



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	
Chairman	John Lovell	G3JKL	
Vice Chairman	Steve Smith	G6SQX	
Secretary	Alan Fisher	M6CCH	01237 422833 Email: fisheralan@gmail.com
Treasurer	Mike Wogden	G4KXQ	
Committee	Graham Bailey	G1ZTJ	
	Dave Cottle	G4XWQ	
	Ray Hunter	M0TLO	
	Keith Luxton	G0AYM	
QSL Manager	John Lovell	G3JKL	
Web Master	John Lovell	G3JKL	
Exam Secretary	John Lovell	G3JKL	
Editor	Terry Adams	G4CHD	

July, 2016

EDITORIAL

This month's **Meeting on July 18th is a Radio Activity Night** which will also be a chance for Steve (G6SQX) to demonstrate some of the radio gear used to track the Caen School Balloon Project. It will also be a chance to have natter over a cuppa and perhaps experiment with the new Club radio gear. So come along and have an enjoyable evening.



It is with much sadness that I have to report the passing of Syd (G0LMU) who was a past Treasurer and long standing member of the Club. There is a short obituary to Syd later in this Newsletter.

After the South Molton Olde English Fayre Special Event Station (see later in Newsletter for photos), the Club's new HF equipment was in use again at the Bideford Heritage Day Special Event Station and this time HF conditions were a little more favourable.

Your Committee have requested that if members have **any suggestions for other Events/Contests** etc which they feel the Club could participate in, then please don't hesitate to contact any Committee member.

There is an excellent report from Steve (G6SQX) on the **Caen School Balloon Project** complete with some fascinating photos later in this Newsletter.

So hopefully plenty to read, and please let me have any articles you want me to include.

Enjoy the Newsletter

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, contact the Secretary, Alan (M6CCH) - details in the top panel.

July 18th	Radio Activity Night' - Steve (G6SQX)
August 15th	Open Meeting - 'A Life on the Slide' by Peter Smith, a freelance orchestral trombone player
September 19th	Programme Your Baofeng Radio' - Mike (G4KXQ)
October 17th	Flex 9300 Demo' - John (G3JKL)
November 21st	Bring and Buy Night'
December	Club Christmas Party. Date to be confirmed
January 16th	Club Quiz Night' John (G3JKL)
February 20th	Memory Lane' TBC
March 20th	Club AGM
April 10th	TBA

LOCAL SKEDS

Zepp Net:	Mon, Tues, Thurs : 145.450 MHz 4pm Wed via GB3DN - 4pm
6m Net:	Wednesday, 8pm, 51.480 MHz FM
HF Net:	Friday at 3pm 7.145 MHz ± qrm
70cm Net:	Sunday, via GB3ND , 11am - noon local time. Available on Echolink node 221334

REPORT ON THE MAY MEETING

BACK TO BASICS - VERTICAL ANTENNAS by Terry (G4CHD)

This was yet another talk in the Back to Basics series which this time gave an overview of Vertical Antennas and their relative merits.



Starting from the simple vertical dipole, the use of sloping radials was developed and their effect upon the feed impedance. The advantage of vertical polarisation was explained for a good DX signal and how a Mag Mount enabled an electrical to be made to a car's chassis in order to act as a ground plane. The relative merits of base/centre and top loading was discussed

together with finally the role of the counterpoise and its often misinterpretation.

The talk was illustrated by a PowerPoint type slide show and ended with the customary questions time. The talk was well attended and was given a good round of applause at the end hopefully indicating that those attending had enjoyed the evening.



Terry (G4CHD)

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.**

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

Terry (G4CHD)

CROSSWORD

This month's Crossword is by Stuart (M1FWD).

The answers will be published in next month's Newsletter. Good luck !

