

Virtual Flight Surgeons® Inc.

“Our Physicians...Your Solution”

Quarterly Aeromedical Newsletter

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FAA Aeromedical Certification Policy Update



Intrastromal Corneal Rings - Intrastromal Corneal Rings such as ICR and Intacs are a less common method of refractive correction of vision involving implants that reshape the cornea. This method is approved by the FAA. Those interested in this option should discuss the risks/benefits with your eye care professional. A FAA Form 8500-7 can verify that you meet FAA vision standards following the procedure. Read our article on refractive surgery for more detailed information by searching for “vision” on our website.

AME Guide – The FAA has again updated the link to the most current version of the Guide to Aeromedical Examiners to: http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/.

FAA Certification Statistics – According to the FAS Medical Bulletin, in a typical year the FAA:

- Receives more than 435,000 exams
- Receives more than 175,000 inquiries
- Generates more than 75,000 letters to airmen

FAA Kudos – Both Dr. Michael B. Miller and the Southwest Regional Flight Surgeons office were recognized by the FAA for outstanding service in 2005. VFS applauds both and looks forward to continuing a close relationship to keep pilots in the air and controllers on the boards while protecting health and aviation safety.

Medication Update

Stalevo – After initial indications that this medication for Parkinson’s disease may be approved, the FAA Pharmacy and Therapeutics Committee has decided that it is not going to be acceptable for aviation duties. Any pilot or controller considering this medication should discuss their case further with a VFS physician.



Chantix – This new medication for smoking cessation was FDA approved in May of 2006. The FAA does not routinely consider medications until they have been out on the market for at least twelve months.

Tapazole – Tapazole or methimazole, which inhibits thyroid hormone synthesis, is allowed with a waiver once a pilot or controller demonstrates normalization of their thyroid levels without adverse effects.

Rituxan - Rituxan or rituximab, which is a monoclonal antibody useful in the treatment for refractory lymphoma, is potentially allowable by the FAA with a Special Issuance or waiver, but requires at least a 72-hour waiting period after infusions.

In This Issue:

FAA Aeromedical Policy Update 1

Medication Update 1

President’s Corner 2

Pilot and Controller Health 3

VFS News 5

ATCS Sector 6

Staff Spotlight 7

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President's Corner

Quay C. Snyder, MD, MSPH



See and Avoid - A Reread

Being an avid glider pilot, I took great interest in the recent mid-air collision between a Hawker 800 XP and an ASH-27-18 glider last month. Miraculously, no one was seriously injured. The Hawker crew performed in exemplary fashion to bring a significantly compromised aircraft to a safe landing and the glider pilot walked away from a parachute

landing. I wear a parachute when I fly my glider and am prepared to use it, but hope it will always remain an expensive seat cushion/back rest. Operating at 10,000 – 17,900' MSL routinely gives me beautiful views of the fast moving business jets and airliners, sometimes closer than my comfort level allows. Even with proximity alerts sounding, many times we never see each other, despite our mutual responsibility to see and avoid.

How do we effectively search the skies for aircraft we need to see and avoid? The answer depends on the time of day. Optimum techniques are equally relevant to pilots and controllers.

First, some basic ocular physiology will help understand the two-fold answer. The best visual acuity (sharpest vision) comes from a small portion of the retina termed the macula. This also contains the highest density of cones which provide color vision. Two limitations of the macula are 1) low light conditions render it ineffective and 2) it only covers a tiny portion of the normal visual field centered on the central visual axis (straight ahead vision).

As the target moves away from the central visual axis, visual acuity and target acquisition ability deteriorates rapidly. At 2.5° off the central visual axis, visual acuity has decreased to 20/50. In peripheral visual fields, the best acuity may be lower than 20/200. Fortunately, the ability to detect motion and to perceive targets in a low light environment improves 7° - 20° off the central visual axis.

In daylight, the optimum scanning technique uses the advantages of the macula to acquire targets. Pilots and controllers should look directly at the area of concern for 2-3 seconds to allow the eye to find a specific target. The eyes then move the point of focus quickly to the adjacent segment approximately 10°–15° in any direction and stop and look in that area. After 2-3 seconds, the focus should move to another segment of the visual field and

repeated as required. I term this favored method the “Stop and Search” technique.

This technique not only uses the stationary central vision to find a target in the area of search, but also effectively uses the peripheral vision to detect motion.

Sweeping an area with the eyes rather than the "Stop & Search" in daylight is ineffective in spotting aircraft for two reasons. By sweeping, the macula does not have time to focus the field of best visual acuity on a target. Secondly, continuous movement of the eye degrades the ability to detect motion in peripheral visual fields. I call this ineffective method the “Sweep and Peep” technique. Don't use it.

