BY TOM HOFFMANN

AMEing for Excellence

The Making of an Aviation Medical Examiner

Pop Quiz: I am a private physician designated and authorized to perform flight physical examinations and issue airman medical certificates to qualified applicants. Who am I?

Ok, I know, easy question. But ask yourself this: how much do you really know about your Aviation Medical Examiner (AME)? For example, do you know what it takes to become an AME? How about the type of training they receive? And how does the FAA ensure AMEs are kept in the loop with procedure and regulation changes as well as advances in aerospace medicine? There's a whole lot more than meets the eye when it comes to being an AME. So allow me to offer a behind-the-scenes look that will help you appreciate the service they provide.

The Background

Although military flight surgeons have been around since the WWI era, it wasn't until 1927 that the Aeronautics Branch of the Department of Commerce first designated qualified private physicians to perform airman medical examinations and issue medical certificates. Today, there are approximately 3,400 active AMEs, many of whom are family practitioners with a keen interest in aviation safety.

The aviation industry has a knack for rapidly developing technology, with today's pilots being exposed to higher, faster, and more complex environments. As a result, the role of an AME has evolved, yet it remains a stable element in helping ensure safe skies. Keeping pace requires AMEs to stay attuned to changes from both the medical arena and the aviation industry. Whether it's understanding how a certain new drug may interact with the rigors of IMC flight, or how an airman's history of surgical procedures could impact his or her ability to aviate safely on a long cross-country, there are myriad ways these two worlds can interact, too often with deadly consequences.

The Support Staff

AMEs are not alone, however. Standing staunchly behind them in support is a cadre of FAA employees dedicated to education and safety outreach — the FAA's Aerospace Medical Education Division (AMED) in Oklahoma City, Okla.

"It's a small group, but we do a lot with regards to helping support, educate, and mentor AMEs," says Dr. Brian Pinkston, manager of the division. "Among our responsibilities is to provide quality assurance for AMEs from day one." Pinkston's team accomplishes

that in a number of ways, including overseeing the education of AMEs on aerospace medicine topics, authoring designee management policy, and issuing annual report cards that monitor the quality of their airman medical applications.

To accomplish all these tasks, the AMED group relies greatly on the assistance of the Regional Flight Surgeon (RFS) offices across the country. "We couldn't do it without the work of RFS, who executes the program on a daily basis. The RFS interacts directly with AMEs and provides interaction at a regional level," says Pinkston.

AMED also maintains a library of education materials and articles to support AMEs as well as FAA policy-makers and researchers. In addition, the group produces pilot education materials — you've probably come across one of their many pilot safety brochures at an airshow or seminar. One of AMED's more interesting responsibilities with regard to pilot education involves oversight of an aviation physiology training course (using an altitude chamber) and a one-day post-crash survival training course, both of which are available to the public. (For more information, see www.faa.gov/pilots/training/airman_education/)

The Qualifications

"Becoming an AME involves several steps," says Pinkston. "First, all AME applicants must meet certain criteria for designation, including being a

Searching for the Right AME

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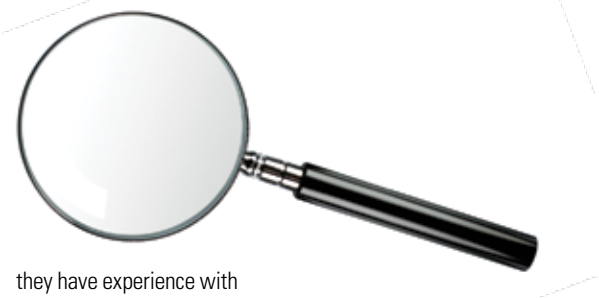
Whether you're moving to a new city, or just started your flight training, there are many instances throughout your aviation career when you may find yourself on the hunt for an AME. That can be a daunting experience, especially if you're concerned about having to re-explain a few complicated medical issues from your history.

A good place to start your search for an AME is the FAA's online AME Locator tool at www.faa.gov/pilots/amelocator. In addition to opening a master AME list (updated weekly), you can also use the site to search by country, county, city, ZIP code, and last name. And soon, a new improvement to the site will provide a geographic layout of nearby AMEs based on a given city and ZIP code.

