Society of U. S. Naval Flight Surgeons

Naval Aerospace Medical Institute, Code 32
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PRESIDENT'S COLUMN

I am truly honored to have been chosen to serve as our Society's president for the coming year and I would like to thank all of you for your support. I would especially like to thank last year's officers:

CAPT Conrad Dalton, President
LCDR Dave Shiveley, Secretary-Treasurer
CAPT Frank Dully, Emeritus Member
CDR Mike Valdez, Senior Member-at-large
CDR Fanancy Anzalone, Junior Member-at-large.

Their leadership and support have helped make our society the excellent organization it is. Additionally I would like to express my gratitude to CAPT Gary Holtzman for serving on the AsMA nominating committee (and agreeing to serve another year), and CAPT E.J. Sacks for his continued chairmanship of the SUSNFS awards committee.

Congratulations are in order to our newly elected officers:

CAPT Bob Hain, Vice-President (president elect)
LCDR Dave Shiveley to continue as Secretary-Treasurer
CDR Mary Anderson, Senior Member-at-large
LCDR Gerry Hayes, Junior Member-at-large
RADM (ret) R. Paul Caudill Jr., Emeritus Member

I look forward to serving with these fine individuals over the next year. Since our at-large members serve a two-year term, I will also have the pleasure of continuing to serve with CDRs Valdez and Anzalone.

Those of you who were able to attend the AsMA meeting in Cincinnati had the opportunity to attend one of the better assemblies I have seen in many years. The educational benefits were outstanding and only surpassed by the chance to renew/maintain old friendships and foster communication. Two of the highlights for me were the SUSNFS annual luncheon where Glenn Merchant received the Flight Surgeon of the Year award and the SUSNFS Annual Business Meeting which was well attended. The long awaited Flight Surgeon's Handbook was unveiled at the t)usiness meeting and sold briskly. It is an invaluable reference and I encourage all of you to procure one. CAPT Bob Hain announced that our flight surgeon manning shortfall has decreased from 112 to 74 in large part due to irlcreased interest in flight surgery as a result of the Gulf War. By the end of FY 92 we should only be 37 short of our authorized manning level.

This October willi give you another opportunity to expand your medical knowledge, renew acquaintances and swap sea stories at the Annual (minus 1) Aeromedical Problems Course to be held at NAM122-25 October. I hope to see many of you there. If you haven't sent in your registration form yet. I encourage all of you to do so ASAP. Also spread the word to your fellow flight surgeons, physiologists and psychologists regarding this meeting. The best PA is the recommendation of a peer.

And finally, a plug for your support of SUSNFS and AsMA. These two organizations are your advocates at many levels and are constantly working on your behalf. Your support is crucial! Membership in AsMA is a prerequisite to membership in SUSNFS as we are a constituent chapter of AsMA. If you have somehow become a member of SUSNFS and not of AsMA, please join AsMA. If some of your colleagues are not members of SUSNFS, recruit them. The more members we have (SUSNFS and AsMA), the stronger will be our voice in matters crucial to our community's well-being and growth.

I am looking forvvard to serving our society in the coming year and seeing you in October in Pensacola.

CAPT R.A. WEAVER
MC, USN

SECRETARY-TREASURER'S NOTES

Hey Howdy! This is the first Newsletter of our Fiscal Year 1991-92, which started in April, and we've had a good Cat Stroke to get us going. The new Flight Sur-

geon Handbook, The Binders with all our Newsletters, and the Mess Dress 14K Gold Wings with the Diamond Chip, all sold well at the Annual AsMA Meeting in May, and continue to bring in revenue for the Society. This much needed revenue, along with your dues, is adding to our financial base. With a strong financial base, not only can we continue the excellence of our Newsletter, but we can expand our contributions in other areas, such as awards (noted this year was the first Ashton-Graybiel Publishing Award, endowed by Dr. Elihu York, and supported by our Society). And thanks to those who have purchased things. You've not only bought a nice item, but you've added to the expansion of our Society and its goals. I also thank my fellow RAMs, CDR Callan, CDR Jenkins, and LCDR Heil, who put in a lot of time and effort to get the above items out for sale.

