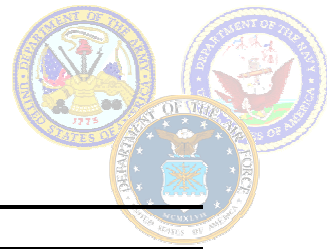


Soldiers, Sailors, & Airmen



Second Edition • Volume 1 • 2006

From the Military Medicine Interest Group of the American Medical Student Association

Message from the Editor

*Nicole Cassler, ENS, USNR
(USUHS)*

People often ask me why I joined the military for medical training. While there are a myriad of answers to this question, my overriding response is because of the opportunities in the military that you could not get anywhere else. For 4 years now I have attended occasional lunchtime lectures given by military physicians who have had very unique medical careers. For most, a tour as a general medical officer (GMO) was a significant component.

From the outside it may seem like a burden or an unnecessary delay in one's medical career. Many people balk at the idea of extending an already lengthy training period, perhaps not realizing that you are a practicing physician during those young, inexperienced years. The prevailing sentiment seems to be one of impatience with training (most of us have clocked in 20 years before residency), and a mad dash for the finish line so "life" can begin. To quote John Lennon, "Life is what happens while you're busy making other plans." After rushing through the first quarter of life to finally become a board-certified MD, you may look back and realize that those were the best years.

When I was tasked with finding people to submit articles for this issue, I found that anyone I asked was eager to share his or her experiences. Many a seasoned doc has emphatically endorsed those first few years as a GMO as the best years of a long career. Asking around at any military facility will quickly confirm this. Others lament never having taken advantage of such a unique opportunity. For most specialties, once the board-certified sticker is slapped on, the fun and out-of-the-way billets are out of reach. There is no going back.

So why is a GMO so special? When you have no one to lean on and must trust your training, there is a very steep learning curve that usually ends with a very confident and experienced MD who will go on to be very

competitive for residencies and will outshine everyone else. It is true that you will likely not be performing neurosurgery while on a GMO, but while you have your whole career to be a neurosurgeon, you only have the time before residency to do a GMO. Why not start off with a fun, confidence-building position with the most loyal people you will ever meet?

Top 10 reasons you should consider a GMO

10. People regret not doing one
9. You'll never have another chance if you specialize
8. A better understanding of what your patients go through
7. More prepared for residency
6. More credibility for the rest of your career
5. More competitive for residency (civilian or military)
4. You can tell your grandkids about your favorite years in the military
3. More pins and ribbons than anyone else in residency
2. You are a practicing MD right out of internship
1. You can fly a jet, spend all day diving, or travel around the world while still practicing as a doctor

The New Website

The MMIG website has been updated and is accessible at the following link: www.amsa.org/military/. Please take a moment to explore the website. A wide range of pertinent information for the military medical student can be found there to include web links to HPSP/USUHS sites, military rank and pay charts, and officer basic courses.

In the Works

- MMIG message board.* We are attempting to start a message board through the MMIG website as a place for everyone to share their experiences/offer advice about rotating through the various military hospitals during the 3d and 4th year of school.
- Coming up:* An upcoming issue will address deployment experiences in several different settings.

United States Army

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Go Get Your Wings!

Daniel T Johnston, MD, MPH
MAJ, US Army MC
Washington, DC

I am sure at this early stage in your career, surviving through exams, choosing carefully which lectures to attend and which ones to skip in place of needed sleep, reading or neither (zoning in front of the TV perhaps) and oh yes, preparing for your medical boards, are all that you have time to truly focus on for the present. I was there myself not too long ago and always thought life in the military after medical school would just sort of take care of itself. In fact, many of you might even still be wondering what in the world you got yourself into with this whole HPSP and military obligation deal. “Well, if I made a bad decision, 4 years really isn’t that long, right?”

