

**Chairman:** Derek Gillett G3WAG • **Treasurer:** Rodney Archard M0JLA • **Secretary:** Duncan James M0OTG  
**Committee:** Nigel Hancocks G4XTF; Dave Porter G4OYX; Bob Bowden G3IXZ; Matt Porter M3XTL *Contest Captain;*  
Richard Langford G4FAD; Mike Bush G3LZM; Tim Bridgland-Taylor G0JWJ; Geoff Wilkerson G8BPN

## Obituary

**SK Geoff G3NPA.** It is with great sadness that we have to report in the Journal, Geoff's death recently at Hereford Hospital. Our sympathy goes out wholeheartedly to his wife Hazel and her family and family relations.

Geoff was a clever and resourceful man who worked for British Telecom. For many years prior to retirement he was based at Madley SES. (Satellite Earth Station) and he was Clerk of Works responsible for the development of the site from day one onwards. From holes in the ground and cement, to the installation and commissioning of several giant 32m rotatable multi-ton antenna dishes..... a requirement of the day.

As well as holding a private pilots licence, Geoff was a valued member of HARS and he was always willing to provide other members with technical solutions to their ham radio problems. A great personality and fun to be with.

*You are sorely missed Geoff ... RIP*

## Obituary

**SK Peter G3ESY.** It is with great sadness that we have to report in the Journal, Peter's death recently at Hereford Hospital. Our sympathy goes out wholeheartedly to Mike and family, and family relations.

Peter was a real gentleman both on and off the air. He and Olive were very kind to me and I will always remember the Sunday net on 80m and his thunderingly strong AM signal with the wall clock ticking loudly in the background. Peter and G3INR, another Peter, both came as instructors to the Air Training Corps (124 Squadron) and set up a No12 army transmitter with a HRO receiver, so that our 124 Squadron was able to join the ATC net. Peter was bomber aircrew and afterwards became a member of "Y Service" associated with MI6.

Peter was a founder member of HARS and remained a member throughout. He was also an RSGB QSL manager, an FOC member, and an early DXCC certificate holder.

*You are sorely missed Peter ... RIP*

## Editorial

On behalf of the readership, it is with a heavy heart that I have had to write the obituaries above.

But, looking forward, do read the summary of the excellent talk given by Matt M3XTL on getting onto 6cms.

Also, there is news about the technical library that Bob G3IXZ has established for HARS.

ATV! How much interest is there in ATV within HARS? See Mark's (M0RKX) television test card.

And, don't forget Dan's (KB6NU) interesting column on the question of current flow direction!

*Ed*

## Getting onto 5.8GHz!....Wow!!

On a special Society gathering on the 9th of February, Matt Porter (M3XTL) and Dave Porter (G4OYX,) gave a wonderful, engaging talk about how to get onto the 5.8GHz Amateur band (6cm) thanks to FPV drone technology!. FPV means first person view where the pilot on the ground wears special glasses, or uses a laptop, to see transmitted pictures from the drone. However, both the transmitter and receiver used with these aircraft, are ideal for redeployment more usefully as a transmitter/receiver pair on 5.8GHz. Communication using this equipment is by wide-band FM in the microwave range 5.830GHz – 5.850GHz arranged into 48 easily selectable channels.

