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	John Jeffers	G0UNB		
Chairman	Terry Adams	G4CHD		
Vice Chairman	Mike Hammond	G3PGA		
Secretary	Alan Fisher	M6CCH	01237 422833	Email: fisheralan@btinternet.com
Treasurer	Mike Wogden	G4KXQ		
Committee	Laurence Soutter	G4XHK		
	John Lovell	G3JKL		
	Graham Bailey	G1ZTJ		
QSL Manager	John Lovell	G3JKL		
Web Master	John Lovell	G3JKL		
Editor	Terry Adams	G4CHD		

April, 2014

EDITORIAL

Welcome to another Club year and a gentle reminder that **Club membership** should be **renewed before the end of May** (**£13** together with a completed new **membership form**).

However, many thanks to all those who have already renewed and put a spring in our new Treasurer's step!

Full details of our **AGM** are given on the next page. Your new **Committee** has already held its **first meeting at Alan's qth** and a comprehensive **new Club Programme of Events** was proposed, discussed and in many cases agreed. A suggestion at the Committee Meeting that **Peter Christie** might **give us a talk** has subsequently resulted in confirmation by Alan that he has agreed to give a historical talk on the development of technology in North Devon looking at the work of Marconi in Ilfracombe. His naval grandfather, a Royal Navy ship's radio operator and electronics enthusiast, built a TV many years ago and he still has bits of this so he will bring those along together with other odds and sods. Although he has penciled us in, he did say that if an urgent council meeting came up he would have to attend that rather than the club talk. The mandate to take out **Club Insurance** was discussed and it was agreed that Alan should obtain a fresh acceptable quote. I can now report that subsequent to the Committee Meeting, **the Club has insurance through Intasure** and any members interested in any further details should contact Alan. The **Club Guidelines document** was also discussed and as agreed at the AGM, will be refined over

the next few months before being instigated.

So already a busy and encouraging start to our new Club year and what better way to start it than by a **fascinating talk by Steve (G6SQX) on APRS** who has also included an interesting article in this month's Newsletter.

So look forward to seeing many of you there - **please note the later date to avoid Easter Monday**.

So, enjoy your Newsletter   Terry (G4CHD)

CLUB MEETINGS

Unless otherwise stated, Meetings are held at the Appledore Football Social Club starting at 7.30pm for 8.00pm. Visitors are always welcome.

For further information, contact Alan (M6CCH)

April 28th	'Finding the way with Aprs and a Rasberry Pi' by Steve (G6SQX)
May 19th	Back to Basics - "Propagation and Understanding Prediction Data" by Terry (G4CHD)
June 16th	"SDR on the cheap" by Mike (G4KXQ)
July 21st	Club "Bring & Buy"
August 18th	Open Meeting - Topic TBA
September 15th	"History of Radio in North Devon" by Peter Christie
October 20th	Talk by Alan (M6CCH) - Topic TBA
November 17th	A Light Hearted Radio Quiz - by John (G3JKL)
December 15th	Club Christmas Party
January 19th	"Contests - Beauty or a Beast?" by Terry (G4CHD) & Mike (G3PGA)
February 16th	"Whisper & WebSDRs" by Mike (G4KXQ)
March 16th	Club AGM
April 20th	TBA

REPORT ON THE MARCH MEETING

CLUB AGM

It was extremely pleasing to see so many members attend our AGM and therefore have a real say in the decisions as to the membership of your Club Committee.

The election of your Committee was as follows :-

John (G0UNB) to stay on as **President** for another year.

Myself - **Terry (G4CHD)** was re elected as **Chairman**

Mike (G3PGA) was elected as our new **Vice Chairman**

Alan (M6CCH) was re elected as our **Club Secretary**

Mike (G4KXQ) saved the day by offering and being duly elected as our new **Treasurer**. A short introduction by Mike is given later. The process of changing over all the Bank paperwork is underway and hopefully should be completed by the end of April. A copy of the Club Accounts are included at the end of this Newsletter.

