

S E C R E T

18 June 1970

MEMORANDUM FOR: Deputy Director of Support

THROUGH : Director of Medical Service

SUBJECT : Medical Program Project [redacted]

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1. In March 1970 Dr. Peter Siegel, who is known as the Federal Air Surgeon in his capacity as Chief of the Aviation Medicine Department of the Federal Aviation Administration (FAA), telephoned me at my residence one morning before work asking that I come to his office to confer with him. I visited his office that A.M., and his initial concern was the fact that it had come to his attention that the [redacted] FAA Flight Surgeon [redacted] was issuing FAA Medical Certificates of Examination for the pilots of [redacted] but had turned in only one (1) physical examination to FAA during the past year. The obvious inference was that the doctor was not actually performing the examinations but issuing certificates by mail. I had anticipated being in that area on another project during April upon the termination of which it was my intention to visit [redacted] and informally investigate the matter personally rather than the FAA sending representatives or involving Agency personnel. It is our understanding that [redacted] has since solved its problem by using other doctors whom FAA licensed.

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We have recently been informed that the [redacted] [redacted], who additionally works in the [redacted] has reactivated his FAA Examiner License and is doing all the FAA examinations on the [redacted] pilots

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TRAN(FAA) review(s) completed.

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the fee for which, incidentally, goes into the [] coffers. He was formerly stationed in Saigon, Vietnam, and recalls the young Air America pilot who visited our dispensary who had a blood pressure of 230 but managed to acquire an FAA Certificate every six (6) months. He did not come for treatment for his hypertension but for other problems. [] also brings out the point that many Agency employees as well as pilots are acquiring considerable ear damage and resultant hearing loss principally from Porters and 123's. [] is purchasing new headsets and ear muffs to meet the situation. He is not cognizant that AA is aware of the hearing problem.

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2. Dr. Siegel than brought up the subject of the medical program at [] which he had also discussed with me last year. He, again, indicated considerable concern with the medical setup. He stated that he knows of pilots who have had coronary heart attacks in the United States who are found to be flying in the Far East for the project. There have been cases in the past of this situation arising in diabetics and in at least one (1) case I know of an epileptic.

Dr. Siegel informed me that the FAA doctor from Honolulu, who is Regional Flight Surgeon for the Western Pacific Area, visited the Project in Southeast Asia and flew with many of the pilots. He stated to Dr. Siegel that he could not believe that many of them were certified by FAA.

3. Dr. Siegel agreed to send me an informal letter explaining their position. There has been some delay in receiving this as will be noted (due to all-out FAA pre-occupation with the controllers' strike). His letter and attached report from FAA Oklahoma Medical Center is attached.

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[] and have no way of accomplishing same. Personally, I also heard similar stories from one of these doctors with whom I am well acquainted. To summarize the report accompanying

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25X1 Dr. Siegel's letter, it is a computer validation of FAA physical examinations performed for FAA either by [redacted] or other physicians examining the company's pilots. The following observations are made which serve as indications of the degree of integrity and care exercised in performing examinations:

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a. There is an implication that Electrocardiogram's (EKG's) are not being submitted as required.

25X1 b. Figures given for distant vision were studied. The normal is 20/20. Abnormally good is 20/15. One would not expect to find more than a small percentage of abnormally good 20/15. One doctor reported 31 examinations of which 30 had 20/15. The physician in [redacted] turned in [redacted] examinations of which 108 revealed abnormally good 20/15. The Flight Surgeon [redacted] had 77 of [redacted] in the same category. Another interesting facet to this study was the finding that all of these pilots examined had the same superlative vision in both eyes.

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c. Pulse and blood pressure readings showed the same similarities as above with very little variations from normal.

d. Hearing tests are performed in two (2) ways -- one being the distance at which the whispered voice is heard by each ear separately, and the other by means of an Audiometer. (Practically all pilots beyond the neophyte stage will show some hearing loss in one or both ears). The results are recorded as follows for one with excellent hearing in both ears = (15-15-2). The "two" indicating a normal audiometer test.

