

Important to all British r/c modellers

The present conditions and possible future developments regarding

R/C Frequencies

MANY MODELLERS are aware of the forthcoming important international conference on frequency allocations and, together with other reasons, this has caused the mailbag to contain an increased number of queries about what can be done to improve our share of the cake.

This short article is intended to tell you what has been done by the SMAE over the last few years and what is being done now to try to improve things.

Background

To help get things in perspective a little background might help. The much-publicised international conference—the World Administrative Radio Conference (General) 1979 of the International Telecommunications Union—is *not* likely to influence our future model-control frequency allocations very much; at least according to the Home Office.

The conference deals only with broad allocations of frequencies. That is, it will deal only with problems where international agreement is necessary in order to stop radio interference between nations, which would easily arise if incompatible services were using the same bands in adjacent countries.

The frequency used by a model flyer in the UK is not likely to worry any other frequency very much—and, similarly, allocations for taxicabs, ambulances, etc. are largely domestic problems rather than international ones. All that has to be ensured internationally is that the same types of usages are followed in each country of the world—for example, you don't want TV broadcasts (high power) from France interfering with model flying (low power) in UK. So this forthcoming WARC (General) in 1979 will look at the overall blocks of allocations for say, the 'Mobile Services', 'Broadcasting', and so on. It will then be for the UK government via the Home Office to decide how to carve

up these bands precisely. (By the way, model control is technically one of the 'mobile' services.)

Despite this perhaps disappointing explanation about the international conference, the preparations for it have at least had the benefit of increasing everyone's awareness and giving more than the usual opportunities for getting the ear of officialdom. The SMAE has not lost these opportunities.

Before going into this, however, it would be as well to ensure that the precise current position in the UK is explained:—

At the present time two bands are allocated in the UK for model control; they are 26.96-27.28 MHz and 458.8-459.5 MHz, *but these are not exclusive bands*. They are shared with some paging systems and some industrial devices, some of which are notoriously 'dirty'.

It is a condition of the licence for using these bands for model control that it is granted only *without the right to protection* from interference from other legal users of the radio spectrum. Indeed, the 27 MHz band is particularly ill-suited to today's model control scene because it is what is known as a 'free radiation' band for some industrial equipment, and other users are warned that they get no protection if they use it!

Current SMAE efforts

In the last few years there have been several significant changes to the model flying scene that throw considerable doubt on the adequacy of the current r/c frequency allocation arrangements. These changes include:—

i) A large increase in the sale of radio-control equipment. Current valid r/c licences exceed 62,000 and the rate of increase in the last two years has been 1000 per month.

ii) Higher performance models.

iii) A reduction in the number of sites available.

iv) Greater use of the allocated

described by the S.M.A.E.

bands by the other legal sharers.

v) The 'explosion' of illegal use of the 27MHz band by 'walkie-talkies' of Citizens' Band users. (In the USA, CB has made 27MHz r/c virtually unuseable in many areas).

The SMAE has therefore been actively engaged in sounding out the Home Office on possible changes and trying to gather facts to substantiate the important points arising from the above factors. The aim of this work has been to try to establish a logical policy for improving the situation and one which has a practical chance of success.

At this time, the SMAE considers that the key problem to overcome is the obvious one, interference—of all types; for example, mutual interference due to congestion; interference from illegal users of the band; interference from spurious emissions from other users of the frequencies.

Further, it is felt that the best way to improve things would be to fight hard for exclusive usage of sufficient spectrum, with rights to protection. A preliminary paper has already been put to the Home Office on this matter and a more comprehensive one is being worked on now by SMAE and Model Hobby Trade Federation jointly.

Discussions with the H.O. have shown that at 27MHz there is no chance of getting any changes from the current situation. However, at the 459MHz band the H.O. has recently put forward a tentative proposal which has been received by SMAE/MHTF with mixed feelings. The H.O. suggest that the current allocation be split into three roughly equal portions: the lower third shared between model control and low-powered other users, the middle third exclusive to model control and the upper third reserved for high-powered other users. Thus the offer is a third of the cake to *ourselves* and another third shared.

It is probable that we will have little choice but to accept this suggestion and it does have considerable merit of course—despite the severe disadvantage of a substantial reduction in the available number of channels.

If this suggestion is considered in the light of the inability to do anything at 27MHz, the SMAE considers that a good case can be made for an extra allocation or an exclusive basis somewhere between 27MHz and 459MHz. Preparing this case needs care, patience, hard work and most of all, facts.

What next, and how can you help?

