

letters

Impact of referees' reports

To an outsider, physics seems to develop in a very formal and polite way. Articles in various journals always include many references to previous publications and, at the end, an almost ceremonial list of warm acknowledgements. Everything is smooth and self-contained. A nonphysicist could get the impression that neither controversies nor sharp criticisms exist in physics!

The published articles are only the visible part of the iceberg of physicists' writings. The secret unpublished physicists' writings are the referees' reports. Here only a working physicist knows from his own experience how "scientific progress" proceeds.

Very often, refinement and politeness don't exist anymore: The language is very aggressive, sharp and, sometimes, sarcastic. Obviously physicists will not advertise referees' reports but, rather, will try to deal with them to calm down the referees. Often papers will be rewritten on the basis of criticism from referees and, actually, many papers are probably read by only one person: the referee.

It could be very valuable for physicists and nonphysicists alike if a representative sample of referees' reports were published. For people who study the history of science, the value of such material might be inestimable.

This letter is a call to physicists to send the author some of their more interesting referees' reports, with brief histories of the impact of the reports on the final forms of the papers and on their dates of publication. If possible, material from the editors of various journals will also be gathered. Some of this material will then be selected and an attempt will be made to have it published.

It should be made clear that it is not the purpose of this call to criticize the system of anonymous referee reports. By making public an important part of the practice of physics, the publication of some reports could represent a substantial step towards a better understanding of the world of physics by nonscientists.

standing of the world of physics by nonscientists.

SERGE GALAM

New York University
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9/84

The Mechanical Universe

The July issue of *PHYSICS TODAY* contained a letter from Ernest W. Kuehl Jr (page 105) that filled us with ambivalence. We agree with Kuehl's point that summer employment in physics-related jobs would be one way to stem the tide of teachers leaving for industry. However, those of us who are involved in the NSF-sponsored project to develop high school materials from the television series "The Mechanical Universe" wish to assure Kuehl that our summer has been most rewarding and that the California Institute of Technology has been quite generous. The \$125 per week mentioned in the letter was only a fraction of the expenses for activities and services provided.

It is true that the "good old days" of NSF-sponsored institutes have not yet returned, but exciting and rewarding summer activities like the one we are just completing at Caltech should be applauded and encouraged in the years to come.

DONALD J. BARRON AND COLLEAGUES

California Institute of Technology
Pasadena, California

7/84

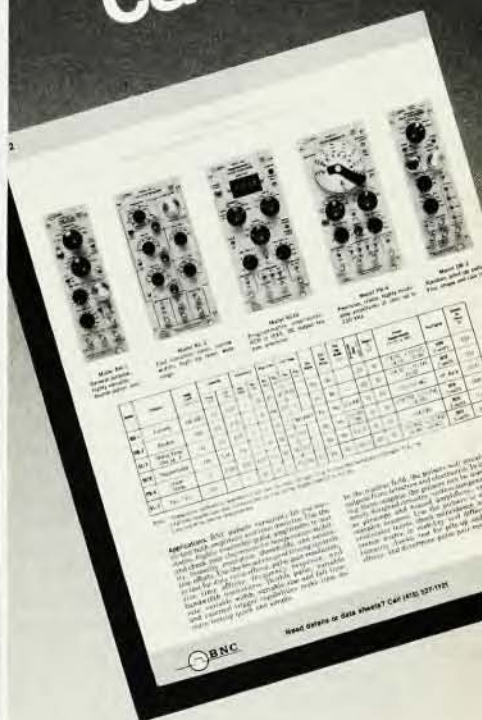
Earth's early atmosphere

I teach physics classes and, at the junior-high level, I also teach both meteorology (we call it "weather") and astronomy.

Our surprise at the pink to orange appearance of Mars' atmosphere has led us to wonder: What color was the Earth's primitive (reducing) atmosphere? The predominance of nitrogen then, as now, suggests it should have

