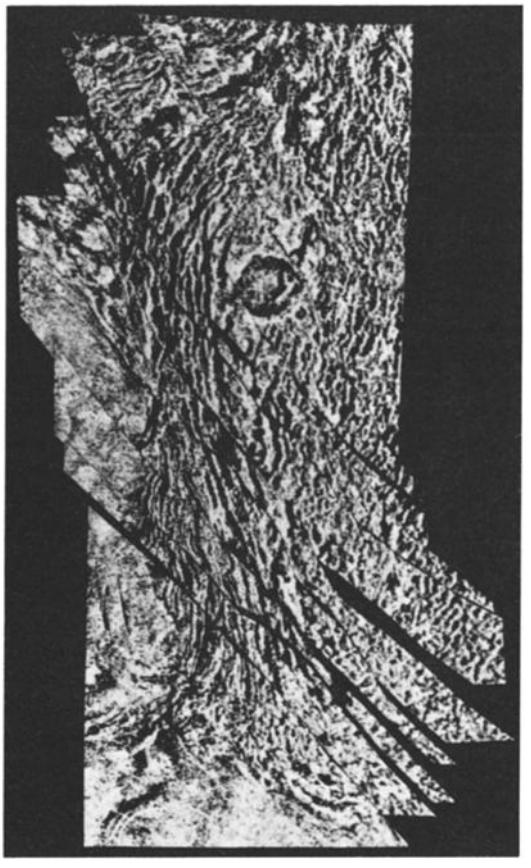

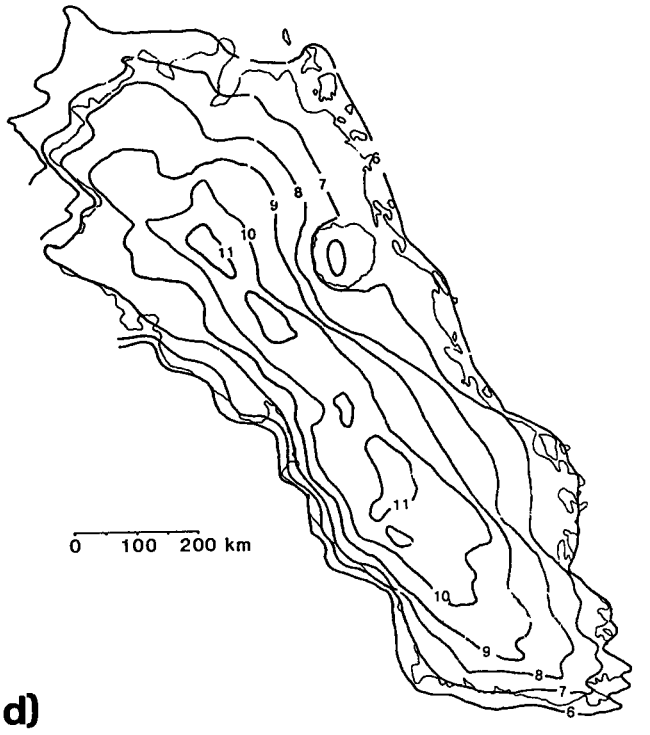

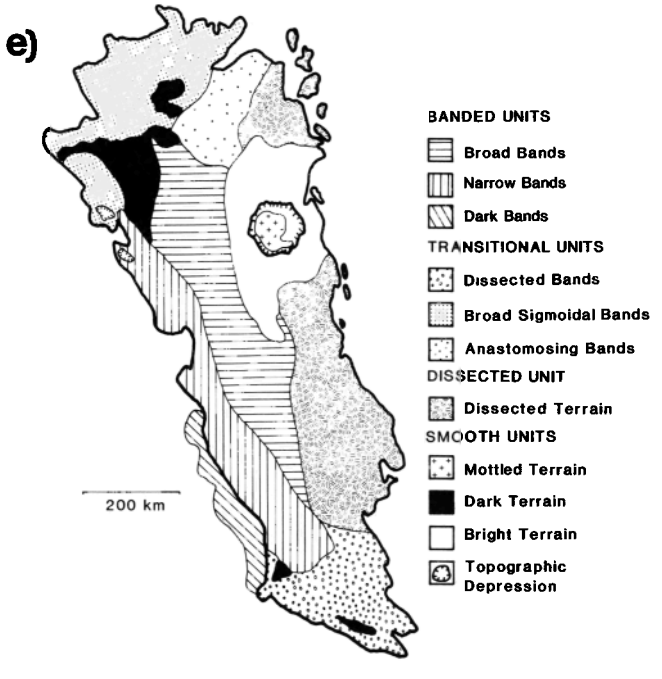

Fig. 11. (continued)

Vorder Bruegge and Head [1989*a*] have shown that similar underthrusting oriented NNE-SSW occurs elsewhere along the northern boundary of Ishtar Terra. In contrast, *Kozak and Schaber* [1989] suggest that WNW directed crustal spreading is occurring approximately 1000 km to the southeast of Maxwell. Thus, although a simple model of NNW-SSE directed convergence may be suggested by the broad linear rises to the west of Maxwell Montes, such a model is not supported by the small scale surface morpholgy which lacks ridges and valleys nor by the regional observations which suggest different directions of crustal convergence in this region. However, it is uncertain if the necessary reorientation of stresses could be accomplished through a combination of different convergence events and/or orientations.

In-place formation, with rotation. In the second model (Figure 13*b*), after formation of the Akna-like proto-Maxwell Montes, a reorientation of stresses results in the formation of the CSDs and strike-slip offset along them, accompanied by large-scale rotation of the mountain belt, which remains centered at 5°E/65°N. This differs from the first model in that the orientation of the CSDs changes during strike-slip faulting. Using the simple block rotation model of *Garfunkel and Ron* [1985], the right-lateral offsets of the Maxwell Montes domains would result in right-lateral shear along the entire boundary and a counterclockwise rotation of the domains (and the CSDs) relative to the boundary. If such an overall counterclockwise rotation of the mountain belt occurred, then the general strike of proto-Maxwell Montes would have been closer to north-south than is presently observed (Figure 13*b*). Although it is uncertain how much overall rotation could have taken place, if proto-Maxwell was oriented in a north-south configuration, then the north-south directed convergence interpreted to occur along northern Ishtar Terra [*Head*, 1990; *Vorder Bruegge and Head*, 1989*a*] is in the correct orientation to produce the strike-slip faulting and offset observed in Maxwell Montes. However, an observation that contradicts this model is that the sense of shear along the boundary of