Letters

UFO Consensus

I agree with Markowitz ("The physics and metaphysics of unidentified flying objects," 15 Sept., p. 1274) that extraterrestrial control of UFO's is unlikely. Nevertheless I find his arguments unconvincing.

First, a minor point—he seems to imply that Hynek is inconsistent when he states that UFO's *have* been seen by "scientifically trained people" but have *not* been seen by "trained observers." I think the distinction here is reasonably clear.

In this age of lasers, superpower microwaves, and superconducting magnets, his appeal to the law of Stefan-Boltzmann seems curiously unimaginative, as does his dependence upon solid surfaces to deflect high-energy particles. He arrives at a power required for interstellar flight of 3×10^{13} watts, noting that it is 30 times the world's electric generating capacity. An equally pertinent comparison would be to note that it is *only* 300 times the power of a single Saturn V, and that *only* a single decade of development effort separates that vehicle from its 300 times smaller predecessor! In any case, why does an interstellar vehicle need an acceleration of 1*g*?

On the other hand, a ship for such a voyage would probably weigh much more than 5000 kilograms. So in the end, one must agree that a satisfactory interstellar propulsion system is quite beyond the capability of our present technology. But his arguments in no way prove or imply that it is beyond someone else's—or even beyond what *we* will have 100 years from now. As far as proving that interstellar flight violates the laws of physics, his arguments are simply irrelevant.

His argument that the ground should be seared and radioactive where a UFO has touched down also seems irrelevant. Isn't it probable that such voyagers would use "excursion modules" just as we propose to do? And why use a specific impulse of 3×10^7 seconds to lift off the earth when 1000 seconds or less would do? In short, the use of an interstellar space ship to explore within our atmosphere seems about as likely as the use of airliners to explore the bottom of the sea.

Why suggest that a 1000-year trip duration should make the voyagers anxious to meet us formally? An alternative deduction would be that another hundred years, more or less, is of little consequence to them. The fact that Columbus did not hesitate to talk to the Indians was not without consequences that were unfortunate for Europe and tragic for the Indians. Perhaps our interstellar visitors have learned to be more cautious—and considerate.

Finally, the suggestion that "hard-data" cases should be published for all of the technical community to peruse, just like observations of any other interesting phenomena, seems constructive. But why insist, on the other hand, that the Air Force should completely drop the matter? The only valid argument against extraterrestrial visitors is, I believe, a statistical one. The probability of there being a civilization advanced enough, near enough, and diligent enough to find us is simply not very high.

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I acknowledge Markowitz' analysis of the UFO problem, and wish him well in the next field to which he lends his attention, since he has apparently finished this one. He cannot depart quickly enough, however, to escape the objections of those he left standing amid the shambles. His entire argument against the possibility of extraterrestrial control of UFO's rests on theoretical grounds, and bears no relationship to the contents of UFO reports. The one link between Markowitz' theoretical argument and UFO reports is the fact that objects have been reported to land and take off. Having arbitrarily settled on a design for a ship employing annihilation of matter for power and a horribly inefficient photon drive for thrust, Markowitz proceeds to imagine this starship entering the atmosphere of a planet and landing on its surface, using the full fury of its interstellar drive, a process akin to docking the Forrestal by running it up onto a beach. Since the obvious results of such foolishness have never been observed, Markowitz concludes, "Hence, the published reports of landings and lift-offs of UFO's are not reports of spacecraft controlled by extraterrestrial beings, if the laws of physics are valid." The *non sequitur* is blatant: Markowitz has proven only that his own design does not explain reports of takeoffs or landings. He has revealed his own haste to arrive at a particular conclusion.

When Markowitz "assumes for purposes of discussion" the existence of technically advanced beings, one might expect that this assumption would play a part in the discussion, but evidently the implications of such an assumption have escaped his notice. A technically advanced race just a cosmic clock-tick ahead of us in achievement would not only have inconceivably advanced scientific ability, but technological skill beyond our comprehension. Such beings would effectively command immense wealth; what would seem to us impossibly ambitious, ruinously expensive, and even frivolous undertakings would be carried out with a casualness that would shock our poverty-stricken souls. It is no more possible for us to expand our minds enough to encompass what will be the truth in a thousand years than it would have been for Charlemagne to speculate on the present gross national product of France, without even a word for 10^9. The contrast between the notion of an advanced civilization's mode of transport (as one may legitimately attempt to imagine it) and Markowitz' sketchy design for a starship is ludicrous.

Of course there may not *be* any advanced civilization, or any starships. Nobody can go beyond premise-bound speculations on those subjects, and even our speculations are denied the use of physical principles and effects that remain undiscovered.