The physician in [redacted] recorded (15-15-2) in 116 of 137 examinations. This group in [redacted] would be very experienced pilots but of the group practically all of them had excellent hearing in both ears including audiograms. The doctor in [redacted] had 11 out of [redacted] with (15-15-2) and the remainder even better with a constant (20-20-2).

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25X1 4. In addition to the questionable dedication of the physicians accomplishing these examinations, the important flaws in the [] system are as follows:

a. There is no company pre-employment physical at the time of hiring. A current FAA Certificate is accepted and the pilot is not examined by the project medical department until he arrives in [] The FAA certificates may have been done by any of the thousands of doctors distributed all over the United States. Routine FAA examinations cannot be accepted as pre-employment physicals. 25X1

I would call your attention to paragraph 3 of Dr. Siegel's letter, "The Pilot who has a psychiatric, psychological, alcohol, cardio-vascular or other potentially serious medical condition that is relatively easy to conceal on a routine medical examination by the simple expediency of denying its existence on the medical history," etc.

b. Reasons why FAA physicals cannot be accepted as pre-employment physicals:

1) FAA is fully aware of the fact that they have relatively little control over their FAA examiners most of whom are in private practice.

2) The doctor is not always motivated to spend too much time on these histories and physicals nor is he apt to be overly curious and probing in his histories as he would like to have his clients return every six (6) months for their airline pilot's Class I Examinations.

3) He would be, of course, totally unaware of the exceptionally demanding jobs to which these project pilots will find their way.

c. There is no psychiatric screening or psychological assessment of the prospective pilots.

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d. Rarely are any non-routine x-ray or laboratory examinations demanded by the FAA examiners.

e. Audiometers are frequently not available which are necessary to definitely determine hearing status.

f. The above refer primarily to organic disease. Civilian and military Flight Surgeons generally agree that perhaps 75% of the "human factor" errors in the cockpit arise from psychological problems. To limit the accidents arising from such causes, it is necessary to have a physician (Flight Surgeon) living in proximity to the pilots in order that he may become acquainted with them and may detect subtle changes in their personalities and behavior indicating increased tension which may arise from a vast number of causes such as fatigue, marital and girl problems, late hours, gambling losses, excessive drinking, climatic conditions, financial disappointments, etc. It is necessary to have a mature experienced physician of the same cultural background who can establish a rapport with the pilots. The [redacted] doctors are unable for many reasons to establish this kind of relationship. This absence of an American physician in the field is one of the most significant weaknesses of the [redacted] Medical system, which one has to assume can be the cause of many accidents.

5. There is a lack of medical input in aircraft accident investigations. I am aware that there are spaces provided for this purpose in the Aircraft Accident Investigating Forms used by the company but those that I have been privileged to see are filled in with dashes or N/A. This is an extremely important aspect in the determination of causes of aircraft accidents and the attending corollary, prevention of accidents. Information should be obtained and duly noted concerning such factors as previously mentioned: sudden changes in life pattern and personalities of pilots, history of alcohol consumption, love life, etc. Also, fresh blood samples should be examined for alcohol and carbon monoxide levels etc. Autopsies should be obtained when possible. (Please see attached USAF accident report as example.)

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6. For three (3) years the Office of Medical Services (OMS) has been making suggestions pertinent to improving the above. The project manager has given freely of his time to listen to the undersigned and even allowed himself to spend an afternoon being briefed by psychologists of the Assessment and Evaluation Staff or the Psychological Services Staff. I do not believe that any of this has changed his conviction that:

a. Flight Surgeons in the field would be working counter-productively and would be an obstruction to management.

b. Psychological factors affecting the pilots are a fantasy. "Flight Surgeons are only necessary when blood flows."

c. Military Flight Surgeons are no good when used in commercial aviation.

d. Any input of OMS is going to blow the project's cover. In rebuttal, we contend that the correctly chosen mature doctor would be of the greatest help to management. That the organic conditions and "blood flow" from trauma are only part of the picture and that the psychological problems might be 75% of the total aspect. We have the direct word of the Medical Director of United Air Lines that whether a flight surgeon is military trained or otherwise is of no consequence. The only requirement being that he be a good doctor. The mission of any doctor is to have a physically and mentally healthy pilot in the cockpit. OMS has also promised not to intrude into the project administration or threaten its cover in any way.

