In September 2004, the ALPA Executive Board voted unanimously to begin a thorough communications effort to educate the U.S. ALPA members about the rationale for the Age 60 Rule, ALPA’s policy on Age 60, and the possible implications of changing ALPA’s policy on mandatory retirement age. The first issue of *IN FOCUS* summarized the history of the FAA Age 60 Rule and ALPA’s policy on the rule from 1960, when the rule went into effect, to the present. The second issue of *IN FOCUS* highlighted the safety aspects of the Age 60 rule, reviewed the process the FAA uses when considering changes to a regulation, and provided examples of some of the potential additional operational requirements that might be imposed in order to maintain the current level of safety if the Age 60 Rule is changed.

In those issues, we also explained that the FAA’s stated rationale for the Age 60 Rule is safety, and that this operational limitation has been imposed to prevent the risk of medical incapacitation among older pilots. Thus, although FAR 121.383(c) is not a medical certification standard, it seeks to address concerns about pilots’ medical fitness and thus should be considered in the context of the FAA’s medical certification process. In the last issue of *IN FOCUS*, we noted that the regulations of the Joint Aviation Authority or “JAA” (the European Union’s counterpart to the FAA) permit a pilot to fly until age 65 as a member of a multi-pilot crew, provided that individual is the only pilot in the flight crew who has attained age 60. It is also instructive to review the medical certification process under the JAA model, which, as you will see, is quite different from that of the FAA. This issue of *IN FOCUS* will briefly examine the philosophy and content of the FAA medical certification process, contrast it to the JAA/European model and Canadian system, and discuss some of the possible changes to the FAA medical certification standards that may be proposed should the FAA consider raising the Age 60 operational limit.

**FAA Medical Certification**

All pilots have taken numerous Class I FAA medical examinations in their careers, with some having to deal with the FAA medical bureaucracy when illness or medical anomalies have cropped up. Few pilots, however, have a good understanding of the medical certification philosophy that underlies the process. Dr. Donald Hudson, ALPA’s Aeromedical Advisor and Director of ALPA’s Aeromedical Office in Denver, Colorado, provided ALPA elected representatives with
insight into that philosophy in presentations at the September 2004 Executive Board and at the October Board of Directors meetings. Following is Dr. Hudson’s overview of the FAA medical certification process, the JAA/European model and Canadian system, as well as his perspective on possible additional medical requirements that might be imposed should the Age 60 Rule be changed.

Dr. Hudson explained that the FAA’s medical certification process is guided by four general principles. First, it focuses on the current health of the pilot applicant. The FAA Class I examination is geared toward assessing the pilot’s present medical fitness so as to allow a medical examiner representing the FAA to assert with reasonable certainty that the pilot’s health will continue to meet standards during the period for which the certificate will be active (i.e., 6 months for a Class I and 12 months for a Class II). The pilot is issued a certificate provided the “static” standards (such as vision, hearing and blood pressure) are met and no serious pathology of major organ systems is uncovered, either through the medical history or in the somewhat abbreviated physical examination.

Second, the FAA disqualifies pilots only on the basis of present, identifiable pathologies. Such disqualification occurs for conditions found that affect the major organ systems.

Third, FAA medical certification examinations are quite limited in scope. The Class I physical examination involves few tests and rarely takes longer than 15 minutes to complete. The only “specialty tests” required are a resting electrocardiogram (ECG), and dipstick examination of a urine sample for sugar. Significantly, there are no required tests for disease “risk factors” or other values that might have predictive value for future illness. Only two standards are connected to chronological age, the frequency of the ECG (at age 35, 40 and annually thereafter) and the addition of “intermediate” vision standards after age 50. The cost of an FAA Class I examination (including an ECG) averages approximately $175.

Fourth, certification of pilots who do not meet the established medical standards is permitted based upon the FAA’s consideration of individual circumstances under a flexible waiver system. If a serious problem is discovered, the FAA utilizes an individual approach by working with the pilot’s healthcare providers. In Dr. Hudson’s experience, the FAA does actually strive to certify the pilot after proper evaluation and treatment—as long as, in its judgment, aviation safety will not be compromised.

