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### **DESIGN & IMPLEMENTATION OF THE PILOT PHYSICIAN PROGRAM FOR THE U.S. AIR FORCE – AIR NATIONAL GUARD**

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# **DESIGN & IMPLEMENTATION OF THE PILOT PHYSICIAN PROGRAM FOR THE U.S. AIR FORCE – AIR NATIONAL GUARD**

by  
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To Brigadier General (sel) Randall M Falk, MD, MPH

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I would like to thank Brigadier General (sel) Randy “PapaDoc” Falk for his persistent motivation and encouragement allowing this project to take flight. His ceaseless personal efforts coupled with his vast network of contacts have been instrumental in the advancement of this project. General (sel) Falk contributed his personal time, effort, and resources over again making it possible for a representative voice to be heard at pertinent meetings, events, and planning sessions.

Thanks to the direct contributions of General (sel) Falk, all dual-qualified “pilot-physicians” in the Air National Guard should have the opportunity to take their place in a prestigious community of aviators and physicians that bolster the strength of the United States Air Force.



## PREFACE

The Air National Guard (and Reserves) has a tremendous resource that is currently not utilized, the Air Force pilot who is also trained as a medical doctor. In a time of base closures, realignments, and overall military cutbacks it is imperative to utilize all resources that remain a part of our Force to the maximum extent possible.

Since its inception in 1947, the Active Duty Air Force has maintained a cadre of officers simultaneously qualified both as pilots and flight surgeons. Today, these officers (known as “Pilot-Physicians”) are part of a formalized program that allows one dual-qualified individual per airframe to function in either capacity [15]. They are tasked to perform jobs such as human-factors development, to serve as advisors to commanders, to provide education and expert guidance, and to perform research and analysis [20]. Currently there are approximately 15 individuals in this program.

At present, the Air National Guard (ANG) has no comparable program in place despite a specific allowance written into the Active Duty (AD) publication (*AFI 11-405*). At the same time there is speculation amongst ANG pilots and physicians that the Guard harbors a substantial number of qualified individuals that currently must function in their squadron either as a pilot or a flight surgeon, but not both. Based on discussions and investigations, it seems that many deeply desire to participate in a dual-role capacity but are inhibited by obstacles such as lack of an appropriate Air Force Specialty Code (AFSC), overlapping Unit Training Assembly (UTA) requirements, and support issues from commanders. With persistent cuts to military funding, implementation of another round of base closures, and the desire to consolidate resources, now more than ever, the ANG needs to take advantage of the specialized capabilities that dual-rated individuals can offer.

This paper outlines a proposal to develop and implement a plan that could establish a pilot-physician program for the entire USAF Air National Guard – thus tapping an available, but unutilized resource. Specific aims of this program will be 1) to create a dual-designation AFSC (or to apply the existing active duty AFSC [48VX] to the ANG program) that will allow pilot-physicians to be assigned to both positions simultaneously, 2) to help ANG units with manning problems (specifically focused at improving retention and combating the loss of funding), 3) to improve public health during humanitarian missions / natural disasters by implementing this new resource in whichever area may be lacking or absent and 4) to create a new Air Force Instruction (AFI) detailing the ANG PPP or to supplement the existing AFI (11-405) to allow for an ANG PPP. The significance of creating a PPP could be paramount for the Guard. Not only would an unused resource be applied, but also the cost of training and maintaining two individuals will be reduced, allowing that funding to be applied toward other areas in need. The Guard would be taking one individual, already trained in both specialties, (a rated pilot who is also a medical doctor {MD or DO}) and applying them to both areas of training. Creating such a position would benefit any flying Wing as a whole and would specifically enhance the Medical and Operations (flying) Squadrons.

Today’s military paradigm is one of unification of our “Total Force”; our technologies being developed are focused on integration within all services (i.e. the “Joint Strike Fighter” – “joint” because it is built for the Air Force, the Navy, and the Marines to replace their current

separate airframes). Both the Active Duty and the Navy have some form of program already in place allowing dual-qualified individuals to serve in such a capacity [16]. The ANG currently constitutes nearly 40% of all Air Force flying [2, 3] and needs to be on par with all other military flying services. An ANG PPP will bridge this gap and bring the military one step closer to unification of our uniformed services. My research for this project has been multifaceted and ongoing for several years. Although there has been some literature review of the history of the AD PPP [20] as well as investigating the “Dual-Designator” program of the Navy [16] and a similar program sampled by the Soviets [27], most of the groundwork for developing this program comes from interactions between myself and pertinent individuals (meetings with the director for the AD PPP, the Air Surgeon for the ANG, Commanders at bases with qualified individuals, and prospective ANG pilot-physicians).

Ultimately this development should lead to the establishment of a formal ANG pilot-physician program. This program will have the ability to recruit qualified members, assign them a dual designation AFSC, and help them integrate into a flying squadron. Ideally every ANG flying squadron could have at least one pilot-physician.

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Publication No. \_\_\_\_\_

Louis Andrew Davenport, MD, MPH  
The University of Texas Graduate School of Biomedical Sciences at Galveston, 2008

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## **LIST OF ABBREVIATIONS**

ACC – Air Combat Command  
ACIP – Aviation Career Incentive Pay  
AD – Active Duty  
ADFAC – Air Directorate Field Advisory Council  
AEF – Air Expeditionary Forces  
AETC – Air Education and Training Command  
AF – Air Force  
AFB – Air Force Base  
AFFSA – Air Force Flight Standards Agency  
AFI – Air Force Instruction  
AFMC – Air Force Materiel Command  
AFMOA – Air Force Medical Operations Agency  
AFORMS – Air Force Operations Resource Management System  
AFOTEC – Air Force Operational Test and Evaluation Center  
AFPC – Air Force Personnel Center  
AFRL – Air Force Research Lab  
AFRTPS – Air Force Research Test Pilot School  
AFSA – Air Force Safety Agency  
AFSC – Air Force Specialty Code  
AFSOC – Air Force Special Operations Command  
AGARD – Advisory Group for Aeronautical Research and Development  
AGR – Active Guard and Reserve personnel  
AMC – Air Mobility Command  
AMP – Aerospace Medicine Primary (course)  
ANG – Air National Guard  
ARC – Air Reserve Component  
ASMA – Aerospace Medical Association

BMC – Basic Mission Capable  
BRAC – Base Realignment and Closure

CAC – Common Access Card  
CC – Commander  
CCB – Configuration Control Board  
CMR – Combat Mission Ready  
CONUS – Continental United States  
CRM – Crew (Cockpit) Resource Management

D.C. – District of Columbia  
D.O. – Doctor of Osteopathy



DBMS – Director Base Medical Services  
DD – Dual Designator  
DNIF – Duty Not to Include Flying  
DO – Director of Operations  
DO – Doctor of Osteopathy  
DOD – Department of Defense  
DR – Directorate of Requirements