7. In reviewing the aircraft accidents, one cannot help being impressed by the types of accidents such as short and long landings, running into objects on the runway, etc., that should not be occurring with such frequency by experienced pilots. It does not require an M.D. to suspect that some of these might be due to psychological factors.

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25X1 8. I have been stationed in the Far East and ridden many hundreds of hours in company aircraft of all types. We have also had the pleasure of landing at some of the worst strips in This is indeed a tough job these pilots have. Likewise, it takes exceptional qualities in these pilots and obviously greater care should be given to their selection. (It, perhaps, might be noted that according to the daily press the Washington Redskins have contracted with a psychological assessment group to evaluate their football players.) See attached.

We should also like to mention that being for prolonged periods around these pilots, we have a fairly good working knowledge of how they live, play, and of their general life style which as you know may at times vary considerably from the usual routine in Conus. The Air Force would have a dozen Flight Surgeons connected to an operation of this size.

9. To summarize, we should recognize that this is not an ordinary airline.

a. There is also the responsibility that we all have to see that the aircraft the Agency personnel ride in day after day are manned by the best pilots we can secure, not to mention our responsibility to all our other associates.

25X1 10. If you will pardon the observation, one of the weaknesses of our Agency is at times the failure to apply all our assets to certain problems. This generally occurs because of the compartmentization that exists for security reasons. We are fully aware of the need for a securely based cover for

11. We would again offer the following recommendations:

a. It is paramount that it be recognized that these men are flying under a severely stressed situation much

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different than an ordinary commercial airline. The accident rate would seem to corroborate such a conclusion.

b. It is suggested that pre-employment physical examinations under the control of the company be initiated. Numerous ways of doing this are possible; a) company Medical Department in Washington, D.C., b) arrange with a Clinic to perform pre-employment physicals, c) cleared and witting FAA Flight Surgeons who would devote particular attention to Air America pilots and be authorized to obtain any laboratory procedures or consultations he would deem necessary.

c. Psychological assessments - Agency psychologists could perform same at company offices or under a cover office. The PSS Staff has also volunteered to make arrangements with a commercial psychological testing service and monitor same. They also presented us at one time with the dossier on a psychologist with an outstanding aviation background at the USAF School of Aviation Medicine and FAA at Oklahoma City, Oklahoma, who was willing to consult on part time or other basis in establishing a testing service. (These assessments are not seen as aptitude testing as in Stanines, but would be intended to present a well motivated temperamentally sound, mature, reasonably intelligent pilot.) These studies should be of assistance to management as well as possibly promoting a better safety record.

d. Placement of American Flight Surgeons in the field at locations where there are large numbers of pilots and aircraft. These doctors would work with the framework of the existing FAA Medical Department. The [redacted] would still operate the dispensary and take care of indigenous personnel. The Flight Surgeons would work under and cooperate with [redacted]. They would also work directly with the Field Manager and consult and advise on a day-to-day basis.

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12. The undersigned believes this to be a pragmatic approach. This is no intent to create a Utopian situation. It is fully realized that this has to be a strong organization to do a tough job which it has been doing. However, it is felt that its effectiveness could be only enhanced by following the above recommendations. If one life or one aircraft were saved, it would more than pay for the cost of the suggested changes.

13. It is obvious that the pilot is one of the more critical parts of an aircraft. Sufficient attention has not been given to his maintenance. This factor is apt to be overlooked or superseded by other problems if this area is not properly represented at the management level.

