# Society of U. S. Naval Flight Surgeons



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VOL. XIII, NO. 3 NEWSLETTER JULY 1989

## PRESIDENT'S COLUMN

#### **OUR PURPOSE**

So much to pass along, too little time, so little space. First, I would like to *thank* all the voting members for providing me the opportunity to serve as your Society President. Your help is solicited, however. If the Society is to perform its function, we need your input. What is wrong, or even better, what is good, but "here is a better way of doing it ..."! Outgoing President Vasquez called it "communicate" in the January 1989 newsletter.

I must give a parting shot using standard aviation terminology (BZs') to our outgoing president whom I just mentioned, and SUSNFS officers and other untiring and dedicated society members who served especially well this past year: Sec-Tres. John Nickle, Editor Conrad Dalton; ASMA executive council rep. Gary Holtzman; Gary Reams, as our nominating committee chairperson; and E.J. Sacks, Luehrs Award committee cp; Bill Houk, arrangements. And a special note of exaltation to all the contributors who gave us the "real nonvegetarian stuff" that we can use in our daily practice of aerospace medicine.

Please take the time to read further inside the short list of New Officers elected at the ASMA meeting in May, Washington Hilton. It was a great conference. RADM Lestage completed his tenure as president in grand style and made us all Navy Proud! I strongly recommend that you plan for NOLA (New Orleans Marriot) ...May 13-17, 1990 (check calendar now). It was pointed out very succinctly at our business luncheon that HSETC has the cash to spread around for CME. Make application for something - hopefully SUSNFS related.

I urge a respectful moment of silence and lament for the loss of Captain David Letourneau who departed unexpectedly very recently. (Eulogy enclosed).

My most laudatory congratulations to the Luehrs Award winner. LCDR Daniel J. Carucci, MC, USN.

He and the runners-up are mentioned as you turn the pages. The competition was especially keen this year. AirLant had twenty nominees. Sort of gives you an idea of the quality we are seeing in Flight Surgeons these days!

May I now get on with the business at hand by stating, perhaps refreshing your memory, ...on ARTICLE II (PURPOSE) of the constitution of our Society: "To advance the science art and practice of Aerospace Medicine and its applicaltion to Naval Aviation and the mission of the United States Navy; to foster professional development of its members and enhance the practice of Aerospace Medicin within the Navy; to strengthen professional and fralternal ties, optimize solidarity and professional standing of Naval Flight Surgeons and other aerospace medicine professionals." Ponder the reason we have banded together for awhile. Future columns will be dedicated to our purpose.

In the meantime I ask that you please dedicate a little extra time to the practice of our specialty during the summer hiatus of medical officers. Our Navy needs that now more than ever before.

Thanks for your longsuffering. From one who cares for/about the "caretakers".

CAPT GEORGE E. HILL ComNavAirLant Code 018 Norfolk, VA 23511-5188

#### SECRETARY-TREASURER NOTES

SUSNFS held its annual meeting concurrently with the AsMA Annual Scientific Meeting in May. Election results are: Cart Conrad I. Dalton, Vice-president (President-elect); Capt Don Angelo (Ret), Emeritus Member; CDR Mike Valdez, Secetary-Treasurer; CDR PAGE 2 **JULY 1989** 

Steve Hart, Senior Member-at-large; and LCDR Dave Shively, Junior Member-at-large. A positive cash flow was reported, due primarily to a contribution from Dr. Roy L. Dehart, originating from his book proceeds.

The membership/subscriber roster indicates a rather large number of individuals (52.4%) presently in arrears with their dues, some dating back several years. Many who submitted dues money this year apparently are not aware of being in arrears by one or more years. Your payment has been credited and your status up-dated; however., many still remain In arrears. Please note the first line of your address label. The numbers reflect the year in which your dues expire. The date of expiration is always 30 April which coincides with the end of our fiscal year. Therefore, those showing 89 or earlier owe dues now. The current dues are \$10.00 for both membership or subscriber. A lifetime membership remains at \$200.00.

According to Society's bylaws, members/subscribers who fall one (1) year in arrears will be notified of their deliquency and thereafter shall be allowed sixty (60) days to make payment. Failure to do so within the sixty day grace period will result in suspension from the Society. Since postage cost would be excessive if individual delinquency notices were mailed, notification will be through the newsletter label. Please look at the year on the address label and kindly respond by submitting your dues. Also, notify me of any change in your address since the Society is obligated to pay return postage on any newsletter that is undeliverable.

