

Cost:	£799
Company:	Yaesu UK Ltd
Tel:	(01962) 866667
Website:	www.yaesu.co.uk

Yaesu FT-817 Adventure Radio

Richard Newton

G0RSN says

“Occasionally a radio comes onto the market that everyone is talking about, it captures peoples’ attention. I think it fair to say that the Yaesu FT-817 is one such radio”. Read on to find out why he’s so impressed!

- Ideal for adventure back-packing Amateur Radio - the FT-817 really is tiny but as Richard G0RSN proved during his evaluation, it’s capable of providing excellent performance on the DX bands.

The Yaesu FT-817 is a compact, multi-band, multi-mode portable transceiver. It transmits on all Amateur Radio bands from 1.8 to 50MHz and also on the 144 and 430MHz bands as well. Its receive coverage is just as impressive including general coverage on h.f. and the Band II v.h.f. f.m. broadcast radio frequencies and the Airband on v.h.f.

The Yaesu FT-817 is primarily designed for portable use. It operates using either a rechargeable battery pack or eight AA type alkaline batteries and it’s also possible to connect the radio to a 13.8V d.c. power supply.

On the air, the radio transmits at the desired QRP power settings. The high power setting is 5W and it’s possible to select 2.5, 1W or 500mW.

I’ve always enjoyed taking radio out and about, particularly enjoying h.f. mobile working. However, although I’ve often taken a 144MHz station portable I’ve rarely gone /P on h.f.



Keen To Try!

As soon as I heard about the Yaesu FT-817 I was keen to try one out. I know that the transceiver’s low power worries some people but what can you expect from a tiny box with it’s own batteries that offers what the Yaesu FT-817 has? In any case any low power (QRP) operator will tell you that power is not everything by any means, a sentiment that I completely agree with!

First impressions are important as far as the look of a radio is concerned and I don’t think you’ll be disappointed when you see a Yaesu FT-817 for the first time. The radio oozes quality and professionalism.

The ‘817 is well-made and finished in grey and charcoal. It’s wonderfully compact at only 135 x 38 x 165mm and about 1.17kg. It is reassuringly weighty but light enough so that it could be carried anywhere.

I think that most radio enthusiasts would marvel at the ability to take a h.f./v.h.f./u.h.f. station anywhere. If you had large enough pockets you could take your whole station with you in a coat!

What Do You Get?

So what do you get for your money? In answering I can say you get the Yaesu FT-817 of course and a good quality, sturdy carry strap but alas, no case. You also get a d.c. cable and a whip antenna that can either be shortened to cover 144 and 430MHz or lengthened to cover those two bands and 50MHz.

The Yaesu FT-817 is also supplied with a comprehensive book



- Yaesu's Mighty Midget! The FT-817 is dwarfed by the seemingly gigantic microphone - but don't be fooled....this transceiver packs many facilities into a very small space.

of words which is well illustrated and easy to follow. This is a plus point as the Yaesu FT-817 is not the easiest radio to get to grips with straight out of the box.

The manual lists the '817 as being supplied with a battery case to hold eight AA cells (not supplied). However, within the UK the rig is supplied with a 9.6V 1Ah battery pack and charger.

Finally, there's the fist microphone, the MH-31A8J. This is about a third of the size of the rig itself! A well tried and tested microphone but it did seem to be a little large for the Yaesu FT-817!

I think that Yaesu have done a reasonable job in designing the transceiver. It must have been a real headache trying to fit everything in or on such a small rig.

The front of the FT-817 houses the main controls, power **On/Off**, **Volume**, main dial and the like and the designers have had to rely on menus for a lot of the functions. The display is small, **but considering the size of the radio** it's clear and offers a choice of orange or blue backlight.

Operating the Yaesu FT-817 is an acquired art. However, if you are familiar with other similar menu driven radios such as the Yaesu FT-100 then it won't take you long to get to grips with the FT-817.

