PRESIDENT’S COMMENTS

In the July 1985 issue of SUSNFS Newsletter, I wrote of my intent to communicate the Society’s concern, relative to the new ETPF physical examination procedure, to the Surgeon General. His office has kindly granted permission to publish his reply. Herewith, then, are both letters:

Dear Admiral Seaton,

At its annual meeting in May of this year, the Society of U.S. Naval Flight Surgeons was briefed on a recent policy decision which effectively removes the Naval Aerospace Medical Institute (NAMI) from its historic role as the final filter in the medical qualification of the great majority of candidates for flight training.

The members’ concern over this development focused on the applicants determined by field activities to be physically qualified who are, in fact, not physically qualified when re-examined at NAMI prior to entrance to flight training. The undocumented implications of such individuals entering the training pipeline led the Society to pass a resolution strongly urging that the matter be reconsidered.

In addition to the Society’s primary concern for flight safety, a secondary concern over the fate of NAMI itself was expressed. A clinically strong and operationally experienced staff is seen as a recourse of exceptional merit for the entire aeronautical organization. The removal of a major portion of NAMI’s clinical mission raises rightful concern over possible resource reallocation with a resultant loss of staff and direct threat to the Aerospace Medicine Residency Accreditation.

The Society sees merit in a centralized, NAMI-managed, quality control program with the satellite examining facilities accountable to the Institute for aviation type examinations, and is grateful for your support of similar initiatives in the past. However, if but one entrance examination is to be done, the Society urges that it be done by NAMI, where corporate experience and consistency of results have been historically demonstrated. Resumption of the NAVIP Program would accomplish this worthy objective.

Very respectfully,
C. H. Bercier, Jr.
CAPT, MC, USN
President, 1985-86

Dear Doctor Bercier:

Handbook Chairman, CDR Jim Graves, tells me that he is receiving input (including mine, finally) for the Flight Surgeon’s Handbook project, but this input has largely been limited to that from NAMI staff. CAPT Dick Millington has decided to request F.S. Manual Chapter revisions shortly, and this should facilitate concurrent Handbook input to Jim. Obviously, the Manual is a much larger effort. But as long as authors are working on one why not dash off the other while you’re at it?

Has anyone given Jim Graves ideas/suggestions on this? What do you feel would be useful in a concise, pocket sized reference? Get your thoughts to him (c/o NAMI Training, Code 10) and help to make this project one of which we can all be proud.

Sincerely,
Lewis H. Seaton
Vice Admiral, Medical Corps
United States Navy
Surgeon General

HANDBOOK/MANUAL SITREP

Handbook Chairman, CDR Jim Graves, tells me that he is receiving input (including mine, finally) for the Flight Surgeon’s Handbook project, but this input has largely been limited to that from NAMI staff. CAPT Dick Millington has decided to request F.S. Manual Chapter revisions shortly, and this should facilitate concurrent Handbook input to Jim. Obviously, the Manual is a much larger effort. But as long as authors are working on one why not dash off the other while you’re at it?

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GUEST OF HONOR -- NASHVILLE

It is with great pleasure that I announce the acceptance by LTGEN Keith A. Smith, Deputy Chief of Staff (AIR), HQMC, to be our Guest of Honor and keynote speaker at our Nashville Navy Luncheon. It was my privilege to serve Gen. Smith (continued)
as his II MAW Surgeon for 2 years. He is a strong and effective supporter of our aeromedical endeavors and you can be assured of a typically loud and clear message next April. Y'all come.

FINAL THOUGHTS

It recently occurred to me that, collectively as a Society, we have very little information on the person of the man whose name honors our annual award. Richard E. Luehrs was a man whom I never met, and saw (and heard) only once, as a Student Flight Surgeon, in 1966.

In order to attempt to make his professional legacy to us more clear and meaningful, I have requested information from Society Members who knew him in his prime. To any of you Gray (or Bald) Eagles out there that I may have omitted from this mailing, I assure you it was not intentional. It is just that I know so little of the man, that I'm merely at the groping stage. Any thoughts as to how this project should be conceptualized and structured would be most welcome.

Keep those cards and letters coming, c/o Force Surgeon, HQ FMFLANT/Norfolk, VA 23515, (804) 444-6020; AV 564-6020/6112.

