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

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November 2022

EDITORIAL

This month's Meeting on **November 21st** is a talk by **Mike (G4KXQ)** on the **'uSDX - SDR transceiver'**. Mike's talks are always very well researched and presented and something to look forward to - so put it in your diary and see you there!

Our **December Meeting on the 19th is our Christmas Party** which is **open to both members and family**.
This year your Committee has decided to **slightly change the format** in that members are asked to bring food of their choice to the Party to be shared with others.
The Club will provide all drinks, table cloths, cutlery etc as well as £50 worth of Raffle prizes.
Dave (G0PGK) will do his Xmas Quiz and John (G3JKL) will organise festive music. This will be a great way to relax, have a natter, and get into the Christmas spirit.

On **January 16th**, there will be an **Open Meeting** ie family and friends are most welcome, when **Nick Arnold** will give a talk on the **'Battle of Northam'** which will be most interesting and well worth making a note of in the diary.

The **February Meeting** will be a Bring & Buy so sort out what gear you no longer need and start a shopping list!

Terry (G4CHD)

CLUB MEETINGS

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

Date	Topic
Nov 21st	Talk 'uSDX - SDR transceiver' by Mike (G4KXQ)
Dec 19th	Xmas Party
Jan 16th 2023	Open Meeting - 'Battle of Northam' by Nick Arnold
Feb 20th	Bring & Buy
Mch 20th	AGM

LOCAL REPEATERS/GATEWAYS

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)

REPORT ON OUR OCTOBER MEETING

'Old Ham Radio Kit – Why the Hell do we Bother?' by Steve (G3ZPS)

This was a new venture for our Club in that the talk was given via Zoom and watched by members at our Clubhouse together with a few members who watched at home for various reasons. Steve illustrated his talk by a well illustrated Powerpoint presentation together with many personal references to the large collection of historic equipment which he owned.

Many watching found themselves back in earlier days with a much loved and treasured transceiver bringing back fond memories.

Our sincere thanks to Steve for a most interesting and enjoyable talk.

The feedback from members was extremely positive and many would welcome another Zoom talk by a distant Speaker with perhaps the suggestion that the talk should preferably last no more that about 45mins.

PRESENTATION OF THE JOHN JEFFERS AWARD

At our last AGM in March 2021, **Dave (G4XWQ)** was chosen for the John Jeffers Award and I'm very pleased to report that Dave has now been presented with his award by John (G3JKL) at Dave's QTH. Well done Dave and a very worthy recipient.

PROPOSED 70cm NORTH DEVON REPEATER

I recently received the following information from Don (G0RQL) :-

The repeater would be sited on a temporary basis until a permanent site can be found and could give coverage similar to DN.

We have always maintained that we would like to keep DN as an analogue repeater but if necessary to retain interest things may have to change in the future.

The 70 cms repeater will have 3 modes of operation being Fusion, D Star and DMR.

Any feed back to be sent Don at g0rql.don@gmail.com

Finally I have included an article I recently wrote mainly for my own use on the various ways one's location can be defined in amateur radio. Maybe some members may find it interesting and I welcome any feedback.

Enjoy the Newsletter   Best 73s Terry G4CHD

LATITUDE & LONGITUDE - MAIDENHEAD LOCATOR - WAB

METHODS OF DEFINING YOUR POSITION

by Terry (G4CHD)

