D.2 Technology Plan

The proposed HMI instrument contains little new technology. All of the techniques being used have been successfully applied in space previously or are modest extensions of such technologies.

The 4096×4096 pixel CCDs are certainly state-of-the-art for space use, but our vendor, Marconi Applied Technology, has already produced 2048×4096 devices for the Solar-B/FPP instrument, the larger devices are a straight forward next step. Other than a factor of two increase in one dimension, other relevant characteristics (such as noise, cosmetics, uniformity, radiation hardness, etc.) are not new.

Similarly, the data processing system software is an enhancement of that developed for the SOHO/MDI program and can not be considered new technology at this point.

As a result of having very little, if any, new technology, HMI is a low risk program from a technical/performance point of view.

D.3 Small Disadvantaged Business Plan

Stanford University will work to ensure the highest level of small business and small disadvantaged business support for the HMI program.

In Phase-A and the Bridge Phase there is little opportunity since there is little subcontracting other than the primary contract to LMSAL. The Phase-B through Phase-E plan will be developed during Phase-A.

Stanford will include the appropriate requirements in the LMSAL subcontract. (Actually the contract is to LMATC the parent organization to LMSAL.)

LMATC will work to ensure the highest level of small business and small disadvantaged business support to the HMI program. LMATC is a part of Lockheed Martin Space Systems Company- Missiles & Space Operations (LMSSC) which has an award-winning SBP (Small Business Program) that vigorously seeks small, minority, and woman-owned businesses and historically minority colleges and universities that have demonstrated ability to supply or develop products and expertise suitable for LMSSC programs. Lockheed Martin's government approved *Master Subcontracting Plan for Small Business Concerns* is available upon request.

LMSSC will submit a small business/small disadvantaged business subcontracting plan for Phase-A upon contract award. The subcontracting plan for Phases-B through E of the HMI program will be submitted at the end of Phase-A. LMSAL already has many established relationships with SB/SMB as a result of the current and previous program experience on MDI, TRACE, SXI, SXT, and Solar-B. During Phase-A they will aggressively work with LMATC's Small Business Office to identify small and small disadvantaged businesses that can support HMI. During the proposal phase they have identified the following small businesses that are under consideration for becoming part of our supplier team on the HMI program:

- Palo Alto Village Travel (woman-owned)
- Acton Research Corporation (SB)
- Luxel Corporation (SB)
- H Magnetics (SB)