

Fig. 2b. East central Laima Tessera, centered on 55°, 52.5°N; height of image is 180 km. Note the trough-like nature of the major trough/fracture in the southeastern part of the image (Mots Chasma), how it widens in the central part and then changes to a narrow fracture in the northwest. Most elements of the orthogonal corrugated terrain terminate against the trough/fracture, while some extend across it.

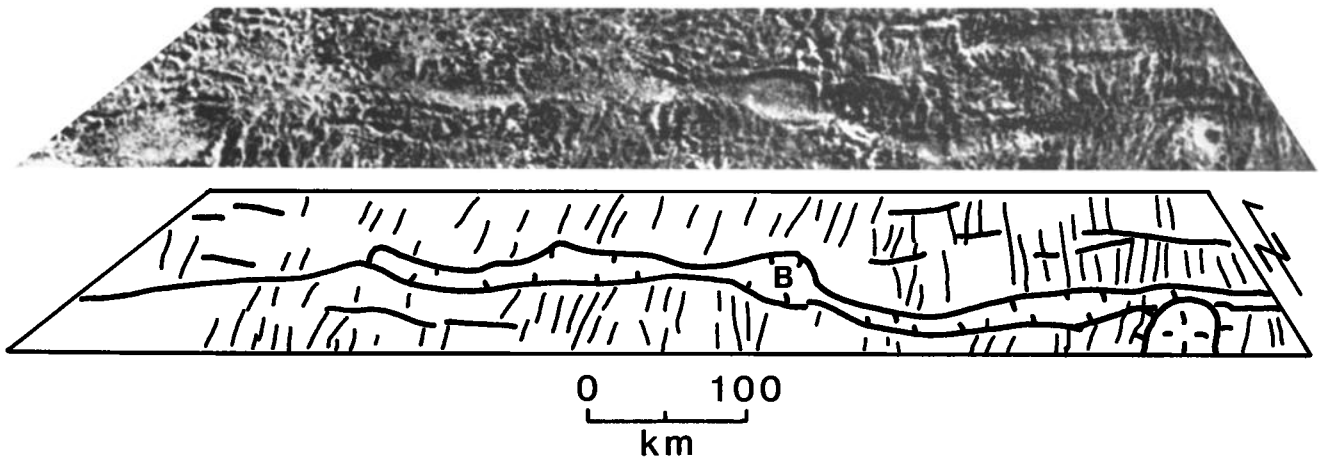


Fig. 2c. Central Laima Tessera, centered on 48°, 53.5°N; height of image is 110 km. Note the variation in width of the trough (Baba-jaga Chasma), the development of small oval structures filled with volcanic plains (center), and its evolution into a fracture on the northwest side of the image. Corrugated terrain is oriented generally normal to the trough/fracture. A mountain 40 x 50 km, of possible volcanic origin, is located in the southeast.

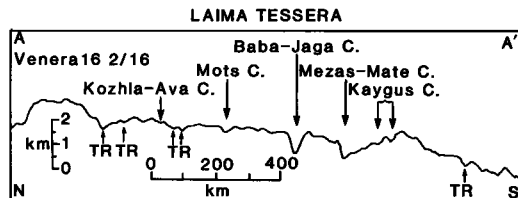


Fig. 2d. Venera 15/16 altimetry profile across Laima Tessera showing the topography associated with named troughs and chasma (labeled above profile) and unnamed troughs or trough extensions (labeled TR below profile). Location of profile shown in Figure 1.

center, (2) orthogonally oriented patterns of transforms and fracture zones [Lonsdale, 1977; Macdonald, 1986; Fox and Gallo, 1986; Kastens, 1987] (Figure 3), and (3) linear ridges and troughs that are formed parallel to the rise crest (rifted

mountains or abyssal hills). These abyssal hills produce a closely spaced pattern of linear ridges and valleys extending away from the rise crest, and oriented generally normal to the transforms/fracture zones [Macdonald, 1986].

Following the terminology of Fox and Gallo [1986], Sandwell and Schubert [1982] and Kastens [1987], transforms are defined as fault zones (along which strike slip motion is occurring) connecting offset rise-crest segments and oriented generally orthogonal to the rise crest (Figure 3). Fracture zones are the aseismic along-strike extension of transform faults (Figure 3). For this analysis, the term fracture zone (FZ) is used to refer to both fracture zones and transform faults, unless indicated otherwise.

Fracture zones are pervasive in the ocean basins (Figure 3) and may range from 20 to 60 km in width, consisting of ridges and troughs parallel to the general strike of the zone. A typical