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	Dave Lawrence	G0PGK		
Secretary	Alan Fisher	M6CCH	01237 422833	Email: fisheralan@btinternet.com
Treasurer	Laurence Soutter	G4XHK		
Committee	Mike Hammond	G3PGA		
	John Lovell	G3JKL		
	Graham Bailey	G1ZTJ		
QSL Manager	John Lovell	G3JKL		
Web Master	John Lovell	G3JKL		
Editor	Terry Adams	G4CHD		

EDITORIAL

Welcome to our February issue of the 5&9. This month's Meeting is in the form of a light hearted **Quiz thanks to John (G3JKL)** and is our last meeting before our AGM in March. So look forward to seeing everyone there and so come for a cuppa, a chat and have a go at the Quiz.

Your Committee met on Feb 5th to discuss the AGM etc. A full report is given later in this Newsletter, but the main outcomes of the Meeting relate to the forthcoming AGM and can be summarised as follows :-

The recipient of the **Jim McFee Cup** has been chosen and the Club President will present the cup at the AGM. John (G0UNB) has kindly agreed to **stay on as President** for one more year.
Dave (G0PGK) wishes to **step down as Vice Chairman** and as a member of the Committee after many years of fantastic service.
Laurence (G4XHK) will be standing down as Treasurer and hence **it is ESSENTIAL that we find someone to take over (with guidance initially from Laurence) or else the CLUB WILL HAVE TO CLOSE**.
All other Committee members are willing to stand for re election with the usual caveat of being happy to step down should anyone else feel they would like to offer their services.
Laurence and Viv will be giving up being responsible for the coffee/tea etc which they have now done since it was started and hence for this valuable asset to Club
evenings to continue, we will need to find other member(s) to take it over after the AGM.
Club Membership fee will be increased to £13 a year to take account for the need for Club Insurance.
A **Club Membership Form** will be introduced at the AGM which will provide useful contact details of members. This will be completed when rejoining (**remember to bring your £13 to the AGM - correct change much appreciated**).

In this month's 5&9, there is an excellent article by **Steve (G6SQX) on "An Introduction to APRS"** and Steve hopes to add further articles in future 5&9 issues - well worth a read.

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)

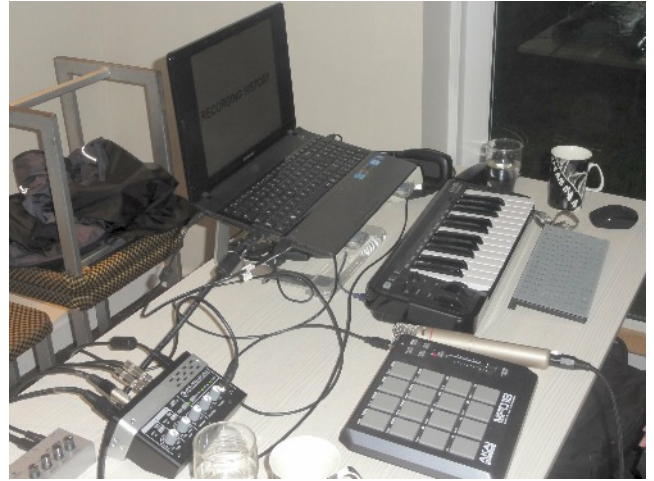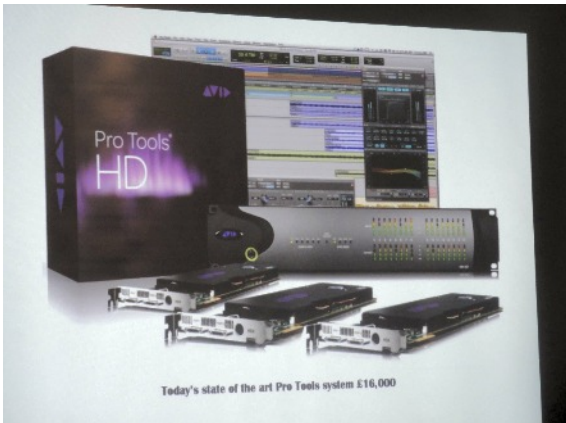|	
February 17th	Radio Quiz by John (G3JKL)
March 17th	Club AGM
April 21st	'Finding the way with Aprs and a Rasberry Pi' by Steve (G6SQX)