C. H. Bercier, Jr.  
CAPT, MC, USN

SECRETARY-TREASURER NOTES

Among other things, the by-laws of SUSNFS require concurrent membership in the Aerospace Medical Association to qualify for membership in the Society. For this reason, the SUSNFS roster is compared with the list of AsMA members each year. Having just completed this Herculan task, I have made a large number of adjustments to the SUSNFS mailing list. Specifically, those SUSNFS members whose names did not show up on the AsMA list as published in Aviation, Space, and Environmental Medicine 56(8), September 1985, have been downgraded to the status of subscribers. On the other hand, SUSNFS subscribers who appeared as AsMA members were upgraded to full Society membership if it appeared that they were otherwise qualified, i.e., designated Naval Flight Surgeons or AMO's.

What does it all mean? In a nutshell, subscribers are disenfranchised, but do receive the Newsletter. SUSNFS members can vote if they are in good standing with dues paid, and thereby may participate in the decisions and policies of our organization.

In the process of reconciling the membership lists, it is almost inevitable that a few mistakes have occurred. Therefore, I ask you to check the mailing label on this Newsletter for accuracy of your name, rank, address and status. Please call or write me and I will make any necessary corrections immediately. The cryptic letter “S” at the upper right indicates that you are a subscriber; “M” signifies member. The number indicates the year to which dues are current, based on a fiscal period beginning and ending with the annual concurrent meetings of AsMA and SUSNFS. “LI” means paid up for life, while “IN” signifies an institution receiving a gratis subscription.

Speaking of dues, the record shows that 53% of the subscribers and 34% of the members are in arrears. We have continued sending the Newsletter out to these folks, hoping to maintain lines of communication within our community. However, this gets darned expensive, and I just don’t know how much longer the paying membership can be expected to shoulder the cost of continued correspondence with persons who have not been heard from in years.

If on checking the label you discover that your membership expired some time in the past century, do not despair. I covertly operate a liberal clemency program, so that by letting me know that you still exist and sending a check for $10.00 (made out to SUSNFS) as if you were just now joining, no one will ever be the wiser.

Otherwise, a purge is coming.

Homer Moore  
LCDR MC USN  
Secretary-Treasurer, SUSNFS  
%Commanding Officer (Code 071)  
NAM  
NAS Pensacola, FL 32508-5600  
(904) 452-4349  
AVN 922-4349

NAMl NOTES

WANTED -- FLIGHT SURGEONS

We have a critical manning shortfall of Flight Surgeons on the horizon. By next summer we will be 20-25 Flight Surgeons short of our requirements. We need your help in solving this immediate shortage and for the longer term. We ask every reader of this NEWSLETTER to do the following:

1. Advise your Flight Surgeon colleagues that NMPC will look favorably on extensions in a Flight Surgeon billet or on a request for a second tour.

2. Advise previous Flight Surgeons now in other endeavors that NMPC would welcome a request to return to Aviation Medicine.

3. Advise any medical officers looking at involuntary separation this summer that there is a good possibility they could remain on active duty if they volunteered for Flight Surgeon Training.

4. Educate any interns you may be in contact with about the Flight Surgeon Program.

EYE PEARLS

We recently examined an Ensign who had a significant color vision deficiency and yet managed to get into the flight training program as a student naval aviator. It points out some of the pitfalls of color vision testing. He originally failed a color vision test in 1980 but somehow managed to be accepted into a navy college training program after identifying bright red and green lights properly. In 1981 he was given nine successive runs of the Farnsworth lantern (FALANT) in two days and did not manage to pass any of them. He averaged two errors per run. He was declared to be color defective and signed a statement that when commissioned in the Navy, he would not be eligible for any line officer program. Prior to graduation, he was given five additional tests and managed to have a passing score on the last two, missing one presentation on each. On his next color vision test he misnamed one of the presentations and was asked by the examiner, “Are you sure?” He changed his answer and thereby managed to pass the test. After he got into flight training, he decided that flying was causing him too much anxiety and thus turned himself in as a color vision defective. On the three runs we presented to him, he missed an average of two out of nine each on the FALANT. He was
found to have a deuter-anomalous (green) defect on pseudo-
isochromatic plate testing. He is now going to try to become a
supply corps officer.