John (G3JKL), Graham (G1ZTJ) and Laurence (G4XHK) were re elected onto the **Committee.**

The Club is grateful to **John (G3JKL)** for offering to continue as both our **Web Master and QSL Manager** and also for now taking over as **Training Manager**.

The **Club membership fee** was agreed at **£13** - the increase to part cover the need for **Club Equipment Insurance** - the need for which was also agreed and accepted. The adoption of a **Club membership Form** purely for Club use was agreed and adopted forthwith. Finally, the **Club Guidelines** were discussed and agreed to be adopted after any final amendments suggested by members be incorporated.

Mike (G4KXQ) has kindly provided the following summary of his background :-

"First licensed as G8MOC in 1976. I took one of the last of the essay type RAE. My RAE instructor was Harry G3LLL who still writes a column in Practical Wireless each month.

My first rig was a converted Pye Batam on GB3RF, the local 2M repeater in Lancashire.

I passed the Morse test in 1980 and gained the call G4KXQ. I was very active on 160m and 80m in the early eighties.

We initially lived in Plymouth where I was an active member of the Plymouth Radio Club as a committee member and a RAE instructor. We moved to North Devon in 1987.

Ham radio took rather a back seat whilst my family grew up. I have two children 23 and 21.

Amateur Radio in recent years has been rekindled by the appearance of ham radio themed audio and video podcast, such as Hamnation, ICQ podcast and Soldersmoke which I always listen to whilst walking the dog.

My main interest is in building and interfacing with Ham radio so I'm always tinkering with computers and microprocessor playing with QRP, PSK31, WSPR, FreeDV, Hellschreiber etc.

My day job is as a Project Manager for a local contact engineering firm in the design and building of test systems for some large companies such as Astrium Space, GE Oil and Gas and Rolls Royce"

LOCAL SKEDS

Zepp Net:	**Mon, Tues, Thurs :** **145.450 MHz Wed via GB3DN 1600 local time**
6m Net:	**Wednesday, 8pm, 51.480 MHz FM**
HF Net:	**Friday** at **1500** local time **7.145 MHz ± qrm**
Slow Morse:	Run by **Dave (G3YGJ)** every **Tuesday and Thursday, 7pm clock time on 145.250 mode FM.**
70cm Net:	**Sunday, via GB3ND, 1100 - noon local time.** **Available on Echolink node 221334**

LOCAL REPEATERS

70cm Handy Cross Repeater/Echolink (#221334) Gateway (GB3ND)
User: Listen 433.35MHz– Transmit 434.95MHz
Access 1750Hz Tone (Timeout 4.25 mins)/ 77Hz CTCSS Repeater keeper is Jeff (G4SOF**)**

2m Stibb Cross Repeater (GB3DN)
http://www.g0rql.co.uk/gb3dn.htm
User: Listen 145.6375MHz - Transmit 145.0375 MHz.
Access 1750 Hz Tone or 77 Hz CTCSS Repeater keeper is Tony (G1BHM).
Yahoo users group for general chat and banter at :-
http://groups.yahoo.com/group/GB3DN/

SUDOKU PUZZLE

The aim is to enter a number into each cell so that **any column, or any row, or any block of cells contains all numbers from 1 to 9**.

Terry (G4CHD)

					8	4	1	9
			9					
		4		7	5			
	6					5		7
	9	7				1	4	
8		5					9	
			1	5		2		
					6			
3	5	1	8					

CROSSWORD

This month's Crossword is by Stuart (M1FWD).
The answers will be published in the next month's Newsletter. Good luck !

