

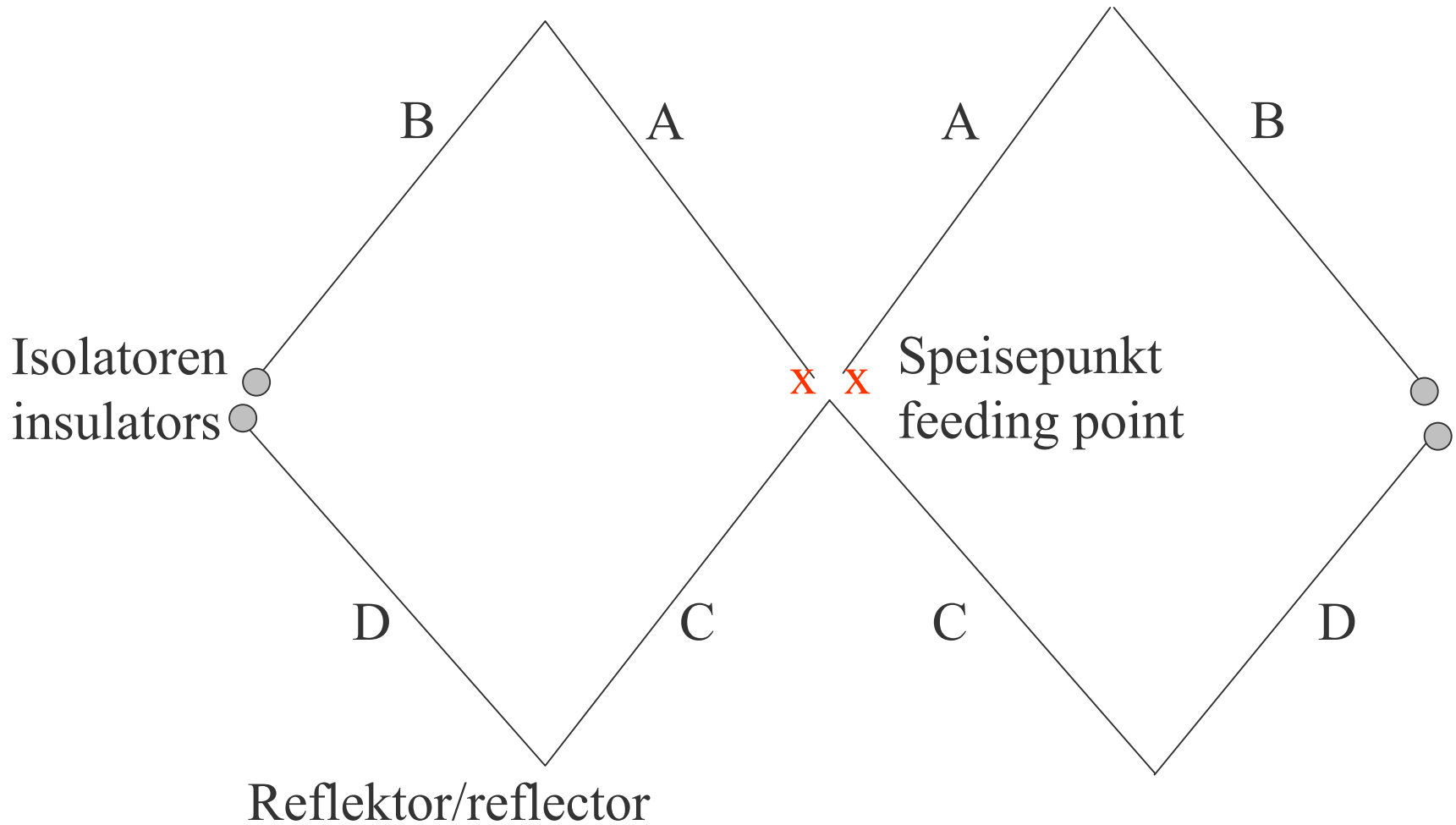
reflected W beam

5 Band Antenna



designed by DL7IO

Strahler/driven element

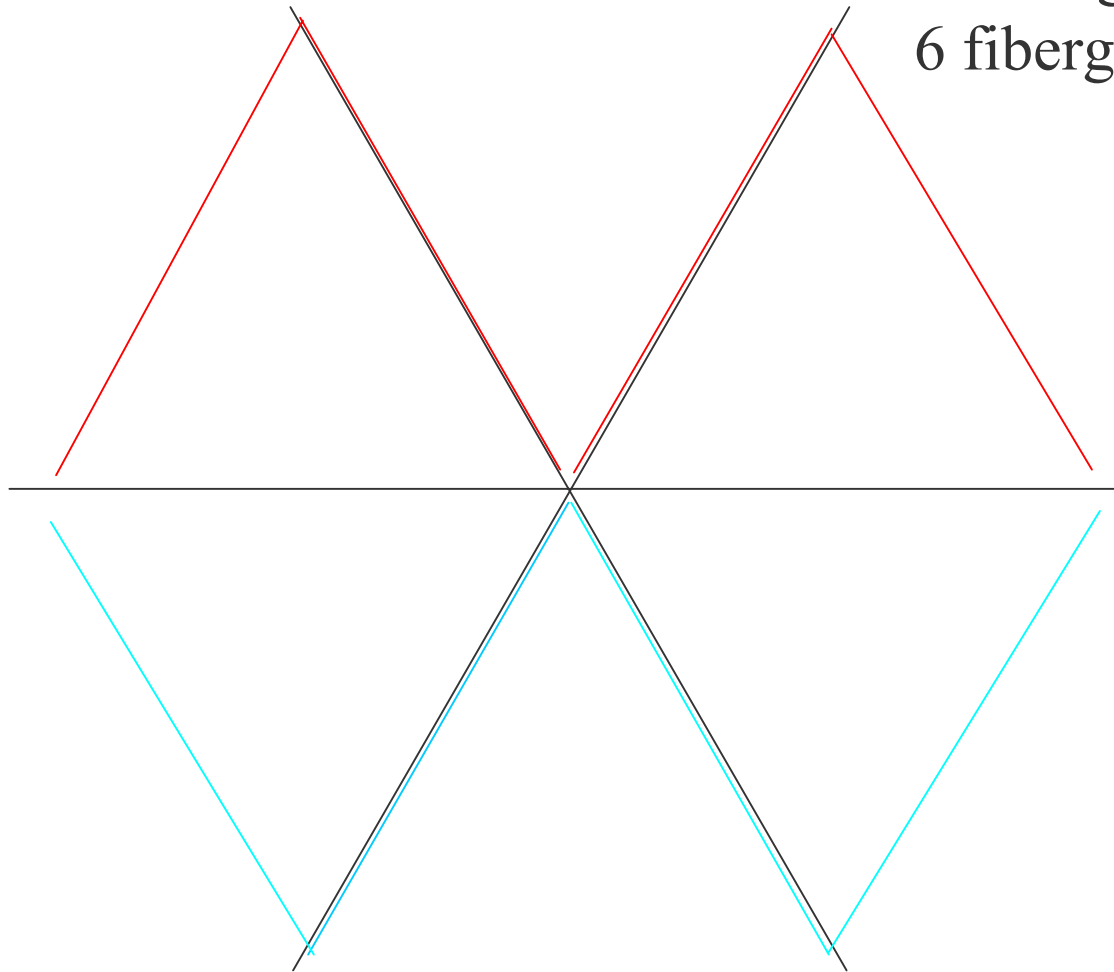