The FALANT test works very well when properly given and
interpreted. The Manual of the Medical Department gives
detailed instructions on how it should be given and the
instructions that are riveted on the back of the machine are
also very good. The test targets must be given in a random
manner, in a normally lit room at a distance of eight feet.
If a person gives a wrong answer, he should not be prompted
and the incorrect response should be properly recorded. The
most runs that any candidate should get are six and then only
in a borderline case. The passing grade is nine out of nine
presentations correct on the first run or 16 out of 18 correct
on the next two runs. If his error averages 1.5 per run, then
he is given a five minute break and the test is repeated. If
he does not pass on the next three runs, he fails the exam-
ination. If a person misses about two presentations per run
and you give him enough runs, sooner or later he will pro-
bably miss only one per run and thereby pass the test, but
this is an incorrect way to do the test.

AORTIC REGURGITATION

Chronic aortic regurgitation (AR) is one of the valvular
lesions which can often be diagnosed before there has been
any irreparable myocardial damage. This is due to its long
asymptomatic period when the left ventricle (LV) adapts
to the leaking aortic valve. In the age group 15-35 years,
the most common cause today of AR is the “bicuspid” aortic
valve which probably occurs in 2% of the general population.
Fusion of the commissures, perforation of valve cusps
during endocarditis attacks and dilatation of the aortic root
are the principle mechanisms by which bicuspid valves
deteriorate and create regurgitation.

Because this condition has a long asymptomatic course,
early diagnosis requires careful auscultation and careful
attention to the pulse pressure and signs of possible cardiac
enlargement. On routine cardiac examinations there are
certain key features for which one must be alert. The heart’s
response to AR is an accommodation to volume overload;
therefore, three principle clinical features are paramount.
First, there is an increased pulse pressure with systolic
pressures rising into the 140-170 range while decreased
systemic vascular resistance and the backward flow of
blood into the LV decreases the diastolic pressure often in
the 50s and 60s. Second, the heart is hyperdynamic due
to its increased size and requirements for an extra large stroke
volume. The PMI is enlarged, more lateral and extremely
vigorous. Third, is the classical diastolic “blowing” mur-
mur at the lower left sternal border. This should be sought
carefully by listening with the patient holding his breath in
expiration and leaning forward. All the numerous peripheral
signs of AR, Corrigan’s water hammer pulse, deRosier’s
sign, Quincke’s pulses are simply manifestations of the
hyperdynamic cardiac status of the patient and the widened
pulse pressure. It should be added, a young, nervous patient
with a thin chest wall may have a vigorous PMI but his pulse
pressure should be normal and no diastolic murmur should
be present.

When an individual is found with a diastolic murmur, a
careful cardiac workup should be undertaken. An aviator or
aircrewmans must be grounded until his true cardiac status is
known. To determine the aviator’s long-term status requires
specific data. One must obtain a reliable estimate of his
regurgitant fraction (the amount of the backward leak through
the valve). The width of the pulse pressure gives a reason-
able estimate of severity. Second, if possible, it must be
determined if the AR has been chronic or is due to an acute
event such as infectious endocarditis. If the patient has
symptoms of infection — chills, sweats, weakness, visual
field cuts, immediate hospitalization is required. The echo-
cardiogram is the single best means of determining if vege-
tations are present. ECHO will also help evaluate the third
important aspect of AR; the degree to which the LV has been
able to adapt to the volume overload. In significant AR a
normal ejection fraction (50-60%) is abnormal for it should
be elevated or hyperdynamic. Involvement of other valves
with either a rheumatic process or infectious endocarditis
(IE) can also be best evaluated by ECHO. In some cases, a
cardiac catheterization with aortic root angiography will
be required to accurately assess the patient’s hemody-
amic status.

Aviators with mild AR are not necessarily grounded per-
manently. The complications of early or mild AR are few
and rarely sudden. The one exception to this is IE; therefore,
the flight surgeon must be certain that the patient under-
stands the importance of IE prophylaxis. If the AR is fully
evaluated and found to be mild, very often a waiver can be
granted. Follow-up examinations should be frequent (every
six months) and the patient should be familiar with the symp-
toms of endocarditis.