Clues Across

1) A hanging, tapering length of frozen water (6)
6) The capital city of Oscar Alpha land (4)
7) Black Sea peninsula (6)
9) Person with a diseased condition resulting from an addiction to 'booze' (9)
11) Planet discovered by Herschel in 1781 (6)
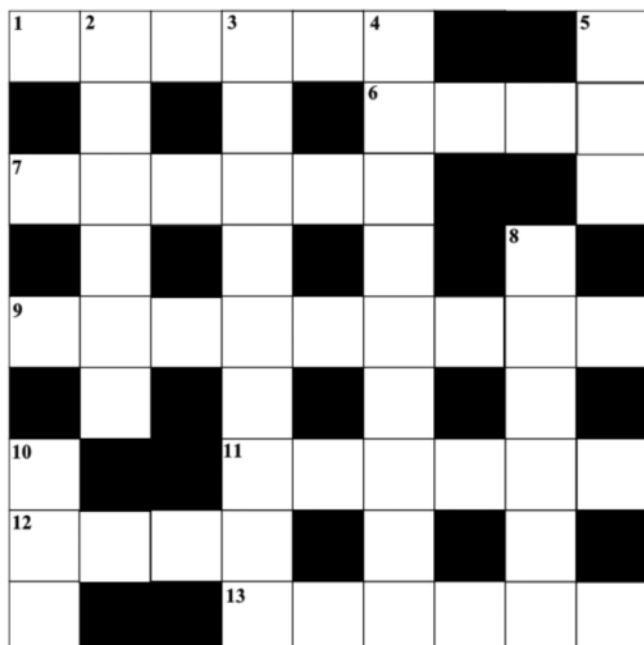12) Juliet Whisky island (4)
13) Puts up - for example, an aerial (6)

Clues Down

2) An equilateral ellipse (6)
3) External calm (9)
4) Carefully or minutely worked out (9)
5) ? Mayen Island (Juliet X-Ray) (3)
8)   A slow stately dance for two in triple time (6)
10) Abbreviated forename of the 16th President of the USA (3)

Last month's answers :-

Across   3) minim 6) iota 7) BASIC 8) genial 10) Psycho
11) zebra 12) Fiji 13) Andes

Down   1) Kirghizia 2) stent 4) Ital 5) Macedonia
7) balsa 9) actin 10) Prue

Stuart (M1FWD)

ANYONE INTERESTED IN MORSE KEY KITS

Many thanks to Brian (M0BRB) for forwarding the following information which some members may be interested in.

My name is Carl Joyce and my callsign is MM0HJX.
I'm starting **my own business selling Morse keys in kit form**. I'm in the process of finishing off my website and I have created a resources section with information about Morse code, some practice material, and other bits and pieces including a section on getting help.
The resources section is the only part online at the moment and I'm hoping to go live and with the full site at the end of this month. I'm giving 10 x Twin paddle iambic kits away as a website launch promotion if you have club members who are interested in Morse code the information can be found on www.edinburghmorsekits.com and it's totally free to enter.
Thank you for your time, kind regards - Carl Joyce