There are several items for sale through the Society, available at the following prices.

Gold (14K) FS Wings (standard size) \$260.00

Gold Mess Dress FS Wings Plain \$105.00

w/diamond \$165.00

Gold Lapel (or tie tack) FS Wings Plain \$40.00 w/diamond \$70.00

Society decals (Gold wings with SUSNFS) \$1.25

Newsletter reprints, first ten volumes \$20.00 w/binder \$30.00

\$67.95 Calling cards with FS Wings, 500/order

(Please allow several weeks for delivery and orders must be paid for in advance.)

I look forward to serving as your secretary-treasurer during the coming year.

> CDR MIKE VALDEZ **MCUSN** NAMI (Code 32R)



# **SPATIAL DISORIENTATION --**THE ELUSIVE HUMAN FACTOR

Disorientation is an illusion or false perception of one's position, attitude, or movement with respect to earth. Spatial disorientation refers to those illusions associated with flight. It is estimated to account for 2-10% of civil and military aviation mishaps and from 10-30% of fatal mishaps. Several recent referrals to NAMI have emphasized the importance of the human factor in spatial disorientation. These cases illustrate the complexity of the information processing systems involved in normal orientation, and the need for sophisticated testing to detect potentially susceptible individuals and institute timely intervention. NAMI, in conjunction with NAMRL, is developing a vestibular/spatial disorientation test battery that can be tailored to specific in flight disorientation problems. This test battery has been used to evaluate a number of patients referred for motion sickness, vertigo, dysequilibrium, and disorientation.

The first case is an SNA in the jet pipeline referred for difficulty with disequilibrium in actual instrument meteorologic conditions (IMC). His specific problem resulted from an inablity to focus on his instruments during the approach when penetrating in areas of turbulence. Extensive testing at NAMI revealed that he had no Vestibular-Ocular Reflex (VOR). The VOR allows visual acuity to be maintained while turning the head back and forth through the various planes (horizontal, vertical, and torsional). A simple test for the VOR is to have the patient read small print aloud while the head is being moved back and forth, up and down, or tilting side to side. This patient was totally unable to read while doing this maneuver. During IMC in turbulence he was required to maintain vision with changing vestibular inputs, which would require an intact VOR. Amazingly, he had been able to use other compensatory means to overcome this except in moderate to severe turbulence. This problem usually involves a dysfunction at the Central Nervous System level, yet his workup has not revealed any obvious pathology. In students, such problems would be NPQ/NW.

The next case is more complex. The patient is a tactical jet aviator with over 2000 hours, as well as test pilot school, who was referred for disequilibrium during IMC while transitioning to the landing configuration. He would consistently feel persistent pitch sensations during deceleration during landing. A complete refresher instrument course did not result in improvement, although this problem was not evident in aircraft where less pitch changes were required during landing or in VMC. Static vestibular testing was within normal limits. Dynamic vestibular testing was performed to specifically reproduce the acceleration-deceleration maneuver in the Coriolis Acceleration Platform at NAMRL, and the patient consistently showed mispercieved sensations, such as severe pitch down with deceleration, and that JULY 1989 PAGE 3

the sensation lasted longer than normal. His case has been referred for a Special Board of Flight Surgeons.

We received both subconscious and conscious information to constantly update our orientation in space. This information comes from the visual, vestibular, and somatosensory (proprioceptive) sensory systems. Additional contributions to orientation may come from auditory cues, and from efference copy, that is anticipatory motor commands that tell the system of impending manuevers. Generally we rely on visual input if it is available and is commonly tested by Pursuit Eye tracking and Visual-Ocular Reflex (optokinetic nystagmus). In the absence of adequate visual input, we receive strong input from the vestibular system. Reflexes of the vestibular system are responsible for stabilization of the retinal image (Vestibular-Ocular reflex and Vestibular-Cervical Reflex) and stabilization of posture and equilibrium (Vestibular-Spinal Reflex). Although most people exhibit Visual Dominance and Vestibular Suppression, some, such as the last case, exhibit Vestibular Enhancement, and this may be difficult to identify clinically.

Patients referred to NAMI for vestibular dysfunction are evaluated clinically and with a number of static and dynamic tests. The goal is to establish a diagnosis, direct treatment, and recommend aeromedical disposition. Vestibular symptoms may be due to enhanced physiologic causes (motion sickness) or pathologic causes (benign positional vertigo, vestibular neuronitis, Meniere's disease). In addition to special clinical vestibular tests the following tests are available at NAMI/NAMRL:

**Auditory Evoked Potentials** 

Electronystagmography/Eye movement recording Platform Posturography

Vestibular-Ocular Reflex/Pendular Eye Tracking (VORPET)

Visual Vestibular Interaction Test (VVIT)
Coriolis Acceleration Platform (CAP)\*
Human Disorientation Device (HDD)\*
Multistation Disorientation Demonstrator (MSDD)

\*requires 1-2 months advance notice due to research obligations.

