FIVE AND NINE PLUS

THE OFFICIAL NEWSLETTER OF THE APPLEDORE AND DISTRICT AMATEUR RADIO CLUB

Club Callsigns: G2FKO and GX2FKO
Web Site : www.adarc.co.uk

CLUB'S OFFICERS

President	Terry Adams	G4CHD	
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Vice Chairman			
Secretary	John Lovell	G3JKL	secretary@adarc.co.uk
Treasurer	Ray Hunter	M0TLO	

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	Ben Louder	2E0FTZ
	Graham Stephens	M1GRA
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May 2022

EDITORIAL

Welcome to another Club Newsletter.

This month's Meeting is on Monday May 16th at the Clubhouse and is a Talk by yours truly - G4CHD - on the **Logging program Log4OM** which will start at 8pm.

The Meeting is also being live streamed via **Zoom** so that any members who for whatever reason are unable to attend can still enjoy and participate in the Meeting. Details of how to join the Meeting via Zoom have been sent out via e mail.

On **Saturday June 4th**, we will be putting on a **Special Jubilee Event Station in Victoria Park, Bideford.**
The Club has obtained the necessary NOVs to operate with the special callsigns GQ2FKO and GX2FKO/70 but will decide beforehand which callsign is preferred.
The station setup will start at approx 9am and your Committee **would like any members willing to help** to contact a Committee member in advance so that plans can be made to ensure everything is ready for us to commence operating at approx 10am. The more hands the better and once we are operational it is also useful to have members on hand to help explain to the public what we are doing.
So look forward to seeing many of you on the day.

A **final** reminder for any members who still haven't renewed their Club membership to contact the Treasurer Ray (M0TLO) who will advise on the best way to pay.

Terry (G4CHD)

CLUB MEETINGS

Meetings are held at the **Appledore Football Social Club** starting at 7.30pm for 8.00pm. Visitors always welcome. For any further information, please contact the Secretary, John (G3JKL) - see above panel for contact details.
If you have any suggestions for a suitable talk etc please contact any Committee member.

Date	Topic
May 16th	Streamed Talk - Log4OM by Terry (G4CHD)
Aug 15th	Bring & Buy
Nov 21st	Bring & Buy
Dec 19th	Xmas Party
Mch 20th 2023	AGM

LOCAL REPEATERS

2m Stibb Cross Repeater (GB3DN)
http://www.g0rql.co.uk/gb3dn.htm
User: Listen 145.6375 MHz - Transmit 145.0375 MHz.
Access 1750 Hz Tone or 77 Hz CTCSS
Repeater keeper is Tony (G1BHM)

Fusion/C4FM/WiresX Gateway (MB6DT)
Frequency 144.8125 MHz.
Gateway Keeper Darren (2E0LVC)

Fusion/C4FM/WiresX Gateway (MB6DN)
Frequency 144.825 MHz.
Gateway Keeper Drew (M0MFS)

LOCAL NETS

Weekday Zepp FM Net: Mon/Tues/Thurs/Fri :
145.450MHz - 4pm - 5pm
Wed via GB3DN - 4pm - 5pm
Net Control : Len (M0SXY)

2m Elevenses FM Net: Mon/Wed/Fri :
11 - 12.00 noon via GB3DN
Net Control ; Mike (G3PGA)

Friday Night 2m Net: Friday : 145.450 FM, 8 - 9pm

Sunday Top Band Net: Sunday 1.860 MHz
9.30 - 10.15am
(LSB - 32W pep max)

2m SSB Nets: Wed: 8 - 9pm   144.260MHz
USB SSB (Vertical polarised)
Sun: approx 10.30am (follows
Top Band Net)   144.260MHz
USB SSB (Vertical polarised)

Sunday FM Net: Sunday: 11 to noon via GB3DN
Net Control : Chris (G0FJY)

CROSSWORD

Many thanks to Stuart (M1FWD) for this month's Crossword.
The answers are in next month's Newsletter. Good luck !

CLUES ACROSS

1) Instruments used to control a current by varying the resistance (9)
6) Empty spaces, vacuums (5)
7) One of the Seven Deadly Sins (4)
9) The SI unit of capacitance (5)
10) An article (4)
12) Five Uniform (5U) land (5)
13) Three Bravo Nine (3B9) island in the Three Bravo Eight (3B8) area (9)

CLUES DOWN

2) In America, the bonnet of a vehicle (4)
3) Lancashire town 7 miles northeast of Manchester (6)
4) To correct errors in a document, for instance (5)
5) Remains (5)
7) Consuming food (6)
8) Morris ?, British family car manufactured between 1948 and 1971 (5)
9) Stinking (5)
11) In or at or to this place or position (4)

Last month's answers :-

ANSWERS ACROSS: 1) User 3) Esse 7) Ray Adams
9) bud 10) Belgium 13) Tex 14) alphabet 15) pair
16) Peru

