

**Table 1. Professional employees in the federal government, October 1973**

	Physics	Health physics	Geo-physics	Astronomy	Metal-lurgy	General physical sciences
Navy	2314	72	94	78	197	428
Army	1206	33	13	—	136	940
Air Force	683	3	7	17	55	221
Commerce	603	4	31	3	28	727
EPA	28	19	—	—	1	426
Interior	127	6	172	—	127	263
NASA	315	5	—	474	58	469
HEW	82	84	—	—	—	43
AEC	74	169	3	—	17	200
VA	39	6	—	—	—	4
USDA	47	3	—	—	—	40
DOT	40	2	—	—	3	70
Total	5558	406	320	572	622	3831

Data from National Science Foundation

**Table 3. Estimated needs for new professional personnel in the federal government, FY 1975**

	Physics	Health physics	Geo-physics	Astronomy	Metal-lurgy	General physical sciences
Navy	111	3	10	5	16	7
Army	18	—	—	—	6	12
Air Force	15	—	—	—	—	—
Commerce	44	—	—	—	4	38
EPA	—	4	—	—	—	263
Interior	4	—	93	—	15	28
NASA	—	—	—	30	3	4
HEW	6	7	—	—	—	2
AEC <sup>1</sup>	20	11	18 <sup>2</sup>	—	2	—
Totals <sup>3</sup>	217	23	103	35	44	375

<sup>1</sup> Data from AEC personnel office. All other data from the US Civil Service Commission.

<sup>2</sup> Includes geology

<sup>3</sup> Nationwide totals excluding AEC and other excepted agencies.

**Table 2. Work activity in physical sciences, 1971**

	(percent)
Research	34.1
Development	14.4
Test and evaluation	7.7
Design	1.1
Installations, operations, and maintenance	1.3
Data collection, processing and analysis	17.8
Natural resource operations	0.4
Planning	2.3
Management	9.3
Other	11.6
Total	100.0

Data from National Science Foundation

ment work has often been considered a chore rather than a creative position. A program manager may often feel he is not receiving proper recognition for his efforts, Jones feels, and a scientist in such a position can easily lose touch with developments in his research field. A scientist can advance in stature without going into management; why should he take the step out of research?

The problem, then, is to make management jobs more attractive for scientists. Possible answers, Jones said, are to make management more of a discipline in itself, including emphasis of its creative aspects, such as the role a science manager plays in guiding the direction of research. It would be desirable to allow scientists to try management posts initially for a short period, such as a summer or for a year or two, to allow the scientist the option of returning to his research field should he want to.

**Needs for new personnel.** Estimated needs for scientific personnel for fiscal year 1975 are shown in Table 3. The

figures cover Civil Service grades GS-5 through GS-15, which approximately span the range from new bachelor's degree holder to experienced PhD scientist. Starting salaries for these grades are approximately \$8500 for GS-5 (bachelor's degree holder), \$12 900 for GS-9 (master's degree level) and \$18 500 for GS-12 (PhD level). The number actually hired may differ substantially from the projections in Table 3, depending, among other things, on budgetary considerations, but they nonetheless are a good indicator of where the most physics personnel are needed. Employment in all agencies listed except the AEC is handled by the Civil Service Commission, which tests and evaluates prospective federal employees. The AEC is an excepted agency (it hires personnel without use of the Civil Service) and seeks scientific employees for two major activities: to determine the priorities, levels and directions for nuclear and non-nuclear research and development programs funded by the AEC, and to do intensive technical reviews of proposals for nuclear installations and materials that must be licensed through the AEC.

Potential applicants for federal employment can get specific information from the US Civil Service Commission for agencies it serves. For the AEC, details can be obtained from Coordinator of Recruitment, US Atomic Energy Commission, Washington, D.C. 20545.

—RAS

## Voronel leaves Moscow to avoid arrest

Soviet physicist Alexander Voronel was told by police authorities on 15 September that he would be charged with "parasitism" if he did not find employment within 15 days. Voronel, who has petitioned the Soviet government unsuc-

cessfully for permission to emigrate to Israel, left Moscow on 23 September to avoid arrest, according to information communicated to us by Edward Stern (University of Washington). Voronel was thrown out of his job when he sought to emigrate, and he has been unable to find employment because he is overqualified for jobs he can legally hold and because of his blacklisted status. In July, he was arrested for his involvement with the aborted International Seminar (see PHYSICS TODAY, August, page 64).

In a related development, friends of Voronel have managed to submit a manuscript of his (a review of thermal measurements and critical phenomena in liquids) to *Reviews of Modern Physics* and it was accepted for publication. After a translation was prepared and editorial revisions made, according to Bertrand Halperin, associate editor, the manuscript was returned to Voronel for his approval, but RMP editors have not been able to receive his comments.

## NSF Materials Research Division reorganizes

The Division of Materials Research of the National Science Foundation has undergone reorganization effective 1 July. Where formerly there were several programs and one section, the programs have been organized into two new sections, making three in all. According to division deputy director Howard W. Etzel, this shift allows for more staff required to meet the increased work load and provides the division with a more typical NSF organizational structure.

The three sections are

► Solid-State Sciences. The section head is Lewis H. Nosanow, former chairman of the University of Florida physics department. Three programs