

# PIRATE'S PLEASURE?

Keith Townsend investigates a new radio station with a difference

The chances of obtaining a licence for a new broadcast station are better today in eastern Europe than they are in the UK! That is the opinion of Trevor Brook, the station manager of what is, by anyone's standards, a most unusual freelance

enterprise, Radiofax. Unlike the bulk of unlicensed broadcasters who operate in the VHF bands and offer a diet consisting mainly of popular music, Radiofax can be found in the shortwave (HF) band and offers a variety of material ranging from comedy and music to

more serious programmes of interest to those who are more technically-minded. Trevor and his colleagues regard the station's current format as merely a demonstration of what could be achieved were they to be granted a licence to operate in the UK.

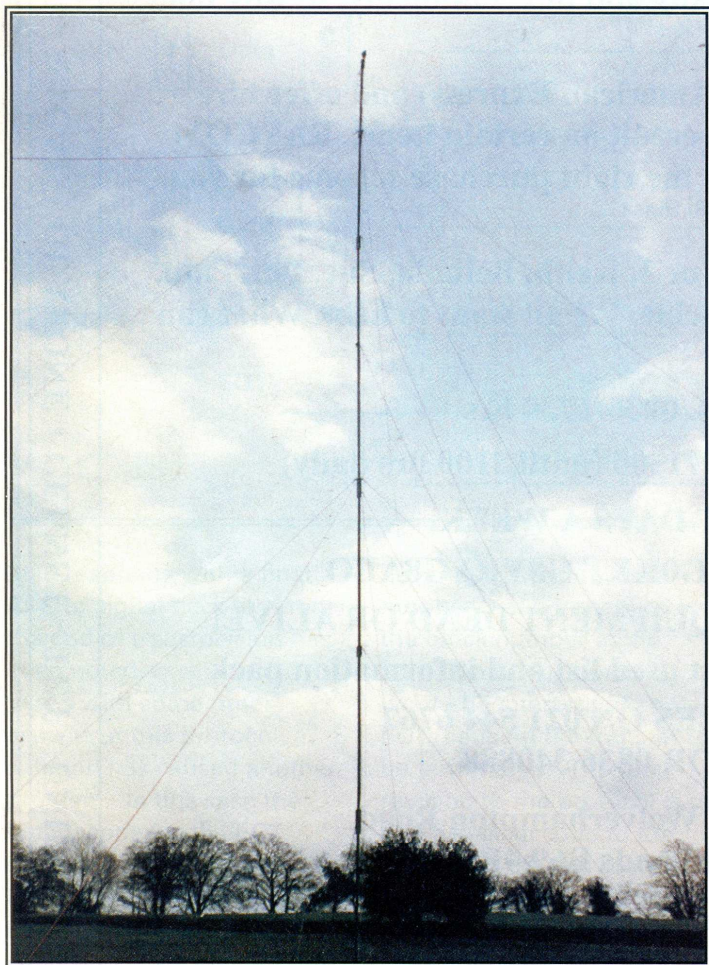
Among other items broadcast are letters, stories and the Archive Show, which features unedited recordings of shows originally transmitted by established broadcast stations over the years.

### Legal

Radiofax, which originally began broadcasting in 1988, appears to be in something of an unusual legal position. Although controlled from within the UK, its signals are reputed to emanate from a transmitter in the Irish Republic. In such circumstances, those concerned are clearly not committing any offence against the UK's Broadcasting Acts and, though Irish legislation is broadly in line with that of Britain, no-one may be extradited for such offences, so that the chances of a successful prosecution appear extremely remote.

To start the week with a swing, each Sunday's broadcast consists of a 'featured year' and contains music and broadcast material originally available during that year. On Mondays and Tuesdays, "Sparks" offers a mixture of technical, scientific and media news which is repeated at 90-minute intervals. Recent topics aired on the show include Radio Four frequency changes, developments in IC manufacture, electronics developments in the Soviet Union and listings of local unlicensed broadcast stations, along with their operating frequencies. For Wednesdays and Thursdays, the station's programme content changes to music from the 60's and 70's, whilst Fridays and Saturdays are given over to the work of independent programme producers and cover a mix of variety and comedy.