14. We believe the Agency would benefit and management be more adequately supported if such representation were available and should like to suggest that the DD/S advocate the appointment of a medical doctor to the Executive Committee for Air in coordination with D/MS.



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Flight Surgeon

Attachments
As stated above

S E C R E T

WASHINGTON, D.C. 20590



22 APR 1970



I take this means of bringing to your attention and asking your help regarding problems concerning the aeromedical certification of pilots in the Southeast Asian area. It is not a new problem, however, recent complaints have added a sense of urgency toward seeking a solution.

As you know there is a number of pilots domiciled in the area employed by airlines whose operations require they hold FAA first-class medical certificates. In order that designated FAA aviation medical examiners be reasonably available, we designate local physicians as examiners. In most instances we ask the Department of State to assist us in determining their professional qualifications, reputation, and standing in their community. We recognize that in some instances the physician's training and experience is not entirely comparable to that of U.S. - trained physicians. We receive frequent and persistent complaints regarding the quality of the examination. These complaints run the gamut from a very precursory examination to none at all.

Recently, [redacted] told me that some [redacted] informed him they could and did receive FAA medical certificates by mail. This situation is intolerable.

Another significant problem that is even more elusive and difficult to quantitate exists. That is the pilot who has a psychiatric, psychological, alcohol, cardiovascular or other potentially serious medical condition that is relatively easy to conceal on a routine medical examination by the simple expediency of denying its existence on the medical history. These pilots are frequently allowed to resign from their company for personal reasons rather than be discharged, or they

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resign just before they can no longer conceal their medical conditions in their setting. These pilots all too frequently seek and obtain employment in out-of-the-way, unusual and extraordinary places where they are not known. The hazard exists no matter where they are.

I will appreciate your assessment of the situation and any suggestions you may have.

Sincerely,

PV Siegel MD
P. V. SIEGEL, M.D.
Federal Air Surgeon, AM-1

Enclosure

WASHINGTON, D.C. 20590

DATE:

IN REPLY
REFER TO: AM-200

SUBJECT: Far Eastern aviation medical examiners

TO: AM-1

In reviewing computer printouts at your request there is one overriding consideration which would temper the results of my study. The printouts as provided do not give an unbiased picture of the work performed by the AME's in question but, instead, reflect their basic work as modified by further consideration by Oklahoma City and/or the Regional Flight Surgeons. Their work has been over-coded by file maintenance, obscuring the original data as provided by the AME's. This limitation however does not prevent drawing some significant findings from the data.

The examinations conducted [redacted] were not tabulated since they only conducted one or two physical examinations and no patterns could be ascertained. Five other examinations were excluded in the study where the AME cannot be clearly determined and were excluded from the tabulations. As a result, 15 AME's from the Far East were tabulated and compared both as individuals and as one individual against the other. These 15 examiners conducted [redacted] physical examinations that were performed in 1969 and early 1970. [redacted]

In considering path codes assigned those airmen examined by the 15 Far East AME's, it is noted that [redacted] had fewer airmen with path codes than would be anticipated. The same is true for [redacted]. However, these findings are of questionable significance since path coding would be the one area most likely to be changed by agency considerations (comparison to previous records, etc.).

In considering limitations imposed upon this airman population, it is noted that most AME's examine airmen where 40-60 percent required restrictions or limitations. All limitations were for glasses except for two instances where contact lenses were used. Notable exceptions are that [redacted] had an airman population where six of seven examined required glasses. [redacted] had examined a segment of the population which was slightly better than average as far as requirement for limitations (approximately 35 percent). The



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The same is true of [redacted] (25 percent limited), and especially true for [redacted] (8 percent of 31 restricted).