On another positive note, dues are coming in! I have to make mention of this because ya'il were probably getting a little tired of my pesty reminders last year. Our membership has dropped slightly from 415 in 1990, to 380 in 1991. This is pretty good though, considering I did a little house cleaning and dropped those from the roles who hadn't paid dues since 1988 or 1989. Of our membership in 1990, 65 percent owed dues. Of our 1991 membership, 24.2 percent still owe their dues to be up to date. I think this is a tremendous improvement and I thank the Membership for its support.

Now for a slight kicker.I know, I know;ya'll are saying, "Uh, huh, I knew he was buttering us up for something!" Well, it's not that bad. For over 10 years the Society has not rasied its dues. The Board of Governors voted in May to raise dues to catch up with inflationary costs for printing and distribution. I feel this is very reasonable. As of 1 January 1992:

Annual Dues for Membership/Subscription -$15
Lifetime Membership (20 years prepaid dues) -$300

This is a small increase for your annual dues, but for the Lifetime Membership, now's the time to buy. From now until 1 January 1992, Lifetime Membership is still $200. After 1 January though, it goes up to $300 according to our By-Laws.

The new Naval Flight Surgeon Certificates have been printed. They will be given to all new members and are available to our old membership at a cost of $1 for shipping and handling. Please contact me if interested. Also, for this year's Problems Course, we are offering to have the Leather Flight Surgeon name patches made for you in advance. Just send $4 for one or $7 for two, by October 1 st, and we'll have them ready for you at registration. Please include the name you want, rank, and USN/USNR with your check.

On a closing note, I have to say it was great to see so many "Brothers ,and Sisters in Wings" at the convention in Cincinnati. We need to see more of our junior gals and guys, *the Lieutenants,* at this important meeting. The money is there for them to go, so let's encourage them to do it. As we all know, they are our life blood. Also, it was neat to see so many hands go up at the Navy Luncheon, when asked by one speaker, "Who of you here today were in theater during Desert Storm". He asked that they receive a round of applause. But of equal importance was when an anonymous person from the floor stood up and said during "Oh, by-the-ways." He said, "It's nice to recognize all those who were over in the war, but let us not forget, that those of us at home were supporting the same mission, and wearing the same uniform, in the name of Freedom." I was over there, for a short time, on the USS AMERICA, and you know, he's right. My uniform never changed and neither did the mission. A round of applause again echoed throughout the hall.

LCDR DAVE SHIVELEY
MC, USN
NAMI (Code 32R)

AWARDS COMMITTEE

Congratulations to the 1991 Flight Surgeons of the Year! They are as follows:

NAVAIRLANT -- LCDR Neil F. Gibbs, MC, USN
FMFLANT -- LCDR P.G. Merchant, MC, USN
NAVAIRPAC -- LCDR Neil R. Seeley, MC, USNR
FMFPAC -- LT Etienne Mejia, MC, USNR

These four winners were judged by a six-person panel of experienced Flight Surgeons for the Richard E. Luehrs Memorial Award and the recipient was LCDR P.G. Merchant, MC, USN. Bravo Zulu!

Desert Shield/Desert Storm has produced some outstanding performance by our Flight Surgeons. Unfortunately, their late return to CONUS prevented their being considered in '91, but can be considered if they are still operational in '92.

A new award has been established to honor Dr. Ashton Graybiel, our most famous researcher in aviation medicine, especially in the area of vertigo. It will be given annually for the "Outstanding Publication." This award is open to all operational flight surgeons and nominations for '92 should be sent to: Awards Committee c/o CAPT Sacks, Code 22, NAMI, Pensacola, FL 32508. The first recipient of this award was CDR Bruce Bohnker, MC, USN, SMO on USS Forrestal. His paper is titled "Primary Flight Training Performance of Student Naval Aviators with Naval Waivers" and included coauthors F. Anzalone, M.M. Mittelman, and A. Markovits. CDR Bohnker is a prolific writer who published several other fine papers in the past year.

CAPT E.J. SACKS
MC, USN

CODE 42 SPEAKS

Since my last column, we have successfully accomplished our mission in Desert Storm. Bravo Zulu to all who contributed. We are now back to "business as usual" and our liberal waiver policy (when the balloon goes up all bets are off) is now recinded. The balloon has landed.