Night vision is different. Because the macula has a very low concentration of “rods” which detect low intensity light and only perceive shades of gray, there is very poor night visual acuity in the central visual axis. Therefore, looking directly at a target (the proper daytime technique) may cause a target to disappear, even if lighted, at night.

The best nighttime technique is to focus on a point 10° – 15° away from the target to achieve the optimum compromise of visual acuity and night vision (cones and rods). This technique still allows for detection of movement in off-center visual fields while still detecting forms near the macula. Remember not to stare directly at a target. Accomplishing this ability takes practice.

Aviators will improve their night vision by using oxygen as the retina is very sensitive to reduced oxygen pressures. Both pilots and air traffic controllers will improve their night vision by night adaptation. This involves avoiding looking at brightly lit objects at night and using red colored background lighting to avoid degrading the light detection ability of the rods.

This is a very broad generalization of a complex subject, but suitable for remembering effective scanning techniques. Remember three things: “Stop and Search”, don't “Sweep and Peep”; use dark adaptation discipline and, if at altitude, use oxygen at night.

If you are flying in the Denver – Colorado Springs area, I'll keep an eye out for you and you do the same for me.

Signed CP



Pilot and Controller Health



VFS Takes on Women's Health Issues

Our experience with pilots and controllers has shown not too surprisingly that the impact of women's health issues on their medical certification is largely overlooked in aviation medicine today. The popular slogan from Women Fly, Inc. of "No, it's not my husband's airplane." can easily be applied to health.

Did you know that heart disease, not breast cancer, is the number one killer of women in the U.S.? A recent large study, the Women's Ischemia Syndrome Evaluation (WISE study), confirmed what many have suspected for years, that coronary heart disease is different in women. The WISE study showed that women can experience diffuse changes in their coronary vasculature that may be overlooked by traditional testing. Knowing that heart disease isn't just a man's disease is the first major step. In fact, one study showed that women may deny and delay seeking medical assistance for heart attack on average 11 hours longer than men.

Another disease commonly ascribed to men, but very common in women is hypertension or high blood pressure. The rate of high blood pressure for non-Hispanic black females age 20 and older has been estimated as high as 45.4 percent. Also more women have high blood pressure after menopause than men of the same age. Recently, studies are also showing those in the "borderline" blood pressure region are at much higher risk than we previously knew. Bottom line, the FAA wants you to be treated if needed and will simply require an annual update to make sure you are being adequately followed.

Recognizing the needs of their memberships, several organizations have asked VFS to participate in educational sessions for their pilots focusing on Women's Health issues and their Aeromedical implications. Dr. Phil Parker has made related presentations to the American Bonanza Society, Women in Aviation, and most recently the 99's. VFS's "Dr. Phil" also writes the Aeromedical column for *Aviation for Women* magazine. During a recent presentation, Dr. Parker related the tragic story of a commercial airline pilot seeking counseling referral assistance. The pilot had been on family leave assisting his wife who had been battling post partum depression. On the day the pilot returned to flying, his wife dropped their child off at a friend's house and then committed suicide. Only one month prior, Dr. Parker's article on post partum depression was published in the Jan 2006 edition of *Aviation for Women*. Several excerpts of that article are reprinted below:

"Baby Blues" vs. Postpartum depression: What's It Mean for My Medical Certificate?

Unless you've been under a rock or flying way too many layovers, you've by now heard about Brooke Shields and her past fight with postpartum depression. She has been outspoken against public ignorance and misunderstanding of this prevalent condition. As a reaction to another actor's belittling of the illness, she was quoted in the Sep 2005 issue of *Redbook* magazine as saying "Tom Cruise did not have a uterus last time I checked." Well, though I do not have a uterus either, I can tell you that I have a clear understanding of how this condition can impact a pilot and her family's health, as well as potentially impact the airman's medical certificate.

Postpartum depression (PD) has been shown to occur in approximately one in ten childbearing women and is thought to be considerably underdiagnosed. The peak incidence of clinical depression in general is from ages 18 to 44, which coincides with prime childbearing years as well. While the exact mechanism is unknown, most feel that fluctuating hormones play a significant role in PD.

PD is characterized by persistent feelings of depressed mood, loss of pleasure or interest, sleep disturbances, weight loss, lack of energy, agitation, feelings of worthlessness, diminished concentration, and thoughts of death or suicide. Unfortunately, many of these symptoms are difficult to tell apart from the more commonly experienced "baby blues" that occur within the first few days after delivery and generally resolve within the first two weeks (see chart). Not surprising, these symptoms can be of concern if persisting when a pilot returns to flying.

