

The Beginner: The First Six Months

By Colin Butcher M6RHB / 2E0RHB

I attended the LEFARS February 2009 Foundation Course, and come out clutching my pass slip. A really good weekend, though I am somewhat overawed by the sheer knowledge and experience of these chaps.

Over the next few weeks, whilst waiting for the papers to be processed, I look at radio sets. Lots of radio sets. But I don't want to buy the latest technology out of a box. I want to make it myself even if it takes longer - which it certainly will do given the fact that I am only in the UK for a little over a week a month. And I want to start with CW. Why? Because it will be less complicated to build and I reckon I will learn more to start with.

But back to the set. It must be portable. And HF. It is a great privilege to be allowed on the HF bands, especially with Morse. More research. I get hold of a copy of 'QRP Basics' by Rev, Dobbs G3RJV. This is a whole new world. Home made sets in tin cans. Tuning unit inductors wound on PVC drainpipe. Absolutely fantastic. But my licence doesn't permit me to build a set from the ground up - and in any event for a total beginner a kit would probably be a better idea. So I check out the kits, eventually narrowing them down to Blue Cool (QRP Project), Tramp (QRP Project) or a KX1 (Elecraft). Those German sets are certainly good, but the quality of the documentation swings the final choice in favour of the KX1. 5w max, maybe 2w on internal batteries. QRP! I know that this means I will have to learn to be a better operator, but that will all be part of the fun. So I order it, plus the ATU.

In due course I am back in Britain, and on my one day off a month I start on the build. Damn - the socket for the power jack is missing. I phone Elecraft and they despatch another. That will hold me up for another month. In the meantime, I start figuring out how to wind the toroids. 'Buy your toroids ready wound' says the advert - you must be joking. Other chaps can do it, why shouldn't I? An afternoon of cross-eyed counting follows. Decent of them to be generous with the wire.

Over the next month or two, life settles into a sort of routine. In Germany, on the daily train, studying and learning Morse with an MFJ Pocket Tutor. Very American, but better than nothing. I promise not to send 'Tnx fer buzz' or 'Solid cpy' when I finally get on the air. Back in the UK, slowly building the set. And listening to the HF bands on my world band receiver. 'V'? 'V'? Why are they all sending 'V'?

I look up my crib sheet of codes. No 'V'. I scan through the Ethics and Operating Proc. for the Radio Amateur. No 'V' there either. Slowly the penny drops. They must be sending ST as short for 'TEST'. It's Contest night!

First stage alignment - sidetone oscillator dead. What have I done wrong? I check through and there it is. One late night, tired but impatient, I have put an IC in backwards after it fell out when I

turned the board over. Schoolboy error. Soldered direct into the PCB. Disaster! I put the set back in the box to stop myself from fiddling with it and making a bad job worse, and set about deciding what to do.

First some research, the main message of which is '*don't put them in backwards in the first place.*' Fine. I have visions of a mangled PCB. I look at 'desoldering' kits - most of which cost more than the radio. But this is too tight a fit for a desoldering tip. The basic advice is to cut the pins and then get each pin out individually. Fortunately, I don't bend leads over when soldering them in so that means I have a chance at getting them out! But it is very tight. I buy a new IC at 'a well known high street electrical supplier'. Back home I take a deep breath, screw the jewellers magnifying glass into one eye and start cutting. Four hours later, the holes are clear, and I solder in a new IC. The side tone oscillator squeaks into life.



KX1 Inner



Back on track. I reward myself with beer. Lots of lessons here, the chief of which are - don't work when tired, and check it **again and again** before going near it with the iron. I get on and finish the receiver. In goes a long wire - and it works! I enjoy an evening of listening to CW on 40m and 20m.



KX1 PCB with ATU

Amazingly I can actually understand some of it. I note down some call signs and look them up next day - Germany, Latvia, Italy, Sweden. All from my tiny little box. Marvellous. And so it goes.

I will also need a dummy load. I read the textbooks - 50ohm 5w max and no wire winds. I do the maths and set off for the 'well known supplier'. Ahh, standard industry sizes. Bugger.

I redo the maths on the back of my train ticket and head for the counter. After an eternity the sales assistant returns, holding a large plastic box. He offers it up as if contains a holy relic. It contains one resistor. One resistor? 'We only keep one of em, but Tottenham Court Road has a couple.' I look around to make sure I am in an electrical store and not a pre-unification East German bread shop. 'What else have you got then?' More maths. I am sure that many customers find the pumping techno music a marvellous aid to concentration, encouraging them to spend more time in the store.

In the evening, I create the spider like form of the dummy load, the hardest bit of which is tricking it into a BNC plug. After much experimentation I admit defeat, add a stump of coax to the plug, then solder the spider to the coax. Alright, it adds a bit of lead length, but hopefully not too much. Out with the DMM and it shows a resistance of 48 ohms. Good enough for starters.



The M6RHB dummy load.
Resistors purchased from an
East German bread shop.

And then there is the signal generator, test oscillator, homemade RF probe because I don't have a wattmeter... more building fun, more trips to the East German bread shop. Textbook in one hand,



KX1 Complete

soldering iron in the other, I take a few more steps down the path that so many hams have trod before me. And I am really enjoying it. Pity the UK foundation licences are not recognised outside the UK (or even by some *in* the UK by all accounts) but there we are. Patience, as they say, is a virtue.

On the day when I finally finish the TX, my mother gives me a small photograph, together with a fading Christmas card which bears legend 'From Staff of Commander in Chief, Mediterranean Fleet, Christmas 1943'. The photograph shows three young men sitting in front of radio sets, hands on the dials, headphones on. The middle one

is my father. Probably aged about 18 given that he lied about his age to get in.

I put the card and photo up on the wall of what is now the shack. I think he would have appreciated it.

Next, the Antenna!

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