Our pink slip rate is still disturbingly high -15 to 20 percent of physicals are received by us with erroneous/missing information requiring phone calls or pink slips to clarify. That's one of every five physicals! This is unacceptable! Most of our "pinked" physicals are for things which are easily remedied simply by careful review of the SF-88 and SF-93/0PEQ by the flight surgeon and AVT. For example, physicals received which are missing required data (FBS, HCT, refractions, depth perception testing, etc.) or with disqualifying data (abnormal BPs or pulses, DDVA out of standards, abnormal UA or HCT, etc.) which are not repeated or commented upon and the member is found PQ regardless. We cannot endorse a physical as PQ when it has obviously disqualifying information! We also cannot endorse physicals when required data (which would be disqualifying if abnormal) is not reported. It is a waste of our time and yours to have to return physicals for these errors, not to mention the potential loss of flight pay for individuals whose waiver for a disqualifying defect doesn't get processed in time because of the "pink slip shuffle." Mean what you say, read what you sign and you won't get "pinked."

We had high hopes for the Micro-88 program decreasing our pink slip rate since it prints out a summary of missing required data fields (and at some sites parameters which are out of standards). Forthe most part, those hopes have been realized. However, we not infrequently receive physical examination packages which include the Micro-88 summary sheets clearly identifying missing and/or disqualifying data with no corrective action taken by the examiner to provide the missing data or recheck the disqualifying parameters. The incomplete/ disqualifying physical arrives with the package signed off as PQ and AA. Send a kid to school, buy him books and what does he do? He eats the pages! Mean what you say, read what you sign and you won't get "pinked."

Another problem area is EKGs. As you are well aware, the computer frequently over-reads the EKGs. Your job as the human interface with the computer is to interpret those robot readings and make sure they are accurate. Unfortunately, we often get the EKG with a reading like "ST -T wave abnormality, inferior MI, age undetermined, marked bradycardia, premature ventricular complexes, and voltage criteria for LVH." There is no note by the flight surgeon or signature on the EKG to indicate that he has looked at it and disagreed with the computer and the SF-88 says EKG WNL. Somehow the two interpretations don't match. Mr. Koppy and my enlisted reviewers are good, but they may feel uncomfortable overriding the EKG interpretation so I end up having to evaluate these EKGs without the benefit of knowing the patient or clinical history. If 111ave questions, then NAMI internal medicine gets involved. If they can't make a determination, we have to send the physical back to you for more information. All that because the flight surgeon didn't review the EKG. Mean what you say, read what you sign, etc., etc.

Lastly, a note regarding HIV seropositivity. When someone's HIV is positive, the notification goes "confidential, eyes only" to the member's CO and not to medical. The CO often assumes that since you did the test, you also get the result and he doesn't tell you. We recently learned of three HIV positives in flight crews and when we called to find out where their disqualifying physicals were, medical had never been notified of their status. Let your COs know that they are the only ones who receive notification of HIV seropositivity and that you need to be in the loop. The secret is communication.

Keep those cards and letters coming.

CAPT R.A. WEAVER
MC, USN NAMI
(Code 42)

LOSS OF CONSCIOUSNESS IN NAVAL AVIATION PERSONNEL

Loss of consciousness from syncope is a common problem, occuring in 30 to 50 percent of the adult population. In a survey of 1,892 USAF flight personnel, 20 percent had a history of loss of consciousness. The aeromedical significance of syncope as a potential for sudden inflight inc,apacitation cannot be overstated. Although prognosis and risk of recurrence depend on the etiology of syncope, even benign syncope during flight operations may have grave consequences. Diagnostic evaluation is hindered by the transient nature and myriad of causes, furthering the uncertainty factor. In certain situations benign syncope may not be able to be differentiated from more serious disease, such as pathologic syncope or seizures. Unexplained loss of consciousness, or LOC with convulsive movements, associated physical injury, or prolonged recovery, are difficult, if not impossible, to distinguish from seizures.

