## SUGGESTED PREQUALIFICATION REQUIREMENTS FOR POTENTIAL VLA ANTENNA CONTRACTORS

## A. Engineering and Design

1. In the last ten years -- must have designed and engineered a marketed radio telescope or similar equipment.

2. Currently have -- an engineering staff with interests and background in radio telescope design.

3. Currently own or have access to -- facilities to carry out the complete design of radio telescopes.

## B. <u>Manufacturing</u>

1. In the last ten years -- must have manufactured a radio telescope or significant part thereof.

2. Own or lease or be prepared to buy or lease --- adequate space and equipment to mass produce radio telescopes.

3. Have adequate production personnel or have access to adequate personnel to mass produce radio telescopes.

## C. Field Construction and Assembly

1. In the last ten years -- have constructed or assembled radio telescopes or similar equipment either by in-house capabilities or by supervision of a field subcontractor.

2. Can supply or be prepared to supply -- qualified personnel to supervise and manage field construction.

### D. Financial

1. Total company sales in 1971 must have been at least \$8 million with the division or department responsible for radio telescope design, manufacture and assembly contributing significantly to the total company sales. 2. Have sufficient financial resources to fund the entire design effort of a radio telescope without benefit of "progress payments".

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3. Have sufficient financial resources to fund the cost of the first radio telescope (prototype) in a series of 28 radio telescopes without the benefit of "progress payments".

4. Provide a 100% performance bond--if necessary.

For prequalification -- all firms must meet all the requirements of Items A and D plus either Item B or C or a reasonable combination of B or C.

TRR/pj

cc: HHvatum JWFindlay DSHeeschen JEFinks WGHorne Commerce Business Daily U. S. Department of Commerce Room 1300 433 West Van Buren Street Chicago, Illinois 60607

Gentlemen:

Enclosed is a synopsis we wish to have pbulished for the National Radio Astronomy Observatory, a contractor for the National Science Foundation. Please publish as shown <u>without</u> referring to the National Science Foundation.

Sincerely yours,

T. R. Riffe Assistant Director - Administration

TRR/pj

U. S. Department of Commerce, Commerce Business Daily Room 1300, 433 West Van Buren Street ' Chicago, Illinois 60607

#### Synopsis:

VLA.

Project Manager, VLA, National Radio Astronomy Observatory, Edgemont Road,

Charlottesville, Virginia 22901 [Telephone 703 296-0211].

SOURCES SOUGHT. ENGINEERING AND CONSTRUCTION -- RADIO TELESCOPES

About \_\_\_\_\_\_\_ 1972, the National Radio Astronomy Observatory anticipates requesting proposals from prequalified concerns for the engineering and construction of 28 radio telescopes, each with a diameter of 25 meters. These 28 radio telescopes will form the basic system for a Very Large Array (VLA) radio telescope to be constructed on the Plains of San Augustin, about 50 miles west of Socorro, New Mexico. Interested companies must be prepared to take responsibility for the detailed design and engineering, fabrication, installation, alignment and interfacing with other elements of the VLA.

For further information regarding company prequalification, the project and other relevant material, interested firms may contact the Project Manager,

To:

DRAFT: 4/12/72-TRR/j

April \_\_\_\_\_ 1972

## Gentlemen:

This is advance notification of a forthcoming Request for Proposal for the design, fabrication and erection of twenty-eight (28), twenty-five (25) meter radio telescopes. These 28 radio telescopes will form the basic system for a Very Large Array (VLA) Radio Telescope to be constructed on the Plains of San Augustin, some 50 miles west of Socorro, New Mexico.

Associated Universities, Inc. (AUI) operates the National Radio Astronomy Observatory (NRAO) under contract to the National Science Foundation (NSF), an agency of the U. S. Government. AUI has submitted a proposal to the NSF for the construction of a VLA consisting of 28 radio antennas, associated electronics and general development of the site. The forthcoming request for proposal, as hereinbefore referenced, will cover only the antennas. Subject to the availability of funds, it is anticipated that a contract will be awarded for the antennas on or about \_\_\_\_\_\_ 1972. A copy (four volumes) of the AUI proposal to the NSF is forwarded herewith. AUI plans to issue its formal request for proposal on or about \_\_\_\_\_\_ 1972, and has scheduled a preproposal meeting at its offices in Charlottesville, Virginia at 10 a.m. \_\_\_\_\_\_ 1972.

The purpose of this advance notice is to provide source companies sufficient time to become familiar with the general scope of the VLA project prior to receipt of the Request for Proposal for antenna design and manufacture. Companies interested in attending the preproposal meeting should advise the NRAO of their intention at the earliest possible date. Attendance will be limited to three representatives from each company. Requests for additional information may be addressed to J. W. Findlay, National Radio Astronomy Observatory, Edgemont Road, Charlottesville, Virginia 22901 (Telephone 703 296-0211).

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Sincerely yours,

T. R. Riffe Assistant Director - Administration

# PROPOSED VLA ANTENNA CONTRACT SCHEDULE

1.	_ 1972 - Develop policy statement and guidelines for minimum quali- fications (pre-qualification) of potential bidders.
2.	_ 1972 - Send pre-qualification policy to NSF.
3.	_ 1972 - Vendor source selection, including synopsis to Commerce Daily.
4	_ 1972 - Advance notice of request for proposal and preproposal meeting to potential vendors (copy to NSF).
5	_ 1972 - Final performance specifications and final requirements for proposal letter.
6.	_ 1972 - Reproduction of specifications and RFP letter.
7.	_ 1972 - Mail request for proposal (copy to NSF).
8.	_ 1972 - Prepare agenda and plan for preproposal meeting (copy to NSF).
9.	_ 1972 - Preproposal meeting.
10.	_ 1972 - Proposal due date. (Notify NSF of the names of proposers.)
11.	_ 1972 - Completion of proposal evaluation and negotiation with minimum of 3 proposers for further proposal development (notify NSF).
12	1972 - Final proposals from 3 proposers due.
13	_ 1972 - Completion of proposal evaluation and negotiation with one of 3 firms. (Notify NSF)
14.	_ 1972 - Proposal price due date.
15.	_ 1972 - Issue formal contract. (Send conformed copy to NSF.)

