

## 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?

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## 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  
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## 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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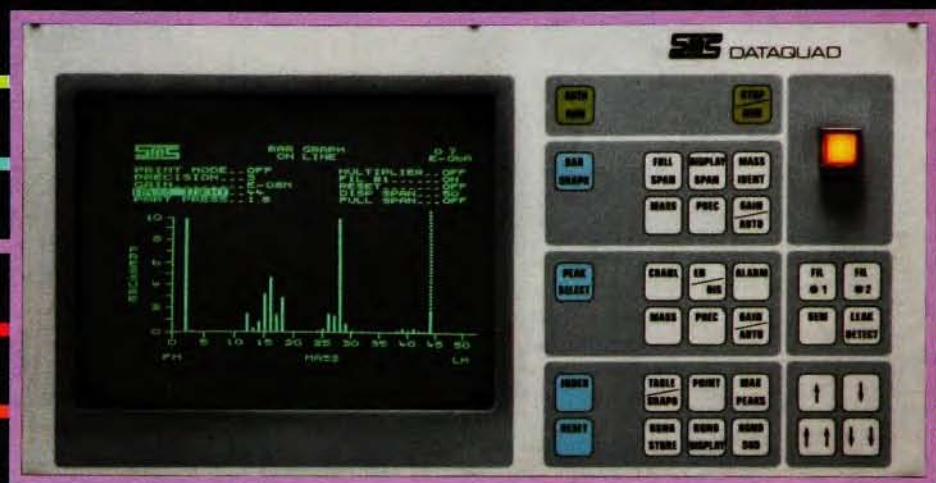
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## letters

This has been documented time and time again. Is this the sign of a government that wants to be friendly and cooperative? Of course not.

In May 1984, the National Academy of Sciences called off a two-year-old freeze of science exchange with the Russians. Why? Was it because the Russians had gotten more humane in their behaviour? No, it was because the scientists didn't have the guts to continue a policy that was strong and right; rather, they chose to ignore the murder and treachery by Russia, and put a much higher priority on having their own selfish boondoggle trips around the world. That action was a disgrace. It only helps the Russian leaders to stay in power, and tells the Russian citizens that America was wrong, is weak, and has no courage to stand up against the Russians. Americans don't care how many other people are enslaved, murdered or mistreated, as long as it doesn't personally touch them. We should all be ashamed of this action by leaders of NAS.

The freeze originated over the Soviet invasion of Afghanistan. But after protesting for two years, Americans now don't care how many people are murdered by Soviet armies in Afghanistan. Again, the Russians stand fast, the Americans cave in and worry only about their own selfish pleasures.

American religious leaders visit Russia and come back telling how much religious freedom there is in Russia. How dumb can they be? Plenty dumb. They see a little window dressing where a few thousand Russian citizens are not put in prison for attending church, and extrapolate to the general conclusion that religion is alive and well in the Soviet Union. Any physicist who would draw that kind of conclusion from his research data would be thrown out of The American Physical Society. But the media play it up as a big thing and mislead the American public.

I urge The American Physical Society members to maintain a polite but very firm boycott of all Russian communication until Russia abandons its jamming, its Berlin Wall, its mistreatment of courageous Sakharov and similar inhumane actions. The only characteristics that get the attention of Russian leaders are directness, strength, determination and consistency.

G. TRUMAN HUNTER  
Oxford, Ohio

8/84

## Nuclear war simulation

It is common these days to open a technology-oriented magazine and find

an article describing the effects of nuclear war using results obtained from computer models. Articles of this genre often tend to be impersonal. Being a microcomputer enthusiast, I undertook the task of developing a program to simulate the effects of nuclear war on a more personal level.

The outgrowth of this activity has been the development of a technically correct adventure simulation game entitled NUCLEAR SURVIVAL. Use of NUCLEAR SURVIVAL gives an eye-opening view of what to expect from the "un-thinkable." I would like to announce to your readership that I am making NUCLEAR SURVIVAL available as a public domain program.

NUCLEAR SURVIVAL allows one to use his or her wits to survive a nuclear exchange, hostile encounters, nuclear winter and much more. Through a realistic mix of skill and chance, one vicariously experiences the likely consequences of decisions made in preparing for and surviving a nuclear conflict. In each game, the player may make anywhere from a handful to in excess of 100 decisions, selecting from over 15 000 combinations of items. Each decision and each selection affects health and chances for survival.

NUCLEAR SURVIVAL is a program with about 900 lines of Microsoft BASIC and requires less than 27 kilobytes of computer memory. If you would like more information, send me a self-addressed, stamped envelope.

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## Classifying research

A recent article (July 1984, page 57) on proposed changes in the system for classifying scientific research contains the following remarks by Pentagon spokesman Frank Sobieszyk:

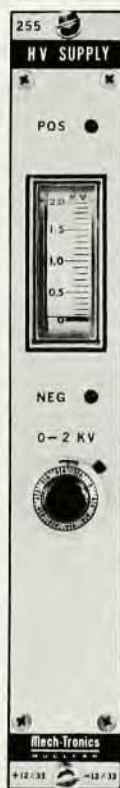
The [defense] department considers [fundamental sensitive] research basically risk free. But it's better to err on the side of caution when a potential risk has been identified.

Nowhere else are the Pentagon's intentions so baldly apparent, and nowhere else do they so clearly conflict with basic Constitutional rights. What makes freedom of speech more than a hollow privilege is that the burden of proof must lie with the government when questions of censorship are raised. The current system—while by no means ideal—does require that the government decide in advance what research has military value. But requiring a broad, ill-defined category of research to be submitted to pre-publica-

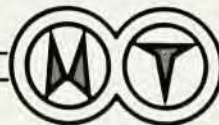
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