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In considering waivers issued, it is realized that this area is similar to path codes in that waivers represent action taken by the agency rather than by the AME. There were waivers noted for hearing, distant vision, contact lenses and color vision, in order of decreasing frequency. The frequency of waivers among the population examined by any one AME was roughly what one would expect with three minor exceptions. One would expect only one waiver among [redacted] applicants, where instead, three were noted to have waivers. [redacted] population of [redacted] would be expected to contain two waivers, where instead, none were observed. [redacted] population of [redacted] would be expected to have some nine waivers, where only five were observed.

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In considering the birth year of airmen examined by these AME's; little was learned except that the majority of individuals examined were born in the 1930's. The overall age range being from age 20 through 63. The youngest applicant was examined by [redacted] and the oldest by [redacted]. In reviewing the printouts rather hurriedly, it would appear that there was no significant patterns wherein the only older individuals were being seen by any one or two AME's. To carry this patterning one step further, the printouts were examined to see whether obese individuals were being seen more frequently by one doctor than by another. This was considered important in that obese individuals might be expected to have more than their usual share of pathology requiring "careful" evaluation.

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This study revealed that three AME's were seeing far more than their proportionate share of large airmen. [redacted] saw [redacted] airmen and it would be expected that some [redacted] would be large; [redacted] were observed. [redacted] examined [redacted] of which one would be expected to be heavy; three were observed. [redacted] examined [redacted] and it would be expected that approximately three would be heavy; eight were observed.

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It was interesting to look at flying time. Most of the applicants were very active, reporting more than 300 hours of flying time every six months. It is noted that [redacted] examined [redacted], over half of which flew less than 300 hours every six months. The same is true for the [redacted] examined by [redacted] (13 of [redacted] examined flew less than 300 hours in six months). On the other hand, [redacted] seems to have examined an especially active group since only 14 of his [redacted] examined flew less than 300 hours in six months (approximately nine percent).

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STAT The pilots examined by each AME were studied in reference to whether they were professional pilots, had other aeronautical occupations other than pilot or whether they were in occupations other than in the aviation industry (non-aeronautical jobs). The distribution of professional pilots among the AME's studies showed no significant deviations over that expected. In looking at the non-aeronautical jobs and the aeronautical jobs other than pilot, it is noted that [] had considerably fewer of these than one might expect. The same is true of [] saw considerably more non-aeronautical individuals than would be expected and [] saw considerably fewer than expected of those with aeronautical occupations besides pilot. STAT STAT

STAT STAT STAT It is also of interest to note that many of those individuals who were not deriving their livelihood from the industry as professional pilots but rather through other aeronautical occupations and non-aeronautical occupations, nevertheless often acquired first-class medical certificates. For example, [] examined [] airmen, [] of which were class ones and two of which were class threes. These [] represented [] professional pilots, five other aeronautical jobs and 11 non-aeronautical jobs. The distribution of class two and class three medical certificates seemed to jive with jobs held in only three cases, [] STAT STAT

STAT STAT STAT In studying abnormalities noted by the AME's, it is interesting to note that by far the most common finding was item 44 -- body marks, scars, tatoos. Most noteworthy of this study was the fact that [] noted as abnormal item 44 on all [] of his applicants and this was the only abnormality noted on any of the []. The same is true of the seven examined by [] of [] assigned abnormality 44 to all [] that he examined, but in addition, made additional findings for three of the []. It is noted that [] assigned abnormality 44 to nearly all of their applicants, but did in addition assign other codes to their applicants indicating that they observed among their populations more than just body marks, scars or tatoos. STAT STAT STAT

STAT EKG codes were examined primarily to determine if path codes existed among those airmen examined by each AME. The complete absence of path codes may indicate that EKG's are not being submitted as required on first-class applicants. One doctor did not examine any first-class applicants and therefore no EKG codes were observed among his few examinations. One doctor had examined only one first-class applicant (who was less than 40 years of age). No EKG code was to be expected since both age and random occurrence of EKG findings would be involved. For the same reason, chance may have accounted for the fact STAT

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that none of [] 13 class ones had EKG codes; none of [] six had EKG codes; none of [] seven had EKG codes and none of [] seven had EKG codes. I become increasingly suspicious when I observe that none of the 30 class ones examined by [] have required an EKG code and as a result will be in touch with Oklahoma City asking them to make a determination as to whether [] is submitting EKG's on his first-class applicants.