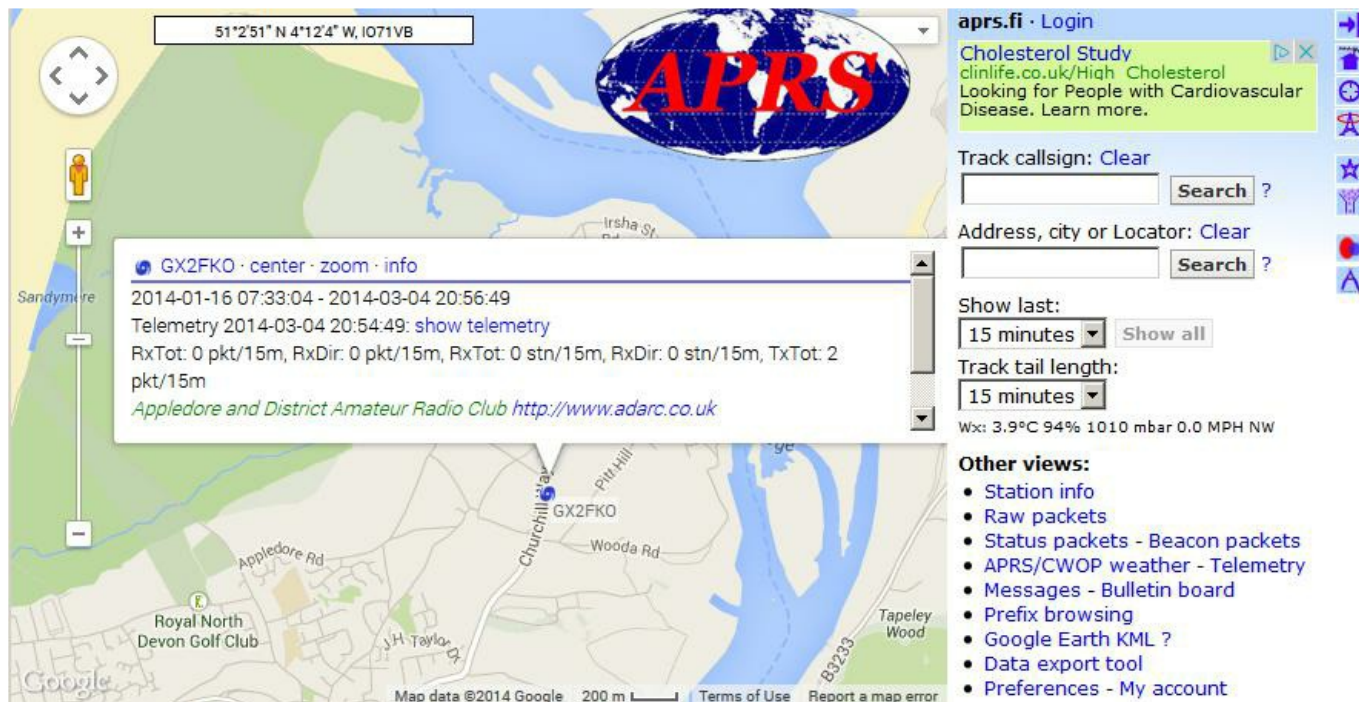## BLUETOOTH LIGHT WEIGHT LOW EARTH ORBITTING SATELLITE TRACKING SYSTEM

Again, many thanks to Brian (M0BRB) for the following information :-

We would like to introduce the (HamCom-270). Our product is a Bluetooth Light weight Low Earth Orbiting satellite tracking system.
The aim of our product is to introduce ham radio operators or short wave listeners (SWL) to working 2m/70cm satellites. The unit is 1 Deg accurate on its elevation and less then 2.5 Deg accurate on azimuth. There are also matching antennas to go with the unit and with the recent launch of the Fun Cube A0-73, or even listening or communicating with the ISS, the system will work with most software HRD, Obitron, Simple Sat, PSTRotator etc and most software as it has the GS-232 protocol built in.
We are pleased to announce that ARRL have ordered the (HamCom-270) ready built system.
We have been invited to demonstrate our product at the AMSAT-UK Colloquium between July 25-27 at the Holiday Inn Guildford.
Full details can be found on our website
www.hammicro.com . We hope you enjoy our system.
Many thanks - W.Brice (CEO Hammicro).

If any member has written an article that they feel would be of interest to Club members, please send it in to me and it will make your Club Newsletter all the more interesting.