As this framework demonstrates, the FAA certification system is very “present oriented” and does not require pilots to take preventive actions. Preventive healthcare is within the discretion of the individual pilot. Because of the FAA’s short-term focus, it accumulates little medical data that would be particularly useful in a preventive medicine context. In addition, it does not emphasize “shaping” the pilot’s health-related behaviors in a longitudinal sense as the pilot ages. This approach contrasts sharply with regulatory models in other countries.
**JAA/European Medical Certification**

In contrast to the FAA system described above, the medical certification approach taken by most European countries is more extensive with respect to the nature and number of the required medical exams, as well as its emphasis on preventive care and health behavior modification. Although under the JAA guidelines commercial pilots are allowed to fly (with certain crew operation restrictions) past age 60, the philosophical underpinnings of the JAA/European medical certification system are quite different from that of the United States. First, the European approach is data-driven—with an extensive “initial” physical examination followed by periodic examinations with frequent specialty components. Second, the orientation is preventive and prospective rather than immediate and short-term. European aviation medical examiners are greatly involved in pilots’ preventive care. Third, the applicable waiver policy is based upon conformity with inflexible, uniform requirements. Pilots who develop illnesses (or, in some cases, significant risk factors for disease) are evaluated for waiver based on more rigid protocols than those used by the FAA. The European approach can lead to significantly increased time off of flight status versus the time a U.S. pilot might be off for a similar problem.

Let us look first at the more extensive medical examinations and greater degree of data obtained under this approach. The “initial” European Class I examination is given to pilots during their very first medical certificate examination. The examination is similar to “executive” type physicals available at major medical centers in North America and is conducted at “Regional Aviation Medicine Centers” in Europe. The examination itself encompasses very extensive specialty testing involving the blood, cardiovascular, pulmonary, endocrine, ocular, auditory and neurologic systems. If this examination were performed in the U.S., the cost to the pilot would be in the $2,000 range. In Europe, the hiring aviation company normally bears the cost of this examination, and it is not unusual for an airline’s medical department to be heavily involved in the process. After successful completion of the initial examination, a Class I examination is then required annually until age 50 and every six months thereafter (with no change in frequency or number of tests after age 60).

Moreover, the periodic Class I examination specified by JAA guidelines is more extensive than its FAA counterpart, including annual blood tests and specialty examinations involving the cardiovascular, pulmonary, endocrine, neurologic and pulmonary systems at varying intervals. This system ensures an extensive, cumulative medical database to which the European regulatory authorities have access. Such extensive medical data may help provide a level of confidence in the medical fitness of
pilots over age 60. Nevertheless, in a tacit acknowledgement of the increased risk of both acute and subtle incapacitation with increasing age, this European regulatory system does place operational restrictions on crew complement—that is no more than one member of the controlling crew is permitted to be over the age of 60.

**Medical Certification in Asia, Australia/New Zealand, and Canada**

Countries in Asia generally follow the European model with airline medical departments more extensively involved in the waiver process. Medical certification in Australia and New Zealand falls between the American and European systems.

As our Canadian members are well aware, their certification system is very similar to that of the FAA. Like the FAA, the CAA places no age restriction on the ability to hold any class of medical certificate. Unlike the FAA, however, there are no operational restrictions placed on pilots based upon chronological age. Also, like the European systems, there are no specific mandated medical tests for pilot applicants over the age of 60. As a practical matter, however, age restrictions on airline pilots do exist in Canada, but they are incorporated into negotiated labor/management contracts. For example, the Air Canada pilots’ contract mandates age 60 retirement with full benefits. At Air Canada Jazz, a sort of hybrid agreement exists where there is mandatory age 65 retirement with full benefits; however, a pilot has two other options: retiring between age 55–59, but suffering a prorated benefit penalty, or retiring at age 60 without penalty with the benefit level predicated on years of employment.

**FAA Medical Certification Options**

Recently, a study of the Age 60 question conducted by the Aerospace Medical Association (AsMA) concluded that the available medical evidence does not support restriction of pilot medical certification based on age alone. AsMA also acknowledges that, despite advances in medical testing, there is no agreed-upon medical protocol that would ensure an adequate level of medical certainty in evaluating Part 121 pilots over age 60.

