Society of U. S. Naval Flight Surgeons

Naval Aerospace Medical Institute, Code 32
Naval Air Station, Pensacola. FL 32508-5600

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VOL. XII, NO. 3 **NEWSLETTER** **JULY 1988**

PRESIDENT'S COLUMN

It is not often the past-president has an opportunity to "do it one more time," but, due to the transient nature of some of our senior officers, I seem to be the only author in residence.

With the retirement of Captains Dick Millington and Don Angelo, the death of Captain Jim Houghton, and the assignment of several Aeromedical Specialists to non-aviation duties, the 0163 community has reached a critical level. We will be unable to fill all those senior billets that have traditionally been occupied by residency trained flight surgeons. Luckily there are some excellent senior 0045s around who I am certain will excel in those important positions. The number of aerospace medicine residents in training has increased dramatically but it will take several years of five residents per year to meet the operational and senior administrative position demands. (Remember to get your residency applications in early.)

On the subject of residencies, there may be some confusion after last fall's G.M.E. selection board. There was considerable debate over when an individual is eligible to start a residency program. The following is derived from several sources:

* Although some operational tours are written for three years, the individual is available to start a training program after two years in the billet.
* It does not hurt to apply a year early to let the selection board see your name and your intent.
* Your application should be endorsed by as much horse-power as is readily available - the one or two star level if you can swing it.
* Make it a point to get two weeks orso no-cost duty at a major Naval Hospital to work in the specialty for which you are applying. Having the Chief of Service of that hospital speak for you at the board is well worth the effort.
* Just being in an operational tour is not in itself a guarantee of selection for a training program. In fact, being away from clinical medicine for more than three years may hurt your chances. The process is highly competitive and the number of applicants for certain residencies makes it imperative to submit a strong application package.

I look forward to my next two years as Commanding Officer of NAMI and hope to see as many of you as possible at the next Problems Course in October. Smooth Sailing!

R. K. OHSLUND

SECRETARY-TREASURER NOTES

SUSNFS held its annual meeting concurrently with the AsMA Annual Scientific Meeting during May.

Election results are CAPT George Hill, Vice-president (President-elect); CAPT Benjamin Ogburn, Sr. Member-at-large; CAPT Frank Dully (Ret.), Emeritus member; LCDR John Nickle, Secretary-Treasurer; and LT Sandra Almedia, Jr. Member-at-large.

For those unable to attend the meeting, a positive cash flow was reported, due primarily to the sale of the gold flight surgeon wings and the compilation of SUSNFS Newsletters. Both are still available by contacting me.

Disturbing is the number of members and subscribers who are in arrears in their dues (nearly 40%). Please note the first line on your address label. The numbers reflect the year in which your dues expire. The end of our fiscal year is 30 April. Therefore, those showing 88 and before owe dues now. The organization's bylaws call for the suspension of individuals from the society 60 days after notification of delinquency. You can assist your organization by prompt payment of all dues. This saves the mailing expense of delinquency notices, and in turn demonstrates your support of our organization which is dedicated to the medical support of Naval Aviation.

Finally, there is considerable expense incurred by the society from returned newsletters. Please notify us of every change of address.

Thank your for your attention to these matters. I look forward to serving as your secretary-treasurer during the coming year.

LCDR C. JOHN NICKLE
NAMI (Code 32)
NAS Pensacola, FL 32508-5600

NAVY AEROMEDICAL PROBLEMS COURSE

Just a reminder that the 3rd Annual Aeromedical Problems Course is scheduled for October 18 thru 21. Make plans to attend now, and lend your support to assuring that the AVT's get to Pensacola for their update at the same time.

The program is still under construction, so there is plenty of time to add your favorite topic, or volunteer to participate, but you must do so **no later than 1 August.** We have a variety of topics to choose from this year, and I think I can promise an agenda that will be extremely relevant, useful and informative.

Look for the next newsletter to provide the details regarding airlift, billeting and other pertinent information. All will be revealed to you at that time. Final scheduling times and pick up locations for the airlift will be transmitted by message to all medical and support organizations as before.