In general, if specific structure causes requiring MRI, CT, or CSF analysis are required, they should be done prior to NAMI evaluation. A full series of tests may require 1-3 weeks to complete due to availability of equipment, specialists, and additional tests (such as Neuropsychometrics), and repeat confirmatory testing. Every effort will be made to expedite operational considerations, such as mishaps, but may be limited by future availability. Hopefully, the NAMI Spatial Orientation Test battery will provide information in your Disorientation cases.

CDR JONATHAN B. CLARK MC USN NAMI Neurology, Code 24

# GIANT PAPILLARY CONJUNCTIVITIS ASSOCIATED WITH HYDROGEL CONTACT LENS USE

Possible complications involved with extended wear contact Lenses include: corneal edema, neovascularization, superficial punctate keratitis, giant papillary conjunctivitis, corneal infiltrates, red eye, corneal endothelial changes, and lens deposits. This article will review Giant Papillary Conjunctivitis (GPC), since extended wear contact lenses are increasingly more prevalent in the Class II aviation community.

GPC is one of the long-term limiting factors associated with contact lens wear, more specifically extended wear soft lenses. It is primarily an immune response associated with deposits from the tears on the anterior surface of the lens. This results in a hyperemic, cobblestone appearance of the palpebral conjunctiva noted on upper lid eversion. This can be accomplished by flipping the upper lid over a cotton tip applicator. A common triggering mechanism is a faulty lens edge or a soiled lens coated with deposits in a genetically susceptible individual. Other factors that playa part in wearing extended wear lenses are: atopic history in a patient, tear break-up time ("wetness" of the eye), blinking frequency, lens polymer materials, and contact lens cleaning habits. Inadequate cleaning is perhaps the primary cause of problems when using extended wear lenses.

Different types of deposits coat lenses (lipid, protein, calcium). Surface coating, which has been shown to be mainly from tear proteins, will occur seconds after inserting a contact lens on the eye. This is believed to be a way of making the lens biocompatible with the eye tissue. The problem arises when the protein is denatured and inactivated on the surface and results in an allergic reaction.

Detection of incipient GPC is vital in its management since early detection can frequently allow management without abstinence from lens wear. Common complaints are: decreased lens comfort at the end of the day, decreased vision, excessive lens movement, and increased mucus secretion. The tarsal conjunctiva may be hyperemic with early signs of papillary response. Histamine is released which causes itching, erythema, and edema.

At this point, vigorous cleaning (enzyme soaks) two to three consecutive times may restore the lenses. The patient should be instructed to remove the lenses more frequently, and clean and enzyme the lenses regularly.

Most times we see the patients when they can no longer tolerate lens wear and are extremely uncomfortable. They complain of itching, foreign body sensation and a scratchy feeling in the eye. Contact lens wear should be discontinued for about seven to fourteen days and the lenses may need to be replaced. Extended wear should be reduced to a daily wear basis for at least thirty

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to sixty days and enzyme cleanings more frequent. Sometimes hard lenses could be considered if coating is a major problem.

In summary, GPC is presumed to be a consequence of lens deposits and mechanical irritation to the eyelids. Adequate ocular wetting, properly fitted lenses, and proper lens cleanings are critical to successful use of extended wear lenses. Recent studies stress at least weekly removal (preferably more often) of contacts. Month long wear is no longer approved, and lenses should be replaced somewhere between six months and one year.

LCDR CINDY DURMON
MSC USNR
NAMI Ophthalmology Code 23

## LOCAL BOARD OF FLIGHT SURGEONS

Recently we have seen an increase in the number of packages coming to us with input from Local Boards of Flight Surgeons (LBFS). This is commendable, and helps us make determinations, especially in difficult and/or complex cases. The beauty of a Local Board is that it allows you to act with "collective wisdom" (hopefully). However, gathering three flight surgeons together (vice one making the decisions) does not guarantee that the right decision is arrived at. You must still exercise good sound aeromedical judgement and utilize common sense.