Operation Quite Simple

Once you get used to the menus, operation is quite simple. This is where the manual really comes into its own. It has easy to read, easy to

- Okay, so where do they hide all the facilities? Surprisingly, when the *PW* staff looked inside the FT-817 during the photography they found it's so neat and deceptively empty-looking for such a remarkable little performer!

understand tables showing the different menus and functions and how to access them. Using the book I quickly found that the band and mode of operation are easily changed by using the buttons located on the top panel.

The Yaesu FT-817 has two antenna connections. An SO-239 on the rear of the radio for use with h.f. and or 50MHz and a BNC fitting on the front panel to take a 50, 144 and 430MHz antenna. The other plus point to this is that using the menu set-up you can enable either antenna connection for any band.

The rear panel houses the external power connector, the ground terminal and the c.w. key jack. It also has a 6-pin mini din data connector accepting AFSK input from a Terminal Node Controller (TNC).

Also provided are fixed level receiver audio output, press to talk (p.t.t.), squelch status and ground lines. It also has the 8-pin mini DIN type ACC connector which has several functions from connection to a linear amplifier to cloning or computer control.

The Yaesu FT-817 supports CAT computer control. To support this facility there's a dedicated chapter provided in the manual.

Another pleasant little touch is the fact that Yaesu have extended the heat sink in all four corners of the rear panel. This idea effectively makes a stand, so that the radio can be stood up on end during operation.

The side panel takes the modular microphone plug and has a 3.5mm jack for a speaker or headphones. There's a switch next to this jack

where you can switch the audio levels for headphones or loudspeaker.

Myriads Of Functions

The Yaesu FT-817 seems to offer myriads of standard and advanced functions and together with the normal n.b.f.m., a.m. and s.s.b. modes of operating, it has a fully functional c.w. electronic keyer. It supports digital modes such as AFSK, PSK31, RTTY, SSTV, FAX and Pactor. It also supports 1200 and 9600bps packet on n.b.f.m.

The 144 and 430MHz aspects are also well catered for with full CTCSS and DCS functions, together with an easily accessible 1750Hz tone burst and automatic repeater shift capability. There's also a spectrum 'scope, and compatibility with the Yaesu Auto Range Transpond System (ARTS) whereby Yaesu radios fitted with this facility can poll each other and let the operator know when others are in operating range.

Yaesu have also included the **Smart Search** facility on the FT-817, where the radio sweeps a chunk of spectrum and saves any busy frequency to a temporary memory slot. Useful for sweeping the repeater slots in a new area to see where the activity is!

The FT-817 offers a very versatile memory system with 200 memories that can be given alphanumeric designations. They may be organised into ten groups if desired and can be scanned using several methods.

Additional **Home** memories can be utilised giving you instant access

Product

The Yaesu FT-817 h.f., v.h.f. & u.h.f. portable transceiver

Pros & Cons

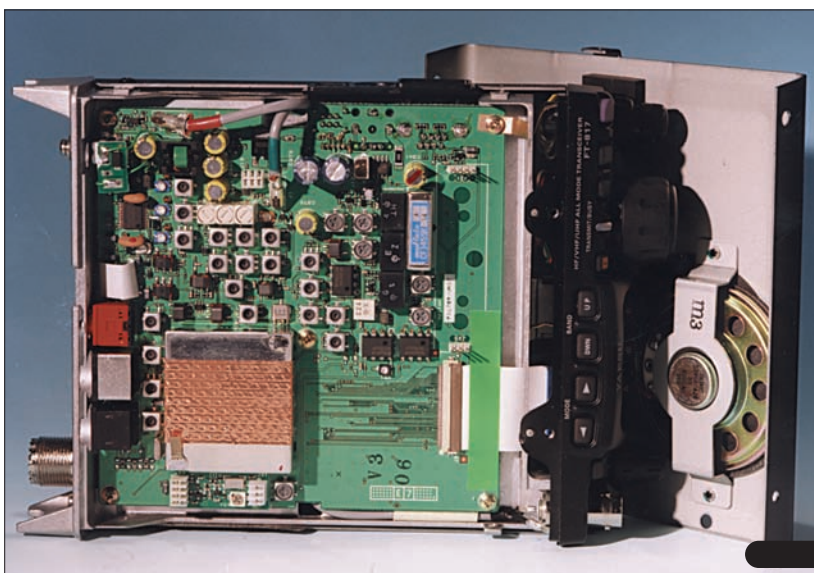
- Pros:** Reasonably sensitive and selective, excellent received audio, easy to get 'bitten' by the adventure radio bug using this small radio that's packed full of goodies!
- Cons:** The current drain is a little high, but you can carry spare batteries, display and controls are quite small but are in proportion to the size of the rig.