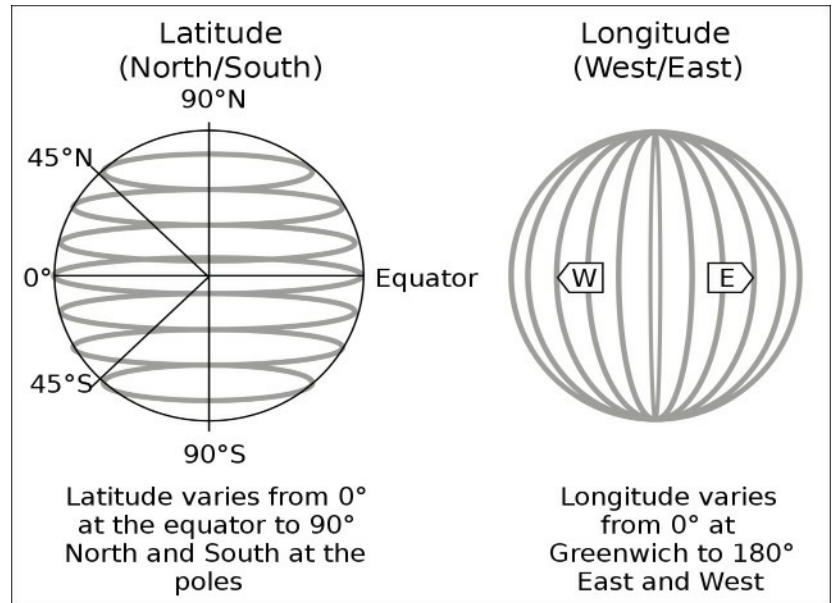## Latitude and Longitude

Latitude and Longitude defines a point on the Earth's spherical surface using an angular based system.

Latitude defines how far North or South of the Equator you are. The Poles are at Latitude 90 degrees and the Equator is at Latitude zero.

Longitude is measured from the Greenwich Meridian which is Longitude zero.

The diagram opposite demonstrates this :

Maidenhead 6 Character Locator

The Locator System also uses Latitude and Longitude to define a square on the Earth's surface and consists of 3 pairs of characters :- An alphabetic pair followed by a numeric pair and finally ending in an alphabetic pair   eg IO71va

The first character in each pair refers to Longitude and the second to Latitude.

To avoid negative entries, Longitude is measured Eastwards from the Greenwich Anti meridian and Latitude is measured Northwards from the South Pole

Longitude is divided into 20 deg steps and Latitude into 10 deg steps (ie A through to R)

It can thus be seen that IO in IO71va refers to the UK as seen in this Cylindrical Equal Projection map :-
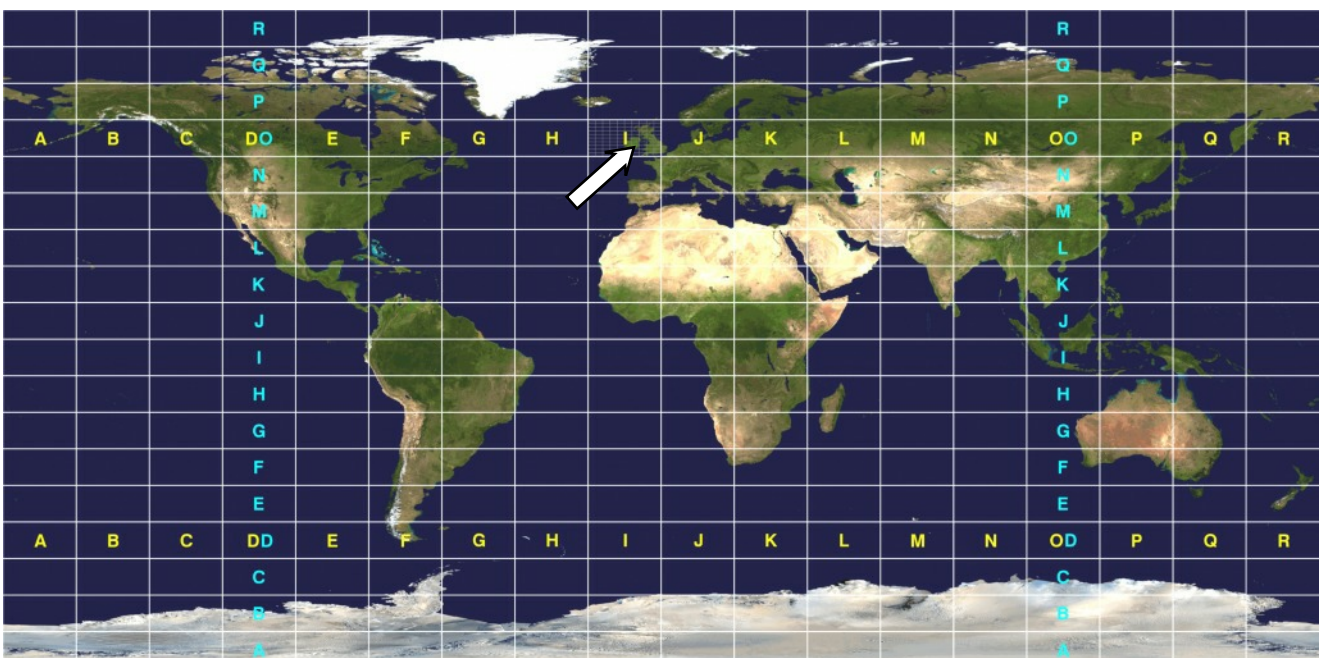
'I' indicates Longitudes from 160 to 180 degs East of the Anti Meridian ie -20 to 0 degrees West of the Greenwich Meridian and 'O' indicates Latitudes from 140 to 150 degs ie 50 to 60 degs North of the Equator