REPORT ON THE JANUARY MEETING

AUDIO RECORDING - A PRACTICAL DEMO

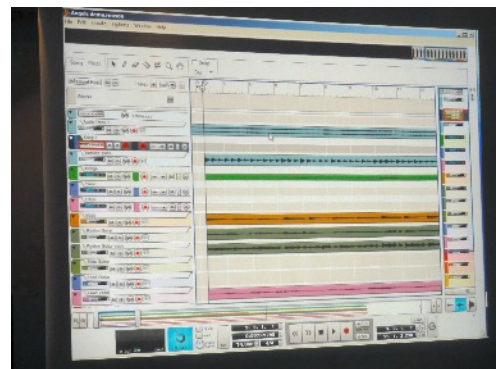### by Laurence (G4XHK) and John (G3JKL)

Everyone who attended our January talk was spellbound by the excellent description of the history of sound recording and how it has developed as technology has improved to the what it is today.

Laurence presented an overview of the history aided by very informative slides which included historic photographs of earlier systems. The advent of digitisation (ADC) and the increased power of home computers have enabled the ability for anyone with a musical flair to create very professional multitrack compositions.

Today's state of the art Pro Tools system £16,000

The photo above shows the array of equipment used to produce the demo music track which Laurence then played to an awestruck audience - it was superb !!

John then played an accompaniment to this on his electric guitar which was mixed in using the equipment shown above and it was demonstrated how it was then possible to adjust the levels etc to achieve the desired end result.

I can only guess as to how much time was involved in preparing this demo prior to the talk and I am sure everyone present felt like me that they had experienced something quite amazing that evening.

I would therefore like to thank Laurence and John for ALL their efforts in producing a most spectacular and interesting evening which was appreciated by the members present.

Also a thank you to Dave (M0JAP) for providing the projection facilities and to Viv and helpers for providing the tea/coffee.

CROSSWORD

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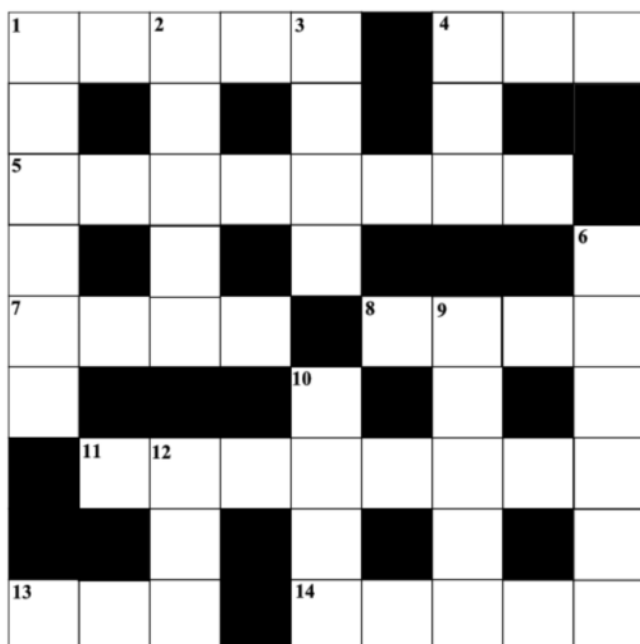The answers will be published in the next month's Newsletter. Good luck !

Clues Across
1) Capital city of Lima Zulu land (5)
4) The colour seen at the least-refracted end of the visible spectrum (3)
5) A stable subatomic particle with a charge of negative electricity (8)
7) A localized current induced in a conductor by a varying magnetic field (4)
8) A mixed stew of various meats and vegetables (4)
11) For safe operation, rigs should be this to earth (8)
13) Wiretap (3)
14) The SI unit of inductance (5)

Clues Down
1) Sierra Mike land (6)
2) Sigmund ? (1856-1939), said to be the founding father of psychoanalysis (5)
3) Members of the insect family Formicidae (4)
4) The second largest city of Papa Yankee land (3)
6) Day of the moon (6)
9) John ?, Lead singer of the Sex Pistols from 1975 to 1978 (5)
10) A sleeve providing electrical insulation (4)
12) ? Chew, general amateur radio conversation (3)

Last month's answers :-

Across 1) steak 4) Rob 6) her 8) tempt 12) brie
13) boot 14) whole 17) hem 19) sim 20) daily
Down 1) soh 2) err 3) kit 4) rum 5) bat 7) Earth
9) Elbe 10) probe 11) Heil 14) was 15) ohm
16) end 17) hoi 18) May

Stuart (M1FWD)

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**.

This month's puzzle is categorised as **Advanced** difficulty.

