

## UFO's in the Mind's Eye

RENEWED PUBLIC and media fascination with unidentified flying objects, after years when it looked like the subject was finally on the wane, has more and more people scanning the skies for visitors. Not surprisingly, the result has been a rise in the number of major UFO flaps around the world.

For example, last August 27th a celestial apparition became a thrilling novelty for thousands of skywatchers in central China and Taiwan. It was that region's first burst of excitement over a "UFO visit." But for me their evening encounter with a UFO was genuine *déjà vu* — I'd seen it all before, and it was easy to tell what had happened.

The descriptions were almost classic. The glowing object was "like an oval plate," or "like a comet" with a tail "like an umbrella." It was orangish, and spun around as it flew eastward. Witnesses reported spotting it between about 7:30 and 8:30 p.m. local time. News services around the world picked up the story and briefly splashed it across newspapers, radio, and television.

The Chinese had seen a spaceship, all right, but not an extraterrestrial one. The Japanese had just launched their latest H-1 booster, and the "UFO" was the spent second stage flying over China at the end of its second orbit. A cloud of excess propellant venting from the slowly tumbling rocket caught the rays of the twilight Sun 100 miles above the already dark land.

North Americans watching for Perseid



meteors had been treated to a similar celestial apparition in August, 1986, following the first H-1 flight (*S&T*: November, 1986, page 546). When the third launch occurred in early 1988 no sightings were reported, possibly due to a change in the way excess fuel was released.

Such fuel dumps have been occurring for decades. In recent years they have become a routine safety measure, since unused fuel can later cause a booster to explode and litter its orbit with space junk. Because these sky shows pass across every continent, millions of people see them — and become UFO believers! Somehow the explanations for these events never seem to reach those who saw them, nor the many others who heard about them.

Typical reports underscore just how widespread — and misunderstood — this kind of celestial phenomenon is. They also show how useful the sightings can be in evaluating the accuracy of eyewitness accounts of other spectacular lights in the sky.

Satellite launches from the Plesetsk cosmodrome a few hundred miles north of Moscow set off a series of Soviet UFO panics between 1977 and 1981, when some rare twilight blast-offs created apparitions visible from much of the northwest Soviet Union. An avalanche of public anxiety over repeated "UFO attacks" led to many articles in the popular press where officials tried to explain away the sightings as "chemoluminescent industrial smog" (a sort of "swampsky gas"). Ironically, the government was unable to provide the true explanations because the existence of the Plesetsk base was a military secret. Finally in mid-1983, under pressure from worldwide articles mocking the impossible coverup, Soviet newspapers admitted the existence of the rocket center.

An accident of geography allows the Soviets to export their UFO panics to South America. Some rockets launched from Plesetsk perform a second burn half an orbit later, over the far southeast Pacific, and then drift across South America spewing excess fuel. When this occurs at twilight, millions of people in Chile, Argentina, Uruguay, and Brazil can see a glowing globe of gas in the sky. Visual descriptions are exaggerated enough, but some witnesses have reported being blinded, chased, or contacted telepathically. Upon seeing a Soviet fuel dump in 1978, one Brazilian fainted and experi-

enced a sexual encounter with aliens — a story confirmed under hypnosis by other UFO enthusiasts!

Beyond the satisfaction of solving UFO cases involving hundreds of thousands of eyewitnesses, what has my research taught me about the UFO phenomenon? Space events like those I've described provide a unique series of controlled experiments in which known visual stimuli are presented to naive test subjects. In this way, the accuracy of more "ordinary" UFO reports can be calibrated.

The decades-old UFO phenomenon does not measure up well in this analysis. I've found that witnesses often give grossly inaccurate accounts of time, size, and location in the sky. Coincidences such as "interactions" with aircraft become enshrined as cause-and-effect evidence of extraordinary phenomena.

Sadly, perceptual psychologists and other scientists interested in related fields tend to ignore the reports based on known events; apparently they consider the whole subject contaminated with "UFOria." Meanwhile, the space events continue, and those of us who have properly identified them experience frustration and envy to have personally missed such beautiful and baffling visions.

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Focal Point invites contributions from readers who wish to comment on contemporary issues in astronomy and space science.

