



# The Society of U.S. Naval Flight Surgeons Newsletter

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<http://www.aerospacemed.org>

January 2000

## President's Column

This will probably be one of my last opportunities to address SUSNFS in any formal way. Thank you for allowing me to serve as President of this august Society and to be one of your colleagues in aviation medicine.

In the next edition of the newsletter, we will present the membership with the nominating committee's recommendations for next year's officers. It calls to my mind the gratifying caliber of people in our chosen vocation, and reminds me of our mutual decision to strengthen and nurture the enterprise we all revere.

As I near completion of my term as President of SUSNFS, I am also nearing the completion of my naval career, within about a year. So I have had an opportunity lately to reflect on what being a Flight Surgeon has meant to me. Although I have always hoped to continue in aerospace medicine and occupational medicine after I leave the Navy, I realize two things about that prospect. One is the simple fact that there are fewer jobs available in aerospace medicine in the "real world" than there are even for us mediocre neurologists. But really that fact, although the most immediately obvious one, is less important than this, the *real* reason so few of us stay in aerospace medicine when we retire from the Navy. Simply: it can't possibly be this good anywhere else. The reason that I have been so proud to be a Naval Flight Surgeon is because it let me be identified with the likes of Charlie Bercier, Frank Austin, Frank Dully, Bob Hain, Homer Moore, Art Hawley, Mary Anderson, Deborah Wear... the list goes on proudly, but in the scope of the world, there aren't that many like you in the



rest of medicine, not even in Navy Medicine. When you have spent a few years with the varsity, a pick-up game of touch football just doesn't feel the same. The docs who keep 'em flying for the Navy and the Marine Corps are a unique bunch. I have been proud to serve in this organization.

Navy Medicine needs the example and energy SUSNFS has always shown, now more than ever. As John Belushi said in *Animal House*, you are "just the guys who can do it." Picking your new officers shouldn't be too hard. This whole organization is composed of leaders. Semper Fi.

**CAPT Terrence Riley, MC, USN**

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The Society of U.S. Naval Flight Surgeons is a non-profit organization. Its purpose is to advance the science, art, and practice of aerospace medicine and the mission of the U. S. Navy and the U. S. Marine Corps; to foster professional development of its members; and to enhance the practice of aerospace medicine within the Navy and the Marine Corps.

Membership is open to all flight surgeon graduates of the Naval Operational Medicine Institute. Subscription memberships are available. Dues are \$15.00 per year, or \$225.00 for a lifetime. Contact the Secretary or Treasurer for more information or a membership application form.

## **From the Secretary**

I am pleased to report that the Society of U.S. Naval Flight Surgeons did not suffer any Y2K glitches (not surprising, since hardly anyone else did either)! With this issue, we celebrate 23 years of the SUSNFS newsletters – the oldest of the three services' flight surgeon



newsletters. As usual, I have several items to update the membership on. One small correction from the last issue – the new NOMI clinic building was referred to as 1954A (suggesting its status as an annex to building 1954). This was felt to be too logical, and so the building number was changed to 3933. As a result of the building move and a new telephone system, SUSNFS has new phone numbers (see the order form inside the back cover). Please note the changes.

The accuracy of the addresses in the SUSNFS membership database is slowly improving (thanks to those who have submitted address corrections), but I still need more help from you. Please drop me an e-mail when you move – you have a whole three months to do so between newsletters. Every time you see a yellow forwarding sticker on your newsletter, it costs your Society extra money. Is there one on this issue? If so, please e-mail me your new address/anticipated address for April. Sending newsletters to members whose dues have expired also costs money. Look at your address label. If it says "Your dues expired May 1999" then **THIS WILL BE YOUR LAST ISSUE**. Almost 100 of you are getting "free" newsletters – paid for by the rest of us. That's \$1,500.00 worth of dues! According to the Society's By-Laws, members who fall more than six months in arrears in dues payment will be suspended from the Society. We passed that mark in November, but I am being generous and sending one more issue. Please renew your support of the Society.

The SUSNFS Board of Governors held a meeting on 6 December 1999 attended by the President, Vice President, Secretary, Treasurer, CAPT Davenport, CDR Puckett, and CAPT Valdez. The Society currently has 196 voting members and 323 subscribers. 107 of

those are life memberships/subscriptions. In past years, the Society has published a Directory of Members and Subscribers – the last was in April 98. It included names, addresses, and e-mails. We plan to publish a new Directory in the April 2000 issue. **If you do not want your name and information included please notify me before March.** Also, the Board of Governors as listed in the October 99 newsletter was inaccurate and not in accordance with the By-Laws. The correct membership is listed inside the front cover of this issue.

The Aerospace Medical Association will hold its annual scientific meeting from Sunday 14 May 2000 to Friday 19 May 2000 in Houston, Texas. RADM Daniel B. Lestage has been invited to be the speaker for the SUSNFS luncheon. The Annual Business Meeting is planned for 1600 on Sunday. Note that this is a half-hour earlier than in years past. As usual, a ballot will be sent out with the nominees for the 2000-2001 Society officers in the April newsletter for your vote, and the new officers will be announced at the AsMA conference.

Messages soliciting nominations for the Society's awards will go out in February.

LT Brian Wells has been maintaining our web site, and has added the pictures of our merchandise that appear in the newsletter – and on the internet they're in color! We've added some special sale prices on a few items for this newsletter only – see the inside back cover. Also, my thanks to LCDR Tim Halenkamp, who has been filling and mailing orders to reduce the workload of the Secretary and Treasurer. Hopefully this has shortened the time it takes for most of you to get the items you order. In closing, I will as usual encourage contributions to your newsletter in the form of articles or letters to the editor. I welcome your e-mails on any Society issues.

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**The New NOMI Clinic/Repatriated Prisoners of War Studies Center (Building 3933)**

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## From the Treasurer

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Greetings from the Treasurer. The year has been a full one and looks to end with an up beat. We have had quite a business year with the myriad of items we have had ordered. Needless to say, as the world changes so will we. I have approached the Board of Governors with a few ideas that I also want to share with the membership. The first idea is that we want to shift the business to an online business, which will allow you to use your credit card to purchase items and pay your dues. From the members I have approached, they seem to like the idea better than writing checks and dealing with the "snail mail". It is my belief that this will expedite orders and make the bookwork a little simpler... notice I didn't say a lot simpler. There are some trade-off's with this concept and we have to consider them.



The problems course is rapidly approaching and I am anticipating that it will be a great one. I hope everyone will be able to attend and get the chance to catch up on the issues of aviation medicine. It will be great to see you there. Don't forget the AsMA conference this year. Start making your plans to attend early.

That's about it for now. Keep your head on a swivel, the bugs in your teeth and your eyes in the direction you are going... it helps identify oncoming traffic. Best wishes for a safe and prosperous New Year, century and millennium.

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## Specialty Leader (MED-23)

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**In Memory.** Our community recently received the sad news that CAPT George C. Romano, MC, USN (Retired), pilot, flight surgeon, recipient of the Navy Cross, two Silver Stars, and two Purple Hearts, died of an aneurysm at his home in San Diego. He was 59. CAPT Romano served 26 years in the military, first as a Marine pilot from 1959 through the Vietnam War, then later as a Naval Flight Surgeon serving our community well as a dual designator. I had the pleasure of meeting him in 1992 when he was stationed at the Naval Strike and Air Warfare Center (NSAWC), NAS Fallon, Nevada, and discovered a very colorful, intelligent, and energetic individual who loved spending as much time as he could as a "cowboy" on his 68-acre horse ranch near Fallon. In 1994 he was transferred to NAS North Island, San Diego, California where he retired in August 1999. He owned and operated Argo Yacht and Ship Brokers in San Diego at the time of his death. I know I speak for all of us in Aerospace Medicine as I officially send our deepest and sincere condolences to his wife Ginger, daughters Karen, Shannon, and Carmen, and sons Chris, Dominic and Vince, and to his extended family. (Editor's Note – a memoriam appears in this issue on page 21).

**MED-02 Change of Office.** RADM Joan Engel, NC, USN retired 10 December 1999 with full Navy Honor Guard and Navy's Band playing at the Sail Loft, Naval Yard, Washington, D.C. She and her husband, retired Marine LTCOL Walt Limbach, will settle in Pensacola, Florida next April. RADM Engel believed and practiced participatory leadership and will be sorely missed as Assistant Chief for Operational Medicine and Fleet Support (MED-02). CAPT Steve Hart, MC, USN, will assume MED-02 duties in late January 2000. He is boarded in both Aerospace Medicine and Family Practice. He has extensive operational experience and served as Force Medical Officer, Commander Naval Air Force, U.S. Atlantic Fleet from 1991 to 1993. CAPT Hart was subsequently selected for MTF executive medicine positions, first as Director Clinical Services, Portsmouth, Virginia then as Executive Officer, Twentynine Palms, California from 1994 to 1997. He is currently Commanding Officer, Naval Hospital Lemoore, California. We welcome CAPT Hart to the Bureau.