Terry (G4CHD)

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
THIS NET HAS NOW RESUMED

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

MICROSOFT OFFER LIMITED SUPPORT FOR WINDOWS XP

Many thanks to David (2E0IXX) for the following extract from issue 416 of ComputerActive :-

Microsoft recently announced it would continue some support for XP operating system until July 2015.
It will still release "antimalware signature" updates to help protect people still using XP from threats.
XP systems running Microsoft Security Essentials will be

protected from malware. Microsoft has warned that the updates will offer only "limited" protection.

It said the decision to continue issuing antimalware for another year would protect people until they switched to a newer version of Windows.

Microsoft has also reiterated that support for Windows XP as we know it still ends on the 8th of April.

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/

REPORT ON THE COMMITTEE MEETING HELD FEBRUARY 5th

There were several suggestions for the recipient of the **Jim McFee Cup** making the Committee's choice not an easy one. However, after some discussion this year's worthy recipient was finally chosen on the basis of their contribution to the Club. The Cup will be presented at the AGM by John, our Club President.

The **election of Club Officers and Committee** was next discussed.

John (G0UNB) had requested that he stand down as **Club President**, wanting someone else to enjoy the pride and pleasure in representing their Club. However, it was agreed to ask John if he would be agreeable to staying on as President for 1 more year as he is a good Ambassador for the Club and would provide stability in the coming year. I can report that subsequent to the Meeting, John has agreed to stay as our President for this coming year.

Also subsequent to the Meeting, **Dave (G0PGK) has requested that he step down** from his role as **Vice Chairman** after many years of wonderful service to the Club. He would like to also step down completely from the Committee but has agreed to still open up the Clubhouse for us for Club Meetings.

Myself, I am happy to continue as **Club Chairman** although I feel that there surely must be someone else who wants to 'take the helm' and offer guidance to the Club in the coming years.

Laurence (G4XHK) will definitely step down as **Club Treasurer** after several years of handling our Club accounts so expertly. Laurence has agreed to act as a Caretaker Treasurer until the new Treasurer is fully installed (eg Bank details altered etc) but this can only be for a few months and also to continue as a Committee member if required.

It is therefore IMPERATIVE that the Club find a replacement Treasurer or else unfortunately we would have no other option but to CLOSE THE CLUB. This is not scare mongering talk but a reality. So please, come forward and enable our valuable Club to continue.

Alan (M6CCH) is willing to continue as our **Club Secretary** and thus stand for re election.

Mike (G3PGA), John (G3JKL), and Graham (G1ZTJ) are all willing to continue as **Committee members** and thus willing to stand for re election.

John (G3JKL) is willing to continue as our **Club Web Master**, and as **QSL Manager**, and I am willing to continue as **Editor** unless anyone else wants to have a go. Laurence and Viv will be stepping down from running the **coffee/tea facilities** and hence for this valuable facility to continue, **it is ESSENTIAL that other member(s) come forward to take over this valuable Club function.**

The need for a **Club Insurance** has been identified by your Committee (ie not correct to rely on a member's home insurance if they are kindly looking after Club equipment) and the best quote obtained - approx £157/annum which works out at approx £4 per fee paying member. So before this spoils any member's lunch - the Committee have decided to limit the subscription increase to just £1 for this coming Club year (ie now £13) and to review any need for further increases in subsequent years (ie taking into account Club membership numbers and any donations). The Insurance will be taken out immediately after the AGM.

A **Club Membership Form** will be introduced at the AGM to be filled in upon membership renewal. This will enable contact details to be available (purely for Club use).

The need for a set of **Club Guidelines** has been identified and a Draft version is attached for your perusal. They will provide both guidance and protection (eg under Health and Safety) for both members and the Club. Please feel free to make any comments on corrections/additions etc to any Committee member.