CDR G. G. REAMS
NAMI Academics
AV 922-2457/2458/2741

LUEHRS AWARD

LCDR Charles E. Brady, MC, USNR, COMNAVAIRPAC, was selected as this years recipient of the Luehrs Award as Operational Flight Surgeon of the Year. The selection committee was hard pressed in its decision due to the high quality of all the nominees. It was obvious from the writeups that these nominees greatly impressed their line bosses. Their initiative, industry, imagination and competence is impressive and bodes well for the future of Aviation Medicine.

The other nominees were as follows:

LT Sandra A. Almeida, MC, USNR
2nd MAW
LT Gregg J. Colle, MC, USNR
CNATRA
LT Brian C. Cusick, MC, USNR
1st MAW
LCDR Joshua M. Lieberman, MC, USNR
1st Marine Expeditionary Brigade
LT Diane C. Lundy, MC, USN
3rd MAW
LCDR Carmine J. Pellosie, MC, USNR
COMNAVAIRRESFOR

CONGRATULATIONS TO ALL!

GRAYBIEL AWARD

CAPT Elihu York, MC, USNR-R, (FS), Director of Occupational Medicine/Employee Health Service, Hartford Connecticut Hospital, has proposed and funded a new SUSNFS award for the flight surgeon, probably but not necessarily a RAM, that conducts a research project in support of some operational problem in Naval Aviation, to be identified as the Graybiel Memorial Research Award.

A modest memoriam and/or plaque will go with the award. Nominations will be accepted from January through March of 1989, the award to be made at the annual SUSNFS luncheon at the ASMA meeting in Washington in May 1989.

Point of contact: CAPT Andrew S. Markovits, MC, USNR, NAMI Code 23, NAS Pensacola, FL 32508-5600.

FROM THE EDITOR -- ADIOS

This is my last effort as Editor. I go on terminal leave 5 July and retire 1 September. Captain Conrad Dalton wiII be my relief, both in Training and as Editor. I have enjoyed the last five years in Training and I have most enjoyed watching the maturation of the newly graduated flight surgeon into the savvy, experienced professional that most of you are today.

Thanks to each of you for your support over the last five years. Special thanks to those of your who have provided articles for the Newsletter. Your input to the Newsletter's success was most appreciated. Keep up the good work! I am "retiring" to private practice. Should you be asked, I would like a New Orleans style funeral with a genuine walking club and jazz band.

CAPT ANGELO

A DIZZY TALE

An aviator wandered into my office the other day with a story which bears repeating. Seems while he was on TAD at NAS ELSEWHERE, he picked up a case of body

lice while sleeping in the BOO. When the infestion became obvious, he reported to medical and was prescribed the standard cure, Kwell Cream (R), to be applied liberally as directed. With the instincts of the professional warrior, and with von Clausewitz' doctrine in mind, he applied the contents of the two-ounce tube from the neck down, striking particularly hard at the "heart of the enemy" (scrotum and surrounding area). He slept peacefully that night, content that the battle had been well fought.

The next morning, 81/2 hours after application, he arose. Immediately he became severely disoriented, vertiginous, was unable to fix his gaze, and could walk only with the greatest difficulty. He also noted a metallic taste in his mouth. Suspecting the Kwell, he washed off the residual lotion. He was unable to maintain his balance in the shower with his eyes closed, stating that only with hand-holds could he prevent himself falling.

His symptoms of severe vertigo and disequilibrium lasted about two hours, although for about six hours following showering he recalled that any sudden head motion or positon change made him feel as if he "had an uncaged gyro." This was especially noticeable with head movement while driving. He stumbled back to the clinic and was given a grounding chit by the original (non-flight surgeon) provider. He denied any history of alcohol or other medications the previous 24 hours. He was essentially asymptomatic by that afternoon.

Lindane (gamma benzene hexachloride) is an organochlorine insecticide, and has a host of CNS manifestations, from apprehension, confusion, dizziness, twitching, tremors, and paresthesiae, to seizures and coma. In bold letters, the PDR states "LINDANE (Kwell, 1% Lindane) PENETRATES HUMAN SKIN AND HAS THE POTENTIAL FOR CNS TOXICITY". It should be noted that the skin of the scrotum and axillae have the highest absorptive rates of any area on the body. LINDANE is stored in body tissues; the PDR lists it's half-life to be 18 hours. It is likely that CNS effects exist for a time even after the patient feels well. The corollary also holds, in that patients treated with Kwell may have subtle impairment, even without any symptoms.