EMEDS – Expeditionary Medical Support

FAC – Flying Activity Code or Forward Air Controller  
FEB – Flying Evaluation Board  
FEMA – Federal Emergency Management Agency  
FS – Flight Surgeon  
FTU – Formal (Follow-on) Training Unit

GME – Graduate Medical Education  
GMO – General Medical Officer

HOSM – Host Operations Systems Management  
HQ – Head Quarters  
HSW – Human Systems Wing  
HWSC – Human Weapons Systems Council

JSF – Joint Strike Fighter  
JUNT – Joint Undergraduate Navigator Training

M.D. – Doctor of Medicine  
MAJCOM – Major Command  
MAP – Mission Area Plan  
MD – Medical Doctor  
MDG – Medical Group  
MDG/CC – Medical Group Commander  
MEDFAC – Medical Field Advisory Council  
MPH – Masters of Public Health  
MSP – Mission Support Plan

NAF – Numbered Air Force  
NASA – National Aeronautics and Space Agency  
NATO – North Atlantic Treaty Organization  
NGB – National Guard Bureau

OG – Operations Group  
ORM – Operational Risk Management  
OT&E – Operational Test and Evaluation

PD – Program Director  
PHA – Periodic Health Assessment  
PIC – Pilot In Command  
PME – Professional Military Education  
POM – Program Objective Memorandum  
PP – Pilot-Physician  
PPP – Pilot-Physician Program

R&D – Research and Development  
RAM – Residency in Aerospace Medicine  
RD&A – Research, Development and Acquisition

SIB – Safety Investigation Board  
SME – Squadron Medical Element  
SPO – Systems Program Office  
SSWG – System Safety Working Group  
SUPT – Specialized Undergraduate Pilot Training

UPT – Undergraduate Pilot Training  
UTA – Unit Training Assembly

## GLOSSARY

**FS (Flight Surgeon)** – a physician (M.D. or D.O.) who has had training in aerospace medicine (AMP course) and has been awarded flight wings. Technically they are members of the flight crew. They are designated flying time (4 hours per month). They are frequently GMOs and, contrary to the name, do not perform surgery in flight.

**FTU (Follow-on Training Unit)** – specialty training and non-training aircraft after completing UPT.

**GMO (General Medical Officer)** - a physician (M.D. or D.O.) who has completed an intern year in residency and is then assigned to an operational position. They typically spend 3 years as a GMO and then finish a residency to specialize.

**Line Officer** – a term to describe a military officer who is trained to command. Officers who are not line officers are those whose primary duties are in non-combat specialties including chaplains, lawyers, supply officers and medical officers. Nevertheless, line officers may occasionally be assigned non-combat roles. In operational circumstances line officers may hold positional authority over non-line officers of higher rank.

**PHA (Periodic Health Assessment)** – the annual flight physical and medical evaluation each pilot is required to undergo.

**UPT (Undergraduate Pilot Training)** – initial flight training for newly selected pilots lasting about 1 year.

**UTA (Unit Training Assembly)** – the weekend each month where all members of the Wing are required to be present to perform their mission. During UTA weekend the base is fully populated.

## **CHAPTER 1 – OBJECTIVES**

Creating a pilot-physician program (PPP) for the Air National Guard (ANG) could accomplish a multitude of feats. This chapter will discuss some principal objectives desirable in the creation of such a program.

Since the demise of the Cold War the United States military has been in a perpetual state of reductions and consolidations. Indeed, with the passage of the BRAC (Base Realignment And Closure) Act of 1990, our military has been placed on a two year cycle of consolidations and closures with the repeated emphasis of being able to do more, with less [9,24,25]. This phenomenon produces a couple of direct implications for an Air National Guard-based (ANG) Pilot Physician Program (PPP). The first is a direct cut in funding to ANG units. Unfortunately this decreased funding is not offset by a decrease in expectations of those units. This means that elimination, consolidation, or collaboration are the options to continue. The second is a promotion of the concept of unification and constructing a “joint force”, a kind of global collaboration. Whereas each of the branches of our military was devised, developed, and controlled independently, today there is increasing effort in building a single, unified force. This effort is manifest in such high-profile examples as having a Joint-Force Commander (an Army officer) controlling and coordinating not only Army, but also Air Force, Navy, and Marine operations in Iraq today. Another example is the development of the F-35 “Joint Strike Fighter” (JSF), a single airframe that will be utilized by all branches of our military instead of each branch contracting out and using a separate weapon system. Military facilities around the country that once housed a single component force (an Air Force Base or an Army Post) are now housing multiple components together and being renamed as “joint bases” (e.g., Ellington AFB changed to Ellington Field and now is named Ellington Joint Reserve Base.) By utilizing cross-service training at “Joint Specialized Training Bases”, and by using the same equipment and parts, the different services can be more tightly integrated and able to support one another without all the redundancy and overlap that plague the services today.

Another significant change was brought about at the end of the cold war that directly impacts the ANG. The principal function of the ANG used to be the responsibility for homeland security, while the Active Duty (AD) Air Force was in charge of deploying and non-Continental United States (CONUS) operations. As the budget for the AD forces were reduced, their reliance on the ANG increased. Today the ANG is automatically scheduled into the rotation along with the AD to participate in all theatres of operation and they comprises over 50 percent of the overall total force of our military [2,3]. This means that the ANG can no longer be considered a “supplement” to be utilized on occasions when the AD is stretched too thin. The ANG is *the* fighting force now, utilizing the same training, the same command structure, and the same weapon systems as the AD. To this end, there should be equal representation and overlap in the proposals set forth here to establish an ANG PPP.

One objective of an ANG PPP would be to help ANG units with manning (human resources) dysfunction, particularly focused around retention and funding in fighter squadrons. Retention is a constant battle that affects all branches of the U.S. Armed Forces. At present, serving in the U.S. military is entirely voluntary. Some of the principal motivations for joining are job security, educational benefits, patriotism, and the sense of adventure that comes with worldwide deployment. Motivations specific to physicians who are stationed on flying bases are that they may become flight surgeons (FS) and are primarily working with and taking care of the pilots (contrary to what the name implies, a flight surgeon is most often a general practitioner and does not perform surgery, particularly in flight). One of the benefits of being a flight surgeon is that, in an effort to better understand the conditions in which the pilot works, they are allocated time to fly with the pilots each month. Flying a military plane is the ultimate allure to both pilots and most flight physicians alike. The problem is that many of the fighter units these days are flying planes that carry only one individual. Obviously this precludes a flight surgeon the benefit of getting to fly with the pilots. And though some bases do maintain 2-seat variants of their fighter aircraft, these planes are predominantly confined to flying training bases and not to combat units. The 5<sup>th</sup> generation fighter aircraft

currently in production (F-22 Raptor and F-35 Joint Strike Fighter) also have only single pilot configurations. And the fighter aircraft to follow those will likely be entirely unmanned carrying not even a pilot, let alone a physician. Retaining volunteer physicians in the ANG is a challenge for many reasons, but removing their flight incentive compounds the problem exponentially. A physician who is also a military pilot at those units does not compete for resources and continues to fly when non-pilots lose that opportunity.