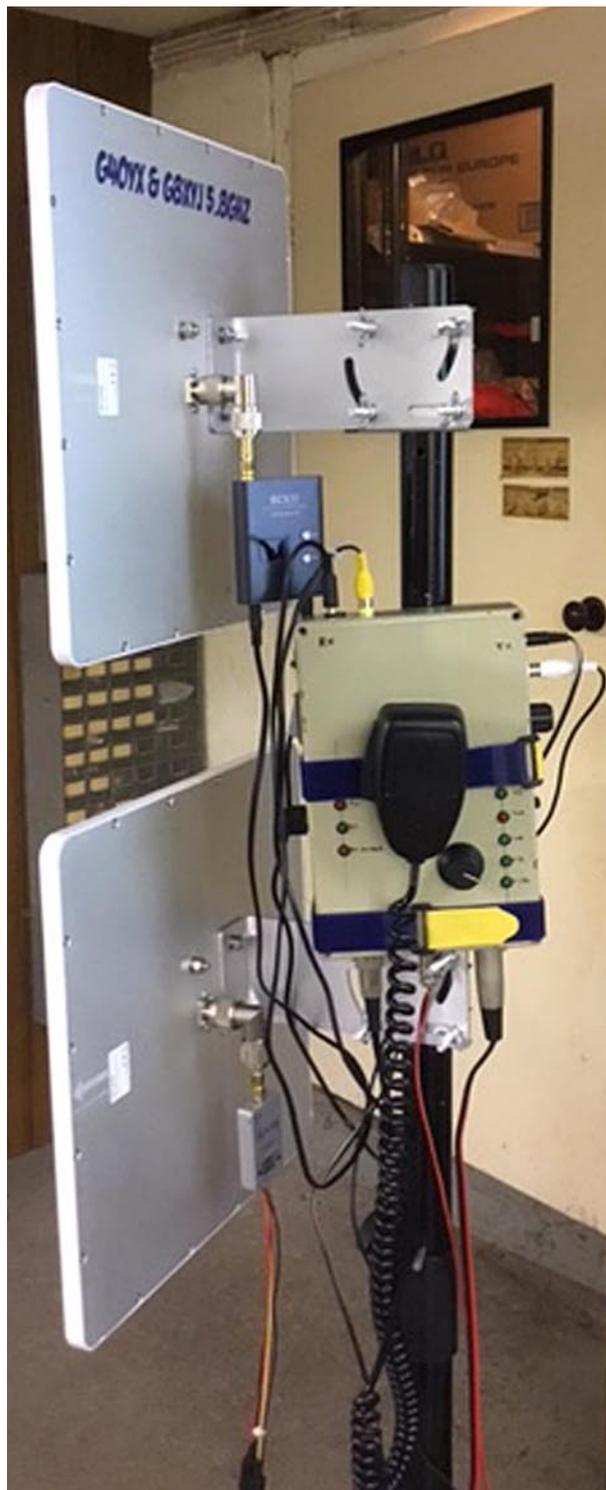
Communication at this frequency is by line of sight, obviously mountain top to mountain top for good DX. Matt told us of distances of 96km and 118km already achieved which is considerable for a transmitted power of only 600mW. Alignment was thought to be a possible problem but we were assured it was not, even though the narrow beam of RF transmitted might only be 12deg in width.

The antenna used in the demonstration, is the outdoor panel type ANT5823, with a gain of 23dBi and two of these are shown mounted on a tripod in the photo. One antenna is for receive and the other for transmit, one above the other. This antenna system can be used in vertical or horizontal polarisation mode and will work with a power input of up to 100W. They are available on the net at between £70 and £100 each. We were told that sometimes WiFi (5815-5875MHz) can be a problem

The transmitter used is the TS832 available on the net for around £11, and has a nominal output power of 600mW. The receiver used is the RC832 also available on the net for around £12. Often a deal for both will be found.

The transmitter compatible option might be the TS2500 which has an output of 2.5W and is also available on the net at around £40.

A Sky dish aerial can be used as an alternative. See TL-ANT5830MD which has a gain of 30dBi.



We understand that there is a monthly contest in operation which should be great fun in the summer months. Note that WBFM will eventually give way to SSB, it is supposed.

ATV too?...perhaps.

*Thanks Dave and Matt  
Much appreciated ...Ed*

# Titanic: The final messages from a stricken ship

By Sean Coughlan BBC News

On the night the Titanic struck an iceberg, a network of wireless operators on ships and land stations frantically communicated with each other across the expanses of the North Atlantic in an effort to mount a rescue mission. The surviving messages form a real-time record of the events of that night.

The story of the Titanic is barnacled with myths and legends.

It has become part of the popular imagination, a symbol for the most epic and glamorous failure. It is tragedy with tea dances.

But there is really only one first-hand, real-time record of what happened that night - the collection of wireless messages sent between the Titanic and the other ships which hurriedly tried to organise a rescue operation, during that freezing night in April 1912.

It is a telegraphic narrative showing how the Titanic had been given warnings of ice by other ships - and which records the increasingly frantic calls for assistance after the collision with the huge iceberg.

Unlike in the Hollywood films of the tragedy, these wireless messages are stoically understated. Copied out in neat copperplate handwriting, and kept on the ships that had been in contact with Titanic, they are the actual words of the crew and passengers.

It's the Titanic in her own words.

Wireless was still a relatively young technology at the time of the Titanic's maiden voyage.



*Italian electrical engineer Guglielmo Marconi's equipment was on board many prestigious ships*



*The Carpathia was one of the ships that received the Titanic's calls for help*

The Marconi company, the Edwardian equivalent of a top technology brand, had put its wireless operators on board some of the more prestigious ships.

The Titanic, as the showcase of an ambitious, optimistic era, had the biggest and best wireless equipment in the world, radiating spark transmission on 500KHz and 1000KHz at 5KW.

It was still something of a novelty and much of the initial wireless traffic was from first class passengers sending messages to their friends, rather like text messages showing off about a glamorous trip.

"Hello Boy. Dining with you tonight in spirit, heart with you always. Best love, Girl," read one message sent on to New York, the Titanic's intended destination.