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Top View of Antenna

Strahler/driven element

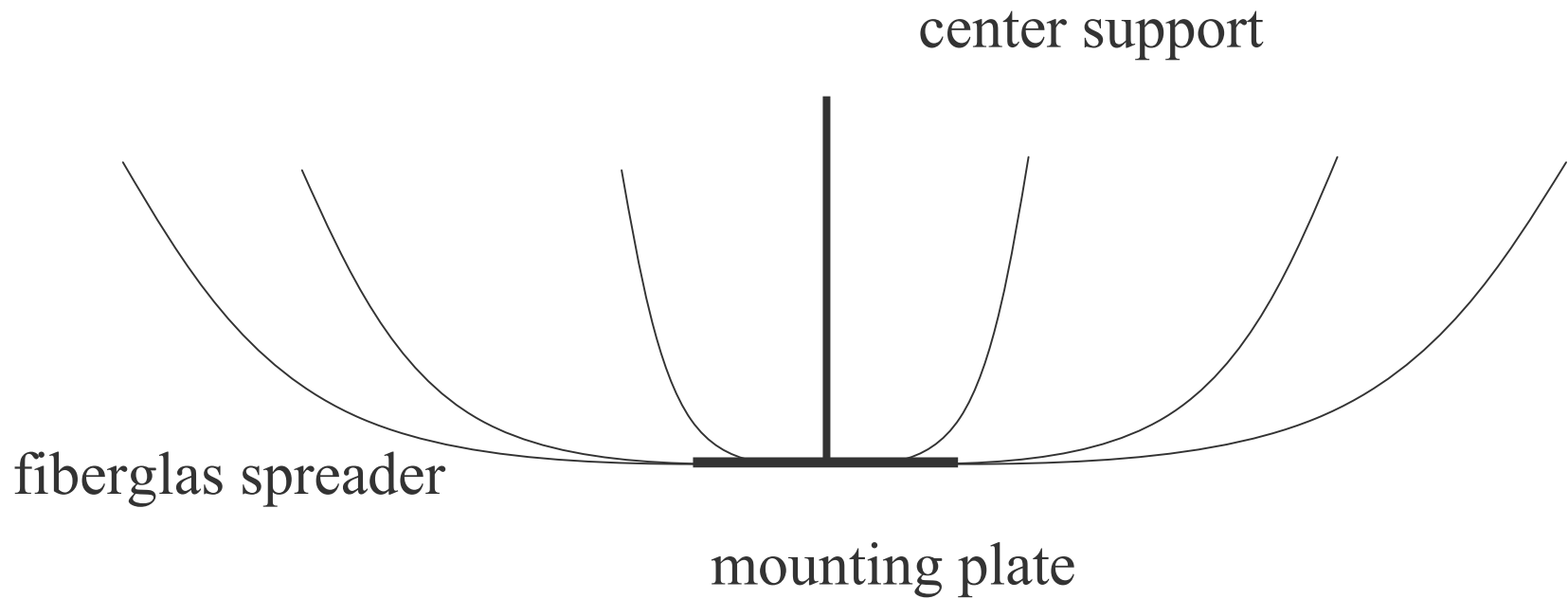
6 Fiberglas Spreizer
6 fiberglas spreader