Symptoms of Postpartum Depression

- Depressed Mood
- Loss of Interest or Pleasure
- Sleep Disturbances*
- Unintended Weight Loss*
- Lack of Energy*
- Agitation
- Feelings of Worthlessness or Guilt
- Diminished Concentration or Indecisiveness*
- Frequent Thoughts of Death or Suicide

*Denotes symptoms that can also occur with the "baby blues"

Continued on Page 4

Pilot and Controller Health (Continued from page 3)

Studies have shown the “baby blues” are much more common occurring in 26 to 85 percent of pregnancies. These milder symptoms may involve tearfulness for no discernable reason, labile mood, increased sensitivity and irritability peaking four to five days after delivery. Unfortunately when not short-lived, these symptoms can blossom into clinical PD. In extreme cases, psychosis can even develop where delusions or hallucinations are present that often involve the baby, such as thoughts that a baby may be possessed by a demon and should die. Because of the risk to the mother and the child, postpartum psychosis is a medical emergency.

Unlike “baby blues,” PD tends to last much longer unless appropriate treatment is sought out. Many mothers delay seeking help because of perceived societal pressures, shame, or fear. Moreover, many women feel they are “losing their mind” and are afraid of repercussions if they admit it. For aviators, the problem is even more pronounced from fear of adverse action jeopardizing future flying careers. Hopefully after reading this article, those fears can be alleviated.

First and foremost, early detection of PD is key. Studies have shown that maternal depression can affect babies as young as three months of age showing regression in cognitive skills, language development, and attention patterns. One screening tool known as the Edinburgh Postnatal Depression Scale (<http://www.wellmother.com/articles/edinburgh.htm>) has been shown quite effective in identifying PD. Those aviators at greater risk are characterized in the following chart.

Aviators at Risk for PD

- Previous PD
- Other Past History of Depression or Substance Abuse
- Family History of Mental Illness
- Severe Premenstrual Dysphoric Disorder or “PMS”
- Marriage or Relationship Difficulties
- Financial Difficulties
- A Weak Support Group of Family or Friends
- Other Concurrent Stressful Life Events
- Young Maternal Age

Treatment for PD typically involves talk therapy, antidepressants, or a combination of the two. While routine marital counseling or visits to clergy are not reportable, other visits to healthcare professionals should be reported on the FAA medical application. Specifics on how to report such visits can be found on our website at www.AviationMedicine.com. Most importantly, pilots should not sacrifice their well-being in an attempt to maintain their medical certificate. Even if antidepressants are temporarily needed, a pilot can get a Special Issuance or waiver to return to flying once the meds are no longer required for control. You may also want to discuss with your doctor or midwife the possible use of non-traditional therapies and nutritional supplements such as St. John's Wort,

Tryptophan—5-HTP, and S-Adenosylmethionine (SAM). Some studies have shown effectiveness of these supplements in treating the symptoms of depression and mood disorder. The substances are not regulated by the FDA, and are not required to be reported on your medical application. However, you must remember to report all visits to healthcare providers on your application, and be sure not to start medications or supplements without first discussing with your healthcare provider since some supplements have the potential for being passed to your baby in breast milk.

The Special Issuance process for history of PD or for PD that previously required medications is essentially the same. If medications were used, before consideration the FAA would like to see that the pilot has remained stable at least 30-90 days off the antidepressants depending on how long they were required for control. A detailed, typed, clinical narrative is crucial. It should address treatments including medication dosages (if any), start and stop dates of therapy, response, and future prognosis. If delays occur, it is generally due to inadequate information from the treating clinician. The narrative should be carefully scrutinized to make sure all of the Aeromedically significant issues are fully addressed to prevent delays in processing. If the package is complete the first time around, an airman can typically expect an answer in 3-5 weeks from the Aeromedical Certification Division of the FAA.

Helpful Tips

- Find someone to share your feelings with.
- Try to get enough rest. Nap when the baby naps.
- Do what you can and leave the rest! Consider hiring assistance for childcare, household chores, errands, etc.
- Don't spend excessive amounts of time alone.
- Consider keeping a diary to “let it all out”. Later reading can reemphasize the progress you've made.
- Spend time alone with husband or partner.
- Talk with other mothers to learn from their experiences.
- Join a support group for women with similar concerns.

For your baby's sake, your family's well-being, and your personal health, do not hesitate to seek help if needed. Our website lists some of the resources available to you. Should you find you do need help, make sure to get advice and assistance from an experienced Aviation Medical Examiner or an Aerospace Medicine physician to quickly get you back in the air. For these issues or any other affecting pilot or controller health and safety, please do not hesitate to engage our physicians by phone or email.