Another aspect that is negatively impacting manning these units is decreased funding. As with most organizations, each ANG Wing has a budget and receives funding to operate each year from their Command in Washington D.C. The Wing Commander then allocates resources to the different groups that comprise the wing (Operations Group, Medical Group, Logistics Group, Maintenance Group, Etc.). Newly hired physicians can apply for medical training loan repayments of up to \$50,000 while pilots receive extra “incentive” pay [14,26]. Each individual receives a salary and benefits. A pilot-physician has the potential to fill both roles working while only utilizing one set of resources. Funding problems also arise on training deployments where a specific allocation amount has been designated. A commander may be faced with the decision of bringing one more pilot and aircraft to complete the mission or of bringing a portion of the medical group in case someone falls ill. Most deployment locations these days are shared with the AD AF, other ANG units, or even other branches of the military. It happens on occasion that a deploying ANG unit may choose to fund the extra pilot and aircraft and depend on medical personnel presumably brought by other units or those previously stationed on location with the AD. Such practices can lead to strain and tension between units and can quickly over-task any limited and underrepresented medical assets that may have been brought. Here is another venue in which a pilot-physician might be utilized.

Though ANG units are now integral to the deployed combat forces, issues with homeland security remain their responsibility. When hurricanes Rita and Katrina pummeled the coast of Louisiana in 2005, a joint reserve base in Texas that housed an

ANG fighter squadron became the staging ground for medical relief [7,10,18]. The ANG was suddenly primed to make a significant impact in civilian public health. A similar story was recorded when the city of Greensburg, Kansas, was destroyed in 2007 by a level 5 tornado and the ANG provided the only medical support until parts of the city could be rebuild [8]. In such times of crisis, resources and personnel are often limited. Instead of only flying a fighter jet to safety from the elements, a pilot-physician might have returned and been instrumental in the medical efforts underway.

There is a fundamental premise in the ANG that each member will work in one capacity. A member is assigned to an Air Force Specialty Code (AFSC) which is an alphanumeric code used to designate that individual's job. Part of the difficulty in working as a pilot and a physician in the ANG is that these jobs each have their own AFSC, and Air Force rules stipulate that a member may only belong to one primary AFSC. This policy seems reasonable when one considers the broad implications of having separate AFSC's which may distinguish a line officer from a medical officer, and their opposite combatant status in a combat zone. A couple of options have come to light that that would maintain the AFSC structure and still allow an individual to function in both capacities. The Active Duty PPP (see Chapter 3) has gone through the process of developing a new AFSC entirely (P48VX) [15]. Though technically this is a medical AFSC, their regulations (AFI 11-405; Appendix A) allow AD pilot-physicians full authority to be pilot-in-command (PIC) of any aircraft in the U.S. inventory. An ANG PPP could employ the same techniques and either use the AD PPP AFSC or develop a new one for their own purpose (see Chapter 6). The second option that seems to be available in the ANG is born from the authority of the Medical Group Commander (through the Wing Commander) to credential licensed physicians to work in the clinics on base [23]. Under this arrangement a civilian physician or a physician who works in the military under some other non-medical AFSC, can work as "guest help" alongside or in lieu of military flight surgeons. Currently the governing document of the AD PPP does not apply to the ANG, though it does contain a clause allowing other MAJCOMs and the ANG to supplement it in order to help better meet their specific requirements.

However, in all likelihood, an ANG PPP will differ significantly and fundamentally in its structure and will necessitate drafting a new AFI specific to the ANG.

A final objective of this project is to both formalize a program for the Guard as well as to build a foundation and set a precedent for future development. Early research indicates that there may be dozens of individuals scattered throughout the ANG who could qualify and may be interested in participating in such a program [13]. Presently each of these individual is acting alone and uniquely with no central resource for guidance or development. Once precedence has been set and an AFI and AFSC have been produced, word can be distributed and an ANG PPP can flourish.



## **CHAPTER 2 - SIGNIFICANCE**

The significance of creating a pilot-physician program for the ANG is tremendous with myriad reasons encouraging its development. Depending on the ultimate layout and application of this program, there are many facets within the ANG that could benefit. This chapter will detail some of the more prominent aspects and attempt to rationalize the promotion of an ANG PPP.

The basic structure of a typical ANG base is comprised of various groups that are under the leadership of the Wing Commander. Each group has a commander and can be made up of a single or multiple squadrons. An ANG fighter wing will have a Medical Group containing one or more medical squadrons as well as an Operations Group containing one or more flying squadrons. Though these groups ultimately all belong to the same wing, there is often a significant and unfortunate disconnect between the flying squadron and the medical squadron. This might be explained by demonstrating some perspective of many fighter pilots: their purpose is to fly the jets and this is critically important to them. One of the few things that can prevent them from flying their jets is a poor medical report. Every year the pilots are sent to the clinic for an annual medical evaluation where the best-case scenario is that they return unchanged from when they left – that is, they are still allowed to fly. If any discrepancy is found (and often the pilots do not have the medical knowledge to understand what those are) they can be made DNIF (Duty Not to Include Flying – taken off of flying status) until those discrepancies are resolved. This is of significant concern to the pilot and, in my own observations, can often lead to a fear and mistrust of the medical squadron. Though pilots may intermittently have medical concerns, their fear of being grounded may outweigh those concerns and cause situations where a problem is ignored or hidden, self-treatment is practiced, or medical care from a civilian doctor is sought. None of these scenarios is good for the unit as a whole. Anecdotal reports from pilots in various ANG fighter units who also happen to be physicians often cite occurrences of unofficial medical consultations where pilots will reveal medical information, ask for opinions, and even for

‘off-the-record’ treatment. Whereas one perspective might see this practice as problematic, another might see it as an avenue to gain a better understanding of the medical condition of the flying squadron and as a segue to treatment by the medical group. There is often a lack of understanding (or trust) on the pilot’s part that the job and goal of the flight surgeon is to keep the pilots flying and to determine any work-around for conditions that may place a pilot in DNIF status. Experience seems to show that the best method to bridge this gap of mistrust and misunderstanding is to integrate medical personnel directly into the flying squadrons. This concept was one of the founding tenants for requiring flight surgeons to spend time flying and working with the pilots for whom they are medically responsible [19].

This also has fostered the implementation of the Squadron Medical Element (SME). The SME consists of one or more medical individuals (ideally a flight surgeon but at least a medical technician) whose chain-of-command lies within the flying squadron instead of the medical squadron. However, it is highly more probable that the individual most likely to succeed in establishing a secure connection between the flying and medical squadrons would be a fellow pilot designated a pilot-physician.