Although the progression of AR is slow, many patients with
AR do come to valve replacement. Deciding when valve
replacement should be performed is a difficult and impor-
tant decision. If the flight surgeon has any doubts or con-
cerns about changes in a patient’s status, he should be re-
ferred immediately to a cardiac center.

CDR Osborne
Head Int. Med. -- NAMI

NEUROLOGY NOTES

MIGRAINE IN AVIATORS

PART I. PROBLEMS OF POLICY

Migraine is one of the most common neurological disorders,
yet remains one of the most poorly understood. Because
of the spectre of recurrent incapacitating “sick headaches”
possibly associated with neurological deficits, any history
whatever of migraine has traditionally been viewed with
prejudice in consideration of fitness for flying duty. I contend
however that migraine is a more or less inescapable feature
of human existence. Thus a rigidly negative aeromedical
policy on migraine inevitably puts the Flight Surgeon on
a collision course with the Facts of Life!

I will present the evidence that migraine ubiquitously
affects mankind in a future article. In the present communi-
cation, I wish to reflect on aeromedical policy. It is my thesis
that the inflexible policies of the past, however well intended,
have actually worked at cross purposes to aviation safety.
The main reason this holds true is because the patient who
presents to the Flight Surgeon with migraine is NOT the
one who has frequent symptoms. Au contraire, the true
migraineur recognizes the recurring pattern of symptoms
for what it is, and with a full appreciation of the aeromedical
implications will conceal the problem from the Flight Surgeon.
By contrast, the individual who experiences an isolated or
infrequent migraineous episode will throw himself in terror
(continued)
at his Flight Surgeon’s feet, convinced that the symptoms surely represent some dread disease of the brain. Then the Flight Surgeon delivers the bad news, “No, that was a migraine ....,” and the good news, “...but at least you don’t have to worry about a brain tumor while you’re looking for another job!”

A policy which effectively grounds pilots whose infrequent symptoms represent a lower likelihood of adverse outcome compared to other individuals who slip by would seem to be a tragic irony. The real cost however does not stop with wreakage of individual careers, loss of human resources, or wastage of the taxpayers’ assets. The true carnage is the Flight Surgeon’s loss of rapport and effectiveness in the squadron. Word travels fast when a frightened patient comes to his doctor in confidence for help, and exits the office feeling betrayed. There is no second chance for the trust of the other squadron members; the Flight Surgeon will be avoided or handled in a strictly superficial manner. Consequently, real and significant aeromedical problems will go undetected.

But what about the impact of migraine on aviation safety? In fact, there are a number of cases on record where migraine is implicated as an aviation hazard. However, after an exhaustive survey of the literature, the number of such anecdotes in the entire history of aviation can be counted on one hand — with fingers left over.

One problem in assessing the safety implications of migraine is that we have no good data on the actual prevalence of the condition among Navy pilots. However, it seems reasonable to contrast migraine with some other potentially incapacitating neurological disorder affecting young people — epilepsy, for example — to arrive at a first approximation of relative risk for aviation. Now we know that in the population at large, the incidence of migraine even when narrowly defined is at least a hundred times greater than the incidence of epileptic seizures. Yet when the computer records of the Naval Safety Center are examined, epileptic seizures as a mishap factor evokes a two-inch thick dumpex of computer paper, while migraine as a mishap factor yields but two isolated cases — and dubious at that.

No one is suggesting that highly complicated or frequent and incapacitating migraines should be ignored in aeromedical disposition. The point to be made is that there is very little real evidence to implicate infrequent migraine as a safety hazard. Consequently it does not seem at all unreasonable to relax a policy on migraine which in any case has been counterproductive.

The issue of migraine has been repeatedly cussed and discussed during my tenure at NAMI, both before the Special Board of Flight Surgeons on numerous occasions as well as before the policy setting Aeromedical Advisory Council. There is no area of aviation medicine which is more contentious. I have stated my own position strongly. Yet I recognize that this remains an area where reasonable men may disagree. Nonetheless, an enlightened policy bearing on this problem appears to be in evolution.

At present, the policy for disposition of flight personnel with a history of migraine is as follows:

1. Individuals who subsequent to designation experience infrequent migraine symptoms — being two or less episodes per year on the average — are NPQ; however, a waiver is recommended to continue duty involving flying in the class and service group that would otherwise pertain.

