



[THE PRACTICAL SKEPTIC MICK WEST

Mick West is a writer, investigator, and debunker who enjoys looking into the evidence behind conspiracy theories and strange phenomena and then explaining what is actually going on. He runs the Metabunk forum, tweets @mickwest, and is the author of the book *Escaping the Rabbit Hole*.

NASA Studies UFOs?

The National Aeronautics and Space Administration (NASA) is studying UFOs—and the first question any good skeptic will ask is “Why?” UFOs have long been relegated to the same category as crop circles and Bigfoot: a decades-long litany of pseudoscientific claims and ambiguous evidence. There are constant intimations that the phenomenon is about to be solved or something significant revealed, but nothing ever happens. The UFO culture is marked by fervent belief, genuine curiosity, and a huge diversity of opinions. The UFO ecosystem is centered on entertainment that, out of necessity, feeds the belief with dramatic, entertaining misrepresentations and outright fabrications.

NASA is the U.S. government agency responsible for the nation’s civilian space program and for aeronautics and aerospace research. Established in 1958, NASA conducts space missions to explore our own planet, the solar system, and the universe beyond. It deploys satellites to observe Earth’s weather and climate, operates rovers to study Mars, and sends probes deep into space. NASA’s Hubble Space Telescope and the James Webb Space Telescope have transformed our understanding of the cosmos. It’s a serious organization, so why is NASA getting involved in a topic that many feel is pseudoscientific nonsense?

The answer is twofold. First, it’s because Bill Nelson said so. Nelson is the head of NASA, and the study was basically his idea. It has its roots, of course, in the vast amount of public interest that was generated starting in 2017 with the publication of *The New York Times* story revealing the existence of a Pentagon program that studied UFOs and

an associated release of U.S. Navy UFO videos. Nelson watched those videos, talked to the pilots, and seemed convinced that there was something to it. He personally commissioned an initial inquiry in June 2022 (Knapton 2022).

The second reason—and why he was not simply laughed at for suggesting a silly hunt for aliens—is that UFOs are real. Not real in the sense that there are actual flying saucers but real in that sometimes there are things in the sky that cannot be initially identified. Those things might be foreign drones, misidentified birds, faulty radar, observer error, balloons, or something else. But regardless of what any individual UFO actually is, if a pilot (especially a military one) sees something they cannot identify, then that presents a potential problem that needs to be addressed.

The public interest in UFOs as alien craft, as well as a similar interest by some in the military, has resulted in an

unfortunate hybrid of genuine justified research into what’s causing these objects to be unidentified, mixed with an unfounded hunt for a “nonhuman intelligence” that some suspect to be behind a few cases.

This intense public interest has also led to an evolution of acronyms. First, *UFO* was renamed *UAP*, or unidentified aerial phenomena. The Pentagon started a UAP task force, which was straightforwardly called the UAP Task Force (UAPTF). The UAPTF was briefly succeeded in November 2021 by the Airborne Object Identification and Management Synchronization Group (AOIMSG, not straightforwardly pronounced “aim-sog”). This, in turn, was succeeded in July 2022 by the All-Domain Anomaly Resolution Office (AARO, pronounced “arrow”).

As part of the branding of AARO, UAP was redefined as “Unidentified Anomalous Phenomena.” No longer





NASA's UFO/UAP panel with Sean Kirkpatrick of AARO presenting a new video of three UAP that were determined to be distant planes.

confined to aerial phenomena, UAP now included odd things underwater, on or under the ground, in the air, and in space.

NASA'S UFO Hearing

The NASA inquiry and the work of AARO were discussed at an unprecedented public meeting held on May 31, 2023 (NASA 2023). A sixteen-member NASA independent study group discussed the work they had done so far and their plans for the future, and the director of AARO, Sean Kirkpatrick, gave a presentation on their findings so far and their plans for the future. It was essentially the government and the military telling us everything they could make public about the topic of UFOs.

Kirkpatrick's talk followed the pattern of similar government presentations on UFOs. Nothing very interesting was revealed that would please the "UFOs are aliens" contingent of UFOlogy. Indeed, Kirkpatrick has made crystal clear the lack of extraterrestrial involvement, saying earlier that month, "For the record, in our research, AARO has found no credible evidence thus far of extraterrestrial activity, off-world technology, or objects that defy the known laws of physics."

