



Federal Air Surgeon's Medical Bulletin



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Aviation Safety Through Aerospace Medicine
For FAA Aviation Medical Examiners, Office of Aerospace Medicine Personnel,
Flight Standards Inspectors, and Other Aviation Professionals.

U.S. Department of Transportation
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Ethics: What the FAA Expects of Its Aviation Medical Examiners

Patients expect the highest standards of professionalism from us—what does the FAA expect?

By G.J. Salazar, MD

ETHICS—mention the word and eyes glaze over. As physicians, we hear the word continuously because it forms an integral part of our profession.

Patients expect nothing less than complete ethical behavior from us, and state licensing boards periodically require we be trained in it to continue practicing our profession. Yet the subject is not one we typically discuss as part of aviation medical examiner (AME) designation. It is one of those basic concepts the Federal Aviation Administration assumes physicians understand, yet I am continuously surprised by the complaints received in FAA Regional Medical Offices on the activities of some of our medical peers.

A small number of the more interesting ones in this Region have been: issuing FAA medical certificates in a bar; back-dating an exam and certificate to cover a friend involved in an aircraft accident who did not have a current airman medical certificate; performing FAA physical examinations while the AME was a patient in a nursing home; missing a recent sternotomy scar for cardiac bypass surgery because no physical exam was performed; performing FAA physical exams in a storage room in the back of the spouse's insurance office.

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QUICK FIX Denial Letters

By Dick Jones, MD

PROBLEM

For many years, the FAA has provided aviation medical examiners (AMEs) with Letters of Denial (FAA Form 8500-2) to be used when denying issuance of medical certificates to applicants. The last revision of this form—in 1997—was necessitated because a reference to a paragraph in Title 14 of the Code of Federal Regulations had changed. In 2005, the Form 8500-2 was discontinued in favor of a link to a downloadable letter in the *Guide for Aviation Medical Examiners*. Unfortunately, some AMEs are continuing to use copies of our old form—some so old they contain the incorrect citation of the Regulation—and this becomes a legal issue.

SOLUTION

We need all AMEs to use the letter cited in the "Guide" in lieu of the old Form 8500-2. To avoid inadvertent use of incorrect forms in the future, please search your offices for any FAA Forms 8500-2, Letter of Denial, and destroy any you find.

Please go to Item 63 in the *Guide for Aviation Medical Examiners* to find the link to the current denial letter that is being used when denying issuance of a certificate to an airman

Keep 'em Flying—Safely!

Dr. Jones manages the Civil Aerospace Medical Institute's Aerospace Medical Education Division.



HELLO, EVERYONE. I know that many of you are aware that the Quality Management Systems of the Office of Aerospace Medicine and our parent organization, the Federal Aviation Administration's Aviation Safety line of business, were certified to the International Standards Organization's ISO 9001 Standard in 2006. Initial certification was a very complex and time-consuming process, and it required an enormous amount of process documentation and hard work by our employees.

However, the initial certification was just the beginning. Since that time, we have successfully completed two semiannual surveillance audits. We will continue to have semiannual surveillance audits until August of 2009, when we will undergo a complete reassessment.

We are all proud of our ISO certification. It has significantly enhanced



AME Training Changes Initiated

the quality of our business through the standardization of our processes, and we expect that it will continue to help us improve. While you may find this information interesting, you may also be asking, "So what? What does this mean to me?"

The process changes that we are making will directly affect you as aviation medical examiners. In the past, you were required to attend a seminar by the end of the month in which you had taken a seminar six years earlier. Regional Flight Surgeons had the authority to extend your training date; our education division manager, Dr. **Richard Jones**, had the authority to grant additional extensions; and we tended to be fairly liberal in granting extension requests. Refresher training (seminar or computerized on-line training [MAMERC]) was due by the end of month in which you had attended a seminar three years earlier.

Regardless of the training method (seminar or MAMERC), your new training date was reset based on the date that you took your latest training. For example, if you were due training in June and you took refresher training in March to assure that you did not become delinquent, your future training date was changed to March. Conversely, if you took your training in the September

following your June due date, your new date would have been changed to September three years later. So, if you were conscientious, you were penalized several months, but you were rewarded if you delayed your training.

Under that system, we had numerous training delinquencies, we were out of compliance with our training policies, and we were beginning to be criticized by the ISO auditors. So, we have modified our training process to bring it into compliance with the ISO 9001 Standard. Your training due date will still be based on your most recent seminar completion date, but it will not be adjusted if training is done within the six-month window prior to the due date. If you are due training not later than June 30, and you complete the training after January 1, you will continue to have a June expiration date. If, however, you take your training after June 30, your expiration date will remain in June.

Additionally, since MAMERC is readily available on-line, if you are at a juncture where MAMERC is an option and you fail to take your training before your expiration date, we will terminate your designation until you complete your training. Regional Flight Surgeons have the authority to grant you one and only one six-month extension if you are due to attend a seminar, and your designation will be terminated if you do not complete a seminar by the end of the six-month extension. Of course, Dr. Jones has the authority to grant additional extensions if there are clear extenuating circumstances such as a natural disaster, terrorist activity, or a significant illness.

I hope these changes will encourage you to take your training early. I realize that they may seem a bit severe, but I believe they are fair, and I hope you will understand that they are necessary to keep us in compliance with our ISO certification.

Thanks to all of you for the great work you do for us and our airmen. Keep them flying!!!

—Fred

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ETHICS from page 1

The list goes on, and needless to say those individuals are no longer AMEs.

The new *Aviation Medical Examiner System*, FAA Order 8520.2F (issued October 25, 2007) specifies the requirements for obtaining and maintaining the privilege of an AME designation. Unlike the previous Order, this one specifically states that the Office of Aerospace Medicine (OAM) expects the highest technical and ethical standards of its designated AMEs. This also is the expectation of the FAA line of business, Aviation Safety (OAM's parent organization), has for its designees. This includes not only AMEs, but also designated mechanic examiners, designated airworthiness representatives, designated pilot examiners, and others. Failure by these designees to adhere to those standards erodes public confidence in the Agency and aviation safety.

What is the expected ethical behavior for an AME? First and foremost is to "do no harm." Not in the traditional sense physicians are taught this concept because designees do not establish a doctor-patient relationship when solely examining an individual for purposes of issuing an FAA medical certificate. The "do no harm" concept in this case applies to the collective good of safety in the National Airspace System. Failure to adhere to established Agency policy and certification practices, as outlined in *Title 14 Code of Federal Regulations, Part 67- Medical Standards and Certification* and the current online version of the *Guide for Aviation Medical Examiners*, could certainly be perceived as important ethical lapses.