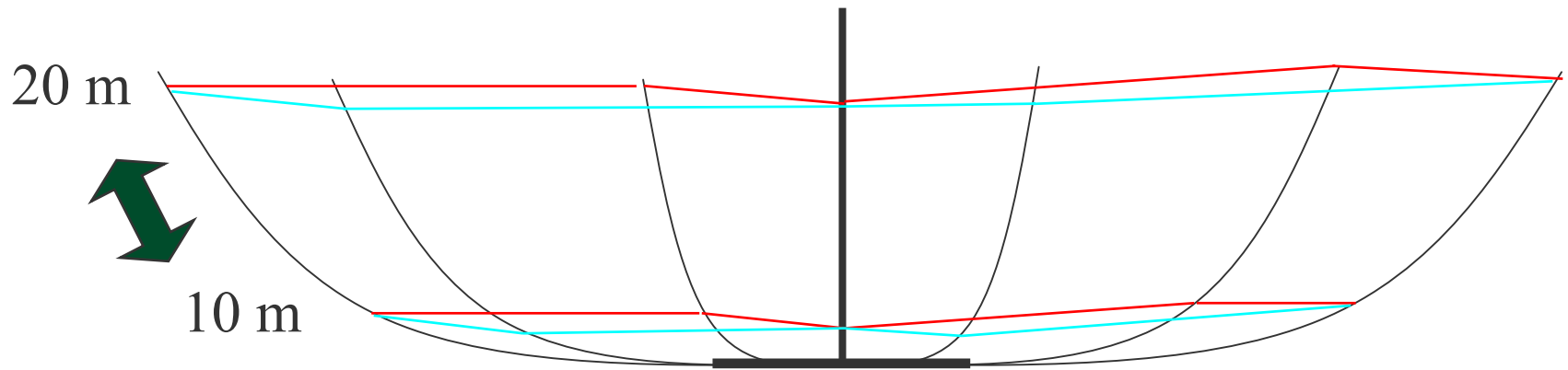


Reflektor
reflector

reflected W beam

Side View



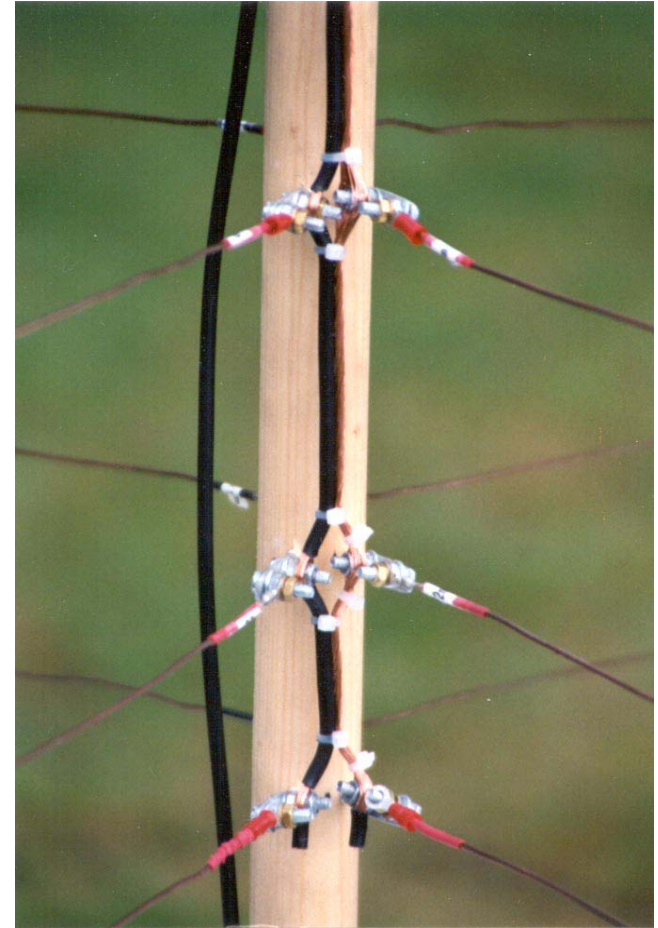
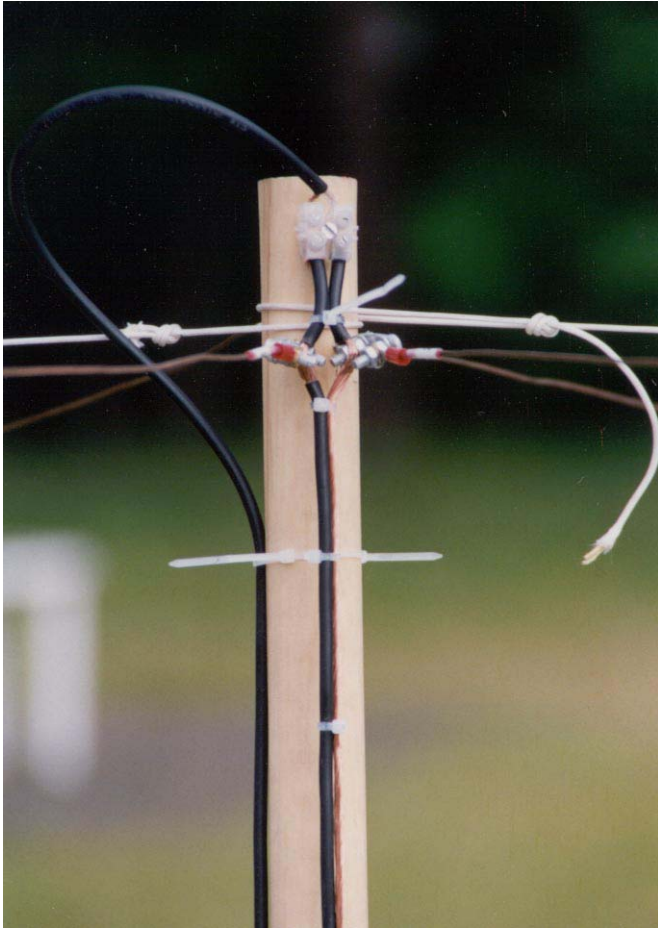