**40th Navy Occupational Health and Preventive Medicine Workshop and 2nd Annual Combined Operational and Aeromedical Problems Course.** In addition to the workshop and problems course, we have a great opportunity after the opening session and before the problems course starts to address our Aerospace Medicine Strategic Plan, Goals and Objectives developed last May in Detroit. Significant progress has been made with a number of objectives, and action officers will have the opportunity to share what they have done with the rest of the community. We are scheduled to meet 31 January 2000 from 1515 to 1800, right after the opening sessions. In addition, ADM (sel) Arthur, Assistant Chief of the Medical Corps, is scheduled to meet with us Wednesday, 02 February 2000 from 0700-0745. I encourage widest dissemination of this schedule, especially to our young first-tour flight surgeons. Go to <http://www-nehc.med.navy.mil/> and click on WORKSHOP FINAL PROGRAM for more detailed information.

## Current Milestones/Issues:

### MED-23

- Graduate Medical Education Selection Board: GMESB results can be found by going to <http://www-nshs.med.navy.mil/gme/JSGMESB99.htm>. Flight surgery applicants were very competitive. This was reflected in fairly high scores with little difference in selects and alternates. There were 98 flight surgery applications resulting in 75 selects, 17 alternates, and 7 non-selects. There were ten applications for Aerospace Medicine residency with four being interns, however, we could select only three interns. With all conditions met, the GMESB approved seven selects with one of the three interns as an alternate. All in all, we had a very successful and smooth selection process this year.

*(continued on page 6)*



*(US Navy Photo)*

(continued from page 5)

- Photorefractive Keratectomy (PRK): As indicated in my last article, a Corneal Surgery Physical Standards and Waiver Policy was published in BUMED Message 291330Z SEP 99. However, the web site indicated in that article has changed. Go to [http://navymedicine.med.navy.mil/refractive\\_questions.htm](http://navymedicine.med.navy.mil/refractive_questions.htm). The Warfighters PRK Program implementation message is still being reviewed by the CNO, but may be published by the time you receive this newsletter. Detailed information on planned implementation and much of the "how to" can be found by calling a very excellent voice information system developed by LCDR Dave Tanzer at NMC San Diego, DSN 524-0555 or commercial (619) 524-0555. If all fails, call me, CAPT Barker, (202) 762-3451. (Editor's Note – additional information for flight surgeons can be found in the PRK article appearing on page 11)
- Manual of the Medical Department (NAVMED P-117) Reminder: Chapter 15-65, Aviation Physical Standards has been updated. The update can be found at <http://navymedicine.med.navy.mil/instructions/external/6410.pdf>. It can also be found via a hotlink on the Virtual Naval Hospital web site at <http://www.vnh.org/Admin/Admin.html> under BUMED instructions (Note 6410).
- The Surgeon General has approved Performance Maintenance During Continuous Flight Operations - A Guide for Flight Surgeons. The guide is being briefed at OPNAV and will be briefed at the Air Board in early 2000 for CNO consideration for use in the fleet as a tool that may be used by squadron commanding officers to maintain performance in continuous flight operations. POC: CDR Kris Belland, MC, USN, Naval Strike Air Warfare Center (NSAWC), Fallon, Nevada, (775) 426-5210/3910, [bellandk@ftr.navy.mil](mailto:bellandk@ftr.navy.mil).
- As part of our Strategic Plan for Flight Surgery and Aerospace Medicine, two focused working groups have been established (1) to develop a structured, well defined Dual Designation Program (Chair: CAPT Dave Hiland) and (2) to develop a Recruitment and Retention Program (Chair: CDR Terry Puckett). Chairs will give progress briefs at the Navy Environmental Health Center (NEHC) Workshop 31 January 2000 as noted above.

**MED-231/02T (Aviation Physiology) – POC: CAPT Robert A. Matthews, MSC, USN, (202) 762-3457.**

- Joint Working Group established to investigate the possibility of an Aerospace Physiology masters program at the Uniformed Services University of Health Sciences (USUHS). Initial work is focused on providing an MPH with an aerospace physiology emphasis evolving into a pure MS in Aerospace Physiology.
- Update to MANMED Chapter 14, Section III has been submitted by NOMI and will be staffed through MED-02 and MED-914.
- An additional Aeromedical Safety Officer (AMSO) billet has been established at HELTACWING LANT and will be available for detailing in FY01.
- USN Working Group (NAVSEA, NAVAIR, NAMRL, and BUMED) on CVNX oxygen requirements recommended 94% oxygen as the minimum requirement for CVNX oxygen generating capabilities. Impurity percentages shall remain at the current MILPERF levels with inert gases making up the difference to the current 99.5% standard. This change will not have significant physiological or medical effects but has significant operational weight/space/technology implications for future shipboard designs.

**MED-233 (Enlisted Aeromedical Programs Manager) – POC: HM1 (FMF) Thomas S. Schaefer, USN, (202) 762-3450.**

- Still looking for a few good men/women for NEC 8401 (SAR Med Tech) and NEC 8409 (Aviation Physiology Tech) programs. If you work with some top NEC 0000 corpsmen who might be interested, send them our way! POC for 8401 is HM1 (FMF/NAC) Brown at DSN 582-6389 and for 8409 is HMC (AW/FMF) Roach at DSN 267-6185.
- SAR Program Revision Working Group will be meeting at the NEHC Workshop 31 January – 04 February 2000. There is potential that several NECs may be combined and potential impact on enlisted aviation training at NOMI. More to come...

**On Leadership II.** The High Performance Organization (HPO) seminar I mentioned in my last article has come and gone. Having the meeting in the Presidents' Room at the Navy Memorial complex in Washington, D.C. was inspiring to say the least. But even more inspiring was the three-day seminar presentation itself. The process was interactive and those of the 34 operational medicine leaders attending who were initially skeptical reported at the end of the seminar that they had acquired sufficient knowledge and understanding to go back to their commands enabled to begin improvement of climate, business processes, and hopefully outcomes. I can't possibly cover in detail in this article or in the next year and a half of MED-23 SUSNFS newsletter articles all of the content of an HPO seminar. I would encourage each of you interested in leadership development to attend one of these seminars. It will be a sentinel experience for you in your journey toward being an effective leader. Having said that, I will make a meager stab over the next several articles to describe some of the key concepts of leadership that build high performance organizations. I think I can speak for us when I say we do want Naval Aerospace Medicine to be a High Performance Organization. That is the common vision I believe we all share.

Basic to any HPO is leadership philosophy. Likert describes a universe of four types or systems of philosophy. Are you a leader who believes that people are basically lazy, selfish, dishonest, and inept? That they will not work unless consistently threatened and closely supervised? That people are motivated by fear of loss of job, pay, or dignity, that knowledge, ability, and creativity should be concentrated only in the higher leadership positions of the organization, and thus those who are in the lower ranks should "just do as they are ordered or else!" If you are this type of leader, then you are an "Exploitative Autocrat." Unfortunately there are a few of these still in the military. Are you a leader who essentially believes the same as above, but as a leader you feel a little more benevolent toward those under you? Do you feel that if the "worker" loyally follows your orders and is totally compliant with your requirements, then he/she will be rewarded? In many cases this amounts to many steps of "paying one's dues." Do you view your leadership relationship with those of lower rank or those "under" you like a "parent-child" relationship? If so, then you are a "Benevolent Autocrat."

There is more of this kind of hierarchical leadership mindset in our ranks than we would like to admit.

On the other hand, are you a leader who sees people as wanting, or even needing to do a good job? That if they know what to do and are equipped with the skills, they will do a good job even without supervision? That once the "hygiene" essentials of pay, benefits, working conditions, and safety are taken care of, then motivation is seen as coming from within the work, but the work must be a challenge, and must provide professional growth, recognition, and a sense of contribution? Do you see knowledge and skills as widely distributed and that higher ranking leaders don't necessarily have all the answers or questions? Do you see the need for consultation from those under you? If so, then you are a "Consultative Leader." Finally, the ideal leader according to Likert, i.e. the one most likely to lead to a HPO, is one who believes the same as the consultative leader with regard to the nature of the worker and his/her motivation, but with the enhanced view that people are so capable that work can be transferred to self-directed work teams that carry out many of the leadership functions to accomplish the goal or task. The leader delegates responsibility but is still fully accountable. He/She recognizes himself/herself as playing a stewardship role in empowering work teams. This is a participatory leadership philosophy and the one that has the highest correlation to successful HPOs. Interestingly, the operational medicine group at the HPO seminar in October placed our Naval Operational Medicine leadership somewhere between a solid consultative to a participatory philosophy. That's certainly encouraging, but apparently we have a way to go. Until next time...

Godspeed!

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## Psychiatry Code 21

### BENEFACTENCE



First is a general item not about psych stuff, but about “doing the right thing in the next millennium.” Sorry to wax philosophic, but a recent case has really made me think about the many times that we are all faced with a choice of either doing the “right” thing, or doing the “easy” thing when it comes to aeromedical recommendations (or really just life in general).

What got me thinking about this issue is a first-tour LT with whom I’ve been corresponding, who, like most of you, is trying to follow all the guidance, be a good doc, become an integrated and trusted member of their organization, etc. – in essence, be everything to all people. Being a flight surgeon can be a heckuvalotta fun about 98% of the time, but there are a few times during each tour when you need to make the hard calls.

