

# Society of U. S. Naval Flight Surgeons



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**VOL. XVII, NO. 1**

**NEWSLETTER**

**JANUARY 1993**

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## **PRESIDENT'S COLUMN**

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First and foremost, I hope everyone had the best of holidays and took the time to get reacquainted with those who mean a great deal to you. I also hope that we collectively made the same New Year's resolution: we will all try our absolute hardest to help make this the safest year in Naval Aviation.

Speaking of the holiday season, I know that our thoughts are also with all our colleagues and friends who are either in Somalia or on their way. They had to leave home at a particularly tough time of the year and deserve our highest respect not only for the professional job they are doing but for the personal sacrifices they are making. And...this brings to mind another subject, one which those of you who were lucky enough to make it to the Problems Course heard about. Namely the Navy and Marine Corps' new strategy". ..from the Sea." Somalia will not be the last of its kind of operation. There is currently much talk about an air campaign in Bosnia. Mozambique is teetering on becoming another Somalia in just a few months. Some Washington pundits are calling for a mission to Haiti.

Well you could ask, what's the point of that whole discussion? The point is, unless you don't watch CNN, it will be the Navy-Marine Corps team that will take the lead in most future evolutions. "From the Sea" is a littoral strategy. Everything that is being discussed in terms of future Joint operations falls into this category and will rely heavily on Naval air support. And that means you. As I mentioned in my all too brief time at the Problems Course, as flight surgeons we need to be thinking about and planning for the support of future operations which we know will be placing our aircrews at significant risk. When you get the "Go Order," it's too late. Just the way you all (I hope) have a mishap plan, you need to have a plan to deploy on relatively short notice. Obviously any planning that you do should not be in isolation but done in close coordination with your parent outfit.

Let me say a few words about the NAMI sponsored Naval Aeromedical Problems Course. From all reports this was a superb meeting attended by over 400 people (including over 200 of our enlisted colleagues). Once again NAMI has set the benchmark and should be congratulated for the time, effort, and professionalism that was put into the meeting. No other service puts on a meeting this good. BRAVO ZULU and keep up the good work.

My only regret about the Problems Course is that I had to leave early to return to Washington to represent SUSNFS at the Aerospace Medical Association's Executive Council meeting and to attend the Scientific Program committee. The report that I presented to the Executive Council appears elsewhere in this edition of the Newsletter. In short, our Society is in great shape and doing better all the time. As before, it is in large measure due to the officers (other than myself) whom you elected and who do the lion's share of the work. From the financial standpoint, we are one of the more solvent constituent organizations in AsMA. The one problem that we do have is that too many newsletter recipients are not members of AsMA. Unfortunately, according to the AsMA constitution, you can't be a member in good standing of a constituent organization, if you are not a member of AsMA. Those of you who are not members of AsMA, PLEASE make every effort to join. This is your professional organization.

The Spring meeting of AsMA will be in Toronto, Canada. The service Surgeon Generals have bought off on the location and there should be no trouble in getting approval to travel across the border.

One final issue that I would like to address. This deals with the recent Graduate Medical Education (GME) Selection Board. Forty-seven percent of the flight surgeons were selected for the training they wanted. It could have been higher. The competition is tough. In speaking to the various committees at the board, the

*(Continued on page 3)*

From the president



**SOCIETY OF U. S.  
NAVAL FLIGHT SURGEONS**

P.O. BOX 3308  
NAS Pensacola, FL 32508-3008

2 November 1992

To: The Executive Council of the Aerospace Medical Association

Subj: STATUS REPORT OF THE SOCIETY OF U.S. NAVAL FLIGHT SURGEONS

1. The Society of U. S. Naval Flight Surgeons entered its sixteenth year this May in excellent shape. We currently have 302 active members and 212 individuals, libraries, and governmental agencies who subscribe to our quarterly newsletter. Membership has declined slightly as members who were in arrears have been deleted from the rolls. This is a normal occurrence as flight surgeons complete their "utilization tours" and return to residencies for further graduate medical education. The Society continues to recruit new members from the three flight surgeons classes conducted annually at the Naval Aerospace Medical Institute.
2. The Society's financial status is also stable. Dues were raised to \$15.00 in 1991 and income is adequate to cover annual expenses. No increase in dues is anticipated in the next twelve months.
3. Our Newsletter continues to receive accolades from readers both within and outside the Society. The informational and educational articles come from NAMI staff members, as well as from flight surgeons in operational billets throughout the world. It averages eight pages per issue and is published in January, April, July, and October.
4. Annual awards, recognizing superior performance, continue to be an important function of the Society. We currently sponsor the *Richard E. Luehr's* and *Ashton-Graybiel* awards, as well as recognizing the *Aviation Medicine Technician of the Year* award. Plans are underway to sponsor an additional award for the individual making the most significant contribution to improving cooperation among all Naval Aeromedical specialties.
5. Changes in the military as post-Cold War downsizing occurs will challenge the Naval Service and Naval Aviation to find new and more efficient ways to perform missions still not clearly defined. The Society of U. S. Naval Flight Surgeons, with its proven history of leadership, eagerly looks forward to the future, and the challenges it brings.

