



5/2/66

BENDIX SYSTEMS DIVISION ANN ARBOR, MICH.

Block I and II Mechanical and
Thermal Design

NO.

ATM 253

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As a result of a design meeting held Monday 25 April between G. Burton, L. McCartin and cognizant PE's and subsequent discussions the following design decisions were reached. All of the mandatory Block II changes should be included in Block I if the schedule permits.

Approved

G. Burton

G. Burton

Approved

L. McCartin

L. McCartin



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Block I (mandatory changes)

1. Extend thermal plate to cover passive seismic cut out - Vern Jansen
2. Relocate DSS/PCP/heat flow/active seismic component to optimize thermal control (must be consistent with DSS and wiring harness requirements) - H. Collicott
3. Reduce height of DSS/PDP compartment consistent with component volume and form factor requirements - Vern Jansen
4. For thermal design purposes the maximum continuous power dissipation in the central station will be as follows - H. Collicott

DSS	19.5
PCP	9
Power Distribution (DSS)	1.5
Active Seismic (Cont.)	0.2
Heat Flow (Cont.)	2.0

5. Eliminate antenna mounting - Vern Jansen

Array A (Max.)	30.0 watts plus design margin
Array B (Max.)	32.2 watts plus design margin

Note: An additional 7 watts for periods not to exceed 30 minutes for the active seismic experiment is required.

Block II (mandatory changes)

1. Provide a new antenna mounting in one corner of the central station, or outboard along one edge or through the center of the sunshade to the thermal plate with tripod support. The mechanical stability of the antenna mast and supporting structure must be better than ± 0.25 degrees over the lunar temperature extremes - Vern Jansen
2. Provide a separate switch for crew activation of the active seismic (thumper) experiment - Vern Jansen
3. Remove the Compartment No. 2 carry handle from the tool container and attach to the primary structure over the c.g. This handle must then be removable or rotatable to permit separate LGE tool and drill container unloading. It will be sized for unloading inertia and lunar weight - Vern Jansen



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4. The bar carry transportation mode will be retained - Vern Jansen
5. Provide stowage volume for a combined antenna base pointing mechanism - Vern Jansen
6. Perform a first cut thermal analysis of the antenna pointing error caused by thermal distortion by 1 June 1 H. Collicott

The assignment of responsibility shown is only tentative since the primary purpose of the meeting was to define the task that must be done prior to design release. Specific responsibilities will be assigned by 2 May.