I want to take a few moments of your precious time to just encourage you and tell you what a wonderful and exciting path you have ahead of you. Make no mistake about it: your fellow civilian classmates will never get a chance to experience the wealth of opportunities, excitement, and adventure that will be at your fingertips. In fact, just today I was a crewmember flying around the east coast in a 50 million dollar US Army GV Gulfstream jet at 40,000 feet getting acquainted with my aircrew and the missions they fly. Last week after clinic, I was hovering around “Washington monument-level” in Washington, DC in a Blackhawk helicopter helping as the pilots were training and getting familiar with all the DC airspace restrictions. All this so that I can assist the crew, learn about the duties of the other crewmembers and the associated hazards and exposures of their unique jobs, and ultimately bond with a very valuable and protected asset to the military: aircrew. This enables me to better serve their health needs by helping create a relationship that goes beyond patient-physician. Actively engaged flight surgeons develop relationships with the crews that are founded on mutual respect, dedication, and yes, friendship. I can be strong and respected advocate for promoting health, wellness, safety, while also



being their primary care doc and the guy who “keeps ‘em flying.”

Being a flight surgeon and then specializing in the 3 year Aerospace Medicine track in the Army has taken me down roads I could have never dreamed. I have racked up life experiences that I look back on and say, “wow, now that was exciting.” In 4 years of paying back my obligation (with no near end in sight to leave) I have been a battalion flight surgeon in Korea, a flight surgeon at the US Pentagon and Ft Belvoir, and I have



become a Professor at the military’s medical school, USUHS. The Army has also allowed me to work in the White House serving in a non-medical capacity as a social aide for the President and Mrs. Bush during a variety of social functions. The funny thing is, I used to hate speaking in front of groups of people —like you will often hear, the military has a “great sense of humor.”

Seriously though, I developed more skill sets in the last 8 years (including flight training with the Navy, Army and Navy flight surgeon courses, dive and space medicine courses, accident investigation school, etc) that civilian doctors won’t obtain in a lifetime. I have worked all over the world, met and served with some of the most amazing, dedicated men and women and best of all, I have never been trapped into a “box” where writing prescriptions and slugging through charts was the only way I earned a pay check. Being a flight surgeon provides diversity in experiences, training, and relationships. The military, and specifically a career in aviation medicine, is full of adventure and variety. The uncertainty (or adventure?) that lies ahead of you is really the prescription for providing the tools to grow and develop your character, and a book’s worth of experiences to share with your grandchildren. The variety and sometimes unpredictability of the unique experiences only available in the military will make you grow in ways you would have never dreamed. In the end, it will shape you to become much more than a physician, but an adventurer in life.

For comments or questions the author may be reached at djohnston@usuhs.mil.



Shipboard GMO

Michael Kent, MD, LT, MC, USN
(USS Ogden LPD-5)

Among the different GMO opportunities available for intern graduates, life as a shipboard GMO provides a key opportunity for development as an independent physician and a Naval officer. Often referred to as the “blue side,” you quickly become immersed in the culture of what it means to be “salty.”

To understand the role of a shipboard GMO, one must be aware of the different platforms. Carrier billets have gone by the wayside with family physicians now taking the GMO spot. Currently, if billeted for a ship, you’ll either go to an LHA/LHD class ship or an LSD/LPD class ship, all of which are amphibious-type ships tasked with transporting Marine forces globally. You will be billeted either to San Diego or Norfolk, but the Navy typically keeps you on the coast where you completed your internship. Before you report to your ship you will go to the month-long Surface Warfare Medical Officer Indoctrination Course (SWMOIC).

Billeted to the USS OGDEN (LPD5), I served as the GMO and the Department Head for the Medical Department. This differs from a GMO billet onboard an LHA/LHD class ship where the Department Head (i.e., your boss) will usually be a CDR/O5 and board certified typically in Internal Medicine or Family Practice. Onboard an LHA/LHD (the “big decks”), your duties are largely clinical (ie. sick call, health promotion, etc.), however, onboard the smaller LSD/LPD class, you’ll find that your clinical duties are only about half or less of what you do.

As a Department Head on an LSD/LPD class, you will be pretty high on the food chain and be responsible for writing fitness reports, awards, managing your 3M program, managing your budget, attending CO/Department Head meetings, etc. You will have a very intimate relationship with the CO as the physical/mental health of the crew weigh very heavily on the operational status of your ship. As the only physician on board “you’re it” when it comes to all clinical decisions, and you only have an x-ray machine and very basic lab facilities for diagnosis. You will always have contact with senior physicians, but you make the call in terms of what the patient in front you looks like. Don’t worry, you will have all the meds you need, but your decision on whether to use them or not often rests on your clinical judgment rather than a lab test.