A message sent on to Los Angeles said: "No sickness. All well. Notify all interested in poker."

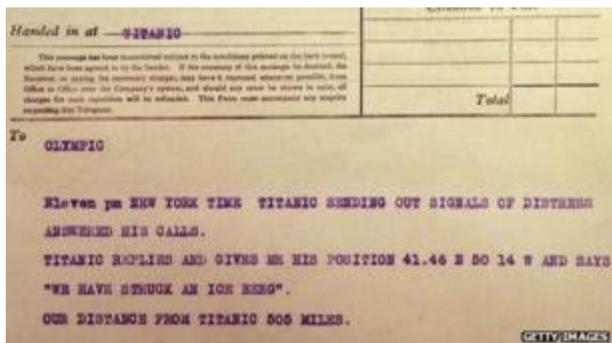
"Fine voyage, fine ship," wrote another, unaware of the awful irony of how that might later sound.

The wireless operators sending these messages were independent young men of the modern age, who had been recruited with the promise of escaping "blind alley careers".

They chatted to wireless operators in other ships in a jaunty, mock public school slang, calling each other "old man".

As well as letting passengers send personal messages, they provided the first wireless news service for ships.

As the Titanic crossed the Atlantic, the news headlines were about industrial unrest on the railways and a high-profile murder in France.



*A message from the Olympic reports that it has received word from the Titanic*

Ships gave each other safety information - and the Titanic received detailed advice about the location of icebergs - or “bergs, growlers and field ice” as one ship’s captain described them.

Investigations after the sinking would never satisfactorily establish why these warnings had been ignored.

The senior wireless operator, Jack Phillips, had still been sending passengers’ messages when the ship struck an iceberg. The collision was described as sounding like the tearing of calico.

With only enough room in the lifeboats for half the passengers and crew, the Titanic’s captain turned to his only lifeline - the wireless - and asked the two Marconi operators to call for assistance.

### **The famous SOS**

Wireless operators originally used Marconi’s “CQD” distress signal. “CQ” was the signal to stop transmission and pay attention. The “D” was added to signal distress. In 1906 the International Radio Telegraphic Convention in Berlin created the signal “SOS” for summoning assistance. The letters were chosen for their simplicity in Morse Code - three dots, three dashes and three dots. While the “SOS” superseded “CQD” in 1908 Marconi operators rarely used it. It became standard after the sinking of the Titanic.

### **Survivors of the Titanic - I was there**

The distress signal used by Marconi operators - CQD - boomed out over the Atlantic. The wireless operators joked they may as well also try another new distress signal that had been

introduced - SOS - because they might never get a chance to use it again.

While the lifeboats were lowered, with awful goodbyes between husbands, wives and children, the wireless operators stuck to their task.

“Come at once. We have struck a berg. It’s a CQD, old man,” the Titanic called to another ship, the Carpathia.

“We have struck an iceberg and sinking by the head,” she told a German ship, the Frankfurt.

The Titanic’s messages caused consternation and disbelief among other ships.

They called back to the Titanic struggling to grasp what was happening, then urgently forwarded the distress signals in the hope that someone would be near enough to help.

It was like trying to organise a rescue by Twitter, with operators trying to make sense of the stream of sometimes contradictory information.

“We are putting passengers off in small boats. Women and children in boats. Cannot last much longer. Losing power,” said the Titanic as the situation grew ever more desperate.

“This is Titanic. CQD. Engine room flooded.”



*Captain Edward Smith*

The Titanic’s captain Edward Smith gave the orders for the distress signals to be sent out

In response her sister ship, the Olympic called back: “Am lighting up all boilers as fast as we can.”

There were also flashes of anger in the confusion. “You fool... keep out,” the Titanic barked at a ship almost 200 miles away who had interrupted to inquire: “What is the matter with you?”

The last recorded messages are increasingly desperate and fragmented - although a shore station officer following the exchanges reported there was "never a tremor" in the Morse tapped out by Jack Phillips.

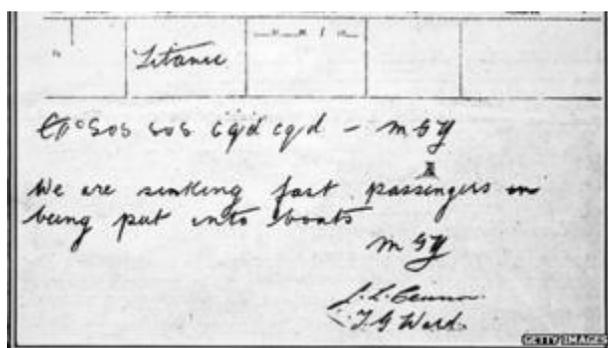
"Come quick. Engine room nearly full," was sent from the Titanic only a few short minutes before the ship finally sank.