- Center support may be a pvc tube or from fiberglas
- elements ($1,5\text{mm}^2$ wire not insulated) are 2 legs connected between the center support and the spreaders
- elements are feeded from the top with a low impedance feeding line
- use big diameter ($>4\text{ mm}^2$) wires fixed together very close

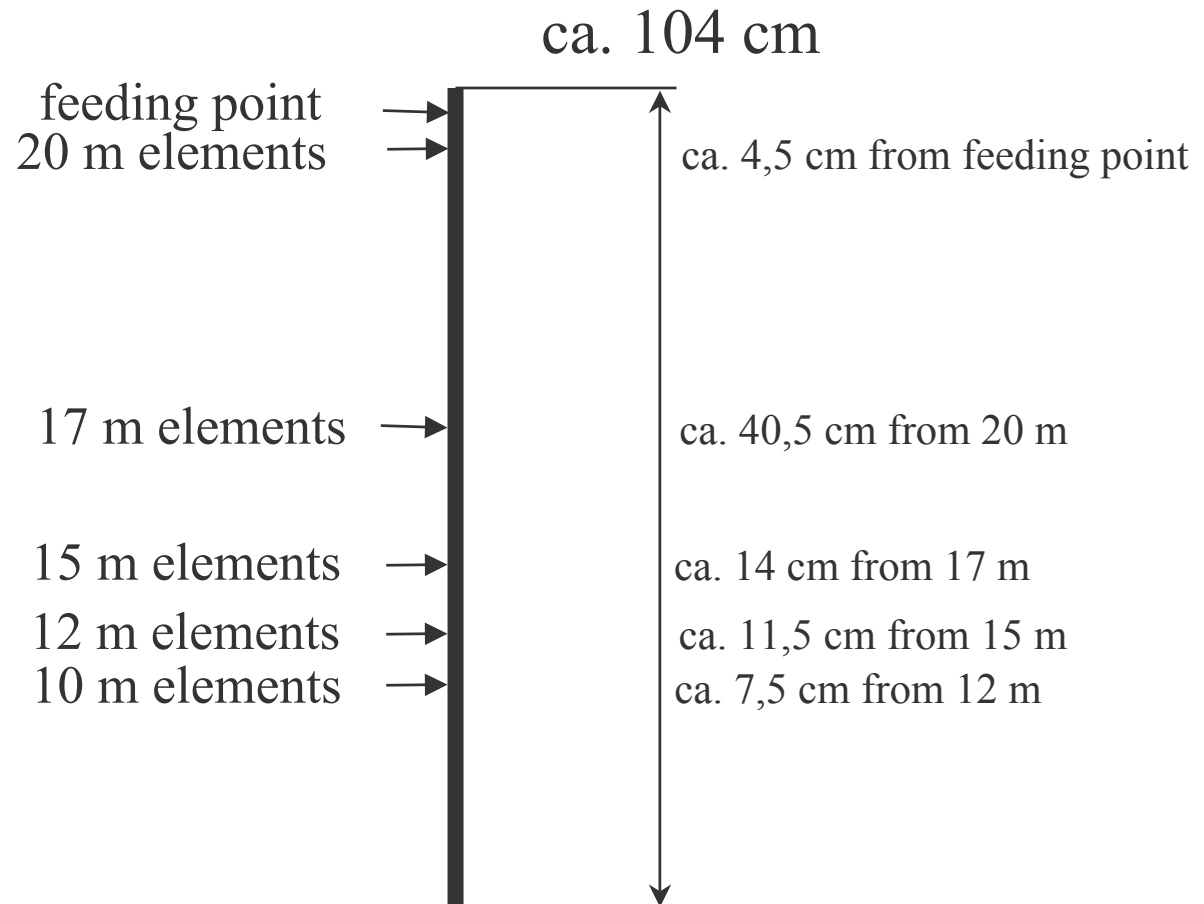


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Center Support Details

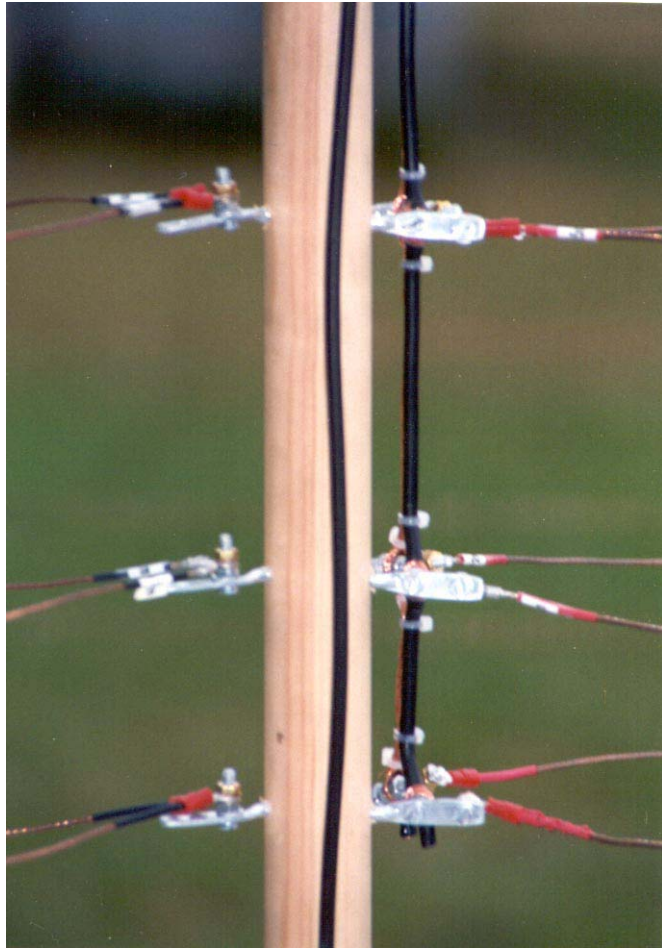


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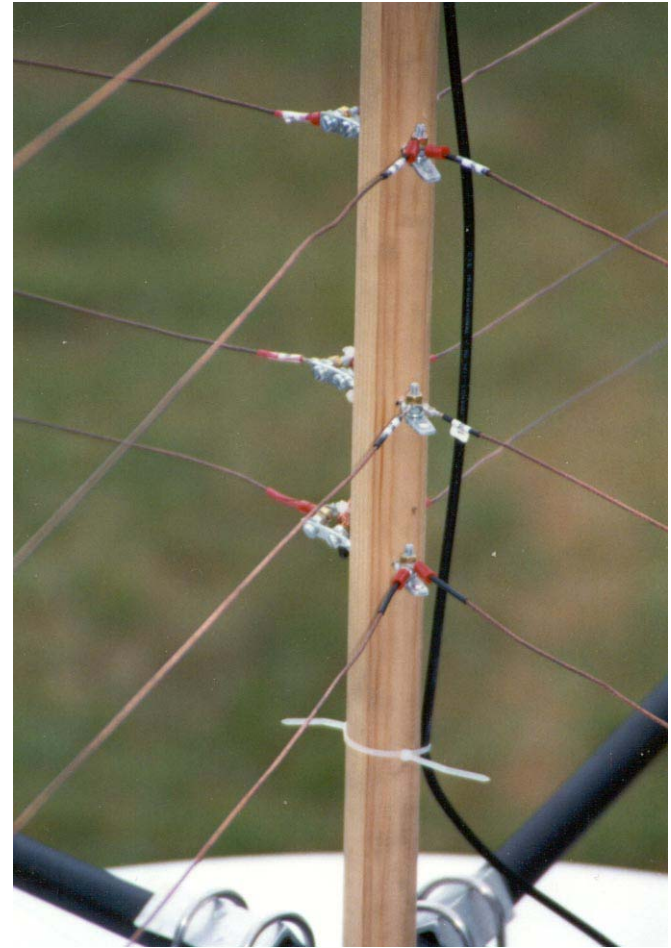


