

More messing with Universe Sandbox

More messing with universe sandbox. I put a copy of Earth in place of Yih and messed with the density and radius to match Yih. I was previously trying to do it from scratch. This is much easier since Yih is "like Earth unless noted".

What I've discovered:

Yih has a lower environmental lapse rate, meaning temperature decreases more slowly with altitude, meaning severe weather shouldn't be as common (fewer tornadoes, boo!)

The surface air pressure is higher by about 100 mb. ~~Given I had a hard time adjusting to Denver after living near sea level, I assume this means yinrih will have a hard time breathing on Earth, at least at first.~~ Assuming (early) spacecraft try to mimic surface pressure that means a slightly stronger pressure differential between the inside and outside, though that might be negligible. As an aside, humans don't detect a lack of oxygen, we detect an increase in CO₂ levels in our blood, that's what causes the stifling feeling when you stick your head under your bed sheets for too long. It's easy to asphyxiate in, say, a pure nitrogen atmosphere because there's no increased CO₂ in our blood to warn us. Yinrih CAN sense hypoxia in addition to hypercapnia. This means they can differentiate between a lack of good ventilation (hypercapnia caused by their exhalations not being vented) and a lack of oxygen.

Edit: Never mind on the hard to breathe part. While this may be true of yinrih on Yih, the atmosphere on a terraformed dwarf planet will be thinner, perhaps equivalent to the cabin of an airplane at cruising altitude, so the missionaries that find Earth won't have any issues, as they were born on a dwarf planet.

I'll probably mess with the ratio of CO₂ to N₂ in the atmosphere to compensate for the lack of insolation vs Earth.

Revision #1

Created 2026-06-05 22:50:49 UTC by Lurker

Updated 2026-06-05 22:50:49 UTC by Lurker