

# The Yaesu FT-1000MP MARK-V 'Field'

A user review by Don Beattie, G3BJ\*

**W**HEN Yaesu introduced the FT-1000MP in the mid-1990s, it was as a lower cost, but high-performance, alternative to the massive FT-1000D. The FT-1000D, weighing in at nearly 26kg, was nobody's idea of a portable transceiver, but its performance was impressive, with a sturdy 200W PEP output. The FT-1000MP introduced a switch-mode power supply, offering a 100W PEP package at a weight of some 15kg. With excellent receiver performance, it soon became the standard by which competition radios were judged, and has proved itself in many of the high-profile DXpeditions of recent years.

Some 18 months ago, the FT-1000MP MARK-V was launched, providing enhanced receiver facilities, and reverting to the 200 watt PEP output of the original FT-1000D. Unusually, the new MARK-V offered an option of running the PA in Class A for enhanced linearity, with a 75 watt PEP output power in this mode. To accommodate the increase in transmit power and the Class A operation, Yaesu removed the integral power supply and fitted a set of cooling fins on the top part of the case of the MARK-V to keep the larger PA cool. Power was supplied by a separate AC mains switch-mode power unit, providing both the 13.8 and 30 volt supply rails required. The 30-volt rail is no doubt needed to obtain optimum linearity from the 200-watt PA stage.

The MARK-V received excellent reviews (see *RadCom* October 2000) and as a base station it is outstanding. I use one at home, and find the 200 watt power output more than adequate for most purposes. However, for DXpedition use, and more generally for portable work, the MARK-V is seen to have a couple of minor drawbacks. Firstly, it needs the separate power supply and, secondly, it is not possible to operate the transceiver from a nominal 12-volt supply, because of the 30-volt requirement of the PA stage.

No doubt responding to these concerns, Yaesu has recently introduced a derivative of the MARK-V, called, appropriately enough, the 'FT-1000MP MARK-V Field'. I have had the opportunity to use one of these units for a week or so, and have to say it is most impressive.

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The original FT-1000MP set a high standard for linearity and overall functionality (see the October 2000 *RadCom* review). With the IDBT (Interlocked Digital Bandwidth Tracking), 'Shift' and 'Width' controls, a range of filters (some are optional extras) and the variable front-end tuning, the FT-1000MP MARK-V raised the bar further. These facilities are exactly mirrored in the MARK-V 'Field'. I have always found the original

## CHANGES

FIRSTLY, IT reverts to a single 'box' with integral power supply. The top cooling fins have gone, leaving the top of the case smooth. The unit will run from a nominal 12 volts DC or AC mains. The case is also fitted with a side carrying handle, emphasising the relative portability of this rig. These changes largely address the concerns of the DXpeditioners and portable operators, but has anything else changed?

The answer is - a little. The power output is back to the 100W PEP of the original FT-1000MP. The Class A output has been dropped even more, to 25 watts PEP.

It is interesting to consider whether the Class A option on the 'Field' is really worth the extra engineering involved. On the original MARK-V, the third-order transmit IMD products were -31dB at 200W PEP in Class AB, and -50dB at 75W PEP in Class A.

The claimed figures for the FT-1000MP MARK-V Field are -31dB at 100W PEP in class AB and -40dB at 25W PEP in Class A. The reduction in IMD improvement in Class A is no doubt a result of having to use just 13.8 volts for the PA rail voltage. It is interesting to contemplate what the IMD performance at 25W PEP would be in Class AB - perhaps not a great deal worse than the Class A performance!

The receiver performance, as far as I could determine in a side-by-side comparison, is virtually identical to the standard FT-1000MP MARK-V.

\* Hares Cottage, Woolston, Church Stretton, Shropshire SY6 6QD.

FT-1000MP to be easy to use, with good ergonomics, and this remains true of the MARK-V range.

A little niggle with the 'Field' is that the power meter on the front panel is still the 400W meter of the standard MARK-V, even though the rated power of the 'Field' is now a quarter of this. But unless accurate readings at QRP level are needed, this should not be a problem.

I suspect that the 'Field' will find a place in the shacks of many serious DXers, as those who use linear amplifiers will be happy with a 100W PEP output (enough to drive most linears) and the added convenience of an integral AC mains power supply will, I am sure, appeal to many. Rest assured, the 'Field' is a no-compromise competition-grade HF transceiver with an exacting specification.

Overall, and setting transmit power aside, I have been unable to detect any significant differences in performance between the MARK-V and its 'Field' derivative. Both are worthy additions to any shack, and if my own experience of the original FT-1000MP is any guide, will provide many years of happy and relaxed DX-chasing.

The FT-1000MP MARK-V Field retails at around £2300, compared with around £2900 for the standard FT-1000MP MARK-V.

I am grateful to Yaesu UK Limited for the loan of the 'Field' for this user review. ♦

	FT-1000MP MARK-V	FT-1000MP MARK-V 'Field'
<b>Weight:</b>	14kg + PSU 4.2kg	15kg
<b>Power output Class AB:</b>	200W PEP	100W PEP
<b>Power output Class A:</b>	75W PEP	25W PEP
<b>3rd order IMD in Class A:</b>	-50dB	-40 dB
<b>Power requirement:</b>	AC mains only from matching FP-29 PSU	200 - 240V AC and 13.8V DC (internal PSU)

Table 1: At-a-glance guide to the differences between the FT-1000MP MARK-V and the FT-1000MP MARK-V Field.