RIDGE BELTS ON THE PLAINS OF VENUS. I.
V.P. Kryuchkov, Vernadsky, Inst., USSR Acad. Sci., Moscow, 117975, Kosygin St., 19

Ridge belts were found in the northern hemisphere of Venus covered by radar images obtained by Venere 15/16 spacecrafts /1,2,3/. These belts are subdivided into three classes.

The first class is represented by swell-like forms with a gentle sloped summit, and are complicated by a small number of ridges (fig. 1a). They vary in length from 200 to 800 km and in width from 20 to 40 km. The ridge belts are sometimes elevated up to 1.5 km above the surrounding plains.

The second class is composed of relatively narrower, rather prominent ridges (fig. 1b). The heights of the belts can be as high as 1-1.5 km above the surrounding plains. Often, there are circular structures associated with the ridge belts. The lengths of the class II ridge belts are from 500 to some thousands km and widths - from 70-300 km.

The third class differs from the previous classes by the lack of distinct boundaries between belts and plains. The belts of this class are found in the concentration of the very narrow, only slightly prominent linear features (fig. 1c). Some of them are identified as a narrow ridge, the other look like radar bright strips without distinct topography. However, these bright strips sometimes are the continuation of the distinctly identified ridges. The ridge belts of class III are characterized by larger spacing than those of class II. Crossing the ridge belts of class III some altimetry profiles show that they are some hundred meters higher than the surrounding plains.

Sometimes different sections of the same ridge belt are related to different morphological classes. More often there are the combinations of ridge belts of class II and III.

Quantitative characteristics were obtained to compare the ridge belts of class II and III and also for their comparison with other linear features of Venus. Spacing and lengths of the ridges were measured. Histograms show unimodal distributions of all the measured parameters of the ridge belts (fig. 2). A comparison of the corresponding histograms indicates a reliable statistic difference between mean geometrical values of the parameteris of classes II and III but the difference in standard deviations are not reliable. The distributions of ridge lengths do not differ in standard deviations and in mean geometrical values for the ridge belts of both classes. Taking into account that ridge belts of one class merge into another, we can assume their genetic kindred. The reliable difference in the mean geometric value of the spacing can be interpreted equivocally. It may be due either to a real increase of the spacing during the ridge belts formation or to a subsequent process of ridge belts covering by the plain forming material, at least partly.

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Fig. 1. Ridge belts
a) class I
b) class II
c) class III

Fig. 2. Spacing and length distributions of ridge belts, in bracket number of measurements