

letters

discrimination and mockery reserved for those with ethnic identification. The ethnic animosity is instigated and provoked by the authorities as a means of supplementary pressure exerted on refuseniks, and as a way of deflecting the Soviet citizenry from criticizing the party-state apparatus (was this not what the Nazi rulers did, and did we not see the same arguments in their defense not so long ago?).

Second, Bevc's assertion that "every allegation of Soviet iniquity has a commensurate counterpart in the US" seems to me utter nonsense. I challenge him to try to refer the reader to any analogous article in the Soviet physics journals criticizing Soviet society to the extent Bevc criticized American society. Is Bevc jailed, exiled or dismissed after publication of his letters? Would he like sharing the fate of Brailovsky or Shcharansky?

Third, Bevc's explanation of how Soviet citizenship is renounced by the "own free will" of everyone applying for emigration seems a pure lie. The authorities approach it differently. There are some Russians in the West who live outside of the Soviet Union for decades and keep Soviet passports which they receive before leaving the USSR (I would not be surprised if Bevc is one of them). The others are *compelled* to sign special applications renouncing their citizenship. Unless they sign, their applications for emigration are rejected without examination.

Fourth, his argument that allegations of Soviet antisemitism are not credible because many Jews, Trotsky, Kamenev and Litvinov for example, were "architects of the Soviet system" is a cheap trick. The discussion in *PHYSICS TODAY* concerns the problem as it exists today. Bevc chose to obscure it by references to events that happened sixty-six years ago. Trotsky, Kamenev and Litvinov paid for their involvement with their lives more than forty years ago. What does it prove or disprove?

Fifth, it is interesting that Bevc is at ease with the lack of freedoms in the USSR. He even found it proper to equate the situation in which Andrei Sakharov and his wife suffer exile, humiliation, assault and many other terrible things with the conflict in which Charles Schwartz was involved with the Lawrence Radiation Laboratory here in the US. One question to Bevc: Will Sakharov be able successfully to "sue before he gains access" (at least to his own apartment in Moscow) as Schwartz did? What a shameful position!

YURI I. LURYI

University of Western Ontario
London, Canada

2/83

Early computer history

This is a belated comment on a letter from John Brainerd in January (page 13). The correspondence concerns the early history of the ENIAC and EDVAC.

I suggest that a suitable reference on the subject is a pair of articles that appeared by Marshall Ledger in the *Pennsylvania Gazette*: "The Case of the ENIAC," in the October 1982 issue and "The ENIAC's Muddled History," in the November 1982 issue.

The second article quotes Nancy Stern in *From ENIAC to UNIVAC: An Appraisal of the Eckert-Mauchley Computers*, to wit: "It is necessary to keep in mind the unconscious or even conscious tendency of principal participants to reconstruct selectively the details of events in a manner that emphasizes their own contributions." It appears quite clear that both Ledger and Stern refer primarily to Brainerd in this matter.

This agrees with other observations. Mauchley has made no secret, either verbally or in writing, of his feelings that Brainerd was a principal impediment to the ENIAC. My father felt precisely the same way about Brainerd's contributions to both the ENIAC and the EDVAC. Brainerd has the advantage of having outlived them both, and so is relatively free to make statements without fear of contradiction by the other participants.

YALE JAY LUBKIN
Ben Franklin Industries
Casey Creek, Kentucky

3/83

Directed-energy weapons

At the 1981 APS Spring Meeting, we had a Symposium of the Forum on Physics and Society on directed-energy weapons that was filmed by the BBC for a documentary on the arms race. The first speaker, Douglas T. Tanimoto of the Defense Advanced Research Projects Agency, showed a film of a propeller-driven dark red drone plane that was destroyed by an infrared laser that focused on it for a period of several seconds as it slowly circled at a relatively close distance. I asked Tanimoto if it was not cheating to use a close, slow-moving, dark red drone to simulate a large number of fast-moving, distant, polished metal targets, and he admitted that it was cheating "a little." The last speaker, Kosta Tsipis of MIT, presented conclusive evidence that the technology needed to develop effective ABM Directed Energy Weapons did not now, and probably never would exist!

At the 1982 Spring meeting, I attended the APS Council Meeting and learned that they intended to hold off on taking a stand on the nuclear freeze

1000 WATTS OF RF POWER ALL SOLID STATE COMPACT, RUGGED UNIT.

Broadband Power Amplifier: 1000 watts, 0.3 to 35 MHz. Primarily designed for use in HF transmitters, linear accelerators, plasma equipment, NMR systems and RFI/EMI applications, the A-1000 broadband power amplifier can deliver 1000 watts from 0.3 to 35 MHz. Extraordinarily compact, efficient, and ruggedly built, this completely solid state unit can operate reliably under the most extreme environmental conditions.

For more information, or a full-line catalog, contact **ENI**, 3000 Winton Road South, Rochester, NY 14623.

Call 716/473-6900, or telex 97-8283 ENI ROC.



The advanced design line of
RF power amplifiers.