Although we "know" that all medications applied to the skin have the potential for absorption and systemic toxicity, we still tend to equate "topical" with "non-grounding". This case in particular illustrates that prescribing topical medications still requires some thought as to the possible consequences of systemic absorption.

CDR Nick Davenport
Senior Flight Surgeon
NAS Whidbey Island
Oak Harbor, WA 98278-8800

STRESS AND THE FLIGHT SURGEON

OR "WHO CARES FOR THE CARETAKER"

As part of the basic psychiatric curriculum at NAMI, we teach the adverse effects prolonged or unresolved stress may have on aviators and sailors. As part of his SOP, the Flight Surgeon monitors flight hours, work conditions and professional performance of his squadron members. Especially for aviators, we have very clear guidelines for work rest cycles. We also have guidelines for monitoring other stressors clearly outlined in NATOPS. Our rapport and position of authority often allow the Flight Surgeon to intervene in a "crisis about to happen". Many times, he may salvage a mission, reputation, career or a life that was on a heading for disaster.

What about the "Doc" and his career? The Flight Surgeon is exposed to the same stress as his aviator squadron mate. These would certainly include the occupational hazards of the aviation environment, professional demands required of a Naval officer, making critical decisions often without benefit of consult and the biggest stressor for member and family, deployment. The Flight Surgeon, being a medical officer, also is constantly exposed to an arena of streSS nOt experienced by the squadron personnel. This includes being a member of a Corps in escalating uncertainty as to its future, plagued by increasing manpower shortages, and ever present budget cuts. Many Flight Surgeons are under direct administrative control of non-medical and non-operational supervisors. They have to practice in an environment where patient numbers may take precedence over quality of care. Patient care rules are made by administrators who have never had the experience of trying to provide quality care to a seemingly unending number of patients. This too often occurs in an environment usually devoid of the amenities necessary to practice efficient medicine (this would include dictation facilities or even more than one available exam room.) Unfortunately, to many, the Flight Surgeon is "Just a GMO drawing Flight Pay." With this attitude, not only is there no acknowledgement of the necessary training required but no appreciation of the refined judgment necessary to even sign an "up chit". Needless to say, flight surgeons in this situation receive no assistance in trying to meet flight minimums or attend to squadron duties. Time does not permit looking at other Navy physicians who are struggling as one man departments, working 70 and 80-hour work weeks and suffering chronic fatigue from lack of a good night's sleep.

What happens to the "Doc" suffering from stress. As others under stress, we know he is more subject to physicial illness, emotional disorders, family turmoil, decreased professional performance and substance abuse. As our system stands now, there is no easy mechanism for a Navy "Doc" to receive help. Who has

heard of a Navy surgeon being "grounded" from performing surgery because of fatigue. Has a clinic Commanding Officer ever directed a Flight Surgeon to forego sick call and attend to squadron duties or catch up on flight time! How does a Flight Surgeon seek psychiatric help? Usually not at all or in "curbside" consults because of perceived and sometimes real, credential "hits". If substance abuse is a problem, the Navy does not have a non-punitive impaired physicians program. For a Flight Surgeon recovering from alcoholism, it is very difficult to be managed as a physician lAW MEDCOM 5300.2 which directs the care of alcoholic aviators. In many situations, there is not available a mental health professional or even a senior Flight Surgeon.

How can the Flight Surgeon recognize when his stress coping capacity is being exceeded? The same indications may exist that apply to others under stress. (1) General unhappiness with his/her job. (2) Rising irritability that impacts on interpersonal relationships. (3) Decrease in job performance and professional quality. (4) Mounting efforts to avoid work and the work place. (5) Onset of psycho-physiologic illness. (6) Substance abuse.

What can the individual Flight Surgeon do? Again, the standard approaches apply. (1) Admit that there is a problem. (2) Seek advice from trusted peers, get reality testing. (3) Set priorities between job and personal/-family life. (4) Make sure your senior is aware of your concerns about yourself. (5) Maintain good sleep/-exercise habits. (6) Ensure that you are getting enough personal and family time. (7) If symptoms continue to escalate, then seek or ask to be referred for a formal evaluation.