Enjoy the read
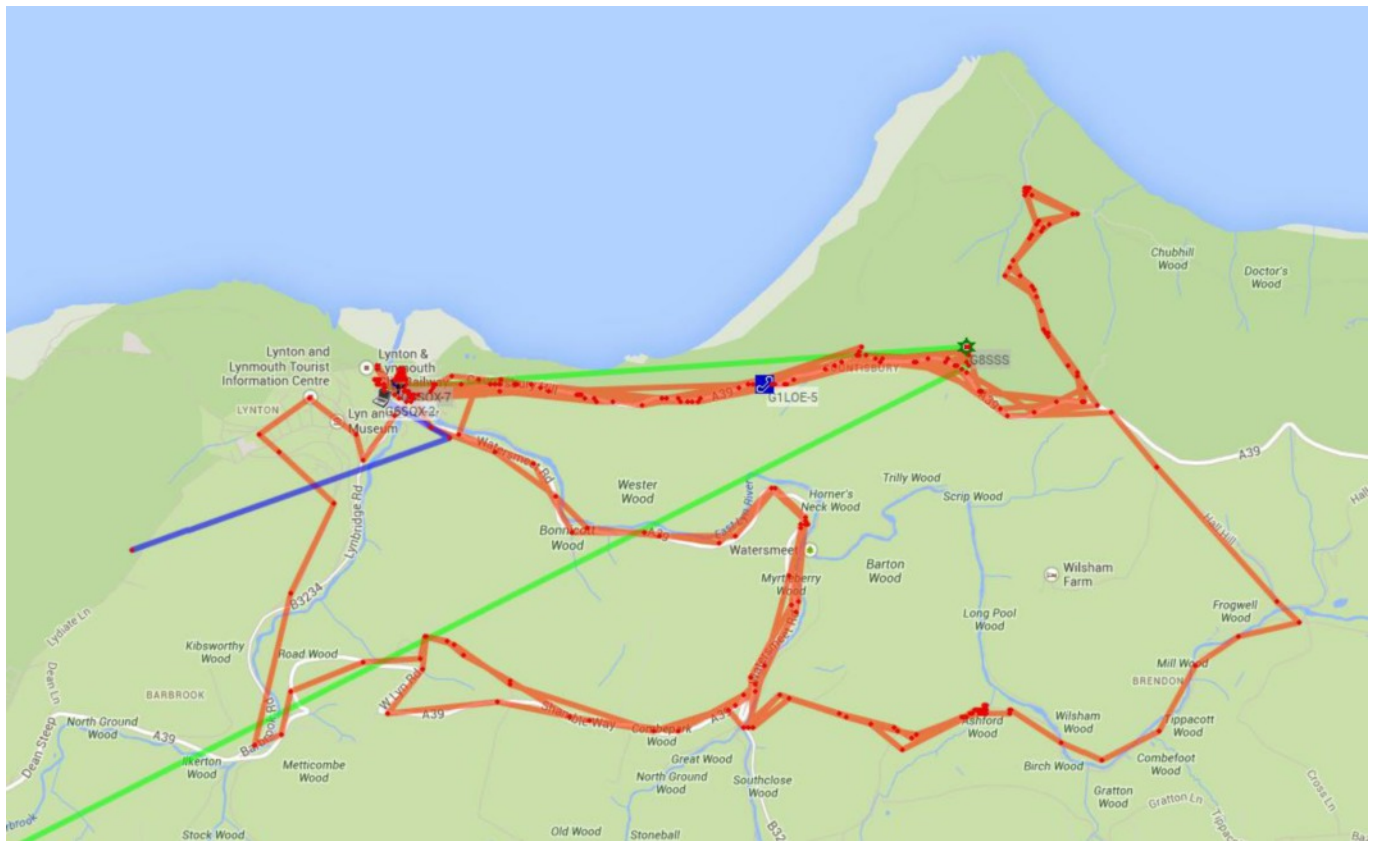
Terry (G4CHD)

www.aprs.fi

Aprs.fi is the window to world of Amateur radio data activity. With it anyone can monitor aprs packet traffic, follow trackers on mobile stations, watch the progress of ships worldwide and balloons carrying a raspberry pi into the stratosphere. It can be used to display beacons such as that of the ADARC illustrated above. Here a packet containing the location, symbol and text is sent from a linux home server every 10 minutes to worldwide network of servers one which is operated by Ken G7VGA in Hartland. All messages sent by aprs packet between amateur stations via the internet or by RF, via satellites or the space station can be monitored and paths tracked.

A typical selection of messages and telemetry.