These lapses often lead to inappropriate issuances with potential compromises of safety. In addition, failing to comply with stipulations in FAA Order 8520.2F could also lead to compromising safety. Egregious or

repeated transgressions by not adhering to Agency policy is a way to lose the AME designation privilege.

Unprofessional conduct in our capacity as physicians in the community would be another significant ethical transgression, as would personal conduct that creates notoriety. This type of behavior will often come to the attention of state licensing authorities and, eventually, to the FAA—through patient complaints, newsletter or media accounts, civil actions, medical license actions, and a host of other mechanisms. Actions such as willful medical negligence, sexual misconduct with patients, billing fraud, Medicare/Medicaid fraud, prescription medication fraud, and other types of criminal activities all negatively impact the integrity and credibility of a physician. If the physician is also an AME, this erodes public confidence in aviation safety. If verified by the appropriate authorities, such unethical behavior will lead to loss of AME designation.

Less serious actions include establishing a reputation for being an "easy AME" who gives cursory physicals, charging excessive fees for FAA examinations or advocacy work, creating the expectation that for the right price Agency case review can be expedited or bypassed, and engaging in relationships that could be perceived as conflicts of interest. These examples are harder to conceptualize as outright ethical violations but, needless to say, over time these perceptions also erode public confidence because they create an unfavorable impression of the Agency and the AME in the eyes of pilots and the public.

The implications are that the FAA "gouges" airmen, or that there are two kinds of airmen—those who pay for "better service" and those who don't, or that the Agency plays favorites, or that the FAA medical certification process "is a joke—if you are breathing, you get a certificate."

One of the basic obligations of public service is that those representing the government, be they Federal employees or designees, shall act fairly and impartially in the performance of their duties and shall not give preferential treatment to any organization or individual. Those working for or representing the Federal government must make every effort to avoid the appearance of unprofessional or unethical behavior, or the loss of impartiality or the appearance of conflicts of interest in their duties. An AME is placed in a unique situation not faced by other civilian physicians. Although not employed by the FAA, the AME designation grants the privilege of issuing Agency medical certificates. As such, an AME directly represents the Agency and the Federal government.

Unfortunately, unethical behavior is a matter where a few bad individuals unduly, but negatively, influence the integrity of the majority. When something untoward happens, all of us become part of the problem in one way or another. It is impossible to list all the expected behavior on the part of an Agency designee. Suffice it to say that this matter is left up to the AME. However, this is with the understanding that when matters of perceived unethical or inappropriate behavior come to the attention of the Agency, they will be thoroughly reviewed and investigated. The eventual adjudication will be based on the facts and could range from no action to loss of designation. The expectation then would be for designees to never knowingly place themselves in a situation that would require such an investigation.

If you ever have any questions or concerns about interpreting the contents of FAA Order 8520.2F, the online *Guide for Aviation Medical Examiners*, 14 CFR Part 67, or ethical conduct in the performance of Agency duties, contact your Regional Medical Office.



Dr. Salazar is the Southwest Regional Flight Surgeon.



Certification Update

Information About Current Issues

By Warren S. Silberman, DO, MPH

Common ECG Insufficiencies

THIS INITIAL PIECE is going to be part chastisement and the rest educational. I have become aware that a significant number of Senior aviation medical examiners are not reviewing the first-class electrocardiograms that

are sent into the ECG Section of the Aerospace Medical Certification Division. I have been reviewing a significant number of electrocardiograms, as we had a small backlog problem. I make it a habit to look at Block 60 to see if you made a comment, and in most cases, there are not any!

I know there is no rule that states you should do this. I also know that many of you have interpretive ECG machines. Did you know that these machines regularly over-read the graphs? Some of the electrocardiographic changes are quite significant to an old internist like me. Once again,

in those cases, there was no comment by the AME. I have come across many, many graphs where the AME could have resolved any questions that our reviewing physician may have had by simply exercising the airman in place, repeating the graph, or making a comment in Block 60.

Our ECG staff reviews the graphs soon after they arrive, but the ones they have a physician review may not be seen for at least a month. Would you think that the airman who has an abnormal electrocardiogram might want a heads-up before leaving your office?

Review of ECG Practices and Procedures

Electrocardiograph Basics

I shall explain some common ECG findings and what procedures you as a "good" AME should perform for your airman. For those of you who follow these procedures, please forgive me, but from what I have seen over the past several months, this lesson is needed.

Did you know that there are certain ECG findings that are considered "normal variants," meaning that if an airman has one of these, there is no need to have the airman undergo further testing? These normal variants are shown on the right.

If the airman has one of the above diagnoses on the ECG, you may "clear" the airman for medical certification. We will just note this for our records.

If an airman has a sinus bradycardia rate of less than 50 beats per minute, we would like you to take a history, exercise the airman in place, and repeat the ECG. If able to mount a ventricular response, she may be cleared.

This would be the same situation with a prolonged PR interval or first-degree AV block. You should exercise the airman, repeat the ECG, and if the interval shortens, he can be cleared.

NORMAL ECG VARIANTS

- ▶ Sinus bradycardia rate between 50 and 59
- ▶ Sinus arrhythmia
- ▶ Wandering arrhythmiamaker
- ▶ Low atrial rhythm
- ▶ Ectopic atrial rhythm
- ▶ Indeterminate axis
- ▶ First-degree atrioventricular block
- ▶ Mobitz Type I Second Degree AV block (Wenckebach phenomenon)
- ▶ One premature ventricular contraction or atrial contraction on a 12-lead ECG
- ▶ Incomplete RT bundle branch block
- ▶ Intraventricular conduction delay
- ▶ Early repolarization
- ▶ Left ventricular hypertrophy by voltage criteria only
- ▶ Low voltage in limb leads (may be a sign of obesity or hypothyroidism)
- ▶ Left Axis deviation less than or equal to -30 degrees
- ▶ rSR' in leads V1 or V2, ORS interval <0.12 msec
- ▶ R> S wave in V1 without other evidence of right ventricular hypertrophy¹

Continued →

Medical Certification Issues Related to Regional Enteritis

Case Report, by Randy J. Guliuzza, MD, PE, MPH

Regional enteritis includes the inflammatory bowel diseases ulcerative colitis and Crohn's disease. Uncontrolled Crohn's disease can manifest itself in sudden incapacitating abdominal problems. The episodic occurrence of symptoms and the type of medications used for treatment of Crohn's disease are aeromedical concerns. Infliximab (Remicade) is a powerful drug approved by the FDA for the treatment of Crohn's disease. Aviation medical examiners (AMEs) will see increasing numbers of airmen on Infliximab, and, although not disqualifying, there are several rare, aeromedically important concerns associated with Infliximab use.

