

# 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. XV, NO.2**

**NEWSLETTER**

**APRIL 1991**

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## **PRESIDENT'S COLUMN**

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This is my final newsletter as President of the Society of U.S. Naval Flight Surgeons. How time flies when you're having fun! I have been dual hatted as President/Editor and will retain the editorship. Captain Dick Weaver will take the gavel at the Navy Luncheon on Monday, 6 May 91, in Cincinnati.

During my tenure extraordinary world events have occurred. We have fought and won a war with an incredibly small number of casualties. Many of you were "in country" or "floating" close by. Due to the dedication of all our forces a clear cut military victory was obtained. Pray that we also win the peace. This historic event should be a reaffirmation for all of us what we and the fine community we support are about.

In our Aerospace Medicine Community some exciting developments are:

1. Our long awaited Naval Flight Surgeons Manual is at the printers.
2. The Flight Surgeons' Handbook has reached completion due to the efforts of CAPT Bercier, CDR Reams, et al. It will be printed by our Society and available at the Sunday SUSNFS meeting (1600). You can be a "plank holder" of this first edition for a relative song.
3. New pay incentives whose overall effect is better when taken in toto (ie ASP, ACIP, BCP, MSP, VSP).
4. New visions for NAMI.
5. Much interest in the Student Flight Surgeon Classes and Residency in Aerospace Medicine.
6. New MANMED Chapter 15.
7. Micro 88 Program.
8. Lots of OJT in Combat Preparedness. A new group of experts now exists. Much of our Viet Nam corporate knowledge has retired. Hopefully, we can put together some "lessons learned" for our Aeromedical Problems Course in Oct.

There are many more accomplishments that could be added to this list. My thanks to the SUSNFS officers and members for your support. May this coming year be even more rewarding and successful. Keep 'em flying.

CAPT. C. I. DALTON  
MC, USN

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## **SECRETARY-TREASURER'S NOTES**

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Hey Howdy! I hope by now ya'll are heading back from Victory, or are back! This is the 4th and final Newsletter for our Fiscal Year which marks an important time. That is, time to pay dues. Please note your address label on the front and the year date to the right of your name. If the year is 91 or earlier, your dues are required now in order to continue your Membership or Subscription. **Thank you!**

At the upcoming Annual AsMA Meeting, 5-10 May, I will be selling the Mess Dress Gold Flight Surgeon Wings with Diamond Chip for \$130. Also for sale will be Society Binders complete with every Newsletter since the SUSNFS's began, for \$35. Bring your checkbooks!

Finally, in February, I returned from the USS AMERICA, CV-66, where I was part of a 4 man Research Team composed of one RAM (myself) and 3 fine Scientists from NAMRL. We left Pensacola Christmas Day and had the unique opportunity to study, in "general" terms, Sustained Operations with our Aviators, before and during combat. It was a great experience which I hope to expound upon later but right now I want to make special mention of the Senior Medical Officer, CAPT Jerry Rogers, and the Wing Flight Surgeons who helped us, LT Rich Osmon and LT Ron Rosenquist. Without their logistical assistance with the Ship and the Squadrons, the Project would never have reached the successful conclusion it did. Which brings me to my point. We work, Ladies and Gentlemen, in a community of highly dedicated, professional, and energetic Doc's, who are always willing to go the extra mile to promote advances in Aviation Medicine and Safety. This was evident with the

Flight Surgeons on the AMERICA and I'm sure it was evident throughout the Operational Theater of Desert Storm. It's no wonder I love this job and respect and admire the people I work with!

WELCOME HOME!

LCDR DAVE SHIVELEY  
MC USN  
NAMI (Code 32R)

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## CODE 42 SPEAKS

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As I write this, we're still "at war", but hopefully the conflict will be ended soon (one way or the other). If any of you who are operationally deployed get kind requests from us for clarification or additional information on physicals you have submitted (also known as pink slips), there should be a disclaimer included allowing you to defer action until return to CONUS. If not, it was inadvertently left out so don't get excited; we won't make you send your troops back to gather the info. Just make sure that there is no immediate hazard to the safety of flight and "keep 'em flyin' "!

