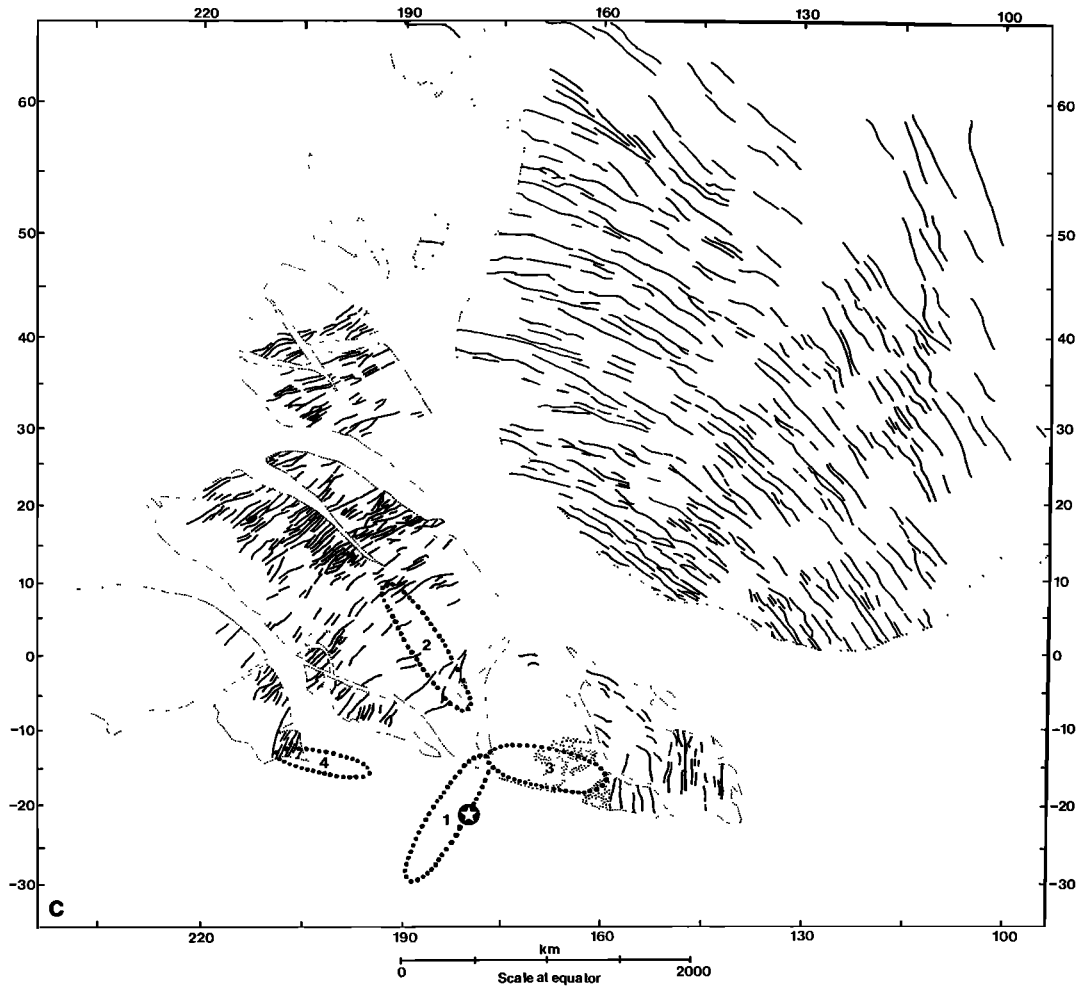

Fig. 7. (continued)

trends are almost linear and vary little within these blocks. The small inherent curvature of furrows in each block could easily be dominated by lithospheric inhomogeneities.

Evidence for Relative Motions of Blocks of Lithosphere in the Anti-Jovian Hemisphere

Using determinations of poles of concentricity of system I arcuate furrows, separations of the furrow poles are now examined in the context of regional structural patterns to assess whether there is a basis for the hypothesis that large blocks of lithosphere underwent relative motions. First, it is determined whether any pole separations can reasonably be attributed to inherent furrow noncircularity. Second, the types of deformation implied by the remaining pole separations are identified. Third, candidate fault zones across which such deformation could have occurred are identified. Fourth, the hypothesis of relative motions of blocks is tested by determining if deformation suggested by furrow pole separations is corroborated by brittle deformation of nonfurrow geologic features. Fifth, the geometry of system I radial furrows is examined for consistency with the

TABLE 2. Populations of Furrow Segments in Dark Terrain Areas

Area		Constituent Regions	Number of Segments	Number of Small Circles
Number	Assigned name			
1	Galileo Regio	A,B	131	8169
	Eastern Galileo Regio	A	85	3329
	Western Galileo Regio	B	46	935
2	Northern Marius Regio	C,D	42	682
3	Central Marius Regio	E	85	3276
	W Central Marius Regio	E, west of 170°W	64	1778
4	Southern Marius Regio	F	24	189