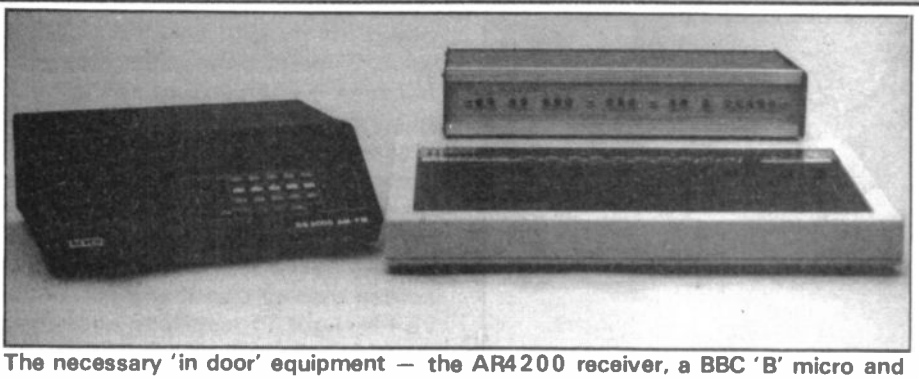

The necessary 'in door' equipment — the AR4200 receiver, a BBC 'B' micro and the interface.

Taking The Plunge

After due consideration, I bought the equipment. The goods duly arrived, with a number of sheets of paper describing the various parts of the equipment. One of these instruction/description sheets was very aptly entitled 'Now I've got it all what do I do with it?' This was very necessary sheet, as it was my first venture into the world of satellites.

I first had to decide whether I wanted a 'live' system or one with a stereo cassette recorder: if one buys the interface boxed, a relay is installed for the remote switching of a stereo tape recorder to capture the signal when you are not there. The first snag I came up against was that my cassette recorder, normally used with the computer is mono. The cassette recorder has to have stereo because it records the signal on one track and the output from the 'clock' (a timing pulse generated inside the interface unit) on the other. However, Timestep Electronics have managed to overcome this problem, and all future units will be modified so that they can work with a mono cassette recorder.

At this point, I must stress that not all mono cassette recorders are suitable. The cheaper versions will not function, giving an unstable picture. The more expensive recorders work correctly, although the picture reproduced from them does not compare with one produced using a stereo cassette recorder — the 'clock' signal on the second channel ensures perfect stability. I tried using my mono cassette recorder, only to find that it reproduced rather inferior pictures.

Making The Connection

Eventually I chose to connect it up as a live system. This was quite straightforward. Antenna to pre-amp; pre-amp to receiver; audio from receiver to interface and finally, two multi-way ribbon cables, one 20 way and the other 26 way, to be connected to the Beeb. The 20 way went to the user port and the 26 way to the printer port. The final job, of course, was to plug in the ROM, written by Peter Clappison and M J Atkinson.

I typed '*HELP' and the ROM's name 'SATPIC' appeared together with the other ROMs available. (Each ROM has the owner's name and address embedded in it, so as to discourage copying. When the menu is displayed, the words 'The property of _____' also appears on the screen). Satpic is called either by typing '*SATPIC' or simply '*S'. It then goes straight into default mode, assuming the parameters for receiving Meteosat 2, the geostationary satellite.

The menu is displayed by pressing 'Escape', during which time the picture is preserved but not updated with any further data until 'Escape' is pressed again, when picture mode restored. While in the menu mode, you are offered a number of different options. One of which is the 'colour palette' in which there are ten colour choices, although the screen displays only four choices at any time. The 'viewing window' on the colour monitor can be moved using the cursor keys and the current colour set (such as mode 1 — black, red, yellow and white) flashing as they are displayed.

There is a zoom facility for close-ups of say the UK, although this can only be used when receiving signals from Meteosat 2. This satellite transmits on 1.69GHz in the 'S' band and therefore, I needed a converter from 1.69GHz to 137-138MHz (the NOAA frequencies) and a dish antenna. Timestep provide a memory prompter which gives the number of facilities available with this very sophisticated ROM and which can be inserted under the plastic cover above the function keys of the Beeb. It will be seen that there are eight variations, but not all of which can be employed with the equipment I have at the moment.

To begin with, the receiver I used, the WSAT, was crystal controlled and only one satellite could be received, that being NOAA 9. This was not a drawback, since the whole idea and operation in this frequency range was new to me and had to be taken slowly. I have since been using a scanning receiver, model AR4200. This is based on a Japanese scanner but has been heavily modified by Timestep so

Fig. 3 Print out of a picture received from a Russian weather satellite. Most Russian satellites remain something of a mystery because they are supplied with very little information.