HISTORY. A 24-year-old white male private pilot with 150 total flying hours presented for renewal of his 3rd-class medical certificate in May 2003. Because of his long history of regional enteritis (Crohn's) and a recent change in treatment regimen, his AME forwarded his application with all of the necessary supporting documentation and certification determination to the Aerospace Medical Certification Division (AMCD) in Oklahoma City. The airman's history is significant for inflammatory bowel disease prior to his initial 3rd-class medical certification application in 1995. He has been treated with several medications per treatment

protocols (including sulfasalazine, mesalamine, corticosteroids, and azothioprine), which resulted initially in good control of his symptoms, allowing him to initiate and continue flying. However, by the summer of 2002, he experienced increasing bouts of diarrhea, bleeding, abdominal pain, and fever. An upper GI barium series demonstrated a classic string sign and an abdominal and pelvic CT scan showed intestinal transmural thickening. He was diagnosed with Crohn's disease. Unfortunately, his condition became so severe that he required a terminal ilectomy and right hemicolectomy. After recovery, he was started on, and continues to use,

Infliximab (Remicade) 5mg/kg IV every eight weeks. He discontinued all other medications. A follow-up abdominal and pelvic CT scan in November 2002 showed no active Crohn's disease. Medical history was also positive for a Crohn's disease-related dermatological condition controlled with betamethasone cream and dermasmooth oil.

Family history. Parents and siblings are healthy without a history of any autoimmune diseases.

Review of symptoms. The airman claimed that his Crohn's disease has improved dramatically. He denied any bouts of nausea, vomiting, diarrhea, abdominal pain, or bleeding. He also reported that his stress-related psychosocial problems have resolved. The rest of the review was negative.

Physical exam. The airman was well developed and nourished. The cushingoid facies had resolved. Temperature was 98.7° F, BP was 130/84, pulse was 78, and weight was 185 lbs. The conjunctiva was clear, and the mucous membranes were moist without ulceration. The neck was supple without thyromegaly. The lungs were clear. Cardiac exam revealed regular

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ECG REVIEW (Continued)

As you should recall, comparison with previous graphs that the airman has had performed would be very helpful. For example, an airman comes in for a yearly graph and has a complete RTBBB. If you can document that she has had this in the past, then a workup would not be needed. Please send us ECGs that have been performed by her treating physician, especially if they would resolve a question we may have. There is no need to send us an electrocardiogram that was performed and previously sent into the AMCD. We have those historical graphs saved in our Mortara system, so we can view them for comparison.

Another commonly seen situation is with lead III and "q" waves. Limb Lead III is the most "variable" lead

on the electrocardiogram. It can be affected by respiration! If you see a q wave or very small r wave and deep S wave in that lead, have the airman remain hooked up to your ECG machine and repeat the graph while he is taking a deep breath and then in exhalation. Record an ECG during each one of these. You may see the q wave disappear with exhalation. Thus, what may have been thought to be an old inferior wall myocardial infarction will turn out to be a respiratory variant.¹

Along the same lines, but nothing to do with electrocardiograms, is the airman who comes into your office with elevated blood pressure (even if the airman has known hypertension). We see this all the time. Generally, the AME just issues the medical certificate, and we end up retracting the certification due to the BP being out of standards.

An AME should first repeat the BP after a period of rest. Take readings in both of the applicant's arms while standing. If the pressure remains elevated, you should have the airman repeat the blood pressures morning and evening for three days. These days do not need to be consecutive ones. You may have a local nurse or even have the airman drop into a local fire station, if it has a paramedic, and have the paramedic record the pressure. If the averages of these pressures are less than 155/95, you may issue the airman's certificate.

Reference

¹Rayman, RB, Hastings, JD, Kruyer WB, and Levy RA. Clinical Aviation Medicine, Third Edition; 2000; Castle Connolly Graduate Medical Publishing LLC, page 148.

Dr. Silberman manages the Aerospace Medical Certification Division.

Brain 'Incidentaloma'

Case Report, by Eric A. Nelson, MD, MPH

Incidental findings are common in advanced imaging studies. This report describes a finding that a healthy young airman had reason to hope was incidental. Unfortunately, functional imaging studies demonstrated otherwise, resulting in indefinite grounding for a suspected low-grade glioma.

History

A HEALTHY 32-YEAR-OLD male commercial airline pilot with 11,300 hours of flight time had received his most recent first-class medical certificate in June 2004. His medical history was significant for a head injury suffered in a skateboarding accident at age 13, resulting in a subdural hematoma that required craniotomy. He did not suffer loss of consciousness with this injury. He was placed on prophylactic anticonvulsants for one year and never suffered any seizures.

In February 2005, the airman grounded himself after developing new-onset daily bifrontal headaches, which would typically start in the late afternoon and last until he went to sleep. He sought help from a primary care provider and was treated for a suspected sinusitis with a course of antibiotics. When the headaches failed to resolve, he underwent CT scan of his brain and sinuses. His sinuses were normal on CT scan, but a focal brain abnormality on the CT scan led to further evaluation two days later by brain MRI, with and without gadolinium. The MRI disclosed a 1.8 cm area of non-enhancing abnormal signal in the right anterior insular region and subinsular white matter, without evidence of mass effect or brain edema. This abnormality was felt to be most consistent with an infiltrative low-grade tumor, although the possibility of gliosis related to his head trauma 19 years earlier could not be excluded. A laboratory panel was unremarkable, including normal erythrocyte sedimentation rate, normal blood counts, and normal serum chemistries.

Continued →

GLIOMAS

Gliomas are the most common primary parenchymal brain tumors, accounting for over 80% of primary CNS malignancies, and are second only to stroke as the most common neurologic cause of death (4,5,7). They primarily affect young adults and children, comprising 15% of all adult tumors and 25% of those in children (7). Gliomas are characterized as high-grade or low-grade, depending on their clinical behavior, and subdivided histologically into astrocytomas, oligodendrogliomas, and other variants derived from neuroglial cells. Their prognosis is unpredictable. Most low-grade gliomas initially grow quite slowly but will eventually undergo malignant transformation to high-grade tumors at some unpredictable time in the future. Median survival time in young adults is 5-7 years, and only occasionally does survival beyond 10 years occur (6,7).