This lengthy introduction brings us back full circle. Who cares for the caretaker? - No one is really designated. It is left for each one to be aware of his/her own limitations. We as fellow Flight Surgeons must be alert to distress in our peers and available for advice or support. Only by protecting ourselves as individuals and as a professional group will we be able to carry out our duty to others. With healthy, happy and more satisfied Flight Surgeons, retention will increase and the Navy as a whole will benefit.

Many will appreciate the theme of this article, some may not. I would be interested in comments and suggestions for further elaboration on the "care of the Flight Surgeon".

J. C. BAGGETT
CAPT, MC, USN
Head, Psychiatry Department, NAMI

HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION AND NAVAL AVIATION

SCOPE OF THE PROBLEM

AIDS and HIV infection represent the medical crisis of the century. As of 1 May 1988 there were 60,256 AIDS cases in the US, and it is estimated that 1 to 1.5 million individuals are HIV seropositive. Estimates of worldwide HIV seropositivity from WHO range from 10 to 50 million. Current studles show that 50-70% of those seropositive will develop AIDS. AIDS is over 80% fatal in three years. It is anticipated that by 1991 there will be 270,000 AIDS cases. The medical, economic, and ethical issues are obviously immense. The direct effects on the military include the reduction of available entrants, and degradation of operational readiness as current active duty members become infected. The legislature has been very concerned with infringement of HIV seropositive individuals' rights. NAMI has been tasked to develop policy with respect to the flight status of seropositive naval aviation personnel. This article will review available information that form the basis for current NAMI policy, with specific emphasis on the neurologic sequelae of HIV infection.

INTRODUCTION

The virus responsible for AIDS, identified in 1983, is a non-oncogenic retrovirus in the lentivirus group. It was initially called lymphadenopathy - associated virus (LAV) and then Human T-lymphotrophic virus type III (HTLV III), and has subsequently been named Human Immunodeficiency Virus I (HIV I). A related but distinct retrovirus HIV-2 (HTLV IV) has recently been identified in Africa and Europe and causes a similar immunodeficiency state. The origin of HIV-1 has been linked to a mutant African green money virus, and has been traced to human disease as far back as 1969. Currently, active duty personnel positive for the HIV antibody are classified according tothe Armed Forces HIV Stage I-VI, which stages an individual according to the number of total T -helper cells, cutaneous anergy battery, and presence of opportunistic infection. Thefull blown AIDS (stage VI) is characterized by < 400 Helper T cells, anergy to common stimulants, and presence of opportunistic infection, and has recently been amended to include the presence of AIDS Dementia Complex even in the absence of opportunistic infections.

NEUROLOGIC SEQUELAE OF HIV INFECTION

Neurologic disorders occur in approximately 40% of AIDS patients, and neuropathologic changes are present in 70-80% of autopsied AIDS cases. Up to 25% of HIV seropositive individuals will present with neurologic symptoms including dementia before fulfilling criteria of Stage VI or full-blown AIDS. The areas effected by HIV infection of the nervous system span the neuraxis from the cerebral hemispheres, cranial nerves, brain stem, spinal cord, peripheral nerves, to muscle, and may occur

in any combination.

ETIOLOGY OF HIV RELATED NEUROLOGIC DISORDERS

Infection
Neoplasm
Systemic Metabolic Derangement
HIV Drug Therapy
Direct HIV Effects

All of the above mentioned etiologies can cause impairment of higher cortical function, by space occupying lesions in the case of opportunistic brain abscess or intracranial neoplasm; by metabolic derangement from pulmonary, hepatic, or renal dysfuntion; by HIV drug treatment CNS side effects; or by direct effect of the virus on the nervous system. The majority of this article will be focused on the direct neural effects of HIV infection.