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In studying medical history, very little in the way of significant patterns could be ascertained other than the fact that medical history item 21.u. -- admission to hospital -- was by far the most common item of medical history. The airman who saw two relatively inactive AME's reported only u.'s and no other items of medical history. This involved only nine people. Only in the case of the four airmen examined by [] did all airmen report hospitalization. It is significant that approximately 45 percent of all of the airmen examined, irrespective of AME, reported no medical history whatsoever. Approximately half of those reported only hospitalization and no other medical history. There is no significant difference in these trends noted among the examiners.

Distant visual acuity was studied in order to see if all airmen were reported as having the same visual acuity and to determine if any significant defective distant visual acuity was being reported. In other words, it was determined whether the AME assigned the uncorrected and corrected visual acuity to be better than normal (15) for all those examined. It was determined if he had recorded uncorrected distant visual acuity worse than 50 and if he had recorded corrected distant visual acuity worse than 20. There are several patterns immediately apparent from this study. [] seven applicants were all 20/20 corrected and uncorrected with the exception of one and none had uncorrected visual acuity worse than 50 or corrected vision worse than 20. [] examined [] all but one of which were recorded as 15's all across the board. In other words, 30 of his [] airmen had better than normal uncorrected and corrected distant visual acuity. Similarly, 105 of 126 examinations conducted by [] recorded distant visual acuity as 15 all across the board and [] examined [] of which were 15's across the board. A similar pattern but not to the same degree is observed for [] where [] had 15's all across the board. Ten of [] examined by [] were all 20's across the board as would be expected rather than as reported by the above.

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The pattern previously described in reference to distant vision where most airmen are given the same findings and those findings being better than normal. The same patterns were unfortunately observed all too often

in reference to blood pressure, resting pulse and hearing. It is apparent from these studies that some of the examiners are only sporadically conducting the actual examinations. This is a serious allegation but I can see no other conclusions that can be reached. Some findings represent ignorance of the test itself, in that [redacted] reported for seven out of seven examined an ESO of nine. Some of the discrepancies are perhaps generated through recording techniques; by this I mean that several of the examiners studies had a marked propensity for rounding off numeric values to even numbers; that is, even 10's -- 30, 40, 50, etc. In so doing, their statistical data then became so distributed as to be at best meaningless. This of course was especially true for blood pressure and pulse. [redacted] recorded a resting pulse of 80 for four of the seven examined. Of the [redacted] examined by [redacted] he reported five with a diastolic blood pressure of 70 and seven with a diastolic blood pressure of 80. [redacted] examined [redacted] of which the systolic pressures were in even 10's and 10 of the diastolic pressures were recorded in even 10's. Likewise, [redacted] examined [redacted] of which had systolic pressures that were in the even 10's and 23 diastolic pressures which were recorded as even 10's. [redacted] examined [redacted] of the systolic pressures being even 10's and 15 of the diastolic pressures being even 10's. [redacted] also recorded five with a pulse of 72 and seven with a pulse of 84. This means that 12 of the [redacted] examined had one of two pulses. Where patterns of 10 were the most problematic, [redacted] recorded blood pressures and pulses that included far too many sixes to be a true finding by chance alone. Attached to this study are special sheets reflecting the blood pressures as recorded by [redacted]. It would appear to me that the work of [redacted] is completely unacceptable.