Seizures are the most common initial manifestation of a low-grade glioma (7), and as many as 85% of patients with such tumors will eventually develop epilepsy (6). Despite this, routine prophylaxis with anticonvulsants is usually deferred until seizures begin (9). Headaches are more commonly an initial presenting symptom with larger or more aggressive tumors, occurring in up to 48% of patients with either primary or metastatic disease. Nausea and vomiting associated with brain tumors is generally caused by tumors capable of increasing intracranial pressure either because of their size or location. Subtle neurocognitive deficits may occur with brain tumors that often mimic depressive symptomatology. More specific focal neurologic findings will depend on the location of the tumor (9).

The infiltrative growth pattern of low-grade gliomas generally prevents complete surgical resection, and recurrence is to be expected (4,7). Radiotherapy is usually employed as an adjunct to resection, but the optimum

time for intervention continues to be controversial. The available evidence demonstrates little to no difference in overall survival as a result of intervention, although surgery and radiotherapy may delay progression of a growing tumor. Data are limited regarding early intervention shortly after diagnosis of a low-grade glioma versus later intervention following transition to high-grade malignancy. Early intervention does not appear to prolong survival or preclude malignant transformation. Further complicating the decision to intervene is the finding that radiotherapy carries its own risk of inducing neurocognitive impairment (6,7).

Once a suspected brain tumor is identified on CT or MR imaging, functional studies such as MR spectroscopy and PET scanning can noninvasively help to differentiate the nature and aggressiveness of the lesion. MR spectroscopy accomplishes the former by providing information about the biochemical signature of the area studied. This noninvasive analysis of brain chemistry permits differentiation between infiltrative tumors and benign tumor types, and between tumors and other neurologic abnormalities, such as areas of infarct, infection, or scar (1). N-acetylaspartate (NAA), for example, is a marker for normal, functioning neurons and is mildly decreased in gliomas and absent in areas of radiation necrosis and scar tissue (1,8). Choline is present in cell membranes and is increased in tumors and reduced in areas of infarction. Lactate indicates anaerobic metabolism and may be elevated in the presence of ischemic injury or infection (8,9). PET scans may help differentiate high-grade from low-grade tumors by measuring the rate of glucose uptake, which is generally higher in hypermetabolic areas associated with aggressive tumors and lower in hypometabolic areas such as infarcted or necrotic tissue (9).

The airman was referred to a neurologist and two neurosurgeons, whose repeated neurological examinations were all unremarkable. Unfortunately the head CT performed at the time of his head injury at age 13 had been destroyed; hence, no old films were available for comparison with the recent imaging studies. A normal EEG was obtained. In an effort to better distinguish possible tumor from old scar, MR spectroscopy was performed, with findings highly suggestive of a low-grade glioma. Careful monitoring of this lesion with periodic MRI scans (initially at 3-month intervals) was recommended for life. Eventually his headaches subsided spontaneously. He never experienced any nausea, vomiting, diplopia, seizures, or other focal neurologic symptoms.

Aeromedical Disposition

In this airman's case, repeat MRI with and without gadolinium six months later again demonstrated the lesion, unchanged from the prior imaging studies. After lengthy review of his case, the airman's first-class medical certificate was revoked. He was understandably frustrated by this action, asserting that he felt completely well, had no problems with ongoing headaches or other symptoms, had excellent motor skills, and could pass an FAA physical at any time. However, without prior imaging studies related to his head injury at age 13, and with the suspicious results of his MR spectroscopy, it was impossible to disregard the likely diagnosis of low-grade glioma in favor of old scar related to head injury. Biopsy is still the only method of determining with absolute certainty what his lesion is (8), but both of his neurosurgeons advised against biopsy at this time in the absence of more severe symptoms or evidence of tumor progression.

Given the unpredictable behavior of low-grade gliomas, this airman could become symptomatic at any time, with potentially incapacitating seizures, focal neurologic findings, or neurocognitive changes. It is difficult to know with certainty if his presenting symptom of headaches was actually related to

the tumor, but the absence of such symptoms obviously does not negate the possibility of disease progression. With appropriate treatment of a *noninvasive* brain tumor, and in the absence of disqualifying symptoms, FAA policy would permit favorable consideration for aeromedical certification following a one-year convalescence period (9).

Unfortunately, even if the airman in this case were to undergo surgical resection and radiation therapy of his lesion, the high probability of eventual tumor recurrence, associated with even slowly invasive low-grade gliomas, essentially negates the possibility of aeromedical certification.

References

1. Burtscher IM, Skagerberg G, Geijer B, Englund E, Stahlberg F, Holtas S. Proton MR spectroscopy and preoperative diagnostic accuracy: An evaluation of intracranial mass lesions characterized by stereotactic biopsy findings. *Am J Neuroradiol* 2000; 21: 84-93.
2. Federal Aviation Administration, Guide for aviation medical examiners, Version IV, July 2005, chapt. 3, pp. 102-5.
3. Gutin PH, Posner JB. Neuro-oncology: Diagnosis and management of cerebral gliomas – past, present, and future. *Neurosurgery* 2000; 47(1): 1-8.
4. Hastings JD. Aerospace neurology. In: DeHart RL, Davis JR, eds. *Fundamentals of aerospace medicine*. Philadelphia: Lippincott, Williams, & Wilkins; 2002: 398.
5. Piscatelli N, Schiff D, Batchelor T. Classification of brain tumors. UpToDate Online 2003. Available at www.uptodate.com. Accessed 26 Jan 06.
6. Recht LD. Low-grade glioma. UpToDate Online 2005. Available at www.uptodate.com. Accessed 26 Jan 06.
7. Rees JH. Low-grade gliomas in adults. *Curr Opin Neurol* 2002; 15: 657-61.
8. Warren KE. NMR spectroscopy and pediatric brain tumors. *Oncologist* 2004; 9: 312-8.
9. Wong ET & Wu JK. Clinical presentation and diagnosis of brain tumors. UpToDate Online 2005. Available at www.uptodate.com. Accessed 26 Jan 06.



Lt Col (Dr.) Eric Nelson is a U.S. Air Force family physician and flight surgeon completing the USAF Residency in Aerospace Medicine. He wrote this case report while on a clinical rotation at the Civil Aerospace Medical Institute.

