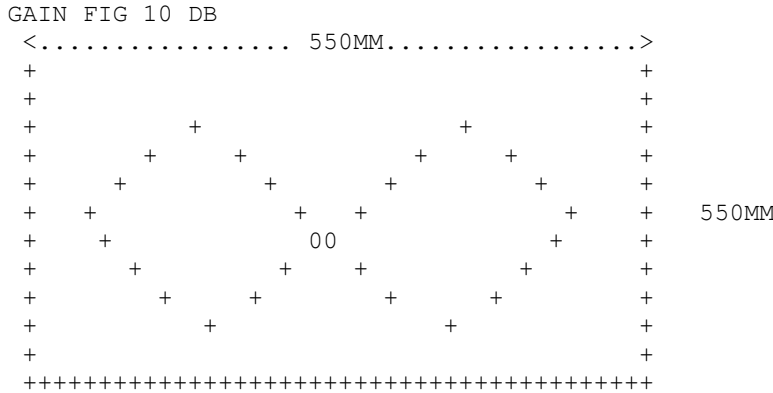


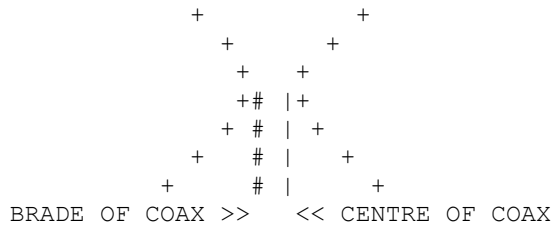
Subject: 70cm Bowtie Beam

From: G8MNY@GB7CIP.#32.GBR.EU
To : TECH@WW



SIZE OF ELEMENTS(INSIDE) 170_175MM, ELEMENTS MADE FROM 6MM CABLE
REFLECTOR MADE FROM GARDEN MESH (SQUARES NO MORE THAN 15_20MM)

CLOSE UP OF BOWTIE ELEMENTS



THE BOWTIE IS MADE FROM 1 PIECE OF CABLE (LIKE 2 W'S PUT TOGETHER BUT NOT JOINED IN THE MIDDLE)

SOLDER COAX TO BOWTIE AS SHOWN IN CLOSE UP

DISTANCE OF BOWTIE FROM REFLECTOR 100MM. MOVE IN AND OUT TO VSWR.

TO SUPPORT BOWTIE USE 19MM PLASTIC OVERFLOW TUBE.
TO FIX ONTO MESH USE A STRAIGHT PLASTIC OVERFLOW TANK FITTING.
YOU CAN ALSO USE A TANK FITTING ON THE BOWTIE END.
CUT A CROSS SHAPE DOWN THE THREADED END AND FIT BOWTIE INTO CUT-OUTS.
FEED THE COAX DOWN PLASTIC OVERFLOW FIX BACK NUT ON THREADED END.
INSERT A PLASTIC WINE CORK INTO END TO STOP FITTING FROM COLLAPSING.
TIGHTEN BACK NUT ONTO BOWTIE.
IF THE BOWTIE SEEMS FLOPPY YOU CAN FIT 2 22MM POLY WASHERS NEXT TO THE BACK NUT/BOWTIE SANDWICH.
TO WATERPROOF ROUND COAX JOINTS AND PLASTIC FITTING USE SILICON MASTIC.
TO MOUNT THE BOWTIE BEAM I USED A TV U BRACKET. THIS WAS BOLTED TO THE BACK OF THE REFLECTOR.

DIMENSIONS AND MATERIALS USED

- SIZE OF MESH FOR REFLECTOR 550 MM SQUARE
- DISTANCE FROM REFLECTOR TO BOWTIE 100 MM APPROX
- SIZE OF ELEMENTS(INSIDE MEASUREMENTS) 170 - 175 MM

- REFLECTOR GARDEN MESH (15-20 MM SQUARES)
- 2 PLASTIC STRAIGHT TANK CONNECTORS (LONG THREAD IF POSSIBLE)
- PLASTIC OVERFLOW PIPE
- PLASTIC WINE CORK
- 6MM CABLE
- SILICON MASTIC
- TV U BRACKET

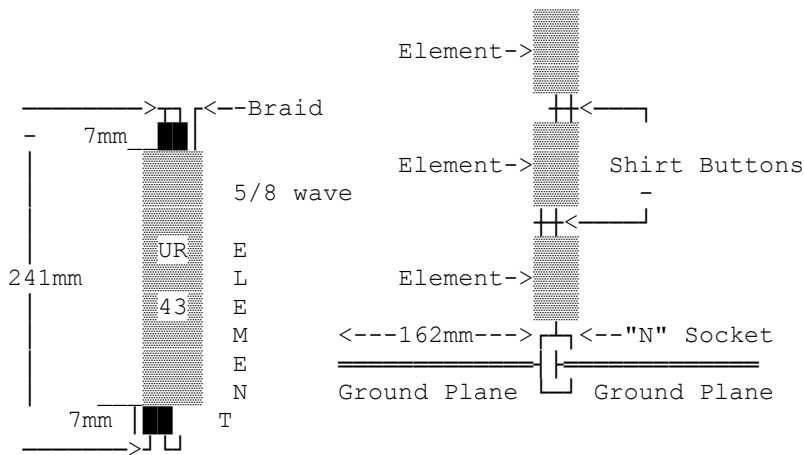
LASTLY HAVE FUN BUILDING THE BOWTIE. I HAVE USED THIS ANTENNA FOR 10 YEARS AND HAVE WORKED SOME GOOD DX.
 IF YOU HAVE ANY PROBLEMS ON BUILDING THE BOWTIE BEAM DROP ME A LINE.
 TO ANDY G6OHM @ GB7HOL.22#.GBR.EU E.O.F

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP
 /EX
 SB TECH @ WW < G8MNY \$27249_GB7CIP
 70cm Collinear
 R:050102/1306Z @:GB7CIP.#32.GBR.EU #:27249 [Caterham] \$:27249_GB7CIP

From: G8MNY@GB7CIP.#32.GBR.EU
 To : TECH@WW

Stacked 5/8 Wave Co-linear For 430-440 MHz



The Elements are made from UR43 or RG58\U (not RG58\CU) coax. You MUST use 50 ohm coax with a solid copper centre.

Use plastic or fibre glass as a tube cover for the elements but do not use grey tube as this could have a carbon conductive content.

There are four 5mm dia ground planes that must have a contact with the outer body of the "N" connector socket.

You can "Stack" as many elements as you wish within reason, trim 10mm off the last element then check V.S.W.R. Repeat until resonance is achieved. Place the tube cover over the elements w checking V.S.W.R. You should be able to reach a good resonance around 1 to 1.

Use the holes in the shirt buttons as an isolator between the element solder connections, the elements are connected inner/outer, outer/inner at each end of the element "Crisscrossing" to the next, once completed use some strong fishing

nylon line around the last element to pull all the elements straight then fix the line over the top of the tube with a waterproof cap.

73 de Alan 2E1ESY @GB7NND.#23.GBR.EU

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP
/EX