At the NASA hearing, he presented two videos: one that had never been seen before—always an exciting moment for UFOlogy and for me personally, as my

primary UFO interest is in analyzing videos. The older video was the "Middle East Sphere," which showed something that looked rather like a mylar balloon moving very fast. Kirkpatrick explained AARO lacked data on this object. However, they also said it "demonstrated no enigmatic technical capabilities and was no threat to airborne safety."

This qualification seemed to be overlooked by the UFO community, who had adopted this sphere as a possible alien drone or anti-gravity craft. But the only explanation that fits "no enigmatic technical capabilities" is that it was simply a balloon. Balloons, AARO has found, are what nearly half of all pilot-reported UFOs resemble (AARO calls them "balloon-like entities," or "balloons" for short).

The new video showed what looked like a sky full of stars. Three dots are observed to move around together. Kirkpatrick explained that the three dots were distant oncoming planes (a frequent source of UFO reports) and that the apparent movement was caused by the camera moving (another very common UFO generator).

He was then asked what the dots in the background, which were not moving, were. He said they were stars. I immediately recognized this as incorrect, because if a camera movement caused the apparent motion of distant planes, it would also make the stars move. The

dots must just be some camera artifact, like stuck pixels.

I immediately posted this on Twitter and tagged @DoD_AARO. I don't know if Kirkpatrick read it, but after the break, he came back for an unscheduled update and explained he was no longer sure they were stars. I found this all rather surprising, as it's such a basic camera effect that the head of AARO really should be familiar with.

Calibration

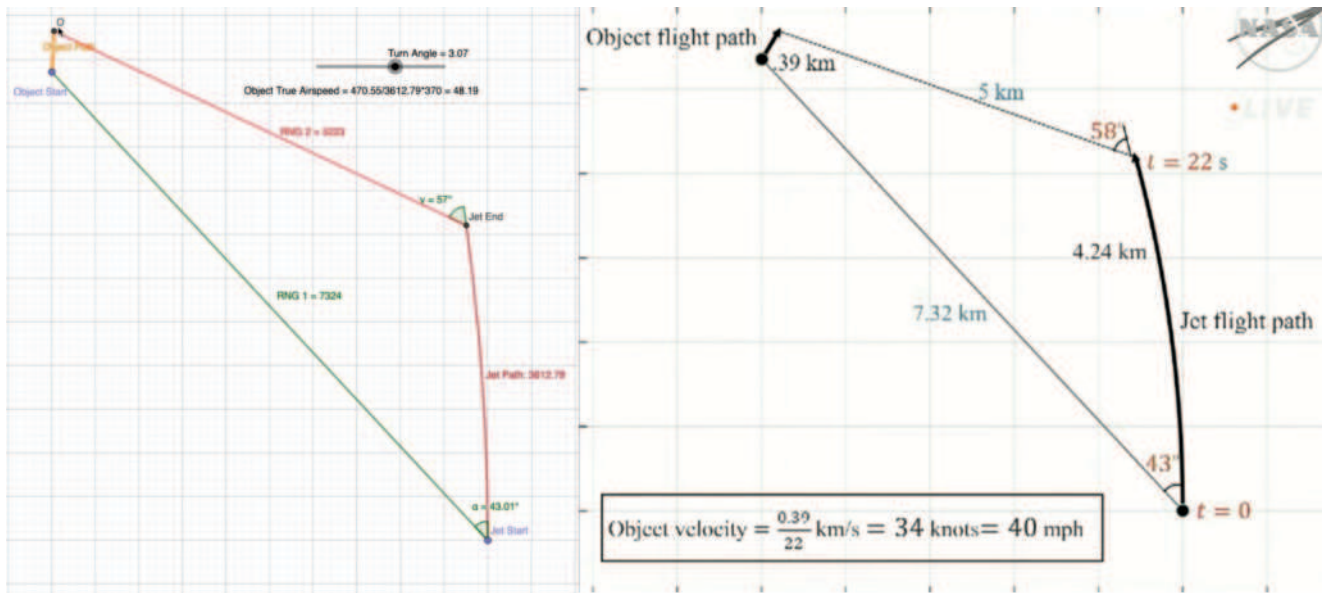
The word of the day at the hearing was *calibration*. The issue, discussed interminably, was that the existing data on UFOs came from uncalibrated instruments. Specific mention was made of systems such as the ATFLIR tracking pod. The ATFLIR is designed to track targets, so all the design decisions and tweaking are geared toward the camera being able to keep a lock on a target.

