



HOW DO UFOs GET HERE

Getting to the Moon and back is an expensive and trying business, which only a few of the great nations of the Earth could undertake, even now. Getting all the way out to Mars presents a feat of endurance and technical mastery that remains beyond all but an extremely well-funded NASA. These worlds are our cosmic neighbours. They are in our backyard, a space that is inconsequential compared to the vast distances between the stars.

Let us assume that Einstein was right. However we may wish to, we simply cannot travel faster than the speed of light.

We may theoretically consider warp speed, or hyper-drives, or teleportation. But, in practice, we are stuck with moving physical matter through the immense vacuum of space.

Aliens who wish to visit our adorable blue world from across the Cosmos must overcome an enormous hurdle. Even at speeds close to that of light, which incurs its own remarkable set of problems, efforts to overcome this hurdle involve many years of travelling. And that's just from the nearest stars.

Many sceptics who argue against a UFO reality present this simple argument as a sure-fire reason to dismiss the concept of alien visitation. It simply takes too long for them to get here.

The nuclear physicist and Ufologist Stanton Friedman argues that our culture underestimates the potential for nuclear-powered spacecraft. Nuclear fusion or fission reactors would be capable of ejecting high speed particles from a spaceship's propulsion system, generating acceleration. In the vacuum of space, this increase in speed would be ongoing for the lifetime of the nuclear reactor, generating incredible speeds in a relatively short time-span. But one is still left with journey times of many years, not weeks or months.

Many Ufologists, like author Timothy Good, provide evidence that UFOs are based here, even if they once originated from elsewhere. In other words, there are alien bases on Earth from whence the intrusive and elusive UFOs emerge to skit about in our skies.

Perhaps such bases exist on neighbouring planets, like Mars. Perhaps great 'motherships' visit our world from distant

stars, slowly traversing the Cosmos to drop off flying saucers into our atmosphere. The science writer Carl Sagan advocated interstellar travel in cored-out comets. These great balls of rock and ice orbit the Sun in distant, elongated orbits. But some of their cousins also travel through the galaxy between the stars. If a space-faring civilisation were to hitch a ride, these comets would provide a small world to live within across the cold of deep space. A succession of generations could wait out their time before arrival at the star system they hope to colonise.

So, have aliens colonised our star system then? Well, if they were looking for a sensible place to settle in the solar system, Earth appears to be the only viable habitat in town. The need to inhabit a world in what astronomers call 'The Goldilocks Zone' brings us to a list with a sole candidate: the Earth. So, maybe Tim Good is right to argue that they are here, among us.

Or, perhaps there is also another possibility. Not all stars are bright. Some failed stars no longer shine with the light of their birth, but lie hidden in the skies; invisible needles in the cosmic haystack. These dark, stellar worlds, known to astronomers as brown dwarfs, could be found anywhere. Some are like planets, orbiting parent stars, and others independently traverse the spaces between the stars.

If the Sun was close to one of these failed stars, we may not realise it yet. This seems a stunning claim, but it is a reasonable contention. These small failed stars, known as sub-brown dwarfs, are very difficult to detect. Yet they would be sufficiently massive to offer a warm environment for life on their own families of planets. In a stroke, such a scenario would overcome the concern about the huge distances between the stars. Another habitable zone would be viable within striking distance of the known planets.

Of course, with the Moon still offering us a significant space-faring challenge, it will be a while before our species is able to travel to such a dark star, even if one were to be found nearby. But that does not mean that we haven't been visited from there...