Although providing details would be inappropriate, suffice it to say that the LT had to make a clear choice between overlooking a violation/medical condition and challenging the chain of command. I know we preach to carefully “choose your battles” (i.e. don’t go to the mat on a *minor* issue if it will mean losing your credibility with the squadron). This is about those times when there is a serious situation that occurs, and if you *don’t* intervene it could result in worsening of the member’s condition or could negatively affect safety of flight. This LT demonstrated outstanding courage and did the right thing, by disagreeing with and challenging several senior officers. I don’t know if I would have had that amount of courage at that stage in my career.

The first step is to be honest with yourself about a conflicting case. Don’t use those defenses we teach like denial and rationalization (“it’s not too bad,” “everyone does it,” “he/she’s a good enough aviator that it shouldn’t matter,” etc.). Once you know that the **“Right Thing”** requires a decision to be made where someone will be angry, defensive, blaming, etc. – don’t try to find excuses *not* to do it – get help! Contact the senior flight surgeon

or doc in your area, talk with your OIC, call your NOMI specialists, etc. **Don’t go it alone.** Even with all the support in the world, it falls to you to make that hard decision, or not. If you can’t make it based on ethics and conscience – then do the “How would it play on 60 minutes?” scenario. This goes something like: if you let someone fly and you know you shouldn’t (or rather, **recommend** to the line that someone is grounded – remember, you always just make the recommendation!), how will this reflect on you in the event of a mishap investigation? How would you feel if, because you didn’t do the right thing, someone got killed?

It basically boils down to the application of medical ethics to aviation medicine – beneficence – doing what is right – and safe – even if it is one of the hardest decisions you ever make in your medical career.

### ALCOHOL



Yes, once again, **more EtOH.** We don’t have these updates ‘cause we want to torment you, but because over 50% of all of our waiver requests/packages at NOMI are related to alcohol. If you do them correctly the first time it makes everyone happy! This SUSNFS will answer the most commonly asked questions regarding alcohol waivers – and throw in some odd ducks.

*Speaking of ducks... for 10 points, can you identify this duck? If you have a child between the ages of 2-12, shame on you if unable to! Or rather, congratulations may be in order – you have effectively compartmentalized!!... answer at end of article.\**



**QUESTION: If I find that someone on flight status has a history of past alcohol treatment, and it hasn’t been addressed previously (with waiver, etc.), what do I do?**

**ANSWER:** This is a pretty common question and a very easy answer. You’d think it wouldn’t happen often since BUMED 5300.8 came out in 1992, but be wary!





(US Navy Photo)

The three top reasons you may be the first to deal with a prior history are: 1) they are only now applying for flight status; 2) they were not on flying orders in the interim; or 3) a prior flight surgeon did not carefully check the health record or read the SF-93, or perhaps they let it slide. Whatever the reason, here is how to approach it:

1. Find out how the individual was initially diagnosed and confirm that the diagnosis met the DSM-IV criteria for that time (e.g. – prior to 1994 the DSM-III-R was in effect and there was no restriction to a 12-month period of documented recurrent problems to make the diagnosis of substance abuse or dependence). This may take some digging through the record and getting a copy of the treatment summary.
2. Once an individual on flight status is diagnosed with alcohol abuse or dependence (whether last week or last decade!), they have a condition which is disqualifying and they are NPQ requiring a waiver. It doesn't matter whether the diagnosis was ten years ago and they have had no further problems. **NO EXCEPTIONS.**
3. You need to do a *current* assessment to ensure that the member does not need further treatment. If they were diagnosed as alcohol dependent and are drinking, they *will* need treatment, and if diagnosed as an abuser and still drinking they *may* need treatment (non-aviation personnel who receive treatment for alcohol abuse are taught responsible drinking). After you do a thorough assessment, refer the member to your CAAC/ATF/SACO through the same process you would someone newly-diagnosed.
4. Give every aviation member who is diagnosed with alcohol abuse or dependence a copy of BUMEDINST 5300.8 and document in the medical record that they have been given a copy, reviewed it, and understand the contents. Give them a chance to review the requirements and ask questions. This should be your normal procedure with everyone diagnosed with alcohol abuse or dependence. It avoids the member saying down the road, "No one ever told me!"
5. Prepare and submit a waiver package just like you would for a newly diagnosed/treated member. Include all the same required items.

(continued on page 10)

(continued from page 9)

**QUESTION: What if I think the member was incorrectly diagnosed with alcohol abuse or dependence?**

**ANSWER:** This is not an infrequent question, but 99% of the time the outcome is predictable. We have received several packages where the flight surgeon states they believe the person was incorrectly diagnosed and want to “right the wrong” and eliminate the need for a waiver for the person. We have received one or two cases where the person was diagnosed with alcohol abuse when there was only one alcohol-related incident but these are few and far between. What usually happens is that the data collected by the doc (and upon which they draw their conclusion) comes from the patient. Unfortunately, the patient may have a “selective” memory for their life’s events and not give the full story. ALWAYS get data from several sources; the best one is the alcohol treatment program summary. Last year we received a package requesting that the diagnosis be dropped and the FS had not requested the treatment summary. When that was received, it was one of the most serious and well-substantiated cases of alcohol dependence we’ve seen – yet the patient told the flight surgeon none of it. Like anything else that can affect safety of flight, check your data.

If there is doubt, we will err on the conservative side regarding diagnoses. Having someone remain abstinent for the time they fly aircraft for the Navy and Marine Corps causes no harm to the individual – overlooking a diagnosis can be deadly.

In any case you can always ask us to review the information and make a determination. One type of case where we do this all the time is on applicants who have a history of a depression treated with medication – at least 75% of the time there was no clear documentation of a significant AXIS I disorder and they do not end up even needing a waiver. If you have any question about diagnosis, call/e-mail/fax, etc.

**QUESTION: Does the member need to submit a personal statement with their waiver package?**

**ANSWER:** Theoretically, no, BUMEDINST 5300.8 doesn’t require it, but we ALWAYS recommend it.

When we review all the waiver requests, nothing speaks so clearly (with honesty and forthrightness, or, with rationalization and denial) as the member’s statement. They should not just say that they are complying with the instruction but state that they accept their diagnosis and are committed to abstinence. They should also relate how they are doing with their recovery program and anything else salient. If no one (patient nor you nor psychiatrist) says anything about how they are doing with their attitude, acceptance, commitment to abstinence, and in general... there will be no waiver.

**QUESTION: Since the levels of alcohol treatment have changed over the past several years, should I just let the ATF staff decide what level the patient needs?**

**ANSWER:** YES, and NO. For anyone diagnosed as alcohol dependent, the staff who do the intake at the Alcohol Treatment Facility will determine whether they need Outpatient Treatment or Intensive Outpatient Treatment (Level I or II). This is based on the member’s attitude, acceptance, degree of denial, etc. This is also true for alcohol abusers but with one important caveat: Please ensure that your ATF knows that anyone on flight status CANNOT RECEIVE ONLY IMPACT. IMPACT is the educational course that the ATF staff recommends for those who have had an alcohol-related incident and some with mild abuse. All aviation personnel diagnosed with alcohol abuse **must** receive at least Outpatient Treatment. This is because of the more stringent aftercare requirements for aviation and the strict requirement for commitment to abstinence for all aviation personnel diagnosed with an alcohol misuse diagnosis. Non-aviation personnel treated for alcohol abuse are taught the concept of responsible drinking and do not have to attend AA. Aviation personnel with the same diagnosis have the same three-year aftercare/AA requirements as those diagnosed with dependence. YOUR ATF MAY NOT BE AWARE OF THIS! Obviously, most should, but with change of personnel this might fall through the cracks.

**\*ANSWER: PSYDUCK, the Pokémon character with special powers.**

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## PRK in Naval Aviation

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### Aviator Retention and Accession Studies

Arguably, refractive surgery is one of the most talked about issues in Navy medicine. It generates great interest in many line communities. Naval aviation is no exception. As a squadron or air wing flight surgeon, you likely get several questions a week from your patients about laser eye surgery. Although there are resources available for general information, there hasn't been much dissemination of information regarding refractive surgery in Naval aviation. This article will provide a synopsis of aviation related information, and will address some frequently asked questions we routinely receive from the fleet.

**Background:** After successfully conducting large scale studies of photorefractive keratectomy (PRK) in non-aviators, two projects were conducted on non-pilot aircrew at the Naval Medical Center, San Diego (NMCSO). The first evaluated the effects of hypobaric exposure and the second evaluated night vision goggle (NVG) performance after PRK. These studies were done with the collaboration and assistance of NOMI, the Naval Strike and Air Warfare Center (NSAWC), and investigators in the USAF (COL Doug Ivan and LTCOL Bruce Baldwin). A total of 45 flight personnel were enrolled. The average uncorrected vision improved from worse than 20/200 before the procedure to better than 20/20 by four weeks postoperative. There were no complications. All personnel met the requirements to return to flight status by four weeks after the procedure. No difference was observed in visual performance before and during hypobaric exposure. The average acuity using NVGs in starlight conditions was reduced slightly at two weeks, but returned to the preoperative level at four weeks.

