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Subject: Special tests to help diagnose the antenna gain

1] Sun and moon scans vs elevation

These will further evaluate the small scale structure of the dish and test for variation in the small scale (if there is any) with elevation.

2] Beamwidth vs focus

Since the subreflector cannot correct spherical (r^4 dependence of phase error) aberration we would like to check for the presence of errors in phasing up the outer part of the dish by checking the beamwidth on either side of the best focus. If we have significant spherical aberration the narrowest beamwidth will not correspond to the best focus - see attached figure.

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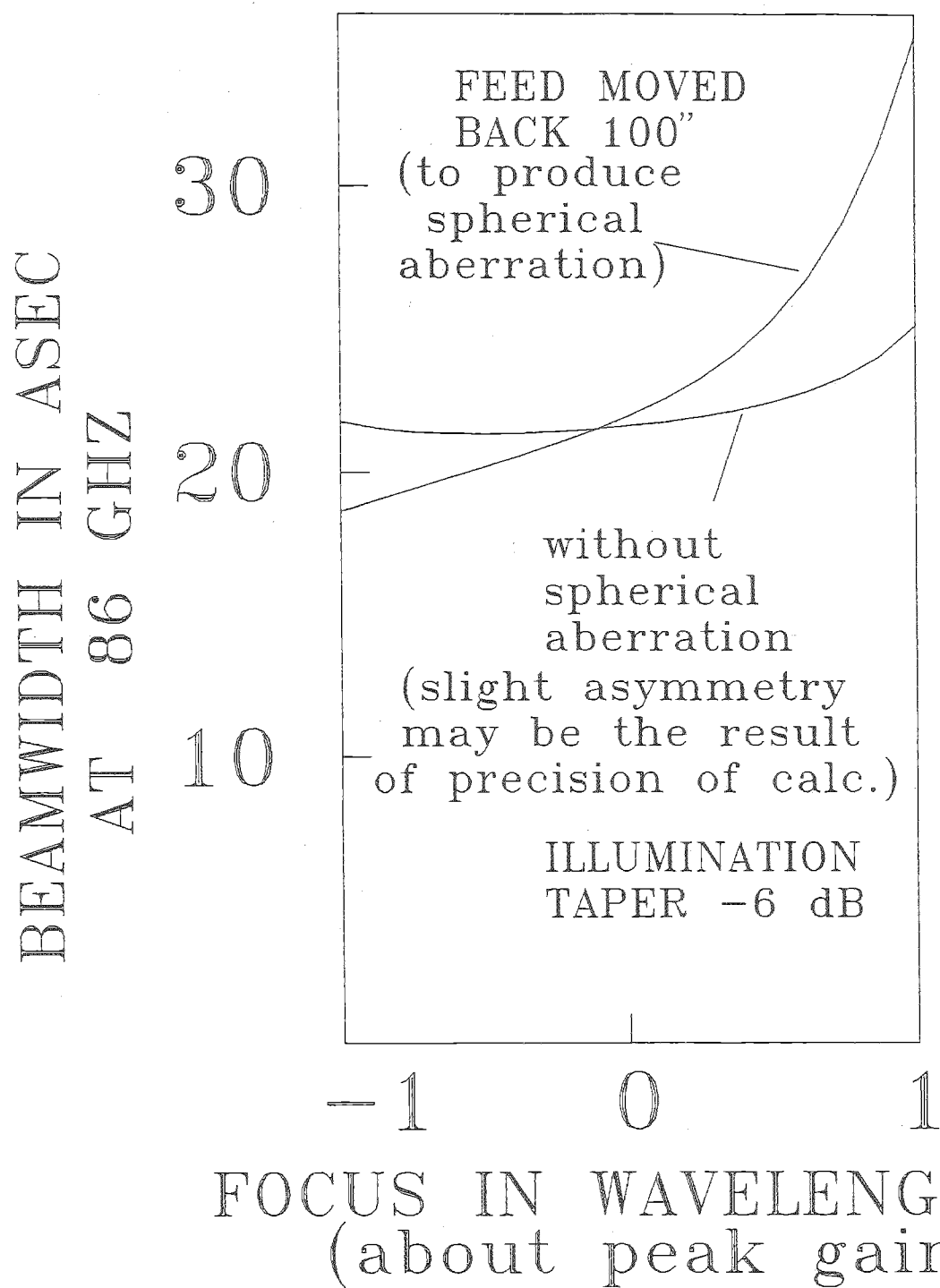


Fig. Check for spherical aberration