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. . . Markowitz' failure to find detailed reports in print is puzzling. That he should base his arguments on the minor Chiles-Whitted case (of which it is true that my evaluation is at variance with Hynek's) or such a brief observation, made under unfavorable conditions, as the Tombaugh case, tends to indicate that he is not really interested in the best documented sightings; on the contrary, he is deliberately selecting borderline cases in an effort to cast doubts on the validity of current official and private attempts at systematic data-gathering. Otherwise, how can we understand that the Forcalquier photographs (taken by a professional astronomer) or the observations made at Toulouse and Mount Stromlo observatories, or the Loch Raven Dam and Socorro cases, all of which are extensively documented in print, should have escaped his attention? He goes as far as stating that no unexplained physical trace has ever been left after the observation of an unknown aerial phenomenon, while one of the books he quotes in his bibliography describes at length the investigations conducted by Soviet physicists at the site of the Siberian explosion in 1908, which come very close to meeting the conditions Markowitz himself has set for "evidence."

Elsewhere, commenting on my survey of the observations of unknown celestial objects gathered and studied by Le Verrier, he kindly reminds me that the intra-Mercury planet theory is an impossibility, as if I had ever suggested that the objects in question were such a thing.

Thus, Markowitz is guided by one and only one idea: that one may not consider the "intelligent control" hypothesis unless one is willing to abandon entirely the rational processes upon which science is based. It is a disturbing fact that such grossly irrational arguments should still enjoy popularity in the scientific world. . . .

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. . . If scientists avoided topics which involve possible violations of the inviolable laws of physics we should have unsung memorabilia like these: "Marie, this phosphorescence violates the First Law; let's study barium sulfate instead." "Xenon can't react; it has a closed shell. Ask any theoretician." "Conservation of parity is one of the immutable laws of physics, therefore it is impossible that . . ."

I doubt very much that UFO's are under extraterrestrial control, but if they *were* so controlled I am sure we primitive bipeds could prove the contrary by citing *our* laws of physics.

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Markowitz has closed the door on UFO's and space travel by showing that interstellar vehicles can never have visited Earth because neither he nor any Congressional committee has seen one. Only unreliable witnesses see UFO's which might be extraterrestrial. (An unreliable witness is anyone who reports a UFO that isn't an obvious natural or aerial phenomenon.) The scientific journals would, of course, be full of observational accounts, if any credible ones were presented, and scientists would be as eager to study them as they were Velikovsky's work 15 years ago. The evidence against UFO's as space vehicles, based on Simon Newcomb's recent (1895) proof that an intra-Mercury planet cannot exist, is as convincing as Newcomb's demonstration, following accepted physical laws, that aircraft can't fly. . . .

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While reading Markowitz' article, I could not help thinking about some words I believe were written by Isaac Asimov: that when a respected scientist said something was probable, he was probably right, and if he said that something was impossible, he was probably wrong.

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I was amused and somewhat shocked by Markowitz' reference to Aristotle's "Physics" and "Metaphysics." The idea that "metaphysics" is equated with the notion that "the laws of physics are not valid" is not only misleading as it relates to Aristotle, but threatens to make the philosopher who specializes in metaphysics some sort of buffoon. . . .

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Smoke-Filled Friendships

As the first three couplets of the following verse attest, I share Turbeville's aversion to tobacco smoke (Letters, 20 Oct.), though, as the last couplet shows, I do not often express my objections.

A cigarette's what the smoke from all goes
From wherever it is to a nonsmoker's nose.

Smokers are who, if at parties they're there,
I must later change clothing and shampoo my hair.

A nonsmoker's who, when it's too thick to see,
If you hear someone coughing, it's probably he.

Friendship is what, though I gag, weep, and choke,
I would much rather have it than absence of smoke.

Smokers often ask a stranger, "Do you mind if I smoke?" If the stranger does not smoke, he probably minds, and is then faced with the poor choice of being rude or perjuring himself. I suggest that smokers ask instead, "Do you smoke?" and refrain if the answer is "No."

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Buffalo River Endangered

Carter's article, "Dams and wild rivers: looking beyond the pork barrel" (13 Oct., p. 233), is most timely. Here in Arkansas we have reason to be keenly aware of the dam-building pork barrel through our efforts to preserve the beautiful Buffalo River in the Ozarks of northern Arkansas. The Buffalo is one of the few free-flowing streams remaining in the state. For years it has been threatened with impoundment by the Corps of Engineers.

The National Park Service recommends preservation of the Buffalo as Buffalo National River. The great majority of the people of Arkansas support preservation of the Buffalo. Bills are pending in the U.S. House and Senate which would establish the Buffalo National River, but these have not yet come up for consideration. Despite the growing realization of the economic and ecological losses resulting from unnecessary impoundments, strong pressures for unjustifiable projects continue.

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