



# Radio Amateur Information Sheet No 2:

## Amateur Service Allocation in the 50 MHz Band (6 metre) and 70MHz (4 metre) Bands

The Department of Trade and Industry made a number of changes by Gazette Notice to the amateur radio allocations at 50 MHz and 70 MHz on 22 May 1987. The changes became operative on 1 June 1987. Perhaps of most interest to amateurs is that both Class "A" and Class "B" licensees now have equal operating rights in both of these bands.

### 50 MHz Band

On the 1 February 1986 the radio amateur service was granted provisional operating rights in the 50 MHz band. The Department of Trade and Industry has now extended that allocation and removed some of the original restrictions.

The conditions now applying to the use of this band by radio amateurs are:

- The 50.00-51.00 MHz allocation is Primary in the United Kingdom of Great Britain, Northern Ireland, the Channel Islands and the Isle of Man.
- The 51.00-52.00 MHz allocation is Secondary in the United Kingdom of Great Britain, Northern Ireland, the Channel Islands and the Isle of Man.
- The maximum power at all times shall not exceed: —

Carrier	PEP
14 dBW	20 dBW
erp	erp
- Maximum transmitting antenna height to be 20 metres above ground level.
- No mobile operation will be allowed.
- There are no restrictions on modes or times of operation.
- No repeaters will be allowed in the band.

Below we try to answer some of the questions you may have about these changes.

**There is no Region 1 allocation to the Amateur Service for 50 MHz so how has this new Amateur allocation been possible?**

For the purposes of the International Radio Regulations, the World is divided into three Regions. The UK, the rest of Europe, Africa, the Middle East and non-European USSR are all in Region 1. It is true that although the 50 MHz band is allocated to the amateur service in Regions 2 and 3 (and indeed in certain African countries) in Region 1 the whole of the band 47-68 MHz is allocated to the Broadcasting Service on a primary basis. There are thus no international rights for UK radio amateurs to have access to 50 MHz. However, with the closure of 405-line TV broadcasting in the UK, frequencies at 47-68 MHz have become available for re-allocation. The Merriman Report on the future use of TV bands I and III recommended that the land mobile service should benefit from the release of these frequencies and the report also said radio amateurs should be given a suitable allocation in Band I.

### Why the continued restrictions on usage?

Other European administrations are still using the band for its primary purpose of broadcasting. The UK allocation for radio amateurs has been introduced under the International Radio Regulation No 342 which says that administrations shall ensure that harmful interference shall not be caused to authorised radio services. The initial conditions were set to minimise the possibility of interference to neighbouring administrations while still enabling radio amateurs to enjoy the characteristics of the band.

The changes announced this year are a response to the responsible attitude of those amateurs who were granted operating rights last year. Now the conditions must be followed by all radio amateurs. It is in the long-term interests of the hobby that no interference is caused to primary services using the band in other Region 1 countries. Interference by radio amateurs could still result in the complete withdrawal of this hard-won privilege.

### Will the current restrictions remain?

Not necessarily, but the Department is still faced with the need to move cautiously because of the other uses that this band is put to in Europe. With the marked increase of potential operators able to use this band (by the extension of this allocation to all Class B licensees) any further changes will depend on there being no interference problems experienced in Europe. The



current operating conditions will remain under review. Whatever changes are made to the restrictions applied to this allocation they should be done in a progressive manner. A cautious and progressive approach such as this will strengthen arguments for future relaxations.

#### **What use will the band be despite the restrictions?**

The experience of the past year has shown that, under favourable conditions, this band permits long distance communications even with very small powers. It is clear that the band has yet more potential interest for amateurs resulting from variations in sunspot activity, E&F layer reflections, temperature inversions, and meteor scatter work. The band is surprisingly sensitive to changes in these phenomena which act to enhance or inhibit communications and beacon signals. One lesson of the first year of this allocation has been that power is not the governing influence on interest generated by the band.

#### **Why can't I operate on 50 MHz while mobile?**

The main concern is the potential for interference which can be caused by operations from unusually high sites. The Department has also been concerned to minimise the potential for vertical polarisation being used.

#### **Why is the maximum power still 14 dBW (carrier), 20 dBW (pep)?**

The position remains that internationally accepted methods have been used to evaluate the probability of interference to the European primary and permitted services from UK amateur transmissions in the band. Those calculations have shown that the permitted powers should give the required protection in order to comply with Radio Regulation 342.

Whatever changes we make to the restrictions applied to this allocation should be done in a progressive manner so that if interference is experienced in Europe we will be able to make considered changes.

#### **Why must the antenna be horizontally polarised?**

The band's existing and proposed primary and permitted services have a large majority of vertically polarised systems. If amateur transmissions are restricted to horizontal polarisation, an antenna discrimination factor may be used in the interference calculations. This permits a higher effective radiated power.

#### **Will I be able to operate on the 50 MHz band with a reciprocal licence, while I am on holiday abroad?**

Not in Region 1. While this allocation is valid in the United Kingdom the band is still used in Europe, on a primary basis by other users – in particular by television broadcast services. Thus, with the band not being an internationally recognised amateur allocation in Region 1, UK amateurs are in a privileged position.

#### **70 MHz Band**

- The amateur allocation has been extended downwards and so it is now 70.00-70.50 MHz.
- The phrase, in the Amateur Radio Licence Schedule. "Use of any frequency shall cease immediately on demand of a government official" no longer applies in this band.
- All other conditions remain unchanged. The amateur service remains secondary in the band.

#### **What difference have the changes to the 70 MHz band made?**

Discussions with the Primary user have led to the downward extension of the 70 MHz band. The most significant impact has been to bring UK amateur operations into line with the Radio Regulations by moving the no-morse licence 'bar' to 50 MHz. This change will add a new dimension to experimentation for Class B licensees especially with regard to their privileged position in 50 MHz.

If you have any problems or queries about amateur radio you are welcome to contact:

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We will be happy to help you

October 1987