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9/84

Author review policy

I was disappointed that your response to R. S. Raghavan, who complained (August, page 84) that changes were made in his manuscript after he reviewed it, was not forthcoming. You say it is not usual for authors to see the final galley at magazines, but you could very well decide yourselves that the stature of PHYSICS TODAY requires you to ask your authors and correspondents to review all changes made by the editors at any point. Why don't you do so? You could give an immediate deadline or query the authors on the telephone to eliminate delays—but almost any delay would be better than having material appear over an author's name that the author would have corrected.

JAY M. PASACHOFF
Williams College
Hopkins Observatory

9/84

Physics of soaring

I enjoyed Lloyd Hunter's cover story "The Art and Physics of Soaring" in PHYSICS TODAY (April, page 34), but one point needs to be corrected. Hunter notes that thermals drift with the wind, but he then ignores this drift when calculating the speed to fly to achieve best cross-country speed in a wind. One can insert the missing extra term into Hunter's expression for the time for cruising between thermals, t_D , and work it through, but it is more illuminating to arrive at the result by taking an imaginary flight in a sailplane.

We'll assume that the entire flight, consisting of climbs in thermals and glides between thermals, takes place in a constant horizontal wind. If our frame of reference is comoving with the sailplane, the speed to fly cannot depend on the wind, but only on the sailplane's polar curve, the climb rate achieved in thermals and the interthermal subsidence. Back in the earth's frame, we see the cross-country speed is obtained simply by adding the wind to the cross-country speed one would obtain in no-wind conditions. Thus the pilot can ignore the wind when calculating the optimum cruising speed at which to fly the sailplane.

In Lloyd Hunter's example, with a

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letters

climb rate c of 5 knots and a headwind v of 20 knots, the pilot should continue to cruise at 79 knots and will then achieve the maximum possible cross-country speed of $53.8 - 20 = 33.8$ knots.

CHRISTOPHER PURCELL
Dalhousie University

7/84

Halifax, Nova Scotia, Canada

THE AUTHOR COMMENTS: I would like to thank C. Purcell for pointing out the omission of the drift during thermalizing. His example of moving frames of reference is an excellent one. I wish I had thought of it.

LLOYD HUNTER
University of Rochester
Rochester, New York

9/84

Prisoners of conscience

Sixty-eight Nobel laureates have addressed a message to all academicians in the USSR asking that they use their influence to persuade their government to release Yuri Orlov (physicist) and Anatoly Shcharansky (mathematician). Among these Nobel laureates are Hans Bethe, Edward Purcell, Gerhard Herzberg and Sheldon Glashow. These men, and many others, have given their support to an international campaign to obtain freedom for these two prisoners of conscience. The campaign is supported by thousands in many countries, including the president of The Royal Society and the presidents of Harvard and Columbia Universities. The campaign publishes regular bulletins in seven languages and is directed by Henri Cartan (Paris) and Israel Halperin (University of Toronto).

ISRAEL HALPERIN
The Canadian Committee of
Scientists and Scholars
Toronto, Ontario, Canada

9/84

Corrections

August, page 71—The author of the letter entitled "Early days in heavy elements" should have been identified as John Joseph Gerald McCue of Lexington, Massachusetts.

October, page 122—in the guest comment by Charles Schwartz, it is the University of California, Berkeley, physics department that the author felt could benefit from a seminar on militarism and science, not the Department of Defense. In that same article, on page 124, the page designation for reference 2 should read pp III-19. □