Robert E. Hain  
CAPT MC USN

*President's Column...from page 1*

consensus that emerged was that the people who put together the best applications with the strongest endorsements and recommendations did the best. Some of the applications were incomplete or were missing other pieces of information which would have made the difference. If you are truly interested in applying for a GME program in the Navy (or anywhere else), devote a lot of time to your application and make sure it is the best that it can be. Put yourself in the position of a board member and ask if you would select the individual described in the application. After filing the application, check to ensure it got there on time and all the parts made it. The kiss of death is a late application. Even those of you embarked aboard a ship can plan far enough in advance to get the paper work together. If you are having problems, let the TYCOM Surgeon know and ask for help EARLY. Though I'm just slightly biased, you people represent not only the cream of the Navy Medicine but its future. For the jobs you are doing in the Fleet, you deserve to be rewarded with the training you want. We, the senior people in the aeromedical community, are committed to seeing that you get just that. However, you will have to do your part and come up with the best possible application and ask for help when you need it.

Finally, from a community standpoint, our staffing level for 363 flight surgeon billets will run about 93% to 95%. The war fighting claimants (AIRLANT, AIRPAC, USMC) will be close to 100%. We have already identified 80 super interns plus five people in the fleet who will be entering the flight surgeon program next year. This does not include direct accessions that we may get.

Again, best wishes for a great year and think SAFETY always.

Semper Fi.

CAPT BOB HAIN  
MC USN

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**SECRETARY-TREASURER NOTES**

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Happy Holidays to all, especially those supporting **Operation Restore Hope** in Somalia. This will be the second Christmas of this still young decade, that many of our members will be away from loved ones during the holiday season. Our thoughts are with all of you.

Turning to Society business, I am delighted to report that the Problems Course was a huge success. Attendees came from around the globe to represent all our aviation communities. Addresses were updated, dues paid, and a few even picked up an early Christmas gift (you'd be surprised how many girlfriends and wives got Sweetheart Wings for Christmas). Financially, the Society is very sound, as you note our President re-

ported in his letter to the AsMA Executive Council. This is due largely to the efforts of my predecessors, especially Dave "Hey Howdy" Shiveley. We are now able to try new things, including introducing new items of flight surgeon merchandise. We began selling new, "polo" style, short-sleeved shirts at the Problems Course. They have miniature Flight Surgeon Wings embroidered over the left breast, come in red, jade, or blue, and sell for \$25. We also have turtlenecks, which have miniature wings embroidered on the left side of the neck. Again, the price is \$25, and they come in Navy blue or white. If you want either, write me! The Society has also begun hosting a "Welcome Aboard" for each new Student Flight Surgeon class. To date we've held two picnics, one for each class currently aboard. Part social and part business, each get together is designed to welcome the future flight surgeons and physiologists to the Naval Aero-medical communities, giving them a chance to talk with Society members from the local area. We hold them the Saturday after the class reports aboard and **any** Society member who will be in the Pensacola area is invited to come. The next class will be greeted on Saturday, January 9. While I doubt this Newsletter will reach you before then, should it, we'd love to have you join us. Call me for details at (904) 432-6948.

If you have any thoughts on how the Society can serve you better, drop me a line. Your thoughts are crucial to our future growth, and we encourage each of you to share your experiences with the rest of us. I know of no other organization in Naval Medicine which so eagerly solicits your ideas, thoughts, and suggestions as SUSNFS does. Found a way to fix a problem, let us know and we'll share it with the rest of the community. Better still, if you run into a problem you can't figure out how to solve, write or call us. It's highly likely that someone has already figured out how to skin that bear, and would be more than happy to share it with all of us, if he/she only knew someone else had the same problem.

Our next big gathering should be AsMA in May. Until then, remember the cry of the oft TAD RAMs: *CARPE PER DIEM* (which means "start saving your money now for the fun to come"). See you in Toronto.

LCDR GLENN MERCHANT  
MC USN

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**AWARDS COMMITTEE**

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The Board of Governors is proud to announce the creation of a new award named in honor of Captain Manley L. "Sonny" Carter Jr., MC, USN. The Sonny Carter Memorial Award will be presented annually during the AsMA meeting to the individual who makes the greatest contribution of inspiring teamwork and the spirit of cooperation among the Naval Aerospace Medi-

cal subspecialties. Captain Carter managed to bridge the gap between all of our communities, serving as a Flight Surgeon, Aviation Medical Safety Officer, Senior Medical Officer, Naval Aviator and Astronaut before his tragically premature death in 1991. Nominations should be sent to the Awards Committee via the SUSNFS P.O. Box.

The committee, is also soliciting nominations for the Richard E. Leuhrs and Ashton Graybiel awards. Nominations for the Leuhrs Award for the Operational Flight Surgeon of the Year should be submitted via the nominee's type commander. Nominations for the Graybiel Award can be submitted directly to the Awards Committee and should include copies of the publication being nominated. The deadline for nominations for all three awards is 1 April. Each recipient will receive a plaque and honorarium from the Society.

