

# New Radio Control

**A**S MANY MODELLERS WILL KNOW negotiations have been taking place for some time between the D.T.I. Radio communications Division and our own Joint Radio Control Users Committee to agree new frequencies for our hobbies. In the meantime, there have been rumours circulating about the possible loss of certain frequencies, particularly in the 2FMHz band and many inaccurate speculations as to the format of the new allocations. The Information Sheet, issued by the D.T.I., together with the list of 35MHz and 40MHz frequencies, should totally clarify the situation and it is important to note that we now have an Information Unit where we can make enquiries with regard to R/C model frequency problems. Further copies of the Information Sheet can also be obtained from this address.

We would like to thank, on your behalf, the Radio-communications Division of the D.T.I. and the J.R.C.U.C. for their sensible, helpful and fruitful work towards achieving the allocation of these new frequencies.

## Radio Controlled Models Information Sheet Introduction

The Department of Trade and Industry, Radiocommunications Division has produced this information sheet to serve two purposes. Firstly, for those who are new to the radio controlled model field and have no knowledge of what frequencies and technical restrictions govern the use of these models it will answer basic questions. Secondly, for existing users, it will explain the new frequency bands which have been made available for radio controlled models and how the introduction of the European specification for Citizens Band radio in the 27MHz band will affect model control use.

The format of this sheet is designed on a 'question and answer' style — we hope you will find it helpful.

## What are Radio Controlled Models?

Radio controlled models are of two types — those which operate on the ground or on water, known as 'surface' models, and those which operate in the air. Typically, radio model control is used to control cars, ships (which include steam and motor vessels and yachts) and aircraft. Radio controlled models are often entered into competitions and the new frequencies which have been made available will facilitate the operation of radio controlled models in European competitions. This Information Sheet is confined to serious radio controlled modelling. Toy radio controlled models tend to operate at 49MHz where a small band exists for general-

purpose low power radio devices. Technical details of this band can be obtained from the Department at the address at the end of this Information Sheet.

## Do I need a Licence to operate Model Control Equipment?

No. Model control equipment was made exempt from the Wireless Telegraphy Act licensing requirements as from 1 January, 1981. Any licences which the Department issued before that date do not need to be renewed. The Wireless Telegraphy (Exemption) (Amendment) (Model Control Apparatus) Regulations 1987 include details of new frequencies released for model control. Copies are obtainable from any HMSO Bookshop. The new frequencies are also for licence-free operation. Although licences are not required, equipment must still meet the technical conditions set out in the Statutory Instrument (see later paragraph).

## What Frequencies are Available?

The frequency bands available for the use of radio-controlled models are shown below, together with the effective radiated power output of the transmitter measured in milliwatts.

Frequency (in MHz)	Use	Effective Radiated Power
26.96 to 27.28	General	100mW
40.665 to 40.955	Surface	100mW
458.5 to 459.5	General	100mW
34.995 to 35.255	Air	100mW

The 26/27 MHz band is allocated for Citizens Band radio and low power telemetry and telecommand devices as well as model control (see later paragraph). The 458/459 MHz band is also allocated to general telemetry and telecontrol devices between 458.5-458.8MHz and specialised telemetry between 458.8-459.1MHz. Whilst the potential for mutual interference is minimal, model controllers should avoid the specialised telemetry part of the band.

The use of the different bands is important; 40MHz is solely dedicated to surface modelling and 34/35MHz is solely dedicated to aeronautical modelling.

## What Technical Conditions do I have to Observe?

Firstly, all model control equipment must operate within the frequency bands shown above. Secondly, the effective radiated power of the equipment must not exceed that shown alongside the frequency band in the table above.

The technical conditions are laid down in the Statutory Instruments that have exempted model control from licensing under the Wireless Telegraphy Act. There are other conditions contained in the Statutory Instruments, perhaps the most important being that model control equipment shall not cause undue interference to other wireless telegraphy equipment.

Within the overall technical conditions set out in Statutory Instruments, the Department prepares Standards and for model control the organising body for the hobby also establishes Codes of Practice and preferred band plans which are designed to ensure the successful operation of models. Details are obtainable from the Joint Radio Control Users Committee whose address appears later in this Information Sheet.

## What will happen with the CEPT CB 9in the 27MHz Band?

The band 26.96MHz to 27.40MHz is allocated for the European Citizens Band radio system in accordance with a recommendation put forward by the Conference of European posts and Telecommunications (CEPT). There is no compulsion for model control to move frequencies because of CEPT CB, however, model control has suffered in the past from CB interference and this may increase with CB as legitimate user of the band. Within the CEPT CB band where it overlaps with the existing model control band there are five spot frequencies which will be used by low power telemetry and telecommand device, but which will not be operational channels for CB. These are: 26.995, 27.045, 27.27.145 and 27.195MHz. Whilst it is possible that these channels may suffer from adjacent channel interference they may nonetheless provide the best operating frequencies for model control within the new CB band.