As was explained in the second issue of *IN FOCUS*, the FAA has adopted a practice of insisting that a proposed change to a federal aviation regulation demonstrate an equivalent level of safety for the FAA to accept the change. Therefore, if the FAA were to change its regulations to permit pilots to fly beyond age 60 under Part 121 operations, the FAA might impose additional requirements that would alter its medical certification procedures. The FAA accepts the widely held belief that the risk of both acute and subtle medical incapacitation increases with age. This means that it might mandate additional testing well above what is now required—
particularly cardiovascular and neurological specialty examinations similar to those included in the “initial” European Class I exam described above. According to Dr. Hudson, it is also possible that any such protocol might be imposed before a pilot reaches age 60, perhaps as early as age 50.

If additional testing were required, what type of testing does Dr. Hudson believe might be considered? One possibility is testing to identify cardiac problems, including an increased risk of sudden incapacitation. Assessing and monitoring cognitive functioning is another possible area of examination.

**Cardiovascular Testing**
The “Fast CT Scan” and the “Isotope Stress Test” are both tests used to measure cardiac health that might be required by the FAA should it change the Age 60 Rule.

The “Fast CT Scan” is relatively new and, if the results are abnormal, has a high predictive value to identify those at greatest risk for cardiac ischemic disease (blockages in the arteries that interfere with blood flow limiting the availability of oxygen to the heart muscle). At present, such testing costs approximately $500.

Another even more precise test used to detect arterial blockage is the “Isotope Stress Test.” This test might be required by the FAA as a follow-up test after an “abnormal” Fast CT Scan. Such testing currently costs about $1,500. Presently, in almost all cases where an isotope stress test result suggests arterial blockage, the FAA requires the pilot to undergo definitive, invasive cardiac testing (such as a coronary angiogram) in order to maintain a medical certificate.

**Neuro-psychiatric Testing**
The FAA may also seek to measure and track pilots’ cognitive functioning. There is no perfect tool with which to do this. However, there is one screening test—the “Cog Screen”—that has been in use for many years, and is well accepted in the aviation, neuro-psychological community for the detection of most serious neuro-psychiatric problems, such as the onset of substantial memory loss or dementia. While this test is currently used by the FAA as part of a battery of tests for a substance abuse evaluation, and may be utilized where a loss or decrease of cognitive functioning is suspected (as evidenced by training failures/problems), it is not currently required for routine medical certification. The FAA might seek to use this test as a requirement for medical certification for pilots over age 60 to screen for the onset of any substantial neuro-psychiatric problems. Cog Screen testing presently costs approximately $40–$50. Individuals who test below the acceptable threshold are likely to be directed to submit to further neuro-psychiatric testing, which would be much more expensive than the Cog Screen and likely cost at least a couple of thousand dollars.

For more information on Age 60, visit crewroom.alpa.org and click on the “IN FOCUS: The FAA Age 60 Rule” link.
If you have a specific question or would like to submit your comments on the Age 60 Rule, please send an e-mail to: age60communications@alpa.org.
In Summary . . .

- With the notable exception of Canada, countries certifying airline pilots over the age of 60 impose additional operational requirements.
- In general, these countries require more stringent medical examinations over many years and therefore obtain and maintain a much more extensive medical database (both individually and in the aggregate).
- Such extensive testing and data enable medical certification authorities to be reasonably confident that pilots certified above age 60 are healthy and likely to remain so without the need for more rigorous additional testing—at least until age 65.
- Should the FAA raise the Age 60 operational limitation, it is possible that other medical requirements, as well as operational restrictions, might be imposed, possibly as early as the age of 50. With additional medical requirements come additional costs. The question of who will bear those costs—individual pilots or their airlines—is an issue that needs to be considered.

If the Age 60 Rule were changed, pilots cannot assume that medical certification standards would remain the same. In comparing the medical certification system used by the FAA and the model used by the JAA, ALPA is not suggesting that one system should be used in place of the other. Rather, this discussion is meant to give pilots a fuller picture of the range of possibilities for medical certification used in other countries that might factor into any consideration of proposed changes by the FAA.

Coming up in the next issue of IN FOCUS—The FAA Age 60 Rule . . .

We will discuss the effects of the Age 60 Rule on pilot retirement benefits and funding issues.