While it is to be expected that the pilot population examined in the Far East is undoubtedly a healthy population with special missions to perform, it is unlikely that this group of individuals exposed to noise hazards as they are, would be a superior group as far as hearing is concerned. However, if one carefully studies hearing as recorded by these examiners, we find that indeed the [redacted] studied have far superior hearing than does the population as a whole, as best adjudged by FAA whispered voice procedures. I would suspect from looking at these data that these examiners as opposed to other examiners dry-lab the hearing test since this is not much worse than the whispered voice test. As a case in point, of the [redacted] examined by [redacted] of Laos, 116 were recorded as having hearing of 15, 15, 2. This means adequate hearing at five feet in both right and left ear and a normal audiogram (2). Similarly, of the [redacted] examined by [redacted] all but one was recorded as having 15, 15, 2. Of the [redacted] examined by [redacted] all [redacted] were recorded as having a hearing of 15, 15, 2.

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STAT [] examined [] and at least varied his findings so that 11 of the 87 had a hearing of 15, 15, 2 and all of the rest had even better hearing of 20, 20, 2. Likewise, [] examined [] of which were 15, 15, 2 and [] were 20, 20, 2. [] who on the whole has apparently conducted fairly good examinations (except for rounding off his blood pressures to even 10's), has also recorded his [] as two with hearing 15, 15, 2 and [] with hearing of 20, 20, 2. In looking at [] work with 126, there are many problems but added to these must be his reports of hearing since [] are reported to have a hearing of 15, 15, 2. STAT
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After observing the population in terms of descriptors such as codes, limitations, waivers, weight, flying time, etc., it would probably be best to summarize for each AME items of special note:

STAT 1. [] examined [] without any observable patterns of significance. He was the AME to examine the youngest applicant in the series (born 1949). STAT

STAT 2. [] examined seven. This group was unusual in that six of seven required glasses (born 1919 through 1933), only one reported any past history (item 21.u. History of Hospitalization), four of seven had a resting pulse of precisely 80 and seven of seven had an Esophoria of nine.

STAT 3. [] examined [] only 17 of which had limitations (slightly less than average). All [] had abnormalities noted by [] all but two being coded 44 (body scars) or 28 (mouth and throat). STAT
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STAT 4. [] previously from Laos, examined only four. All four had medical history codes under item 21 (the only case where 100 percent examined had history indicated under item 21). The only other problem with [] is that the four recorded blood pressures are questionable: Systolic values: 130, 130, 135, 135
Diastolic values: 70, 70, 75, 80
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STAT 5. [] was the most active AME of the study, having examined [] Only five had path codes where 10 would have been expected. He examined nearly twice as many "large" applicants as would be expected from the series (19 of [] weighed over 200 pounds). He examined only five who had aeronautical jobs other than professional pilot and seven with non-aeronautical jobs (20 of each was expected). It was further noted that [] had better than normal distant vision (20/15, both eyes) [] had normal hearing (15, 15, 2). STAT
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 In other words, [] from the visual side and [] from the hearing point of view were not only normal but also had two eyes or two ears exactly the same.

6. [] examined [] where only one waiver was expected, his group had three. He also examined the oldest applicant in the series (born 1906). His [] were not as active as most in that nine flew less than 300 hours in six months (three expected). He was guilty of rounding out diastolic blood pressures to even numbers of 10 in that five had diastolic values of 70 and seven had values of 80 (12 of [] had one of two values). The pattern of hearing values observed was interesting:

<u>Number</u>	<u>Right Ear</u>	<u>Left Ear</u>	<u>Audiogram (Normal)</u>
[]	20	20	2
[]	18	18	2
[]	17	17	2
[]	15	15	2
[]	12	12	2
[]	10	10	2

7. [] examined [] Of these, three were over 200 pounds (only one expected), nine flew less than 300 hours in six months (three expected) and all [] had one and only one abnormality noted by the doctor (item 44, scars). As with others, he abused the use of rounding off to even numbers of 10 (see below) and he recorded all but one as having normal and equal hearing in both ears (15, 15, 2).

Systolic [] recorded as even of 10 (60, 70, 80, etc.).
 Diastolic [] recorded as even of 10.