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Center Support Pics



side view

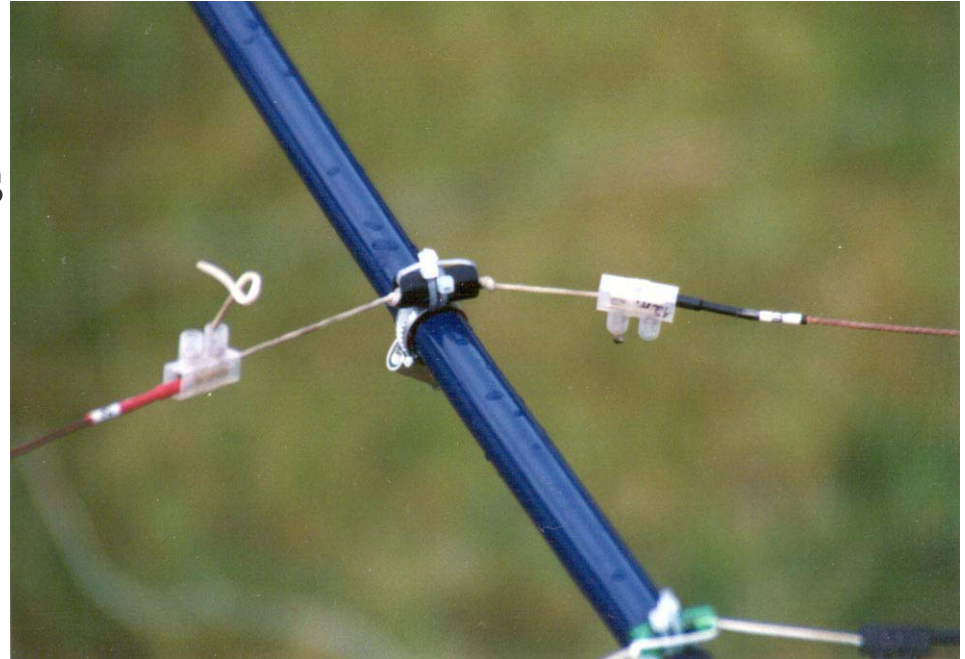


reflector side

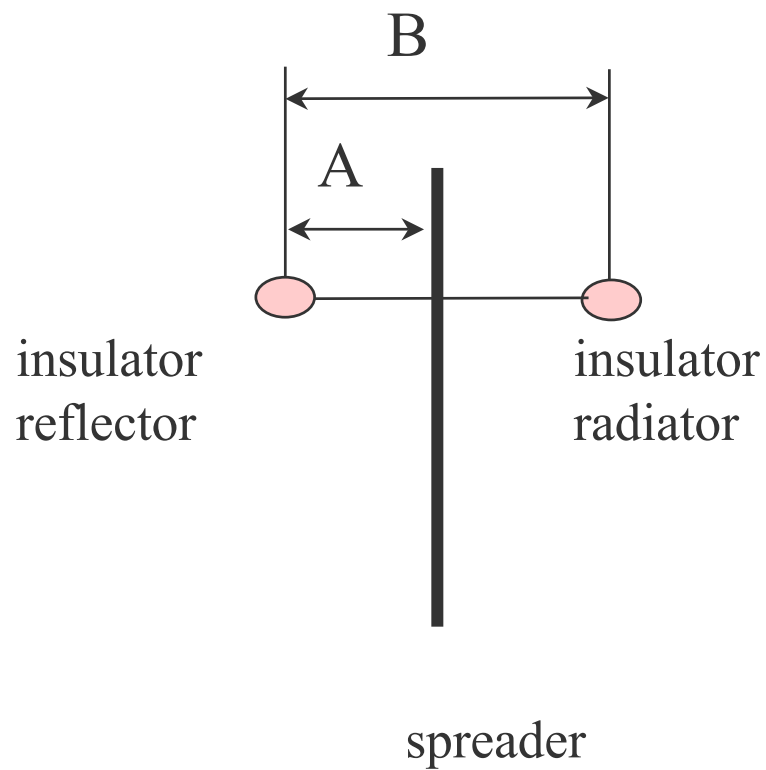
band	driven element (cm)	reflector (cm)
20 m	552	560
17 m	425	431
15 m	363,5	369,5
12 m	305	311
10 m	273	277,5

The length is for one leg and every element has 2 legs!
Wire is 1,5 mm² flexible copper not insulated. If insulated
it has to be shorter about 10-15 cm.

