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49 Lanesville Terrace, Boston 31, Mass. 594 prepayment system. Conditional upon the administration of this proposed plan by the voluntary nonprofit prepayment system, the tax source of the funds is of secondary importance to us."

Following point 3 there is an additional sentence of clarification which reads as follows: "(The last sentence of the above statement was interpreted to mean that the source of funds is of secondary importance to us provided the proposed plan is administered by the voluntary nonprofit prepayment system and not by the Social Security Administration.)"

JOHN R. KINSEY American Hospital Association, Chicago, Illinois

The ambiguities of the Hospital Association's statement have inevitably beclouded the significance of the AHA's shift in position. I think my description of the AHA position was accurate. The association in the past was opposed to the Social Security approach. At its last meeting it shifted its position to favor Blue Cross administration of a medical care program, with secondary importance attached to the source of the funds. This, in effect, is a shift away from the previous opposition to Social Security financing. Since Social Security financing is the principal type of federal financing for medical care now under consideration, it is pure evasion to say that this shift was not actually an endorsement of the Social Security approach.-D.S.G.

Keeping up with Soviet Research

On 22 February, when asked by a reporter whether the Soviets were giving us directly any results from their manned satellite flights, President Kennedy (after asking his press staff for the latest information) replied that, except for medical data, they weren't.

As subsequent events rapidly revealed, more accurate information to the President would have been: "They don't tell us privately—they just publish their findings; but we are too busy to read!"

On 26 February the following dispatch from Moscow appeared in the New York *Times*:

Reacting to the announcement last month that the United States Explorer XII satellite had . . . recorded a third radiation belt with what was described as an

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10°-20° K-HELIUM At the present time, CRYENCO is building three hydrogen refrigerator-liquefiers for association with bubble chamber research. Cryenco engineers have had major responsibilities for production of five of the six largest hydrogen refrigerator-liquefiers designed for bubble chambers in the free world. Experience covers refrigerator-liquefiers used in testing rocket motors at 10°6, space chambers for satellite and space vehicle environmental studies at 10°9, as well as bubble chamber applications in particle accelerators. Production of related items include: nitrogen liquefier, high pressure cryogenic purifiers, refrigerated dryers, low temperature absorbers ortho-parahydrogen catalyst, etc. Free your physicists and engineers for fundamental research! Let Cryenco engineers design and build your custom equipment, meeting your exact requirements. Write Cryenco for full details on their low-temperature high-vacuum capabilities and experience.



GRASSLANDS

Editor: Howard B. Sprague 1959

6" x 9", 424 pp., 37 illus., index, cloth. Price \$9.00, AAAS members' cash orders \$8.00. AAAS Symposium Volume No. 53.

This volume is intended as a review of knowledge on many aspects of grasslands resources. The 44 authors were selected by their own professional colleagues as being particularly competent to present the respective subjects. Thirty-seven papers are arranged under these chapter headings:

- 1. Sciences in Support of Grassland Research
- 2. Forage Production in Temperate Humid Regions
- . Engineering Aspects of Grassland Agriculture
- 4. Forage Utilization and Related Animal Nutrition Problems
- 5. Evaluation of the Nutritive Significance of Forages
- 6. Grassland Climatology
- 7. Ecology of Grasslands
- 8. Range Management

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AAAS, 1515 Mass. Ave., NW, Washington 5, D.C. "unexpected boundary" at 40,000 miles . . . Dr. K. Gringauz, one of the Soviet Scientists working in this field, wrote . . . in *Izvestia*, the Soviet Government newspaper: "It is difficult to understand what was unexpected about the discovery, because it is impossible to assume that United States scientists do not read Soviet literature on space research."

Dr. Gringauz noted, moreover, that one of the journals in which Soviet findings had been published, the *Doklady* (Proceedings) of the Soviet Academy of Sciences, was being translated from cover to cover in the United States. . . . Such findings were reported in the February and April [1960] issues of the Academy of Sciences Proceedings.