Speaking of pink slips, we have made some changes in our pink procedures. In the past, we would send a pink slip asking for more information, counting on your (or you AVT's) good graces to act on it and expeditiously return the package to us. Unfortunately, more often than I like to contemplate, we wouldn't see the member's physical again until the next submission and it would often have the same erroneous, missing or confusing data necessitating another pink slip which we may or may not see again until the next submission. This often led to the individuals being found NPQ months or years (yes, years) after they were actually NPQ, and NMPC/CMC recouping flight pay. This makes for unhappy campers on both sides of the fence!

We are now tracking pinks. We will send you **one** and ask for a reply in 45 days. If we don't hear from you, we will then send a "Pink Slip letter" which is addressed to the MTF CO or OIC with copies to the member and member's CO, asking for a reply within 45 days. If still no reply, we will send a message to the member's CO with a copy to the MTF asking for a reply within 15 days. If after all that we still have not heard from anyone, a letter will go to NMPC/CMC finding the member NPQ with no waiver recommended. Although we have just started doing business that way, I have already gotten a call from a concerned aviator who received his copy of our "Pink Slip letter", was able to resolve the problem over the telephone and endorse him as PQ (I still haven't heard from his MTF as yet).

### Aeromedical Advisory Council Actions

1. Ulcerative Colitis/proctitis - is CD for all aviation

personnel with no waiver recommended for candidates. Designated personnel with disease limited to distal 25 cm, controlled on 2gm or less of azulfadine/day or with steroid enemas may be considered for waiver. Designated personnel who have had colectomies (partial or total) may be considered for a **limited** waiver if asymptomatic 1 year post-op. Regional enteritis of any degree is CD for all DIF with no waiver consideration.

2. Annual submission of SNA and SNFO physicals is no longer required. The physical is still required, but does not need to be submitted to NAMI unless member is NPQ.

3. Naval Observer physical standards will be the same as those for helicopter aircrew.

4. EKG's on designated aviation personnel no longer need to be submitted to NAMI Internal Medicine.

5. Chest X-Rays on candidates for aviation programs will be acceptable if performed within 36 months of the exam provided the member has no indication of interval pulmonary disease.

6. Waiver requests no longer require a CO's request or endorsement. All that will be required is a recommendation from the flight surgeon on those who are NPQ.

7. Individuals over 40 undergoing refresher training in low pressure chambers (LPC) may elect to observe the training from outside the chamber and not ride to altitude. They have the option to ride to altitude if they so desire, but must then participate in hypoxia demonstrations. Individuals 39 years of age and younger, and all individuals undergoing initial LPC training regardless of age are required to ride to altitude and perform hypoxia demonstrations.

Keep those cards and letters coming!

CAPT Dick Weaver  
MC USN  
NAMI (Code 42)

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## AERONAUTICAL ADAPTABILITY - THE FLIGHT SURGEON'S POLTERGEIST

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For almost 65 years, the term aeronautical adaptability has careened, rattled and screamed through the Flight Surgeon's world. As with a ghost, people tended to become frightened and avoided the issue. Experts (exorcists) were often called in to explain or expel the phenomenon. Many times these 'experts' had no experience in operational aviation or long-term experience in the study and understanding of the psychology of aviation personnel. Experts with both backgrounds were rare indeed. As with poltergeist phenomena, the turmoil would periodically subside. Peace and calm would prevail for several years.

In the period 1977 to about 1983, more attention was paid to the AA/NAA concept in relationship to an aviator's personality structure and coping style. DSM-III allowed significant objectivity in describing maladaptive personality styles and defenses. AA/NAA became less ephemeral and could actually be taught as a structured concept. In discussing a case of AA/NAA with a Flight Surgeon, it is many times quite evident as to whether he was trained before or after the early 1980 time frame.

Until the 1980's, very little had been done to perpetuate the thinking. Definitions or guidance were absent from both MANMED and the Flight Surgeons Manual. The issue was addressed in 1987 by the NAMI Aeromedical Advisory Committee. Working definitions and practical application guidelines were established. A summary was published in the Flight Surgeons Newsletter, January 1988.