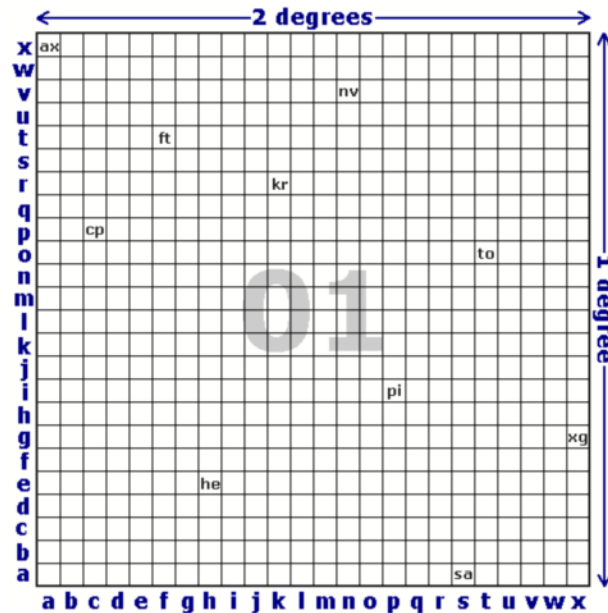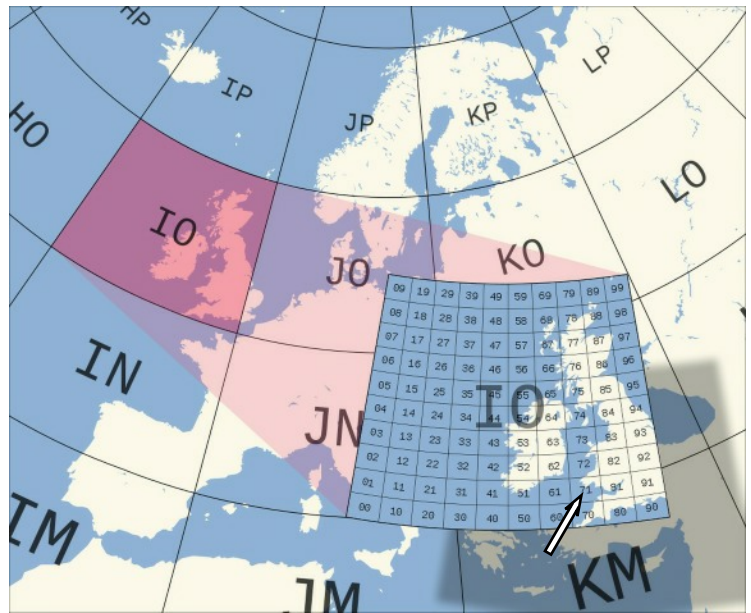In turn, each Field is subdivided into 10 x 10 squares as shown on the Map opposite and shows how squares nearer the Pole are smaller :-

Hence each 'Square' is 2 degs of Longitude by 1 degree of Latitude.

The 'square' 71 can be seen in the lower right and covers North Devon and part of South Wales.

Finally each Square is further subdivided into 24 x 24 Sub Squares each 5 minutes Longitude by 2.5 minutes Latitude.

Using this system, a station's location is thus identified to within better than 5.6 nautical miles anywhere on the surface of the Earth.

The Latitude and Longitude system as well as the Locator system both use angular polar type coordinates which are ideal for locating somewhere on the curved spherical surface of the Earth.

Ordnance Survey - OS - Coordinates System and WAB Squares

An alternative way of 'mapping' is to use a system of triangulation with accurate Trig Points and assume the Earth surface is flat. This has been done by the Ordnance Survey which is the National Mapping Agency of Great Britain.

Ordnance Survey maps of Great Britain use the Ordnance Survey National Grid rather than latitude and longitude to indicate position which is based upon a combination of ortho-rectified aerial photographs and triangulation using Trig Points.