Letter to the Editor

Breslow Level Question

Dear Editor:

[In Dr. Silberman's] Case presentation 3 ["Issues and Answers," Vol. 45, no. 4, p. 3 of the Bulletin] you say that a medical certificate should not have been issued for a malignant melanoma with Breslow Depth 0.5. I am reading the AME guide wrong then and would appreciate your help to understand what I am misinterpreting:

"A melanoma that exhibits a Breslow Level < .75 mm which has no evidence of metastasis may be regular issued."

Bill Padgett
Patuxent River, Md.

Dear Dr. Padgett:

Dr. Silberman was correct in his remarks about denying the medical because of the evidence of "any metastatic melanoma regardless of Breslow level." This is what the AME Guide states:

▶ **A Special Issuance or AASI is required for any metastatic melanoma regardless of Breslow level [emphasis ours]**

▶ **A Special Issuance or AASI is required for any melanoma which exhibits Breslow Level > .75 mm with or without metastasis**

▶ **A melanoma that exhibits a Breslow Level < .75 mm which has no evidence of metastasis may be regular issued.**

Precious Moments

By Focus FAA

FAA MEDICAL RESEARCHER Dr. **Stephen Véronneau** had settled comfortably back in his first-class* seat aboard United Airlines Flight 642 bound from Chicago O'Hare to Newark Liberty. As the Airbus A320 began to taxi toward the runway on a crisp late October morning, Véronneau heard what he describes as a "quiet, but unusual gurgling — not choking" sound coming from the 79-year-old woman seated behind him.

"I asked the passenger seated to my right to look through the seat gap," recalled Véronneau, a physician with the Civil Aerospace Medical Institute in Oklahoma City, Okla. The passenger, United employee **Roger Vergara**, did as he was requested and replied, "She does not look good." Véronneau was aware that the woman, **Anita Caputo**, had been sipping a glass of water prior to the plane beginning to taxi.

Véronneau grew concerned, as did the passenger seated next to Caputo, who pushed the flight attendant call button. When flight attendant **Nancy Wickum** observed Caputo's condition, she returned to her station and suggested that the captain abort the takeoff. When Véronneau overheard Wickum telling the other flight attendants that a doctor was needed, he raised his hand, released his seatbelt, and turned to woman behind him.

She wasn't breathing. "She was completely unresponsive," said Véronneau. "She had turned blue."

Assisted by United flight attendants **Mary Cockriel** and **Randy Ford**, Véronneau reclined Caputo's seatback, and felt for a pulse. There wasn't one. As Véronneau worked to open Caputo's airway, he instructed Cockriel to retrieve the plane's automated external defibrillator (AED). Ford, meanwhile, provided Véronneau with a portable medical oxygen supply. "At this point I was able to get an oxygen



Unable to breathe and losing consciousness, she was also unable to call out for help...

mask on her and maintain an open airway," said Véronneau, noting that condensation on the mask indicated that Caputo was starting to breathe again.

As Wickum communicated with the cockpit, calling for paramedics to meet the plane at the gate, Cockriel returned with the AED. Ford assisted Véronneau in attaching the AED pads to Caputo's chest. "It went through its announcements," recalled Véronneau, eventually indicating that "no shock was advised."

Airlines have been voluntarily equipping their aircraft with AEDs since 1996. An FAA requirement to do so went into effect in 2004.

Shortly after being connected to the AED, Caputo finally began to moan, and slowly move her arms and legs. "As [she] regained consciousness over the next few minutes she became increasingly agitated, but she was not speaking." When it became clear that Caputo wanted to sit up, Véronneau obliged, being careful to keep the oxygen mask in place. A short time later, the plane arrived at the gate, and the paramedics came aboard. "We were able to ask her whether she was diabetic," said Véronneau. She managed one word: "No."

Keeping the oxygen mask and AED pads in place, Véronneau and the paramedics covered Caputo with a blanket, and lifted her into a special wheelchair designed to fit in the aisle of an airplane. "She knew she was on an aircraft — but [she] was very confused and apprehensive." Caputo was taken off the plane, and transported by ambulance to a local hospital.

After an hour and 15 minutes, United Airlines Flight 642 finally departed for Newark.

When Véronneau followed up several days later, he learned from Caputo's daughter (also a physician) that Caputo had swiftly recovered in the hospital, and that extensive testing had failed

to reveal any medical conditions that might have explained why Caputo had stopped breathing. A second attack some weeks later prompted a return visit to the hospital, at which time doctors uncovered a potentially lethal heart-rhythm problem.

Caputo has since been outfitted with an implanted cardioverter-defibrillator to protect her from future events.

Véronneau remains convinced that if he had not been able to restore her breathing so quickly, Caputo probably would have died on that plane.

"It was sure nice to have a trained, motivated flight attendant crew to back me up and assist on the frontline of the medical emergency," said Véronneau in praising the United employees who assisted him.

Apparently, the feeling was mutual. In a letter to Véronneau written days after the event, Cockriel wrote, "It is always a pleasure when, during an emergency, one gets to see the competence and care of the people around them — a doctor's calm, a first-class passenger offering his hand and reassurance, [and] a crew member taking the steps she is trained to take."

Véronneau said he was surprised by Cockriel's revelation that "Very often on [an] aircraft, when calling for medical assistance, it will take several calls for someone to come forward." This was the second time Véronneau had been called upon to provide medical attention to a passenger — the first was several years ago aboard an international flight when a passenger collapsed in the aisle after taking a sleep aid.

Véronneau also received a letter from United Airlines' managing director of corporate health. "I want to thank you for your efforts," wrote Dr. **Rick Snyder**. "I am sure the captain was surprised when you indicated you were from the FAA, and [were] there to help," he added, tongue-in-cheek.

A humble Véronneau takes the praise and recognition in stride, stating that he's just grateful he was able to "help save an elderly passenger's life and allow her the pleasure of another Thanksgiving and Christmas with her family."

*Dr. Véronneau applied his personal miles to upgrade to first-class from the Y class government rate ticket purchased by the FAA.



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rate and rhythm with a normal S1 and S2, without murmurs or rubs. The abdomen showed a well-healed midline scar. In the midline area, there was some thickening of the ileum with mild tenderness but no phlegmon or mass. No other thickening or induration of the bowel was noted, and the rest of the abdomen was soft and non-tender, having normal bowel sounds and without guarding or masses. Back exam was negative for tenderness over the spine or in the costovertebral angles. There were no palpable cervical, supraclavicular, axillary, inguinal, or femoral nodes. The extremities demonstrated full range of motion without any evidence of cyanosis, clubbing, or edema. There was a normal male genital exam without evidence of inguinal hernia. Cranial nerves were grossly intact. Strength was 5/5 for upper and lower extremities. Sensation to light touch and pinprick was intact and symmetric. The triceps, biceps, patellar, and Achilles reflexes were a crisp 4/4 bilaterally. Cerebellar function was grossly normal.

