

# Getting started in ATV

**Learn what it takes to be seen in this growing activity group...**

**by Andy Emmerson, G8PTH**

If you've ever tuned across 144.75 MHz on two metres you may have heard ATVers talking: you may even have been asked to QSY if you thought it was a quiet channel! This is because 144.75 is the international calling and talkback channel of amateur television (ATV) and if you listen in you'll probably hear a strange language of vidicons, monitors and P-points.

Depending on your inclinations you may have dismissed this as the obscure ravings of a fringe activity group or perhaps something mildly interesting, worthy of closer attention some time in the future. Amateur television has not received a great deal of attention in the past (except the occasional 'look at these wierdos' spot on the local TV news) and the legend has grown up that to work ATV you need (a) pots of money, (b) crates of valves and racks full of equipment and (c) a post-doctoral degree in electronic engineering. Contrary to all this, in fact you need just common sense, perhaps some good luck and definitely an oscilloscope.

What is the fascination of ATV? It's obvious really, because ATV gives you the ability to make visual contact and see the person you are

talking to. Amateur radio is a satisfying hobby in itself but there is an even greater sense of achievement in making visual communication. You can show circuit diagrams, let people actually see your latest construction project — or your family. You can demonstrate your own video recordings, work TV contests or send test cards to test transmission characteristics at different power levels. Perhaps best of all is the thrill of working a station some 200 miles away in say, Holland, and have someone there read back the small print on your test card, thus providing the DX reception of your few watts of TV signal. For me — and many others — ATV is more satisfying than, say, RTTY, slowscan TV, microcomputers or some other speciality mode, yet you can combine any of these with ATV and retransmit via "cross mode".

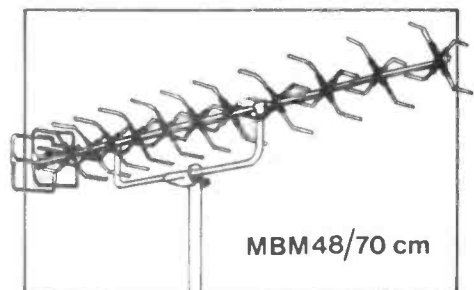
## How much power?

But from now on I shall assume you're hooked (otherwise you wouldn't have read this far) and I'll describe how you can get started in ATV at a reasonable cost and without making the mistakes which might be costly or time consuming. The first thing you must do is join the British Amateur Television Club — BATC for short. The BATC has well over 1500 members now and supports them with an excellent magazine, constructional handbooks, cut-price supplies and the

organisation of contests and conventions. What's more the BATC is the only body which supports ATVers in this country. You can join the BATC for £4.50 (address at end of article). Next you want to read as much as you can about television and how it works — you can never know too much! Your local public library will have some books on TV theory and even if they are a bit old they will doubtless have some value.

Next you will want to start playing around with TV. There is a great temptation to rush out and get a transmitter but I don't recommend it — take it gently and do things in stages. Get experience by watching other people's transmissions and by producing video in the shack on a close circuit basis. None of the equipment you acquire will be obsolete when you start transmitting, and you can build up valuable experience with only a gradual drain on your wallet.

So what do you need to begin? Well, you must have a reasonable site from a UHF point of view. Buildings, trees and hills absorb RF like a sponge at UHF, so if you live in a deep hole you'll have to move home first. Range on 70cm TV (we'll assume you start with 70cm and not 24cm or the microwave bands) is more or less like simplex FM: 10 watts of TV has about the same range as 2 watts of FM. On two metres, around 50 watts of ATV will go as far as 10 watts of two metres. You'll need a good aerial mounted



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as high as possible, at least above roof and chimney level, and you must use good feeder and connectors. PL-259 plugs are out and so is bootlace co-ax otherwise you'll just be throwing away your signal. UR