

Space Vehicles Arrive -- But Whose?

By Jim Oberg

Special to space.com

posted: 09:44 am ET

05 November 1999

http://www.space.com/sciencefiction/phenomena/spacejunk_991105.html

Everybody knows what space vehicles look like on the way up. The explosive steam-enshrouded liftoff becomes a fiery upward trail, brighter than the sun. The rocket rises, dims and arches over, aiming to throw itself beyond the horizon and into space.

But even after decades of space operations, many people remain in the dark about what space vehicles look like when they come back.

Satellite orbits slowly decay into near-circular paths, skimming the upper atmosphere. Moving at 17,000 m.p.h. (8,000 meters per second), they begin to flame at an altitude of 68 miles (110 kilometers), falling to 50-62 miles (80-100 kilometers) after five to ten minutes.

At that point, maximum heating and deceleration cause them to break up into fragments, which continue their gradual descent for another five or ten minutes. Surviving fragments slow to 6,700 miles per hour (3,000 meters per second) at a height of about 31 miles (50 kilometers), where the flames die out.

At the cost of their own existence, these hunks of cast-off space junk provide earthlings with thrilling fireworks. However, when the dazzling fireballs unexpectedly pierce the darkness, surprise, confusion and innocent mis-identification often result.

Who built the flying triangle?

[Early last September](#), U.S. observers were treated to two glaring examples of this phenomenon. A pair of larger-than-usual pieces of space debris fell back into the atmosphere, one crossing the California-Oregon border late on September 1, and the other streaking from New Orleans to central Florida early September 7. Both sparked widespread amazement and awe, as well as disbelief in "official explanations," not to mention a new crop of UFO reports.

Just before 9:30 PM Pacific Daylight Time (12:30 AM EDT) on September 1, viewers along the Pacific Coast and as far inland as Nevada and Utah were treated to the fiery spectacle of a tight formation of multi-colored flaming fireballs crossing the sky, leaving smoke in their wake.

Some observers noticed an even more spectacular apparition. Near Travis Air Force Base, a 13-year-old boy identified only as "Ben" told his local paper he had seen a large dark craft with running lights.

"It's got to be either something the [Air Force] base made or a spacecraft from a different world," he told the reporter. "There were huge blue flames coming out of a triangular object."

According to an account distributed by California ufologist Frank Moreno, Ben described the object as "a huge black mass which might have gone unnoticed if it were not for this trailing flame which shone behind it." The boy estimated the eastward-moving object -- festooned with small white running lights -- was no more than 300 feet [92 meters] off the ground.

Observers barely had time to collect and examine these California reports when a second apparition blazed over the Gulf of Mexico. As on the West Coast a week earlier, many people saw a formation of fireballs, but a few saw only a single object with blazing lights or "windows."

One truck driver rolled down his window and was shocked to see a huge "object" that he estimated was only 75 yards (68 meters) away. As he remembered the encounter, the UFO had a "blimp-like shape" and was about 450 feet (138 meters) long, with large windows that emanated a bluish light.

Robert Russell, a maintenance employee at the First United Methodist Church in Sarasota, Florida, told UFO investigators he pulled off the highway to watch a similar object: "It was like light and I could see the outline of the passenger windows, but I couldn't see any wings. I thought it might be a blimp...."

Rejecting the official story

Public affairs experts at US Space Command in Colorado Springs quickly explained that the fireballs were falling space junk. The first object was a spent fourth stage of a Russian communications satellite launched the previous February; the second was the discarded third stage from a similar launch just the day before.

But many witnesses and ufologists jeered in derision. On his UFOSEEK web page, ufologist Ignatius Graffeo insisted that "a spent rocket booster...would be fiery, burning up, falling fast and would not be displaying blinking red-, green- and amber-colored lights in a controlled slow moving flight."

Frank Moreno, who had distributed "Ben's" sighting, was equally certain. The reports "seem contrary to falling space debris" he said, because they "indicate multiple lights, flying in controlled formations, parallel to the ground on their own trajectories," certainly not "what would be expected of falling space debris."

A classic misunderstanding

Sadly for alien seekers, these reports are actually "classic" cases of sightings of falling satellites, according to the "bible" of UFO investigators, *The UFO Handbook* (Doubleday, 1979).

Written 20 years ago by Allan Hendry, then the ace investigator for the Center for UFO Studies in Illinois, the book documented the kinds of eyewitness reports that different mundane stimuli can provoke.

According to the book, meteors and returning satellites have led to reports of " 'downed planes', missiles, fireballs, comets, 'swept-wing jets', cigars, saucers, sparklers and sometimes formations of individual lights."

In particular, Hendry noted that "re-entries of orbiting material move in a flat trajectory" parallel to the Earth, and can be visible for up to three minutes as they slowly cross the sky.

Astronomer (and talented space artist) William Hartman went one step farther in his 1968 perceptual analysis for the USAF's "Scientific Study of Unidentified Flying Objects". Based on actual case files, he described what a witness may mistakenly perceive when seeing a formation of bright fireballs: "He may even imagine a dark elongated form connecting them so that they become lights on a cigar-shaped object, or even windows on a cigar-shaped object."