Virtually all of these matters will be discussed at the AGM so please come along and air your views.
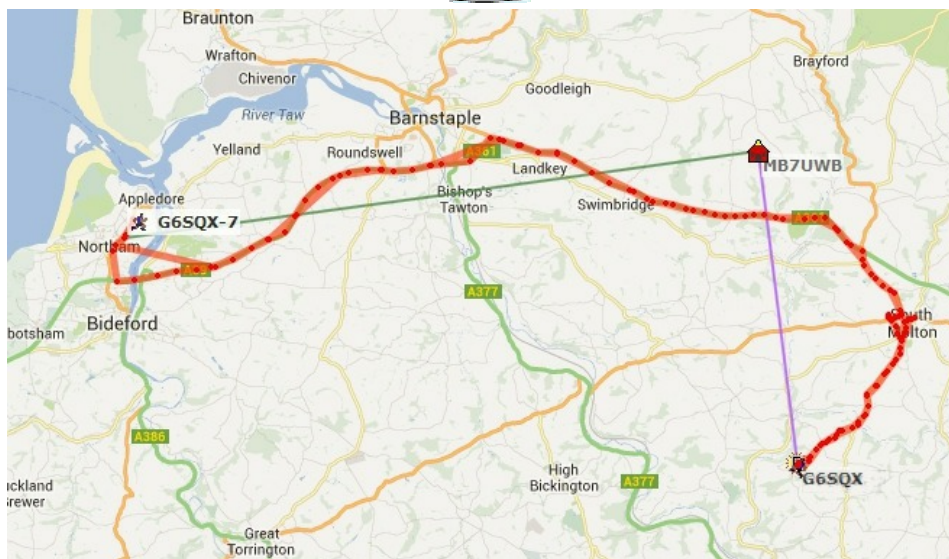

Please continue reading for Steve's excellent article (Part 1) about APRS.
This is followed by the Draft ADARC Club Guidelines.

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)

Kingsnympton to Appledore - Gps waypoints and paths - Digipeater: MB7UWB Igate: G6SQX -aprs.fi

An introduction to Aprs

The Automatic position or packet reporting system – aprs - was originally developed by Bob Bruninga WB4APR and has evolved over the last 20 years into a global real time network enabling the exchange of information via the HF (10.151mhtz lsb) and Vhf (144.800 fm) amateur bands to a network of servers independent of but interconnected with the GSM network.
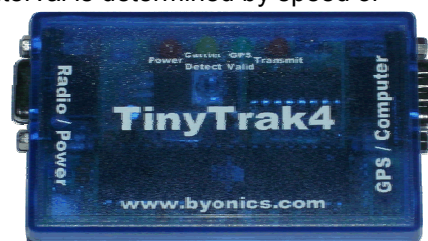
Through the use of the AX25 protocol audio frequency shift keying, 300 baud on hf and 1200 baud on vhf, data can passed via a network of digipeaters and igates including amateur satellites and the International space station to link up with a network of global servers.

Weather, telemetry, messaging and gps derived positional information can be relayed either on a peer to peer basis using programs such as UIview and APRSCE on windows and Zastir on linux or also to the internet where they are placed in the public domain and are universally accessible with viewers such as www.findu.com and www.aprs.fi. These use the familiar google earth mapsets with full recall of the stations displayed, tracks, and the paths taken by the transmitted packets.

Effectively it is the packet system reborn having now been made redundant by the internet The mode has found new uses with accessible technology using opensource coding and well suited to home brewing. It will be in time be overtaken by more complex commercially derived combined voice/data systems such as D star. There are several systems available at the moment but as yet are not compatible, so for the meanwhile aprs continues to be a good forum for the propagation of Amateur Radio.

Kit

To get started a terminal node controller (TNC) such as a Tinytrak 3 (which which can be built from a kit) is used as an interface between a transceiver and GPS receiver. This takes the nmea data generated by the gps receiver and encodes it for transmission along with station ID, telemetry (temperature, battery voltage etc) and messages of up to 63 characters. An ID beacon is transmitted at a set interval and a waypoint can be transmitted either at a set period or in a smart mode where the beacon interval is determined by speed or change of direction.

The TinyTrak 4 can be used as a digipeater with room in the case to fit a gps receiver.

It is a flexible unit that is ideal both for mobile and fixed use.

Manufactured units start with the Yaesu - 8GE a compact dual band handheld at £300 giving full duplex messaging capabilities with station logging and smart beaconing to the Kenwood D710 mobile which will hook up to a colour monitor, and which will automatically set up in response to local repeater beacons when in range & etc for £450.

Many of the digpeaters in operation take advantage of existing repeater sites operating with a designated a MB7 callsign. MB7UFO being example run by Ken G7VGA in Hartland who also hosts one of the aprs servers. These relay the packets on to Igates which are very often set up at home qths and help to fill in areas not covered by the digis. The transmitted packets are generally restricted to 1 or 2 hops, preventing unnecessary retransmission and thereby reducing collisions.
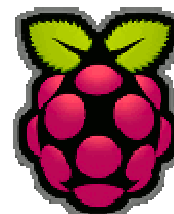
The programs already mentioned can be used as home stations but require the computers to be continually on to give 24/7 coverage. This is where the Raspberry pi comes into it's own as a cost effective digipeater/Igate running with Dixprs, and driving a spare radio via a USB sound card. The station parameters are set up, and the unit left to it's own devices.