In addition to occupying this crucial role within the flying squadron, a pilot-physician could also help fill a glaring deficit within the medical squadron: No full time physician in the medical squadron. As opposed to the Active Duty’s full-time work force, the ANG is made up mostly of part-time volunteers who’s baseline obligation to serve encompasses one mandatory weekend each month and two weeks of service per year [4,5]. This means that even though flying activities are going on daily, the clinic is often staffed only by full-time medical technicians who do not have the authority to return a pilot to flying status or to perform periodic health assessments (PHA). Unlike physicians, there are a few full-time pilots within the flying squadron. If one of those full-time pilots was a credentialed pilot-physician, they could help relieve any immediate medical concerns as well as to prevent the build-up of routine medical issues for Unit Training Assemblies (UTAs). A similar problem can be encountered during combat deployments. Most ANG units are now on the Air Expeditionary Forces (AEF) schedule

and perform 60-day rotations into combat zones every 18 months. Part-time ANG pilots are frequently employed by civilian air carriers and can usually make arrangements for these deployments. Part-time physicians, on the other hand, are often in a private practice setting and can be severely impacted by trying to take away that much time from their practices. This scenario can easily lead to the active duty deployed medical personnel being significantly overburdened. There are many considerations for a combat deployment of a pilot-physician (see Chapter 6), but a full-time pilot-physician would not suffer the same consequences as his part-time colleagues leaving a busy civilian private medical practice.

As mentioned in the previous chapter, the U.S. Military continues to downsize. Presidential elections in late 2008 are likely only to continue this trend for the foreseeable future [12,21,22]. With downsizing comes the need to consolidate. Not only does the ANG pilot-physician represent an underutilized resource, but integrating two jobs into one for a single individual saves funding that can be allocated elsewhere. One place in particular where an ANG pilot-physician might prove particularly useful is at the Guard-run Formal Training Units (FTU) where student pilots are placed on a rigorous flying training schedule and where any medical issues can cause significant delays in the program. Luke AFB in Phoenix, Arizona, is one of the largest FTUs (combined AD and ANG student pilots comprised of eight flying squadrons; about 200 aircraft). Anecdotal reports indicate that the 2005 BRAC recommendations mandated reducing the primary hospital servicing this schoolhouse down to a small clinic that is not co-located. For any medical issues that arise now, training must be stopped and time is spent traveling to a separate facility. A local pilot-physician could easily manage the routine medical issues without necessitating a break in training and off-base travel [9,17].

The most recent Air Surgeon for the Guard has organized several new advisory councils including the Human Weapons Systems Council that is designed to facilitate communication of issues and ideas from the field directly to the command structure. Their charter is to:

“...enhance interoperability within, and provide expertise to, other weapon system and functional advisory councils, particularly in the areas of human systems integration. Proposals should improve capabilities in the areas of asset (human weapon system) protection, mission performance optimization, and ‘depot-level maintenance’ of the adversely affected human weapon system. Develop, review, validate, and prioritize all submitted recommendations. Prioritize and justify those of highest priority for elevation to the MEDFAC. Ensure proposals are fully developed in terms of being requirement-based capabilities, clearly identifying necessary resources and associated policy changes [1].”

After discussing a proposed ANG-PPP with the Human Weapons Systems Council in April 2008, there has been interest generated in having PP participation as acting members of these advisory councils. In this regard, an ANG PP would be fulfilling a similar role as that of the AD counterparts acting as expert consultants for medical issues related to a specific weapons systems (an F-16 pilot-physician serving on the F-16 Weapons System Council, for example).

The proposed ANG PPP would likely be distinctly different from the Active Duty PPP. The AD PPP is governed by AFI 11-405 (see Appendix A) and is summarized in Table 1. In contrast, the ANG PPP might resemble more of the attributes listed in Table 2. This program would likely be less administrative and more operational in nature. The ANG PP would likely be assigned a line AFSC because the Guard does not have any positions or provide funding for full-time physicians. Flying priorities are also based on the pilots within the squadron and holding a line AFSC would help ensure flying currencies. As a note of clarification, there are two different categories of flying status in an operational fighter squadron: Combat Mission Ready (CMR) or Basic Mission Capable (BMC). BMC pilots are proficient in the mission and need only a few “spin-up” flights to become CMR. Their flying requirements are less each month allowing greater time for other duties. Some of those “other duties” specific to an ANG PP might be to serve as advisors to commanders (Operations Group, Medical Group, and Wing)

providing both medical and weapon system expertise, involvement with human factors interface issues for current weapon systems, involvement and input for the development of the next generation of weapon systems, serving on various advisory committees at state and national levels and being designated for duties held by the local Safety Officer (accident and safety investigation boards, local training, etc). These duties would be centered on local flying, deployments, medical operations, and the routine events of their squadron.

Member holds a medical AFSC

- ◆ Funding is not through operations and flying
- ◆ Members are medical and therefore not Line/Command officers
- ◆ Tend to be principally administrative with some flying for currency

Principal responsibilities are to:

- ◆ Provide Expert Guidance
- ◆ Conduct Research
- ◆ Teaching
- ◆ Research (Programming)

***Table 1 – Active Duty PPP Summary***

Initial interest in this program was assessed by sending out a questionnaire in 2004 (see Appendix C, D, and E). The methodology of this is detailed in Chapter 4. A modest amount of interest was generated based on this limited exposure and prompted further development of this program. The significance of the interest was not so much in the pure number of respondents as it was in the variety of individuals who expressed this interest. Initial data for interested individuals is detailed in Table 3.

Member holds a line AFSC

- ◆ Funding is through operations and flying is a priority
- ◆ Members are Line/Command officers and are promoted accordingly
- ◆ Tend to be operational members of the flying squadrons who supplement clinics as needed and serve as consultant to commanders.

Principal responsibilities are to:

- ◆ Perform the mission of the base to which they belong
- ◆ Operational within the squadron (flying)
- ◆ Supplemental to the clinic

***Table 2 – Air National Guard PPP Summary***

Interest

- ◆ Physicians – used to be pilots and then became doctors and now have an interest in flying again.
- ◆ Pilots – primarily those who have medical training and simply want to “help out” their squadron.
- ◆ Part-time Guardsman
  - those looking to be able to do both on a part-time basis
  - those looking for full-time employment as a pilot-physician
- ◆ Active Duty – members interested in transitioning from the Active Duty into the Air National Guard
- ◆ Commanders – looking to integrate their groups and to have a central source of expertise
- ◆ Advisory Councils – administrative councils seeking direct input and expert opinion from the field.

***Table 3 – Individuals Interested in an ANG PPP***

## CHAPTER 3 - REVIEW

A comprehensive review was accomplished in an effort to best research the historical implications of this project. That being said, this project represents more an outline towards the creation of a program instead of reporting on work that has already been done. The details of what has been accomplished up to this point and what remains to be done are elucidated in Chapters 6 and 7 respectively. A standard literature search for military-related programs revealed a history of the AD PPP by Peter Mapes [20], a description of the Soviet PPP by Vlassov Ushakov [27], the military regulations governing both the AD PPP (AFI 11-405 for the Air Force [15]) and the Navy Dual Designator program (APNAVINST 1542.4C N789J3 [16]), and a host of web resources.

