

# Office Memorandum • UNITED STATES GOVERNMENT

## FEDERAL AVIATION AGENCY

TO : Civil Air Surgeon

DATE: October 9, 1959

FROM : Chief, Rules and Procedures Branch

SUBJECT: Comments on Draft Releases 59-4, 59-5, and 59-6

As of Wednesday, October 7, 1959, we have received 35 additional comments. These, added to the previous total, make 87 replies to the above mentioned proposal.

Of the 25 individual replies, seven were opposed, 16 were in favor, and two were neutral. Of the neutral responses, one requested exemption for helicopter scheduled carriers since they are not high performance aircraft(?) and the other expressed no opinion due to lack of experience (M.D. from Israel). Of the 16 favorable replies, 13 were from M.D.'s. Their decisions were based on experience with pilots, medical knowledge, and by some on actual piloting experience. One of this group felt the age limit was too liberal, i.e., the maximum age should be 50 for jet pilots. Another favorable comment was from a representative of Council 22 of American Airlines. Still another individual felt that jet planes will soon be in 1,000 mph range and we need younger men with quicker reflexes. He also states that we must consider the "live cargo" behind the pilot. Seven replies were in opposition. Of these, six were from physicians. These men felt that arbitrary, chronological age was not practical, and that check rides and physical examinations were sufficient. The other comment in opposition felt that medical experts' opinions are not sufficient basis but that a factual basis should be used. He did not indicate what facts should be used.

Three pilots responded during the period and all were in favor of the proposals. One feels that jet aircraft are an entirely new concept in instrumentation and flying characteristics, and this nullifies some of the experience of the older pilots. Another feels that these older men have had good jobs for 20-30 years and should be able to retire in good circumstances. Two of these are age 44 and 36, and neither is checked out in jets.

Six associations forwarded their comments in this interval. One, the National Business Aircraft Association, Inc., requests that the Administrator designate a public hearing. The Air Transport Association of America supports the proposal that there be a maximum age limit of 60. They realize that this is arbitrary but are also cognizant that medical knowledge cannot predict those who can continue flying safely. This same association does not support the age 55 limitation for transition to turbojets. It feels this

would only be in effect for a limited period of time since those less than 55 will soon undergo transition. Aircraft Owners and Pilots Association considers these proposals to be arbitrary and discriminatory and that the seriousness involved makes a public hearing imperative. National Aviation Trades Association believes the physical condition rather than the chronological age should be the qualifying factor. They agree that statistics in this issue are useless. They oppose both proposals. The other comment was the 105 page book from Air Line Pilots Association and an included errata sheet.

An analysis of the legal and medical aspects of this comment, as prepared by this branch, is presented as an attachment to this memorandum.

As to the medical considerations used by ALPA in opposition, we can cite many arguments in opposition to theirs but all are still relatively unfounded. We cannot produce unequivocally convincing statistics or data in support of our position any more than they can produce material to oppose the proposal. The greatest pitfall is the small number of older pilots on which to base statistics. ALPA infers that pilots are not human, but supermen, hence we cannot apply general medical knowledge to them. I think our figures from a leading industrial company refute this argument.

ALPA also argues that the ability to perform new tasks is no criterion since these men have shown by competency checks that they can fly. However, here they are introducing the factor of automatism which can be eliminated in controlled laboratory experiments. They question whether there are differences in the flying characteristics of swept wing jet aircraft and conventional wing propeller driven aircraft. We have statements in the docket from pilots that there is a difference and everyone realizes the recovery lag of jet engines. They say that most incapacitation comes from gastro-intestinal upsets, not from heart attacks, strokes, etc. However, the latter are suddenly incapacitating whereas gastro-intestinal upsets have a more gradual onset and are less incapacitating. Pilots could fly and vomit, but hardly fly in shock from a coronary. The old argument which contends that the co-pilot is safety-adequate insurance against incapacity of the pilot is not convincing. In the recent Peconic River Boeing 707 crash, there were several rated pilots on board yet control of the aircraft was not maintained.

The comment states "it is a fundamental premise of this Association that maintenance of high physical and professional standards is an inherent part of an airline pilot's career." However, ALPA opposed the electrocardiogram requirement and the recent amendment of Part 29,

specifying certain disqualifying medical conditions. They did not comment on Draft Release 59-2 other than to say they will help by submitting their material if asked.

Our answer to their statement "Many pilots currently transitioning to jets have accomplished such transition in half the time of pilots twenty years younger" is found in the briefing graph showing mean transition time.

ALPA states that: "In 1957, the average retirement age of road (railroad) engineers and motormen was 67.5 years" and "In 1956, the average age of the engineer group in railroad employment was 59." We feel that railroad engineers and airline pilots have different responsibilities. Railroads have used a "dead man's throttle." In this case, if the throttle is released, the train can only stop on the tracks. There is no problem of steering or landing. In fact, airline pilots are different from most other professions. A lawyer, who suffers a heart attack performing his job, rarely endangers public safety. Medically we have support, I believe, in the statement that we cannot predict the sudden incapacities in contradistinction to ALPA's statement "proven methods of measuring physical fitness and competency exist."

ALPA failed to mention the increased reaction time, increased glare recovery time, and decreased night vision that occurs with age.

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