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NASA Dryden Flight Research Center – On behalf of VFS, Dr. Parker has been asked to perform clinical consultation and program audit for NASA's test pilot program in September 2006. With an emphasis on pilot health and aviation safety, our physicians are always happy to lend our years of Aeromedical expertise towards similar corporate flight department consultation. If interested, please contact our Director of Operations, Catherine Cazorla at ccazorla@aviationmedicine.com.

Another bird leaves the nest - Despite 14 years of flying fighters and over 35 other airframes in the USAF as a flight surgeon, Dr. Parker has finally slipped the surly bonds on his own accord. He made his inaugural solo flight on 25 July 2006 at Centennial airport, the country's second busiest general aviation airport according to Wikipedia. Congratulations Dr. Parker!

Congratulations to Captain Robert Sumwalt - Dr. Snyder attended the swearing in ceremony of the Honorable Robert Sumwalt as Vice-Chairman of the National Transportation Safety Board (NTSB) in Washington, DC. Following the ceremony, Dr. Snyder had the opportunity to meet with each member of the NTSB. Captain Sumwalt is the recipient of ALPA's prestigious Air Safety Award in 2005 and numerous other safety accolades as a former pilot for US Airways and Chief Pilot for the SCANA Corporation, where he and his flight department were members of the VFS Corporate Aeromedical Services Plan. The aviation industry has a strong, experienced, knowledgeable and articulate safety advocate on the Board. We congratulate Robert on his well deserved confirmation.

NATCA Communicating for Safety 2006 - Dr. Snyder gave a presentation entitled "Communicating for Safety, Communicating for Health" at the annual Communicating for Safety 2006 conference sponsored by NATCA in Dallas. The conference featured safety professionals from NASA, the FAA, airlines, manufacturers and air traffic control speaking on improving safety through many modes of communication in aviation.

Focus on Aeromedical Safety - Dr. Snyder participated in the Fall meetings of the NBAA Safety Committee in Washington, DC and the Flight Safety Foundation's Corporate Advisory Committee Fall workshop in Alexandria, VA. He is a member of both committees and provides an Aeromedical perspective to many business aviation related concerns.

NATCA National Executive Board (NEB) - With the election of a new National Executive Board for the National Air Traffic Controllers Association, Dr. Snyder met twice with the new leadership, the labor relations staff and the NEB to discuss Aeromedical issues of critical importance to our nation's professional Air Traffic Control Specialists. VFS congratulates Pat Forrey and Paul Rinaldi as the newly elected President and Vice-President, respectively, and the entire NEB. VFS physicians support NATCA members and staff in a number of different ways and look forward to continuing a long-term supportive role for NATCA.

NetJets Winter Operations Safety Awareness Conference - Dr. Snyder and Dr. Martin both attended the NetJets Winter Operations Safety Awareness Conference in Columbus, OH in support of an industry leading program recently implemented jointly by NetJets and its pilot union, IBT Local 1108.

Aviation Safety World published an article by Dr. Snyder in the August 2006 issue titled "*Weighing the Risks of Hypoxia Training.*" Dr. Snyder was also interviewed in the September feature article in Aviation Safety World, "*When Bottle Meets Throttle*" discussing the reality of alcohol and substance abuse in aviation. Virtual Flight Surgeons provides off-the-shelf and customized **Aviation Alcohol and Substance Abuse Abatement Programs (AASAAP®)** for corporate flight departments and fractional carriers that model the highly successful HIMS program used by the airlines since the 1970's. For more information on the AASAAP® contact the VFS physicians at 1-866-AEROMED.

NBAA Annual Convention, Safety Committee Town Hall - Dr. Snyder will host the Town Hall meeting at 10:00 on Wednesday, 18 October. The topic is "**Hypoxia Training - A Breath of Fresh Air**" and is open to all attendees. Dr. Snyder will discuss risks and benefits of different types of hypoxia training for aircrew, how to select a vendor and review basic altitude physiology.

NBAA Annual Convention, Orland - Virtual Flight Surgeons will exhibit at **Booth #4309** at the 2006 NBAA annual convention. The booth will be supported by Catherine Cazorla, Director of Operations, Rhonda Sharbini, Case Manager, and Dr. Snyder. Information on both our Corporate Aeromedical Services and individual Aeromedical services will be available. New clients will be eligible for a 5% discount. Come by and see us!