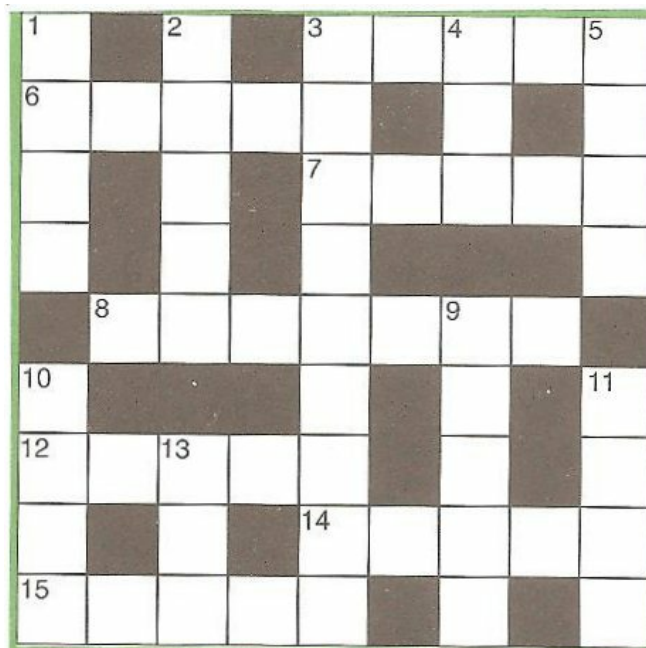


Clues Across

- 3) Tango Yankee (TY) land (5)
- 6) Aquatic beaver-like rodent (5)
- 7) Machine for shaping wood or metal (5)
- 8) Residential, industrial or commercial areas with integrated design or purpose (7)
- 12) ? Peninsula, a desert region in Sierra Uniform (SU) land (5)
- 14) The fruit of a tree of the genus Malus (5)
- 15) 'Honest ?', an old North American colloquialism meaning 'trustworthy' (5)

Clues Down

- 1) A reflected radio or radar beam (4)
- 2) Units of digital information, normally equal to eight bits (5)
- 3) Native of Lima Zulu (LZ) land (9)
- 4) The fixed ridge on the neck of a stringed instrument over which the strings pass (3)
- 5) Require (4)
- 9) Sierra Uniform (SU) land (5)
- 10) An Italian white wine (4)
- 11) ? circuit, a break in the electrical conducting path (4)
- 13) Ken, a well known local G4 station (1.1.1)



Last month's answers :-

Across 1) masts 4) dim 5) doublets 7) Soho 8) Isca 11) consoles 13) ham 14) ununs

Down 1) modest 2) South 3) salt 4) dot 6) Kansas 9) Salou 10) Esau 12) ohm

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.g0rgl.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/>

Terry (G4CHD)

SILENT KEY - SYD (G0LMU)

Many thanks to John (G0UNB) and Brian (M0BRB) for some of the following information on Syd's long association with our Club.

Everyone who knew Syd would agree that he was a very quiet person and a real



gentleman. He apparently was a founder member of the Club and was a Telegraphist in the Royal Navy during National service after which he worked for the Income Tax Office until his retirement. He had a northern twang and often spoke of Macclesfield with much pride. He was a Club Treasurer for some years, and participated in group CW practice but never worked it on HF. In fact Brian remembers Syd being able to copy C/W without any trouble during a Maritime Museum on Air Club Special Event Station. Ken (G4NUJ) did electrical work for Syd and also helped him to setup his radio equipment, and therefore knew Syd very well.

Until relatively recently, Syd spent most of his time looking after his wife before she passed away and then recently he occasionally attended a Club night and only 2 weeks before his death came to a coffee morning in Barnstaple.

There were 4 Club members at Syds' funeral which was held on July 8th at the Crematorium.

Syd will be well remembered by the Club's members and our condolences go to his family and friends.

AMERITRON AMPLIFIER FOR SALE

Brian (M0BRB) has an Ameritron Amplifier and a full set of spare Valves for sale.

He can be contacted on 01237 473251. Brian M0BRB

SOUTH MOLTON OLDE ENGLISH FAYRE SPECIAL EVENT STATION

As mentioned in last month's Newsletter, here are a few photos taken on the day which was memorable by the extremely poor radio propagation conditions and high noise level!



It was an opportunity for the Club's new Icom HF Transceiver to be used. The Club is extremely grateful to Fred (G0EOB) for the use of his mobile antenna and ac Portable Generator on the day which were invaluable.



Caen **Community** Primary School High Altitude **Balloon** project Wednesday 22nd June

Many thanks to Steve (G6SQX) for the following article on the successful balloon launch.