Interest in the aviation application of refractive surgery culminated in a proposal to the Air Board in March 1999. The proposal was accepted by the Director of Naval Aviation (N88), who commissioned a comprehensive evaluation of PRK for use in the Naval aviator. The evaluation consists of two separate but similar projects called the "Retention" and "Accessioning" studies. Overall goals and objectives for the two studies are discussed below.

**Retention Study:** The goal of this project is to treat relatively large numbers of nearsighted and farsighted designated, experienced aviators with PRK and assess outcomes. It will be a prospective, multi-center evaluation of PRK in Navy and Marine Corps personnel on flight status (Pilots, Naval Flight Officers, Enlisted Aircrew and Special Aircrew). The study outcome measures include refraction, uncorrected acuity, best-corrected visual acuity (BCVA), contrast sensitivity, and return to flight status. They will also be receiving a carefully constructed aviation psychometric questionnaire to subjectively evaluate the effects of surgery on flight performance. A subset of subjects will undergo visual performance testing during simulated night carrier landings.

**Accession Project:** The goal of this project is to evaluate how well Student Naval Aviators (SNAs) who have undergone PRK perform in flight training. This will ascertain how well post-PRK SNAs can adapt to the aviation environment. Besides visual outcome measures (refraction and acuity), flight performance will be carefully assessed (attrition rates, landing grades, simulator scores, carrier landings, etc.). This group will be compared to a matched group of SNAs who do not require refractive surgery. The number of subjects treated needs to be large enough to account for a variety of factors, such as different training pipelines. There will be two populations of enrollees. The first are midshipmen at the Naval Academy who we will treat between their third and fourth year. Those midshipmen who undergo treatment and are selected to enter flight training will be followed as they progress through the training pipeline. The second set of enrollees are civilians who undergo the procedure (PRK, not LASIK, at this point) at their own expense, apply for flight training, obtain conditional waiver for selection (meeting NOMI criteria), and get selected. They will likewise be followed carefully through flight training.

As a flight surgeon, your involvement in the studies will include patient recruitment, coordinating surgery schedules around operational requirements, ensuring compliance with postoperative follow-up exams, waiver submission and renewal. One of the most important aspects of your participation in the process will be to educate your patients about the surgery and about the

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study process. Many of your squadron or air wing personnel have probably already inquired about enrollment in this study. If you haven't yet fielded questions about it, you will. Here are some questions we routinely receive from the fleet. Keep in mind that this article addresses issues for Navy and Marine Corps personnel on *flight status only*, and does not necessarily apply to the general active duty population or other warfare communities. Also, the aviation studies apply only to Navy/Marine Corps aviators, not to Army or Air Force aviators. Both of these services are planning their own separate evaluations.

### 1. Can I have surgery done by a civilian?

Emphatically, **NO!** This study requires careful coordination at all levels. Controls need to be placed on the type of procedure performed, follow-up examinations, and reporting. Aviators cannot seek refractive surgery in the civilian community. The only way for personnel on flight status to have surgery (without forfeiting flight status and flight pay) is to enroll in the Navy study, and have surgery performed at an approved Navy treatment center. Two treatment centers are now up and running in San Diego and Portsmouth.

### 2. How can I enroll in the study?

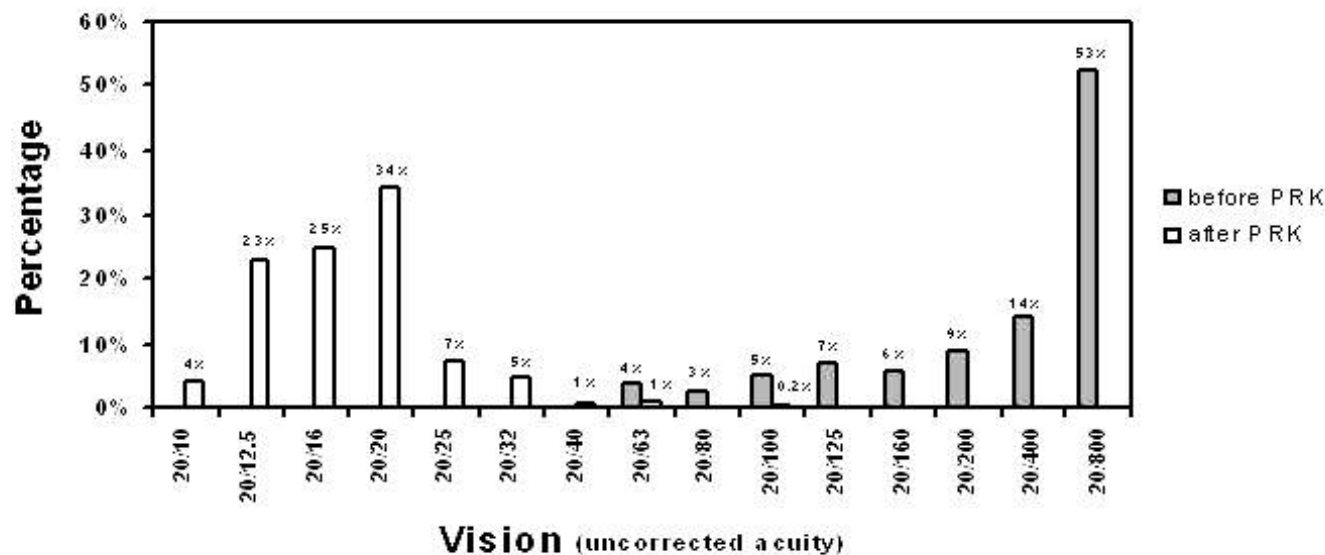
Within the next several months, there will be a message announcing the study and providing instructions for enrollment. There will be a screening process through one of multiple outlying study sites. Study sites will be optometry or ophthalmology clinics located at various Navy and Marine Corps air stations. Candidate screening exams will be reviewed by the study center at NMCSO. Selections will be based upon pre-determined limits on numbers of pilots, NFOs, etc., deployment cycles and availability for follow-up.

### 3. What are the 'return to flight status' requirements?

The aviator must meet published visual standards for their community on two different examinations separated by at least two weeks after the procedure. Generally, the most stringent aviation visual requirement is to be correctable to 20/20 vision in each eye. If the aviator does not achieve 20/20 uncorrected vision after the procedure, they will need to have corrective glasses or contact lenses before returning to flight status.



Visual Acuity Examination in the Hypobaric Chamber on a Postoperative PRK Patient



**Figure 1: Unaided vision (i.e. no contacts or glasses) before and after primary PRK treatment for 460 eyes of patients of the Navy Refractive Surgery Center (NMCSO)**

#### 4. How long will I be “med down” after surgery?

We anticipate that the majority of treated patients will meet flight standards within four weeks of the surgery. The healing process after PRK is variable, and can be prolonged. In two previous Navy studies of PRK in 45 personnel on flight status, all patients had “up chits” after the four-week follow-up exam. However, prolonged healing time is a real possibility and there may be patients who can’t meet vision standards for many weeks or months. With a study population of 500 subjects, it is likely that at least one subject will be med down for an extended period (months). This point will be made very clearly during the informed consent process.

#### 5. What are the risks associated with PRK?

Medical risks include infection (1 in 1,000), visually significant haze or scarring (<0.5%), over or under-correction, irregular corneal surface, and loss of best-corrected vision. While all of these risks are rare, they are not “zero”, and must be considered carefully by each individual before consenting to the procedure.

In Naval aviation, some of these medical risks could potentially translate into “career risks”, especially for pilots. This additional career risk must also be carefully weighed against the benefits of having surgery. The most significant career risk for pilots is loss of best-corrected vision (worse than 20/20). Again, while this risk is very

low, the implications are huge, and could be career ending, both as a Naval aviator and as a future airline pilot.

To give an idea of the magnitude of this risk, a recent review of our records shows that of over 1,000 procedures performed, only four eyes had BCVA worse than 20/20 at either the six or twelve-month postoperative examination. Of those four eyes, three of them were worse than 20/20 before surgery. Thus, only *one eye* of 1,000 procedures performed at NMCSO was not correctable to 20/20 that was correctable beforehand (and that eye was 20/25). The take-home message is that any aviator who volunteers for this study must be willing to accept this very small, but very significant risk.

#### 6. How effective is the procedure at eliminating or reducing the need for glasses or contact lenses?

At NMCSO, we have performed about 2,500 procedures. Of those, about 97% were 20/40 or better without any additional correction after one surgical procedure. About 80% were 20/20 or better after one procedure. Most people are pretty functional with 20/40 or better, so for the vast majority of our patients, we have been successful at eliminating their dependence upon glasses or contacts. Aviators, however, are held to a higher visual standard. Thus, a 20/40 post-op aviator would still require additional correction to be ‘legal’ for flying duties.

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### **7. How will surgery be coordinated with operational requirements?**

Ideally, the timing of surgery will coincide with return from deployment when op tempo declines. Other potential windows of opportunity for treatment might be during a flying assignment in a non-deployable billet or the last few months of a dissociated tour or other non-flying assignment just before returning to an operational flying billet.