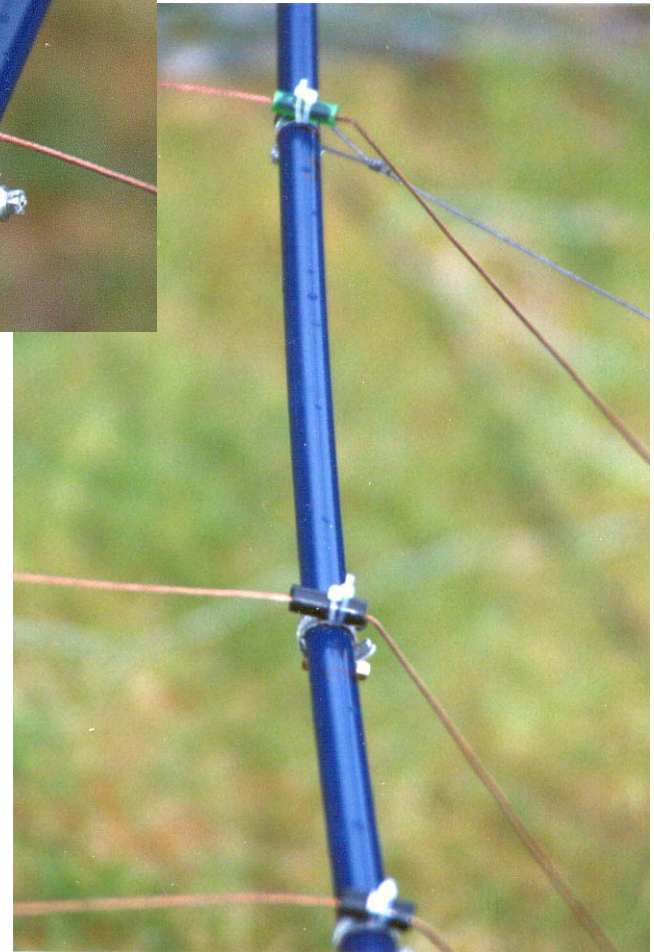
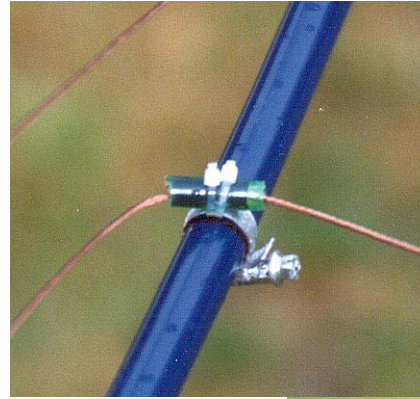
- The elements are connected via insulators to the spreaders
- please be patient with the length because this is critical for the impedance



band	A (cm)	B (cm)
20 m	11	28
17 m	9	22,5
15 m	8	20
12 m	6,5	17
10 m	6	15,5



Insulators are made from a small fibreglas tube to support the element wire pressed into a flexible pvc-tube to get it better fixed to the spreader. The part of fibreglas tube is needed because the wire must be able to move



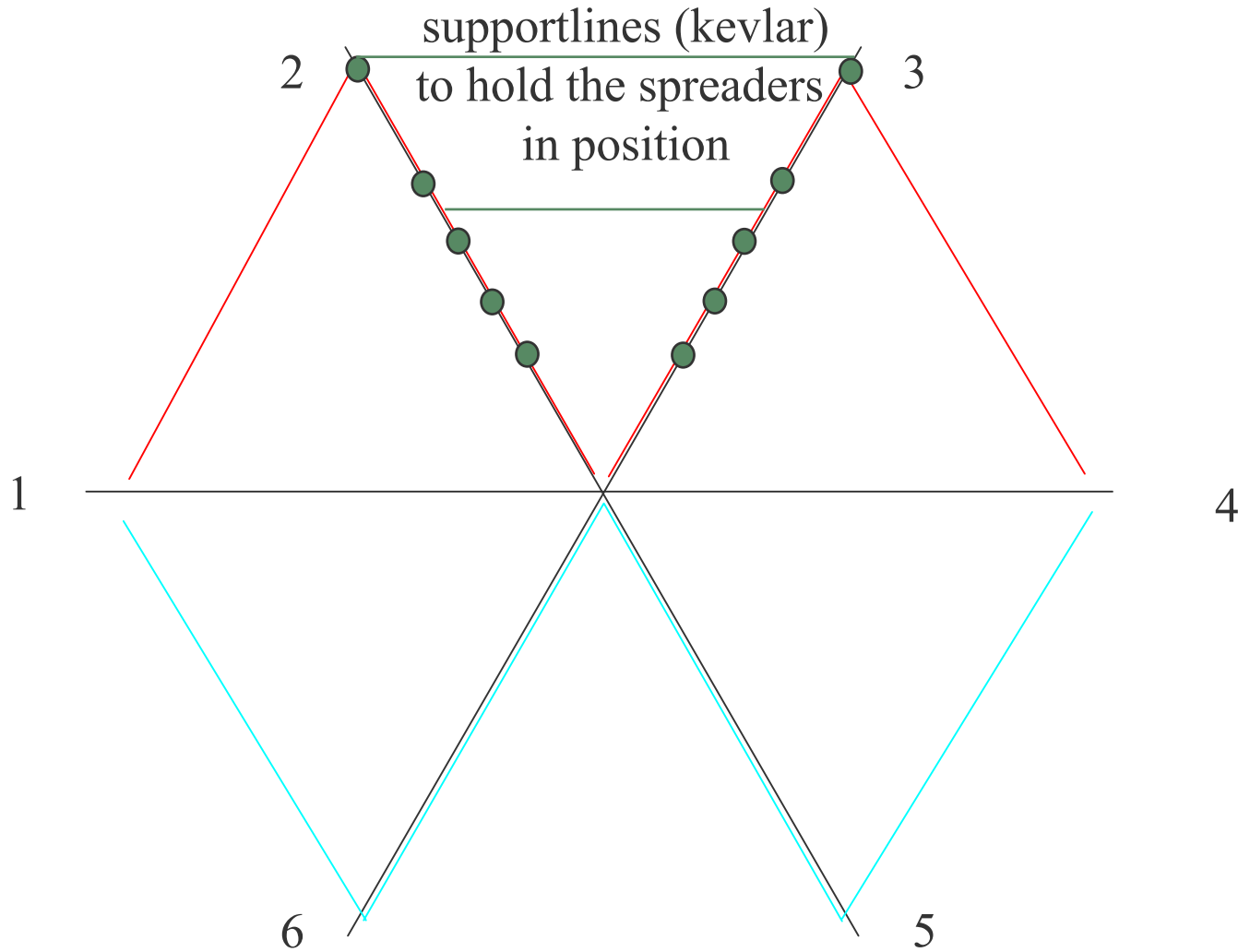
For the spreader I used 4 m long fiberglass fishing tubes.