When the Titanic fell silent, the chasing ships carried on calling out for news, co-ordinating the rescue of the survivors.

And the wireless became the only way for survivors to contact their families.

"Meet me dock with two hundred dollars, underwear, cap, big coat - am well but slightly frozen," messaged one survivor from the Carpathia rescue ship.

"Completely destitute, no clothes," said another. Words cost money - and a masterpiece of brevity reported: "Safe, Bert."



One of the messages sent by Jack Phillips says the ship is 'sinking fast'

Jack Phillips did not survive the sinking. But his heroism, staying at his post after being released from his duty by the captain, became an enduring part of the Titanic story.

Not least because one of the most influential templates for all future Titanic stories came from Harold Bride, his junior wireless operator.

Bride survived on an upturned lifeboat and then sold his story to the New York Times.

His story was a global media sensation, setting the tone of heroic self sacrifice, with the first accounts of the band playing while the ship sank, with tales of selflessness and cowardice.

And he commemorated the role of Jack Phillips, unflinching, even when he knew better than anyone else that there was no chance of a rescue ship arriving in time.

"I will never live to forget the work of Phillips during the last awful 15 minutes," said Bride.

"I suddenly felt a great reverence to see him standing there sticking to his work while everybody else was raging about."

*All credits and thanks are due to the BBC for this summary of events.*

## ATV on the Horizon at MORKX (Mark)



This picture shows Mark's test card for ATV. He is almost ready to start transmissions.



This picture shows Mark's portable hilltop station located at Larkstoke. Note the 5.8GHz (6cm) panel antennas. Using the FPV kit and WBFM (voice at the moment) he regularly contacts Matt located at Long Mynd, a distance of 97km. The dish antenna shown is for 3cm operation.

*Thanks Mark.....Ed*



## Visit to ETL Systems Ltd

As reported in the Hereford Times seventeen of our illustrious members were invited to visit ETL Systems, a global technology Company based at Madley. Their core product is an L Band matrix (23cm) which comes in all shapes and sizes, starting at 8x8 up to 256x256.

The photo shows our group sitting in the board room at the end of a tour of the production facilities, The tour revealed just how much intricate design had gone into pcb/circuit miniaturisation yet circuits which still retained the required high input/output, path-to-path isolation. Dr Esen Bayar, our host, is seen wearing the blue coat and we are wearing white coats. We were also obliged to wear devices in our shoes which shorted out possible body static as we had to enter static-free areas.

Placed in front of each of us is an ETL gift, a box containing a most useful drinking vessel. The tour lasted for two hours. Afterwards, Derek our Chairman thanked Esen for the opportunity to gather revealing insight into the products and manufacturing techniques.

*Amazing ...Ed.*

## The Beast from the East

At the end of February we all suffered from the major snowfalls up and down the country. Then, a couple of weeks later, from the south

west came the son of the Beast, the Pest from the West. And so here in Hereford we had to endure a double helping of persistent snowfalls.



But, Dave, G4OYX, sends this following note from his friend OH6MEC...

*On the TV, net and newspapers I noted that you have also the real winter weather in England, thanks to the "beast from the east" (good name. In Finnish "Idan Peto"). Here in the north-east corner of Europe this situation is too familiar also. Last of the two weeks we have had temperatures like -23 to -28 deg C, day and night. I believe it will continue for two months.*

I remember the winter of 1947!

*Thanks David ...Ed*

# RAFARS RAF100 Events 2018

April 1st 2018 marks the centenary of the formation of the RAF whilst coincidentally on this date RAFARS will be marking its 80th year; we would like to commemorate both in the strongest possible way.

The extent to which we can achieve this objective will depend very much on what our members can, or wish to do, in the way of participation with Council providing where possible the necessary backing.

The good news is that with Ofcom approval and the support of the RAF100 office we have now secured the Special Special Event Station callsign GB100RAF which we would like to be on air as much as possible, at as many events and locations as can be accommodated.

Members of RAFARS may request the use of any of the Society callsigns to operate as part of the RAF Centenary commemorations, G3RAF, G4RAF, G6RAF, G7RAF, G8RAF, G8FC, GB1RAF, VP8RAF and GB100RAF. Operators who wish to use these callsigns should be aware that all contacts will need to be logged and that QSLs will be via the RAFARS bureau.

If you have any thoughts, ideas and comments relating to RAFARS possible activities, please contact [RAF100@rafars.org](mailto:RAF100@rafars.org) or send to RAFARS HQ RAF Cosford.

## RAFARS RAF100 Members Contest

To celebrate the RAF 100 years Anniversary a special RAFARS Contest is being held for members and it will take place over the year.