It is one thing to say that interference is on the increase, but it is very difficult to prove it. It needs accurate reports about confirmed cases from level-headed people. Can you swear that your last 'glitch' was not faulty gear, faulty installation, weak batteries, frequency clash with another nearby site, or even a twofly finger? If you can, you are one of the very few, and you will probably have had a good monitor working at the time and be competent to interpret what you heard on it. You will also have immediately noted the relevant facts (time/place/type of interference, etc.) and sent it off to the SMAE General Secretary as requested in a very recent RM plea—won't you? Would you believe that only 19 letters were received as a result of that plea from out of many thousand sales per month. This makes the SMAE's job more difficult, of course, but their efforts will continue. It's not too late to send your report.

Another tricky point to handle is that r/c model flying has characteristics which are not shared by model boats, cars, etc. The latter have a much reduced chance of external

interference and, more important, the consequences of interference are not potentially dangerous. The SMAE therefore feels that if exclusive allocations are to be made available then model flying should be given the priority of usage. Indeed, there is a school of thought which suggests that the flyers would happily leave 27MHz to the car and boat enthusiasts if an exclusive new allocation could be found. The H.O. currently appear unwilling to distinguish between model flyers and others (and there are obvious practical difficulties without doubt) but the point does have merit. What do you think?

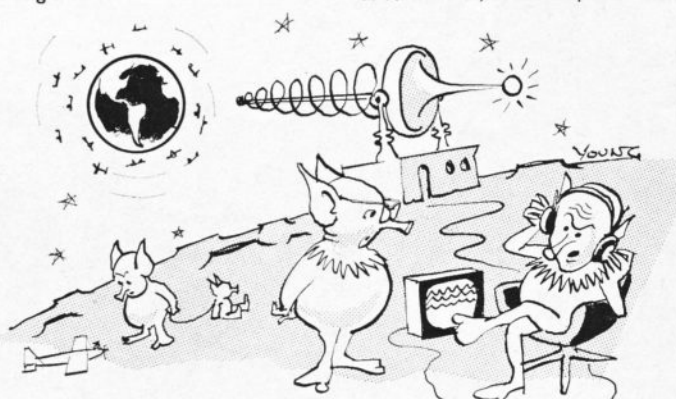
Finally, with increased international travel and contests, plus the emphasis on exporting, there would be many advantages if the future UK frequency allocations lined up with at least those commonly used abroad—35* or 72MHz.

The combination of all the above, and some other points, is that the SMAE and the MHTF will be sending a detailed case to the Home Office seeking an additional allocation.

As in all such attempts (look at CAMRA and real ale, or even the CB lobby) a lot will depend on the pressure that can be applied and the time that it is applied. This is where you come in again. First, make sure you buy an r/c licence (its the only way that the Home Office has of counting you and checking what we tell them!) Secondly, (get ready for the groans) give the SMAE a chance to speak from better strength. The Home Office will take more notice of a society with 20,000 members than it will from one of 6,500. It makes sense.

They'd like to hear your views on any of the points raised in this article. Please write or phone: Maurice Hassell, SMAE General Secretary, Kimberly House, Vaughan Way, Leicester. (Tel. Leicester 58500).

*FOOTNOTE: When, and indeed if, allocations were made for r/c in these frequencies, this would probably be phased in, over a period of time, and, in fact "new outfits for all" should not be necessary since, with this relatively short jump, most outfits should be capable of using the appropriate crystals—or this plus modification to their R.F. sections. In other words, no call for panic!—Ed.



"What's wrong—used to be music and pictures—now it's all digital!"

YOU & SMAE

SMAE stands for 'Society of Model Aeronautical Engineers'—the only official National Model Flying body. THE new 'Achievement Scheme' announced earlier this year is now well and truly launched. There is an increasing number of people contacting Maurice Hassell, the SMAE General Secretary, for details on both the 'A' and 'B' Certificates for radio controlled model flying.

Introduced, also, this year are the two new safety codes, which are of course an integral part of the Achievement Scheme. Candidates applying

for test should know the *General Safety Code* thoroughly, and if taking certificate 'B' the *Display Safety Code* too, as they are certain to be asked questions about them. All members expected to know and apply the codes, even if they do not participate in the Achievement Scheme.

Responsible model flyers not yet SMAE members are invited to apply for copies of the codes, but must send a stamped addressed envelope 9 x 6 in. We are making this offer because we believe a proper safety procedure, if followed by all of us, can only benefit the sport and the average model flyer in particular.

The *General Safety Code*, as its name implies, is intended to cover all aspects of model flying other than at airshows and contests. Flying on

public land is given particular note and attention is drawn to the fact that unsafe flying anywhere can cause repercussions for us all.

The *Display Safety Code*, drawn up as a result of discussions with the Civil Aviation Authority (who, incidentally, have legal powers to control model flying and keep a fairly close watch on displays) is a comprehensive guide. It deals in particular with ways of avoiding problems at organised displays, where spectators are present. It is quite stringent. Every recommendation made is felt to be an absolutely necessary one. Before allowing model flyers to participate in a display it is felt essential that they should be competent enough to hold a 'B' certificate in the new SMAE Achievement Scheme.