DIRECT HIV NEUROLOGIC INFECTION

The AIDS virus has a propensity for the nervous system and direct HIV infection may be manifested by an aseptic meningitis early in the course or later on by encephalopathy, myelopathy, neuropathy, or myopathy. HIV has been identified in brain using a variety of techniques. CSF abnormalities, such as presence of lymphocytes, elevated CSF protein, CSF IgG synthesis of anti HIV antibody, or CSF oligoclonal bands were found in over 50% of asymptomatic HIV seropositive individuals, and in over 90% of patients with AIDS. What causes brain to be infected or not infected by HIV and whether a given patient will develop neurologic symptoms or not remain two of the most perplexing issues of this disease. Multiple factors such as genetic susceptibility, degree of immunosupression, coinfection, or HIV mutability may be involved. Whatever mechanism is involved in disrupting brain function, the macrophage and microglia appear to be the primary cells involved in HIV brain infection. According to the Trojan Horse theory, it is speculated that HIV gains access to the brain within infected macrophages.

AIDS DEMENTIA COMPLEX

As more patients with AIDS related neurologic disorders were evaluated, it became clear that apparent causes of dementia, such as infection, neoplasm, or metabolic derangement accounted for only 30% of the cases of dementia. The progressive dementia that developed in the absence of known causes was variously termed subacute encephalitis, microglialnodule associated dementia (on its pathologic description), and more recently AIDS Dementia complex (ADC) or HIV encephalopathy. In carefully screened studies it is estimated that AIDS Dementia Complex (ADC) is present in up to 70% of AIDS patients, 50% of AIDS related complex (ARC) patients, and 3% of HIV seropositive asymptomatic patients. These incidences of ADC may increase as more long term studies become available.

Patients with ADC have a variable constellation of cognitive, motor, and behavioral dysfunction. The onset of dementia is usually insidious, however an abrupt, accelerated, or fluctuating course may be seen. Early cognitive impairment may include forgetfulness, concentration and reading difficulties, slowed mentation, and impaired complex sequential tasks. Motor impairment may be manifested by slowing of rapid movements, loss of balance, tremor, leg weakness, handwriting changes, and eye tracking difficulties. Behavioral changes seen may include apathy, withdrawal, mood changes, emotional lability, and inappropriate behavior. A staging system for ADC has been developed based on impairment of daily activities.

Although it is clear that HIV infection can have a profound effect on nervous system function, the ability to predict those who will become impaired has been elusive. A variety of clinical and laboratory tests have been developed to assess neural involvement. On neurologic exam subtle findings of frontal release signs, tremor, disdiadokinesis, ataxia, hyperreflexia, pathologic reflexes, and impaired pursuit eye tracking may indicate early ADC. Formal mental status exam may also reveal subtle abnormalities. A number of neuropsychological tests have been developed to identify early ADC. These emphasize visual and verbal memory, coordination, and spatial orientation, however, these tests may not be sensitive enough to detect subclinical dementia. A number of laboratory tests are used to assess AIDS dementia. These include electrophysiologic studies, such as EEG and evoked potentials, and neuroradiologic studies such as CT and MRI. CSF analysis holds promise in detecting early CNS involvement. Although non-specific CSF abnormalities are present in over 50% of seropositive asymptomatic patients, more specific abnormalities, such as detection of HIV antigen or anti-HIV antibody, or reduction of T4/T8 ratio of CSF lymphocytes, may predict a more aggressive course of HIV CNS infection.

CURRENT NAVY HIV SEROPOSITIVE EVALUATION

Following the guidelines of HIV positive individuals set by the Assistant Secretary of Defense for Health Affairs memo of 11 Sept. '87, all HIV positive patients are evaluated at one of four Medical Treatment Facilities (Bethesda, Portsmith, Oakland, and San Diego). The initial screen (Level I), conducted by a general medical officer, includes a neurologic and mental status exam, a depression scale and head CT. If negative no further screening is done. If evaluation is positive or equivocal the patient is referred to Level II evaluation, which consists of formal neurologic and psychiatric consultation, CSF analysis, and MRI. If negative, a Level II evaluation is repeated every 6 months. If positive, or equivocal then a referral to Level III is made, which includes medical and psychiatric treatment protocols as required, and formal neuropsychological testing. Following this eva-

luation aviation personnel should be referred to NAMI for a Special Board of Flight Surgeons. Evaluation at NAMI will include neurologic and psychiatric consultation, extensive neuropsychometric testing including more aviation specific testing (Unified Triservice Cognitive Performance Assessment Battery), and extensive neurovestibular testing.

