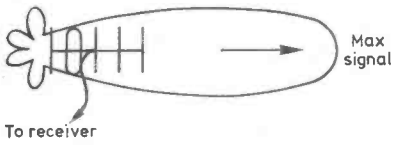

Fig. 1. A beam yagi aerial gives a good first bearing but...

with a compass but to identify landmarks (TV masts, windmills, pylons etc) on the map.

Once the hidden station transmits, swing the beam for maximum signal. If the beam is too

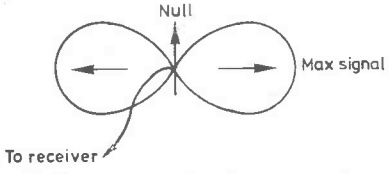

Fig. 2. A simple dipole gives the most accurate fix by listening for the deep null

broad swing for the two points where the signal starts to drop and then guess the mid-point. Relate this point to landmarks (for instance one third the way between the cooling tower and the radio station) and draw a line on the map. Soft pencil can be easily erased, or a plastic overlay with felt pens used.

Now move off at 45° from the bearing as in **Fig. 3.** If we assume

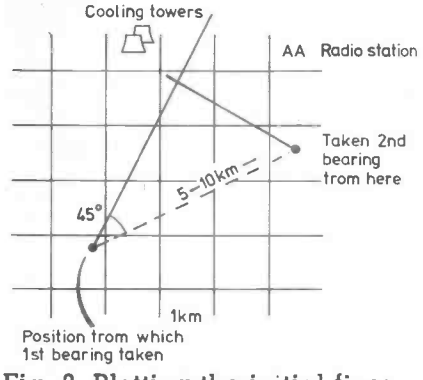

Fig. 3. Plotting the initial fixes

the signal is not devastating then it will be 5-10km from the start (watch it though, many a hidden station has used 100mW 1km from the start to give this effect). Take a 2nd bearing again as in **Fig. 3.** You now have him to within a 1km square! Move in close for the kill.

Now things become difficult. If the rules allow, request transmission on reduced power. Even this may not be sufficient as 100mW at 100m can produce an S9 signal on some handhelds, even with the rubber duck removed. What chance a bearing with a five element beam! A bit of special equipment can help here.

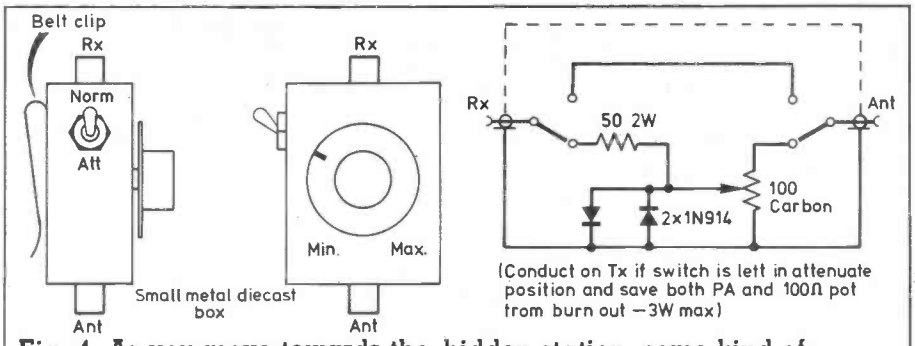

Fig. 4. As you move towards the hidden station, some kind of variable attenuator becomes a must

Table 1

This is a selection of specimen rules and are offered for example only. Make sure that everyone knows the rules chosen for the hunt before it starts.

1. Schedule

a) The hidden station(s) transmits to a pre-arranged schedule such as 30s every five minutes or one minute every 10 mins.

b) The hidden station(s) transmits on demand for 10s, possibly incurring a penalty for the station requesting a transmission (this poses problems for SWL participants).

2. Time/ Distance

a) The winning station takes the least time in locating the hidden transmitter(s).

b) The winning station covers the least distance (check his mileometer before starting) in locating the hidden transmitter(s).

c) A combination of the above ie the winner has the lowest minutes × miles.

3. Maps and Area of Search

a) The hidden station is on OS map 156.

b) Between M6, M1, M45 and grid line through centre of Rugby.

4. Start Location

a) Car park of Spotted Dog at 1400.

b) Anywhere within 10km of given grid reference.

5. Secret Weapons

a) Anything goes!

b) Only beams and loops permitted, no Doppler receivers and their displays or equipment capable of being operated on the move allowed.

6. Hidden Station

a) Could be located anywhere requiring battery operated receiver and off road footwear.

b) Within sight of public highway thus allowing more leisurely participation.

7. Polarisation

a) Vertical makes use of dipoles by participants difficult.

b) Horizontal hidden station could use a beam to scatter signals off a local landmark such as a church tower.

c) Random with an ATU the transmitting antenna could be anything, even a barbed wire f e n c e !

8. Power

a) The hidden station(s) will transmit for the duration of the hunt using fixed power.

b) After 1 hour (say) the power will drop by 10dB (15W to 1.5W).

c) Output power will be reduced by 10 or 20dB on request when stations get close.

d) The hidden station will transmit with *random* power levels each time!

9. Multiple Hidden Stations

a) All transmit together from the start on different channels.

b) As (a) but sequentially (Station A 30s every five minutes, Station B 30s one minute later than A).

c) Station B only starts transmitting when Station A first discovered.

Components available from Hamptron, Sanderson Centre, Gosport, Hampshire.