CAPT E.J. SACKS  
MC, USN, R/R

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## NOMINATING COMMITTEE

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The Board of Governors recently appointed CDR Mary Anderson to replace CAPT Don Arthur as the chair of the Nominating Committee. Other members of the committee are CAPT Jerry Rose, LCDR Pat Spruce, and LCDR Glenn Merchant. The committee has put out a call for nominations for next year's elections, which will be held in May 93, at the annual business meeting. Offices with vacancies will be the Vice-President (President elect), Senior and Junior At Large Members to the Board of Governors (two-year terms to end in May 95), and Emeritus Member to the Board (one-year term). Nominations can be sent directly to CDR Anderson via the SUSNFS P.O. Box, or mailed to any of the committee members. Deadline for nominations is 1 March.

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## AVT COLUMN

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**Greetings and Solicitations!!** As the Enlisted Technical Advisor for the Aerospace Medicine Technicians, I would like to proposition your support for the AVT/APT members of the Naval Aeromedical Team.

We would like to form an organization similar to SUSNFS for our enlisted professionals to share in. As the Naval service downsizes, we shall all have to do 'more better' with less and to share information, streamline our processes and tighten up the way we do business. I feel through an organization such as the "Society of Aeromedical Assistants" all this could occur in much

the same way SUSNFS helps the Flight Surgeons carry out their mission. We would like to have career enhancing articles as well as the nuts and bolts of our job; to provide assistance for squadron Corpsmen as well as Clinic staff; and to generally have a forum to centralize our ideas, problems and suggestions.

This organization was proposed at the latest Aeromedical Problems Course and almost all present were interested, including some 'Quad Zeroes' who were there. We have the interest and desire to make this work and need each and everyone of you to support this fledgling organization. So, if you could make the effort to support your troops in getting this off the ground I would greatly appreciate it. Share this Newsletter with them. Suggest ways to do better business. Lead and guide.

Thank you, SUSNFS, for this opportunity to speak and properly launch this project.

HMC(AW) C.T. RAY  
ENLISTED TECHNICAL ADVISOR  
BUMED-236  
NAVAL AEROSPACE MEDICAL INSTITUTE

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## CODE 42 PERSPECTIVE

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Your input about aviation physical qualification issues at the recent Operational Aeromedical Problems Course is sincerely appreciated. You suggested a number of topics for future consideration by the Aeromedical Advisory Council. Your comments about the new alcohol instruction and other recent policy changes have been taken on board. This code's desire is to be responsive to the needs of the fleet as they pertain to aeromedical safety.

An Address Indicating Group (AIG) has received approval by the Naval Telecommunications System Integration Center. By the time of this newsletter, the AIG will have been promulgated. This mechanism will allow NAMI/BUMED to disseminate in a time critical fashion medical issues essential to or otherwise impacting aviation safety. This vehicle will be utilized to provide universal, timely distribution of policy changes as approved by BUMED. The first use of the AIG will most likely occur in late January 1993. Be sure you are cognizant of the AIG and anticipate its arrival. It is anticipated that the information for this AIG will be promulgated monthly.

The following policy has received BUMED endorsement:

**Mild Closed-head Injury (CHI).** A loss of consciousness of less than five (5) minutes with a Glasgow Coma Score of 15 constitutes a mild CHI, warranting four weeks removal from flying. Current policy requires an

evaluation by a neurologist or neurosurgeon, skull x-rays, an EEG, and neuropsychological testing prior to being returned to flying duty. Loss of consciousness is a less sensitive predictor of seizure potential than brain imaging. **Policy change:** RETAIN requirements for (a) evaluation by a neurologist or neurosurgeon, and (b) neuropsychological testing. DISCONTINUE requirements for (a) skull x-rays, and (b) EEG, unless clinically indicated. ADD requirements for head CT or MRI. CT is preferred because of fewer false positive results.

The alcohol instruction, BUMEDINST 5300.8, is undergoing revision. Expect to see more clarity with respect to the aftercare requirements and the intervals prior to initiation of a waiver request. The requirements for complete aviation physical examinations will also be changed, decreasing the amount of time/work required of the flight surgeon. Until the new instruction is signed by the Surgeon General, the provisions of the current version, dated 20 March 1992, will remain in effect.

It is hoped the discussions about Micro-88, the VAX mainframe, and the new ICDA utility, will be helpful for both you and your AVT's. The updated version of Micro-88 is planned for distribution by 01 February 1993. These efforts are all aimed to enhance the user friendliness of the program, improve your QA of aviation physicals, and speed the transmission process. All of these are ultimately aimed at reducing the time between physical exam completion and BUMED endorsement.

Incorrect information was reportedly passed at the Nov 92 AVT Operational Aeromedical Problems Course with respect to FAA physical examinations. A phone conversation between CDR Nickle (NAMI) and Dr. Antunano (FAA) on 5 October 92 verified that the FAA does not intend to enforce the new requirements on military flight surgeons for at least one year. Facilities will be formally notified when their FAA physical examinations will no longer be acceptable without individual flight surgeons being FAA certified. Any confusion created by the comments at the AVT conference is regretted.

