

STATEMENT
OF THE
AEROSPACE MEDICAL ASSOCIATION
FOR THE HEARING RECORD
TO THE
COMMITTEE ON AGING
UNITED STATES SENATE

The Aerospace Medical Association (AsMA) appreciates the opportunity to submit this statement to the U.S. Senate Committee on Aging on the important issue of the Age-60 Rule for air transport pilots. I am Dr. Russell B. Rayman, Executive Director of the Aerospace Medical Association, representing approximately 3,300 physicians, scientists and flight nurses engaged in the practice of aerospace medicine or related research.

THE AGE-60 RULE

The Age-60 Rule, implemented by the Federal Aviation Administration (FAA) in 1959, does not allow persons engaged in operations conducted under Part 121 of the Federal Aviation Regulations to serve as a pilot or copilot on reaching their 60th birthday. The Rule was implemented under the premise that the risk of incapacitation due to medical causes after 60 years of age was unacceptably high. Despite a number of court challenges since 1959, the Rule remains in force, yet still controversial. This issue of the Age-60 Rule can be reduced to three questions. After age 60,

1. will air transport pilots have a higher aircraft accident rate?
2. will there be significant performance decrement in the cockpit?

3. will there be an unacceptable risk of inflight sudden incapacitation due to medical causes?

To answer the first question with reasonable certitude, one would need to study a cohort of air transport pilots older than age 60 over a period of time and compare its flying safety record with a cohort of air transport pilots under age 60. Unfortunately, no such study exists because there are no over age 60 air transport pilots certified by the FAA to fly Part 121 Operations. The best we can do is to study general aviation and commercial pilots, both categories having no age limits. Many such studies have indeed been published in the medical literature focusing upon the relationship of age with aircraft accidents. A review of these studies reveals many contradictions and inconsistencies making it impossible to extract data to support the Age-60 Rule or to refute it. In any event, the validity of those studies comes into question if one attempts to extrapolate the findings from general aviation pilots and commercial pilots to air transport pilots because of significant differences in aircraft and operations. In that alone, the studies are flawed. Many countries today do permit air transport pilots to continue flying beyond age 60. According to the International Civil Aviation Organization, at least 24 countries have adopted this more liberal policy. And to our knowledge, there has been no adverse effect upon flying safety.

Regarding performance, many studies have been published comparing motor skills, cognition, memory, attentiveness, as well as simulator and flight performance between younger and older pilots, the results of which were frequently mixed. Furthermore, even when decrements were observed, there was no compelling evidence that they were significant enough to adversely affect flying safety.

Although medical sudden incapacitation is always a possibility (at any age), we believe it is a vanishingly small risk, even for air transport pilots who would be over age 60, because the event would most likely have to occur during those few minutes of a critical phase of flight such as takeoff or landing. Even if there were such an occurrence, there is always a second pilot in the cockpit who could rapidly take control should the need arise. It might also be added that there has never been a US air carrier accident due to medical causes.

Let us assume for a moment that the Rule was changed and air transport pilots were permitted to fly beyond age 60, perhaps to age 65. Are there medical tests that could be added to the biannual flight physical examination to detect cognitive decrements or medical conditions that could cause sudden incapacitation? There are some medical tests that could be added, but for the most part, there is not much enthusiasm because they are not adequately predictive. For example, many lack sensitivity and there is the risk of false positive results; a secondary factor is the cost to the airman. One exception however, might be testing for changes in cognition. I would add that many countries which allow over age 60 air transport pilots to fly do not require any additional testing.

CONCLUSION

In conclusion, on review of existing evidence, the Aerospace Medical Association concludes there is insufficient medical evidence to suggest restriction of pilot certification based on age alone.

For an Air Transport Pilot (ATP) with advancing age, in the case over age 60, is there an added risk to flying safety due to cognitive/neurophysiological changes or due to sudden incapacitation due to a medical condition. To answer this question, one would need a cohort ATPs older than age-60 over a period of years and then compared to a cohort ATP pilots under age 60 to compare their respective flying safety record. However, no such study exists because there are no pilots, on US air carriers over age 60 who are certified to fly.

Consequently, studies have been done on general aviation and commercial pilots (135?). However, the fidelity of these studies must be questioned because one cannot extrapolate the performance of these pilots to ATPs with a great certitude due to differences in aircraft, operations, and schedules.

In any event, there have been studies of general aviation and commercial pilots because many of them are over age 60. Many of these studies which examines the relationship with age with cognitive function, pilot performance, and medical incapacitation are contradictory. Some studies suggest that accidents increase with increasing age while other refute this notion. AsMA agrees that the medical and scientific literature indicates the lack of an obviously right answer.

If the rules were changed and ATPs were arbitrarily permitted to fly beyond age-60 are there medical tests to add to their periodic physical examination to detect medical conditions that could cause sudden incapacitation. Many airlines of the World do permit pilots to fly beyond age-60. Most do not have requirement for additional tests.