The system is summarised in the diagram on the following page and shows how 'squares' in the OS System differ from Maidenhead squares which are based upon Longitude and Latitude.

The OS system is based initially upon a 5 x 5 grid of Squares - each 500 x 500 km in size identified as A through to Z (omitting I). Each Square is then subdivided into 100 x 100 km squares which in turn are subdivided into 10 x 10 km Squares eg SS42 covers my location.

This 4 character system is used by **Worked All Britain (WAB)**. From the following diagram it can clearly be seen that there is no direct correlation between the OS/Longitude and Latitude System and that used by WAB.

One way to derive a WAB Square is to use an OS Map and use the main two alphabetic characters for the main square followed by the first and fourth numbers that follow:-

eg for my location the National Grid Reference is **SS4**31**2**87 giving a WAB Square of SS42

Royal Observatory Greenwich
(TQ 389 773)

TQ 3079	TQ 3179	TQ 3279	TQ 3379	TQ 3479	TQ 3579	TQ 3679	TQ 3779	TQ 3879	TQ 3979
TQ 3078	TQ 3178	TQ 3278	TQ 3378	TQ 3478	TQ 3578	TQ 3678	TQ 3778	TQ 3878	TQ 3978
TQ 3077	TQ 3177	TQ 3277	TQ 3377	TQ 3477	TQ 3577	TQ 3677	TQ 3777	TQ 3877	TQ 3977
TQ 3076	TQ 3176	TQ 3276	TQ 3376	TQ 3476	TQ 3576	TQ 3676	TQ 3776	TQ 3876	TQ 3976
TQ 3075	TQ 3175	TQ 3275	TQ 3375	TQ 3475	TQ 3575	TQ 3675	TQ 3775	TQ 3875	TQ 3975
TQ 3074	TQ 3174	TQ 3274	TQ 3374	TQ 3474	TQ 3574	TQ 3674	TQ 3774	TQ 3874	TQ 3974
TQ 3073	TQ 3173	TQ 3273	TQ 3373	TQ 3473	TQ 3573	TQ 3673	TQ 3773	TQ 3873	TQ 3973
TQ 3072	TQ 3172	TQ 3272	TQ 3372	TQ 3472	TQ 3572	TQ 3672	TQ 3772	TQ 3872	TQ 3972
TQ 3071	TQ 3171	TQ 3271	TQ 3371	TQ 3471	TQ 3571	TQ 3671	TQ 3771	TQ 3871	TQ 3971
TQ 3070	TQ 3170	TQ 3270	TQ 3370	TQ 3470	TQ 3570	TQ 3670	TQ 3770	TQ 3870	TQ 3970

TQ 09	TQ 19	TQ 29	TQ 39	TQ 49	TQ 59	TQ 69	TQ 79	TQ 89	TQ 99
TQ 08	TQ 18	TQ 28	TQ 38	TQ 48	TQ 58	TQ 68	TQ 78	TQ 88	TQ 98
TQ 07	TQ 17	TQ 27	TQ 37	TQ 47	TQ 57	TQ 67	TQ 77	TQ 87	TQ 97
TQ 06	TQ 16	TQ 26	TQ 36	TQ 46	TQ 56	TQ 66	TQ 76	TQ 86	TQ 96
TQ 05	TQ 15	TQ 25	TQ 35	TQ 45	TQ 55	TQ 65	TQ 75	TQ 85	TQ 95
TQ 04	TQ 14	TQ 24	TQ 34	TQ 44	TQ 54	TQ 64	TQ 74	TQ 84	TQ 94
TQ 03	TQ 13	TQ 23	TQ 33	TQ 43	TQ 53	TQ 63	TQ 73	TQ 83	TQ 93
TQ 02	TQ 12	TQ 22	TQ 32	TQ 42	TQ 52	TQ 62	TQ 72	TQ 82	TQ 92
TQ 01	TQ 11	TQ 21	TQ 31	TQ 41	TQ 51	TQ 61	TQ 71	TQ 81	TQ 91
TQ 00	TQ 10	TQ 20	TQ 30	TQ 40	TQ 50	TQ 60	TQ 70	TQ 80	TQ 90

Alternatively, go to - www.streetmap.co.uk - locate your position and click on 'click here ..' to convert