Once again, your input is vital to this Code's ability to best support the fleet. Your comments are always welcome. Working together, we all contribute to improved aviation safety.

CDR C.J. NICKLE  
MC, USN  
CODE 42, NAMI

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## EDITOR'S NOTE

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The October Newsletter failed to note the name of the author of the RAMs Corner article on *External Otitis*. It was the work of CDR Jack Mills, MC, USN, and he should have received the credit.

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## EVALUATION CARDIAC MURMURS

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A murmur is an auscultatory sound, usually a periodic sound of short duration. It may be of cardiac or vascular origin and may be benign or pathologic. A benign (functional) heart murmur is generated within a normal heart. An organic (pathologic) heart murmur is due to a structural abnormality in the heart.

- Grade 1 — Barely audible with stethoscope
- Grade 2 — Just easily audible with stethoscope
- Grade 3 --- Readily audible with stethoscope
- Grade 4 — A palpable vibration (thrill) over the cardiac area
- Grade 5 — Audible with stethoscope just off the chest
- Grade 6 — May be heard without a stethoscope

An innocent murmur is separated from a pathologic murmur on the basis of history, physical exam, and diagnostic tests as indicated. In the history, questions should be asked regarding rheumatic heart disease, scarlet fever, missed school, exemption from gym or sports, exercise intolerance, palpitations, syncope, and all possible limits of cardiac dysfunction. If any of these occur, assume you are dealing with a serious problem. Examine the patient looking for pathology. Physical exam should exclude transmission of cardiac murmur to other areas of the heart, the presence of diastolic murmurs or other unusual sounds. Evaluation beyond history or physical may include chest x-ray, ECG, and echocardiography.

The specific combinations indicating the principle types of cardiac pathology noted in our patient population are as follows:

**Bicuspid Aortic Valve:** Coarse, systolic ejection murmur, ejection sound, diastolic aortic valve blowing murmur (A1), S4, laterally displaced PMI.

**Atrial Septal Defect:** Fixed, split S2, pulmonic ejection systolic murmur, RV lift.

**Pulmonic Stenosis:** RV lift, systolic ejection murmur at 2nd LICS, ejection sound, loud P2 or very soft P2.

**Mitral Valve Prolapse:** Late systolic murmur, longer on standing, mid-systolic click(s).

The most common functional flow murmurs have the following characteristics:

**Stills' Murmur:** Short early systolic buzzing or vibratory murmur at LLSB.

**Pulmonic Flow Murmur:** Mixed frequency, early systolic over pulmonic area.

**Aortic Flow Murmur:** Often coarser over aortic or apical area, no ejection sound.

**Supraclavicular Systolic:** Heard usually as a bruit just above right clavicle with radiation downward.

If no pathologic features are present and the murmur fits the bill for an innocent murmur, then there is no great urgency to send the patient to the Internist/Cardiologist for more intensive evaluation and echocardiography. However, auscultation is not entirely precise in subtle, early stages of valvular heart disease, and the loudness of a murmur may not reflect the magnitude of the pathology present. Current standard operating procedures on aviation physicals state that a murmur louder than grade II/VI requires an evaluation by an Internist or Cardiologist. An echocardiogram will be obtained unless the clinician is satisfied that the murmur represents a benign condition. Candidates are frequently referred for echocardiography for murmurs that would not warrant a study under other circumstances. All diastolic murmurs are rarely "physiologic." All new murmurs in designated aviators should be referred for echocardiography.

LT ERIC A. BOWER  
MC, USNR  
INTERNAL MEDICINE, NAMI

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## FROM THE FLEET

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### EQUIPMENT ACQUISITIONS

Greetings from the world of acquisitions here in D.C. As I learn my new job at Naval Air Systems Command, I hope to be able to provide a few insights into the arena on how new material and equipment is developed and put into the Fleet. My first attempt is to share with you some comments from an old aeromedical report on "Aircraft Comments from the European Theater of Operations, ..." How many of the following comments have you heard from your pilots?

"Some of the consolidated comments and major findings are as follows:

- a. Ash trays are universally desired by pilots.
- b. Bombardiers... consider their seat to be uncomfortable and inefficient.
- c. Some means are desirable for reducing the snagging and catching of catwalk projections on clothing and other personal equipment. Cloth catwalk coverings were suggested.
- d. The most serious problem common to all fighter aircraft in the European Theater of Operations. ...was acute seat discomfort on long missions. A temporary expedient has since been provided in the form of comfortable seat cushions, but the fundamental problem of designing a comfortable and efficient seat, parachute, and accessory equipment still remains.

e. Visibility is a major concern of fighter pilots. The American "bubble" or "teardrop" canopy is considered a

great improvement over the old canopy, but the British canopy with side "blisters" is considered best of all. Rear-vision mirrors are desired; so is increased visibility over the nose.

f. Cockpit ventilation and heating are problems in fighter planes. All ships seem to be too hot on the ground and at low altitudes, while the P-51 is cold at higher altitudes, especially on the left side of the pilot.

g. Strong complaints were made about the location and arrangements of many specific cockpit installations which were felt to be awkward or dangerous. The location of the P-51 gunsight is an example: it blocks vital instruments and is a serious crash or landing hazard.