The same would apply to any British company advertising with the station, despite the fact that it is illegal to advertise on an unlicensed station in both Britain and Ireland. Unlike Britain, the Irish Republic is governed by a constitution, the terms of which seem to over-ride all subsequent



Radiofax antenna mast

legislation. Like almost all unlicensed Irish stations, Radiofax was initially closed down at the end of 1988 when a new Broadcasting Act imposed severe penalties for such offences. However, legal advisers appear to be of the opinion that the Act did not apply to the HF bands and that, since Radiofax had been in operation before it came into force, the terms of the constitution prevented prosecution under the terms of the new Act.

Speaking of the station's early days, Trevor Brook says: "During 1988 Radiofax broadcast a speech format providing listeners with information on the latest developments in electronics, communications and broadcasting. We received over 1,500 letters, principally from the United Kingdom, backing the proposition that Radiofax be offered a licence to transmit the service from England. That is a response that any station would be proud of."

His first attempt to obtain a licence in the UK goes as far back as 1986, when he was told by the Home Office that there was no mechanism by which it could issue a licence for

broadcasting within the HF bands. In rebuttal, Trevor points out that the BBC has operated within that part of the spectrum over many years and that international regulations appear to permit any country wishing to allocate a frequency within the HF fixed bands to apply to do so through the International Communications Union, based in Geneva, who will then pass the details of the request to the International Frequency Regulation Board. Provided that the frequency in question has not already been allocated within the region concerned, and is unlikely to cause interference to any other service, it can then be allocated to the applying country, who then have the right to issue a licence.

Reassured by the opinion of their Irish lawyers, Trevor and his colleagues reactivated the station in April 1991 and it can be heard on 6.205 and 12.255MHz. Whilst admitting that these frequencies fall within the maritime mobile section of the bands concerned, Trevor contends that their proximity to the edges of the fixed bands significantly reduces their

potential for interference to maritime users and points out that he would be happy to vacate these frequencies if offered an approved location. In the words of just one of those who wrote to Radiofax in its early days, "The BBC have 133 different shortwave frequencies. Surely a monopoly should be altered."

After initial test transmissions, speech programmes were resumed in July 1991, though at the time they were restricted to just one programme a week. Since then, reception of both frequencies has been reported from countries as far afield as Australia, New Zealand, South America, South Africa and Lithuania, as well as Canada and the USA. Trevor has received a number of letters from overseas and says that those who welcome the speech programmes outnumber those who would prefer the station to carry a greater music content and so that he feels he has the balance just about right.

He expressed the situation in the following terms: "We are in a curious position. As in 1988, we are legal as far as UK jurisdiction is concerned. Now - two years and four months later, we have taken the best advice. We have come back, and the reason we can do this is because we were on the air prior to



*Open wire balanced twin feeder rising to the top of the mast*

the 31st December 1988. This time, however, we will not be producing programmes of technical news and information. We did that in 1988 and demonstrated the kind of thing we would like a licence for in England. Producing that kind of all-speech programming is very time-consuming. Added to that, our original production team have gone their various ways. Holly Robson, for example, famous for collapsing on air in uncontrollable giggles, has joined Voluntary Services Overseas and has been sent to do earthquake reconstruction work in Nepal. As for a licence in England, well we are predictably no further forward. We are doing no more than is legal in several states and, at the present rate of progress, it will be easier to get a licence in a former Eastern Bloc country than in England."

The station presenters are constantly and pleasantly



*Engineering work in progress, Spring 1991*

surprised by the comments contained in the letters they receive from listeners. The postbag is currently running at between 80 and 100 letters a week, many from surprising sources. Trevor told me: "We aim to provide a specific interest service throughout the European Community, though our programmes are intended primarily for English speaking listeners. Nevertheless, we are pleased to know that we can be heard in so many different parts of the world and that our programmes are so well appreciated."

As to the future, the response of the Irish government appears to be that it regards the whole question of HF broadcasting as being of very low priority and that it simply does not have the time to look into the matter in any great depth. The attitude of the UK Home Office is, as ever, predictable and offers little hope that Radiofax may operate from the British Isles in the foreseeable future. Trevor Brook asks whether we are not now in exactly the same situation with regard to independent broadcasting that we were in with CB in the late 70's. He is of the opinion that the UK licensing authorities are once more valiantly attempting to do their King Canute act in trying to hold back an unstemmable tide of public and professional opinion in favour of more liberal broadcasting laws. In a recent letter to Industry Minister John Redwood, he suggested: "Of course, your department could regard our service as similar to those news and information services in the utility bands for groups such as mariners

and aviators, and provide licensing directly." In the same letter, he asks whether Radiofax might look forward to Mr Redwood's support in addition to the letters it has received from IBA Chairman Lord Thomson, various officials and Members of Parliament "in encouraging the Home Office to change the present policy of restricting shortwave to the BBC and find time to regularise an experiment in this area."