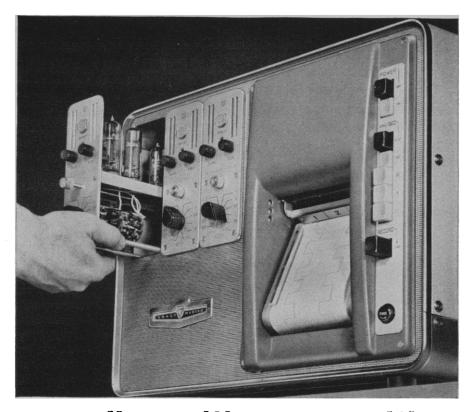
The statement checks out. The respective issues of the American Institute of Physics' translation journal (*Soviet Physics—Doklady*) appeared in July and September 1960. And in January 1961 the AIP translation of the Soviet *Astronomical Journal* (issue of July 1960) contained the clear statement: "A new radiation belt surrounding the earth at heights of 55,000 to 75,000 km has been discovered."

This evidence that U.S. scientists do not keep abreast of Soviet research is at best embarrassing. Coupled with the financial investment (and the risk of life) we are making as we play leapfrog with the Russians in space, it is rather terrifying. And this is one case where the "buck" doesn't stop at the desk of any President, past or present. These translation journals have been subsidized by the National Science Foundation since 1956. Their prices are such that there is no shred of excuse for not having them in any library serving a group of scientists even remotely concerned with space research.

It's easy (and cheap) to blame the library staff involved. But it is probably true that scientists get library staffs of the kind and size they demand and educate their managements to pay for.

Nor is this a case of that latest cause for scientific hand-wringing, "inadequate information retrieval," for the information that there is a third radiation belt around this planet should never have been "lost" in the first place, much less overlooked.

How can members of the U.S. scientific community be guilty of such a blatant oversight? Easily. Approach almost any American scientist with the query, "Do you keep up on the latest Soviet research in your specialty," and he's apt to rasp back: "Russian research! I can't even keep up with the latest American journals in my field." The a priori assumption is that if there's





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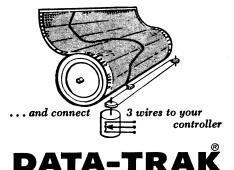
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not enough time to read everything, the Russian translation journals are not even to be scanned.

How is it we never hear of a researcher in Boston who didn't know for years of some significant publication by a colleague in San Francisco? Because Dr. X and Dr. Y also communicate personally—by phone, by letter, by the grapevine, or by osmosis in the hotel lobby at meetings they both attend. And Dr. Y probably forwarded Dr. X a reprint as soon as the paper appeared.

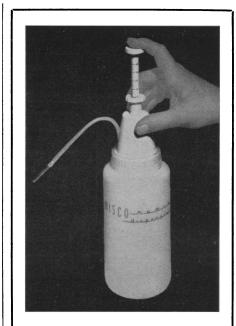
If such intimate exchange of information ever occurs between top Soviet and American researchers, there may be little need for translation journals. But so long as it is a bibliographic rarity to see the name of a Soviet worker followed by "private communication," it behooves our scientists to use an *a posteriori* approach to the problem —to get themselves into the library once or twice a month, place the old *posteriori* firmly in a chair, and devote a couple of hours to browsing through the latest issues of the pertinent translated Soviet journals.

FRANCES COLEMAN Consultants Bureau Enterprises, New York

Suggestion and Sensory Deprivation

In a recent report entitled "Influence of suggestion and subjects' prior knowledge in research on sensory deprivation" [Science 135, 211 (1962)], Jackson and Kelly end with the following statement: "it is essential that the possible influence of suggestion be allowed for in the design of, and in interpreting the results of, future studies of sensory deprivation." I do not wish to quarrel with this statement; on the contrary, I believe this is one of the prime considerations of workers in this area. I do wish, however, to question the design and interpretation of the research reported.

Fourteen paid subjects were told that, during the course of an experiment like that in which they were about to participate, previous subjects had experienced peculiar cognitive and perceptual feelings. The 14 subjects were then given (placebo) pills to help bring on the hallucinations. Twelve of the 14 subjects reported peculiar sensations during the 1-hour sensory-deprivation situation. However, there is no mention of control groups. It would have



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