### Conclusions:

1. The operational efficiency suffered, the bitterness of flyers' complaints, the preventable or remediable nature of the difficulties, and the local modifications made to improve flyers' comfort, efficiency, vision, and safety, demonstrate conclusively the importance of the flyer in aircraft design.

2. Flights at simulated combat altitude and range, and with flyers wearing full combat gear, should be an integral part of the airplane acceptance tests.

3. Careful attention should be paid to all details affecting the flyer at all stages of aircraft design and testing -from drawing board through mock-up and experimental stages to production models. Test pilots should be instructed to look for and report any deficiencies in such matters. In the design, inspection and acceptance of multi-place aircraft, experienced bombardiers, navigators, radio operators, gunners and other aircrew as well as pilots should be consulted as to the adequacy of their respective crew positions."

If you have not yet guessed, the date of the above report was 22 December 1944. We are still hearing many of the same complaints and suggestions and working on many similar problems.

If you have comments on the aircrew/cockpit/equipment environment, please feel free to write or call me. If I do not know the answer, I will find out from our many local talented people.

CAPT WILLIAM I. MILLER  
MC(FS), USN  
NAVAL AIR SYSTEMS COMMAND, CODE 5318  
WASHINGTON, D.C. 20361-5310



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## OVERSEAS MEDICAL CARE

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One of the greatest strengths of our Navy and Marine Corps Team is its ability to “come from the sea” and place itself anywhere in the world. That means many times you will be responsible for medical support far from U.S. military and civilian hospitals. While operating in foreign countries you may be able to augment your readiness by identifying local health issues and by investigating local health care facilities.

It is obvious that two of the most important jobs of a flight surgeon are to prevent injuries and illnesses, and to respond to these problems when they occur. We have all been well taught about “the dangers of flight” and what to do during a mass casualty situation. But what do you do when a squadron member gets into a moped accident in a foreign country and he is too unstable to move back to the carrier? Unless you have a well thought plan of where to turn for help before this occurs the problem could become a lot worse. Health care in developing countries varies greatly both from country to country and from hospital to hospital. The purpose of this article is to help you prevent and respond to many of the “emergencies” during deployments out of CONUS.

Everyone who has deployed before realizes that preparation is the most important aspect of a safe and successful cruise. Along with collecting all the medical records and filling your “black bag,” make sure that you know as much as you can about intended destinations. A good place to start is by talking to people who have been or are currently deployed to these sites. They can provide great insight into what additional supplies you need and what kind of deployment briefs you should give. They can also tell you about local customs, medical practices, social taboos, and previous problems. If you cannot make a personal contact try the local library. One publication which is very useful is **The Yellow Book**. It is a publication for international travelers, costs about five dollars, and can be ordered by calling 202-783-3238. Another excellent source for identifying general health risks and recommended immunizations and medications is the Disease Risk Assessment Profile (DISRAP), which is organized by country and can be obtained from your base preventive medicine department. DISREPS can be obtained as printed reports or on floppy disks, and they are updated biannually. The people who write these always welcome feedback on your experiences in theater, so give them a call after you return. Additionally, the Center for Disease Control has both a Health Hotline and Malaria Hotline number for foreign travelers which can also answer numerous questions. These numbers are 404-332-4559, 404-332-4555 respectively. Lastly, the State Department has an Overseas Citizen Emergency Hotline number which is 202-647-5225.

There are also several other nontraditional medical issues which you should explore before your next deployment. Nearly every potential deployment site has

at least some risk for terrorist activity. It is a good idea to speak with your squadron’s intelligence officer or base equivalent. They can make suggestions to minimize this risk. Another source to use before your deployment is the meteorologists. They can give average temperatures, precipitation, and average water temperatures to help you determine if your pilots and paxs will need to wear anti-exposure suits while flying.

It also really helps to understand how aeromedical evacuations are initiated and handled within a particular theater. This information can be obtained from the Medical Service Corps working at your base hospital. Probably the single most important question to have them answer is who you should contact when you want to send someone back for more definitive care. Lastly, attempt to, determine what predeployment investigation plans have been made by the line. Many times they send a deployment investigation team to an area for a site survey. This report is invaluable because it will give you the most accurate and up to date information about your port of call. This will also let you know who will be there and who you might be able to coordinate plans with. If your skipper can’t get this, call back to your type commander. They are often the ones who assist with this study.

