OK Wo to send out "

Radio Telescopes - Cost, Weight, Etc.

- 1. The following summary is an attempt to determine the cost per pound weight of various radio telescopes. The cost figures are based on the best known evidence to the author. The costs include foundations, fabrication, erection, drive and control system, but no buildings, power supplies or receiver electronics. The weights exclude foundations, but include necessary counterweights.
- 2. Table of cost and weight.

| Instrument | Basic Material | Cost | Weight | Cost/pound |
|--------------------------|---------------------------------|---------------------|-----------|------------|
| NRL 50 foot | Al. dish Steel mount | \$200,000 | 90 tons | \$1.11 |
| Leiden 82 foot | Steel | \$250,000 | 127 tons | \$0.99 |
| Jodrell Bank 250 foot | Steel | \$3.0 mil- lion. | 2000 tons | \$0.75 |
| Harvard 60 foot | Al. dish Rest in steel | \$170,000 | 52 tons | \$1.64 |
| NRAO 85 foot | Mainly steel. Al.surface panels | \$310,000 | 183 tons | \$0.85 |
| Cal Tech 90 foot | Steel | \$300,000 | 165 tons | \$0.91 |
| NRAO 140 foot | Al. dish Steel maunt | \$9.0 mil- lion. | 2500 tons | \$1.80 |
| Australia's 310 foot | Steel | \$2.0 mil- lion | 1200 tons | \$0.83 |
| NRAO 300 foot | Steel | \$660,000 | 550 tons | \$0.60 |
| NRL Sujus fore, | Steel | \$120 miller | 20,000 to | \$3.00 |

J. Swan.

NRAO is going to have the most expensive and the cheapest telescope measured in dollars per pound.

L. Roquest.

Can anyone improve on my estimates of cost?

JHI

April 12, 1961

cc: DMI

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