AVIATION DISPOSITION OF HIV SEROPOSITIVE PERSONNEL

The Aeromedical Advisory Council has recommended that aviation personnel who test positive for the HIV antibody be found permanently not physically qualified for duty involving flying, no waiver recommended.

The rationale behind this policy is based on the overriding emphasis on aeromedical safety. The concern with individual rights that has been the basis of other public health guidelines is not at issue here.

The following factors were taken into consideration:

1. A high percentage of HIV seropositives will progress to AIDS, which has a very poor prognosis.
2. The incidence of clinical neurologic involvement in ARC and AIDS is high and the incidence of CSF abnormalities in HIV seropositives is high.
3. A negative neurologic workup represents only a point in time and does not necessarily predict who will develop neurologic symptoms.
4. Besides the risk of subtle cognitive changes associated with HIV encephalopathy or opportunistic CNS infections, it is anticipated that other psychiatric syndromes, such as major depressive disorders, could result from the knowledge of having a disease with such a grim prognosis.
5. Subtle or inapparent cognitive dysfunction associated with a subclinical HIV CNS infection may be aggravated by the stress of the aerospace environment, leading to a precipitious decline in flight performance.

Given the above cited reasons, it is apparent that the risk to avlation safety of a disease which is unpredictable and potentially acutely incapacitating, does not justify keeping HIV seropositive personnel on flight status.

References on request.

LCDR JONATHAN B. CLARK (FS)
NAMI Neurology Division

CODE 42

There are various and sundry subjects which I would like to discuss, instruct, communicate, and pontificate on.

PINK SHEET

The NAMI pink sheet is an informal format letter that quite effectively avoids the stilted non-communication of many forms of Navy information exchange. It is none the less an official communication from NAVMEDCOM signed “by direction” which means it carries the authority of the Commander of NAVMEDCOM. If you are directed to do something on a pink sheet that you consider unnecessary, call and discuss it with us. Do not answer pink sheets in a confrontational or hostile manner. If you write an answer to a pink sheet on the pink sheet itself, write it clearly, date, sign it and name stamp it.

SEVERE HEAD INJURY

We will now consider waiver requests for Class 2 personnel with a history of severe uncomplicated head injury when they are one year post injury.

BUTTOCK-KNEE-LENGTH

A recent CNO memorandum states that any anthropometric measurement performed by the examination room at NAMI shall not be considered disqualifying unless the member exceeds the limits by one inch or more. This means that an applicant can have a BKL of 20.90001 in actuality and be measured incorrectly by a SATFAC with a tape measure and even if outside of limits by a large margin (but less than one inch) will be allowed to enter flight training. This puts a heavy responsibility on the SATFAC to do the job correctly because it may well be the last chance to do it correctly until after the future adverse occurence. The member is supposed to maintain a neutral pelvis. Although a neutral pelvis is not defined, it may, asa working approximation, be considered to be the pelvis position assumed when the person is sitting in an upright position. Watch carefully for cheaters and do not allow members to rotate pelvis forward (or aft for that matter) in any manner whatsoever. The memorandum is quite specific that the pelvis must not be rotated. The lumbosacral area should be firmly against the backboard. The lumbosacral area is also undefined but may be considered as a working approximation as that area of the skin immediately superficial to the L5 S1 disc space. It is recognized that this sort of measurement is extremely difficult to perform without an anthro chair. NAMI 42 has the somewhat bedraggled blueprints of the anthro chair. We will be more than happy to send you a copy.

24 HOUR URIC ACID

The new accepted limits for 24 hour uric acid excretion are 800 mg for males and 750 mg for females. (Unless DACOWITS finds out and demands equal upper limits for females) (Don’t laugh, it could happen.)

HIV

Each and every case of HIV infection in aeronautically designated personnel must be reported to NAVMEDCOM. The report must include a complete flight physical and copies of members hospital summary. If the hospital refuses to give you a copy please get a written documentation of the refusal and send it to us here at NAM I 42.

