

# National Radio Astronomy Observatory

Very Large Array

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Subject: VLBI ~ Cost Estimate Antennas

**VLB ARRAY MEMO No. 50**

Price of VLA type antenna purchased in 1982 for delivery in 1983.

Estimated 1977 price	\$916.5 <sup>k</sup>
Improved performance costs (Panel acc., feed legs, yoke str., Ins. & Shielding)	60.0 <sup>k</sup>
	<u>\$976.5<sup>k</sup></u>

Escalation 1977 - 78	6.5%
78 - 79	8 %
79 - 80	12 %
80 - 81	12 %
81 - 82	10.5%
82 - 83	10.5%
	<u>176 %</u>

Making the cost of <u>one</u> VLA type antenna = $976.5^k \times 1.76 = 1718.6^k$	
Plus tooling cost	114.4 <sup>k</sup>
Engineering cost	585.0 <sup>k</sup>

(1) Five Antennas delivered in 1983	
1718.6 X 5 X .935 =	8,034.5 <sup>k</sup>
Tooling	114.4 <sup>k</sup>
Engineering	585.0 <sup>k</sup>
	<u>\$8,734.0<sup>k</sup></u>

(2) Five Antennas delivered in 1884	
1718.6 X 1.105 X 5 X .935 =	8,878.0 <sup>k</sup>
TOTAL =	<u>\$17,612.0<sup>k</sup></u>

Table VI - 1

(1) Feed mounting ring (vertex cover)	12.5 <sup>k</sup>
(2) Subreflector and support structure	22 <sup>k</sup>
(3) Focus and rotation mount (lateral adj.)	24.5 <sup>k</sup>
(4) Electrical installation	4.0 <sup>k</sup>
Total each antenna	<u>63.0<sup>k</sup></u>