Again, the spirit was calm, application of the concept was truly more objective. Flight Surgeons, Line Officers, and Aviators better understood the concept and could discuss cases rationally. The historical tendency to use AA/NAA as a punitive disposition was almost nullified. This was due to the fact that personal bias tended to be excluded by using more objective criteria and by stressing review of cases from the field by NAMI Psychiatry.

With the system working so well, it was decided to finally establish 'corporate' credibility by formal entries in both MANMED and the Flight Surgeons Manual. Both are due on the street in 1991.

These days and times very few ideas or concepts escape the legal, bureaucratic, political or civil rights molding process. H.I.V. management as a political/medical illness is a grand scale example. AA/NAA had its turn in the proverbial barrel. For almost nine months, exorcists, wizards, potentates and the occasional expert have studied, dissected, honored and denigrated the supposedly tame and friendly poltergeist. AA/NAA emerged from this process recognizable as the concept taught and used daily by Flight Surgeons. Contamination by outside and non-expert influences was evident. Always the optimist, we do now have a statement regarding aeronautical adaptability that will appear in MANMED. This solid reference will enhance the confidence of Flight Surgeons dealing with difficult cases. We will now have a better opportunity to periodically review and enhance the definition and utilization guidelines as more objective information is gathered. Our poltergeist may indeed be on its way to being a 'Casper'.

Aeronautical adaptability as it will appear in MANMED 15-65:

1. Candidates or students must demonstrate reasonable perceptual, cognitive and psychomotor skills on the AQT/FAR (officer candidates only) and must have the potential to adapt to the rigors of aviation by possessing the temperament, flexibility, and mature defense mechanisms to allow for full attention to flight and suc-

cessful completion of training. The flight surgeons' interview should also explore such vital areas as motivation, stress coping and social adaptability.

2. Once designated, aviation personnel are generally considered aeronautically adapted, based on demonstrated performance, stress coping and use of mature personality defense mechanisms. Personality Disorders or maladaptive personality traits manifested by patterns of chronic maladaptive behavior, emotional instability or impaired judgement would result in a determination of not aeronautically adapted only if safety of flight, crew coordination or mission execution were affected.

3. Apparent loss of aeronautical adaptability in a veteran aviator may be an indication of a serious underlying emotional or physical problem and a complete and thorough evaluation is imperative.

4. When a flight surgeon suspects the loss of aeronautical adaptability in a designated aviator, that individual shall be referred to the Naval Aerospace Medical Institute for evaluation.

5. The Field Naval Aviation Evaluation Board (FNAEB) is the naval mechanism for handling administrative difficulties encountered with aviator performance, motivation, attitude, technical skills, flight safety and mission execution.

6. Unacceptable behavior outside the arena of mission safety and mission execution, whether or not associated with a maladaptive personality style or disorder is administrative in nature and should be managed in accordance with existing directives, e.g. JAGMAN, MILPERSMAN, and/or pertinent SECNAVINST.

CAPT J. C. BAGGETT  
MC USN NAMI  
PSYCHIATRY

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## RAMs CORNER

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### SINUSITIS REVISTED

As a timely and seasonal reminder to all quacks, a review is in order of what has been called one of the most frequently overlooked, misunderstood, over or underdiagnosed, inadequately and/or inappropriately treated human diseases; that is sinusitis. So as not to insult your intelligence, suffice it to say that sinusitis encompasses all etiologies that may cause mucosal inflammation of any paranasal sinus cavity and for the purpose of this discussion dental etiologies are excluded.

Recall that the physiological function of the upper respiratory system and their contents are primarily those of filtration, warming and humidification of inspired air and secondarily to facilitate the sense of smell. The normal physiological function of the sinuses are developmentally and anatomically dependent. Thus the

**Osteomeatal Complexes (OMC)**, inferior to the middle and superior turbinates, may be compromised by anatomical variations (i.e. deviated nasal septum, fractures, foreign bodies, or any turbinate abnormality). Other predisposing factors include URI, Allergic Rhinitis with Polypoid Tissue, Barotrauma, Cigarette Smoke and any other environmental particulate matter, that results in inflammation and/or edema progressing to the encroachment upon, obstruction of, or impaired function of the OMC.

