STARLITE

THE NEWSLETTER FOR THE STOURBRIDGE AND DISTRICT A.R.S.

G6OI
G6SRS

G4CVK

ISSUE: MARCH 2020

STOURBRIDGE & DISTRICT AMATEUR RADIO SOCIETY
INCORPORATING
OLD SWINFORD HOSPITAL SCHOOL RADIO CLUB

MEETINGS HELD AT

OLDSWINFORD HOSPITAL SCHOOL
HEATH LANE
STOURBRIDGE
[8:00 TO 10:00 PM]

VISITORS ALWAYS WELCOME

THE SOCIETY HOLDS ITS MEETINGS
EVERY MONDAY (EXCLUDING BANK HOLIDAYS)

ANNUAL GENERAL MEETING = MARCH 16TH

RSGB AFFILIATED SOCIETY

The views expressed in STARLITE may not be those of the Committee – Stourbridge and District Amateur Radio Society

STARLITE

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StARS Website URLs:-
www.g6oi.org.uk
http://g6oi.ross-lewis.co.uk/index.html

StARS Facebook Page:-
https://www.facebook.com/groups/stourbridge.ars/

Forthcoming Meetings

March 2nd	On Air. Informal. Digi Modes Group.
March 9th	On Air. Informal. Digi Modes Group.
March 16th	*** Annual General Meeting 2020 ***
March 23rd	On Air. Informal. Digi Modes Group.
March 30th	On Air. Informal. Digi Modes Group.
April 6th	On Air. Informal. Digi Modes Group.
April 13th	Easter Bank Holiday – No Meeting
April 20th	Main Meeting – Subject t.b.a.
April 27th	On Air. Informal. Digi Modes Group.
May 4th	On Air. Informal. Digi Modes Group.
May 11th	On Air. Informal. Digi Modes Group.
May 18th	Main Meeting – Subject t.b.a.
May 25th	Bank Holiday – No Meeting
June 1st	On Air. Informal. Digi Modes Group.

Editor's Comment

Another year has passed so quickly and, once again, we prepare for the **ANNUAL GENERAL MEETING**, where it is time for you to thank the outgoing Committee and elect the officers for the 2020-2021 year. Historically, this is when the attending members simply re-elect the previous Committee for the coming year. Will there be any changes this time?

It is, also, time to appoint the Starlite editor. I have reservations about continuing in this role, due to the disappointing input from the Society's members. I have a little input from Jim G4WAO and my brother (not a member!), who regularly contribute or suggest items for inclusion in these pages. Neither do I receive any reports following the Committee meetings to keep you informed of any future operations within the Society.

The February **Constructors' Competition** attracted 3 very different entries.

- Wayne M5LLT showed a power pack used to replace the AA batteries in his aerial analyser.
- Geoff G0KVK showed a Hayne's Manuals (!?) Radio Receiver Kit. A short demonstration gave good results receiving some broadcast stations.
- Dr Alan G7AXW showed a twist drill sharpener. Used to sharpen small pcb-type drills, which is normally nigh-on very difficult, it looked to be a useful addition to any constructor's kit.

The winner was deemed to be G7AXW, who was presented with the Trophy and the bottle of Scotch.

A Date For Your Diary

ANNUAL GENERAL MEETING

MONDAY, MARCH 16th 2020

TO BEGIN AT 8pm

Mysterious repeating radio signal traced to unexpected outer space location

Fast radio bursts are one of the newest unexplained phenomena in the universe, and each discovery seems to add another layer to the riddle.

The source of strange signals called fast radio bursts from across the cosmos is one of the most perplexing puzzles in astronomy. This week, astronomers identified the source of one such repeating signal for just the second time, and the result seems to have generated more questions than answers.

There have been hundreds of detections of these fast radio bursts, or FRBs, over the past two decades, but only a handful of the enigmatic signals have ever repeated themselves. In 2017, repeating FRB 121102 was traced back to a distant dwarf galaxy, 3 billion light-years beyond the Milky Way. Now an international team has tracked another repeater back to a very different source, the star-forming region of a spiral galaxy similar to our own Milky Way. (To be precise, that's FRB 180916.J0158+65 and spiral galaxy SDSS J015800.28+654253.0.)

"The found location is radically different from the previously located repeating FRB, but also different from all previously studied FRBs," said Kenzie Nimmo, a Ph.D. student at the University of Amsterdam, in a release.

In other words, FRBs -- both repeating and non-repeating -- seem to originate from radically different locales around the universe. This leaves Nimmo and others wondering if the origin of an FRB isn't the most important clue in solving the puzzle.

"It may be that FRBs are produced in a large zoo of locations across the universe and just require some specific conditions to be visible," she said.

A study, co-authored by Nimmo and led by Benito Marcote at Europe's Joint Institute for VLBI ERIC, outlines the process of localizing a repeating FRB for just the second time. It was published in Thursday's issue of Nature.

While the new study may cast doubt on what we thought we knew about FRBs, the good news is that the newly mapped repeater is relatively close at "only" half a billion light-years from Earth, providing a prime opportunity for studying FRBs more closely.

Astronomers puzzle over ancient 'monster' galaxy

The massive galaxy XMM-2599 is more than 12 billion years old, researchers say.

Of all of the universe's strange phenomena, the monster galaxy XMM-2599 stands out, researchers say. Its story begins 12 billion years ago -- when our own universe was a toddling 1.8 billion years old -- with a nebulous gas cloud that began spinning up stars at a frenetic pace.