### 1. Date & Time

0001 hrs UTC, 1 April 2018 to 2359 hrs UTC, 31st March 2019

### 2. Frequencies

All HF bands (except WARC) plus V/UHF. Advised to check RAFARS net QRGs

### 3. Modes

SSB, CW, Data (Plus FM on V/UHF)

### 4. Exchange

RS(T), serial number, RAFARS number

### 5. Scoring

#### Points

5 pts per QSO within your country

10 pts per QSO outside your country

10 pts per V/UHF QSO

10 pts per overseas member contacting UK member

Note UK Stations. England, Scotland, Wales, Northern Ireland, Isle of Man, Jersey and Guernsey are classed as separate countries.

### Bonus Points

25 pts per QSO with GB100RAF (once per distinct activation/location)

25 pts VP8RAF/100 (once only)

20 pts per RAF call: G0RAF, G1RAF, G3RAF, G4RAF, G6RAF, G7RAF, G8RAF, GB1RAF, GB2RAF, G8FC (HQ) (once per distinct activation/location)

## 6. Log Submission and Adjudication

Logs shall contain date; time; band; callsign; RS(T) and serial number sent; RS(T), serial number and RAFARS number received; points claimed.

Entries may be submitted in any reasonable format (not postcards or small pieces of paper) to the Contest Manager, G3ZDW (QTHr in QRZ) or by email to [contests@rafars.org](mailto:contests@rafars.org) preferably as an attachment.

Entries to arrive no later than 21 April 2019.

## 7. Supplementary Rules

The serial number sent shall start at 001.

Points may be claimed for QSOs with members on different bands and/or modes providing there are at least 10 minutes between each QSO.

## 8. Recommendation

Keep checking <http://www.rafars.org/raf100> website news and the monthly newsletter for the latest information on scheduled activity.

## 9. Declaration

By entering any RAFARS contest you declare that:

(a) Your station was operated strictly in accordance with the rules and spirit of the contest and within the conditions of your licence.

(b) The submitted log is a true copy of an extract from the entrant's station log.



## DIY manufacture of printed circuit boards.

By Dave G4IDF.

David is the Chairman of the Malvern Hills Radio Society. On the 9th of March he came over to HARS, to give a talk about his experiences manufacturing his own pcbs. It was a revealing presentation which showed Dave's enterprising persistence to overcome obstacles encountered when starting from scratch.

Dave's Initial attempts were with a black ink DALO pen used to lay down the required tracks on the clean copper surface on the board to be treated. When the black ink had dried the board was put into an etching tank where an agitated solution of Ferric Chloride (no longer used for safety reasons) etched away the copper leaving the black tracks which, when washed away, revealed the desired circuit tracks underneath. Dave explained that this was not a good process due to the inconsistency of the DALO ink which left pits and ragged edges on the final copper image.

Moving on, a range of free pcb design software was shown. e.g.; Easy PC, Kicalc and PCB Artist and software which outputted a Gerber file. The latter would be used to drive a multi-axis router which uses CBC milling cutters to remove unwanted copper and circularise the component holes in the copper.

A very entertaining evening.

*Thanks for coming to see us,  
David, and for the talk ...Ed.*

### DX Heard and Worked

This is a column in the *Journal* which features those classic DX moments for all to share.

For this column, do send in your experiences to [editor@harsjournal.com](mailto:editor@harsjournal.com)

*Ed*

## Which way does current really flow?

By Dan Romanchik, KB6NU

I was recently taken to task by one of my blog readers regarding my description of current flow in my No Nonsense Technician Class License Study Guide. He wrote:

You casually say that current flows from Positive to Negative (with cool accompanying directional arrows), without any accompanying qualifying statement. Over the years I have looked at ALL the views on the subject. Positive to Negative is NOT what I was taught 48 years ago, and I have never seen a good reason to change my view.

In a subsequent email, he pointed me to a Nuts 'n Volts article, "Which Way Does Current Really Flow?" and asked my opinion. In the article, the author, who is a ham by the way, does a good job of explaining the various types of current flow.

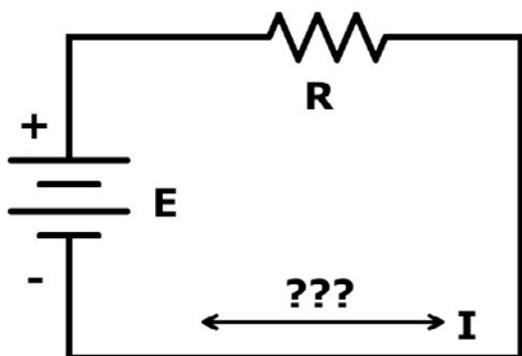
I agree that in electronic circuits electrons flow from negative to positive, but it really doesn't matter. I agree with one of the article's commenters who says,

This is a silly argument. It's like comparing apples and oranges and challenging people to take sides.