In terms of when/where you deploy depends on when you check into the ship in relation to the ship’s training cycle. You may check onboard and leave for deployment the next week or arrive onboard while the ship is undergoing an overhaul and not go out to sea for a month or two. The only thing set in stone is that your schedule will always change.

One of the greatest opportunities you will have as a shipboard GMO is training your corpsmen. You become the teacher instead of the student. Take this very seriously because your corpsmen will listen to every word you say and will only be as good as you train them to be. Expect to cover everything from basic sick call to ATLS. In turn, they will train the crew in appropriate trauma/first aid principles that will allow you to pass all of your readiness inspections and deploy as an operationally independent unit.

A milestone that you definitely need to achieve is your SWMDO (Surface Warfare Medical Department Officer) pin. This is a unique opportunity that the “green side” GMOs don’t have. You are expected to learn about your ship inside and out, finish required items/tests, and take an oral board led by the CO to qualify. Such a qualification augments your time onboard greatly as you will get out of the medical department and integrate with the crew. Further, receiving your pin goes a long way in terms of your credibility as all personnel onboard recognize that you are taking a personal interest in what they do.



Overall, my time as a GMO has been invaluable, and I think any Navy doctor is crazy not to do one. Often having only a history and physical exam, your clinical skills and “gut” feeling become keenly developed. I never thought I would MEDEVAC a patient with orbital cellulitis in 14 ft seas, train Iraqi Marines in ATLS, care for an Iraqi fisherman with an amputated finger, or conduct a mass casualty scenario with 101 Iraqi oil workers that had to evacuate their oil platform after it exploded. With much bias, being the GMO on an LSD/LPD class surpasses all as it challenges you to be much more than a doctor but gives you the opportunity to develop your leadership skills and grow as a Naval officer.

For comments or questions the author may be reached at kentml@gmail.com.



United States Navy

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Undersea Medical Officer (UMO)

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The Undersea Medical Officer community is a small, tightly knit group of approximately 100 officers. Applications to BUMED are due in October with selection occurring in December of your internship year. There are two UMO classes of twelve candidates each year, the first beginning in July directly after internship and the second in January. For those starting in January, expect a six month “stash” in a clinic near your internship hospital.

The first seven weeks of UMO training begins at the submarine base in Groton, Connecticut at the Naval Undersea Medical Institute (NUMI). Lectures concentrate on submarine life such as atmosphere control, food/water handling and sick call procedures. Class participation in a variety of trainers such as flood control, firefighting and submarine escape is usually a highlight. Guided physical training each morning helps prepare the candidates in passing the diver’s physical readiness test (PRT) which is required prior to entering the diving portion of training.

Next, the candidates travel TAD to Panama City Beach, Florida to the Naval Diving and Salvage Training Center (NDSTC) for nine weeks of dive and dive medicine training. After a week of SCUBA diving training, the class undergoes the infamous “pool week.” During this week, skill sets of underwater problem solving are tested in a highly regulated and safe manner to ensure comfort in the underwater environment. Further dive training follows on surface-supplied diving rigs such as the MK-20 and MK-21, the modern day version of hard-hat diving. A variety of diving conditions are experienced including pools, inlets, open-ocean and a 165 foot dive in a hyperbaric chamber. The last two weeks at NDSTC involve intense training in diving and hyperbaric medicine. Some of the lectures include decompression sickness, arterial gas embolism, oxygen toxicity, nitrogen narcosis, warm/cold water diving, dangerous marine life and hyperbaric treatment for diving accidents. The skill of medically managing a diving accident is practiced by using the hyperbaric chamber during case scenarios at the end of training.



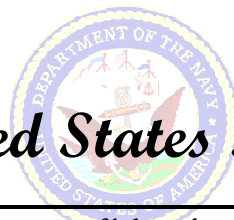
The last nine weeks of training occurs back at NUMI and consists primarily of radiation health and management of a radiation program upon submarines.