The military regulations are pertinent and have been included in this publication (see Appendices A and B). They were primarily used as an early framework and springboard in the development of this uniquely designed program for the ANG. Of particular note are the governing regulations for the AD PPP and the included clause allowing other MAJCOMs and the Air National Guard to supplement that AFI to fit their specific needs. Though the ANG shares the same MAJCOM as the AD, this clause allows for the possibility of creating a supplement to an existing AFI instead of drafting a new document. For a time this was considered, but as the concept develops and becomes increasingly different from the AD program, it is likely to warrant the creation of a separate and distinct AFI specific to the ANG.

The historical prospective provided by Mapes demonstrates some of the principal reasons for establishing a pilot-physician program. In particular he emphasizes that this program was created in the early days of flight when the United States Air Force was just being developed (from the Army Air Corps) and as we transitioned from propeller-driven aircraft to jets. As new boundaries were explored and new aircraft developed there seemed a compelling argument to be made for having the input from dual-qualified individuals specifically in designing human-factors interfacing. Having a physician in

the aircraft flying the missions became increasingly important towards design considerations as fatalities mounted in our early flying endeavors. Though it is not entirely clear, it is likely that the former Soviet Union followed suit and created their own pilot-physician program to maintain their competitive stance. Both programs seem to have experienced drastic ebbs and flows of support during their existence, at times staring down the barrel of their own demise. The AD PPP has been relatively well supported the past few years and has petitioned to increase their allocation to 30 members starting in FY2009 [11]. The fate of the Soviet program is unknown; although contact has been made with Russian military members who professed to have heard of this program, no confirmation or documentation has been found.

The Navy's Dual Designator program was created after that of the AD Air Force and essentially served the same purpose. The different branches of our military have historically had significant autonomy from one another. This duplication of services combined with the need to spend less money has contributed to the push for integration and joint collaboration that we see currently. At the time of the program's creation, however, the Navy was developing and flying different planes than the Air Force and consequently came up with their own version of a PPP that remains in effect to this day.

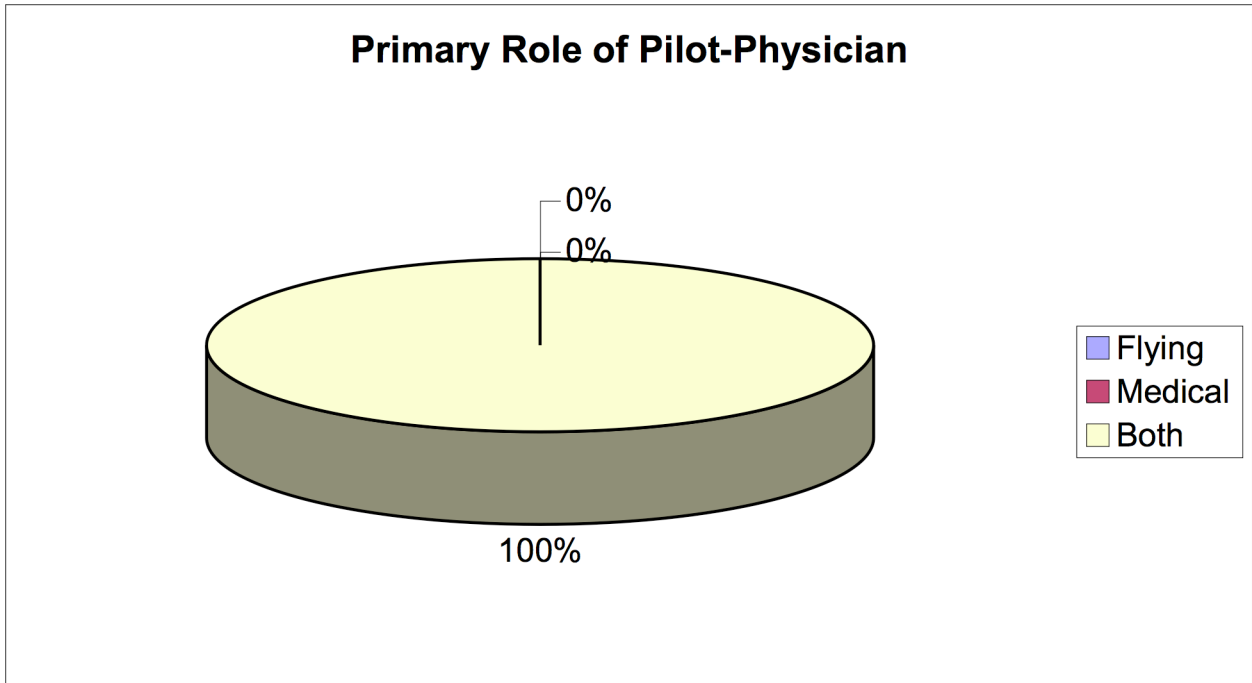


## **CHAPTER 4 – METHODS**

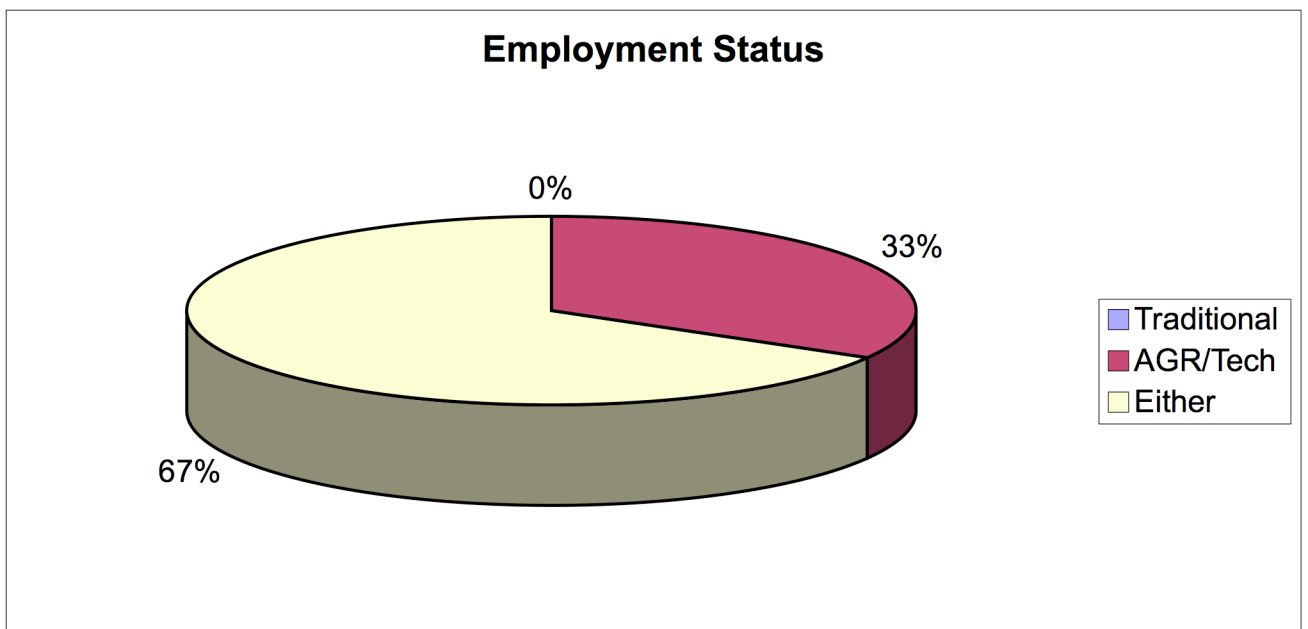
This chapter provides details on the methods used initially while developing a pilot-physician program for the Air National Guard. This publication presents a description of the entire process in the creation of an ANG PPP. This chapter will focus on the concepts of what has been accomplished up to this point and how those have shaped the program thus far. Chapter 5 provides a detailed chronology of specific events.

