

CPG MEMO NO. 4

NATIONAL RADIO ASTRONOMY OBSERVATORY
Green Bank, West Virginia 24944

MEMORANDUM

February 15, 1983

To: Distribution
From: R. Lacasse *Rich*
Subj: Long-Term Computer Plans for NRAO

As all of you are aware, there has been considerable discussion of long-term computer plans for the Observatory. This forum presents a good opportunity for the Electronics Division to present its needs so that they can be incorporated into the master plan.

The attachment to this memo proposes a system for Green Bank Electronics that we feel would meet our needs in the foreseeable future. It would be great if this could serve as one starting point in a discussion between the electronics groups at various sites. It seems that a common approach by all sites would, first of all, benefit the Electronics Division; sharing programs and resources would be straightforward. Secondly, it would look very good in the Observatory's Computer Plan.

RJL/cjd

Enclosure

Proposal for a Computer System for
the Green Bank Electronics Division

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PROPOSAL FOR A COMPUTER SYSTEM FOR THE
GREEN BANK ELECTRONICS DIVISION

I. General Philosophy

- A. Systems should be easy to learn and use.
- B. Sharing of expensive and seldom used equipment via networking is desirable.
- C. Compatability of hardware among the sites to simplify software sharing is very desirable.
- D. A commitment to buy canned software when possible, instead of "re-inventing the wheel".
- E. The capability of tying into a large, general purpose computer is desirable.

II. Specific Needs

A. Laboratory

- 1. Real time instrument control and data acquisition.
- 2. Data display, high resolution ($\sim 512 \times 512$) video graphics, and hardcopy.
- 3. Data analysis.

B. Design

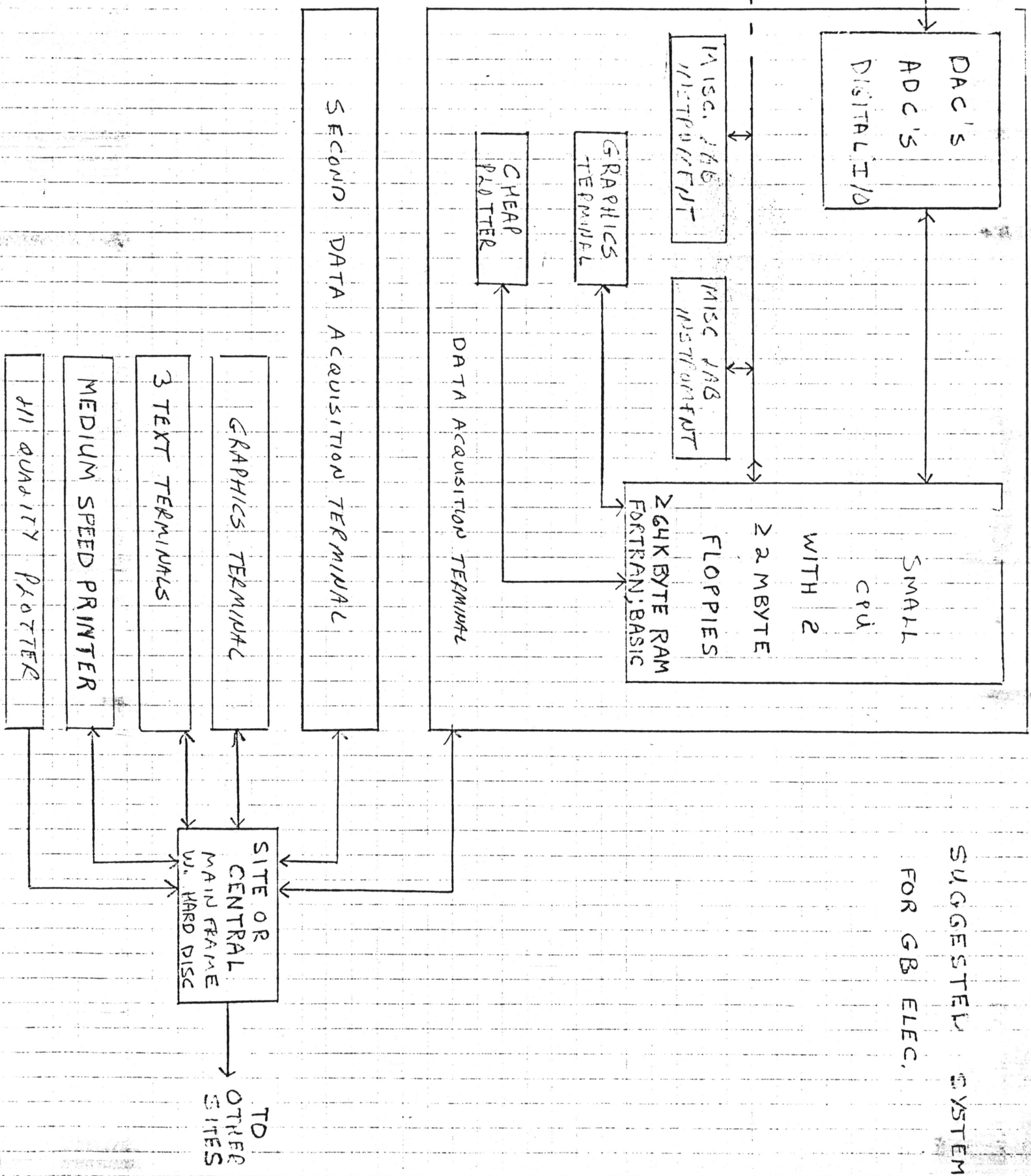
- 1. Circuit analysis, synthesis, optimization.
- 2. Systems analysis (receiver, digital).
- 3. Drafting and other documentation.
- 4. Various special purpose programs, e.g., antenna analysis.

C. Miscellaneous

- 1. Word processing.
- 2. Plotting of data, functions, etc.
- 3. Filing.
- 4. Scheduling.

R. Lacasse
February 8, 1983

REAL
WORLD



SUGGESTED SYSTEM
FOR GB ELEC.