After graduation, a UMO may go to a variety of either submarine or diving billets. Submarine billets include the group or squadron level of both the SSN “fast attacks” and the SSBN “boomers”. Diving billets include units such as the Mobile Diving and Salvage Unit, Explosive Ordnance Disposal, Special Warfare groups, Seal Delivery Vehicle, Construction Battalion, Marine Recon, training sites such as NUMI and NDSTC, and experimental positions at the Naval Experimental Diving Unit and the Naval Submarine Medical Research Lab.

The duties of an Undersea Medical Officer will vary depending on your billet. In general, all UMO’s will participate in morning sick call taking care of the divers or submariners at your command as well as perform periodic dive physicals and health record maintenance. Periodically, you will stand the duty “bends watch” which requires a quick response to diving accidents that may need Hyperbaric Oxygen Therapy (HBOT). Those at submarine billets will often go for short “rides” on subs to monitor and perform training for the radiation health and many other medically run programs aboard. Others may have the opportunity to get parachute jump trained or training on the specific diving gear used at their command. All UMO’s must make dives to keep up their qualification, therefore opportunities to dive are usually not hard to obtain. Navy UMO’s also cover the saturation diving experiments at NOAA’s underwater “Habitat” in Key Largo, FL.

If you have a passion for both diving and medicine, then choosing to become an UMO will grant you an experience of a lifetime that few will ever know, but that the divers and submariners you take care of will never forget.

NAVY DIVER PRT:	
Swim 500 meters (breast or side stroke)	14 min
10 min break	
Sit-ups – 50	2 min
2 min break	
Push-ups – 42	2 min
2 min break	
Chin-ups (palms facing out) – 6	2 min
10 min break	
Run 1.5 miles	12:45 min



Flight Surgery

Norak Chhieng, MD,
LCDR, MC(FS), USNR

Becoming a US Navy flight surgeon is probably one of the best experiences anyone can hope to achieve. Firstly, you are working independently, making your own decisions. You are it! You will use everything that you have ever learned in medical school to change lives and have a powerful impact on your squadron's mission. Secondly, it is incredible how much you mean to the young sailors and pilots that you treat, and to the command as well.

I have always wanted to fly since I was a kid, not an unusual dream for those of us mesmerized by flight. It was this passion that led me to the HPSP program, and, years later, to 6 months of rigorous training at P-Cola (Pensacola, FL). I believe there are 3 classes throughout the year, so most of the recent internship graduates will be "stashed" in a clinic until the class begins. I was stationed at the Marine Corps Recruit Depot in San Diego for several months.

The training itself is mostly water survival skills with a lot of swimming. If you are not a proficient swimmer before you come, they will help you train to become one before you leave. The one-mile swim in flight suit and boots may seem daunting, but after several months of training it's not as bad as it sounds, and most people have no problem. There are almost weekly evolutions that teach different aspects of water survival, culminating with an event known as "the Dunker," which teaches you how to survive a helicopter crash. It may seem scary, but most people find it fun, and an essential tool to learn how to survive in the event of a helicopter crash over water.

In addition to physical training, there is also classroom training. You attend ground school with the aviators, taking classes on weather, aeronautics, aviation systems, and what effects flight has on the human body. The best part of all the training, however, is the flying. Ground school is followed by several hops on the T -34 Turbo Mentor, a single

prop aircraft that is almost as maneuverable as a jet fighter. Next are several training missions on a Bell helicopter over the grassy hillside of Whiting Field. Although you cannot fly solo as in times past, the amount of flying time is more than enough to get your feet wet before assignment to your first squadron. It may not be Top Gun, but flying in a jet is something unique to military flight physicians.

The last step is graduation where you get your wings pinned on at the Aviation Museum. It was indeed rigorous, but the best time of my life. Since then, I have never felt more at my physical peak.

Toward the end of training, billets are assigned within the class. The locations depend on what is available at the time of graduation. Each class decides how to allocate billets, and may use a



lottery, earned tokens, or grades as a system. My first squadron was a P3 outfit in Hawaii. I was responsible for around 400 people, but most of my work was handled by an aviation corpsman who ensured that physicals and immunization requirements were up to date. My duties were mostly supervisory allowing ample social calls to the members of

squadron. The specific breakdown of time is generally half in clinic and half spent with the squadron. The amount of flying and to where depends on the specific billet.

