

## Shadowcraft: UFOs, Spy Planes, or Something Else?

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The decade-long struggle to understand the mystery of the super-secret "Aurora" hypersonic aircraft and its role in the UFO phenomenon's rash of "triangle sightings" has entered a new phase.

Veteran UFO litigator [Peter Gersten](#) (of CAUS -- Citizens Against UFO Secrecy) argues that military secret-keepers did not make a "good faith" effort to provide him with information about large [triangle-shaped craft](#) seen repeatedly within the United States and elsewhere.

The Department of Defense (DOD) has maintained it could find no information confirming the existence of such craft, military or otherwise.

However, the U.S. District Court in Phoenix, Arizona, recently denied DOD motions to dismiss Gersten's lawsuit, instead demanding that the DOD produce additional affidavits about the way it handled the request.

This sets the stage for a rare opportunity to submit oral arguments regarding UFO sightings possibly caused by secret military aircraft like the notorious "Aurora".

### Hunting the shadowcraft

The quest for Aurora has consumed the passions and skills of a diverse army of investigators for more than a decade. One of the more knowledgeable is Dr. Scott Miller, associate professor of aerospace engineering at Wichita State University in Kansas.

Miller has recently been touring the country lecturing on "shadowcraft" -- his term for the elusive mystery vehicles reported all around the world.

His travels are sponsored by the American Institute of Aeronautics and Astronautics, the world's largest professional society of aerospace engineers, as part of the annual "Distinguished Lecturer" series of about a dozen speakers who visit local chapters.

"A lot of the audience is a bit skeptical," he admits. "Yet they're also intrigued, and they'd like to think these things really exist."

The professional engineers he talks to also express gratitude that a fellow professional is examining the well-known rumors from a strict engineering point of view.

Has Miller gotten any useful feedback from his audiences? "Nothing really super juicy yet," he notes.

### Black programs and Belgian triangles

At St. Louis, the home of the Boeing military aircraft and missiles plant (formerly McDonnell Douglas), he recalls that one attendee told him that some of his other friends in a local military 'black program' couldn't attend the talk because of security concerns.

"That was kind of disturbing," Miller recalls. "And kind of interesting!"

Some fellow experts he has talked with are very interested in photographs of the "Belgian triangle" seen repeatedly over Belgium a decade ago.

"They tell me it resembles a vehicle that Teledyne-Ryan had been working on," he says, "and they were way ahead of Lockheed on 'stealth' technology."

Such a subsonic reconnaissance vehicle might be the long-rumored spotter companion for B-2 missions over Russia.

Miller described the need for an aircraft to help hunt down rail-mobile Russian missiles, and such a mission would be more than enough rationale to keep its existence classified.

### **Follow the fuel**

He himself is intrigued by recent Indiana UFO reports and the "pretty wild" rumors of stealth blimps with fake starfields displayed on their undersides.

"At this point," he admitted, "I'm paying attention."

One of the most interesting tidbits Miller has learned involves the mid-air refueling aircraft that any secret military vehicle would need.

"The SR-71 needed a special hydrocarbon fuel," he says. "And there were several modified KC-135 tankers stationed near Wichita. The fuel has a two-week shelf life and must be safely disposed of if stocks are not used quickly."

"I was told the KC-135's are still in service, and they are still making that fuel."

According to Miller, there aren't any more SR-71s flying, and they were mostly served by tankers out of Beale AFB in California, not Kansas. So why the Wichita refueling fleet?

### **The Los Angeles object**

Another heavyweight aviation historian who has examined "Aurora" stories is Tom Heppenheimer, famed for his ferociously precise engineering assessments of aerospace issues.

One case Heppenheimer examined centered around reports of unusual supersonic shock waves over Los Angeles in 1991-2.

Many analysts speculated that these phenomena were caused by a Mach 4 aircraft headed north at about 30,000 feet, but Heppenheimer was skeptical that any aircraft would fly at that speed so low.

He calculated that the dynamic pressures on such a vehicle would reach 4,500 pounds per square foot, ten times the tolerance proposed for known hypersonic designs.

Furthermore, the Federal Aviation Administration controls this airspace to an altitude of 60,000 feet and all aircraft, military as well as civilian, are required to have active radar transponders while in it.

The mystery plane did not appear on radar.

### **From sonic booms to odd jet trails**

Perhaps a less conventional object, flying at a lower speed but designed to evade radar, caused the disturbance?

"The computer analysis which came up with the performance figures has never been calibrated in real flight experiments," Heppenheimer points out.

Moreover, analysis of the same acoustic data at MIT's Lincoln Laboratory suggested that the booms could have come from conventional fighters doing about Mach 1.1.

Heppenheimer is more intrigued by sightings -- and photographs -- of strange contrails which follow a "donuts on a rope" pattern, like sausage links. He interprets these as evidence for subsonic flight testing of pulsed detonation engines, possibly the next step in efficient and reliable aircraft propulsion.

But Miller has his own less highly classified explanation for such effects.

"Aerodynamics expert Steve Crow studied this effect in the early 1970s," Miller tells SPACE.com, "and so these are called 'Crow Instabilities'. Studies show that on some occasions, wake vortex interactions from normal jets such as a 747 build donuts out of trailing vortices."

### **The increasingly clandestine sky**

None of these expert assessments has had any influence on what people continue to perceive in the sky.

They see and report large objects, sometimes bizarrely lighted and sometimes dark against the stars or clouds above. Often these phenomena are entirely silent, but witnesses sometimes report pulsating, throbbing engine noises.

And such reports are appearing in far higher numbers than in the past.

Arguably, many of these sightings are misinterpretations of both manmade and natural phenomena, and there is a long, dismaying history of such cases.

Various groups on Earth (from reconnaissance teams, to test and training groups, to smugglers and even spies) have not been at all displeased when accidental witnesses misinterpret their aerial activities.

But the remaining uncertainties remain wide enough to fly entire fleets of unknown objects right through them, all over the Earth, and even possibly off it.

Aside from waiting for hindsight decades in the future -- or for the success of lawsuits such as Gersten's -- the only hope to resolve these fascinating mysteries is to collect and rigorously assess reports.

And even, when opportunities arise, go deliberately hunting for these shadowcraft.