Diagnosis. Clinical manifestations of Crohn's disease are extremely variable. It usually begins with bouts of mild diarrhea, fever, and abdominal pain that may be separated by asymptomatic periods of days to months. With progression, symptoms increase in severity, along with occult or overt fecal blood that may lead to anemia. Other complications of the mucosal thickening and fissures are fibrosing strictures, bowel and bladder fistulas, peritoneal abscesses, malabsorption of Vitamin B12 and bile salts, leading to pernicious anemia and steatorrea. Extraintestinal manifestations of the disease are erythema nodosum, clubbing of the fingertips, migratory polyarteritis, and other manifestations of autoimmune disease. There is also a 5 to 6-fold increase in the incidence of cancer of the GI tract (3).

Treatment. Treatment for Crohn's disease depends on the location and severity of disease, complications, and response to previous treatment. The goals are to control inflammation,

correct nutritional deficiencies, and relieve symptoms.

Treatment with Infliximab (Remicade). Infliximab is a monoclonal antibody. It is composed of human constant and murine variable regions. Infliximab binds specifically to human TNF (alpha). Biological activities attributed to TNF (alpha) include: induction of pro-inflammatory cytokines such as interleukins 1 and 6, enhancement of leukocyte migration by increasing endothelial layer permeability, and expression of adhesion molecules by endothelial cells and leukocytes. Several studies have suggested that a higher number of patients treated with Infliximab achieve clinical remission and in a shorter time period, compared with other drug regimens (4). Other studies indicate that patients using Infliximab who are in remission may be able to discontinue corticosteroid use at higher rates than other regimens (5). Thus, AMEs will see increasing numbers of airmen on Infliximab. Use of Infliximab is not disqualifying. Though rare, several aeromedically important concerns of Infliximab use are: increased risk of infection and sepsis, infusion reactions, development of lupus-like syndrome, optic neuritis, and worsening of heart disease. The AME should be attuned to these during the interview and exam.

Aeromedical disposition. Airmen with regional enteritis are not eligible for certification under the medical standards directed by FAA medical guidance. Although the AME may not issue a certificate, 14 CFR part 67.401 provides authority for special issuance of the certificate (6). The episodic occurrence of symptoms and the type of medications used for treatment of Crohn's disease present a significant aeromedical concern. Disease controlled with medication or cases of full recovery six months after a colectomy with an ileostomy or a colostomy, may also receive FAA consideration. For favorable consideration, a full gastrointestinal evaluation is necessary to confirm that the disease is under control or that the airman has fully recovered from surgery and is completely asymptomatic.

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PATHOGENESIS OF CROHN'S

Both Crohn's disease and ulcerative colitis are idiopathic chronic and relapsing inflammatory diseases. Crohn's is a granulomatous disease that may affect any portion of the GI tract but is most commonly found in the distal small bowel and the colon. Ulcerative colitis is confined to the colon and is a nongranulomatous disease (1). Though Crohn's disease does not follow a clear mendelian inheritance pattern, familial aggregation and studies of monozygotic and dizygotic twins confirm a definite genetic predisposition.

Recent research has focused attention on *mycobacterium paratuberculosis* and the measles virus as possible infectious agents that initiate tipping the inflammatory response out of balance (1). Smoking is a strong exogenous risk factor. Crohn's is predominantly a disease of Western countries. The incidence in the U.S. is 3 per 100,000, with whites developing the disease two to five times more often than nonwhites (2). Females and males are affected equally. The peak age for detection is in the teens to early twenties.

The basic pathologic feature is that the host mucosal immunity is stimulated (consequent to exposure to luminal antigens) and then fails to down regulate. Non-specific tissue injury is the result of activation of inflammatory cells releasing damaging mediators of which human tumor necrosis factor alpha (TNF(alpha)) is the most significant (1). After complete development, the bowel will typically display sharply delimited transmural lesions, with mucosal damage along with noncaseating granulomas and deep fissuring with the formation of fistulas along the axis of the bowel. Intervening non-affected portions of the bowel are known as "skip lesions." The intestinal wall will become rubbery and thick, primarily due to hypertrophy of the muscularis propria (1). Thus the lumen is almost invariably narrowed as is evidenced by the thin stream of barium seen on X-ray known as the "string sign."

New Flight Surgeon in Southern Region

By Shiela Gibson

Southern Regional Flight Surgeon, **Susan E. Northrup**, MD, announced the recent selection of **John D. Barson**, DO, as the new Flight Surgeon in the Atlanta Regional Office, stating that "John is a great addition to our staff and brings a wealth of aviation and preventive medicine expertise to our staff. We are thrilled to have him on board."



Dr. Barson

Dr. Barson has an extensive military background, including a U.S. Army Aerospace Medicine residency and a

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research exchange assignment with the Royal Air Force Institute of Aviation Medicine at Farnborough, United Kingdom. Most recently, he was a medical officer in the Division of Bio-terrorism Preparedness and Response at the Centers for Disease Control and Prevention.

Dr. Barson says he is glad to once again be in Aerospace Medicine, and he "looks forward to working with many old friends and colleagues." He lives in Peachtree City, Ga., with his wife, Gay Lynn, who is a speech therapist. They have two college-age children. In his free time, Dr. Barson plays euphonium in the Peachtree Wind Ensemble.

CAMI 'Lands' New Occupational Health Division Manager

Thomas Hatley, MD, MPH, a 30-year veteran of the US Navy, joined the Civil Aerospace Medical Institute as the new Clinic 'captain.' Dr. Hatley's last tour of duty in the Navy was aboard the aircraft carrier J.F. Kennedy, where he held the rank of captain. As the Senior Medical Officer aboard the ship, he supervised a staff of 60 and flew copilot on the S-3 Viking during 20 combat missions from the carrier in support of *Operations Enduring Freedom* and *Iraqi Freedom*.

Dr. Hatley replaced **Edward Matheke**, MD, who retired in April 2007.

Dr. Hatley's early vocational aspirations were

to doctor animals, but the veterinarian school disagreed. He joined the Navy, earned Naval Flight Officer wings, later applied for and was accepted to medical school. He became a flight surgeon, went through the MD-MPH program, and continued to fly part time.

As a hobby, he now flies an AT-6 Warbird and a Stearman.