A lucky break in the weather at around 10.30am enabled Bill Harvey and his enthusiastic support team a chance to successfully launch the Caen High Altitude Balloon, which rose rapidly and headed in a north-easterly direction on its predicted path towards Wales.

The balloon was filled with helium **calculated** to lift a payload of **425** grams. The payload consisting of a **Raspberry Pi Zero**, telemetry transmitter, GPS, antenna and lithium batteries, were attached by a long line to the balloon with a parachute in-between to enable a safe descent after having expanded to more than 5 times it's original size in the rarefied atmosphere and bursting at around 100,000 feet.

The **Commando Logistics Regiment** Royal Marines from Chivenor supported the project by supplying two Army Commandos to **set up a command tent to be used as a tracking and control centre**, where the support team could monitor the flight progress.

We received the signals using an 10 element yagi and SDR RTL dongle. The signal was processed on a laptop using SDR# feeding the audio through Virtual cable to DI-Fldigi which uploaded the verified packets via a 4g hotspot to the Habhub Server. The Pi Code and Chips School Club were using a 17 element Log Periodic antenna connected to an AOR AR-8000 receiver.

We had initially hoped that the balloon would only travel 20 or 30 miles locally and we had made provision to use the North Devon Amateur Radio repeater GB3DN located at Stibbs cross, which would give us good mobile radio coverage in the area.

For the last few days however the prediction had been for the landing site to be near the Welsh border north of Hereford.

By midday the balloon had reached a height of 22,000m **rising through the stratosphere clear of the influence of the jet stream changed direction to the north-west and finally reached a very impressive** altitude of 32,540m, before bursting over Methyr Tydfil, rapidly descending before again changing direction onto it's original course, the descent becoming more leisurely in the lower denser atmosphere landing conveniently in the only mown field in the area.

We tracked the balloon successfully receiving the telemetry and **Slow Scan Digital Video** images until it had dropped to about 5000m on the descent. The hills to the north-east of Braunton restricted our range but in all there were a total of 8 stations as far afield as France and the Netherlands tracking the payload. The ultimate signals were received by G1DYQ in Hereford and uploaded the position shortly before landing.

Knowing the approximate landing position Bill and the chase teams **(which included three children from the school)** arriving in the location quickly picked up the telemetry signals and uploaded a final fix. The GSM data link wasn't good enough to download the necessary maps so the final few hundred yards was achieved using a hand-held yagi antenna for direction finding and phone calls from the backup team watching their progress on Habhub.

Some very good high definition pictures which were recorded by the **Raspberry Pi** are included in this article.

As the **SSDV** image data is sent in-between the telemetry packets it can take up to 10 minutes to receive each picture. A system called LORA has been developed to work along side the present payload allowing a second camera to operate through an a separate link. This requires additional equipment and antenna along with the payload and another receiver set up on the ground.

It is hoped that this equipment can be put on board the next flight...

<http://caen.devon.dbprimary.com/devon/primary/caen/site/pages/schoolnews>

The following pages show some of the photos which capture the events of the day.



