

HOME MADE TELEVISION ANTENNA
FOR TROOPS IN VIETNAM

MATERIAL REQUIREMENTS

- Wire for Elements: Any copper, steel or aluminum wire, including metal coathangers, of adequate length and sufficient rigidity to support itself without bending in normal, local winds
- Lead-In Wire: Indoor-type lamp cord or telephone field wire.
- Wooden Boom: A piece of ordinary box or crate wood, at least 30" long.
- Wooden Pole: Select a long wooden pole. The greater height improves the overall reception.
- Open Stub: Use an additional 3 ft. section of lead-in wire.

CONSTRUCTION PROCEDURE

Fasten the pre-cut and formed elements to one edge of the boom in the manner indicated in the drawing, making certain that they are properly centered and positioning the correct distance.

Care must be taken in positioning the drive element. The open ends are away from the boom. Solder the lead-in wire firmly to the open ends and tie the wire with string in such fashion that the open ended portion of the drive element will retain its rigidity and maintain the same spacing throughout its length.

Fasten the completed antenna to the wooden mast. When erecting, maintain all the height possible and be sure that the antenna is free of tree limbs or other obstructions. Slowly rotate the antenna until a clear, ghost-free picture is obtained. Some times the best reception is obtained by having the antenna directed toward a reflection, rather than the transmitting station.

In some instances if snow is present a noticeable improvement in picture may be obtained by adding an open stud with the lead-in wire at the receiver's antenna connectors.

To add a stud proceed as follows: Obtain a three foot section of transmission line and attach it to the TV receiver terminals along with the connections of the line leading to the antenna. Snip small sections from the open end of the three foot line while observing the picture. Use a length that provides the best snow free reception.

| | Chan 7 | Chan 9 | Chan 11 |
|-------------------|------------------|------------------|------------------|
| Reflector | 33 | 30 $\frac{1}{4}$ | 29 |
| Folded Dipole | 31 | 29 | 27 |
| Director | 30 | 28 | 26 $\frac{1}{4}$ |
| Reflector Spacing | 17 | 16 | 15 $\frac{1}{4}$ |
| Director Spacing | 13 $\frac{3}{4}$ | 13 | 12 $\frac{1}{4}$ |
| Boom | 34 | 32 | 30 |

The antenna shown in the pictorial sketch is for Channel eleven.

REFLECTIVE ELEMENT 29 IN.