### **8. How will the waiver process work?**

First, this study has received approval and support from all levels, including BUMED and NOMI. Once an aviator meets established postoperative gates for refractive error, acuity and stability, they can be returned to flying duty via a Local Board of Flight Surgeons, with subsequent submission of a waiver package to NOMI.

Aviators will have to be followed annually by a Navy eye care professional, and waiver requests for continuance must be submitted annually.

### **9. Can I have LASIK, Corneal Rings, Radial Keratotomy (RK) or any other type of refractive surgery?**

**No.** PRK is currently the only refractive procedure being considered for waiver in Naval aviation. Any other procedure is "CD, no waiver" and will likely terminate the aviator's flying career in the Navy. (Note: these other procedures are currently being evaluated by the Refractive Surgery Center at NMCSD, but are not being considered for the aviation community at this time). A very important issue is that LASIK (also called flap and zap) has transitioned into the civilian community standard. You have probably been inundated with advertisements for LASIK and aviators will wonder why they can not have it performed instead of PRK. The reason is simple,



**The Ophthalmology Testing Stations in the New NOMI Clinic (Tomey Corneal Topographer in Left Foreground)**

we don't know when, or even if, the corneal flap created by LASIK heals. We don't know if the flap could shift or move after trauma, like during an aircraft ejection or even rubbing the eyes. If the flap moves, the vision is immediately impaired and may require surgical intervention to treat. Despite the high civilian interest in LASIK, no previous studies have evaluated the stability of the flap. Studies are now in place at NMCSO to evaluate flap stability, supported by Naval Special Operations Command (CAPT Frank Butler).

### 10. Is PRK disqualifying for the airlines?

Each airline sets its own standards for accepting refractive surgery. Major carriers generally accept PRK if the pilot can pass the appropriate flight physical. In the fall of 1998, the FAA Civil Aeromedical Institute (CAMI) published an aeromedical certification update regarding refractive surgery. The update lists PRK as one of the FDA-approved procedures that is accepted by the FAA. The article goes on to acknowledge that refractive procedures can have potential adverse effects that could be incompatible with flying duties.

### 11. How many subjects will be included in the study?

The retention study will enroll 500 subjects. 150 pilots, 250 NFOs, 100 "other" aircrew. Study groups will be further stratified by aircraft or community.

### 12. Where are the treatment centers?

Surgery will be performed at either NMCSO or NMC Portsmouth. Additional laser sites are being considered by BUMED for FY01 and beyond. Study

sites for follow-up exams will be numerous (15-20), and co-located with major Navy and Marine Corps aviation facilities.

### 13. What about my patients who are not on flight status?

The majority of your patients are not on flight status, and are likely to have a high level of interest in refractive surgery as well. They are eligible to request and be screened for surgery through your local Navy eye care provider. The NAVADMIN message, refractive surgery web site and recorded phone message referenced below provide information on how to request a consult for surgery for personnel not on flight status. Although the refractive surgery consult and screening forms have not yet been disseminated, we expect to get them out to the fleet and to Navy eye clinics within the next few months.

#### Other resources for information:

**1. Navy/Marine Corps policy message:** BUMED message R 291330 SEP 99, Corneal Refractive Surgery Physical Standards and Waiver Policy in the Navy and Marine Corps.

**2. Navy Refractive Surgery web site:** [http://navy.medicine.med.navy.mil/refractive\\_questions.htm](http://navy.medicine.med.navy.mil/refractive_questions.htm)

**3. Recorded telephone information at NMCSO:** (619) 524-0555

**CDR Mitch Brown, MSC, USN**  
mitchbrown@nmcsd.med.navy.mil

Project Director  
Study Manager (both studies)

CDR Steve Schallhorn, MC, USN  
CDR Mitch Brown, MSC, USN

Principal Investigator (Accession Study)  
Principal Investigator (Retention Study)

CDR Steve Schallhorn, MC, USN  
LCDR David Tanzer, MC, USN

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**\* Information is for flight surgeon use only, please *DO NOT* disseminate to patients.**



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## RAM Corner

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### Prevention of Neck Injuries in Naval Aviators

Neck injuries are common in pilots of high performance aircraft. Studies on F-5, F-15, and F-16 pilots demonstrated a three-month and a one-year prevalence of both minor and major neck injuries of 50.6% and 63.6%, respectively. Naval Aviators certainly experience neck injuries, yet many do not report these injuries to their flight surgeons, as the injuries may be minor. However, even a minor injury in flight can impair performance in the tactical environment. During my tenure as an F-14 Pilot, I experienced multiple episodes of neck strain during the dynamic high +G<sub>z</sub> environment (ACM, Air-to-Air Gunnery, Air-to-Ground Strafing). I never reported these to my flight surgeon nor was I trained in methods to ameliorate these injuries. On my own I found that neck strengthening exercises and isometrics decreased my injury rate and increased my situational awareness.

LCDR Mark Sheurer, a flight surgeon at NAS Meridian, Mississippi reports that the incidence of neck injuries in the T-45 Goshawk seems relatively high, citing the low position of the HUD as a possible causal factor. Injuries are occurring in Naval aircraft that are under-



(TOTAVIA/Adrian Cybriwsky Aviation Image Archives,  
[www.totavia.com/imagearchive/](http://www.totavia.com/imagearchive/))

identified, preventable causes of decreased tactical performance. This article will review potential preventive strategies for neck injury and hopefully increase awareness of these strategies in the Fleet.

Common knowledge suggests that neck injuries can be prevented through the use of pre-positioning of the head, neck stretching, and neck strengthening exercises. Albano and Stanford in 1998 did a retrospective analysis of 268 F-16 pilots to ascertain which preventive strategies were most effective in reducing neck injuries. In their questionnaire, pilots were queried about neck injuries, their most memorable episode, interventions used to prevent/ameliorate future injuries and when they initiated interventions to prevent neck injuries. Groups were stratified based on when the pilots had initiated prevention strategies and on which strategies were initiated.

Albano and Stanford found that the prevalence of minor neck injuries was significantly higher than in the general population and that injury incidence was reduced by using one or more methods to ameliorate injury. Strategies for the prevention of neck injuries in the tactical environment are essentially three-fold. Since recognizing the high prevalence of neck injuries in fighter pilots, one recommendation for prophylaxis by the aviation community has been neck strengthening exercises. Based on the knowledge of the cervical spine in the high +G<sub>z</sub> environment, this seems logical and was supported by Albano and Stanford's study. The cervical spine can



(US Navy Photo)

withstand the highest +G<sub>z</sub> load when in the neutral position with the intervertebral disks bearing the compressive stress and the neck muscles playing a more protective role. However, a strong neck may only be part of the solution to preventing neck injuries. According to Albano and Stanford, many experienced fighter pilots have developed other techniques to solve the problem of neck injuries. These include warming up with stretching (range of motion or isometrics), placing the head in a supported position, and unloading the aircraft prior to moving the head. As is evidenced by their 1998 study, these seem to play a protective role in injury prevention.

LCDR Curtis Lords, a staff physiologist at the Naval Aviation Medical Research Laboratory (NAMRL), states that, as a rule, simple methods of prevention are the methods most well adopted by aircrew. He advocates neck strengthening as a first-line defense against neck injuries. Although strength training may be the best method for neck injury protection, he also advocates isometric exercise of the neck by resistance (holding one's hand in place on the head and resisting against it in plane). Done daily, this can increase the overall strength of the neck musculature. Stretching of the neck prior to flight is another beneficial method of injury protection. By simply stretching the neck musculature prior to flight, injury rates can be reduced. This is best accomplished during the post start checks or at the hold short.

Minor neck injuries in flight can be incapacitating, yet, through elementary preventive measures, these injuries can be reduced. As flight surgeons, we are in a unique position to advise the aviators under our care about basic preventive measures. Five minutes dedicated to this during your squadrons next AOM is all it takes.

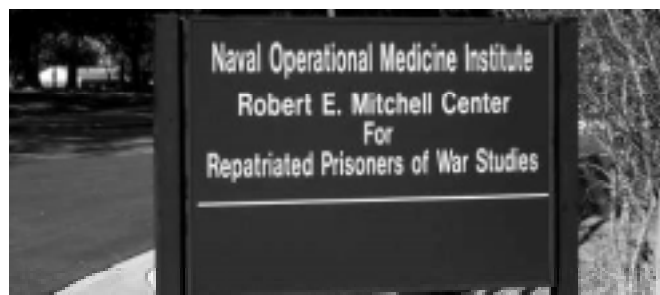
## References

Albano JJ, Stanford JB. *Prevention of minor neck injuries in F-16 pilots*. Aviat. Space Environ. Med. 69:1193-9, 1998.

### **LCDR David K. Weber, MC, USNR**

Resident in Aerospace Medicine (Class of 2001)  
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LCDR David K. Weber is a former F-14 Tomcat pilot and current Resident in Aerospace Medicine at the Naval Operational Medicine Institute in Pensacola, Florida.