The station will beacon typically every 10 minutes and can be useful as a means to broadcast info about local repeaters/ clubs along with links to websites etc. as well as providing real time indication of propagation.

A number of local stations are now giving an increasingly effective coverage of North and Mid Devon. The North Devon Raynet Group are currently applying for a licence to operate a digipeater at Twitchen, 3 miles NE of South Molton at 250m asl which will give good coverage of the area and cover areas which are out of range of the GSM network.

In the next article I will be outlining the various aspects of www.aprs.fi

Steve G 6SQ X

DRAFT ADARC CLUB GUIDELINES

General

· These Club rules are authorised by the Committee and will be maintained by the Club Secretary.
· Any comments or amendments should by forwarded to the Sec. They will be reviewed annually.
· Nothing in these rules is intended to contradict the Club Constitution. Any inadvertent conflict should be brought to the attention of the Sec.

Objective

The objective of ADARC is to promote the educational hobby of Amateur Radio in the North Devon area as an affiliated club of the Radio Society of Great Britain (RSGB).

Club Officials

- President
- Chairman
- Vice Chairman
- Treasurer
- Secretary
- 3 Elected Committee membership
- Maximum 2 co-opted members with full voting rights
- The Committee shall have the right to appoint Members to various Club Roles as and when the need arises. Such appointments shall automatically include eligibility to be co opted in a non voting capacity onto the Committee.

Safety

- The safety of Club members and members of the Public should always be the paramount consideration in the organisation of any Club events.

- In particular, Health & Safety regulations and the protection of minors and vulnerable adults must be fully considered in all Club activities.

- Members are responsible for their and the public's safety when operating their stations and equipment when used for Club activities.

Membership

- Club membership is open to all, whether licensed and non-licensed, who have an interest in Amateur Radio.

- The annual subscription (currently £13) runs from March each year and members are requested to pay by end May. Late subscriptions will normally be accepted at the discretion of the Treasurer!

- All members should complete a Club Membership Form which will be used by the Secretary to maintain a register of members.

- Members under 18 should have parents or guardians permission to join the Club.

- Members under 16 should be accompanied by an adult approved in writing by their parent or guardian.

Meetings

- A monthly meeting will be held in the Appledore area. Visitors are welcome, but regular attendance will normally be expected to lead to a request for Club membership.

- It is intended that one of the meetings each year will be on a non-radio theme to encourage family and friends to attend.

Monthly magazine (5&9)

- A monthly magazine will be e-mailed to members. Those who wish a hard copy can make arrangements with the Club Secretary for a postal copy, but must provide stamps or preferably an SAE.

Club Callsigns

 - The Club holds the following callsigns :- GX2FKO and G2FKO
- The Club licence holder is M0JKL, who is responsible for the correct use of the Club call and approving the arrangements for use of this

Operating Standards

- Members should always operate within the terms of their OFCOM Licence. Foundation and Intermediate licence holders may operate the Club station at full power under the supervision of an approved full licensee.

- All members are encouraged to promote high operating standards and adopt the approved operating procedures.

- This is particularly important when operating or joining Club nets. These may be listened to by a wide variety of SWLs, including Children, and visitors to the area. The regular nets act as the Clubs' 'Shop Window'

- Remember that all electronic communication is 'open'. Never say anything on air that you would not be prepared to see reported on the front page of the 'Daily X....' !!

Club Equipment

- The Club has several transceivers and ancillary equipment. The Club Secretary acts as the custodian. Equipment may be purchased or disposed of as agreed by the Committee. It may be necessary to raise money, on occasion, should members agree that significant new equipment purchase is desirable.

- The Club equipment is available for use at 'events' and may be loaned to licensed club members for specific purposes.

Club Affiliation

- The Club will maintain an affiliation with the RSGB.

- The club also has affiliation with FISTS (No 15,870).

Operating Events/ Contests

- The Club will plan to run a station at various local public events during the year. This both helps to increase the profile of Amateur Radio with the public, and provides members with an opportunity to set up and operate a 'temporary' station. All Club members are encouraged to visit these events. Volunteers who assist in running and operating the station are particularly welcome, and it usually provides an 'educational' experience in one way or another.

- Although the Club is not historically a 'Contest Club', there are many smaller activity and special events that provide an ideal opportunity to experience and participate in station operation, with a good number of stations on the air. A Club aim is to encourage and facilitate members or groups who would like to participate in any of these (for example the RSGB club cumulatives).