2014-03-27 14:33:37 GMT: SA3ATF>SA3BWT: Halla dar! Sag medelandet forst nu:/ Japp, klart det blir
2014-03-27 14:33:45 GMT: N5RN-5>PINBLF: using aprsdroid
2014-03-27 14:33:53 GMT: I8ULU>IZ8MRZ-5: Ho sentito la chiamata su skype e vedo che ti sei messo
2014-03-27 14:34:12 GMT: N2TIF-14>G3OJZ-14: ?APRSP
2014-03-27 14:34:23 GMT: K6FIN>KK6KND: Sorry, I had to leave
2014-03-27 14:34:26 GMT: N5RN-5>WB5NXV-9: Good morning
2014-03-27 14:34:31 GMT: G3UNA>G4FKH: A,-102.3,-116.2,-117.3,B,-107.1,-110.7,-112.1,C,-96.4,-110.7,-112.1,D,-107.1,-110.5,-111.3,E,-97.2,-111.6,-114.7
2014-03-27 14:34:37 GMT: SA3ATF>SA3BWT: Halla dar! Sag medelandet forst nu:/ Japp, klart det blir mera test
2014-03-27 14:34:41 GMT: N5RN-5>PINBLF: test
2014-03-27 14:34:42 GMT: N5RN-5>PINBLF: trying this from work
2014-03-27 14:35:14 GMT: N5RN-5>WB5NXV-9: using aprsdroid on a tablet
2014-03-27 14:35:16 GMT: N5RN-5>PINBLF: using aprsdroid
2014-03-27 14:35:57 GMT: N5RN-5>WB5NXV-9: Good morning

The google map set is complimented with google earth and simultaneously gives out positional and grid square references.

On the recent Star trek event at Lynmouth we fitted out a rescue vehicle with a tracking beacon and using

a tinytrak 4 digipeater hooked up to a yaesu 7800 and a collinear antenna sited at over 1000' asl we were able to track the vehicle around some challenging terrain.

On this trial, aprs.fi was particularly useful as we were relying on the packets being received by a number of igates including Roche in Cornwall and Cheltenham via the Severn bridge station. The tracks were accumulated overnight and here displayed together showing the location of the digipeater and G1LOE-5 beaconing from a phone app.

Historical data from stations can be replayed for up to 2 years giving a useful record of activities.

Aprs can be useful to monitor propagation and the example below shows a good example. This path had been open since 05.00 on the 12th of March. My 5 watts of beacon from an HT was relayed via digipeaters in Brittany & Southern Ireland and finally to an Irish igate.