The first step in the process was to recognize a need and the potential benefit to having a PPP for the ANG. Being a physician sent off to pilot training myself, I immediately began to consider ways to streamline processes, to save time, and to generally make things more convenient for fellow pilots. I met with the Medical Group Commander at the UPT base where I was stationed. Though he himself did not have any particular insight on how to integrate these two disparate paradigms (flight and medicine), he was an acquaintance of the Air Surgeon for the Air National Guard in Washington D.C. and put me in touch with him. Over the next couple of years we discussed various ideas about how best to design a program for the Guard. On a trip up to the Guard Bureau Headquarters we spent several days working together and documented some early ideas on what this program might accomplish and what needed to be done in order to get the idea to take flight. After researching the AD program I traveled to San Antonio, Texas, where I met with the director for the AD PPP. He generously offered to help in any manner he could which including overseeing the new program as a secondary or supplemental component to his own once it was developed. Up until this point there was only word-of-mouth projections of individuals within the Guard who might qualify and be interested in a pilot-physician program. We, therefore, determined that it would be important to more concretely ascertain what resources the ANG had at its disposal. To better quantify this as well as to determine a level of interest in some of the particular considerations we had developed, we created and sent out an introductory letter, a survey, and data collection sheet in 2004 (see Appendices C, D, and E). These documents were distributed electronically from Guard Bureau Headquarters to

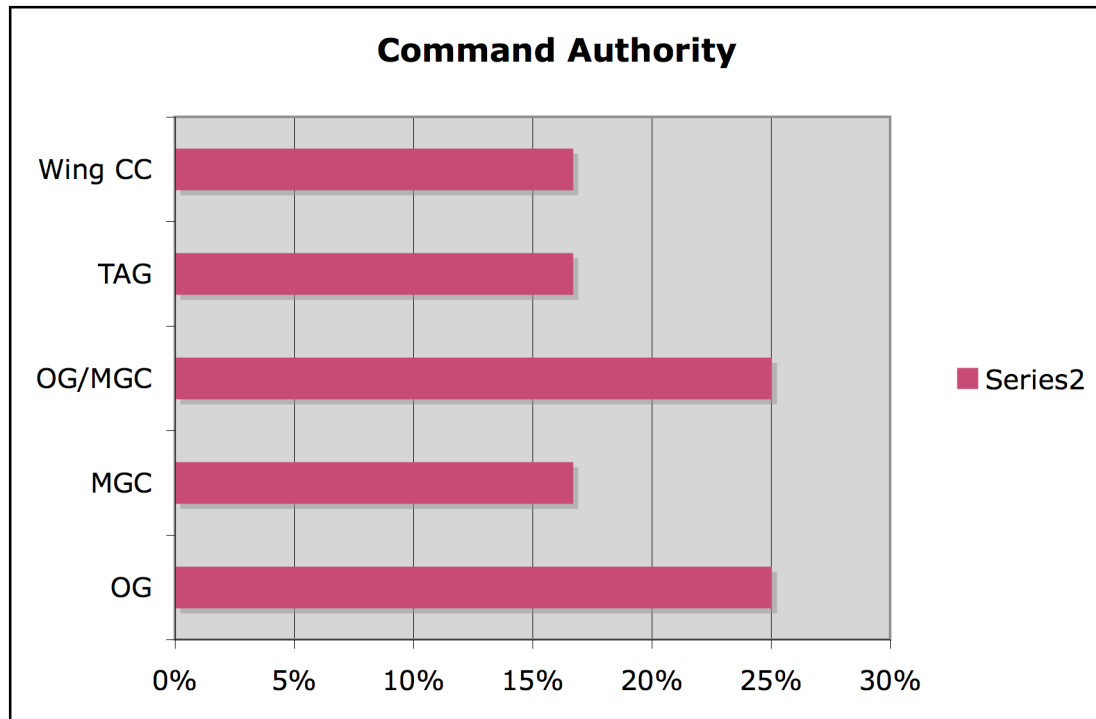
all of the state Air Surgeons where they were to be forwarded to each ANG unit and then each squadron in every state. The instructions were to then forward the documents to all Medical Group commanders and Operations Group commanders for further distribution to any individuals within their command who might possess dual training. There are currently 153 ANG squadrons (118 flying and 35 non-flying). A new civilian e-mail account was created to collect responses and a 3-month deadline was set. Since the documents were distributed electronically there was no tracking the number of individuals who received them and no confirmation of participation. So, for example, if one of the state Air Surgeons did not receive or pass along the message for any reason, that entire state would have been eliminated from participation. By the deadline, 17 responses had been received from individuals who were pilots and/or physicians in the ANG and had completed the data sheet and filled out the survey. Based on those responses, we obtained the data to compile the presentation we would then use to promote the concept up the chain of command (see Appendix G). In particular we were able to determine the preferences for the following categories: primary role the pilot-physician should play, what the desired employment status could be, under who's command the pilot-physician may fall, what the primary AFSC would be, and to which overall group (medical or flying) they would predominantly participate. Though the numbers of respondents were limited, the following summaries were derived. All participants felt that the role of a pilot-physician should include both flying and medical duties (see Figure 1). Most of the respondents did not have an opinion whether this should be a full-time or part-time job, while some did specifically wanted a full-time job (Figure 2). A variety of opinions were expressed regarding who should be the direct commander of an ANG PP (Figure 3). Figure 4 shows that half of the respondents desired a primary line AFSC while the rest were split between wanting a medical AFSC or a new or combined AFSC. Most of the respondents wanted to be primarily a line pilot who would supplement the medical clinic (Figure 5), some wanted to be a physician who could supplement the pilots by flying, and the rest felt ambivalent.