Recall that the normal sinus physiology requires healthy cilia, an intact mucous membrane, normal mucous production and a patent OMC. Impairment of any of these vital components results in OMC dysfunction. Factors that affect ciliary function include drying, heat, abnormal airflow, inhaled toxic particulate matter, trauma, non physiological water source's sinus influx. All contribute to impaired function to the OMC and mucous retention, varying from simple Osteal Edema to complete mechanical obstruction, with the resultant condition of acute or chronic sinusitis. So **OMC Obstruction**, be it partial or complete, **equates to sinusitis**.

Once there is OMC obstruction and impaired ciliary function, there is created in the affected sinus a relative hypoxic anaerobic environment conducive to bacterial overgrowth, resulting in a pathophysiological cascade and vicious cycle of mucosal damage, mucous retention, the hinderance of normal protective mechanisms and bacteriocidal functions. The end result is an acute sinusitis that if not properly diagnosed and adequately treated may progress to chronic sinusitis requiring sinus irrigation and prolonged multiple pharmacological therapy. This protracted recovery results in the impairment or loss of a productive command asset and mission element. Also, the resulting fibrosis and irreversible changes paraosteally may cause further recurrent sinusitis, surgical corrections and even career changes.

From an epidemiological aspect remember the following:

- a. The most common sinusitis is Ethmoiditis, the least is Sphenoiditis but acute Sphenoiditis is a true medical/surgical emergency.
- b. The most toxic is Frontal Sinusitis, the least is Maxillary Sinusitis which remains the most frequently and easily drained.
- c. A viral URI may cause a bacterial sinusitis but not visa versa as there are no purely viral sinusitis.

The clinical history, as always, is of the utmost importance in determining the etiology of the acute or chronic paranasal sinusitis. Define, delineate and differentiate the symptoms of nasal/sinus congestion, anosmia, painful mastication, halitosis, fever, increased lacrimation, eye or periorbital edema and cephalgia or facial pain. Recall that **facial pressure with the head dependent is normal, while pressure + pain is not**. In addition to the thorough ENT history, physical exam with Rhinoscopy (if available), sinus x-rays including C.T. and M.R.I.

scans, are modalities that should be fully utilized along with, of course, ENT consultation. The diagnosis of acute suppurative sinusitis is any infection of a paranasal sinus lasting 1-3 days, while the diagnosis of subacute sinusitis is the same pathophysiological condition with a duration of from 3 days to 3 weeks, with chronic sinusitis exceeding 3 weeks.

Therapy directed at any sinus disease process without attempting to first identify and correct the pathologic process, especially of the OMC, leads to suboptimal results. The management goals for the treatment of any sinusitis is to restore normal physiological function by controlling any infectious process and, reducing tissue edema with the normalization of gaseous exchange, facilitate drainage with the restoration of normal mucociliary function and the maintenance of Ostial Patency.

Treatment must consist of ventilation, drainage and humidification. This can be accomplished by the expeditious utilization of nasal or oral decongestants (maximum of 3 days for acute sinusitis), mucolytic agents, bed rest, hydration, pain relief and local heat. Remember that **topical nasal steroids and antihistamines are used for the palliation of allergic rhinitis** and for a maximum of 30 days per episode.

Treat the infection while simultaneously identifying and correcting all the underlying predisposing factors. Antibiotics should be individualized and full course taken for a minimum of 10-14 days in acute sinusitis and for 3-4 weeks in chronic or recurrent (therapeutic failure) sinusitis. The currently popular infectious agents of community-acquired sinusitis, in order of prevalence are: Strep, Pneumo, H. Flu., Anaerobic Bacteria, Moraxella Catarrhalis, Staph, Aureus, Strep. Pyrogenes, B-Hemo Strep., + A-Hemo Strep. The currently recommended antibiotic agents include the following: Ampicillin 500mg PO q6h, Amoxicillin 500mg q8h, Septra/Bactrim 2 Tabs BID, Cefaclor 500mg PO q6h, + Augmentin 500mg PO q8h, AMP/AMOX are not recommended for Staph infections. Agents currently **not** recommended and reason are: Tetracycline (resistant pneumococci), Penicillin, Erythromycin and Cephalixin (resistant Haemophilus).

