

MMTO Conversion Internal Technical Memorandum #00-1



**Smithsonian Institution &
The University of Arizona***

**MMT f/5 Wind Loading,
Supports at Support Sector Centroids**

January 31, 2000

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MEMORANDUM

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To: S. West

FROM: Brian Cuerden
Technical Services

SUBJECT: MMT f/5 Wind Loading, Supports at Support Sector Centroids

The centroids of the three axial pneumatic sectors, shown in Figure 1, have been determined to be at (.757,18.432), (-16.341,-8.561) and (15.584,-9.872). These are Three points on an 18.448" radius clocked 120 degrees apart. Wind loading based is based on Table G.1 of Technical Report #33, F/5 Secondary Support System Design, B. Cuerden, March, 1998. Structure function results assuming a 1 Hz bandwidth control system with No de-correlation, are plotted in Table G.3 . These results are comparable to those previously reported for a 26" radius support (see Figure G.1 in TR #33).

Note that the centroid locations are beneath the proposed hexapod interface plate. It may be necessary to modify this plate to clear the axial supports.

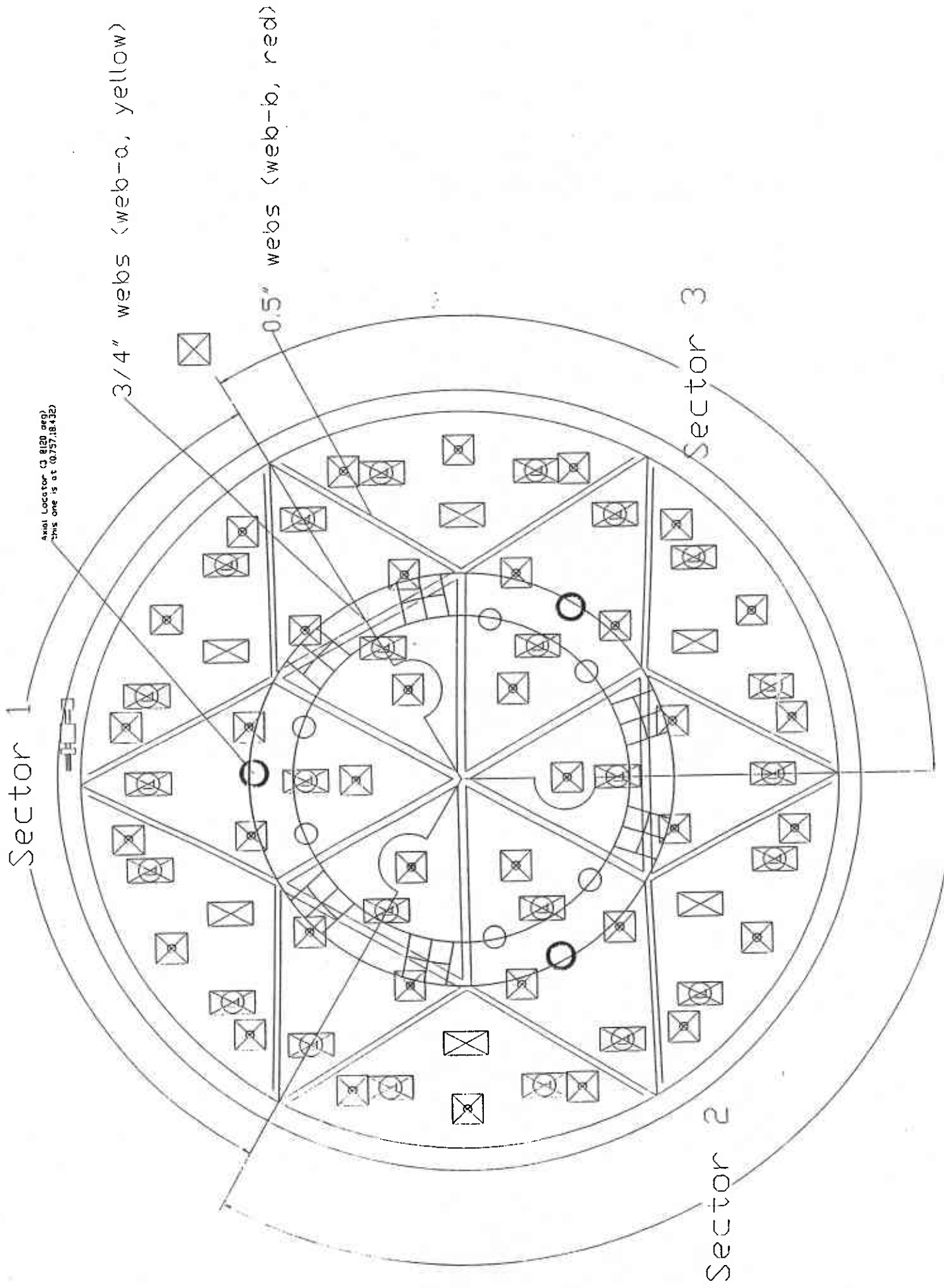


Figure 1 Definition of Pneumatic Sectors and Centroid Locations

Figure G3 Structure Function, MMT #5 Wind Loading, Supports at 18.45" Radius