The Aeromedical Advisory Council met on 23 Nov 90 to address the diagnostic criteria, definitions, classification scheme, and diagnostic evaluation, and aeromedical disposition of syncope. The amended version was approved by BUMED 23 on 6 Feb 91. The diagnostic criteria for syncope was defined as a sudden, transient loss of consciousness due to a critical reduction in cerebral blood flow, associated with an inability to maintain postural tone, and not compatible with a seizure dis-

order, vertigo, nonspecific dizziness, coma, shock or other states of altered consciousness. Isolated syncope, convulsive syncope, vasodepressor, cardioinhibitory, situational, and cardiac syncope were also defined. The following syncope classification scheme was accepted.

SYNCOPE CLASSIFICATION
1. CARDIO\/ASCULAR
   A. REFLEX
      Vasodepressor
      Cardioinhibitory
      Orthostatic
   B. CARDIAC
      Mechanical
      Dysrhythmic
2. NON CARDIOVASCULAR
   A. NEUROLOGIC
   B. METABOLIC
   C. PSYCHIATRIC
3. UNEXPLAINED

The evaluation of syncope may include history, record review, examination, diagnostic tests, and specialty consultation. The goals of the syncopal evaluation are to establish a precipitating event or predisposing factors by history, identify deficient compensatory mechanisms or a hypersensitive physiological response with the NAMI syncopal test battery, or identify pathologic processes resulting in syncope by diagnostic tests or specialty consultation.

The evaluation of syncope might include the following:

DIAGNOSTIC EVALUATION OF ACUTE SYNCOPE
TILT BP/HR
CBC
ELECTROLYTES
BLOOD SUGAR
UA
ECG

AEROMEDICAL EVALUATION
SYNCOPE TEST BATTERY

CARDIOLOGY EVALUATION
ECHOCARDIOGRAM
24 HOUR HOLTER MONITOR
GRADED EXERCISE STRESS TEST

NEUROLOGIC EVALUATION
ELECTROENCEPHALOGRAPHY

PSYCHIATRIC EVALUATION
MMPI

AEROMEDICAL DISPOSITION OF SYNCOPE

The NAMI Aeromedical Advisory Council made the following recommendations concerning the aeromedical disposition of syncope.

All designated flight personnel with syncope, or aviation applicants with past history of syncope, should undergo evaluation by a flight surgeon, to include a history and general physical exam and record review. A review of pertinent records is required for syncope resulting in emergency room visit, hospitalization, specialty consultation, or injury.

A single episode of benign (isolated) syncope related to significant predisposing factors or certain situations is not considered disqualifying for flight (NCD).

In undesignated aviation personnel, the following syncope types are considered disqualifying (CD):

1. Unexplained syncope - no records available or no predisposing or situational factors implicateid
2. Syncope resulting in significant physical injury, including head injury, or injury requiring hospitilization and/or medical care or follow-up
3. Recurrent syncope
4. Pathologic syncope
5. Syncope with LOC greater than 1 minute, or delay in recovery of normal function greater than five minutes.
6. Selected G induced Loss of CONSCIOUSNESS (GLOC)*

In designated personnel the following syncope types are considered disqualifying (CD):

1. Recurrent Reflex syncope (non-waiverable type) #
2. Pathologic syncope (requires specialty consult)
3. Positive Syncope Test Battery, indicating deficient compensatory mechanism, or hypersensitive response to provocative maneuvers #
4. Selected GLOC * #

WAIVER CONSIDERATION OF SYNCOPE

In general, waivers are not recommended for undesignated personnel (applicants for aviation programs), while in designated personnel, waivers are considered on a case by case basis, with review by NAMI Code 42, and when indicated, with deliberation by Special Board of Flight Surgeons.