A common problem area which we see frequently is a Local Board evaluating a particular condition, determining it to be NCD, and finding an individual PO. So far everything sounds great. However, the individual may have other defects which are considered disqualifying. Just because the LBFS finds the problem for which the board is convened NCD, he is still NPO based on the other defect(s). Please look at the entire picture. Don't have tunnel vision!

A recent Aeromedical Newsletter from the Safety Center also addressed Local Boards in which the statement was made that if Code 42 disagrees with the LBFS, NAMI's CO will convene a Special Board of Flight Surgeons (SBFS). CAPT TankIsley assures me that he didn't mean to say that. We don't usually disagree with the results and recommendations of a LBFS, but it does happen. If we do decide that a course of action different from that recommended by the LBFS is necessary, we will contact you and discuss it with you. Rarely does the matter require referral to SBFS.

The vast majority of Local Boards we receive are well done and help us a great deal in our decision making process. They also assist local commanding officers in returning their people to productive flying sooner than would be the case if you waited for a waiver to make its way through COMNAVMILPERSCOM. But please use

common sense. Don't use a LBFS to return someone to flight status who shouldn't be flying. CODE 42 SPEAKS!

CAPT DICK WEAVER

MC USN

NAMI Physical Qualifications, Code 42

## **GRAND OPENING**

As of 1 May 1989, the Psychiatry Department (Code 21) at NAMI, has established a division of clinical neuropsychology to assist in the evaluation and disposition of Naval Aviation personnel with known or suspected neurological illness or injury. Although similar Navy clinics exist at major teaching hospitals and are staffed with either uniformed (Portsmouth and San Diego) or civilian (Bethesda) clinical neuropsychologists, the NAMI Clinic is unique in its selective focus on aviation personnel. Clinical neuropsychology is one of the most rapidly growing subspecialties of psychology within the public and private sectors. The Navy officially created a separate subspecialty code for clinical neuropsychology in March 1988, after establishing its first full-time clinic at Naval Hospital, Portsmouth in October 1985. The mission of the NAMI Clinical Neuropsychology Division is to objectively establish, through the use of neuropsychometric procedures, the specific components of the patient's mental status and neurobehavioral complaints in conjunction with neurological and neuroradiological findings. Specific issues which may be addressed in relation to either focal or diffuse neurobehavioral syndromes include: (a) change in cognitive capacity relative to an estimated premorbid level or functioning (b) presence and nature of early or mild cognitive dysfunction (c) documentation of rate of recovery or deterioration in association with potential for rehabilitation and return to duty (d) elaboration of the personality and emotional factors associated with diagnosed neurobehavioral syndromes. Each evaluation will be designed to answer specific questions but, in general, the following domains will be assessed: information processing skills, language, memory, executive functions (to include abstract reasoning and concept formation) memory, visual-spatial skills, sensorimotor functions, and personality/emotional status. Areas of special interests include, but are not limited to, closed head injury, CNS infection and degenerative/demyelinating disorders. Consultation may be scheduled by contacting NAMI Psychiatry (Code 21) at Autovon 922-4238 or 3974, Commercial 904-452-4238/3974.

> LCDR J. L. MOORE MSC USN Clinical Neuropsycology, Code 21

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### **RAM'S CORNER**

#### Spectacular Flight Surgeon's Reports

The aerospace medicine residents are reviewing all flight surgeon's reports on arrival. Some of those reports have been very impressive and displayed characteristics which will improve **your** flight surgeon's report.

- **1. Legibility is critical.** For dot matrix printers, at least near letter quality should be used. True letter quality printing of narratives and analysis improves the readability and comprehension. The laser printed reports are most impressive. Poor quality copies of the original FSR detract from the presentation. The yeoman may make the copies but you as the AMB's flight surgeon should ensure legibility. **Your** name is on it.
- 2. Organization/format are important. Reports that arrive as a pile of loose leaf papers are difficult to keep organized. The most impressive reports are fastened into folders with tabs marking important sections. Including a copy of the AMB's message is useful. Also include other pertinent material.
- **3. Investigate critical aeromedical areas.** Mishaps with visual questions may require testing on a 20 foot eyelane. The AFVT may not be adequate. Is he squinting? Was he wearing his required corrective lens? Was his depth perception adequate? Was there a hearing problem because his helmet earcups are old and stiff? Are anthropometric problems involved, either in the mishap or injuries?
- **4. Include NATOPS material.** Pertinent material from the NATOPS manual improves the FSR. Copies of the cockpit layout, aircrew locations, escape routes improve comprehension, especially for platform specific problems. You as the flight surgeon should be as familiar with the NATOPS as your aircrew.
- **5. "Normal limits"** may **not** be adequate. Eight hours of sleep in the past 24 hours may not be enough. Has the pilot/NFO been sick with a viral gastroenteritis? Has he/she changed sleep cycles due to deployment or operational utilization? Were there stressors which interrupted the sleep patterns? Was "12 hours bottle to brief" adequate when the pilot has been out booming hard? Don't write these off as unimportant.
- 6. Evaluate the entire aeromedical support chain. Were the medical records up to date? Is the clinic/hospital's required aircraft premishap plan adequate? Did the ambulance drivers get lost enroute to the scene or referral hospital? What if the mishap turned into a mass casualty situation?
- 7. Review similar mishaps. Mishap summaries are available from the Safety Center. Perhaps you can identify a trend in aircraft mishaps. Identifying one problem causing several mishaps will make the problem more important. Know the trends in your squadron aircraft mishaps.