8. [] examined seven, all of which were coded with and only with abnormality 44 (scars). All but one had 20/20 vision in both eyes and that one had only a minor variation (20/30 corrected to 20/20). Five of the seven had a resting pulse of 72 and the other two had a resting pulse of 76.

9. [] examined [] all of which were coded with abnormality 44 (scars). However, three of the [] did have other abnormalities noted. In recording blood pressures and pulses, more sixes were used than would be likely by chance alone. All had normal and equal hearing in all ears (15, 15, 2).

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10. [] examined [] the third most active AME of the series. Six of these were expected to have path codes but only [] had restrictions (all for glasses), about half the number expected. Only 10 of the [] did not have 20/15 uncorrected and corrected vision in both eyes. Eleven of the [] had normal and equal hearing in both ears (15, 15, 2) while all the rest had even better and equal hearing in all ears (20, 20, 2).

11. [] examined [] Only two had restrictions (for glasses) -- 12 being expected. Two waivers were expected but none observed. Only one non-aeronautical and one aeronautical other than professional pilot were observed. Four of each were expected. All but one were coded with abnormality 44 (scars); the doctor had detected other abnormalities in only four of the 31. With [] applicants, 30 of which were class one and age 26 to 44, you would expect a couple with EKG path codes. None were observed and verification will need to be made that EKG's have been submitted. All but one had better than normal vision in both eyes (20/15 uncorrected and corrected in both right and left eyes). He was also bad about rounding blood pressures and pulses off to even numbers of 10:

Systolic [] with even numbers of 10 (120, 130, 140, etc.)
Diastolic [] with even numbers of 10.

Lastly, all [] had normal and equal hearing in both ears:

[] with 15, 15, 2
[] with 20, 20, 2

On the whole his work is problematic and for poor quality, secondary only to []

12. [] examined [] An unusual number of these had non-aeronautical occupations (11, three expected). As a result, his group had fewer flying hours than most. Thirteen had fewer than 300 hours in six months (three expected). His work with eyes, ears, blood pressures and pulses was also a little sloppy:

[] Hearing [] with 15/15/2, 15 with 20/20/2
[] Pulses [] at 72 resting, 7 at 84 resting
[] Visual 20/20 right and left eyes corrected and uncorrected
[] Blood Pressures Systolic-- [] with even 10's (120, 130, 140, etc.)
[] Diastolic-- [] with even 10's (70, 80, 90, etc.)

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13. [] examined [] Eight of these were over 200 pounds (three expected). In contrast to some of those noted above, 11 of [] had other than normal and equal hearing in both ears (20, 20, 2 or 15, 15, 2). Thirty-six of [] had one of four resting pulse values:

[] had 76, [] had 72, [] had 80, [] had 84

There were diastolic pressures of 80 in five consecutive airmen.

[] had diastolic of 70, 23 of 80, 13 of 90 (42 of [] in 3 values) had systolic of 120, 12 of 130, 10 of 140 (37 of [] in 3 values)

14. [] examined [] airmen, the second largest number of the series. Only five had waivers where 10 or 11 were expected. Only five held aeronautical jobs other than as a professional pilot (twice as many were expected). About half as many "inactive" pilots were observed [] as were expected (less than 300 hours in six months). The visual values, hearing values, blood pressure values and pulses were all very much alike and in one consecutive series of four of his applicants, these values were all identical.

- A. Hearing -- all but three of [] were 15/15/2
- B. Visual -- [] were all 20/15, both eyes and both corrected and uncorrected.
- C. Pulses -- [] had one of four pulse values; 28 had 76, 22 had 80, 26 had 72 and 28 had a value of 68.
- D. Blood pressure --

Systolic [] had one of four values with value of 110, 35 with 120, 28 with 130, with 140.

Diastolic -- [] had one of two values:

[] had diastolic pressure of 70
[] had diastolic pressure of 80

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