Syncope requiring NAMI syncope test battery:

1. Syncope associated with convulsive or flailing motor activity
2. Syncope resulting in significant physical injury, including head injury, or injury requiring hospitilization and/or medical care or follow-up
3. Recurrent syncope
4. Unexplained syncope - no records available or no predisposing or situational factors
5. Inflight syncope not associated with g forces
6. Selected GLOC episode*

Syncope requiring Specialty Consultation

1. Consultation with Internal Medicine, Neurology, or Psychiatry should be obtained, as Indicated by the Flight Surgeon's history or exam
2. Syncope with a family history of coronary artery disease, sudden death, LOC, spells, seizures, or

psychiatric disease.
3. Syncope associated with convulsive or flailing motor activity
4. Syncope resulting in significant physical injury, including head injury, or injury requiring hospitilization and/or medical care or follow-up
5. Recurrent syncope
6. Unexplained syncope - no records available or no predisposing or situational factors
7. Inflight syncope not associated with g forces
8. Selected GLOC episode*

consider for non tactical aircraft or pipeline change
* Selected G induced Loss of Consciousness requiring Aeromedical Disposition

1. GLOC with tonic convulsions
2. GLOC with bowel or bladder incontinence
3. GLOC with absolute incapacitation over 18 seconds
4. GLOC with any convulsions lasting over 6 seconds
5. GLOC associated with malignant dysrhythmia

SITUATIONAL (REFLEX) SYNCOPE

WAIVERABLE SITUATIONAL SYNCOPE

EMOTION / ANXIETY RELATED SYNCOPE
PAIN INDUCED SYNCOPE
VENIPUNCTURE SYNCOPE
EXAM SYNCOPE (during prostate, rectal, or pelvic exam)
MICTURITION SYNCOPE
DEFECATION SYNCOPE

NON-WAIVERABLE SITUATIONAL SYNCOPE

COUGH (TUSSIVE) SYNCOPE
POSTURAL SYNCOPE
VALSALVA SYNCOPE
EXERCISE SYNCOPE

NAMI SYNCOPE TEST BATTERY

PERFORMED BY FLIGHT SURGEON
PATIENT ON ECG MONITOR
BP/HR AND RHYTHM ARE RECORDED DURING AND AFTER EACH STIMULUS WITH LOWEST BP/HR RECORDED

I. ORTHOSTATIC TESTING

HORIZONTAL
VERTICAL
HORIZONTAL x 15 MIN, THEN VERTICAL
INVERTED HEAD DOWN
SQUATTING TO STANDING

II. PROVOCATIVE TESTING (PATIENT IN VERTICAL OR STANDING POSITION)

UNILATERAL CAROTID MASSAGE (15 SEC)
BILATERAL OCULAR PRESSURE (15 SEC)
BREATH HOLDING AT MAX INSPIRATION (60 SEC)
VALSALVA MANEUVER (30 SEC)
HYPERVENTILATION (3 MIN)
COLD PRESSOR TEST (HANDS IN ICE-WATER FOR 1 MIN)
HYPERVENTILATION (1 MIN) THEN BREATH-HOLD (15 SEC)
POSITIVE PRESSURE BREATHING (3 MIN)
TACTICAL AIRCREW

SIGNIFICANT (POSITIVE) SYNCOPE TEST BATTERY

1. PATIENT'S SYMPTOMS REPRODUCED
2. 3 OR MORE SECONDS OF ASYSTOLE
3. MALIGNANT DYSRHYTHMIA
4. ORTHOSTASIS
   25 MM HG DROP IN SYSTOLIC BP
   10 -25 MM HIG DROP IN SYSTOLIC BP, IF SBP BELOW 90 MM HG
5. LOSS OF CONSCIOUSNESS

CDR J.B. CLARK
MC, USN
NAMI (Code 24)

FROM THE FLEET

LISTERINE ANTISEPTIC MOUTHWASH AS A SOURCE OF ETHANOL

A member of the ship's engine room crew was presented for a competency for duty examination, and was found to be obviously markedly impaired, apparently as a result of being intoxicated. The immediate question was whether he might have been occupationally exposed to intoxicatin~, fumes. He was admitted to the ICU for cardiac monitoring while a search was made for intoxicating substanl:es. The medical record indicated a similar episode several months earlier, when the individual was presumel[j to have been exposed to fumes, when presented under similar circumstances.

Witnesses reported seeing this individual consuming Listerine mouthwash, and a search of his workspace revealed a soda carton with several empty and three unopened Listerine bottles. Listerine is sold in the ship's store. It contains 27 percent alcohol, as well as eucalyptol and oil of wintergreen as adulterants.

