

## Low power QRSS beacon: An Ode to QRSS

Written by Hans Summers

Saturday, 20 June 2009 16:58 - Last Updated Monday, 22 December 2014 07:02

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### by Steve Farthing (with apologies to the late great William McGonagall)

{gallery}qrsslpode{/gallery}

It was on the eleventh of July two thousand and eight,  
In the G0XAR shack a well remembered date,  
When G0UPL and YL came to stay  
from London which is far away.

The XAR shack was a terrible mess  
But construction had started on a [beacon for QRSS](#)  
There were capacitors, resistors and transistors three  
Soldered to a strip of PCB  
Plus a crystal for the the thirty meter band  
All badly soldered by G0XAR's hand

Also, in the course of construction  
Because of a power supply disruption  
the output transistor, my last BC107  
let out its smoke and went to heaven  
"No worries" said G0UPL "What you should do"  
"Is use a 2n2222!"

We soldered in the shiny new part,  
The power supply we then did start  
No output current did we see  
On the meter, which frustrated me  
G0UPL then said "Upon inspection,  
I see you have reversed the base and collector connections,  
that will have let out the smoke"  
I did not see the funny side of the joke,  
but another 2n2222 was fitted,  
and this time power was emitted!

The output signal sounded very rough  
And finding the problem was exceedingly tough  
The G0XAR Oscilloscope  
had lost its trigger, so there was no hope  
As there was no signal to be seen  
on its lovely fluorescent green screen.

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However G0UPL's massive brain  
put us on the right track again  
as we reduced the output power  
by turning the potentiometer  
the roughness it did go away  
Oh happy, happy, happy day.

We connected the beacon to the doublet  
via an ATU to match the beacon with it  
we had to guess at the various settings  
but managed to avoid any more smoke outletting  
Then we mailed our fellow [QRSS knights](#)  
that the beacon would be on that night  
and using Argo it might be in sight.

The output power was measured at 10 milliwatts  
which most people think is not a lot.  
But was sufficient to be [received by G6AVK](#)  
in Essex which must be 80 miles away.  
Then a [grabber screen](#) we did see  
from I2NTD

In Bergamo, which is in the beautiful country of Italy,  
clearly [showing the G0XAR beacon](#) for all to see!.

From Norwich to Bergamo is over nine hundred miles,  
For our signals to get there gave 'XAR and 'UPL many smiles  
Next i will use [the Si570](#)  
connected to my computer using USB  
to give me a better choice of frequencies.  
How far will my qrss signals get? Well we shall see!