANING MADE EASY from Bob VK3EL

Found an old radio or electronic treasure that was full of dust and dead or alive insects ? Maybe filled your cheeks with air and tried to blow out all the gunk and had most of it bounce back in your face , down your throat or up your nose ?

Grab one of these car tyre pumps either new or used, and avoid the discomfort .

Most radio "shacks" now have a 12vdc supply, and while these little compressors are a little noisy they'll do quite a good job of getting into places your lungs just won't reach, and are relatively cheap new & even cheaper at flea markets or garage sales . Happy Dusting! Bob, VK3EL.



DOG FOR SALE submitted by Graeme VK3PGK



DOG FOR SALE

Free to good home. Excellent Guard dog.

Owner cannot afford to feed him anymore.

There are now no drug pushers, thieves, burglars, molesters, car thieves or murderers left in the neighbourhood for him to eat and canned food just does not do it for him!

Answers to name of "HOLY SHIT" as this seemed to be whatever he was called when he was chasing scum prior to eating them!!

INDIA CHAOS from Geoff VK3AVJ



This is India—this is where your call goes when you have a problem with your computer??

Now which one did he say was the + and the -?

**CLUB NET TUESDAYS 7.30PM
146.450MHz**

The next 2 metre SSB Scramble



**AUGUST
2 METRE SSB
SOUTH EAST
SCRAMBLE**

**SUNDAY 30th AUGUST 2009
1030 TO 1045 UTC
CALLBACK 1045 TO 1100 UTC**

ALL ARE WELDCOLME TO COME AND JOIN US FOR SOME FAST AND FURIOUS ACTION. LISTEN ON 144.150 5 MINS BEFORE START TIME. EXCITEMENT ON A SUNDAY NIGHT.
SPREAD THE WORD !

INFORMATION AND RULES OF THE SCRAMBLE CAN ALL BE FOUND AT:
<http://www.amateurradio.com.au/vk3mq>

Thanks Mike, VK3KH, for information on the next 2 metre scramble. More members of the club are becoming interested in 2 metre SSB and in particular the scramble competitions, so why not give it a go and take the opportunity to meet many other stations on 2 SSB.

WANSARC CLUB PROFILE

History

The Western and Northern Suburbs Amateur Radio Club (WANSARC) was first formed in 1969 and since then has served the needs and interests of amateur radio operators, short wave listeners and those interested in hobby radio and electronics. The club is not gender specific, having both female and male members. Members come from all walks of life with a mix of experience, young and mature, novice and technical. The most important aspect of the club is the willingness of all members to share their knowledge for the benefit of others. Members mainly reside in the west and north of Melbourne; however membership is encouraged from all interested.

Meetings

FIRST Friday of each month except January at the Ern Rose Memorial Pavilion, SEAVER GROVE, RESERVOIR. See map). 7.30pm local time start.

Talk in on 146.450MHz FM—call club station VK3AWS.

Benefits

Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of like



minded radio and electronics enthusiasts, excellent club facilities and environment plus an informative monthly newsletter for members to post articles, news, classifieds for all radio, test equipment, etc, featuring Amateur Radio news from WANSARC, WIA, ACMA, Melbourne Clubs, VK and Worldwide.

Club Nets

146.450MHz FM each Tuesday evening commencing 7.30pm local time. Also monitor 28.470MHz on 10 metres USB.

More Information: Website: www.wansarc.org.au

Email: wansarc@wia.org.au



Don't forget the "club" meets on air regularly on 146.450MHz FM. And now rebroadcast on 28.470MHz USB.

**Next meeting 7.30pm local Friday August 7 , 2009 AT the clubrooms
1930 hours SHARP Talk in 146.450MHz FM.**

If not delivered within 7 days, please return to WANSARC, PO Box 336, Reservoir, 3073

**Australia Post stamp
here**