2. Candidates for training who have a history of migraine are NPQ, no waiver recommended.

Homer Moore
LCDR MC USN
Neurology Division Officer
NAMI Code 071

WAIVERS

1. There is much misunderstanding concerning the granting of waivers to fly. A waiver may best be considered as permission to the Squadron Commanding Officer to allow someone to fly in spite of the fact that the individual is not physically qualified to do so. This is an individual decision on a case-by-case basis. There are no hard guidelines. Waivers are recommended if it appears to be in the best interest of the Service. Factors considered are: flight safety, economic feasibility, community shortfall, aircraft and mission. Factors not considered are race, sex, “fairness,” important friends, or political pressure. A person who is physically qualified does not need a waiver. A person who is not physically qualified may not fly without one.*

*Actually, the Squadron Commanding Officer may do as he chooses if the situation demands it. We, medical officers give advice, not permission.

2. Waivers are recommended by Medical and granted by the Line. Should a Flight Surgeon do an annual (or other) physical and discover a physical defect, there are certain procedures which must be followed. A letter requesting a waiver of physical standards is written by the Squadron Commanding Officer (see routing below). This letter has no definite format but should include type of aircraft, mission type flown, individual’s duties, total time in aircraft, and a statement of impact on flight safety. This letter is appended to the SF-88, 6120/2 or SF-93, and any supporting documents and routed appropriately.

Routing:
Officers (USN/USNR) -- From Squadron Commanding Officer
-- Via NAMI-14 -- To CNMPC-43B

Officers (USMC/R) -- From Squadron Commanding Officer
-- Via MAG -- Via Wing -- Via NAMI-14 -- To CMC (ASA).

Officers (USNR-R) -- From Squadron Commanding Officer
-- Via NAVAIRES -- Via Area Commander — Via COMNAV-AIRESFOR (Code 53) -- Via NAMI-14 -- To CNMPC-912.

Navy enlisted (USN/USNR, USNR-R and TAR) -- USN/USNR Active Duty Aircre -- From Commanding Officer
-- Via NAMI-14 -- To CNMPC-404EJ. USNR-R and TAR
-- From Commanding Officer -- Via NAVAIRES -- Via Area Commander -- Via COMNAV-AIRESFOR (Code 53) -- Via NAMI-14 -- To CNMPC-404EF with a blind copy to CNMPC-913.

Navy Air Controllers are the same as Aircrew except To CNMPC-404DF.

Enlisted Aircrew (USMC. ALL) -- From Commanding Officer
-- Via MAG -- Via Wing -- Via NAMI-14 -- To CMC (ASA)
with a copy to CMC (MMEA).

(continued)
Enlisted air Controllers (USMC) -- from Commanding Officer -- Via MAG (if needed) -- Via Wing -- Via NAMI-14 -- To CMC (ASA) with a copy to CMC (APC).

3. Remember that we must make a decision based on what information we have available. Be overly verbose rather than otherwise. Also remember if a consult looks like an example of Sanskrit Calligraphy to you, it looks the same to us. Don't be afraid to demand legible copy because we certainly will.

4. Questions? Call NAMI (Code 14) at Autovon 922-4502. SPECIAL NOTE: MMD Article 15-77(5)(b) Redesignation Aviation Physical Examinations of Naval Aircrewmen. Correction -- Reads; others must meet the standards of Service Group II, Article 15-72, should read; others meet the standards of Service Group III, Article 15-72.

CAPT Wells

HTLV III TESTING

SecNavinst 5300.30, 4 December 1985 is on the street. Be looking for it. It provides guidelines for HTLV III screening of personnel and management of those personnel who screen positive.

Q/A

Please re-read the President's Column! The SG is clear in his guidance of doing it right the first time. It's a tough job! Your organization, like ours, changes weekly with new personnel coming aboard and old hands departing. In a surprisingly short time the requirements, advice, and procedural techniques, provided by the inspection team from NAMI to those people doing your aviation examinations is lost, forgotten or ignored. But if we are to continue to provide the best qualified people for entrance to Naval Aviation, we must understand the frailties of our equipment and personnel. None of us like to tell an obviously highly motivated young man or woman that they just don't have what it takes to fly NAVY AIR. In years past we could let those individuals who were borderline slide through knowing that they probably wouldn't make it past NAMI and justify our failure by saying to ourselves that NAMI had better equipment and people and we might not be doing the test exactly right and it was better to give the person the benefit of the doubt, etc., etc. Well - Now you're it! There are no more excuses which are acceptable because there is no backup. So establish your Q/A. Train your "new" people. Check that your "old" people are not taking shortcuts, find yourself a black hat and learn to say "Sorry, you are not qualified," when it needs to be said. Let's do it!!

