Planetary stunt

(September 2022)

They're at it again, bragging about seeing a planet nobody's capable of seeing, even remotely.

In the journal "***Nature***", September 1, 2022

> **"*Webb telescope wows with first image of an exoplanet***
>
> ***Astronomers see it as the start of a bonanza of exoworld studies to come.*"**

Of course, you should be tempted to check, although it does not seem many of us are.

You can see below the location of the star, which has been obscured by filtering, and that of the planet.

You can see that there are about 6 or 7 pixels between the planet and the star. From the 363 light-years distance of the star to the telescope, I calculated that at maximum resolution there would be 8 pixels, each with a side of 1.7 billion kilometers, so my calculation was somewhat optimistic. The paper reports elsewhere a distance between the star and the planet of 92 times the distance between Earth and Sun. From the description of the system, you can also infer that the planet is about 320,000 km across, about twice the diameter of planet Jupiter.

The papers report a period of revolution of 600 years, which would indicate that the star is about twice as massive as the sun.

What you see at the location of the planet is not the planet, but a dimensionless speck of scattered light.

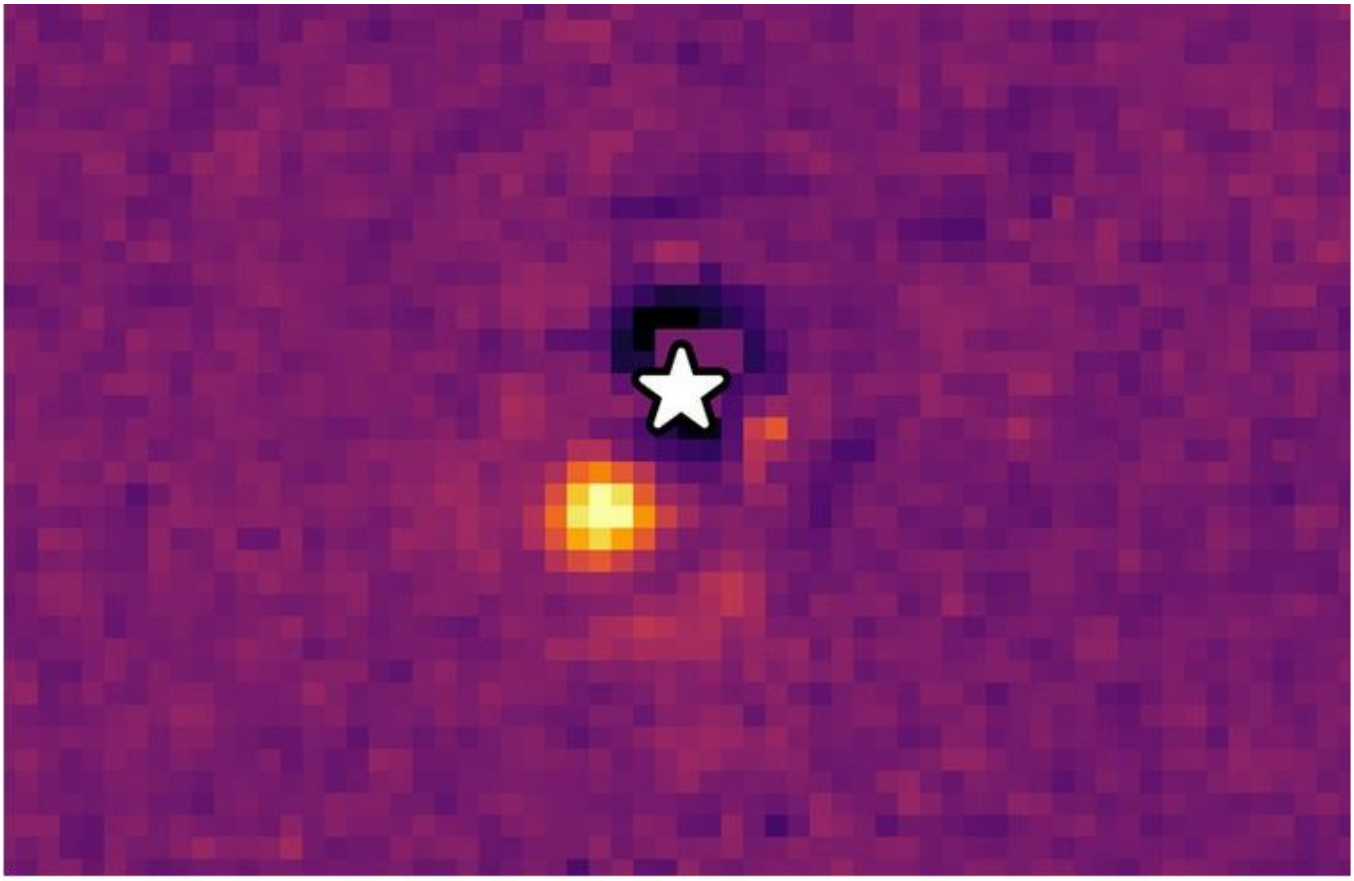
There would be about 6,000 planets across in just one of the central bright pixels (or 36 million in one pixel square, or 216 billion in one pixel cube). In other words, you don't see the planet, even remotely. You just see dimensionless light, like when watching stars from your backyard with a naked eye. Even through the Webb telescope, the closest star would be way too small to fill just one pixel, and the planet is even much smaller.

