

MEASURED PERFORMANCE OF THE NEW UNIVERSITY  
OF CALIFORNIA GAMMA RAY TELESCOPE

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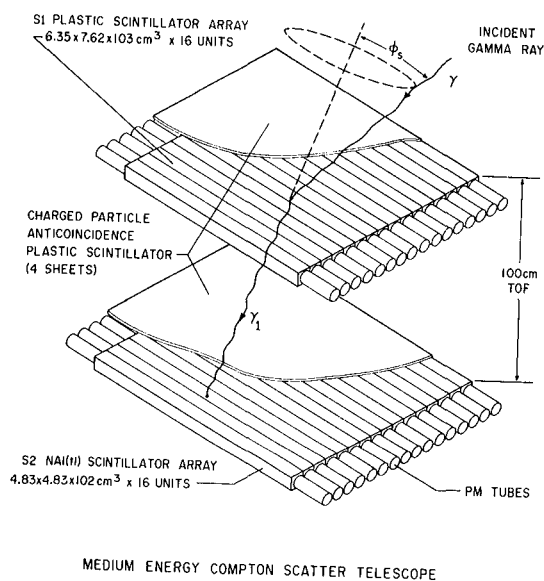


Figure 1

The design and expected performance of the new University of California medium energy balloon-borne gamma ray telescope shown in Figure 1 have been previously described (1,2). This telescope is sensitive to 1-30 MeV gamma rays. In this presentation the results of our initial calibration will be fully described. This will include the position and energy resolutions of 32 plastic and NaI(Tl) scintillator bars, each 100 cm long. The telescope's measured angular and energy resolutions as a function of incident angle will be compared with detailed Monte Carlo calculations at 1.37, 2.75 and 6.13 MeV. The expected resolutions are 5° FWHM and 8% at 2.75 MeV. The expected area-efficiency is 250 cm.

The telescope is now being prepared for a balloon flight in September, 1985.

1. A. D. Zych et al. (1983), Proc. 18th Int. Cosmic Ray Conf. 9, 343-346.
2. J. Simone, et al. (1985), IEEE, Trans. Nuc. Sci. NS-32, 124-128.

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