Nonpharmacological adjuncts include steam and salt water nasal flushing, irrigation of the involved sinus, with concurrent C&S, should be performed on all toxic appearing cases and any cases not responsive to pharmacological therapeutic regimens. Persistent or subacute Ethmoiditis may be more expeditiously resolved by treatment with displacement type irrigation or water-pik irrigation. Likewise, antral needle irrigation for the maxillary sinus disease may be indicated, while the resolution of frontal sinusitis may be aided by irrigation via a trephination window. Any refractory cases, or course, should be medevaced ASAP operationally, to the theater ENT resources.

In summation, sinusitis results from OMC impingement, the direct consequences of developmental and

anatomical variations, combined with other predisposing factors, which cause ciliary dysfunction, mucous retention and bacteria overgrowth.

The cardinal guidelines to follow are:

- Rapid accurate diagnosis and appropriate therapy are paramount to the preservation of command assets and efficiency.

- Identify the etiological factors for the sinus disease via the appropriate and thorough utilization of all available diagnostic modalities.

- Treat the infection first and arrange for the correction of any identifiable predisposing factors, concurrently, to prevent recurrences and permanent loss of assets.

- **REMEMBER, REMIND THEM TO SNIFF; DON'T BLOW, TO CLEAR THEIR NOSES!**

**LET'S KEEP THEM FLYING, SAFE AND HEALTHY!!!**

CDR DANIEL J. CALLAN  
MC USN  
NAMI (CODE 32R)

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## ON AUTHORSHIP

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*An open letter to those who served in  
Operation Desert Storm - from the Editor,  
Aviation, Space, and Environmental Medicine:*

Dear Colleague,

The Operations seem to be over, and the combatants are returning, or moving on to whatever comes next. As the analysts fill the media with their versions of what happened, and why, the participants are surely concerned with getting home and picking up their lives.

All seem to agree that airpower played a major role in this conflict; the coalition forces established air supremacy early and exploited this advantage to the fullest. As coalition aircrew flew their thousands of sorties in all types of aircraft, aeromedical personnel - flight surgeons in particular - must have learned a lot about hardball operational aerospace medicine.

What were these lessons? What did the flight surgeons find out? What went wrong? What lessons should be taught to those just now beginning their aeromedical training? What did operational people know that was most valuable to them? What turned out to be incorrect, or inconsequential, or useless, or dangerous? What was surprising? What had to be improvised, and how? What about aircrew fatigue - how was that diagnosed and treated? What about fear? Crew rest quarters? Food? Sanitation? Morale? Illnesses? Rand R? What was the effect of the no-alcohol environment? Or was that a myth?

Most flight surgeons who served in Southeast Asia never got around to recording their answers to questions such as these, and so we have almost no open aeromedical literature on that conflict, except for the stellar efforts of USAF Cols. Russ Rayman and Royce Moser to capture impressions at seminars. (There may be Navy sources I don't know about - if so, it **really** proves my point!!!) If the flight surgeons who supported the full effort do not write down and disseminate their hard-won knowledge and experience, most of it, too, will be lost. True words: "If you don't write it down, it never happened." Thus, your colleagues who face similar situations in the future (and they will, never doubt it!) will have to learn your hard lessons all over again.

After-action reports won't do it - they tend to float around for awhile and then quietly disappear from general knowledge. Yes, I know that some policies do change, but mighty few, and the gritty unit-level issues aren't usually addressed.

So write down what you learned, and send it to this Newsletter, or to Military Medicine, or to (my personal choice) Aviation, Space & Environmental Medicine. Don't worry if you don't consider yourself an author - that's what editors are for.

War is a terrible experience, and the lessons we learn from it, and teach to others, may be the best way to give it meaning.

Welcome home!

COL DAVID R. JONES  
MC USAF (Ret.)

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## BOLTER FEVER: A FRENCH PERSPECTIVE

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During night recoveries, when the carrier demonstrates rock'n'roll on a wavy dance floor, when the navy pilots fight the needles on line up, trying to keep in the groove and not to think about the deadly kiss of a ramp strike, when they target the 2 or 3 wire to embrace "smoothly" mother ship whose steel cable arms are stretched across a pitching deck, how many of them experienced the Bolter Fever?