Electron flow is not current flow. Electron flow is easy to understand, an actual physical property, and a real help in understanding vacuum tube operation. But it falls apart when one needs to understand complex electronic systems.

[Conventional] current flow is a mathematical abstraction. It is defined as a net flow of positive charge, irrespective of the polarity of the physical charge carriers — whether electrons, holes, positive or negative ions, or whatever.

When looking at any circuit containing a resistance with a voltage across it, conventional current through that resistor says that the voltage drop occurs as the current through it meets resistance. On the other hand, in negative (electron) flow, a



voltage INCREASE will correspond to the 'current' flow through it, clearly violating physical laws. Conventional current flow is consistent with the laws of physics and those of other engineering disciplines.

You are correct that engineers, professors and scientists use conventional current flow. That is not because they are too obtuse to understand electron flow; I assure you they fully understand it. It is because in their world they have to solve more general problems involving complex math and science, and, again, conventional current flow is consistent with physical laws.

It is unfortunate that electron flow and current flow are so often confused. They both have their place.

After reading that article, I thought I'd see what the ARRL Handbook has to say about current. In the 1963 edition, they don't mention electron flow at all. They have one diagram showing the direction of current flow in both series and parallel circuits, but the voltage source has no polarity. It's simply labelled "Source of E.M.F." Diagrams giving practical examples of series and parallel circuits do include a battery, and if the reader were to mash up the two diagrams, they would conclude that current flows from the positive terminal to the negative terminal.

The most recent edition of the Handbook that I have is the 2005 edition (it might be time to get another copy!). It says,

Electrons move from the negative to the positive side of the voltage, or EMF, source. Conventional current has the opposite direction, from positive to negative. This comes from an arbitrary decision made by Benjamin Franklin in the 18th century. The conventional current direction is important in

establishing the proper polarity sign for many electronics calculations. Conventional current is used in much of the technical literature. The arrows in schematic symbols point in the direction of conventional current, for example.

Having said all that, I really don't see that there's much of a controversy here. I did learn to think of current as conventional current in college, although it was mentioned that electrons actually flow in the opposite direction. Using the concept of conventional current has never seemed to hold me back. I've been able to design circuits and repair electronic equipment thinking that current flows from positive to negative.

Although it's a departure from my "no nonsense" style, I am thinking of including a sidebar, similar to the paragraph above from the 2005 Handbook explaining the two ways of looking at current flow. What do you think?

When he's not trying to figure out which way current flows, Dan blogs about amateur radio at KB6NU.Com, teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).

*Thanks, Dan ...Ed.*

## HARS radio equipment available for loan to Club members or for purchase

The following list of equipment is available for loan to Club members. The loan period is 3 months and members wishing to use the equipment will have to sign a simple agreement which covers the loan terms. If you wish to borrow then please contact Duncan (Hon Sec) M00TG.

- Grid Dip Meter MFJ-201
- Buddipole 10-40M portable antenna with tripod and carrying case.
- Yaesu FT450 All bands to 50MHz. Needs a 12V PSU
- Pixie 7MHz QRP kit. Needs assembling.
- Baofeng UV-5R 70cms/144MHz hand-held complete with accessories.

*Go portable with the Buddipole! Ed.*

## Congratulations



Students of the class taking Course “Foundation Licence No 12”. The new callsigns known at this time are, Sam Elms-Lester M6NLQ; Peter Lawley M6YPL; Julian Dent M6NNU; Paul Austin M6NTL; and, John Watkins M6YTL.

Salutations to David and his team of Course tutors for yet another worthwhile success.

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## Have you seen this desperado?

### REWARD OFFERED

A REWARD OF 5000 MICROFARADS IS OFFERED FOR INFORMATION LEADING TO THE ARREST OF HOP-A-LONG CAPACITY. THIS UN-RECTIFIED CRIMINAL ESCAPED FROM A WESTERN PRIMARY CELL WHERE HE HAD BEEN CLAMPED IN IONS AWAITING THE GAUSS CHAMBER.

HE IS CHARGED WITH THE INDUCTION OF AN 18 TURN COIL NAMED MILLI HENRY WHO WAS FOUND CHOKED AND ROBBED OF VALUABLE JOULES. HE IS ARMED WITH A CARBON ROD AND IS A POTENTIAL KILLER. CAPACITY IS ALSO CHARGED WITH DRIVING DC MOTOR OVER A WHEATSTONE BRIDGE AND REFUSING TO LET THE BAND-PASS.