Finally, put out what you learned. Include it in squadron briefs. Summarize your findings in a poster for the Navy Aeromedical Problems course. Write an article for APPROACH, the Safety Center's Aeromedical Newsletter or this newsletter. Springboard that experience into research to be published in Aviation, Space, and Environmental Medicine. Each mishap has factors which are important to prevent additional mishaps; that is our ultimate goal.

CDR BRUCE K. BOHNKER MC USN Resident Aerospace Medicine

#### **Computerized SF88 Template**

While waiting for the computerized physical examination program to be completed, a computerized SF88 template is available. It lacks "bells and whistles" such as sophisticated error checking for standards and spelling, so AVT/FS expertise would still be required. However, completion of the SF88 should be speeded up in the AVR's equipped with IBM compatible Zenith computers and Epson compatible printers. It is written in TURBAL-PASCAL and runs fairly quickly. Capabilities include storage and retrieval of SF88 data. The program was developed and used extensively by the Naval Academy physical examination section. A copy may be obtained by sending a blank IBM formated 5.25 inch floppy disk to NAMI Code 32 (Attn: CDR WAACK). Please label the return address on the disk.

CDR MATTHEW WAACK MC USN Resident, Aerospace Medicine

#### **RUMINATIONS**

There has been general concern during the past several years with product safety. Consumer protection against poor design, faulty manufacture, shoddy material, and early failure has led to the recall or removal from service of thousands of various products. Automobiles with hazardous gas tanks, inadvertent shifting gear levers or locking brakes are continually returned to the dealer for a quick fix. Closer to home we have experienced periodic mass grounding of aircraft following a material failure or an unexplained accident. This is especially true when an aircraft model is first introduced or when it has passed its useful shelf life.

As flight surgeons we are concerned with aviation safety from the personnel rather than the material standpoint. We play an important role in the selection, qualification, training and preservation of the men and women who crew Navy aircraft, as well as the ground

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support personnel. But as hard as we try, as successful as we might become, there are always those failures commonly referred to as pilot error accidents. How do we explain or deal with the aviator who flat-hats, lights up in the cockpit with a dangling mask blowing oxygen in his face, ignores NATOPS, or breaks some basic rule of flight safety and human survival? The aggressiveness inherent in naval aviators has been countered by volumes of regulations and procedures designed to keep them out of danger. Why then do we see so many "brain pharts"?

Maybe there is a Master Plan to recall those aviation personnel guilty of poor design, faulty maintenance, or inherent defects. Maybe the inexperience of a new product or failure of an aging product is the cause.

At a time of increasing demand, we suddenly find the human resource pool from which we draw our applicants growing smaller. This makes the unprogramed loss of just one aviator that much more critical. It also means our primary goal as Navy flight surgeons must be to promote and maintain the highest level of safety awareness possible. We are the vital part of a team dedicated to preventing accidents, saving lives, and exorcising the aviator recall demon.

CAPT R. K. OHSLUND MC USN CO NAMI

## **LUEHRS AWARD**

Congratulations to this year's Luehrs Award recipient, LCDR Daniel J. Carucci, MC, USN. All of the nominees were highly qualified and represented the highest standards of Aviation Medicine. The nominees were:

LCDR Daniel J. Carucci, MC, USN 3rd MAW
LCDR Frederick V. Bauer, MC, USN1st MEB
LCDR Patrick R. Danaher, MC, USN
COMNAVAIRPAC
L T Douglas R. Knittel, MC, USN1st MAW
LCDR Dominic Paparella, MC, USNRCHNAVRES
LCDR Thomas J. Moran, MC, USN
COMNAVAIRLANT
L T Brian E. Sargent, MC, USNR2nd MAW
LCDR David L. Shiveley, MC, USNCNATRA

CAPT C. I. DALTON MC USN NAMI, Code 32

#### TYCOM JOB MART

A classified listing of Priority Billets currently gapped and demand early fill for those interested in a move.