This patient returned two days later in a similar state of intoxication, and subsequently medevac'd for pathologic intoxication. Toxicological screens were reported on the two occasions as containing 0.218 percent and 0.285 percent respectively. It is not known what the amount consumed w,as, but it is presumed to represent a single 6 ounce bottle, reportedly consumed with a lemon-lime soda.

CDR D.E. DEAKINS
MC, USN
Senior Medical Office
USS MIDWAY (CV 41)

RAMs CORNER

TOPICS OF INTEREST TO AVIATORS

Here's a little "plain language palaver" you might find useful for the ready room bulletin board, or you might not. ..

AFRIN

Lots of aviators carry this around in their flight suit as a sort of emergency medical kit for the nose. Most of this is prompted by the theory that using Afrin, when you have problems with sinus pressure or trouble valsalving while flying, will prevent barotrauma (sinus or middle ear blocks). There may be some validity to this concept for the patrol or ASW communities, but not in "true tac-air." Barotrauma usually occurs during a maneuver in which you can't take the time to stop and use the deongestant until after the maneuver, and by that time the damage to your sinuses or middle ears is done. But the real problem with Afrin, comes when it is used as a substitute for the intelligent management of congestion.

If you're congested to the point where you have to try harder than normal to make your eardrums "pop," or one eardrum is slower to "pop" than the other -you're too congested to fly. If your nasal drainage is sufficient to warrant a decongestant to keep you from rubbing the end of your nose off - it's probably a good day to catch up on some of your admin work.

The "boldface" on this one is, never use Afrin or another decongestant to go flying. It won't work and even if it does. it will probably wear off at the wrong time, leaving you with a worse problem.

Which brings me to my next point about nasal decongestants, REBOUND. Nasal decongestants work by constricting the blood vessels and emptying the venous lakes of the nasal mucosa.

The boggy, swollen mucosa in your nose shrinks down and you breathe better, but as the chemical wears off, you go back to square one. So you use the Afrin again to get the relief you had before and so on and so on. Now, here's the trap; like flogging a dead horse, when the chemical wears off and the overstimulated muscle is fatigued, you don't go back to square one, you go back to square MINUS ONE -it gets worse. That's called rebound. Thanks to this effect, to obtain the same level of relief or nasal decongestion, you end up using more of the decongestant, more often. To paraphrase Richard Pryor (he was talking about something else), the problem with Afrin is that it's "sooo XXXX good!" Lots of people are hooked on their nose sprays.

End of story. If you want to carry a bottle of Afrin around in yourflight suit, fine, I'll give it to you. But if you ever have to use it, you have to go see a flight surgeon -then.

P.S. Also throwaway that KC-10 of nose spray your wife bought at the Exchange. You don't really want to be sharing things that others have shoved up their nose, and considering how long it's been there, I don't even want to think of what might be growing in it!

CDR GENE L. DOWELL
MC, USN
RESIDENT AEROSPACE MEDICINE

THE HATCHING

(AMERICA's Hanger Deck during Desert Storm)

Rows of yolk yellow lights,
Warming the shoulders of gray colored birds.

Squatting back to back, beak to beak,
An eerie stance of power.

Patches of black steel bearing their weight,
Making their nest.

Proud stenciled breasts, rising in silence,
Puffed with defiance.

The Brood sleeps.

Cigar green eggs cling lightly to their wings,
Warm for the hatching.

Helmeted valets clamber softly over the birds,
pruning, painting, primping, pandering,
precising, placing, powering, pacing.
Ready for the hatching.

Daylight springs from a watery plateau,
Heavy steel curtains are drawn.

The birds awaken with a low growling whistle,
And move to the perch for the launch.

Cigar green eggs are released from the feather (wing)
And plummet deftly towards a sandy ocean.

. . . hatching, with fiery plumes of red and pink
and yellow.

LCDR DAVE SHIVELEY
MC, USN
RESIDENT AEROSPACE MEDICINE

FROM THE EDITOR

In the April *Newsletter,* the author of "Bolter Fever: A French Perspective," was LT B.A.G. Sicard, FS French Navy, Aeronautique Navale, France.