CAPT. Angelo

CRASHWORTHINESS

NAMI has had a significant interest in the crash survival aspects of aircraft accident investigation for several years. The 12 hours of classroom instruction to the Student Flight Surgeons should certainly be some indication of the importance of this subject, yet, the FSR's more often than not, fail to address the crash survival aspects. Further, it is never mentioned in any of the mishap messages. For you "quacks" out there in the trenches who may have forgotten, "crashworthiness" is defined as the ability of the basic aircraft structure to provide protection to occupants during survivable impact conditions. Impact conditions are considered survivable in the cockpit or passenger cabin when the crash forces are within the limits of human tolerances. Lack of "crashworthiness," on the other hand, indicates that the basic aircraft structure, as a protective container, is subject to extensive inward collapse, and subsequently affects the "habitability" of the occupants. In this regard, aircraft, in the process of becoming acutely obsolete, can be very selfish with their occupiable areas. Be aware of "bounce back." This phenomenon occurs when the cockpit and cabin structures, (usually in the vertical-loading crash) collapse on the occupants, but then return to nearly the original shape. Suspect this occurrence when the injuries are out of proportion to the aircraft's post accident condition. Survivability should be considered in all mishaps, and you can't do it without calculating the crash forces. That's right -- determining terrain angle, impact angles, velocities, (both vertical and horizontal) and then eventually coming up with the "Gs." (The deceleration forces commonly referred to as the "abrupt stop"). These forces really aren't that difficult to calculate. If you need help NAMI will provide assistance.

Calculating impact deceleration will:
1) Establish accident severity and determine if forces were within human tolerance.
2) Evaluate the performance of the "tie-down chain" I.E. the seat belt, seat belt anchorage, shoulder harness and anchorage, seat structure and seat anchorage, and the floor.
3) Evaluate cargo restraint systems.
4) Evaluate aircraft structure integrity.

Once you are the aeromedical investigator/member of the mishap board, have established your "G" forces, and determined survivability tolerance, with or without fatality, you can then "top off" your FSR with design recommendations or modifications to areas just discussed, or even suggest where basic research is needed in attenuating crash forces. Granted, the Flight Surgeon Report, at times, can seem like a futile exercise in checking off lists and plugging up little square boxes, but it is taken very seriously at the Safety Center, and your conclusive findings and/or ideas may be what it takes to effect a life-saving, or injury-reducing design or modification.

For example, we know too well that head and C-spine injuries are all too common due to flailing. The torso is readily tied down--but no one has figured out what to do with the head, except by making it even more heavy, and more susceptible to flailing, by placing a helmet on it. Perhaps the helmet would provide more protection if it had the means to establish where basic research is needed in attenuating crash forces. The Marines may never have them if you don't jump up and down in tantrum fashion or at least bring it up in the FSR.

The bottom line: If you have calculated the deceleration forces and survivability was possible based upon the known determined human tolerance levels of 25 G's for the Z axis, 45 G's in the X axis, and 15-20 G's in the Y axis (based on about 0.1 second duration) and yet their are no survivors, then something went wrong besides the cause of the crash. This is part of our job as Flight Surgeons, to find out why.
FLIGHT SURGEON CLASS 85003
GRADUATES 6 FEB 1986
BILLET ASSIGNMENTS

