engineers in the Federal Government. The primary point of the report was to reemphasize that the existing Federal personnel system is, in general, quite adaptable to the special needs of research and development establishments if full use is made by management of this adaptability.

Mr. DADDARIO. Dr. Astin, yesterday I asked about the recommendation made by the Bell committee on the formation of a GSA type research institution which would have its own merit system, its own salary levels, and this type of thing. I did not understand Dr. Hornig to be particularly in support of that. What are your feelings?

Dr. ASTIN. Well, we have considered this problem within the committee. As a matter of fact, one of the reports that I am coming to a little later in my statement began initially to try and see if there was a need to create a special scientific corps in the Federal Government. We came to the conclusion that this is not necessary, although there are special considerations in terms of environment and management that professional personnel need. If management is aware of the special requirements for professional growth and development, then these can probably be achieved quite satisfactorily without setting up a special scientific corps.

I think, though, one of the best arguments I can think of for the development of a corps, or something associated with it, is the absolute necessity of providing in any scientific and engineering organization for the continuing education of the staff.

We have, I think, at NBS a fairly good program for this, but it could be better and one of the reasons it isn't better—one of the reasons it isn't better throughout Government—is that it takes money and it takes an investment of resources to train people.

Now, the military services do this and the way they can do it is because they are a corps. I think estimates have ben made that people in the military officer corps spend as much as 10 to 15 percent of their time in total career life in training. No scientific agency begins to approach this, but I don't think the requirements are any less critical in a scientific organization for continuing education if they are to keep abreast of new developments and to maintain a high level of quality.

Again I say that if one recognizes the special requirements for professional development and has an opportunity for it, you don't need a corps, but maybe it would be easier to get them if we had a corps.

Mr. DADDARIO. You could have this constant education which would be helpful to a person's career as it is in the military. There is the problem, though, that if a man were to decide to take a year's leave of absence to go off somewhere on his own, when he came back he could find himself in a position where his career might be affected?

Dr. ASTIN. That is correct.

Mr. DADDARIO. But in the military, unless you go to these various schools, your military career is affected by not going. It is just the opposite.

Dr. ASTIN. Yes.

Mr. DADDARIO. What areas, particularly, need constant education?

Dr. ASTIN. I don't know of any field in the physical, medical, biological, or engineering sciences that do not require continuing education. In scientific fields there are always new discoveries in technology, there are always new and better ways of doing things, new tools to do