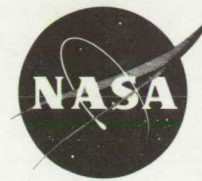


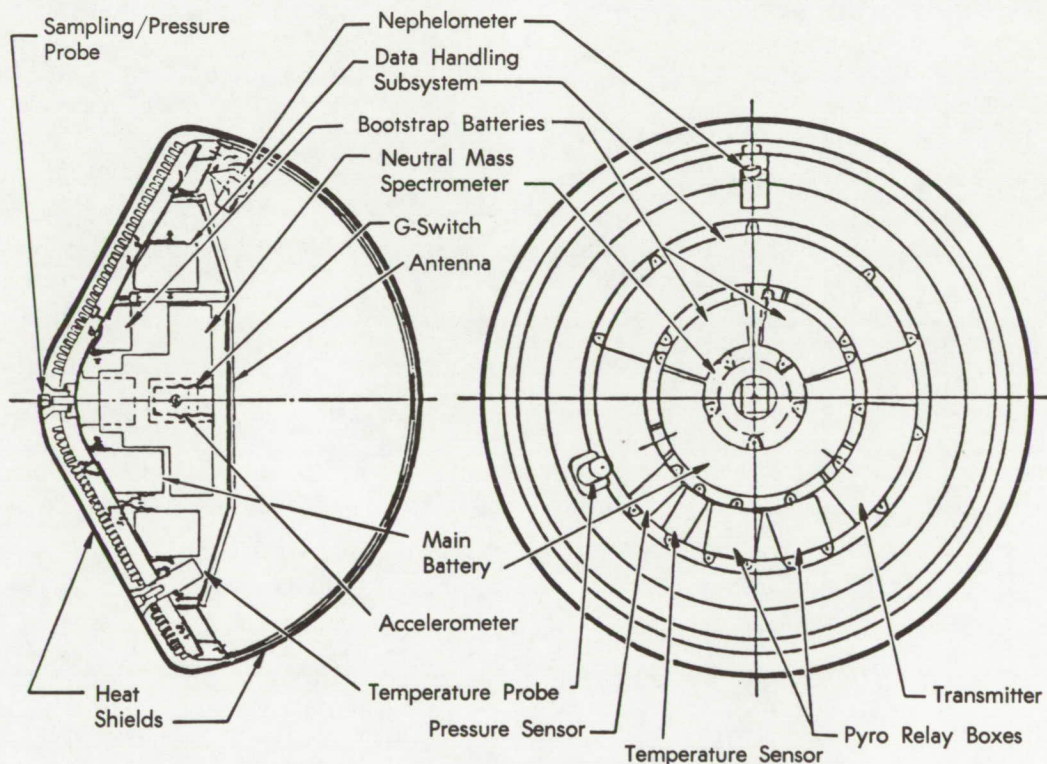
# NASA TECH BRIEF

*Ames Research Center*



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## Toroidal Equipment Packaging



Studies of systems for optimal packaging of equipment in a shallow-cone vehicle (e.g., scientific entry probe) have confirmed that toroidal packaging sets the center of gravity of the equipment forward, whereas conventional (box-like) packaging tends to place centers of gravity in more aft positions and does not provide high packing densities.

As indicated in the diagram, toroidal-shaped packages containing equipment are supported on rings within the probe structure to provide a low center of gravity as well as convenient top accessibility. Short-path interconnect wiring is provided by a circum-

ferential wire harness.

The toroidal packaging system also permits interchanging of units for balance control, so that a minimum of lateral ballast is required.

### Note:

No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer  
Ames Research Center  
Moffett Field, California 94035  
Reference: B74-10055

(continued overleaf)

**Patent status:**

NASA has decided not to apply for a patent.

Source: Walter J. Jones and John W. Sherwood of  
McDonnell Douglas Corporation  
under contract to  
Ames Research Center  
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