The fun really begins after reaching your destination. If there is a U.S. military base in the area, a quick visit can provide a wealth of information. A trip to the base hospital/clinic is one of the best places to start. The base physicians can tell you local customs, places to avoid, and how they handle various medical problems. Ask if they use the local health care system, and make sure you get emergency numbers to the hospital and base security. If there isn’t a military installation, the next place to turn for help is the nearest American Embassy or Consulate; they can relay essentially the same information as military bases. Some of the bigger embassies will actually have a small clinic which can provide help. At the very least, they can provide interpreters if you use local national facilities. Ask embassy officials if they would like to be notified about hospitalized service members. If neither a base or an embassy are in the area, attempt to contact the local husbanding agency; they can point you in the right direction when you begin investigating the local health care system. Another source is quality hotels in the area. Ask them where they refer their American guests when they get sick or hurt. All of these sources can provide maps and telephone numbers to the hospitals. Inquire if it is better to take a taxi or an ambulance to the hospital. It has been my experience that ambulances in most parts of the world offer no specific advantages over taxis which are more available and just as quick. Also, taking a taxi allows you to determine which hospital you go to; ambulances may not take you to the hospital you found to be the best during your investigation. Call the hospital and see if you can arrange a visit. Actually seeing their facilities can give you the best understanding of what they are capable of

handling. Find out if they would like you to contact someone at the hospital first before you bring in a patient for treatment. Ask about hours of operation. Many times "emergency rooms" are not staffed twenty-four hours a day. Also, ask how they would like to be paid. Usually payment will be needed at the time of service. Lastly and most importantly, make sure that you get this information back to your squadrons through scheduled briefs and informal discussions.

In conclusion, I hope this article helps you prepare for your next deployment. It mainly focuses on how to prevent and react to accidents and illnesses in foreign countries. Hopefully you will not have to use this information, but when you have to make a decision to either wait at fleet landing with your moped victim or take him to the nearest hospital, you will be glad you took the time to research all your options. In addition, as more and more of our bases close around the world, this type of investigation becomes of greater importance. As a final and obvious point, don't forget to share this information with anyone who might be following you or with the people who will be able to pass it on to the fleet.

LT GREGORY R. POLSTON  
MC, USNR  
FLIGHT SURGEON, HC-4

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## CASE REPORT

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Recently, on an atypical North Carolina summer day, (temperature low 80's, low humidity, cloudy skies) an active duty Marine collapsed at the two mile mark of a Physical Fitness Test. Patient was found conscious, weak, confused with flushed skin and no active sweat. In the Emergency Room, vital signs were: B/P -114/64, Pulse-160, Respirations-36, Temp (Rectal) -106.6. Remarkable physical findings were dry oral cavity, and sunburned areas about entire face, neck, shoulders, arms and back. The patient received fluid replacement, was cooled in ice to temperature of 100.3, and was alert and oriented to time, place, and person in 30 minutes. Labs revealed an elevated hemoglobin/hematocrit, WBC of 17.5, Cr of 2.1, CO<sub>2</sub> of 8.1, and CPK of 320. EKG progressed from sinus tach to unifocal PVC's to bigeminy and trigeminy which was secondary to the said metabolic status, all of which resolved with treatment of the underlying heat condition. The patient was closely monitored, and fluid resuscitation maintained adequate urine output. Follow on labs revealed Cr of 1.7 with CPK progressing to 10,000 and urine output remained free of myoglobin. The patient went on to do well.

This case illustrates some important points to remember:

1) The weather was atypical. Remember, it doesn't have to be an "inferno" to have heat casualties.

2) The patient's previous risk factors. This patient had a significant sunburn. This can cause dermal edema and occlude sweat pores, thus decreasing the body's capacity to lose heat. Preventive medicine is one of our main goals as Flight Surgeons. Educate your troops. Personnel on flight lines, and others who are outdoors should always be using sunscreen on exposed skin. Remember, it is possible to get sunburn on cloudy days.

3) Initial treatment is important, but always follow-up for possible disease process sequelae. In heat stroke, follow urine for myoglobin, and watch renal function.

Keep your Marines and Sailors healthy. Remember, it's easier to prevent than to treat.

LT DON CHRISTENSEN  
MC, USNR

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## RAMs CORNER

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### SELF MEDICATION AMONG USN/USMC AIRCREW

I will highlight the results of a study done from January through March of 1992 and presented at the ASMA scientific session in May '92. Co-authors are CDR Gene Dowell and LCDR Dave Neri.

We intuitively know self medication exists among our USN/USMC aircrew. Anecdotal findings of self medication are frequently identified in aircraft mishaps but rarely listed as a causal factor. Possibly self medication has an unrecognized role in aircraft mishaps. This study attempted to both qualify and quantify current fleet self medication practices and determine if further investigation or intervention is needed.

In January through March 1992, surveys were performed among all aircrew (PILOTS, NFO'S, AIRCREWMAN) of 1 F-14 FRS, 1 A-6 FRS, 6 USN fleet squadrons, and components of 2 Marine Air Wings. The survey attempted to encompass all communities, (i.e. Jet, Fixed Wing, Helo). Surveys were administered by squadron flight surgeons. We questioned self medication usage, in frequency and type, and whether flying while self medicating. Years since designation and smoker versus nonsmoker were collected.

