

NRAO Charlottesville, Meeting 24-25 June 1997

Participants

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16 GHz / antenna ~~8~~ =

\$8M	for	40	100 kW
\$18M	for	60	225 kW
\$32M	for	80	400 kW
\$72M	for	120	900 kW

Groups to report by mid-October

$$\text{Correlator} \leq \$2M + \$6M \left(\frac{N}{40}\right)^2$$

More power  
Bigger building  
Correlator architecture

#	Cost	
40	\$8M	
60	15.5	} could be less depending on chip cost with volume or new fabrication techniques
80	26	
120	56	

Systems

Thompson  
Webber  
Torres  
Emerson  
(? Europe)  
(Guilloteau?)

Antennas

Nazier  
Luzten  
~~Cheng~~  
(Woody?)  
Andersen  
Plotner

$$40 \times 8m + 30 \times 15m = 7300 m^2$$

$$64 \times 12m = 7200 m^2$$

Meetings: 18 Aug at IRAM

24 Sep ~~at~~ VLA

Science committee will go as far as they can, then take info from antenna group to evaluate specific science programs.

## RESOLUTION

Whereas the development of millimeter-wavelength astronomy in the United States and Europe has shown the potential of large millimeter interferometric arrays for revealing the origin and evolution of stars and planetary systems, of galaxies, and of the Universe itself; these communities have proposed the construction of the Millimeter Array (MMA) and the Large Southern Array (LSA), respectively; and there is an opportunity through cooperation to achieve more than either community planned; we, as the observatories responsible for these projects and with the support of our communities, resolve to organize a partnership that will explore the union of the LSA and MMA into a single, common project. Specifically, this partnership will study the technical, logistical, and operational aspects of a joint project. Of particular importance, the two antenna concepts currently under consideration will be studied to identify the best antenna size and design or combination of sizes to address the scientific goals of the two research communities. In doing so we will work through our observatories, utilizing the expertise in millimeter astronomy resident in research groups and institutions in our communities. Finally, we recognize that there are similar goals for millimeter astronomy in Japan, and current cooperative activities with that project will continue.

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R. Giacconi

European Southern Observatory

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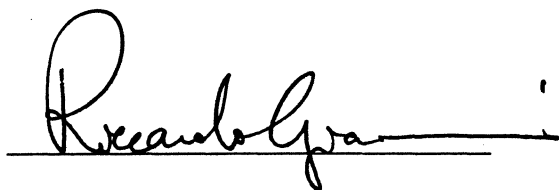
P. Vanden Bout

National Radio Astronomy Observatory

26 June 1997

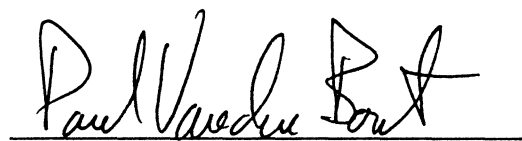
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