IF ENCOUNTERED, HE MAY OFFER A SERIES OF RESISTANCE. THE ELECTROMOTIVE FORCE SPENT THE NIGHT SEARCHING FOR HIM IN A MAGNETIC FIELD, WHERE HE HAD GONE TO EARTH. THEY HAD NO SUCCESS AND BELIEVED HE HAD RETURNED OHM VIA A SHORT CIRCUIT.

HE WAS LAST SEEN RIDING A KILOCYCLE WITH HIS FRIEND EDDY CURRENT WHO WAS PLAYING A HARMONIC.

[www.old-farts.us](http://www.old-farts.us)

# The HARS Technical Library

Bob Bowden G3IXZ

I have, for some time, been keen to see the setting up of a technical library to encourage Club members to widen their knowledge of radio and of the technology we are able to use, in furtherance of our hobby. Knowledge is a wonderful thing and as you delve into other facets of radio engineering you will see opportunities for trying innumerable other aspects of amateur radio and thereby widen your knowledge base and your enthusiasm to, perhaps, design and construct your own equipment.

At the last HARS committee meeting, we discussed the library idea and the committee asked me to pursue matters with a view to setting one up. My belief is that most radio clubs would like to have a technical library but lack a permanent base in which to accommodate it. Through the generosity of Geoff, G8BPN we have something pretty close to “our own” club HQ and thus a suitable place to store books. Better still, Geoff has a large, virtually empty, document storage cupboard, which we can use and which is ideal for our purposes.

I have now produced the initial collection of 40 titles for inclusion. Most have been acquired from club members, including some “silent key” sources, and I have grouped them under SIX Separate “Section Categories”. These are:-

## Category

- A Antennas : Antenna theory and their construction practices
- T Technical: Radio Amateur Technical Handbooks and Textbooks
- R Reference: Technical Publications providing useful reference material
- H Historical: Publications providing historical background to our hobby
- E Equipment: Publication relating to specific or general radio hardware
- Q QRP: Publications with a special reference to low power QRP operation

Clearly, we hope that club members will contribute new titles in future. I would like to ask members to be aware however, that we will have a finite space available for our collection to reside in and this could easily get oversubscribed. Accordingly, it would be good if the book or publication was specific to amateur radio or related electrical engineering and not a general science topic. I would suggest NO publications on computers per se, are necessary or desirable. The subject is populated by acres of publications every month – most of which are out of date within weeks or even days. Obviously, amateur radio, computer related, topics are a different matter and I have a current book I am reading on SDR, which I intend donating to the library in due course; also books covering amateur MGM (Machine Generated Modes) are useful and will include computer elements by the very nature of the type of communication.

Computer clubs, are useful organisations, but that is not our core interest.

I believe this library should be exclusive to HARS members and lending to another club not encouraged, as this inevitably increases the probability of books disappearing.

I would suggest that a loan period should normally be the period between successive club meetings and I will provide a notebook, tied inside the library cupboard, in which to register the Date, Reference Category Number (HARS.....) of the book being borrowed and the name and callsign of the borrowing member. The issue of the book should be immediately countersigned by any committee member.

Finally, a catalogue of titles available is now ready and will be emailed to each member, when the books are on-site and in the library cupboard.

*Thanks, Bob ...Ed*

# Contest Corner

by G1YBB

The 2018 season is well and truly underway with us into the 3rd month of the UKACs and 80m CC.

HARS has started in the best possible way by winning the first contest and staying on top so far, DESPITE rather unsporting tactics by another club sitting many people round a table all putting small entries in making a mockery of the efforts put in by us 'real' stations.

However, a great response to our pleas to get members on the air has been successful and we have managed to stay ahead.

2018 should be our year and it's very realistic that we could even win 5 out of the 6 bands.

To do so we just need to continue with the great participation. We cannot allow it to be stolen by extreme rule bending but we CAN win keeping our heads up high with members on air. Hereford ARS has a great history of contesting that we can get back on the map!

HF wise we have had some good participation in the RSGB HF 80 CC (Club Championship). Currently we are sitting 8th. There is something there for all members, SSB, CW and Data. Only 90 minutes too so a nice quick sprint.

Let's say goodbye to the snow and catch you soon.