April 13, 1972

## Contract Matters - VLA Antennas

The following are attached, all in draft form:

- 1. Proposed Method of Acquisition of VLA Antennas
- 2. Proposed VLA Antenna Contract Schedule
- 3. Transmittal Letter and Synopsis to Commerce Daily
- 4. Prequalification Requirements for Potential VLA Antenna Contractors
- 5. Questionnaire for "Pre"-Qualifying Firms
- 6. Letter for Advance Notification of a Request for Proposal
- 7. VLA Antenna Source Selection Committee

T. R. Riffe

TRR/pj

## DRAFT: 4/13/72-TRR/j

VLA ANTENNA SOURCE SELECTION COMMITTEE

### A. <u>Technical</u>

- 1. H. Hvatum Assistant Director\*
- 2. J. W. Findlay Assistant Director
- 3. W. G. Horne Head, Engineering Division

### B. Business

- 1. J. Marymor Contracts Manager
- 2. J. E. Finks Business Manager

In addition to the above, other employees of AUI will be called upon to provide assistance as needed. In particular it is anticipated that the AUI Internal Audit Staff will be utilized for financial and business analysis of source firms.

\* Also Acting Project Manager - VLA

### PROPOSED METHOD OF ACQUISITION - VLA ANTENNAS

- The NRAO will accept proposals from prequalified firms for the design, manufacture and installation of 28 radio telescopes with a surface (dish) diameter of 25 meters.
- 2. Following the receipt of proposals, as above, the NRAO will select the three most outstanding proposals for further proposal development.
- 3. The NRAO will enter into a fixed price agreement (not to exceed \$25,000 each) with each of the three proposers to finalize and further develop their proposals to a confidence level wherein the NRAO is particularly satisfied that all technical, engineering and interface questions are resolved and/or understood, and the proposers can give a reliable fixed price bid for the entire scope of work, i.e., final design and engineering, fabrication and erection of one (prototype) telescope and the delivery, over an extended period of time, of the remaining 27 telescopes. (Since the full complement of radio telescopes will be delivered over a period of 6-7 years, the need to establish a base price, forward pricing, indexing the various elements of cost, etc., is absolutely essential to arriving at a reliable price estimate.)
- 4. From the three purchased proposals, in item 3 above, the NRAO will award a fixed price contract to one of the proposers. The award will be on the basis of the technical information supplied, i.e., design concepts, method of approach, performance estimates, accuracy estimates, master project plan and best price.

5. The proposed contract in item 4 above will be guided by the provisions of the Federal Procurement Regulations. In addition, the deliverable items in the contract will adhere to a funding schedule provided by the Foundation with the appropriate provisions for cancellation for the convenience of the government.

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DRAFT: 6/5/72-TRR/j

QUESTIONNAIRE FOR "PRE"-QUALIFYING FIRMS INTERESTED IN DESIGNING AND MANUFACTURING RADIO TELESCOPES FOR THE VLA

Year Established: 1. Firm Name: 2: Business Address: Telephone: 3. 4. What is the type of service your firm is particularly qualified to perform. 5. 6. Has your firm, within the past ten years, been the prime contractor for the (1) design, (2) manufacture, and (3) installation of one or more radio telescopes? If the answer to 6 above is yes, please name the customer, project, location 7. and approximate dollar value of the job or jobs. Has your firm, within the past ten years, been a subcontractor for the 8. (1) design, (2) manufacture, or (3) installation of one or more radio telescopes? 9. If the answer to 8 above is yes, please name the prime contractor, customer, project and your particular part of the work--also indicate the dollar value of the job or jobs. 10. What are the names and titles of the officers of your firm? What are the names of key personnel in your firm with experience in radio 11. telescope design and/or manufacture--list under specialized headings such as Mechanical Engineer, Structural Engineer, Electrical Engineer, etc. 12. What are the names and qualifications of outside consultants your firm usually employed in the design or manufacture of radio telescopes? 13. What was the total number of employees on your payroll at December 31, 1971? 14. What were your firms total sales in 1971? What were the average sales for the last five years? 15. 16. What manufacturing facilities does the firm own or have access to (location, size and general capacity)?

- 17. Are you familiar with the provisions of the Federal Procurement Regulations?
- 18. If applicable, what was the date of your last comprehensive Government audit, the period covered, and the name and address of your cognizant Government audit agency representative?
- 19. Is a firm-fixed price type of contract acceptable to your firm for the design, manufacture and assembly of 28, 25 meter radio telescopes to be delivered over a period of approximately seven years?
- 20. If the answer to question 19 is no, what alternatives would you propose?
- 21. List your banking connections -- name and address of the bank and the individual within the bank who may be contacted.
- 22. Attach your most recent financial statement plus financial statements for four years immediately prior to your current statement.
- 23. Attach any other statements, brochures, reports, etc., that would be helpful in evaluating your firm.

Signed	19 1.4 -		· .	
Title_		 	•	
Date _		 	•	

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