## Preliminary Findings at the RPOW Center

The Robert E. Mitchell Center for Prisoner of War Studies, located at the Naval Operational Medical Institute, evaluates the long-term physical, medical, and psychological consequences endured by repatriated prisoners of war (RPOWs). This ongoing study is the longest running program of its kind in existence. The Center is named for Captain Robert E. Mitchell, MC, USN (Ret.), who founded the study in 1973 when the POWs returned from captivity in Vietnam. Captain Michael Ambrose currently heads the program. Fred Wells, MD and Jeffrey Moore, PhD round out the full-time team at the Mitchell Center. The Center is expanding its studies and provides a rich area for RAM participation.

In addition to the repatriated POWs, an age-matched control group of non-RPOW Naval Aviators was added to the longitudinal study in 1976. Beginning in 1998, selected members of both the RPOW group and the control group underwent bone mineral density testing as part of their annual physical examinations. No other selection criteria were used, random or otherwise. Analysis of the results indicated a highly statistically significant difference between the two groups in terms of bone mineral density, with the RPOW group falling into the osteoporosis category according to World Health Organization criteria.

This preliminary study was submitted for publication to the Journal of the American Medical Association (JAMA). As a result of these findings, a larger study consisting of 50 RPOWs and a matching control group is underway to see if the preliminary results are confirmed.

### **CDR Lee R. Mandel, MC, USNR**

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## Blue Angels Application Procedures Message

### 21 Dec 99

R 212040Z DEC 99 ZYB MIN PSN 340828J25

FM CNO Washington DC//N7//  
TO NAVADMIN  
UNCLAS //N01500//  
NAVADMIN 340/99  
MSGID/GENADMIN/CNO N7/

SUBJ/NAVY FLIGHT DEMONSTRATION SQUADRON (BLUE ANGELS)//



REF/A/DOC/CNATRAINST 1301.4D//  
AMPN/REF A is officer application procedures for the Blue Angels//

RMKS/1. The United States Navy Flight Demonstration Squadron, Blue Angels, will select two demonstration pilots (USN), an Event Coordinator, a Marine C-130 Pilot, a Flight Surgeon, a Supply Officer and a Public Affairs Officer for the 2001 team. Interested officers should submit applications per REF A not later than 30 Apr 2000. Final selections will be made in Jul 2000.

2. Qualifications. Applicants should be career oriented, regular Navy or Marine Corps officers with the following specific qualifications:

- A. Demonstration Pilot applicants must be carrier qualified tactical jet pilots with 1350 hours of flight time. Applicants are preferred to be rotating from sea duty or have been on shore duty for less than 12 months.
- B. Events Coordinator applicants must be designated as a Naval Flight Officer (NFO) (USN or USMC).
- C. Marine C-130 Pilot applicants must have 1300 hours of flight time and hold a plane commander rating.
- D. Flight Surgeon applicants must be a qualified Naval Flight Surgeon and be on or have completed a tour as a Naval Flight Surgeon.
- E. Supply Officer applicants must be designated as a Naval Aviation Supply Officer.
- F. Public Affairs Officer applicants must be designated 1650 (USN) or equivalent (USMC) and have completed at least one previous tour as a PAO.

3. Selectees will be approved by BUPERS/CMC prior to public notification. Navy Pilot/NFO and C-130 selectees will be required to remain on active duty for two years following completion of their Blue Angels tour.

4. All applications should be submitted to Commanding Officer, Navy Flight Demonstration Squadron, 390 San Carlos Road, Suite A, Pensacola, FL 32508-5508 via current Commanding Officer with a copy to the respective detailee. Marine Corps personnel should send a copy to Headquarters, Marine Corps (Code AA).

5. For additional information, contact the Blue Angels Applicants Officer, LCDR Keith Hoskins, in Pensacola, FL at DSN 922-2583 ext 116/COMM 850-452-2583 ext 116 or in El Centro, CA (Jan through Mar) at DSN 958-8502/COMM 760-339-2502.//

6. Released by VADM J. W. Craine, Jr., N7//

BT

## **“Pseudo-Joint” Tour Opportunity with the Army**

### **US Army School of Aviation Medicine Navy Liaison Open Summer of 2000**

Since the summer of 1997, Naval aeromedical specialists and flight surgeons have a new billet opportunity with the United States Army in Fort Rucker, Alabama. Fort Rucker is the “Home of Army Aviation” and is the entry point for all U.S. Army rotary wing aviators and for most of the Latin American nations. Annually, Fort Rucker trains approximately three times as many helicopter pilots as NAS Whiting Field.

I’m scheduled to PCS back to NAS Pensacola to begin working in the Code-42 shop. If you’re looking to rotate in the summer of 2000, seriously consider looking into this unique job opportunity. This billet was developed to augment joint service training between the services and to facilitate conjoining aeromedical policy

standards. The actual billet comes out of the Naval Operational Medicine Institute but is remotely situated at the U.S. Army School of Aviation Medicine, Fort Rucker.

Fort Rucker is located in the southeast portion of the state, approximately 95 miles north of Panama City, Florida and 167 miles northeast of Pensacola. You may not find it on a map unless you look for the towns of Daleville, Enterprise or Dothan, Alabama. You may have guessed from the previous geography lesson that Fort Rucker is in a rural community. Despite being a somewhat remote duty station my family has enjoyed our time here. The local communities are very safe and clean with good schools, both public and private, and plenty of outdoor activities (hunting, fishing, boating). Don’t let the size of this community fool you, there is always an aggressive training schedule. This aggressive operations tempo means plenty of opportunity for student contact and flight time on various platforms (to include TH-67, UH-60, CH-47, U-21, and C-12). This

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*(US Army Photo)*

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tempo also spills over into physical fitness. Since working with the Army I have now come to realize those propaganda commercials stating "We do more by 6 AM than most people do all day" are not too far from the truth. Most days begin with unit physical fitness training at 0600 for approximately one hour. As the Navy liaison of the U.S. Army School of Aviation Medicine I perform a myriad of duties, primarily in the teaching arena. My duties and requirements have included:

1. Keep close ties with the Naval Operational Medicine Institute to facilitate aeromedical policies and residency issues (NOMI is still your reporting senior for fitness reports).
2. Sit as a voting member of the Army's Aeromedical Consultant's Advisory Panel for aeromedical disposition in difficult clinical cases (this is the Army's equivalent of Code-42).
3. Physically PQ and AA without medical profiles. Capable of participating in unit physical fitness training on a three times a week basis.
4. Qualified as an Academic Instructor, either through the Navy or through a U.S. Army Course.
5. Thoroughly proficient with instructing the full breadth of aeromedical physiological training topics to include: Altitude Physiology, G-Forces, Spatial Disorientation, Night Vision, Visual Illusions, Noise and Vibration, Stress and Fatigue, Hyperbaric Medicine and Decompression Sickness, FAA Issues with Military Aviation Medical Examiners, and Combat Health Service Support in joint operations.
6. Credentialed and certified to teach Advanced Cardiac Life Support. Additional credentials in Pediatric Advanced Life Support and Basic Trauma Life Support would be useful.
7. Participate in hypobaric chamber training both as the duty Flight Surgeon (outside observer) and inside trainer.
8. Be comfortable with day and night rotary wing aviation environment.
9. Conduct spatial disorientation in-flight training sorties for U.S. Army and foreign national rotary wing students.
10. Liaison with the U.S. Army Consultant to the Surgeon General on aviation medicine issues regarding U.S. Army Aerospace Medicine Residents at NOMI. Perform additional liaison duties for NOMI RAMs rotating onto clinical services within Lyster Army Medical Center.
11. Become thoroughly proficient with Army aeromedical policies and physical exam standards (the newly reporting Navy Liaison Flight Surgeon would initially attend the first two weeks of the Army Flight Surgeon Course).
12. Conduct sick call operations for active duty and dependent personnel of the U.S. Army School of Aviation Medicine and the Lyster Army Hospital.
13. Experiment with various distance learning and internet technologies (experience with internet web development helpful).
14. Function as the key point of contact and coordinator for the Annual *Combined Operational and Aeromedical Problems Course*. Coordinate presenter schedules. Coordinate e-mail/phone correspondence with guest lecturers to comply with CME and audio/video requirements.
15. Assist in the Residency Review Committee meetings (RAC) biannually in Pensacola, Florida.

I was fortunate enough to be the first aeromedical specialist to initiate this billet and found it a very rewarding and demanding aeromedical experience. Should you consider taking this billet, don't hesitate to call the flight surgeon detailee, LCDR Keener, at (901) 874-4121/DSN 882-4121 or myself at (334) 255-7608/DSN 558-7608. I think anyone would enjoy this opportunity.