The glow of the wave off lights burning in their red eyes, legs unsteady on the deck, heading down to the ready room, flight suit soaked by sweat, mouth dry, how many pilots had to choose between the friendly ward-room where they would quench their thirst and exorcise their fears with buddies, or the maternal warmth of their bunks where they would seek a deep, escaping sleep, sometimes with the help of forbidden drugs.

And a few hours later, they are up and have to do it again, mouth still dry, muddy eyes, sluggish mind from the sleepless night or the residual effects of over the

counter pills. But who cares, since when they are strapped in the familiar cockpit they are again the best flying knights, but for how long?

How many days or weeks of strenuous operations might be necessary to rust their armour, to weaken their skills?

To help pilots with overstrenuous schedules and poor resting conditions, flight surgeons may prescribe two different types of drugs: hypnotics to optimize the rest period and psychomotor stimulants to maintain alertness during extended missions.

A new chemical series of hypnotics, the Imidazopyridines is actually under evaluation and shows a promising profile with fast absorption, short half life, no tachyphylaxia, more specific action with normal sleep architecture maintained and little if any residual effects.

New stimulants under development like Modafinil, less harmful and easier to use than amphetamines, bear great hopes for operational use, allowing up to 3 days of continuous alertness.

But these drugs are only pharmacological crutches, and the best way to cope with fatigue and tension is still to manage efficiently the rest and work schedule. By doing so, pilots may not always fly bingo profile in their restless dreams.

necessarily lead to an increased understanding of a particular situation. There is a natural tendency for people to prefer information which is salient or has changed recently; or information which is consistent with decisions that they have already made concerning a particular situation; or for that matter, any information regardless of how reliable it is. The pilot is especially vulnerable to reverting to these characteristic ways of handling incoming information and thereby losing their SA when workload is too high or too low. Training is one of the most critical elements that enables the pilot to maintain his SA because it reduces workload and helps the pilot to make judgements concerning the reliability of information.

If we can assume that the pilot has received the right information, many times it is used to make a decision. This provides another opportunity for error to occur. Not a great deal is known about how people make decisions in real life. However, there are some aspects of decision making, such as a general classes of decisions that people make, which can be specified. There are two general classes of decisions: decision making with certainty and decision making with uncertainty. Decisions are certain when all the possible outcomes concerning a particular situation are known. Unfortunately there aren't very many decisions that are made under conditions of certainty - one example involves decisions which require the use of precise formulas, such as the decision to takeoff that is based on obtaining a certain airspeed. The other general type - decision making with uncertainty - is characterized by the fact that decisions are made without the benefit of precise formulas and people are not aware of all the possible alternatives that are available to them due to time constraints or training. Whether or not the pilot should eject is a good example of making a decision with uncertainty.

Another thing that is known about decision making is that humans rarely exhibit the types of behaviors that will maximize the payoff under conditions of uncertainty. Instead, the decision maker, especially experts, exhibit behaviors which increase the probability that a less than optimal decision will be made. For one, a quick assessment of the situation is usually made, therefore people tend to overlook some of the options that are available to them. Also, reliability of incoming information is not a prime consideration when making a decision under these conditions. Since there are so many ways information can be compromised this tendency has serious consequences for aviation. In addition, all the possible outcomes that could result from their decisions are not taken into account. Finally, once people make a decision they have an inappropriate level of confidence in it. This makes the person want to stick to their decision long after the available evidence suggests that they should adopt a different strategy. Again, training is important to overcome the problems that are

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## **THE HUMAN FACTOR PART I**

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All personnel involved with aviation need to be aware of the potential for human error. Homo-sapiens are the most important and complicated part of any system, yet at the same time they are the component which is the most prone to error. Because people are so complicated there are numerous opportunities for error to occur, ranging from getting the required information concerning some aspect of the task at hand, making decisions, and finally, acting on these decisions.

The proficient performance of any complex skill depends upon the adequate and timely flow of information. This is especially true while aviating. The problem which threatens the pilot's ability to maintain situational awareness (SA) is that although there is a wealth of visual, vestibular and verbal information that pilots have at their disposal, many times this information is not reliable and even worse, is subject to interpretation by the individual. Also problematic is the fact that people tend to process incoming information in ways that won't

associated with decision making, especially when the decision has to be made immediately.