This relates to the Navy's "Gimbal" video, which shows what looks like the glare from a very hot object. However, without the calibration details of the sensor, as well as the operator settings in use (such as gain), it's impossible to correlate this with possible objects, such as a F/A-18 engine, so it's difficult to rule things in or out. So *calibration* ruled the day. Calibrated instruments were needed for NASA to do real science. Existing systems were inadequate.

I feel this is only partly true. The anomalous nature of UAP is often both their visual appearance and their physical motion (hyper-rapid acceleration or unnatural hovering). There is nothing to stop you from accurately recording those things with a modern mobile phone (or preferably two.) No calibration is required to measure the angular distance traveled with enough accuracy to determine anomalies.

The Skeptical Astronaut

The most famous member of the NASA panel is Scott Kelly, a former Navy captain, fighter pilot, and test pilot with 18,000 flight hours, who is also a former NASA astronaut who spent a year in space. Kelly provided a healthy grounding for the panel. We've



The author's 2019 analysis of "Go Fast" (left) and NASA's 2023 analysis (right). They differ slightly but both conclude that the UFO/UAP was moving slowly.

heard from some Navy pilots that they saw UFOs every day, yet Kelly stated that he had never seen one and never really heard people talk about seeing them.

Kelly did relate two "UFO" stories (2:52:05). In one story, he and his copilot saw something strange whizz past the cockpit. They circled back around and determined it was a Bart Simpson party balloon. In the second story, he described seeing a weird foreign object floating in space blocking the Space Shuttle cargo bay doors. This was observed by other astronauts and was a cause for some concern until suddenly the perspective clicked, and Kelly realized he was looking at the International Space Station, miles away but appearing close due to the stark clarity of the vacuum of space. The very best experts can be fooled by optical illusions. If they don't figure them out, then optical illusions can become UFOs.

'Go Fast' Redux

Joshua Semeter, the director of the Center for Space Physics at Boston University, gave a presentation on how science can be applied to analyze a UFO video (2:45:00). The video he chose was "Go Fast," and to my great amusement, the analysis he presented was almost identical to the analysis

I'd done (with help from others at Metabunk) and posted on YouTube four years ago (West 2019). Even the diagrams he used were practically the same. While the analysis was a bit out-of-date, it was still gratifying to have some validation from such an august panel, even if they did not credit me.

NASA's Plans for UFOs

NASA seems to be trying to make the best of what was initially an unwelcome assignment from their boss. UFOs seem like a silly subject, but if we keep the search for E.T. in its appropriate place—as a very unlikely outlier hypothesis—then good science can be done.

Dan Evans, an administrator at NASA who led the discussion, summed up their goals:

[Studying UAP] provides an opportunity for us to expand our understanding of the world around us. It's an organization dedicated to exploring the unknown; this work is in our DNA. Secondly, this study aims to enhance situational awareness. The presence of UAPs raises concerns about the safety of our skies. And it's this nation's obligation to determine whether these phenomena pose any potential risks to airspace safety. By understanding the nature of UAPs, we can ensure that our skies remain a safe space for all. In order to achieve these goals, it is crucial that we em-

ploy a scientific lens for our UAP work.

I see no reason this study, even with its uncomfortable roots in alien hunting and even the supernatural, should not produce good science. We will learn about the limits and failings of our sensing instruments. We may learn about illusions that pilots are prone to. We might discover new atmospheric phenomena. There's even a very slight—vanishingly small but not invisible—chance that we will discover a new form of life.

I don't think we will, but science demands an open mind. I just hope that extraterrestrial believers also keep an open mind and will accept the likely results of the NASA study as yet another clue that we are indeed alone on this planet and that the best chance of us finding life is not in blurry videos but in NASA's great success: the James Webb Space Telescope and its study of the atmospheres of distant planets. ■

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