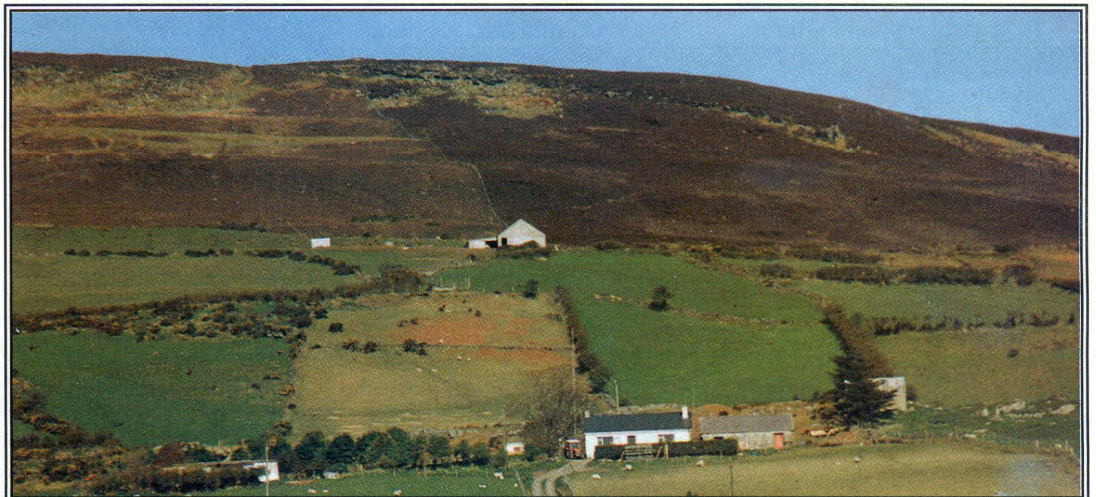
To transmit its signals, Radiofax employs 4.5dB colinears at both frequencies, fed through baluns and matched to 50 ohms, mounted 60 feet (20 metres) above ground level, offering omnidirectional coverage at skywave angles. Effective radiated power measures 1kW at 6.205MHz and 200W at 12.255. The lower frequency covers the UK and the closer regions of Europe during daylight hours, with 12.255 clearly audible at ranges of over 700 - 800 miles, though several listeners have commented that, due to backscatter, this frequency is occasionally audible within the British Isles for short

periods. The transmitters are automated, with switch-on sequences coming into play in the event of either mains power failure or frequency change. Radiofax points out that its winter schedule may involve switching from 6.205MHz for some hours. Audio processing is achieved by means of a 'brick wall' low pass filter and split-band multiple time constant limiter system designed to suit the characteristics of both speech and music, so as to achieve strong intelligibility without the difficult effects of 'gain pumping' on some forms of music. The system is capable of handling 145% positive modulation without distortion.

There can be little argument that the UK licensing authorities, in common with those of a number of other countries, will have to look seriously at the whole subject of independent broadcasting in the near future if it is not to be, once more, overtaken by events. We appreciate the oft-repeated view that the spectrum is a finite resource with heavy demands being made on it

and that, especially so far as signals in the HF bands are concerned, the needs and aspirations of other countries have to be taken into account. Nevertheless, radio technology has advanced at such a pace over the past few years that what was considered totally impractical just a few short years ago is now regarded as commonplace. We need no better example than the frequency bands up around 900MHz. It is not so long ago that their use was being rejected as expensive and unreliable by almost everyone to whom they were offered. Now the world and his dog wants a slice of the action. Modern techniques are enabling radio services to be operated in even closer proximity without mutual disruption. Surely it is not beyond the wit of mankind to overcome the present difficulties which have given rise to the current wave of unlicensed broadcasting?

*What's your opinion on the issue of so-called "pirate" radio stations? Write in and let us know what you think. Letters to the usual address, marked 'Pirate Radio'.*



*The mountainside transmitter site in Ireland - photographed from one mile towards London*