Variations in the base height of the F2 region have been measured on a daily basis from sunspot minimum to sunspot maximum (1995 -2001) at Vanimo using an automatic scaling programme and a 24 hour display. Ionograms were received predominantly at a five minute rate allowing details of ionospheric height variation to be followed. Of particular interest is the seasonal variation in the height of the ionosphere at this equatorial site. For much of the year the height variations appear to be chaotic with little consistency from night-to-night. However the height variations can become strongly and consistently patterned sometime in the period from September through to January. This patterning is associated with the post-sunset height rise and fall and the development of the night equatorial anomaly as seen in TEC. Subsequent oscillations of similar magnitude to the post-sunset variation often occur throughout the night during these months. Comparisons are made with similar measurements at Port Moresby and elsewhere. Some aspects of EQSF occurrence are also discussed in the context of these observations.