We reviewed over 10 years of class "A" mishaps on file at the Naval Safety Center to identify frequency of antihistamine usage in aircrew involved in class "A" mishaps. Also, 2 years of class "A", "8" and "C" mishaps on file at NAMI were reviewed for similar data.

The survey results are remarkable not only for the honesty among the aircrew but for the level of cooperation achieved; 502 responses out of 800 sent! See Table 1 for a breakdown of survey participants.



Table 1  
Survey Participants (N=502)

Service	Pilots	NFO's	Aircrew	Unknown
NAVY	164 (32.7%)	149 (29.7%)	48 (9.6%)	9
MARINE	109 (21.7%)	11 (2.2%)	12 (2.4%)	0
Total	273	160	60	9

What did the data show? 297 of 502 admitted self medication practices. Frequency breakdown: Less than once per month: 71.4%. One to two times per month: 22.6%. Three to four times per month: 4.4%. Five or more: 1.6%. The types of medications used are as expected: Analgesics 60.6%, Decongestants 22.0%, Allergy preparations/Antihistamines 14.4% and "others" 3.0%. 21.1% of those who admit self medication reported flying with medications on board! That's 106 of 502 surveyed and **14.4% of the medications used are antihistamines**. No appreciable difference exists among Navy or Marine Pilots/NFO's. Navy aircrew report less self medication while flying than Marines; 6.2% versus 33.3%. Self medicating while flying is more prevalent in the seasoned population. Those with less than four years designation reported were 34.9% of the self medicators, those with four or more years totaled to 65.1%.

Smoking levels were low among Navy and Marine Pilots/NFO's; about 4.0% of the sub population. Aircrewman rates were higher: **Navy 14.6%** and **Marines at 50.0%!**

Naval Safety Center data of 832 class "A" mishaps involved 2332 flight personnel and 591 fatalities. 11 personnel were identified as positive for antihistamines or 0.47% of all flight personnel. A wider review of 187 class "A, B, and C" mishaps on file at NAMI revealed 29 personnel positive for medications (23 being OTC) **translating to a frequency of 12.3% OTC medication use, highly consistent with the survey reported levels of self medication.**

What is the take home message from all of these members!) **Navy and Marine Aircrew are indeed self medicating at substantial rates.** 21.1% of the total surveyed admit to the practice of self medicating **while flying** and 14.4% of those medications are antihistamines. In review of class "A, B, C" mishaps the occurrence rate was 12.3%. We cannot conclude direct casualty from these alarming self medication rates but it serves to signal a need for further investigation into possible mishap casualty and a need to increase the awareness of our aircrew in the danger of self medication.

Thanks to all of you who helped in this study. I'll see you in the fleet in '93. As my hero Arnold Schwarzenegger says: "I'll be back!"

LCDR JEFF BRINKER  
MC, USN  
RAM

**COMMENTARY\***

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**FROM THE SEA**

In September 1992, the Navy Department issued a White Paper, signed by the Secretary of the Navy, the Chief of Naval Operations and the Commandant of the Marine Corps, entitled *From the Sea, Preparing the Naval Service for the 21st Century*, which defines the role of the Navy and Marine Corps in the current post Cold War era and the projected world environment of the coming decade.

The paper states that naval strategy has shifted from a focus on a global threat to a focus on regional challenges and opportunities. The strategy emphasizes the capability of Naval forces to operate forward deployed in the littoral areas of the world. Littoral is defined as the area from the open ocean to the shore which must be controlled to support operations ashore and the area from the shore inland that can be supported and defended directly from the sea. As in the past, forward operating Naval units will serve as peace keepers in the defense of American interests as well as a warfighting force. The Navy and Marine Corps will help to project a positive American image, build foundations for viable coalitions, enhance diplomatic contacts, reassure friends, conduct humanitarian relief operations and deter aggressors through the demonstration of power and resolve. But if peace keeping efforts fail and conflict ensues, Naval forces, either unilaterally or in joint and combined operations, will be able to employ abroad and effective military capabilities as required to defeat our enemies.

The paper stresses that naval forces are particularly well suited to support the President's previously announced National Security Strategy, whose principal elements are nuclear deterrence and defense, forward presence, crisis response and reconstitution. Our fleet ballistic missile submarines will be the backbone of our nation's nuclear deterrent, while our deployed aircraft carrier battlegroups, attack submarines and amphibious forces with embarked Marines are the U.S. forces best able to fulfill the forward presence and crisis response roles.

A key thrust of the White Paper is the expressed requirement that the restructured Naval force must expand on its traditional expeditionary roles. It states specifically that Naval Expeditionary Forces are:

- swift to respond, on short notice, to crises in distant lands.
- structured to build power from the sea when required by national demands.
- able to sustain support for long-term operations.

-- unrestricted by the need for transit or overflight approval from foreign governments in order to enter the scene of action.

In sum, Naval Expeditionary Forces provide unobtrusive forward presence which may be intensified or withdrawn as required on short notice.

