Mysterious planet-sized object spotted near Mercury

By Eric Pfeiffer | The Sideshow – Thu, Dec 8, 2011

Is a giant, cloaked spaceship orbiting around Mercury?

That's been the speculation from some corners after camera onboard NASA's STEREO spacecraft caught a wave of electronically charged material shooting out from the sun and hitting Mercury.

Theorists have seized on the images captured from the "coronal mass ejection" (CME) last week as suggestive of alien life hanging out in our own cosmic backyard. Specifically, the solar flare washing over Mercury appears to hit another object of comparable size. "It's cylindrical on either side and has a shape in the middle. It definitely looks like a ship to me, and very obviously, it's cloaked," YouTube-user sinixster said in his video commentary on the footage, which has generated hundreds of thousands of views this week. Now, how this user was able to determine that the object was "obviously" a cloaked spaceship with no other natural explanation remains as much a mystery as the object itself.

Of course, there's another scientifically sanctioned explanation for the curious images, though we're not certain that skeptics and UFO enthusiasts such as sinixster will endorse it. Natalie Wolchover of Life's Little Mysteries put the question to scientists in the solar physics branch at the United States Naval Research Laboratory (NRL). They're the people who analyze data from the Heliospheric Imager-1 (HI-1)—better known in this context as the camera that shot the footage in question.

Head NRL group scientist Russ Howard and lead ground systems engineer Nathan Rich say the mysterious object is in fact Mercury itself. And what we're seeing in the footage is the equivalent of Mercury's wake, "where the planet was on the previous day," as it travels through the solar system on its natural gravitational path:

To make the relatively faint glow of a coronal mass ejection stand out against the bright glare of space—caused by interplanetary dust and the stellar/galactic background—the NRL scientists must remove as much background light as possible. They explained that they determine what light is background light, and thus can be subtracted out, by calculating the average amount of light that entered each camera pixel on the day of the CME event and on the previous day. Light appearing in the pixels on both days is considered to be background light and is removed from the footage of the CME. The remaining light is then enhanced.

The analysts say the practice works even better when applied to far-off objects such as stars, which don't move much relative to the sun. But for moving objects, especially planets, the process is a little more complicated. And making matters even trickier is Mercury's status as the closest planet to the sun.

"When [this averaging process] is done between the previous day and the current day and there is a feature like a planet, this introduces dark (negative) artifacts in the background where the planet was on the previous day, which then show up as bright areas in the enhanced image," Rich explained in an email.