**CDR Jay S. Dudley, MC, USN**  
jay.dudley@se.amedd.army.mil



(US Navy Photo)

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## In Memoriam

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### CAPT George C. Romano

CAPT George C. Romano, MC, USN died suddenly at his home of an aneurysm on 4 December 1999. He was on terminal leave, awaiting retirement from his last billet at Sea Control Wing and Branch Medical Clinic, NAS North Island. CAPT Romano began his colorful forty-year military career as an enlisted Marine, and later gained a commission as a Marine officer. His impressive aviation career included multiple combat missions in F-4s over Vietnam, and he had more than one aircraft shot out from under him. This background uniquely qualified him for his “second military career” as a flight surgeon and Aerospace Medicine specialist, giving him real experiences to draw from. He served in many operational medical billets, including the Senior Medical Officer aboard USS Nimitz (CVN 68). CAPT Romano was a charismatic individual who was able to profoundly impact nearly everyone he came in contact with. He was an outstanding and caring physician who always found time for his patients. He was a mentor to young flight surgeons, always quick with a joke and always available to lend an ear. We will certainly miss CAPT Romano, his zest for life, his sense of humor, and his seemingly unending quest for a good deal. He certainly lived every day to its fullest. He will be greatly missed throughout the entire aviation community.

**LT Juli Althoff, MC, USNR**

HS-10 Flight Surgeon, NAS North Island

“Dealer” Romano was originally designated as a Naval Aviator in July 1962, and was designated as a Flight Surgeon in December 1983 (Class 0383). He graduated from the Aerospace Medicine residency in 1988 after completing his MPH at Tulane University. He subsequently completed tours as the Senior Medical Officer of USS Nimitz (CVN 68)(1988-1990), and as a flight surgeon for VFA-127 at NAS Fallon and COMHSLWINGPAC at NAS North Island, before retiring from the Navy earlier this year. He accumulated over 5,000 flight hours in a wide variety of Naval aircraft. CAPT Romano was laid to rest in his flight suit and boots. His memorial service included full Marine honors with a 21-gun salute, taps, and an F/A-18 fly-over. He was interred at the Fort Rosecrantz military cemetery at Point Loma. Reprinted below is the obituary for CAPT Romano that appeared in the San Diego Union Tribune on 9 December 1999.

### The Editors

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## Capt. George Romano; decorated Vietnam vet, had 2 military careers

**By Jack Williams**  
Staff Writer

With his jet combat plane disabled by enemy fire over North Vietnam, George C. Romano needed at least two things to survive: resourcefulness and luck.

Apparently, he was blessed with both.

Capt. Romano, a Marine pilot, parachuted into a perilous environment and evaded capture for days. Finally, under heavy fire, he was rescued by an Army helicopter, his brother, John, recalled.

The mission resulted in a Distinguished Flying Cross for Capt. Romano, who served two tours of duty in the Vietnam War — the first as a pilot, the second as a forward air controller.

Capt. Romano died of an aneurysm Saturday in his downtown San Diego home. He was 59.

He retired in August from a second military career in the Navy and for the last three years had owned Argo Yacht and Ship Brokers, which has two offices on Mission Bay and one in Newport Beach.

Capt. Romano's decorations included a Navy

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Cross, two Silver Stars and two Purple Hearts. He served 26 years in the military.

"After his second tour in Vietnam, there was a parade for him in his hometown of West Palm Beach, Fla." John Romano said. "Two Marine representatives who spoke to the family after he was shot down said it was a miracle that he survived."

"It turned out that the pilot of the helicopter that rescued him was the son of a grade-school classmate of our father."

Capt. Romano was born in Providence R.I., and graduated from a private high school in Palm Beach, Fla., where he lettered in football and track.

He earned a private pilot license at age 17 before joining the Marine Corps in 1959.

A decade later, Capt. Romano left the Marine Corps as a major. He operated a charter boat business in West Palm Beach, then earned a license as a general contractor, building commercial and residential buildings throughout Florida.

But a desire to study medicine led to his career as a Navy flight surgeon and medical officer.

After studying mathematics and history at three Florida universities, he completed work on a bachelor's degree at the University of Alabama in Tuscaloosa.

He then entered the university's medical school in Birmingham, graduating in 1979.

Capt. Romano joined the Navy in 1983 and served as a flight surgeon in Pensacola, Fla. Subsequent assignments as a senior medical officer found him aboard the aircraft carriers Independence and Nimitz.

In 1990, while stationed in Fallon, Nev., as a flight surgeon, Capt. Romano bought a 68-acre horse ranch and fulfilled a dream of being a cowboy, his wife, Ginger, said.

He was transferred in 1994 to North Island Naval Air Station, where he finished his military career in August as a wing flight surgeon.

During his final years in the Navy, Capt. Romano worked part-time as a yacht salesman and earned his broker's license. He then opened Argo Yacht and Ship Brokers, which today employs 26 people.

Before moving into his Eighth Avenue condominium, Capt. Romano lived aboard a 50½-foot ketch in San Diego. He was a member of the Navy Yacht Club in Coronado.

Survivors include his wife, Ginger; daughters, Karen

Cahill of Avondale, Ariz., and Shannon and Carmen Romano, both of San Diego; sons, Chris, Dominic and Vince, all of San Diego; his mother, Alice Romano of Lake Worth, Fla.; sisters, Francis Dyben of Lake Worth, Fla., and Alice Stiles of Palm Springs, Fla.; brothers, Randolph of Lantana, Fla., John of West Palm Beach, Fla., and Rodney of Lake Worth, Fla.; and two grandchildren.

A memorial service is scheduled for 1 p.m. tomorrow at North Island Naval Air Station chapel. A reception will follow at 3 p.m. at the Argo sales office, 1840 Quivira Way, San Diego.

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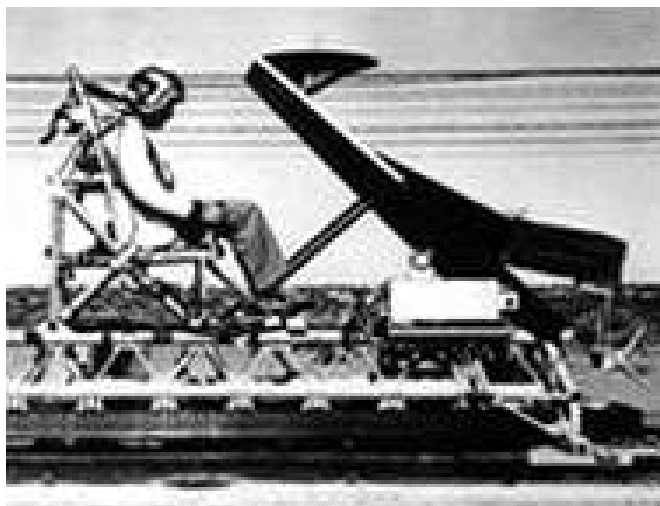
### COL John P. Stapp

COL John Paul Stapp, USAF was born in Bahia, Brazil on 11 July 1910. COL Stapp earned the title "The Fastest Man Alive" when he rode the famed "Sonic Wind I" rocket-propelled sled on 10 December 1954 to a land speed record of 632 miles per hour in five seconds, decelerating to zero in 1¼ seconds with a force of more than forty Gs. The wind blast at this speed was equivalent to a high altitude ejection at supersonic speed.



(Space Center Museum)





(Space Center Museum)

He sustained the greatest G force endured by man in recorded deceleration tests up to that time. COL Stapp received his Ph.D. from the University of Texas, Austin in 1940 and his M.D. degree from the University of Minnesota, Minneapolis in 1944. He entered military service on 5 October 1944, and later attended the School of Aviation Medicine, Randolph Field, San Antonio, Texas. On 10 August 1946, he was transferred to the aeromedical laboratory as project officer and medical consultant in the Bio-Physics Branch. His first assignment included a series of flights to test various oxygen systems in unpressurized aircraft at 40,000 feet. He was assigned to the deceleration project in March 1947. It was during this deceleration project that Dr. Stapp rode the Sonic Wind I. Stapp personally made 27 of the 73 manned sled tests conducted as part of the deceleration project, suffering retinal hemorrhages, cracked ribs, and two broken wrists. The second broken wrist he reduced himself while walking back to the laboratory after a ride. The project was essential in improving the survivability of aircraft occupants in the event of a crash. Out of these many sled runs came improved helmets, arm and leg restraints, better aircraft seats, and stronger safety harnesses. COL Stapp died at his home in Alamogordo, New Mexico on 13 November 1999. (Information and photos are from the Space Center Museum – Dr. John P. Stapp Air and Space park web site, <http://www.zianet.com/space/stappark.html>).

Reprinted at right is the obituary for Dr. Stapp that appeared on the space.com web site on 15 November 1999.

## The Editors

## John Stapp, known as the Fastest Man on Earth, dead at 89

**By Andrew Chaikin**

Executive Editor, Science and Space

Col. John Paul Stapp, who rode a rocket sled to become the "Fastest Man on Earth" in 1954, died Saturday at his home in Alamogordo, New Mexico at age 89.

Stapp became an aerospace pioneer when he rode a rocket-driven sled to near-supersonic speeds to study the effects of extreme deceleration. As an aerospace physician, Stapp strove to understand the stresses jet pilots would face, including the rigors of ejecting during high-speed flight. He became his own test subject in 29 rocket-sled experiments. According to one aerospace historian, Stapp's Air Force Colleagues called him "one of the bravest men in the world."