Accessories

Collins s.s.b. filter (YF-122S), Collins c.w. filter (YF-122C), Packet cable (CT-39A), DTMF microphone (MH-36E8J), TCXO unit (TCXO-9) and **new** carrying case (CSC-83).

Summary

The FT-817 does what it is designed to do and it does so, in my opinion, very well indeed. I had great fun operating it and made some very enjoyable contacts. If nothing else it has re-kindled my interest in going out and about on h.f. I suppose the next step is a multi-band, multi-mode hand-held covering h.f. v.h.f. and u.h.f.! Well done Yaesu!



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THANKS TO YAESU UK FOR LOANING PW THE FT-817 TO REVIEW. THE FT-817 IS AVAILABLE FROM ALL YAESU APPROVED DEALERS WITH AN RRP OF £799.

to your favourite frequencies on different bands. There is one for h.f., one for 50MHz, one for 144MHz and one for 430MHz.

On The Air

On the air, the FT-817 seemed to be reasonably sensitive and selective, coping well with strong and weak stations alike. The received audio was of excellent quality.

I decided to listen to airband and as was to be expected with a broadband radio, the FT-817 did suffer a bit when next to my computer using just the helical antenna. However, on an external antenna there were very few break-through problems and even the local pagers made little impact.

Airband reception was very good and to receive I plugged the rig into my WX-1 antenna on the side of my bungalow in the suburbs of Bournemouth where I could get a 5 and 9 signal from London Volmet South. Using the supplied helical antenna I could hear the low power local information service from Bournemouth Airport. Receiving this service is always a good yardstick for me.

Unfortunately the receive coverage on the Yaesu FT-817 did not include my other favourite, the Marine Band.

Out & About

So let's get down to business, and what the Yaesu FT-817 is all about - getting out and about! To this end I again asked for the help of my Father-in-Law, **Terry G7VJJ** and we sat down to plan our first exploration into the world of h.f. adventure radio.

Unfortunately the foot and mouth disease outbreak ruined our plans. Every car park, picnic area, public footpath and hilltop in Dorset seemed to be shut, so to plan B!

Plan B involved the beach, so it was decided, my wife **Diane**, our sons **Thomas** and **Oliver**, Terry and his wife **Barbara** were off to the beach at Mudeford near to Christchurch.

Terry and I roughly worked out a length required for a dipole for 14MHz. We spent an hour at my house searching through my junk and found an old centrepiece

including a 50W balun and some coaxial cable and some multi-stranded wire. We were relieved to see the s.w.r. bridge read 1.2:1 with the resulting dipole!

So on a dark, dismal rainy day in March Terry and I dragged our family to the beach. You may think us mad, but it must be a British thing because Mudeford beach was quite busy!

We made tea first and the next thing was the 14MHz dipole. Using Terry's ball of string we slung it up between two trees on a ridge overlooking the rather dismal looking English channel.

Much to the puzzlement of the now enthralled crowd of on lookers we rolled the coaxial cable down the bank and perched on a camping stool was the Yaesu FT-817 with Terry and I perched on our own camping stools next to it. Fortunately the rain had given way to a rather damp sea mist.

I had decided to make it as real an experiment as possible and had decided only to use the Yaesu FT-817 on its own batteries. I had remembered to fully charge them!

