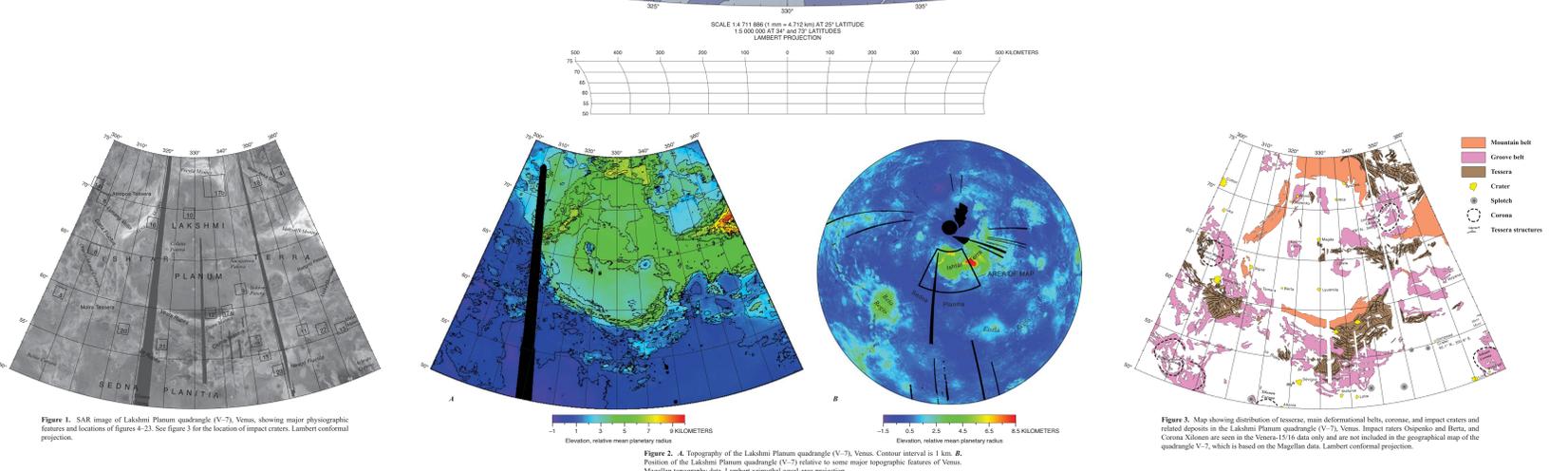


Descriptions of nomenclature used on map are listed at <http://pubs.craters.usgs.gov/>