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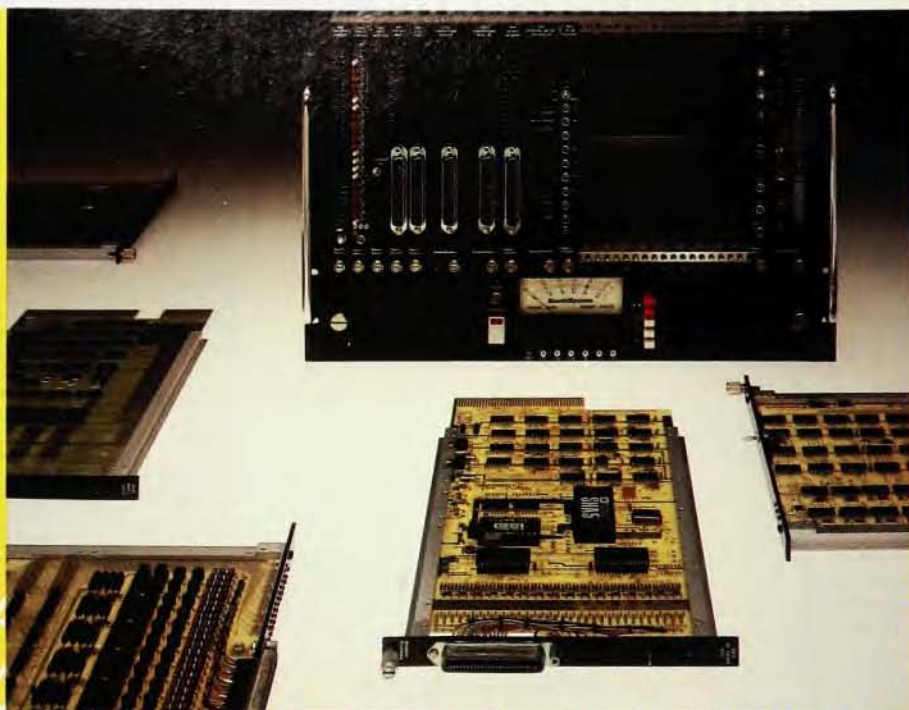


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letters

been blue, but I would appreciate an authoritative opinion and explanation. Might it have varied? Was the color different before the hydrogen and helium dissipated?

CLIFFORD JACK PRENTICE, JR
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8/84 Steamboat Rock, Iowa

Teaching today's physics

The article by Lillian McDermott (July, page 24) on understanding concepts was very interesting. The problem is probably understood by virtually everyone with a technical background. During our formal education we all had "good" and "bad" teachers: ones who could help us to understand concepts and others who couldn't; those who knew what was difficult for us to understand and those who didn't.

Recently I attended an engineering society meeting and audited a lecture by a professor from my past—30 years ago. The presentation consisted entirely of equations. Today industry is very active in the education field, mainly because much of what engineers need to know is simply not taught at the university. The approach used is usually very different in industry. Very few equations are used, the idea being that if one can learn the concept, one can then easily find—or derive—the equations.

For years, industry people have believed that the university philosophy is: "If it isn't theoretical, it isn't respectable." And the problem seems to be getting worse, with computers compounding it. McDermott's article is important because it focuses attention on just how serious and pervasive this situation can become if the student starts (or is started) in the wrong direction—and then becomes a teacher.

JIM DORSEY
8/84 Zebulon, North Carolina

Babes in the woods?

The members of The American Physical Society are competent in their field of physics, but in my opinion they are babes in the woods and no match for the officials of the Russian government.

American physicists, by continuing to be friendly with Russian physicists (visiting them, letting them visit the United States, giving them research information and copies of journals) are helping the Russian government in its continuing practice of inhumane slavery and murder.

Any Russian physicist allowed to

come to the United States, or allowed to communicate with Americans, can be assumed to be completely dominated by the Russian government.... Anyone who does not cooperate will be given the same treatment as Sakharov and others who have been put out of work, given vicious treatment in mental hospitals, and so on.

Communist lying is not new. I still have a handout prepared by the Communist party members in Cleveland, Ohio, and distributed in Pittsburgh and Erie, Pennsylvania in February 1930. In it the communists denounce the Boy Scouts as tools of the "bosses" preparing for war and slavery in factories. Communists have not changed in 55 years and it makes no difference what country they are in; they are all controlled by Russia for the benefit of the few leaders there.

Americans should remember that the Russians never forget, never give in. They have maintained the infamous Berlin Wall for 30 years in spite of attempts by the West to be friendly. They daily force West Berlin to pay blackmail amounting to tens of thousands of dollars to rescue citizens from East Germany.

Russians shot down the Korean airliner and never apologized. What did Americans do? They protested loudly for 2 weeks, then forgot about it—and went on pretending the Russian leaders were gentlemen—people with whom we could be friendly, people who could be trusted, people who could be reasoned with.

Americans are beaten up in Russia, and our own State department tries to hide the events, because it doesn't want to hurt the feelings of the Russian government. Our own State department officials don't have the guts to tell American citizens the real truth of Russian behaviour.

USSR-US relations are said to be at a very low point at this time. Why? Because for the last 30 years, Russia got practically everything it wanted by lying, stealing and borrowing billions from the West, then using the money to build up its war machine instead of using it to improve the welfare of communist citizens. Now when the US stops being so stupid, becomes tougher to deal with and starts rebuilding its own badly deteriorated military strength, Russia increases its publicity barrage telling how bad the United States is.

Russia alone operates more radio jamming equipment than all the rest of the world combined. Is that the act of a nation that wants to be friendly and share information both ways? Absolutely not. Russia is only interested in one-way communication—its own way.

Russia is stealing every bit of science and technology it can from the West.

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