The smallest element was removed and used for the element fixing parts.

Because of the small diameter you have to support the end at the mounting plate. I used 30 cm long wooden sticks to put it inside the tube.

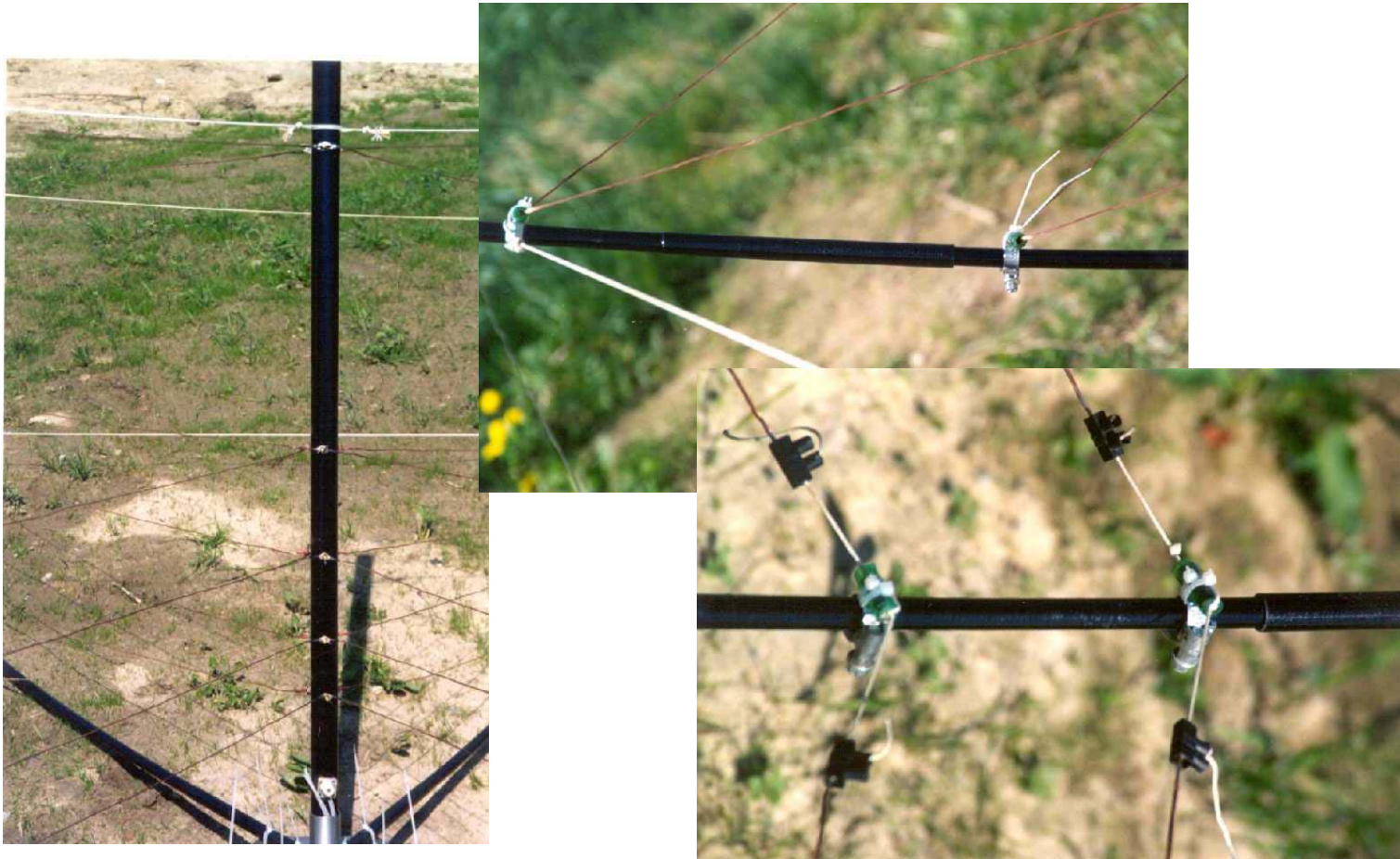
If you plan to use it for portable use you better take stronger material. For a fixed location it will work fine and withstand winds of force 12





reflected W beam

Today's Version



The actual version is made from custom made black fiberglass spreaders. The feeding system is inside the center mast and the feeding is from the bottom. All parts are from UV-resistant materials.

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