Our own Milky Way galaxy forms just one star or so a year, but the monster galaxy went wild, forming a mass of more than 300 billion suns very quickly. And on went its celestial churning until, in seeming indifference to all human astrophysical modeling, the monster's star-making suddenly came to a screeching halt. And now the monster-hunting astronomers want to know why.

Describing their work in The Astrophysical Journal Letters, the international research team detailed why a galaxy the size of XMM-2599 should normally be expected to continue producing stars for billions more years.

"What makes XMM-2599 so interesting, unusual, and surprising is that it is no longer forming stars, perhaps because it stopped getting fuel or its black hole began to turn on," Gillian Wilson, the study leader and a professor of physics and astronomy at the University of California, Riverside said in a Wednesday release. The discovery could again force astrophysicists to "call for changes in how models turn off star formation in early galaxies," Wilson added.

Questions remain about the future of the monster galaxy, and the researchers have been awarded more time to continue their work at the W. M. Keck Observatory in Hawaii. Though they know it can't lose mass, it's unclear whether the largest universe of its epoch will continue to exist in isolation. It could, as one researcher said, "gravitationally attract nearby star-forming galaxies and become a bright city of galaxies."

This came from Jim G4WAO, who commented, "*This one will interest any Dx operators in the club, as long as they have a good antenna system and a bit of patience to get through an anticipated pile up!"*

Special Event Station – Radio Australia Shepparton

UNIQUE CALLSIGN

On the weekend of the 14th and 15th March 2020, the Shepparton and District Amateur Radio Club (SADARC), with the kind permission of BAI Communications (Broadcast Australia), will connect amateur transceivers to the curtain array and rhombic antennas at the Broadcast Australia site in Shepparton, which is located in North Central Victoria Australia. This site was previously a Radio Australia location, which was the Shortwave Service from Australia. The Radio Australia transmissions from this site ceased in 2017.

A unique call sign has been issued for the event, which is **Victor 3 Radio Australia – VI3RA**. All contacts made during the 2 day event will be issued with a specifically designed QSL card. The event commences on Saturday 14 March 2020, 12:00:00AM AEDT(UTC+1100) and will end at Monday 16 March 2020, 12.00AM AEDT(UTC+1100).

Frequencies used for the event will be 7, 10, 14, 18, and 21Mhz.

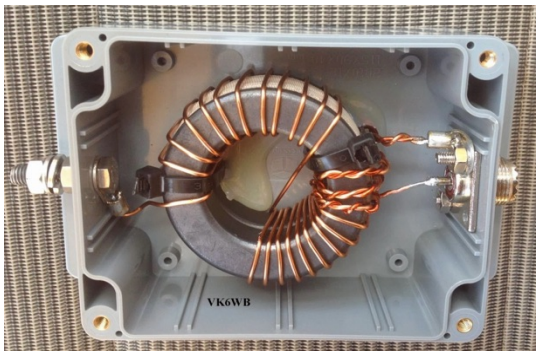
Local Amateurs will be given the unique opportunity to explore the use of high gain antennas whilst giving Amateurs throughout the world a unique opportunity to contact a station using such high gain antennas.

This is a rare opportunity for amateur radio operators, who are only allowed a peak output power of 400 watts in Australia when compared to 100 Kw of Radio Australia transmitters to hopefully achieve some remarkable communication outcomes. We expect to get a gain of 15dB on the lower frequencies' and at least 20dB on 21Mhz. Bookings for time slots are now open. We are limited to six operators per two hour timeslot. More information and bookings can be found at www.sadarc.org

Details

Date	Saturday, March 14, 2020
Time	48 Hours commencing 12.00am
Venue	Radio Australia Verneys Rd SHEPPARTON

End Fed Antenna with a 1:64 Matching Network

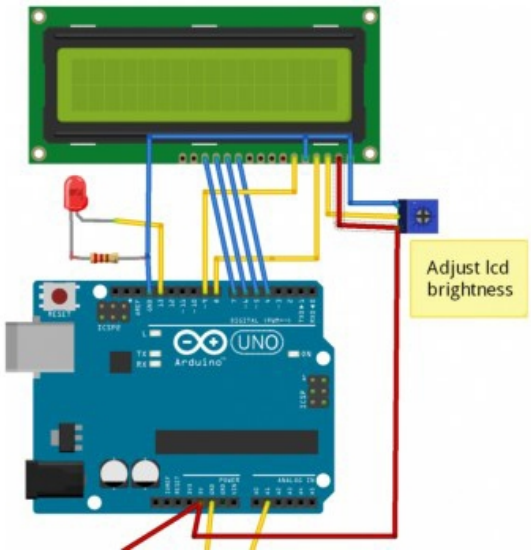


In this experiment the author is going to explore the use of a 1:64 matching network on the End Fed Long Wire Antenna. Experiment will consist in build a 80-40-20-15-10 meter End Fed Long Wire Antenna with a 1:64 matching network from the documentation available on the internet

Category : Antennas/End-Fed/End Fed Half Wave Antenna

See more here:
https://www.dxzone.com/dx33573/end-fed-antenna-with-a-1-64-matching-network.html

CW Decoder With Arduino Uno



Easy to build CW decoder based on DSP Goertzel code. If you want to build a cw decoder without using other active components than an atmel 328, Arduino UNO, then this is sure something for you.

See more here:

https://www.dxzone.com/dx30110/cw-decoder-with-arduino-uno.html

YOUR COMMITTEE

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