Kerbal Space Program - Bug #18989

Jool has no surface

05/19/2018 01:59 AM - jclovis3

Status:	Confirmed	**Start date:**	05/19/2018
Severity:	Unworthy	**% Done:**	10%
Assignee:			
Category:	Camera		
Target version:			
Version:	1.4.3	**Language:**	English (US)
Platform:	Windows	**Mod Related:**	No
Expansion:	Core Game		

Description

While using the cheat mode to ensure my capsule has enough fuel to descend into Jool, I discovered that below 5000m the surface appears to be a black space with a tiny little circle in it but no stars. I think that circle is the center of Jool. While descending deeper into the atmosphere, you can see the blackness begin to round out like a giant black hole. Then finally, when I hit bottom at negative 250 meters (didn't see that coming) while parachutes were still attached, my vessel crashed and exploded (which should have been guarded against the cheat to prevent that).

So it would seem that Jool just does not have a surface to land on. Not even a frozen ocean or anything (given the dense atmosphere and distance from the sun). If it were a gas ball, vessels should fall to the center and gradually loose weight as it does.

Related: Feedback #16444

History

#1 - 05/19/2018 02:13 AM - jclovis3

Actually, aside from setting a low orbit around Jool (and no other cheats used), I could still de-orbit the craft without burning up so somebody's going to try to land drones there and report science from the surface.

Watch: https://youtu.be/UmlHlMnm6v4

#2 - 05/20/2018 03:44 AM - raptor9_ksp

This is the intended behavior of Jool.

#3 - 05/20/2018 04:12 AM - jclovis3

One of the side effects that I saw reported a long time ago was that the Sun can be seen through Jool. If Jool is to be a gas giant and the sun should shine through it, wouldn't it make sense to have the sun's light be darker, with a green tint, when looking at it through Jool? At the moment, the sun does not get any shade darker, which suggests that Jool should have a thin enough atmosphere to travel through, and not crash at 150 meters below "sea level".

When looking at the Sun through Jool, it eventually disappears as you zoom in on Jool, which is inconsistent with the effect that Jool has no solid mass and light should pass through it. So what I'm saying is that there is inconstant behavior with respect to the graphics of a surface, and how light does or does not shine through the planet. At the very least, I would expect a solid core to block the sun in the center, and around the edges, the green would light up like looking at the suns corona during an eclipse.

#4 - 05/25/2018 03:54 PM - diomedea

- Status changed from New to Moot

- Severity changed from Low to Unworthy

Performs exactly as designed, which is the closest to descending in a real gaseous giant. Real ones are expected to have a small solid core, surrounded by liquid hydrogen (this is theoretical, no proof collected yet). Much before reaching the core, pressure exerted by the liquid and gaseous fractions would crush any vessel. Liquid hydrogen also isn't perfectly transparent to visible light, part of which is absorbed (though the amount varies with wavelength: most of wavelengths are absorbed to some degree, with a few exceptions that would sum to give the greenish tint). Due to light absorption, blackness ensues in all directions but some light can still be seen coming from the surface (also to consider light refraction from the liquid/gaseous surface, deviating light).

#5 - 06/26/2018 03:43 AM - bewing

- Category changed from Map and Planetarium to Camera

- Status changed from Moot to Confirmed

- % Done changed from 0 to 10

The game should not have severe visual glitches, at the very least. And this one exists and is reproducible. So I disagree that this is moot.
Whether it should be possible to land on Jool's surface is debatable, but it is true that the current setup is the currently intended behavior by the devs.

Files

4435m.png	242 KB	05/19/2018	jclovis3
1443m.png	229 KB	05/19/2018	jclovis3
neg250m.png	235 KB	05/19/2018	jclovis3