Preparation



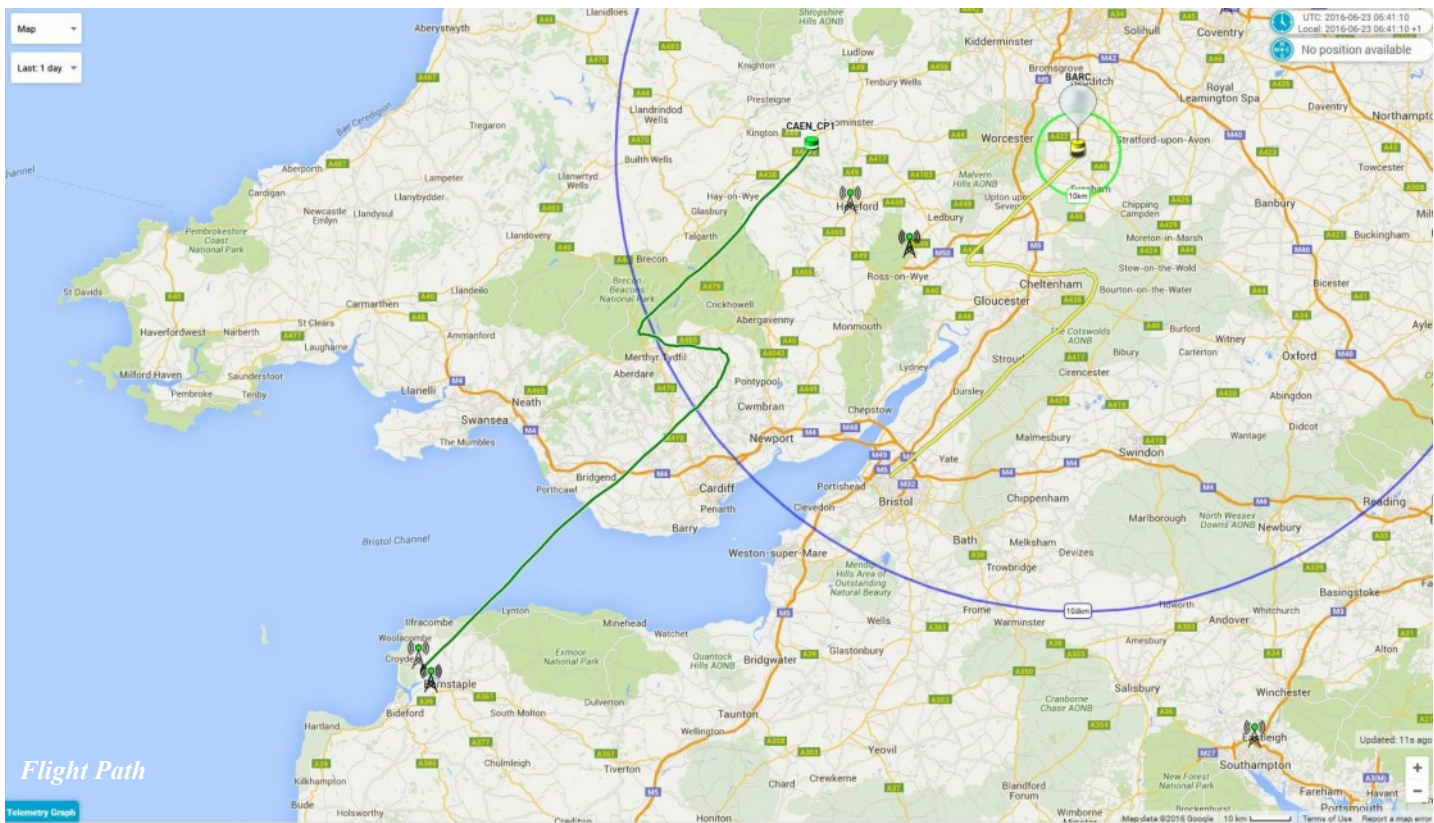
Royal Marines from Chivenor supporting the project with tracking and command facilities..



Lift Off



Aerial view of Braunton with Saunton sands in the distance...



32,540m...106758ft...





Look out for the cows!!

Search...
no location

Zachamishandollie_chase ▲

KE0GEO-12 ▲

VE2WVG-11 ▲

CAEN_chase ▲

669NT ▲

Zachamishandollie_chase ▲

CAEN_CP1 ◉

-0.0 m/s 0.0 m/s
RATE VIH

87 m (32,540 m)
ALTITUDE (MAX)

2016-06-22 16:30:49
DATETIME (LOCAL)

52.17614, -2.86859
COORDINATES

12
SATELLITES

37.8°C
TEMPERATURE INTERNAL

Received 36m ago via:
CAEN_MC1

Hamishzacandollie_chase ▲

G6SQX_chase ▲

BARC ▲

HB9IAC-11 ▲

MIKEL ▲

NA7AM ▲

NA7CW ▲

KD0AWK-8 ▲

SP9UOB ▲

Satellite ▼

Last: 1 day ▼

UTC: 2016-06-22 16:08:45

Local: 2016-06-22 17:08:45 +1

No position available

Updated: 0s ago

Telemetry Graph

Imagery ©2016 Bluesky, Infoterra Ltd & COWI A/S, DigitalGlobe, Getmapping plc, Infoterra Ltd & Bluesky | 100 m

[Terms of Use](#) | [Report a map error](#)

altitude = null

pred.alt. = null

satellites = null

temperature_internal = null

Almost there...