COMNAVAIRLANT (POC Force Medical Officer AV 564-7028/Comm 804-444);

Cecil Field NAS - SMO/Senior Flight Surgeon/-Medical Director all rolled into one for a beautiful clinic on a Master Jet Base, located in rural Jacksonville, Florida. This job is for a senior 04/05 2nd or 3rd tour FS who is looking for increased responsibilities, challenging/rewarding position. Billet calls for ADDU status to CO, NAS. Great working relationship with Nav Hosp 16 miles to the East.

Other billets available are:

CAEWW12 and HELSEACONWING 1, NAS Norfolk. these are for 03/04 quacks who appreciate big city living with all the cultural advantages, including being located near your Force Medical Officer.

HSL 30, at the Navy's newest NAS, Mayport, Florida. This job will really surprise you - one of the best aviation jobs we have! We can take anybody (FS) with the "right stuff".

COMNAVAIRPAC (POC Force Medical Officer AV 735-1148/619-545)

2 Great North Island billets (03/04) for those who just have to be in sunny CA: VRC 30 and HC-1.

FMFLANT (POC Force Medical Officer AV 564-6112/6020/com 804-444)

Surgeon, 4th Marine Expeditionary Brigade, located at Little Creek Amphib Base, Norfolk. The position is a "special stuff officer" and involves medical planning for amphibious operations, while supervising an Aid Station, 1 MSC officer and 9 HMs'. All the big city amenities go with this job. Can be a DIFOP billet, and is located half-way between 2 major NAS'.

COMNAVAIRLANT and PAC: A number of Carrier SMO jobs are opening up in 1990. These are excellent opportunities to enhance promotion potential, be challenged, and become a "bird farm expert." Most former SMO's consider this one of the best jobs in the Navy.



# **IN MEMORIAM**

Captain David J. Letourneau, MC, USN, one of the senior members of our aeromedical community, died 6 June 1989. He was born in Meriden, Connecticut in 1932, received an A.B. degree from Wesleyan College in 1954, and received an M. D. degree from Tufts University in 1959.

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Commissioned as a Lieutenant in the Naval Reserves, he entered the U.S. Naval School of Aviation Medicine in 1960, and was designated a Naval Flight Surgeon in December, 1960. Following assignment as CVW-15 Flight Surgeon with two Western Pacific deployments, he served as Assistant Senior Medical Officer of NAS Miramar until released from active duty in June, 1963.

After two years of civilian specialty training in San Francisco, he returned to Manchester, Connecticut where he practiced medicine for eight years while serving as a drilling reservist at NAS Alameda and NAS South Weymouth. In August 1971, he was recalled to active duty and entered the residency program in Aerospace Medicine, obtaining an M.P.H. degree from Tulane University in May, 1972. During his residency he participated in SKYLAB II (1972) and OPERATION HOME-COMING (1973). In 1974, Captain Letourneau served in USS SARATOGA (CV-60) as the Medical Officer, completing two Sixth Fleet deployments, and being promoted to Captain in 1975. In 1976, he served as Senior Medical Offcier at NAS South Weymouth. From August 1979 to July 1983. Captain Letourneau was the Force Medical Officer for COMNAVAIRLANT, and in 1983 he attended the Industrial College of the Armed Forces in Washington, DC. After this, he was assigned from July, 1984 to September, 1988 as the SIXTH FLEET Medical Officer. He reported to the Naval Medical Command as Director of the Readiness and Planning Division in October, 1988.

Captain Letourneau was a member of the AMA, the American Academy of Medical Directors, the Association of Military Surgeons of the U.S., the Honorary Public Health Society of Delta Omega, a Fellow of the American College of Preventive Medicine, and a Fellow of the Aerospace Medical Association. Additionally, he was a member of the Executive Council of the Aerospace Medical Association and the Society of U.S. Naval Flight Surgeons.

His awards included the Meritorious Service Medal, the Air Force Commendation Medal, and numerous service and campaign ribbons. Posthumously, he was awarded the Legion of Merit.

Captain Letourneau is survived by his wife, Margery and two sons, Phillipe and Peter.



#### -- 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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