After Hawaii, my next assignment was with Prowlers in Whidbey Island, WA. The camaraderie among the officers and enlisted there was incredible. The missions we were assigned after 911 took us all over the world, including Canada, Montana, Las Vegas, Bahrain, Saudi Arabia, and Turkey. While the travel is a definite perk, the relationships you build with those traveling with you are priceless.

Even now, in my last year of emergency medicine residency in San Diego, it still amazes me how much I have already done, and the extraordinary people I have met. When given the choice between spending my life in an office struggling with managed care, or seeing the world and making life-long friendships while having the best time of my life, the choice seems simple. What would you choose?



United States Air Force

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From the Military Medicine Interest Group of the American Medical Student Association

US Air Force Aerospace Medicine

C. U. Kharod, MD, MPH, Major, USAF, MC, FS

Aerospace medicine is a unique specialty comprised of elements of general clinical medicine, psychology, preventive medicine, occupational health, industrial hygiene,



physiology, health promotions, forensic medicine, and other related areas. One could say that while traditional medicine regards the patient's abnormal physiology in a normal, day-to-day environment, the flight surgeon must consider the patient with normal physiology in an abnormal environment. The training to become a flight surgeon is unique, but excellence in the field does not come via the classroom or the flight deck alone. Exceptional flight surgeons know their various roles and execute each role with professionalism and panache.

It is often said that in no other area of medicine are the patients and physicians so alike: highly intelligent, controlling, determined to excel, and highly motivated. This has been my experience as well! My flight surgeon time was challenging, and possibly, the most rewarding assignment I have had in the AF. I found that good, involved flight surgeons can contribute directly to enhancing the physical health and morale of the unit (stateside or in deployed locations)...and this leads directly to improved job performance and mission completion. What a great chance to care for those who serve our nation!

Flight surgeons* are specialized military medical officers (physicians). Upon completion of the necessary standard medical training (basic medical degree: MD or DO), USAF physicians interested in aerospace medicine must take the Aerospace Medicine Primary (AMP) Course. The fundamentals of aerospace medicine are introduced in this curriculum, including spatial disorientation, high-altitude physiology, aviation ophthalmology, as well as topics from clinical medicine which are relevant to operational flight medicine such as audiology, cardiology, orthopedics, dermatology, otolaryngology, and psychiatry. The AMP course further covers AF safety and mishap investigation, AF medical standards and disposition, aeromedical evacuation, and hyperbaric medicine. Additional preventive medicine, disaster response, and survival

training are also essential elements of the basic aerospace medicine curriculum.

There are a variety of other courses available to flight surgeons to augment the education and training received in the AMP course. The advanced courses offer a more focused and in-depth opportunity to master topics introduced in the AMP. Some of these courses include the following: Global Medicine, Aircraft Mishap Investigation and Prevention, Critical Care Air Transport, Hyperbaric Medicine, Contingency Operations, Operational Entomology, and Expeditionary Medical Support.

Amongst those in the know it is accepted that military doctors practice 2 types of medicine: medicine in the military and military medicine. The former is not unlike civilian medical practice and takes place in fixed facilities in times of peace. The latter is that practice of medicine which exists, whether in a combat zone or in daily operational settings, at the nexus of military officership, physicianship, and operational medicine. To do it well, you need to be a good doctor and more!



So, USAF aerospace medicine is challenging and very rewarding! There is no other career in AF medicine in which the physician is so closely positioned with those who do the mission of the AF! As a flight surgeon, you'll gain knowledge, insight, and experience to serve you in any specialty you may choose. Moreover, you will make a personal connection with an exceptional community of airmen and make a tangible difference every



day...serving those who carry out the mission of the USAF in war and in peace and doing so while practicing the art and science of medicine.

* The term "surgeon" is derived from the time-honored military tradition of referring to all "embedded" physicians as "surgeons," since at one time, that was indeed the case...physicians were all surgeons.