However, knowing the names and locations of AMEs in your area is only part of the challenge. "The best way to find a good AME is by local word of mouth," says Dr. John Hastings, a senior neurological consultant to the FAA and former president of the Aerospace Medical Association. "I recommend finding a pilot or pilot organization in your area and ask which AMEs go the extra mile for pilots."

Hastings, a 36-year AME, also suggests contacting an AME's office directly. "Ask how long they have been an AME, if they have experience with special issuance cases, and what type of connection they have to aviation (pilot, flight surgeon, etc.) You'll want to look for AMEs that are happy with their job and who display an interest in the passion pilots have for flying."



The search for a good AME doesn't have to stop after your first appointment either. "Apply the same criteria you set for choosing a family doctor during your exam to reassess your decision," says Hastings. Did the AME and his/her support staff act professional? Did the AME show an interest in you as a person and a pilot? Even a clean and comfortable office environment can make a big difference.

"A personal connection is key," says Hastings. "The relationship you have with your AME has many of the same important ingredients that should exist with your own family doctor."

qualified physician in good standing, and having a record that reflects professional performance.

"There must also be a need for an AME in the location in which they plan to practice," says Pinkston. Physicians who express an interest in becoming an AME are asked to contact their RFS, who will then determine if there is a need for that area. If there is, the AME applicant will be directed to submit an application and provide any required credentials or documents (e.g., diplomas, licenses).

When being considered as an AME, applicants must also agree to comply with all policies and procedures as required by the FAA. This includes being familiar with aerospace medicine principles, exam techniques, medical assessments, and airman certification. AMEs are also expected to maintain an office address approved by the RFS and have the facilities necessary to perform the required medical exams. Required equipment for AMEs includes select diagnostic instruments, vision and audio testing devices, and electrocardiogram machines for those providing first-class medicals. The *Guide for Aviation Medical Examiners* (search www.faa.gov) contains a full description of AME equipment requirements. And, for a more complete list of overall AME qualifications, reference FAA Order 8520.2G.

The Training

Once an AME applicant has been accepted, he or she will need to begin training. Initially, it's a three-part process starting with two distance learning courses: Medical Certification Standards and Procedures Training (MCSPT) and the Clinical Aerospace Physiology Review for AMEs (CAPAME). Upon completion of those courses, the AME will attend the third part of the training, a one-week Basic AME Seminar, which is offered three times a year at the FAA's Civil Aerospace Medical Institute (CAMI).

"The Basic Seminar allows AMEs to learn about airman physiology and environmental factors unique to pilots, as well as the specific FAA rules for aeromedical decision-making," says Pinkston. "In addition to medical didactics, the physiology course taught by CAMI exposes AMEs firsthand to the effects of hypoxia, night vision, and spatial disorientation — all subjects not generally taught in traditional medical school programs. And although some AMEs are pilots with experience in these areas, many are learning this for the first time."

To stay active as an AME, refresher training is required every three years. AMEs can choose to attend a live FAA seminar or take the Multimedia Aviation Medical Examiner Refresher Course (MAMERC). However, AMEs are required to attend