ANSWERS DOWN: 2) shrub 4) statute 5) Etsy
6) Labgear 8) Adelphi 11) meter 12) Harp
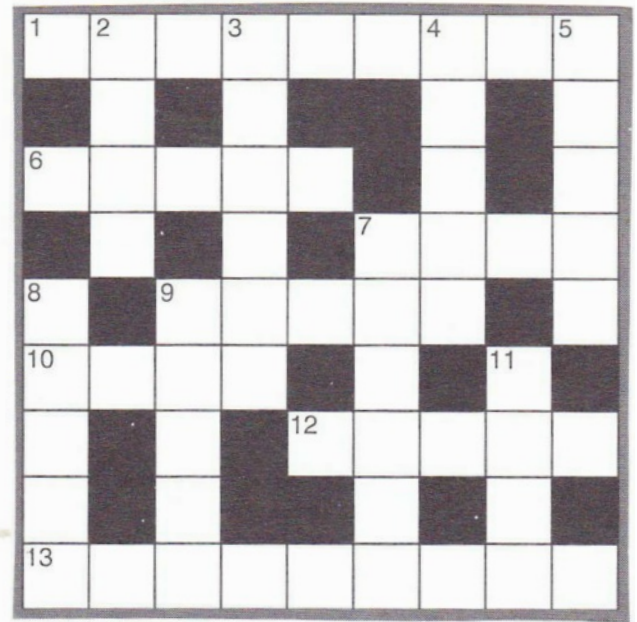
COMPARISON OF VARIOUS WAYS OF DEFINING LOCATION

In amateur radio the need to give your location varies from simply giving your local town in a QSO to the use of the 6 character Maidenhead locator system used for example by WSJT-X. I therefore decided out of curiosity to compare the accuracy of this locator system with using GPS Coordinates.

GPS Coordinates

Consists of Latitude and Longitude quoted as Degrees/Minutes/Seconds (to the nearest tenth).
eg my qth is :-

51deg 02mins 12.2 secs North (Latitude) and
4degs 14mins 20.6 secs West (Longitude)

Consider Latitude

The Earth is divided into Northern and Southern Hemispheres with the Equator at 0 degrees and the Poles 90 degrees. Since there are 60 minutes in a degree and 60 x 10 tenths of a second in a minute then there are 90x60x60x10 values in either hemisphere.
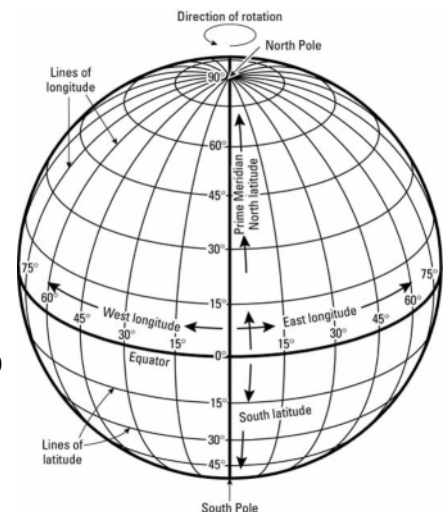
Assuming the Earth has a mean radius of 3960 miles then the circumference is 24,880 miles and hence the distance from Equator to Pole is a quarter of this ie 6220 miles.

Therefore the GPS system gives your North-South location to within 6220/90/60/60/10 miles ie 0.00192 miles or about 10 feet.

Consider now Longitude

Greenwich Meridian is the zero degree reference point and Longitude is quoted as upto plus/minus 180 degrees East or West from the Greenwich Meridian.
At the Equator this is plus/minus half the earth's circumference which is +/- 12,440 miles.
Therefore Longitude at the Equator is specified to the nearest 12,440/180/60/60/10 miles ie 0.00192 miles or about 10 feet - the same as for Latitude. This improves however as one moves North or South towards either Pole where the circumference gets less and eventually becomes zero at the Pole.

Thus the GPS system locates your position to within +/- 5 ft

Maidenhead Locator (also known as QTH or IARU Locator)

As an example, my QTH is given as IO71va ie a pair of letters followed by a pair of digits and ending in a a pair of letters. For each pair, the first character relates to longitude and the second to latitude.
The world is divided into 324 (18×18) regions as shown on the map at the foot of the page. ie Latitude is divided into 10 deg steps and Longitude into 20 deg steps.
Latitude is measured from the South to North Pole, and Longitude measured Eastward from diametrically opposite Greenwich meridian. Thus Greenwich is at 180 degs and the Equator at 90 degs.
Each of these 324 regions is in turn divided into 100 (10x10) squares specified by two digits ie Latitude is further divided into 1deg steps and Longitude into 2 deg steps.
Finally each square is divided into 576 (24x24) subsquares specified by the letters a to x ie Latitude is further divided into 2.5 mins steps and Longitude into 5 mins steps.

Hence two points within the same subsquare are always less than 10.4 km (6.5 mi) apart.

Thus in eg Log4OM where a station's location is shown on a map using its locator as positional reference, it gives the qth to within approx 6 miles.

Well that's it for this month - please feel free to let me have any news/short articles etc which you would like included in the Newsletter

Best 73s Terry G4CHD