The Department was conscious that model control would need additional radio spectrum to the 27MHz band. Consequently the new frequencies at 40MHz were made available. Just as CB is being introduced on its new frequencies to give European harmonisation so the release of the frequencies at 40MHz will bring the UK into line with other European partners. At the same time as the 40MHz channels were released, so further channels were made available at 35MHz to cater for the growth in aeronautical modelling.

## Is 35MHz just for Aeronautical Modelling?

Yes. The 1987 Statutory Instrument again makes it clear that the channels at 35MHz are solely for aeronautical modelling. Surface modellers must not use these channels. Similarly aeronautical modellers must not use the new allocations at 40MHz as this is reserved for surface modelling.

## What is the Joint Radio Control Users Committee (JRCUC)?

The JRCUC consists of representatives of all aspects of the model control hobby. It meets from time-to-time with the Department of Trade and Industry to discuss model control interests. It was from consultations in this forum that new frequencies were made available. Further information about the Committee may be obtained from the Secretary: Joint Radio Control Users Committee, Millett Street, Bury, Lancs. BL9 0JA.



# 40MHz Frequencies

## Where can I get Further Information from?

Enquiries regarding information given in this leaflet should be addressed to:  
Department of Trade and Industry,  
Radiocommunications Division,  
Model Control Information Unit (MCIU)  
Room 712, Waterloo Bridge House,  
Waterloo Road, London SE1 8UA.  
Or telephone: 01-275 3058 or 01-275 3184.  
**We will be happy to help you.**

## 35MHz Band (including new Frequencies)

Channel No.	Tx. Freq.	Tx. Xtal.	Rx. Freq.
60	35.000	17.500	34.545
61	35.010	17.505	34.555
62	35.020	17.510	34.565
63	35.030	17.515	34.575

64	35.040	17.520	34.585
65	35.050	17.525	34.595
66	35.060	17.530	34.605
67	35.070	17.535	34.615
68	35.080	17.540	34.625
69	35.090	17.545	34.635
70	35.100	17.550	34.645
71	35.110	17.555	34.655
72	35.120	17.560	34.665
73	35.130	17.565	34.675
74	35.140	17.570	34.685
75	35.150	17.575	34.695
76	35.160	17.580	34.705
77	35.170	17.585	34.715
78	35.180	17.590	34.725
79	35.190	17.595	34.735
80	35.200	17.600	34.745
81	35.210	17.605	34.755
82	35.220	17.610	34.765
83	35.230	17.615	34.775
84	35.240	17.620	34.785
85	35.250	17.625	34.795

Newly allocated frequencies are shown bold.  
Channel numbers will be printed on orange background for Tx frequency pennants.

## 40MHz Frequencies

Ch.	Tx. Freq.	Tx. Xtal	Rx. Freq.
665	40.665	20.3325	40.210
675	40.675	20.3375	40.220
685	40.685	20.3425	40.230
695	40.695	20.3475	40.240
705	40.705	20.3525	40.250
715	40.715	20.3575	40.260
725	40.725	20.3625	40.270
735	40.735	20.3675	40.280
745	40.745	20.3725	40.290
755	40.755	20.3775	40.300
765	40.765	20.3825	40.310
775	40.775	20.3875	40.320
785	40.785	20.3925	40.330
795	40.795	20.3975	40.340
805	40.805	20.4025	40.350
815	40.815	20.4075	40.360
825	40.825	20.4125	40.370
835	40.835	20.4175	40.380
845	40.845	20.4225	40.390
855	40.855	20.4275	40.400
865	40.865	20.4325	40.410
875	40.875	20.4375	40.420
885	40.885	20.4425	40.430
895	40.895	20.4475	40.440
905	40.905	20.4525	40.450
915	40.915	20.4575	40.460
925	40.925	20.4625	40.470
935	40.935	20.4675	40.480
945	40.945	20.4725	40.490
955	40.955	20.4775	40.500

Channel numbers will be printed on a green background for Tx frequency pennants.

## **GALAXY MODELS** NORWICH

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## 5 GREAT NEW MODELS

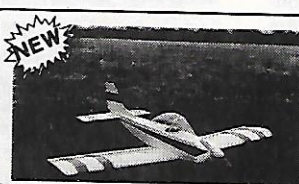
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