

More ring stuff

OK, let's assume Yih's roche limit is 1.42 Yih radii (from the center of Yih). This represents the outer radius of the ring. Let's further say that the inner radius of the ring is 1.21 Yih radii (again measured from the center of Yih), making it half way between Yih's surface and the roche limit. This gives us a width of 0.212 radii or about 851 miles for the width of the ring and another 851 miles between the surface and the inner edge of the ring.

I need to see how Yih's lower gravity, higher surface pressure, and lower lapse rate would effect the pressure profile of the atmosphere, particularly where the Karman line is. Since low orbit on Earth is around 450 miles above sea level, that means there's probably room for orbital flight before yinrih have to worry about the ring.

As for climate, latitudes between 7.2 degrees and 15.2 degrees would be effected by the ring's shadow during the winter solstice. Half way between the winter solstice and spring equinox, the shadow would cover between 3.25 and 6.563 degrees. There would be virtually no shadow during the equinoxes.

At around 34.265 degrees latitude, the bottom edge of the ring would touch the horizon and the ring would take up about 12.258 degrees of visual field. The ring would be completely below the horizon at around 45.233 degrees latitude. All these ignore atmospheric optical effects.

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