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**Figure 1.** SAR images of Lakshmi Planum quadrangle (V-7), Venus, showing major physiographic features and locations of figures 4-23. See figure 3 for the location of impact craters. Lambert conformal projection.  
**Figure 2.** Topography of the Lakshmi Planum quadrangle (V-7), Venus. Contour interval is 1 km. See position of the Lakshmi Planum quadrangle (V-7) relative to some major topographic features of Venus. Magellan topography data. Lambert azimuthal equal-area projection.  
**Figure 3.** Map showing distribution of tesserae, main deformational belts, coronae, and impact craters and related deposits in the Lakshmi Planum quadrangle (V-7), Venus. Impact craters Ospeken and Berta, and Corana Corona are seen in the Venus-15 data only and are not included in the geographical map of the quadrangle V-7, which is based on the Magellan data. Lambert azimuthal equal-area projection.  
**Figure 4.** SAR image showing tessera material (unit T). Within tesserae, several sets of tectonic structures (ridges and grooves) intersect to form a unique structural pattern. Fragment of C1-MIDR.60N2911; center of image approx. lat 72.2° N, long 357.0° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 5.** SAR image showing shield plains material (unit P). The surface of the unit is typically deformed by broad (several km) ridges (arrows) that sometimes form short belt-like occurrences. Fragment of C1-MIDR.60N3471; center of image approx. lat 55.5° N, long 347.1° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 6.** SAR image showing densely lined plains material (unit PL) defined by broad ridges (black arrows). Younger lava plains material partly fills valleys between the ridges (white arrows). The ridges complicate the surface of the tessera (Araxos Tessera area). Fragment of C1-MIDR.75N2991; center of image approx. lat 69.3° N, long 303.2° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 7.** SAR image showing ridged plains material (unit PR). The surface of the unit is typically deformed by broad (several km) ridges (arrows) that sometimes form short belt-like occurrences. Fragment of C1-MIDR.60N3191; center of image approx. lat 59.1° N, long 351.5° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 8.** SAR image showing shield plains material (unit P). Numerous small (a few km across) shield-like features are seen on the surface of the unit. Sometimes, larger shield-like cones with the summit caldera-like features (arrows) are seen within the occurrence of shield plains material. Fragment of C1-MIDR.60N3191; center of image approx. lat 59.1° N, long 351.5° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 9.** SAR image showing pitted and grooved plains material (unit PG). The morphologically smooth surface of this unit displays numerous rounded and elongated depressions that sometimes coalesce to form grooves with scalloped edges. The unit occurs exclusively at the southern edge of Lakshmi Planum. Fragment of C1-MIDR.60N3471; center of image approx. lat 61.7° N, long 339.8° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 10.** SAR image showing the lower unit of regional plains material (unit RP1). Networks of narrow and sinuous and apparently low wrinkle ridges characterize the surface of this unit. The regional plains material is the most abundant unit in the map area and occurs both inside and outside Lakshmi Planum. Fragment of C1-MIDR.75N3382; center of image approx. lat 69.9° N, long 337.7° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 11.** SAR image showing the upper unit of regional plains material (unit RP2). The surface of the unit is deformed by wrinkle ridges characterized by higher radar backscatter when compared to lower unit of regional plains material. Sometimes the unit shows lobate boundaries and flow-like features. In places, wrinkle ridges appear to be less abundant within the unit. RP2 also shows lower unit of regional plains material. Fragment of C1-MIDR.60N421; center of image approx. lat 56.3° N, long 350.0° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 12.** SAR image showing smooth plains material (unit PS). This unit typically has low radar backscatter and displays dark features on the surface that is largely unmodified by tectonic structures. Fragment of C1-MIDR.60N3471; center of image approx. lat 59.5° N, long 332.5° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 13.** SAR image showing lobate plains material (unit L). This unit is characterized by radar-bright flow-like features that usually are not deformed tectonically and embay tectonic structures within the other units. Boundaries of the unit typically have low radar backscatter and flow-like features. Fragment of C1-MIDR.60N3471; center of image approx. lat 55.6° N, long 346.3° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 14.** SAR image showing undivided crater material (unit C). Black arrows and center outflow material (unit cf, white arrows). Crater Corana (48 km in diameter). Fragment of C1-MIDR.60N3471; center of image approx. lat 70.6° N, long 306.2° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 15.** SAR image showing groove belts (unit GB). Groove belts represent dense swarms of parallel lineaments, many of which are grabens and fractures. Fragment of C1-MIDR.60N3471; center of image approx. lat 53.0° N, long 342.1° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 16.** SAR image showing mountain belt material (unit MB). Akua Montes. The unit occurs as swarms of broad (several km parallel) ridges that outline Lakshmi Planum from the north, west, north, and east. Fragment of C1-MIDR.75N2991; center of image approx. lat 61.1° N, long 318.2° E; look direction, left; image size, approx. 115 x 115 km; north is up.  
**Figure 17.** SAR image showing relations between mountain belt material (unit MB) and lower unit of regional plains material (unit RP1) within Lakshmi Planum. (A) Dana Montes at the southern edge of Lakshmi Planum. Material of regional plains penetrates between ridges of the mountain belt (white arrows). Fragment of C1-MIDR.60N471; center of image approx. lat 56.5° N, long 318.0° E; look direction, left; image size, approx. 115 x 115 km; north is up. (B) Freja Montes at the northern edge of Lakshmi Planum. The mountain belt unit and regional plains material are separated by a zone of low and broad ridges (black arrows) that appear to deform the surface of regional plains material. The deformed impact crater in the upper portion of the image is Corana. Fragment of C1-MIDR.75N3381; center of image approx. lat 72.9° N, long 338.9° E; look direction, left; image size, approx. 230 x 230 km; north is up.

# Geologic Map of the Lakshmi Planum Quadrangle (V-7), Venus

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