Even though people get the information they need and manage to overcome all the problems associated with decision making, there are still opportunities for error when the individual must act on these decisions. To illustrate, a quickly detected, correctly diagnosed engine fire, followed by an appropriate decision to shut down the affected engine, can be nullified by a slip when the individual shuts down the unaffected engine. A slip occurs when an action is performed that the individual did not intend to perform. Although not much is known about the nature of these types of errors, the conditions under which the probability of making a slip is increased are known. For example, taking shortcuts and not following established procedures is one way people increase the probability that they will perform an action that they really didn't intend to. Breaking habit patterns is another way to encourage a slip to occur. Unfortunately, even being highly trained doesn't help when the individual breaks a habit pattern or takes a shortcut. In fact, the more highly trained the individual is, the easier it is for them to confuse highly similar procedures.

In short, whenever a human is involved in the operation of a system there is potential for error. To a large extent the error has been reduced through the design of a system which eliminates as well as tolerates error, as well as through the selection and training of individuals to operate these systems. However, in spite of these efforts, there are still other factors, such as motivation, fatigue and environmental conditions, which all impact on performance. This requires that everyone involved in aviation be aware of the scope of the problem and be vigilant in order to prevent problems from occurring.

LCDR MICHELINE Y. EYRAUD  
MSC USN  
COMNAVAIRLANT 0188

## 1991 NAVAL AEROMEDICAL PROBLEMS COURSE

This year's 1991 Naval Aeromedical Problems Course has been scheduled for 22 through 25 October 1991, at the Naval Aerospace Medical Institute in Pensacola. This week was chosen as the best one available to minimize conflicts with other scheduled courses and events. At this time, no one is in a position to guarantee whether funding will be available for you to attend, but plans will proceed nonetheless.

Even though last fall's course was cancelled because of funding and other more pressing events, we still received numerous complaints that people were not informed of the dates or details of application. Messages were sent to every command which has a flight surgeon billet, but many did not reach the intended reader. Accordingly, we are starting a little earlier this year, and the enclosed, reproducible registration form should be used at your earliest opportunity to assure a slot for you at the meetings and at the BOQ. Additionally, we will submit a notice to the Navy News Service for inclusion in their bulletin.

As of this writing we have no firm schedule or topics, but recent events should provide a rich source of interesting ones from which we can all learn. We would appreciate any suggestions you may have and would be delighted to have you volunteer if you have something which may be of interest.

CDR Mary Anderson will have relieved me by that time and taken over planning and execution of the course, but she and I will work together toward its successful completion.

CDR G. G. REAMS  
MC USN  
NAMI (CODE 32)

### -- 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**

# 101 NAVY AEROMEDICAL

## 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 !!!**



# Society of U. S. Naval Flight Surgeons



## 1991 OFFICIAL BALLOT

### Please Vote For One Person Per Office

INSTRUCTIONS: Do not put your name on this ballot. Please mark your choices and return it in the envelope provided. Or, you may vote at the 1991 SUSNFS annual meeting on Sunday evening, May 5, (to be held concurrently with the 1991 annual meeting of the Aerospace Medical Association in Cincinnati, Ohio).

NOTE: Dues must be paid up for ballot to be counted. Please check your address label, which should show "91-92" or greater, or "LI" for lifetime members. Checks in the amount of \$10.00 will be accepted with the returned ballot to bring dues current.

#### **Vice President (President elect)**

- CAPT Robert Hain
- CAPT Truman Long
- CAPT Wendell Lovan
- CAPT William Miller

#### **Secretary -Treasurer**

As per the change in length of term of office, LCDR Dave Shiveley will continue for the second year as secretary-treasurer.

#### **Senior Member, Board of Governors**

- CAPT Edward Antosek
- CDR Mary Anderson
- CDR Mike Valdez

#### **Junior Member, Board of Governors**

- LCDR Richard Bean
- LCDR Gerard Hayes
- LCDR Richard Oswald

#### **Emeritus Member, Board of Governors**

- RADM R. Paul Caudill Jr.
- CAPT Pete Bigler
- CAPT Robert Mitchell