NEW CAMI OCCUPATIONAL HEALTH EMPLOYEES. (L-R) Judy Burnett, Medical Records Technician; Sandy Irving, Environmental Safety Specialist; Thomas Hatley, MD, Division Manager; Dianna Wright, Physician's Assistant; and Arnold Angelici, MD, Occupational Health Physician.

Jana Weems 2007 CAMI Employee of the Year

'...Constantly hearing her praises and accolades from the AMEs...'



Ms. Weems

Jana Weems, Medical Support Specialist in the Aerospace Medical Certification Division, is the 2007 Civil Aerospace Medical Institute Employee of the Year. If you recently called Certification's hotline or attended an aviation medical examiner seminar, you probably heard from Ms. Weems. She was honored by her fellow employees at the Civil Aerospace Medical Institute for her many accomplishments working within the certification system.

As a lecturer at the initial and recurrent seminars representing the AMCD, she was commended for the positive way she represents her coworkers, division, and the Federal Aviation Administration. The person who recommended her for the recognition, a physician himself, acknowledged that they can sometimes be difficult to work with.

"It is not easy to deal with 100 to 150 physicians at a time in such a professional way," he said, "I know how difficult we physicians can be. She does it well, however, and I'm sure all would agree that she is indispensable in this [seminar speaker] role," he concluded.

International AMEs: A Reminder

Hopefully, you all read the article, "ICAO Suggests Changes to Our AME Program" in the last *Bulletin*. This is a reminder that all International AMEs must electronically transmit their examinations by June 30, 2008.

Our records indicate that 108 FAA examinations were transmitted more than 60 days late by 35 AMEs last month; this is unacceptable.

Our E-mail address for requesting a user name and password form is:

9-amc-aam-certification@faa.gov

AMCS has been tested for compatibility on the latest versions of Internet

Continued →

'Age 65' Rule Enacted

New law extends commercial pilots' eligibility

By Focus FAA

THE FAA IS LAUDING a bill, signed into law December 13 by **President Bush**, which allows U.S. commercial pilots in the United States to fly up to age 65. "The FAA welcomes the legislation," the agency said in a prepared statement. "The determined efforts of Congress have averted a lengthy federal rulemaking process while enabling some of our nation's most experienced pilots to keep flying."

Unlike the International Civil Aviation Officials (ICAO) rule, which requires a pilot age 60 or younger to be in the cockpit with a pilot above the age of 60, the Fair Treatment for Experienced Pilots Act allows both pilots on domestic flights to be up to age 65. U.S. international flights, however, will mirror the ICAO standard.

The law, which took effect with the President's signature, includes no provisions for retroactivity. If, however, individual airlines wish to re-hire pilots who had already retired under the old age-60 rule, they are free to do so — though such re-hiring is not mandatory.

The agency first began reexamining the age-60 rule in September 2006, when it established a group of industry and medical experts to provide insight and analysis.

The age-60 rule had been in effect since March 15, 1960.



INTERNATIONAL (continued)

Explorer, Netscape, and Mozilla. For security and compatibility reasons, though, we recommend that you use the latest browser version.

AMCS requires that JavaScript be enabled on your browser. We also recommend that you install the Adobe Reader plug-in, version 5.0 or above.

If you have problems with any of the functionality or display of AMCS screens, we suggest that you install Internet Explorer version 6.0 or higher.



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Azulfidine and low-dose prednisone (i.e., no more than 20 mg per day or 40 mg every other day) are acceptable medications if no significant side effects are present. Performance of airman duties is contraindicated for any use of diphenoxylate (Lomotil). Loperamide (Immodium) is acceptable as long as the airman is not taking more than 4 pills per day, but performance of airman duties is contraindicated for at least 12 hours after its use. Annual GI evaluation or a minimum of a current status report is recommended for recertification (6). An AMCD physician reviewed this case, and since the airman fully met the above criteria, he was granted a reissuance of his 3rd-class certificate.

References

1. Cotran RS, Kumar V, Collins T. Robbins pathologic basis of disease, W.B. Saunders Co. 1999, pp. 815-9.
2. Russel MGVM, Stockbrugger RW. Epidemiology of inflammatory bowel disease: an update. *Scand J Gastroenterology* 31:417, 1996.

3. Ekblom A, et al. Increased risk of large-bowel cancer in Crohn disease with colonic involvement. *Lancet* 336:357, 1990.
4. Targan SR, Hanauer SR, van Deventer SJH, et al. A short-term study of chimeric monoclonal antibody cA2 to tumor necrosis factor (alpha) for Crohn's disease. *N Engl J Med* 1997;337(15):1029-35.
5. Hanauer SB, Feagan BG, Lichtenstein GR, et al. Maintenance infliximab for Crohn's disease: the ACCENT I randomized trial. *Lancet* 359:1541-49, 2002.
6. Federal Aviation Administration. *Guide for aviation medical examiners*. October 1999, Chapt. 3, p. 51, Appendix A p.68.

About the Author

Dr. Guliuzza was a resident in aerospace medicine at the USAF School of Aerospace Medicine, Brooks City-Base, Texas. He wrote this case report while rotating at the Civil Aerospace Medical Institute.



Aviation Medical Examiner Seminar Schedule

2008		
March 3 – 7	Oklahoma City, Okla.	Basic (1)
April 4 – 6	Minneapolis, Minn.	N/NP/P (2)
May 12 – 15	Boston, Mass.	AP/HF (AsMA; 3)
June 2 – 6	Oklahoma City, Okla.	Basic (1)
August 1 – 3	Washington, D.C.	CAR (2)
November 3 – 7	Oklahoma City, Okla.	Basic (1)
November 14 – 16	Reno, Nev.	N/NP/P (2)

CODES

AP/HF Aviation Physiology/Human Factors Theme

CAR Cardiology Theme

OOE Ophthalmology - Otolaryngology - Endocrinology Theme

N/NP/P Neurology/Neuro-Psychology/Psychiatry Theme

(1) A 4½-day basic AME seminar focused on preparing physicians to be designated as aviation medical examiners. Call your regional flight surgeon.

(2) A 2½-day theme AME seminar consisting of 12 hours of aviation medical examiner-specific subjects plus 8 hours of subjects related to a designated theme. Registration must be made through the Oklahoma City AME Programs staff, (405) 954-4830, or -4258.

