Fig. 10. Altitude profiles selected from the H-6 quadrangle (see Figure 2a) showing topography across the three mapped arcuate scarps discussed in the text. Vertical bars indicate the ± 1 standard deviation altitude errors. Arrows (S) denote the locations of the downthrown (shadow) sides of the scarps as determined from the USGS geologic and shaded-relief maps and Mariner 10 images. The subradar tracks for the two profiles are shown on the Mariner 10 image at the top. The shorter dark line on the right side of the image is an image flaw.

profile in Figure 10); both show significant west-facing down-slopes but are asymmetric, with maximum dip on the eastern (shadow) sides. In any event, the radar results suggest that care must be taken in the identification of scarps when using images obtained at only one illumination angle.

The most distinctive large-scale topographic feature on the H-6 quadrangle (Figure 2a) is a 3 km drop in mean elevation that occurs between 30°W and 40°W longitude. The most impressive part of this drop is at 37.5°W longitude in the two profiles at 2.7°N and 4.0°N latitude, just west of Handel Crater. Here most of the 3 km drop occurs within 70 km (1.5° of longitude), although some of this west-facing slope is taken up across Handel itself. To the north, a somewhat shallower

slope occurs across and to the west of Yeats Crater (10°N). To the south, the high eastern rim and asymmetric profile of Homer Basin (Figures 2a and 4) suggest that the basin also straddles this west-facing slope. Inspection of Mariner 10 images and the geologic map of the H-6 quadrangle [De Hon et al., 1981] shows that this regional slope occurs in an area with several west-facing intracrater fault scarps. These mapped scarps [De Hon et al., 1981] transect the craters Yeats and Sinan, the crater just NW of Handel, and a crater NW of Yeats. The crater NW of Handel does, in fact, show a radar signature in the form of two narrow topographic lows near the west rim of Handel at 37°W and 38°W, 4°N, centered on the region of maximum slope (Figure 2a). Mariner 10 images