



# SARCNEWS 2021:01:24

## **SARC RADIO NET NUMBERS/CHECK INS:**

**Weekly HF Dawn Patrol – 30** for the week ending 22JAN21.  
No official Dawn Patrol was conducted on Tue and Wednesday.

**Monday\_INFO Net – 8** – News.

**Tues\_Sarc Digi Net** – no Digi Net, AMT was away and DLR disconnected due to lightning, but a few had a chat \_ **5** logins.

**Wed\_70cm Net – 3** – Building stuff.

**Thursday Net - 6**

**Friday Night Net – 6** – Getting older.

## **Errata: VK2CDG at Vista**

It was Dave VK2CDG at Vista last weekend not the alphabet soup callsign that reporter Duncan VK2DLR dredged out of his head. My apologies to Dave VK2CDG.

## **DIGITAL MODES Report – Tuesday 19JAN2021**

I was not able to run the Digi net for this week, due to family commitments, so it was up to Duncan to step in. As luck would have it, a storm with lots of lightning drifted north so all coaxes were disconnected and the net didn't occur. Thanks to Duncan for agreeing to step in. Digital modes allow for quite a range of choices for the amateur radio experimenter. One digital mode that has dominated the bands for quite a while now is FT8. If you look at the PSK Reporter website and filter the mode choices, you soon see FT8's domination. The reason why is not hard to see. Joe Taylor, the originator of the WSJT-X package, said that weak signal modes allow an amateur radio station with high noise levels and compromise antennas to work the world with a 100 watt transceiver. That describes my situation perfectly. The sunspot numbers have been very low lately and propagation is patchy at best. Not everyone has a quiet rural location with high towers, amplifiers and yagis. FT8 is a weak signal mode, not a low power mode. If you find like me that you need 70 watts to get into western Europe with FT8 reliably, so be it. If you can do it with 30 watts, good. This mode is 100% duty cycle, so give your output devices a breather by not TXing constantly. It isn't necessary either.

I recommend that you try FT8. It may not be for everyone and operators who enjoy the "rag chew" with their radio friends may well hate the idea. That's fine, there are plenty of ways to enjoy the hobby. You don't need a super rig either. Any decent modern radio can be used. You do need a reliable computer, desktop or laptop and a sound card. Older rigs that do not have a soundcard and USB cable built in will need something like the Signalink. There are plenty of guides to FT8 available, but this one by Kiwi Gary Hinson is excellent:

[https://www.g4ifb.com/FT8\\_Hinson\\_tips\\_for\\_HF\\_DXers.pdf](https://www.g4ifb.com/FT8_Hinson_tips_for_HF_DXers.pdf)

Accurate timekeeping is essential due to the tight time and frequency synchronisation necessary for the weak signal modes to work. Dimension4 software is free and works very well in the background. One thing that is necessary is perseverance. The bands open and close and propagation changes

## **UPCOMING EVENTS**

### **Australia Day**

January 26, 2021 \_ AX prefix

### **AGM & Committee Meeting**

February 14, 2021 @ 1300

### **Wyong Hamfest**

February 28, 2021

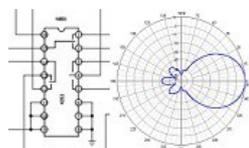
### **Committee Meeting**

March 14, 2021 @ 1300

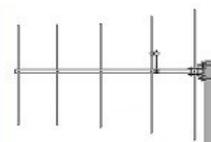
constantly. Signals can pop up without warning. Grey line propagation also plays a part. Have a go, the digital modes, including FT8, are available now for all 3 licence classes. A Foundation operator may be pleasantly surprised where in the world their 10 watt signal travels to. Contacts all around the Asia-Pacific area can be made with 10 watts. WSPR is another mode in the WSJT-X package. It is not a QSO mode but a propagation testing one. It is amazing how far a WSPR transmission with 5 watts or even milliwatts can travel.