Articles from the fleet are always a welcome addition to our *Newsletter.*

CAPT C.I. DALTON
MC, USN

IN MEMORIAM

Manley L. "Sonny" Carter, Jr., Captain, USN

Astronaut Manley L. "Sonny" Carter, Jr., was born in Macon, Georgia and grew up in nearby Warner Robins. Throughout his youth he was active in scouting, obtaining the grade of Eagle Scout. Sonny attended Lanier High School in Macon, graduating in 1965. In 1969, he graduated with a Bachelor of Arts from Emory University and continued his studies at Emory University Medical School, graduating in 1973. Sonny completed his internship in internal medicine at Grady Memorial Hospital in Atlanta, Georgia. As an early indication of his versatility, Sonny played professional soccer for the Atlanta Chiefs of the North American Soccer League, while enrolled in medical school.

In 1974 Sonny entered the U.S. Navy and completed flight surgeon school in Pensacola, Florida. After serving as a flight surgeon with the 1st and 3rd Marine Air Wings, he was assigned to Naval Flight Training in Beeville, Texas, and received his Naval Aviator wings in 1978. Immediately following, Sonny served as the senior medical officer aboard the USS Forrestal. He subsequently served as an F-4 fighter pilot with Marine fighter Attack Squadron 333 at MCAS Beaufort, South Carolina. Then he again served aboard the USS Forrestal as a pilot with Marine Fighter Attack Squadron 115. Sonny completed the U.S. Navy Fighter Weapons School (TOPGUN) in 1982 and the U.S. Navy Test Pilot School in 1984. During his aviation career, Sonny logged over 3,000 hours flying and 160 carrier landings.

Sonny joined NASA in 1984 as an astronaut candidate and became an astronaut mission specialist in 1985. He was the astronaut representative on numerous NASA projects involving extravehicular activity and human physiology concerns during space flight. In November 1989, Sonny flew aboard the Space Shuttle Discovery on STS-33, a Department of Defense mission. At the time of his death, Sonny was preparing for his second space flight. He was to have flown in January of 1992 on STS-42, the first International Microgravity Laboratory.

Sonny was awarded the Air Medal, the Meritorious Service Medal, the Navy Achievement Medal, the Navy Meritorious Unit Citation, the Marine Corps Aviation Association Special Category Award, the NASA Meritorious Service Medal, and the NASA Space Flight Medal.

Sonny Carter is survived by his wife Dana, and his two daughters Olivia Elizabeth and Meredith Corvette.

The Carter family requests donations be made to The Sonny Carter Memorial Scholarship Fund or The Boy Scouts of America, c/o The Astronaut Office, Mail Code CB, NASA Johnson Space Center, Houston, Texas 77058.

-- 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.

Correspondence should be addressed to:

CAPT CONRAD DALTON, MC, USN
Editor, SUSNFS Newsletter
Naval Aerospace Medical Institute,
Code 32
NAS Pensacola, FL 32508

1991 NAVY AEROMEDICAL R

REGISTRATION FORM

Please print or type - we will use this form for issuing your certificate.

NAME (Last, First MI.) _____

SSN _____ RANK _____ SERVICE _____

MD _____ DO _____ MSC _____ OTHER _____

MILITARY ADDRESS _____
_____
_____
_____

PHONE (AUTOVON) _____ (Commercial) _____

Do you want BOQ reservations? Yes / No

Do you wish coffee, donuts, fruit during the course? ($8.00) _____

Will you be attending the TYCOM luncheon on Tuesday? ($7.00) _____

Will you be attending the Social on Wednesday night? ($ 6.50) _____

Will you be attending the Dinner on Thursday night? ($19.00) _____
(Seafood Buffet)

* Please send a check (payable to **S.U.S.N.F.S.**) along with this Registration Form to:

Naval Aerospace Medical Institute
Code 32A
NAS Pensacola, FL 32508-5600

If there is any questions, please contact ENS Hoeft at AUTOVON 922-2457/58 or commercial (904) 452-2457/58.

***** WE MUST RECEIVE THIS NO LATER THAN 16 SEP 91 !!!**

ADDRESS CHANGE

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