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BURBANK, CALIFORNIA 91503

MEMORANDUM

May 1, 1969

Peter V. Siegel, M. D.
Federal Air Surgeon, AM-1
Department of Transportation
Federal Aviation Administration
800 Independence Avenue, S. W.
Washington, D. C. 20590

Dear Dr. Siegel:

I have just received all the comments on the briefing at the Lovelace Clinic, December 9, 1968, and am submitting the opinions and recommendations of the subcommittee. It is our unanimous opinion that, while the Lovelace Study of Physiological and Psychological Aging in Pilots is an interesting and informative research program in gerontology, the results to date do not contribute significantly to a better understanding of the age 60 rule. The data neither support nor negate the basic contention upon which the rule was established, nor was any information presented by the Lovelace spokesmen indicative of any other studies being performed elsewhere which would contribute to the solution of the problem. The following reasons were listed in support of the subcommittee's conclusions:

1. The Lovelace study was not originally intended to resolve the age 60 problem.
2. The program is basically a gerontological study of a select male population which coincidentally happens to consist of test and transport pilots, and at best indicates that pilots as a group deteriorate age-wise more slowly than the general population.
3. The test population was self-selected, which makes the study group a very special one.
4. The number of subjects in the critical age groups (55 to 65) is insufficient to provide the required data.

5. Elimination from the study of those who developed disqualifying medical conditions removed a potential source of significant data which would have been important in correlating morbidity with aging processes.
6. The lack of follow-up studies on the group in paragraph 5 and those who dropped from the study for various reasons eliminated a source of additional important information.
7. No attempt was made to correlate physiological and pathological variations with performance and proficiency required in flying a commercial aircraft.
8. While the psychological studies did touch on certain aspects of performance, the small differences observed between various age levels and the small sample involved with respect to elderly pilots do not permit use of these data to support a change in the rule.
9. The study was not functionally designed as a basis for predicting sudden incapacitation.

Recommendations:

1. The majority of committee members question whether there is an actual need for additional medical studies to support the age 60 rule. Several believe that no medical studies will ever produce sufficient reliable data to reasonably answer the question. Others feel that physiological findings per se cannot be quantitatively related to actual pilot performance in the cockpit of an aircraft. Still others feel that in view of the technological advances in automated control systems and improvements in cockpit design, the hazards associated with pilot incapacitation are very small.
2. It is felt that a clearer definition of the requirements for flying is needed, with requirements expressed in terms of psychomotor variables which are subject to experimental observation and quantification; and once measured, permit application to a population of sufficient size to ensure accurate statistical correlations. This information is essential before the results of medical testing can be evaluated.

3. Any change in the age 60 rule at the present state of our knowledge will invariably be a change to another equally arbitrary rule based on some criterion measure other than age, but one probably no more clear and perhaps no more justifiable.
4. Attempts should be made to solicit information on experiences of the airlines, ALPA, APA, and other appropriate organizations during the past ten years that the rule has been in existence. In addition, it would be helpful to determine the experience and opinions of airline transport pilots who have voluntarily retired, been retired for health reasons, and those arbitrarily retired at age 60. Ohio D. Lts
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5. It is suggested that results of the following three studies be obtained prior to making any recommendations or decisions concerning additional studies or rule changes.
 - a. The Ohio State University study of the ALPA Loss of License Program.
 - b. Questionnaire study of retired airline pilots being performed by Dr. E. Carter of the Mayo Clinic.
 - c. Incapacitation studies being performed at United Airlines Denver Training Center and at Ohio State University.

If desired, the full reports of the seven subcommittee members are available for your review.

Yours very truly,

C. I. Barron
C. I. Barron, M. D.
Chairman
Subcommittee on Pilot Aging

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