2014-03-12 07:00:30 GMT: G6SQX>APDI22,F1ZBH-3,EI5CRC*,WIDE2-1,qAR,EI3RCW-2:=R4c/'MOY1U sT/A=000488PHG21606/Steve..North Devon Raynet Group..
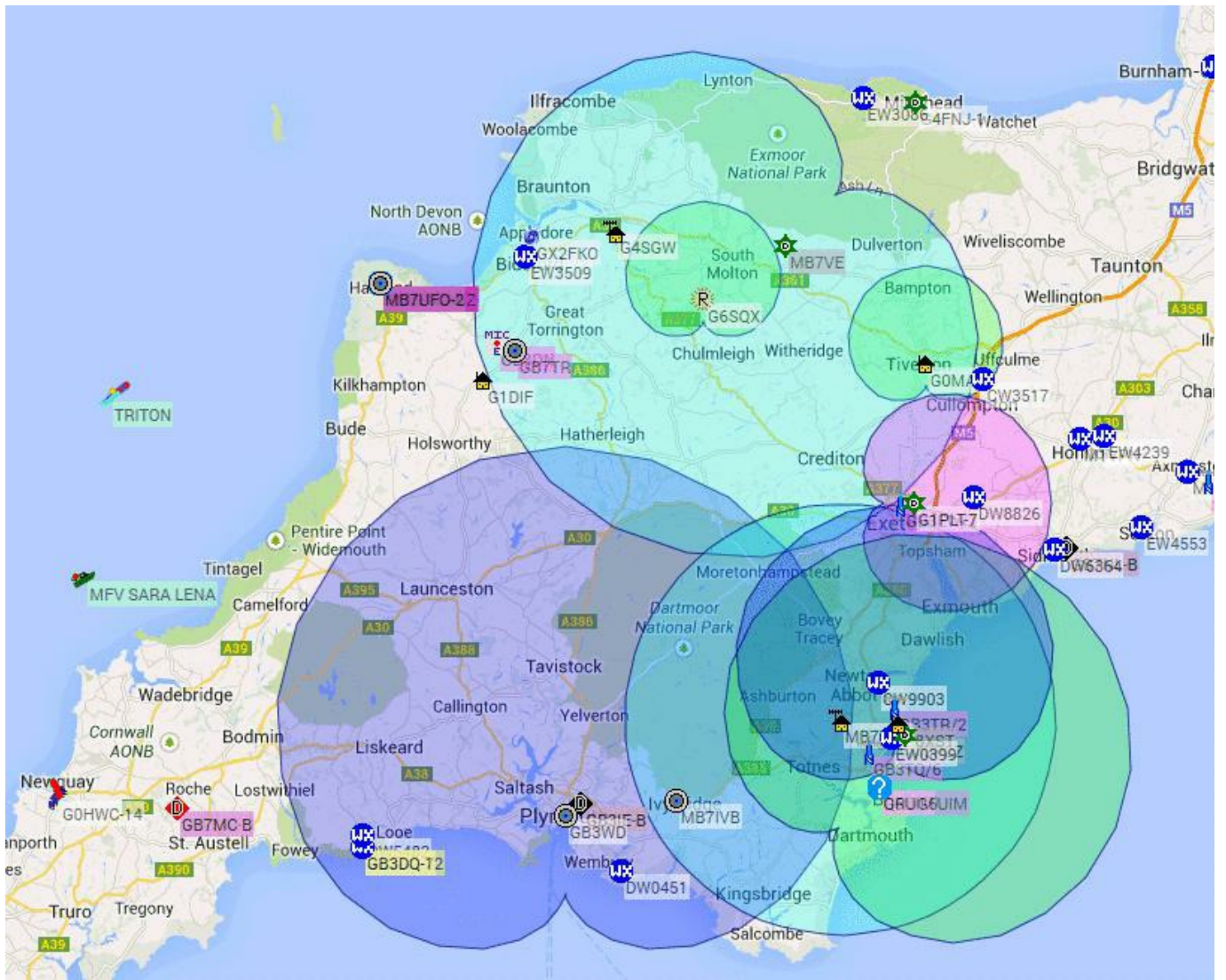
This part of the packet shows details of the stations, the Altitude (A=000488), the power, height above average terrain, antenna gain/ beaconing rate (PHG21606) and text.

The PHG is calculated from a simple formula and can be used to form range circles although as can been seen, are not always realistic!!

As can be seen from this map on the following page, there is a good deal of interest in South Devon with the Torbay repeater hosting a digipeater and the South Devon Raynet group active in its use.

A number of the local repeaters also have beacons along with a myriad of Weather stations. Suitable home weather stations can be brought from Maplins etc and there is no requirement to hold an amateur licence. Likewise, anybody can display a real time beacon but there is no messaging facility. In reality, use of aprsi.fi outside the Amateur Radio community is limited as generally some degree of knowledge is required to operate the kit and there are many commercial alternatives available.

Other facilities include telemetry of data passing through igates, status packets, bulletins station filtering, export of KLM track files for use on satnavs etc and general info & tweaking. In the next article I shall be getting on air and looking at the programs used to do the business with.

Don't get caught speeding!!!


```
G6SQX-9 · center · zoom · info
2014-03-26 22:02:06
50 MPH 275° alt 955 ft
..North Devon Raynet Group..tt4 & yaesu
7800
[U0UVTQ via
```

Article written be Steve (G6SQX)