In other words, the "*discovery*" seems to be just a public relation stunt meant to justify the expense in the eyes of the public and Congress. Why such a publication as "*Nature*" is complicit baffles me. Perhaps is it because they profit from it directly?

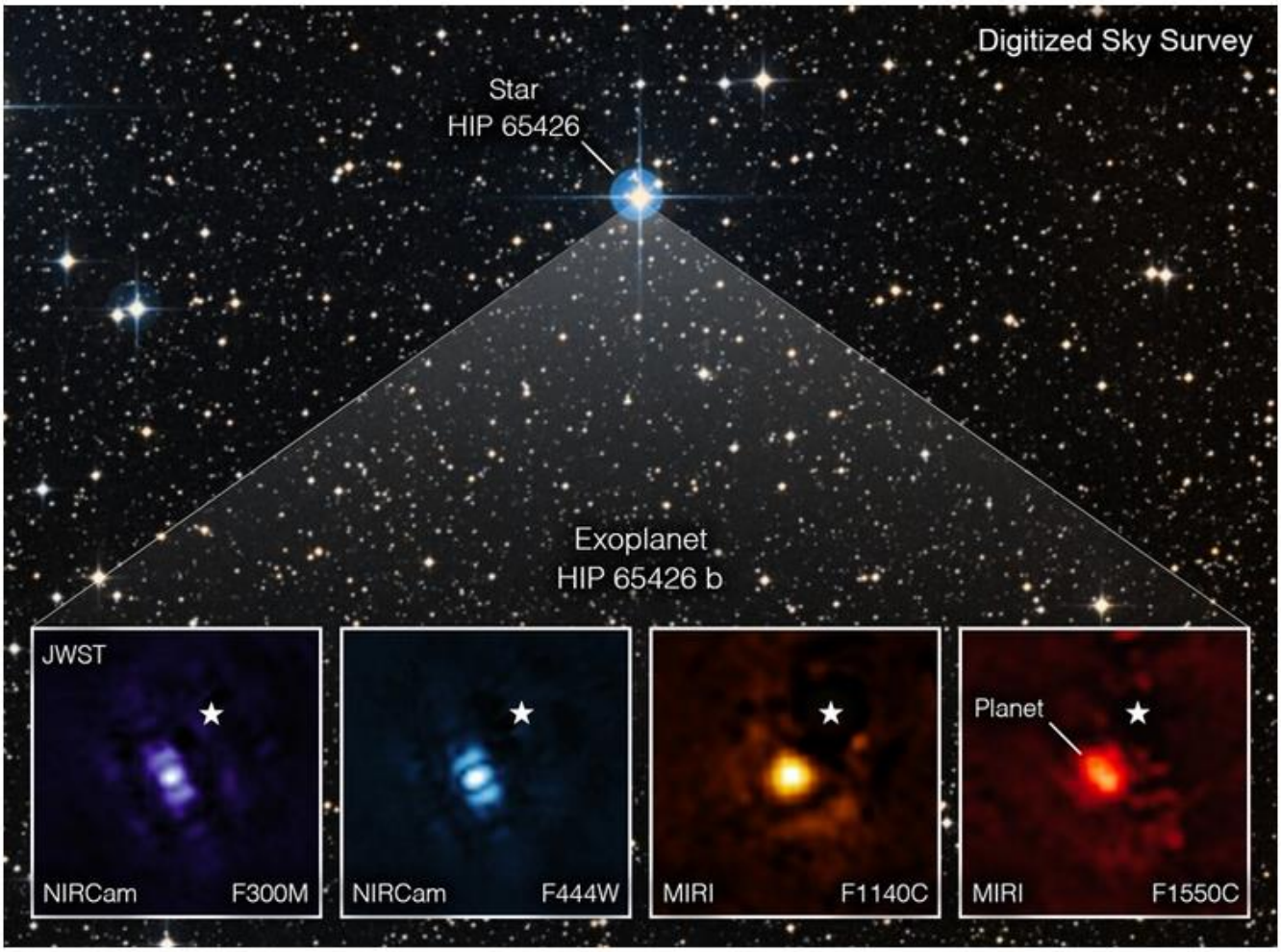
I don't think anybody is really lying, *per se*. It's probably rather a mixture of bad faith, intellectual dishonesty, self-aggrandizement, and greed.

After all, they did use the word "*bonanza*", didn't they?

> ***Bonanza*** *(n.)1844, western U.S. (1842 as a Mexican word in English), from American Spanish bonanza "a rich lode," originally "fair weather at sea, prosperity," from Vulgar Latin *bonacia, from Latin bonus "good" (see bonus). The Spanish word was transferred to mines, then, in English, to farms, then used generally for "a profitable thing."*



Although the Webb telescope's first image of an exoplanet looks like a pixelated lightbulb, it actually demonstrates the observatory's infrared prowess. The star symbol marks the exoplanet HIP 65426 b's star, which Webb has blocked from the image. Credit: Aarynn Carter, the ERS 1386 team



The Webb telescope imaged HIP 65426 b at multiple infrared wavelengths (from left, 3.00 micrometres, 4.44 micrometres, 11.4 micrometres, and 15.5 micrometres). Credit: NASA/ESA/CSA, A. Carter (UCSC), the ERS 1386 team, and A. Pagan (STScI)

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