The 14MHz band was alive that Sunday morning. We were listening to several long contacts and then, tuning about I heard a Hungarian station calling "CQ". I grabbed the microphone and using all my 5W I returned his call and his reply to me was instant.

Tomi HA3KHK from Marcali in western Hungary near the Croatian Border, gave us a 5 and 9 report. "Gosh", I thought, "...our home-brew 14MHz dipole is doing well, the Yaesu FT-817 isn't bad either I suppose"!

We had another tune of the bands and found **Peggy OE6YRG/1** in Vienna, Austria. Peggy gave us a 4 and 2 report and a very enjoyable chat.

The next contact was a very interesting one with **Uli DF4JG/M** in Germany, we were so excited about

talking to him while he was mobile with his IC-706 that I forgot to ask him where he was! Uli was fascinated that were running about 3W, I say this because the battery had depleted considerably by now.

Uli decided to do a test of his own and he reduced his transmit power from 100 to 5W. We were still able to give him a 5 and 6 report and he gave us a 5 and 9. Not bad for a two-way low power contact!

Finally, we had another two-way low power contact with **Ray OE8ANK** from Ochsendorf in Austria. Ray was running 4W from a Yaesu FT-1000, he did however have a rather impressive beam pointed at us. He gave us 5 and 7, he was 5 and 9 with us.

Excellent Audio Reports

Everyone gave the FT-817 excellent reports as far as the transmitted audio was concerned. I had no problems at all resolving stations on the busy 14MHz band.

Just before the battery died completely we decided to change bands and used an old CB vertical on a magnetic mount on the car to tune around 28MHz. We heard a

cracking signal, it was **Jesus LU5FL** from Argentina, he was well over 5 and 9, one could say it was an end-stopping signal, but alas our failing battery was no match for the ensuing pile-up and we had to be content with reverting to being licensed listeners!

Terry and I had a good few hours of real fun with the Yaesu FT-817. I can completely understand why people get bitten by the adventure radio bug!

The Higher Bands

I was conscious that I should try the FT-817 on the higher frequency bands. Being unable to get out and about on high ground due to the F&M problems, I decided to try the rig out from the relative comfort of

my kitchen!

I plugged the transceiver into my WX-1 dual band co-linear antenna on the back of my bungalow and put out a call on the local 430MHz repeaters. I successfully accessed the repeaters in Bournemouth, Blandford and Weymouth, not bad at all, the trouble is no one answered me!

I then tried my luck on 145.500MHz. After getting no reply I decided to call out on the local repeater, GB3SC on 145.625MHz. Thankfully **Les G0FAJ** replied.

Les was mobile about 10km away in Christchurch. We went to a simplex frequency and had a very enjoyable chat. Les told me that the Yaesu FT-817 sounded "Very nice indeed", he also said that it the audio was "Very nice quality".

The next contact was with **Bob G4HFQ** in New Milton about 16km away. Bob told me that the Yaesu FT-817 sounded "perfect". Another **Bob - G0HPO** - a friend of mine that I had not spoken to for a long while, happened to join G4HFQ in his shack while we were chatting away. So we had a good old chin wag.

Well & Truly Bitten!

Well, I have to say that I'm well and truly bitten by the adventure radio bug. The Yaesu FT-817 was great fun. It has low power output, it is small and takes a while to get to grips with running it. The display is also small and the controls are, on occasion, fiddly to use - but what do you expect in a rig of this size?

If I was to voice concern it would be on one point, the current drain. In the specifications Yaesu show the current drain at unquenched receive as being 450mA and on transmit it's 2A. However, the radio can be attached to another power source or you can carry spare batteries.

The Yaesu FT-817 is a small radio packed full of goodies. It proves that power is not everything and is small because it has been designed to fulfil a rather specific task...to be a self-contained portable Amateur radio station giving a reasonable account of itself across a wide spectrum. If you enjoy taking the hobby with you wherever you go **this is the radio for you.**

PW