CAPT A. F. WELLS
Aerospace Physical Qualifications

GRADUATES

STUDENT FLIGHT SURGEON CLASS 88002
GRADUATED 30 JUNE 1988

LT BRAR, Harprett S., 3rd MAW, Yuma, AZ
LT CURTISS, Steven I., CVW-14, Lemoore, CA
LT DATTOLO, Robert A., 3rd, MAW, El Toro, Santa Ana, CA
LT DOMINGUEZ, Jonathan E., 1st Marine Brigade, Kaneohe Bay, HI
LCDR DORMAN, James P., 3rd MAW, El Toro, Santa Ana, CA
LT EDGERLY, Donald W., NARU, NAS Jacksonville, Fl
CDR HAWLEY, Thomas A., USS SARATOGA, Mayport, FL
LT HAYES, Gerard B., NAMI, Internal Medicine
LT HOLMES, Michael L., NAS Kingsville, TX
LT JOHNSON, Douglas R., CVW-17 NAS Oceana, VA
LT KING, Kerry J., 2nd MAW, Cherry Point, NC
LT LEMME, David R., Naval Station, Adak, AK
LT LEONG, Wing L., 3rd MAW, Camp Pendleton, CA
LT MAHER, Andrew T., NAS New Orleans, LA
LT O'CONNOR, William W., CVW-2, NAS Whidby Island, Oak Harbor, WA
LT O'DONNELL, Michael, Naval Hospital, Corpus Christi, TX
LT PANETTIERE, Anthony S., Naval Hospital, Patuxent River, MD
LT PRIEWE, Raymon D., Branch Clinic, Key West, FL
CAPT RILEY, Terrence L., USS FORRESTAL, Mayport, FL
LT SAMSON, Jose M., MAG-29, New River, Jacksonville, NC
LT SHERADEN, Jennifer R., Naval Hospital Branch Clinic, Pensacola, FL
LT SPRUCE, Duard P., 2nd MAW, Cherry Point, NC
LCDR SPEIDEL, Francis S., Jr., 2nd MAW, Cherry Point, NC
LT WELCH, David E., NARU, Memphis, TN

MOMENT OF SILENCE

CAPTAIN JAMES O. HOUGHTON, MC USN
1942-1988

Captain James O. Houghton, MC, USN, 45, died Thursday, 16 June, in a traffic accident in Pensacola, Florida. Captain Houghton was commanding officer of the Naval Aerospace Medical Research Laboratory in Pensacola. He was scheduled to detach to the Naval Medical Command in Washington, DC, this July.

Captain Houghton was born in Littlefield, Texas. He attended undergraduate school at Union College, Nebraska, and received a B.A. degree in chemistry in 1964. In 1967, Captain Houghton entered the Navy as an Ensign. He earned the M.D. degree in 1968 from Loma Linda University, California, and completed a rotating internship at the Philadelphia Naval Hospital in 1969. In 1970, Captain Houghton was designated a Naval Flight Surgeon.

Captain Houghton's initial operational tours were served with the First and Third Marine Air Wings in Santa Ana, California; DaNang, Republic of Vietnam; and Futenma, Okinawa. Following duty at the Naval Air Station, Alameda, California, he received a M.S. degree in preventive medicine from the Ohio State University in 1974. Captain Houghton's subsequent assignments have included: the Naval Aeorspace Medical Institute, Pensacola, Florida; Senior Medical Officer in the USS ORISKANY and the USS MIDWAY; Director of Clinical Services at the Naval Hospital, Key West, Florida; Flight Surgeon conducting research in acceleration physiology at the Naval Air Development Center, Warminister, Pennsylvania; Special Assistant for Aerospace Medicine to the Naval Air Systems Command, Washington, DC; and Program Manager for Aerospace Medicine/Human Performance at the Naval Medical Research and Development Command, Bethesda, Maryland. Captain Houghton assumed command of the Naval Aerospace Medical Research Laboratory on 6 June 1985.

Captain Houghton was a Diplomate of the American Board of Preventive Medicine, a Fellow of the American College of Preventive Medicine, and an Associate Fellow of the Aerospace Medical Association.

Captain Houghton is survived by his brothers and sisters, William Houghton, Joseph Houghton, Gean Brizendine, Rosie Warren, Lois Sharpe, and Donald Houghton.

Services were held in Breckenridge, Texas, on 23 June 1988.

-- 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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