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ATCS Sector

Request For Sick Leave

Protecting Privacy and Complying with FAA Requirements

Recent implementation of new work rules for air traffic controllers by the FAA include efforts to manage sick leave use. Many facilities have adopted specific requirements to discuss the nature of the illness or the medications used with a non-medical CIC, supervisor or manager to validate the sick leave request. In some cases, the controller requesting sick leave may be uncomfortable revealing the nature of the illness, medications or treatment because of privacy concerns at their facility. The Federal Air Surgeon shares a concern for the privacy of Protected Health Information. Below are suggestions for requesting sick leave and having the requests appropriately validated.

If requesting sick leave and the controller is comfortable responding to the questions of the supervisor/manager, the controller is encouraged to do so. This is the fastest method to have sick leave approved and least likely to cause conflicts with supervisors.

If the controller requesting sick leave does not wish to reveal personal medical information to non-medical personnel, validation of sick leave requests should be coordinated through the Regional Flight Surgeons' (RFS) office. A controller should ask the supervisor requesting Protected Health Information to contact the RFS's office to arrange for the controller to discuss the medical issues directly with a member of the RFS staff. After review of the medical information, the RFS staff will contact the facility to notify the supervisor of the controller's medical status. Diagnoses will not be discussed with non-medical personnel.

Requests for medical records in support of a sick leave request or a return to duty medical clearance should be handled in the same fashion. Controllers seeking to protect their personal medical information should inform their supervisor that they will fax or mail any confidential medical records to the RFS's office for review.

Controllers should make every effort to contact the RFS staff during normal workday hours. For those controllers who are not scheduled to work until weekends or late shifts, but can anticipate the need for use of sick leave prior to the shift, contacting the RFS's staff during routine office hours will result in faster determinations. If sick leave requests cannot be anticipated during office hours, the RFS on call may be contacted through the Regional Operations Center. The Flight Surgeon will have to return a call to the controller and then, in turn, notify the supervisor of the medical determination. Receipt of fax copies of medical records may not occur until the next work day.

Some supervisors are also required to ask questions regarding the amount of sick leave a controller has accrued, anticipated time to return to work, etc. Controllers should respond to these questions that do not require release of Protected Health Information. Any medical information released to non-medical personnel within the FAA is not protected by HIPAA regulations. Non-medical information is not covered by HIPAA, but is covered by FAA work rules and collective bargaining agreements.

Remember that the Federal Air Surgeon and his staff are not the office imposing the new work rules on FAA employees. The accommodations offered to protect controllers' privacy of medical information places an additional burden on the RFS' staffs. Cooperation with the RFS' staffs for medical information required to make a determination of health and safe operation of the NAS will speed medical qualification determinations. If a controller has concerns regarding revealing medical information or medical reporting responsibilities, please call the Virtual Flight Surgeons office at 720-857-6117 or go to the VFS website at www.AviationMedicine.com and click on "NATCA Members" for access to confidential email inquiries.

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Spotlight—Your VFS Staff

To better acquaint you with the physician and administrative team who serves you, VFS will profile a staff member each quarter. This quarter's spotlight is on the newest member of the VFS Team, Eugene Tae.



Eugene at his desk in the VFS Office.

Eugene joined the VFS staff as our newest Customer Service Representative in September. He hails from Ann Arbor, Michigan but made Denver, Colorado his permanent home in 2000. He spent 4 years living in South Korea and speaks fluent Korean. Eugene is pursuing a bachelor's degree, majoring in Business Administration. He brings several years of experience to the VFS team, having worked in various customer service roles and providing training to others in customer service. When he's not working or in school, he enjoys listening to all types of music, playing golf, watching the Food Network and watching movies. VFS welcomes Eugene to our Team!



Eugene is pictured with Sean Clyde, a Customer Service Representative for AMAS.

Your VFS Newsletter



Our services are provided to you as a benefit from your company flight department or a membership benefit from your union or aviation association. VFS stands ready as the only board certified Aerospace medicine physician group available to provide you the assistance you need. Our physicians are always a telephone call or email click away. We can respond to your medical questions and provide advice on any potential impact on your FAA Airman's Medical Certificate for medical conditions you might develop. All client discussions with our staff members are completely confidential and risk free. VFS is proud to be your

one source for Aeromedical advice and FAA medical certification waiver assistance!

We welcome your comments and suggestions!

Our goal is to make this newsletter useful and informative for all our clients. If you have an idea for a topic you would like covered or have a comment, please contact our Director of Operations, Catherine Cazorla via email at ccazorla@aviationmedicine.com.

OPT-OUT: If you do not wish to continue receiving the quarterly VFS Aeromedical electronic newsletter, please reply to this E-mail and type "REMOVE" in the subject line. We will remove your e-mail address from our mailing list.

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