

C O P Y

January 12, 1967

AM-1

A. H. Schwichtenberg, M.D.
Head, Department of aerospace Medicine
and Bioastronautics
The Lovelace Foundation
4000 Gibson Boulevard, S. E.
Albuquerque, New Mexico

Dear Al,

Sorry to be so late in writing after our enjoyable and profitable visit. Please accept my thanks for your hospitality and especially to Mrs. Schwichtenberg for the most enjoyable evening. ↓

The briefing on the aging project was very beneficial for us. We understand the patience and perseverance that is required for any such long-term project and also all the problems that invariably accompany it. We understand too that the ultimate results of the study will require that it be continued over a good many years. Since we have discontinued our study, we will be interested in keeping in close touch. To our knowledge, it is the only study limited to civil pilot subjects so we will continue to support the project to the extent possible by our interest.

I have a few personal and general observations concerning aging studies in general and your study in particular. It is generally accepted that the impetus for initiating your study (and ours) was the adoption of the 60-year rule with the resulting pressure to develop means of selecting pilots who might be able to fly beyond the age of 60. Since that time it has been my observation, as a result of contact with many air line pilots, that the situation has changed. While most pilots feel the rule was arbitrary, they now accept it. It is a rare occasion that anyone takes issue with the rule and it has been several years since the Agency has received a petition for an exemption from the rule. I believe this fact should cause us to change our primary interest from what it was 6 or 8 years ago. Instead of a primary concern with the upper age bracket -- selecting those who are above the average 60 year old with the idea of allowing them to fly past this age -- we should concern ourselves with selecting out those in the lower age group ↙

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who measure below the average. This, however, does not change the basic issue. We are attempting to measure physiological age versus chronological age.

From a practical operational point of view, I have trouble relating this to the task of flying an aircraft safely. How do we relate the results of these various measurements to performance? Are we at a point where we can take a case to court and defend it? If not now, when can we? I guess what I am asking is, how long do we have to continue studying before the findings and results can be put to practical use and be acceptable to all concerned -- the medical profession, pilots, regulatory agencies and courts.

Therefore, it may seem that your study approaches the problem from a somewhat esoteric approach. All of your scientists are unusual and highly specialized and use extraordinary techniques -- they are not comparable to the average physician who is daily examining our pilots, nor is the equipment available, nor can the technique be used by the average AME. I do not question that this approach is necessary at this time; but, somewhere along the line, it must be translated to techniques that are available to and can be used by the average AME in his office. It may, however, be contended that only a relatively few problem applicants would require these extensive studies and they could be done at a few highly specialized centers. I consider it most desirable from our regulatory point of view (as well as a strictly professional view) that acceptable techniques be developed that can be applied to all applicants. In the final analysis, from a regulatory point of view, we are interested in predicting the probability of sudden incapacitation and assessing performance of all applicants.

This, of course, is particularly important in regard to the increasing number of older pilots in our general aviation population. This number stands at about 7,500 right now. In addition, we have to cope with the older taxi pilots who pose medical problems because of increased performance requirements on the one hand, and the lack of adequate regulations on the other. It is not quite clear to me how the results of your study apply to these two groups of people. Do you think that the physiological age criteria established by your scientists would also be applicable for rating these airmen?

After questioning the present approach to the problem, what do I suggest? Perhaps, we have been trying to complicate the problem -- or look at it from too far away. I believe we must develop methods and/or correlations that will allow us to assess an applicant based on information and on examining procedures and techniques that are available to, and can be applied by, the average physician in his office to all applicants. Is it possible that by correlating information now available, or easily

acquired, on all airmen to assign them a profile, affix there on a seal or within an envelope, and accomplish the same end results ? As practicing physicians, I believe we unconscionally do this in prescribing treatment; therefore, wouldn't we treat all patients exactly the same ? The information I have in mind is: family, medical and social history, weight record, exercise habits, physical response to exercise, blood pressure, pulse, KKG, blood chemistry, simplified pulmonary function, etc. This is certainly not a new approach; however, I believe it warrents further and serious consideration as a workable practical solution to our problem.

With further reference to your study, we believe it is scientifically well structured on a solid statistical design. That each scientist sees each subject at each visit, and compiles the 800 items of data at each visit, is very desirable and adds to the value of the study. Also, your on-line computer capability which allows instant access and assessment as to where you stand is good.

Looking forward to continued cooperation with you and your group.

Sincerely yours,

Original signed by
P. V. Siegel, M.D.

P. V. Siegel, M.D.
Federal Air Surgeon

cc:
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NOTE: This copy of the original letter written by Dr. Peter V. Siegel to Dr. A. H. Schwichtenberg was made as a convenience, because of the poor quality of the copy of the original enclosed.

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