The Civil Aerospace Medical Institute is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

Index of Articles Published in the Bulletin During 2007

HEADLINE	VOL.	PG.	SUMMARY
Aerospace Medicine Awards	45-2	6	FAS Fred Tilton , MD, presented the 2006 Aerospace Medicine Awards for Excellence and Achievement.
Air Venture 2007	45-3	12	OAM medical staff supported a medical information booth at the EAA's convention and fly-in at Oshkosh, Wis.
AME Independent Medical Sponsors Needed	45-2	1	FAA needs more experienced AMEs to become trained as Independent Medical Sponsors for the Human Intervention Motivation Study. There are many portions of the country with few or no such aviation medical examiners.
An Ounce of... (FAS Editorial)	45-4	2	Regardless of which category your airmen fall into, please take some time to discuss prevention with them.
Angelici, Dr. Arnold	45-1	5	Team Lead for the Environmental Physiology Research Team at the CAMI American Board of Preventive Medicine.
Baldwin, Dr. Guy	45-1	1	AME Guy Baldwin , DO, died Oct. 4, 2006, in an airplane accident in Tucumcari, N.M.
Berry, Dr. Michael A.	45-2	6	M.A. Berry , MD, is the new manager of the Medical Specialties Division in the Office of Aerospace Medicine.
CAMI: Awards From AsMA	45-3	12	AsMA awarded CAMI researchers recognition at annual meeting: Drs. Manning, Forster, Bailey, and Ricaurte .
Certification Update	45-1	3	FAAMedXPress is new addition to the Aeromedical Certification Subsystem.
Certification Update	45-2	4	Turbomedical Update; Issues and Answers—Case Presentations in Malignancies
Certification Update	45-3	3	Update on FAAMedXPress, Smoking Cessation Medications, Cardiology Teaching Case
Certification Update	45-4	3	We “discovered” more than 4,000 new medications; you will soon have the capability to print the airman's medical certificate directly from your computer; case reports on malignancies.
Classifieds in the Bulletin?	45-1	4	Why not have a classified section in the Bulletin where an AME could buy/sell action medical equipment? (Letter)
Coming: New Safety Brochures	45-4	9	Two new brochures being prepared: Oxygen Equipment in GA Aircraft, Circadian Rythms.
Complex Partial Seizures	45-2	8	Complex partial seizures arise from a single focus in the brain and cause an impaired level of consciousness.
Corbett, Cynthia	45-1	5	Researcher on CAMI's Cabin Research Team chosen as the 2006 CAMI Employee of the Year.
Distance Learning Course Procedures for AMEs	45-1	3	An option available to aviation medical examiners to complete their required refresher training is by distance learning through two interactive, Internet-based AME courses: MAMERC and CAPAME.
Hypertrophic Cardiomyopathy	45-3	8	A cardiac disorder affecting 1 in 500. Sudden cardiac death is the most devastating symptom (case report).
Lower-Extremity Amputations	45-2	10	A 1st-class pilot had a traumatic above-knee amputation (case report).
Meniere's Disease, (case report)	45-1	6	Meniere's disease can cause sudden, debilitating, and unpredictable attacks of vertigo when seen in an aviator.
Metastatic Hurthle Cell Ca.	45-2	7	Thyroid carcinoma most common malignancy of the endocrine system but requires ongoing follow-up (case report).
Multifocal Contact Lenses	45-4	1	More than 25 bifocal/multifocal contact lenses are available that will give pilot the greatest probability of fitting...
Near-Ditching Proves Value	45-3	5	Instructors at CAMI recently received a heartwarming atta-boy! in the form of a thank-you letter from NOAA.
New AME Order Effective	45-4	6	The AME System order, FAA Order 8520.2E, has been replaced by FAA Order 8520.2F.
New Pilot Safety Brochure	45-3	1	Fatigue is the topic of the new pilot safety brochure recently sent to all registered AMEs.
Northrup, Dr. Susan E.	45-2	3	Susan E. Northrup , MD, recently selected as the Southern Regional Flight Surgeon...
Operation Safe Flight Revisited	45-3	2	Our whole system depends on the honesty of our applicants and your examinations (Federal Air Surgeon Editorial).
Order Forms On Line	45-4	11	Go online to access an FAA Web site to order common FAA airman medical certification forms.
Outdated ECGs	45-2	5	On 5/26/06, the AMCD sent all Senior AMEs a letter advising them some ECG servers will be deactivated in June ...
Primary Malignant Melanoma	45-4	7	Increasing no. cases require increased vigilance in detecting melanoma in airmen and knowing policy (case report).
Quick Fix: Answering E-Mail	45-1	1	We need a quick way to communicate information to AMEs. E-mail can be the answer...
Quick Fix: ICAO Suggestions	45-4	12	A 2007 ICAO audit revealed some International AMEs' input was more than 60 days after the date of the exam...
Quick Fix: It's History	45-3	1	Many medical histories provided by AMEs do not support the decision to issue the certificate. The most common deficiency is failure to address items airmen checked yes or left blank in blocks 13, 17, 18, or 19.
Quick Fix: Pilot Feedback	45-2	1	Results of the 2006 FAA Aerospace Medical Services Airman Customer Satisfaction Survey.
Quick Fix: Hand-Printing	45-2	12	Some AMEs are hand-printing Form 8500-9 Certificates...
Sarcoidosis (case report)	45-3	10	In the US, sarcoidosis is 10 times more prevalent in African-Americans than in Caucasians...
SODA – The Other Medical	45-4	4	Always verify whether or not an airman has a Statement of Demonstrated Ability...
Sport Pilot Medicals	45-1	4	Clarifying the answer given in Federal Air Surgeon's Medical Bulletin [Letter to the Editor, Vol. 43 No. 3, p. 9].
Tilton, Dr. Fred	45-4	11	The Civil Aviation Medical Association recognized Federal Air Surgeon Fred Tilton , MD, with its Bird Award.
Tough Acts (Federal Air Surgeon Editorial)	45-1	2	David Millett , MD, recently retired, and in January 2007, the FAA Office of Aerospace Medicine and all of you waved farewell to two other colleagues: Joel Dickmann , DO, and Doug Burnett , MEd.
Unruptured Aneurysms	45-3	6	Natural history of unruptured intracranial cerebral aneurysm and the potential of this diagnosis (case report).
Venous Angioma (case report)	45-1	8	Cerebral venous angioma generally has a benign clinical course; however, it might cause cerebral hemorrhage or seizure.
Why I Became an AME	45-1	10	My AME had built the scaffolding of my desire and I was thinking of ways to be a part of this elite group.
Xpress Has Departed (Editorial)	45-2	2	Launched the latest release of the DIWS, MedXPress... foundation of the medical certification system is truthfulness.