



Fig. 3. Arcuate furrows in Galileo Regio, in the anti-Jovian hemisphere. North is up. (Voyager image 20631.11, centered near 23°N, 134°W.)

areas were examined, as a test for strains consistent with the motions suggested by furrow pole separations.

Structural lineaments in grooved terrain were identified using a previously published global tectonic map [Murchie and Head, 1985]. Many structural lineaments having lengths of hundreds to thousands of kilometers exist in grooved terrain. It was assumed that any which could be related to relative motions of large lithospheric blocks would be (1) at least hemispheric in scale, (2) relatively linear, and (3) continuous except where obscured by crater ejecta or by flows of younger light material.

ARCUATE FURROW GEOMETRY AND CONCENTRICITY

System I

Four areas having distinct poles of furrow concentricity were identified (Figure 7b). Good visual fits of furrows in each area to small circle systems centered on the average poles were obtained.

For clarity in the following discussion, specific terms are used to describe two types of data sets for which furrow poles were