73 Steve G1YBB

Thanks Steve ...Ed

Upcoming Contests:		
First 70MHz Contest	Sun 1 Apr.	0900-1200
80m CC CW	Mon 2 Apr.	1900-2030
144MHz UKAC	Tue 3 Apr.	1900-2130
144MHz FMAC	Tue 3 Apr.	1800-1900
432MHz FMAC	Tue 10 Apr.	1800-1900
432MHz UKAC	Tue 10 Apr.	1900-2130
80m CC SSB	Wed 11 Apr.	1900-2030
50MHz FMAC	Thu 12 Apr.	1800-1900
50MHz UKAC	Thu 12 Apr.	1900-2130
First 50MHz Contest	Sun 15 Apr.	0900-1200

RSGB UKAC Overall Local Club Standings 2018								
	Club (35 clubs total)	50MHz	70MHz	144MHz	432MHz	1.3GHz	SHF	Total
1	Hereford ARS	1000	1000	1000	995	1000	742	5737
2	93 CG	828	512	912	735	761	744	4492
3	Workshop ARS	675	949	725	1000	470		3819
4	Trowbridge & DARC	171	161	466	310	188	1000	2296
5	Bolton Wireless Club	233	113	453	560	436	273	2068
6	Tall Trees CG	365	253	406	436	226		1686
7	Parallel Lines CG	118	180	39	143	190	896	1566
8	RAF Waddington ARC	371	165	228	260	157		1181
9	Southport & DARC	205	222	238	241	166		1072
10	Northampton RC	100	74	292	190	71		727

### Club Band Standings (top 10 shown)

	50MHz (26 clubs)	Total	70MHz (23 clubs)	Total	144MHz (29 clubs)	Total	432MHz (26 clubs)	Total	1.3GHz (24 clubs)	Total
1	Hereford ARS	25355	Hereford ARS	11114	Hereford ARS	25908	Workshop ARS	14016	Hereford ARS	10537
2	93 CG	20984	Workshop ARS	10544	93 CG	23627	Hereford ARS	13952	93 CG	8014
3	Workshop ARS	17119	93 CG	5688	Workshop ARS	18783	93 CG	10306	Workshop ARS	4956
4	RAF Waddington ARC	9408	Tall Trees CG	2809	Trowbridge & DARC	12068	Bolton Wireless Club	7850	Bolton Wireless Club	4595
5	Tall Trees CG	9249	Southport & DARC	2466	Bolton Wireless Club	11736	Tall Trees CG	6105	Tall Trees CG	2384
6	Bolton Wireless Club	5913	Parallel Lines CG	2000	Tall Trees CG	10511	Trowbridge & DARC	4348	Parallel Lines CG	2000
7	Southport & DARC	5197	RAF Waddington ARC	1836	Triple B ARCG	7576	RAF Waddington ARC	3649	Martlesham RS	2000
8	West Kent ARS	4667	Trowbridge & DARC	1791	Northampton RC	7566	Southport & DARC	3374	Trowbridge & DARC	1978
9	Trowbridge & DARC	4330	Rugby ATS	1594	Southport & DARC	6161	Triple B ARCG	2878	Southport & DARC	1745
10	Telford & DARS	3188	Leicester RS	1588	RAF Waddington ARC	5910	Northampton RC	2670	Colchester RA	1708

## Employment Opportunities

ETL Systems, based at Madley, have several positions available for software/firmware engineers.

If you know anyone who would like to consider joining this excellent, worthwhile Company, then please contact Mike on 01432 272987 or [editor@harsjournal.com](mailto:editor@harsjournal.com) - in the first instance.

## Peter G3ESY as I first knew him....Ed.

This picture shows Peter operating from his shack. You can see the Labgear TX with an ATU placed on top. His receiver is an AR88 and he is holding his favourite DH100 (I think) microphone. My first on-air contact with Peter using my new callsign, was in October 1957.

I was G3LZM/A operating from the Apprentices station G3IDZ – QTH was RAF Locking near Weston Super Mare. He was on phone at 5 & 9 with me and I was on CW.

*Tears ...Ed.*



## Club Personalised Merchandise

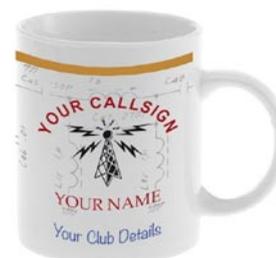
All items have your callsign and club details. For availability and prices please contact Mike G3LZM (editor@harsjournal.com).



**T Shirt**



**Cap**



**Mug**

An exotic China version is available.

## Articles Wanted!

Please think about submissions/projects you might like to send in or see.

General topics and key words are listed below.

Members projects	Events	Training
Members station	Notices	QRP/QRO
Construction	Help	Illustrations
Items wanted	News	Photographs
Items for sale	DX	Early radio
Hints and kinks	Militaria	Restoration...

... or anything else that you think might be of interest to HARS members. If you have an idea for a submission, but don't know how to present it, feel free to ask for advice.

Please submit anything and everything to [editor@harsjournal.com](mailto:editor@harsjournal.com) or talk with Mike at the Club meetings.

*73s es GDX, G3LZM  
Mike Bush (Editor)*