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<td>McGuirk, Timothy D.</td>
<td>LT</td>
<td>VP-10, NAS Brunswick, ME</td>
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<td>LT</td>
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<td>LT</td>
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<td>Schraml, Frank V.</td>
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<td>2nd MAW, MCAS Cherry Pt., NC</td>
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<td>Senter, Cedric H.</td>
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<td>Steelman, Michael T.</td>
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<td>White, James T.</td>
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<td>NAF Atsugi, Japan</td>
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<td>Woodward, William B.</td>
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<td>Yauneridge, William F.</td>
<td>LCDR</td>
<td>MAG-29, MCAS New River</td>
<td>Jacksonville, NC</td>
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Anabolic steroids was only a term in the physiology books until recent years. Now newspaper and magazines discuss the “misuse” of anabolic steroids. College athletes and coaches are charged with illegal sale and distribution of these prescription drugs. There is clearly a growing black market for these drugs which many body builders and competitive athletes hope will increase their muscle size and strength. They are willing to break the law and risk serious side effects despite the lack of experimental evidence to prove that there is a significant increase in muscle size and strength with anabolic steroid use. With their growing popularity and obvious lack of knowledge about them we will be getting more and more inquiries about them.

Recently, I had an anonymous phone call asking if steroids show up in the urine. This made me wonder why someone (I hope this was not an aviator) would want to know unless they were thinking of using them. I did some research on the aeromedical implications of taking anabolic and other types of steroids. The following information is what I found:

-- Normal men produce 2.5 to 10 mg of testosterone daily, women average 0.23 mg daily.
-- Testosterone is metabolized primarily in the liver and is excreted mainly in the urine as metabolites. So to answer the question, it can be measured in the urine. The urine of

Report it, followed by corrective action recommendations! Don’t be afraid to speak up, and if you need help, let us know.

George Hill
CAPT MC USN (RAM)

ANABOLIC STEROIDS
Steroids are not healthy for anyone. In aviators their use cannot be tolerated.

H.O. Porter, LT MC USNR
Flight Surgeon CTW4

JOINT COMMITTEE OF AVIATION PATHOLOGY

CALL FOR PAPERS

Fifteenth Biennial Scientific Session of the Joint Committee On Aviation Pathology 7-9 October 1986 RAF Institute of Pathology and Tropical Medicine Halton, England

Papers are solicited for presentation. Participation by non-military individuals and organizations is invited. The sessions will be oriented toward progress in the various areas of aviation pathology. Specific topics will include but not be limited to:

1. ENVIRONMENTAL HAZARDS
2. ADVANCES IN TOXICOLOGY
3. ACCIDENT INVESTIGATION TECHNIQUES
4. PRE-EXISTING DISEASE

To submit a paper for consideration, abstracts should include:

1. Complete title of paper, name of author(s), degree or rank, and laboratory or office of origin (brief), exactly as they should appear in the program. Also mailing address of author for correspondence.
2. A categorization by the author of the appropriate scientific field to which the paper is related, as listed in the specific topic examples above.
3. The summary abstract should present briefly the rationale and scope of the work, its methodology, the results, possible applications and conclusions.
4. An original and at least ten legible copies of the abstract are required. Abstracts must be typewritten, double-spaced, and should not exceed 200-500 words (approximately one double-spaced typewritten page.)
5. ABSTRACTS MUST BE RECEIVED NO LATER THAN 1 MAY 1986 FOR REVIEW BY THE PROGRAM COMMITTEE.

In general, the Committee will judge the suitability of the paper in terms of its originality, methodology, scientific import and presentation, and will also strive for diversity and balance in organization of the total program.

Please forward abstracts to:

Secretary, Joint Committee on Aviation Pathology Armed Forces Institute of Pathology Washington, D.C. 20306-6000

For further information:

(202) 576-3232 Autovon 291-3232
BOOKS

There are two books that should be in every flight surgeon's library for reference:

Clinical Aviation Medicine by Col. Russell B. Rayman USAF (MC) -- $11.95 from Vantage Press, Inc., 516 West 34th Street, New York, NY 10001. This book is a valuable fast reference for medical problems/diseases of significance in aviation. It discusses the condition, the problems associated, significance to aircrew and suggests disposition. Good Stuff!

Fundamentals of Aerospace Medicine Lea and Febiger, 600 Washington Square, Philadelphia, PA 19106-4198. Edited by Roy DeHart, Col. USAF (MC) retired. This is the latest text in Aerospace medicine. Chocked full of the basics as well as a look at everyday requirements. It is well worth the price. There is an order form in Aviation, Space and Environmental Medicine -- $105.00.

-Happy New Year and Have a Great 1986!!!!