***Figure 1 – Primary Role of the Air National Guard Pilot-Physician***

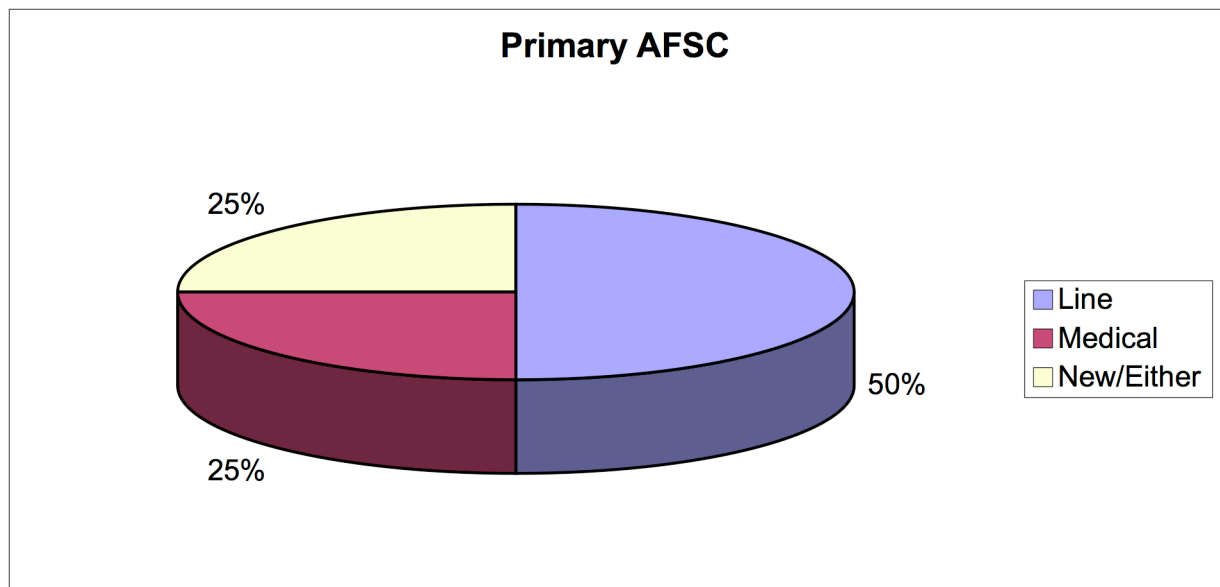


***Figure 2 – Employment Status***  
(Traditional = part time, AGR/Tech = full time)

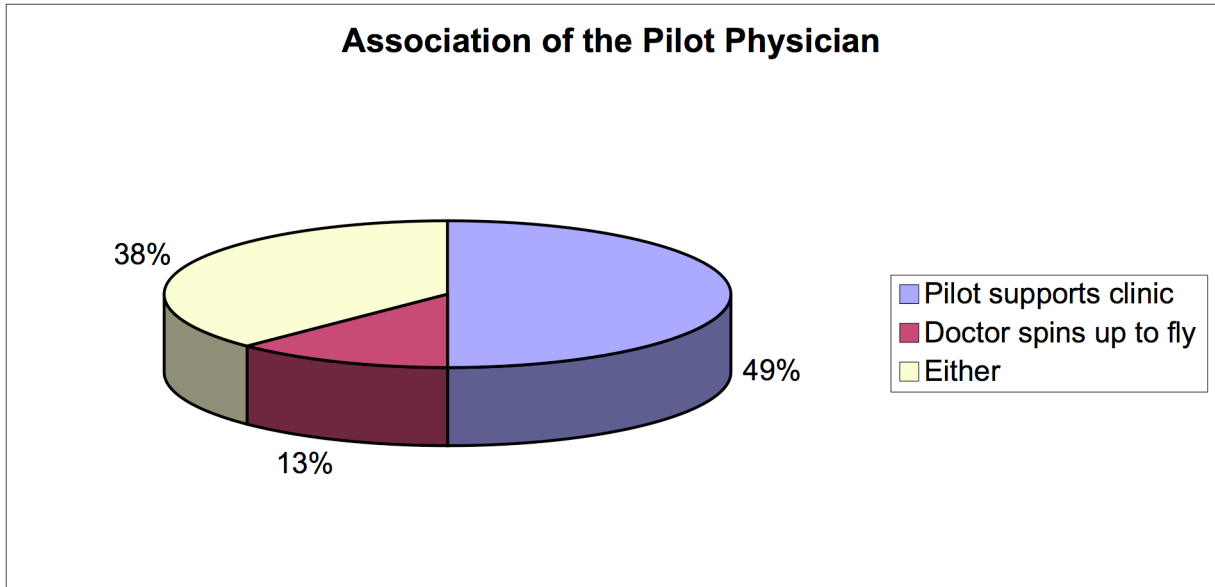


***Figure 3 – Who Should Command the ANG PP***

(Wing CC = Wing Commander, TAG = The Adjutant General, MGC = Medical Group Commander, OG = Operations Group Commander)



***Figure 4 – Primary AFSC for ANG PP***



***Figure 5 – Primary Association of the ANG PP***

After compiling the data, a roster was generated and each of the individuals who expressed an interest through the survey was contacted directly. Later that year the ANG medical directorate had its annual “readiness” conference to which these same individuals were invited to attend. Thirteen of the respondents made it to the conference where we were able to arrange a time to have the first meeting of dual-qualified ANG personnel. The primary objective of the meeting was to introduce everyone and demonstrate to these “unique” individuals that there are others like them within the Guard, and that by coalescing into a group we might work towards common goals together. A couple of medical general officers were also in attendance and offered their support to proceed with efforts to formalize and to continue to organize a pilot-physician program for the Air National Guard.

During the following year another trip to Washington D.C. was arranged and a meeting was coordinated with the ANG Director of Operations (DO). Having developed the program in conjunction with the ANG Medical Services, their approval and support was implicit in its design. The purpose of this meeting was to garner support from the

‘other half’ – the piloting side of the ANG. After briefing the ANG DO and discussing the program with his staff I was given the approval to continue with implementation of the program. The only caveats from the DO were that 1) there needed to be a very clear distinction in combatant status when a pilot-physician deployed to a combat theatre (i.e., is the PP acting as a pilot who is dropping bombs and killing the enemy, or is the PP acting as a physician who is healing the wounded?), and 2) there was a desire to have this program develop from within the individual units in the states and flowing up, instead of building a new program that would be “handed down” from Washington to the units.

Having received support and approval from the command structure of both components of the proposed ANG PP program, a new letter was sent out to the 17 individuals who had participated in the original survey. This letter communicated the progress that had been accomplished and asked for volunteers for the “first Air National Guard Pilot-Physician”. At that time the intention was to remain very fluid and flexible; no official program had been created on paper though an AFI, and all the major issues (such as funding, employment status, AFSC, etc) were left without answers. This was done intentionally to allow the first few individuals to act as “trail blazers” and to customize their own program based on their particular needs and desires. As soon as a few individuals had been stood up as ANG PPs, a more formal arrangement and documentation would be drafted, a model established, and the program would be launched.