*From the Sea* emphasizes four key operational capabilities required to successfully execute the new direction of the Navy and Marine Corps:

**Command, Control & Surveillance** The Naval service will continue to structure command and control capabilities to promote efficient joint and combined operations as part of an overarching command, control and communications architecture that can adapt from sea to shore. Surveillance efforts will continue to emphasize exploitation of space and electronic warfare systems to provide commanders with immediate information, while denying and/or managing the data available to our enemies. Integrated information and netted sensors will allow Naval forces to use surveillance data from all sources and to target and strike from a variety of land, sea and air platforms. The Naval Force Commander will have the capability to command a joint task force and function as, or host, a Joint Force Commander. Particular emphasis will be placed on the ability to collect intelligence through surveillance early in crises. Naval intelligence efforts will be directed to a regional focus.

**Battlespace Dominance** The battlespace is the sea, air and land environment where Naval forces will conduct operations. Battlespace dominance means that these forces can maintain access from the sea to permit the effective entry of personnel, equipment and resupply so that they can apply decisive power on and below the sea, on land and in the air. Naval forces must also have the capability to deny access to the battlespace by a regional adversary, interdicting the movement of supplies by sea and controlling the local sea and air. Battlespace dominance is the heart of Naval power.

**Power Projection** Naval forces maneuver from the sea using their dominance of littoral areas to mass forces rapidly and generate high intensity, precise offense power at the time and location of their choosing, day or night, under all weather conditions. Power projection requires mobility, flexibility and technology to mass strength against weakness. The Navy and Marine Corps Team supports the decisive sea-land-air battle by providing the sea-based support to enable the application as required of the complete range of U.S. combat power -bombs, missiles, bullets, bayonets and electrons.

**Force Sustainment** America's influence depends on its ability to sustain military operations around the globe. The military options available can be extended indefinitely because sea-based forces can remain on station as long as required. Naval forces encompass the full range of logistics support that is the critical element of any military operation -air and sealift, pre-positioned ships with war materiel, replenishment ships, mobile

repair facilities and advanced logistic support hubs. It also requires open sea lanes so that movement of shipping is not impeded by an adversary.

Those knowledgeable in history will naturally ask, "Haven't the more than 200 crises and three hot wars involving Naval forces since WWII been mainly regional, littoral conflicts such as those in Korea, Vietnam, Iraq, Lebanon, Grenada, Libya, the Persian Gulf, Liberia and Somalia. So what is new about the White Paper?" That is a valid question. It is important to understand that while we were involved in the above regional crises, the gravest danger to our national survival was the global Soviet threat. So we had to develop a strategy, man and train forces, to counter that threat. The fact that we did this so well is one of the main reasons that the Soviet Union collapsed and the Cold War ended. During the Cold War, we assumed that if we were able to counter the sophisticated global threat, we would be able to readily handle lesser regional crises. But as we learned in the Iraq War, we neglected some important capabilities such as mine countermeasures and sealift. We now have the advantage of developing a new strategy which addresses what we will actually be doing and we should be better able to prepare for the various contingencies.

When it is all boiled down, there are really only two new elements in *From the Sea* compared to past strategies -- a commitment to improve integration of Navy and Marine Corps operations and to enhance joint cooperation and coordination. The improved Navy-Marine Corps integration will be reflected in many ways such as the embarkation of Marine squadrons on aircraft carriers, the increased use of aircraft carrier battle groups in support of amphibious operations and enhanced Navy-Marine coordination in planning at all levels.

With regard to joint operations, the White Paper emphasizes that the Navy and Marine Corps are members of the sea-land-air team along with our sister services. It articulates the concept of Naval forces, due to their forward presence, providing the initial, "enabling" capability for follow-on joint operations in conflict, as well as continued participation in any sustained effort. It presents the example of the Navy and Marine Corps seizing and defending an adversary's port, naval base or coastal air base to allow entry of heavy Army and Air Force forces, emphasizing that the success of modern U.S. military strategy depends on forces organized, trained and equipped for this division of combat labor.

The question naturally arises as to whether there will be any major change in Naval Aviation's role in the new strategy. No, definitely not. The various elements of Naval Aviation will essentially perform the same important roles of the past and will make a major contribution to all the four key operational capabilities described above. There will be some reorientation of functions such as greater emphasis on shallow water ASW

vice open ocean ASW and greater participation by Navy pilots in close air support; but none of these would warrant reduction in Naval Aviation force levels. The aircraft carrier, because of its immense versatility, flexibility, mobility and sustainability, will continue to be the centerpiece of U.S. national security strategy, the most called-upon initial instrument to exercise military power when our country has needed such an instrument. As in previous eras, when crises are imminent, the first question our President and his national security advisers will still ask is "Where is the nearest aircraft carrier?"

**-- EDITORIAL POLICY--**

The views expressed are those of the individual authors and not necessarily those of the Society of U.S. Naval Flight Surgeons.

This Newsletter is published quarterly by the Society on the first of January, April, July and October. Material for publication is solicited from the membership and should be typed **double spaced**, reaching the Editor at least one month prior to the scheduled date of publication. Unsigned material will not be considered.

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