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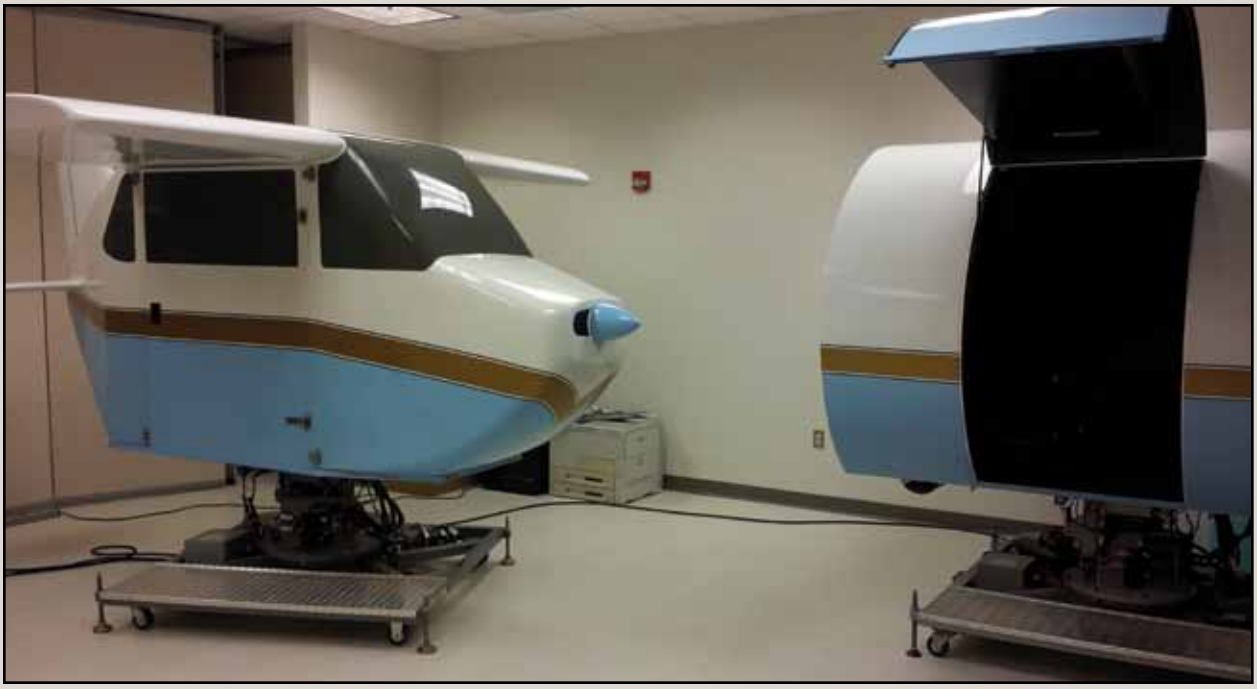
The *Alerts*, which provide notice of conditions reported via a Malfunction or Defect Report or a Service Difficulty Report, help improve aeronautical product durability, reliability, and safety.

Recent *Alerts* cover:

- Cracked isolator mounts on the Air Tractor AT301
- Cracked main gear on the Cessna 402C, 414A, and 421C
- Cracked cylinder head on Continental IO-550-N25 engine

Check out *Aviation Maintenance Alerts* at: *http://www.faa.gov/aircraft/safety/alerts/aviation_maintenance/*



AMEs use simulators during training to experience first-hand the effects of spatial disorientation in flight.

a live seminar at least once every six years. The seminars are offered several times a year at various locations. Training is also highly recommended for any members of an AME's staff that assist with processing of medical certificates.

The Responsibilities

Once officially designated, an AME assumes several important responsibilities with regard to aviation safety. In addition to abiding by the ethical and operational standards set by the FAA and ensuring that medical certificates are issued only to those that meet the required standards, AMEs also take on the role of being aviation safety advocates in their communities and among the airmen they work with. Some are involved with delivering lectures and safety seminars on aeromedical topics, while others offer their assistance in the investigation of general aviation accidents.

Although they are not FAA employees, AMEs are designees, which means they have been granted the authority to act as representatives of the FAA Administrator to help carry out the agency's safety mission. But with such responsibility also comes accountability.

"We take monitoring the performance of AMEs very seriously," says Pinkston. "If we receive complaints or notice an increase of errors or incomplete applications, we will coordinate with the RFS and investigate the issue." Failure to correct issues such as careless or incomplete reporting, disregard for FAA rules, or unprofessional behavior, could result in a suspension or termination of an AME's designation.

However, the FAA prefers to take a more proactive approach to oversight in order to head off any potential problem areas. AMED works regularly with the RFS offices to provide performance reports, share stakeholder feedback, and coordinate site visits to AME offices, especially for those who are newly designated. The national site visit goal is to survey every AME's office at least once every five years, via virtual site visits if necessary.

The Mission

As you can see, the role of an AME is rather complex. The challenges are many and the tolerance for error is slim to none. There's no doubt that the efforts and skills of these men and women, ensuring our fitness to fly on a daily basis, contribute directly to the success and safety of our national airspace system.

Tom Hoffmann is the managing editor of the FAA Safety Briefing. *He is a commercial pilot and holds an A&P certificate*

Learn More

Guide for AMEs
www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/

AME Training Requirements
www.faa.gov/other_visit/aviation_industry/designees_delegations/designee_types/ame/ametraining/

FAA Order 8520.2G
http://www.faa.gov/other_visit/aviation_industry/designees_delegations/designee_types/ame/media/8520.2G.pdf