Stapp made his most famous ride on December 10, 1954. On that day, a rocket sled accelerated him from a standstill to a speed of 632 miles per hour in only five seconds. The sled was then brought to a stop in 1.4 seconds, subjecting Stapp to g-forces up to 40 times normal gravity. Stapp's expertise in medicine and biophysics allowed him to diagnose the effects of the punishing ride during and after the event.

Stapp's experiments were used to help design safer aircraft and ejection seats, and gave researchers an idea of the stresses that might be experienced by future space travelers. It also had more down-to-earth benefits. Stapp's work demonstrated the efficacy of wearing a safety harness in a car or airplane. The studies showed that people involved in vehicular crashes were more likely to survive the impact if they used a seat belt or harness.

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(Space Center Museum)

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## Letters To The Editor

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Letters to the Editor is an editorial column that permits readers to comment on newsletter content or other topics of general interest to the Navy flight surgeon community.

Your comments are welcomed. Letters should be succinct and of reasonable length, signed, with position and duty station information, telephone number, and e-mail address. Letters will be verified before publication. We reserve the right to edit and condense all letters submitted. Letters should not address private disputes and should not contain comments denigrating or impugning the character or reputation of individuals or organizations.

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### Alternative (Complimentary) "Healthcare Providers"

(In response to the October 1999 Letter to the Editor,  
"It's Not About Science")

The author reminds us that we are physicians, first. We are not just one particle of the congealed lump of self-proclaimed "wannabes" who call themselves "healthcare providers" and depend on the research and learning of the physician. These "health care providers" apply some of the physicians' "methods" because they have seen them performed repeatedly with some element of success, taking no responsibility for any resulting failure and do not understand how to modify the methods in the event they do not fit the textbook case. They do not contribute to the original knowledge of medicine by applying science, but attempt to capitalize on that science with their own brand of personality in an effort to dispense their influence on the patient.

The result is that these "health care providers", with whatever methodology they choose to name and adopt, do not understand nor do they realize that the Pavlov method for practicing medicine may appear appealing, but will result in tragedy if not controlled by in-depth knowledge and scientific reason. Their expectation is that they will be allowed to "practice medicine" independently, without having to be supervised by the physician, and thus earn their place and esteem in the eyes of society, without having to work for it. This behavior

is catching on because of the success that physicians have had doing the science of medicine, but they have become consumed by the weight placed on them by society to prove that they are truly physicians, practicing "Quality Care." Admittedly, many physicians have lost much of their insight and esteem by spending significant quantities of their time worrying about all the controls and restraints placed on them by society. Unfortunately, in the process they have allowed the art of medicine and the human interaction with their patients to suffer. Despite this fact, many of these "alternative" providers would not have any techniques to practice if physicians had not provided the methods with which to do it. Consequently, the "alternative practitioners" are willing to accept a lower fee for their participation in the system because, as with any business, in order to become successful at competing, one has to get their foot in the door. After entering the market, they slowly increase their demand from the patient as the patient increases their dependence on the provider, i.e. increasing the market share. However, like the story of "The Goose that Laid the Golden Egg," once there is no concrete and honest science used to develop new and more accurate techniques, the greedy will destroy the goose and there will be no gold left, i.e. no new developments with which to practice medicine. As with most processes in this country, once these "providers" have overloaded their ability to meet the demand and further complicate the process with an occasional catastrophic therapeutic misadventure (due to lack of knowledge or negligence) that lands them in court, the market for such individuals will once again revert to those who do the science of medicine. Fortunately, we as physicians can learn from the consumers of these "alternative providers." We begin by re-dedicating ourselves to our proclaimed goals, and reverting to those qualities that once made us an integral and trusted part of our patients lives and families by practicing our art as we promised on the day we received our degrees. It was not the degree that made us physicians. It was the degree bonded by the promise to God and our society to practice our art in an ethical, honorable and compassionate manner that made us dedicated to the well being and diminished suffering of our fellow man. It is for this reason that we essentially differ from the "alternative providers." We as physicians can return to our role in society by learning from these "alternative providers" and not compromising our integrity for what appears to be a

*(continued on page 28)*

## Selected SUSNFS Merchandise Items Catalog



T-Shirt: SUSNFS "FS - Yesterday and Today"



T-Shirt: FS Wings



Tank Top: SUSNFS "Leonardo"



Running Shorts



Sweat Shirt: SUSNFS "Leonardo"



Sweat Shirt: FS Wings

## Selected SUSNFS Merchandise Items Catalog



Sweat Pants: SUSNFS Logo, NAOMI Logo, FS Wings



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FS Wings 'Skrunchie', Bow Tie, Tie; SUSNFS Patch



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## Address Change, Subscription/Membership Renewal, Price List, and Order Form (Jan 2000)

#	ITEM	PRICE		SUB-TOTAL
	<i>(Indicate Size and Color Where Appropriate)</i>	<i>Non-Member/Member</i>		
___	T-shirt: SUSNFS "FS - Yesterday and Today" (M, L, XL)	24.00	19.00	_____
___	T-shirt: SUSNFS "Leonardo" (M, L, XL, XXL)	24.00	19.00	_____
___	T-shirt: FS Wings (children's XS, S, M; adult S, M, L, XL)	24.00	19.00	_____
___	Tank Top Shirt: SUSNFS "Leonardo" (M, L, XL)	24.00	17.00	_____
___	Running Shorts: (Blue with Gold SUSNFS Logo) (M, L, XL)	20.00	17.00	_____
___	Sweat Shirt: SUSNFS "Leonardo" (S, M, L, XL)	40.00	35.00	_____
___	Sweat Shirt: FS Wings (M, L, XL)	40.00	35.00	_____
___	Sweat Pants: SUSNFS Logo (S, M, L, XL)	30.00	24.00	_____
___	Sweat Pants: NAOMI Logo (S, L, XL)	<del>15.00</del>	<del>15.00</del>	_____
___	Sweat Pants: FS Wings (S, M, L, XL)	30.00	24.00	_____
___	Polo Shirt: FS Wings (M, L, XL) (Navy Blue, White)	38.00	33.00	_____
___	SUSNFS Patch	6.00	5.00	_____
___	FS Wings Tie	22.00	20.00	_____
___	FS Wings Women's Bow Tie	<del>10.00</del>	<del>8.00</del>	_____
___	FS Wings 'Skrunchie'	<del>6.00</del>	<del>4.00</del>	_____
___	Travel Mug: SUSNFS Logo	6.00	5.00	_____
___	CD: The Ultimate Flight Surgeon Reference (TriService)	20.00	15.00	_____
___	Naval FS Pocket Reference to Mishap Investigation	15.00	10.00	_____
___	Sweetheart FS Wings Necklace, 14K Gold/Diamond Chip	200.00	160.00	_____
___	Petite Sweetheart FS Wings Necklace, 14K Gold/Diamond Chip	150.00	120.00	_____
___	Sweetheart Physiologist/Psychologist Wings Necklace, 14K Gold	75.00	65.00	_____
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___	Mess Dress 14K Gold Flight Surgeon Wings	160.00	128.00	_____
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(continued from page 24)

quick fix. If the most appropriate "alternative" to the use of pharmacological chemistry is "diet and exercise," why then is it that when the "alternative providers" recommend "diet" it means something different than when physicians recommend it?

We can learn from these "alternative providers" in other ways. We spend so much time studying that many of us have lost the human interaction for which the patient so desperately seeks. Perhaps it is because we have stopped "touching" our patients. Many of the young physicians we train have not learned the art of history taking and physical examination. They listen only for what they want to hear, and immediately resort to the comfort of the laboratory methods. Much of this results from the anticipation of defense they must mount against an ever-increasing threat of lawsuit in the event of an incorrect diagnosis. While this does not excuse the failure of a mistake, it does not condone the untenable position of fear and vulnerability placed on what would otherwise be an acceptable and imperfect human judgment. It also does not excuse physician arrogance often perceived by the patient when placed in the position of decision-maker rather than being one who advises of problems, alternatives and risks associated with whatever pursuit they engage. The patient, often in a position of extreme danger, transfers their anger and denial of their problem into blame for their problem on the physician. Perhaps patients need to be made to feel less vulnerable. Regardless of the reason, the "alternative providers" perceive that patients require time, rather than technique. They, not being constrained by the rules of

third party payers, are not held accountable for their time and thus seem more caring to the patient. We as physicians need to balance our time with our technique so that this perception of caring is not lost by the patient. CAPT Hopkins appears to make some of these same arguments, but must realize that there is a need for all to agree that the best method to heal the patient is the one that works. Finding that method requires science. Using that method requires art.

**LCDR Dave Kleinberg, MC, USNR**

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### SUSNFS EDITORIAL POLICY

The views expressed are those of the individual authors and are not necessarily those of the Society of U.S. Naval Flight Surgeons, the Department of the Navy, or the Department of Defense.

This Newsletter is published quarterly by the Society on the first of January, April, July and October of each year. Material for publication is solicited from the membership and should be submitted via computer file on floppy disk or e-mail attachment in Rich Text Format or MS Word ©.

Submissions should clearly indicate the author's return address and phone number. All submissions should reach the Editor one month prior to the scheduled date of publication. Correspondence should be sent to:

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