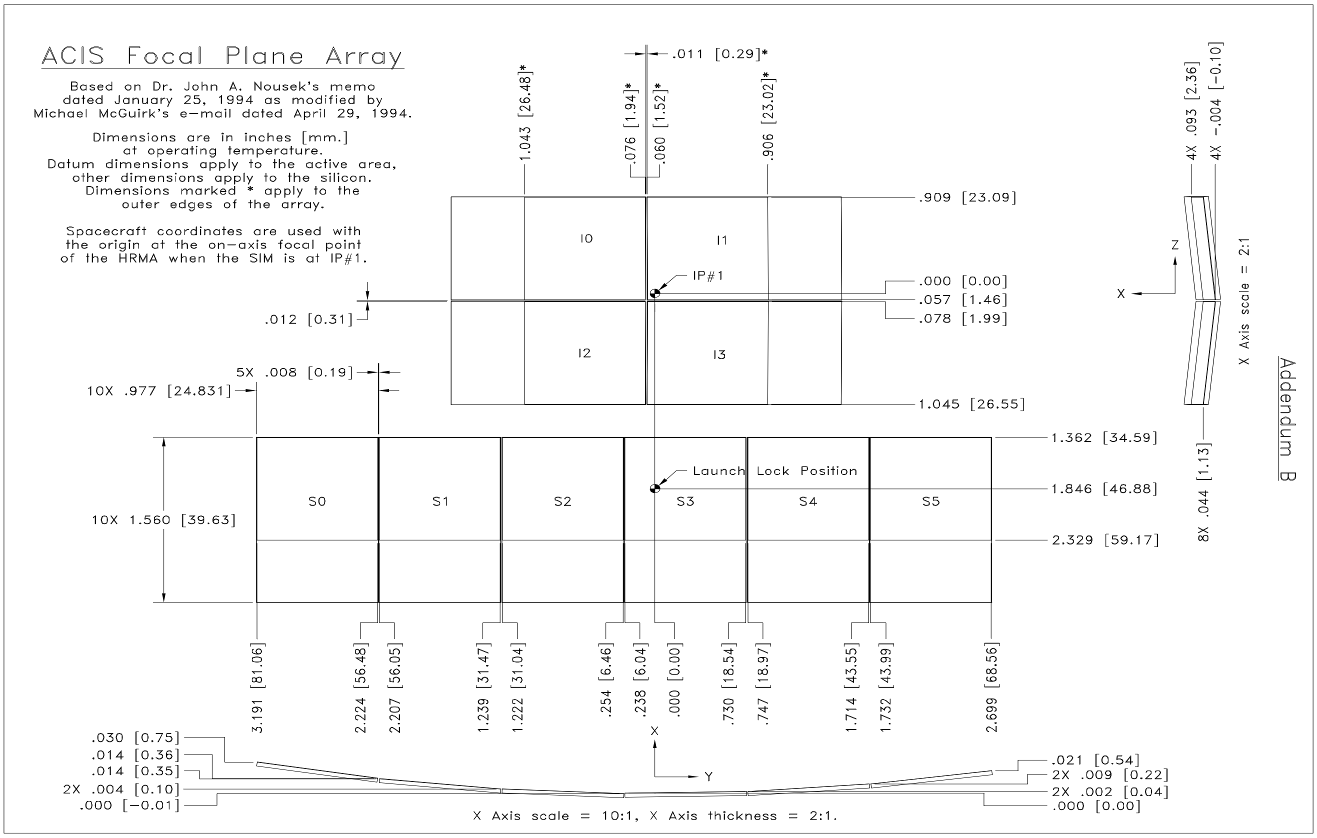

Figure 2.5: ACIS CCD Chip Geometry

variance (second moment) of the image as a function of axial displacement. Several axial points are measured and a parabolic fit made to determine the minimum. Note that this approach is slower because more points must be measured and that more photons are needed to accurately measure the variance as opposed to the centroid of a distribution.

Stray light (i.e. light at any wavelength which strikes the ACIS CCD chips without being brought to a focus by the HRMA) represents a source of potential signal degradation to ACIS. Although individual photons of UV or longer wavelength cannot be individually recognized by ACIS their presence increases the effective readnoise, and hence degrades the energy resolution of the instrument.

The optical blocking filter substantially reduces the UV/optical flux, but in order to eliminate the deleterious effects of stray light it is necessary to limit the stray light striking the CCDs to less than 1 photon per pixel per readout. This level is met by an AXAF