Cheers from Paul VK2AMT

## .OTHER INTERESTING BITS. Click on the images to open.



## HOMEBREWING PROJECTS by SARC MEMBERS



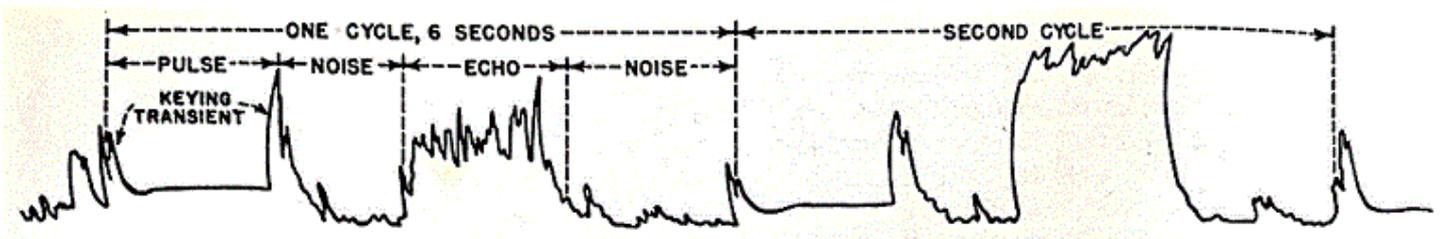
Home made 80 coil to use with the good old 'squid pole' made by Jeff VK2WSR



# 6-DAY LISMORE WEATHER (FORECAST)

	Mon Jan 25		Tue Jan 26		Wed Jan 27		Thu Jan 28		Fri Jan 29		Sat Jan 30	
	Summary	☀️ Mostly sunny		☀️☁️ Possible shower								
Maximum	28°C		29°C		29°C		29°C		29°C		29°C	
Minimum	17°C		17°C		18°C		20°C		21°C		20°C	
Chance of Rain	50%		40%		80%		90%		90%		90%	
Rain Amount	< 1mm		< 1mm		1-5mm		5-10mm		1-5mm		1-5mm	
	9am	3pm	9am	3pm	9am	3pm	9am	3pm	9am	3pm	9am	3pm
Wind Speed	5 km/h	17 km/h	5 km/h	16 km/h	5 km/h	16 km/h	12 km/h	21 km/h	11 km/h	20 km/h	11 km/h	20 km/h
Wind Direction	↙ N	↘ ENE	↙ NW	↘ ENE	↘ NNE	↙ E	↘ SSE	↘ SE	↘ SE	↘ ESE	↘ SE	↘ ESE

# THIS TIME IN RADIO HISTORY



Visual record of an historical achievement - the first amateur signals sent to the moon and back. After three years of work, Ross Bateman, W4AO, and William L. Smith, W3GKP, shown here checking alignment of the huge stacked-rhombic array at W4AO, finally received echoes of their 144-Mc. signal reflected from the moon. The date: January 27, 1953.

-adopted from Edward P. Tilton (1972) (3rd Ed) *The Radio Amateur's VHF Manual*. Published by The American Radio Relay League, Inc. Newington. (p.12).

## .THIS WEEK'S FUN PAGE.

### Last week's puzzle solutions.

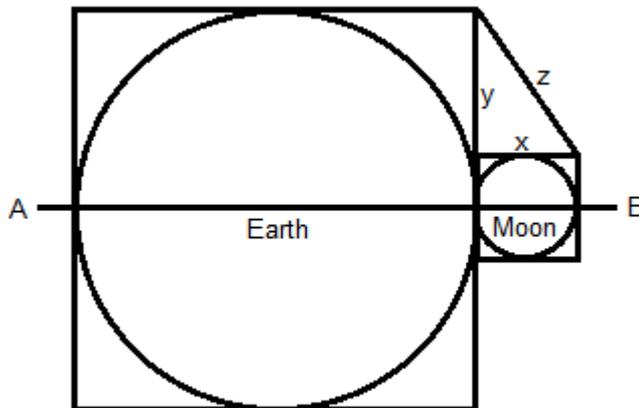
The editor has received a few replies to last week's puzzle. The best answers came from Chris B.

Chris used the Earth's diameter as 12,742 km and the Moon's diameter as 3,476 km. Upon using Pythagoras Theorem:  $y^2 = x^2 + z^2$ , Chris discovered a familiar pattern.

In his own words... *"Looks similar to a (3,4,5) triad.*

*Try this...  $3476 / 3.000 \rightarrow k = 1158$ . So,  $x/k = 3476 /$*

*$1158 = 3$ .  $y/k = 4633 / 1158 = 4$ .  $z/k = 5792 / 1158 = 5$ . Remarkable! It is the (3,4,5) Triad!"*



In regards to point (4) 'How did this relationship manifest itself?' Chris's reply was *"As to part (4) .... the wording of the question is not entirely clear .... but if the intention is to seek some Earthly application of this particular Pythagorean Triad, there must be many tucked away in antiquity."*

## THIS WEEK'S PUZZLE



The right-side image has 10 alterations, can you spot them?

### Our Disclaimer:

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