## CHAPTER 5 – CHRONOLOGY

This chapter provides a detailed chronology of events in bulleted format outlining the developmental steps that have been taken to date in creating an Air National Guard Pilot-Physician Program. The purpose for including this timeline is so that other Guard members who share an interest in this program may have a clear understanding of what has been done. Indeed, the design of this publication is such that it represents an accounting of the overall development of the ANG PPP to include what has been done so far (chapter 3-5), where the program currently stands (Chapter 6) and what remains to be accomplished (Chapter 7). A clear documentation of the events that have taken place should facilitate future developments.

### Chronology:

- August 2000: Enid OK – Initial contact with Air Surgeon for the Air National Guard (telephone and e-mail)
  - Discussed possible future roles of individuals with medical and flying capabilities.
- April 2002: San Antonio, TX - Personal meeting with Air Surgeon for the ANG
- Nov 2002: Louisville KY - Association of Military Surgeons of the United States (AMSUS) with Air Surgeon for the ANG
- Oct 2003: San Antonio, TX - AMSUS annual conference
  - Met with Active Duty Pilot-Physician program director and then attended their annual meeting
  - Collaborated with AD PPs
- March – April 2004: San Antonio, TX - Aerospace Medicine Primary Course
  - Met with AD PPP director twice
  - Met with individual AD PPs
- Sept 2004: Washington D.C. - Meeting with Air Surgeon for the Air National Guard at the National Guard Bureau Headquarters
  - Drafted Letter of Intent
    - Who to send the documents to and how to distribute them throughout the Guard

- Reply to Capt Davenport – civilian pilot-physician e-mail account created
  - Drafted Demographics Survey
    - To assess level of interested
    - To ascertain Guard-based resources
    - To obtain contact information for individuals
  - Drafted Questionnaire Survey
    - To investigate what objectives such a program would have
    - To contemplate ideas on the structure of a program
    - To consider the authority under which a program would reside
  - Initial plan had been to forge a model based on the Active Duty program:
    - Medical AFSC
    - Group of individuals with related talents discussing pertinent issues.
    - Integrated with the AD PPP (in conjunction with and likely coordinated by the AD PPP Director)
  - Discussions shifted emphasis towards designing a novel program
    - Line Pilot AFSC
    - Necessity to get Operations support
    - Necessity to be allocated flying hours
    - Introduction of CMR vs. BMC pilot status
  - Formal establishments
    - Intent of the Air National Guard to develop a pilot-physician program
    - Designation of a Project Officer and point-of-contact
    - Establish methods of communications
- June 2005: Snowbird, UT - Readiness Frontiers Air National Guard Medical Conference
  - Meeting with respondents to survey and questionnaire
  - Meeting with ANG leadership to discuss feasibility and process
    - Air National Guard Assistant to the Surgeon General, United States Air Force
    - Air National Guard Assistant to the Air Combat Command Surgeon General
  - Preliminary definition of goals and objectives desired by respondents
  - Establishment of a database of interested and qualified individuals
  - Devised methodology for development
- April 2006: Washington D.C. - National Guard Bureau Headquarters, Pentagon, Crystal City
  - Briefed proposal to National Guard Director of Operations and staff;
  - Received initial approval to proceed pending:
    - State support (from individual Wings)
    - Investigation into Geneva Conventions concerns
  - Consulted with AD PPP director regarding AFI considerations
  - Additional meetings with the Air Surgeon for the Guard and Medical Group administrators for refinement and approval



- Plan to Next establish of a “pilot program” at a single base to evaluate
- April 2006: Scottsdale AZ – Coyote Crisis Campaign
  - Joint operations and training convention with civilian and military medical services
  - Meeting with both civilian and military medical leaders
  - Projected role of Pilot Physicians with Expeditionary Medical Support (EMEDS) systems
- April 2008: Lansdowne VA – Readiness Frontiers Air National Guard Medical Conference
  - Presentation of the ANG Pilot-Physician Program to the Human Weapons Systems Council (HWSC) (modified appendix G)
  - Asked to coordinate ANG pilot-physician representatives to the various weapons councils
  - Discussed potential legal issues concerning non-medical AFSC personnel providing medical care
  - Discussed concept of ANG PP’ functioning primarily as consultants and performing less operational duties
  - Meeting with Deputy Commander of the Texas Air National Guard
- May 2008: Boston MA - Aerospace Medicine Conference
  - Attended annual AD PPP meeting
    - Update the AD program on the ANG development
    - Received considerations regarding further development strategies
    - Discussed a new AFSC (P11V) since the ANG program is supporting a line officer billet
    - Clarified Guard’s ability to allow civilian physicians (a.k.a. line pilots) to be credentialed to work in medical clinics
    - Learned of AD PPP plans to grow to 30 members
  - Met with Air National Guard Assistant to the Air Mobility Command Surgeon General
  - Coordinated with staff from the Air National Guard Medical Services for updating the roster of dual-rated ANG individuals.
- June 2008
  - National Guard Bureau Medical Service electronically distributes a new request to find members who may be qualified as pilots and physicians in an effort to update the roster of dual-rated ANG individuals.
  - I agreed to be the ANG pilot-physician representative to the F-16 Weapons System Council

## **CHAPTER 6 - CURRENT STATUS**

This chapter describes the current status of the Air National Guard Pilot-Physician program. In its current state, the program remains largely conceptual – but only because there are not yet any official written regulations establishing and defining a formal entity. Though a formal program may not yet be online, the foundation has been mostly constructed and the appropriate individuals within the military chain of command have given their initial approvals. The benefit to not having a defined program at this early stage is that it allows for greater flexibility and customization for the first few individuals to be officially recognized as ANG Pilot-Physicians. However, such flexibility leaves intact the uncertainty of what the job description, requirements, resources, and command structure will be.

Because a program description cannot remain ambiguous and fluid and expect to be approved, it was necessary to establish some specific guidelines that would be recommended. At this time both the ANG Operations and Medical services have been made aware of the interest and development of this program given the following recommendations. The current proposal calls for a full-time AGR individual to occupy a position from the Operations Group. The rationale for requiring an AGR position is simply related to the volume of requirements needed to remain proficient in each position. A BMC fighter pilot barely maintaining basic currencies in a best-case scenario still needs to commit at least 4-6 days per month to the squadron. Adding on the most basic responsibilities of medical operations contributes at least another 2-4 days. In a theoretical model, a pilot-physician in the Guard might be able to perform their minimal requirements using 25-30% of the month. Taking such basic considerations as weather, scheduling conflicts, backlogged work, etc could easily increase the time requirement up to near 50% just to meet the minimum requirements. In order to excel at a pilot-physician's fundamental duties as well as to take on the additional duties inherent in such a position would arguably require working full-time. The intention for assigning the position to the Operations Group is for the pilot-physician to be a line officer and

squadron pilot with the corresponding primary AFSC (though the SME is an OG position as well and might technically be utilized to maintain a medical AFSC while being funded through Operations). The rationale for this is multicentric and includes the arguments that 1) flying priorities will be given to OG pilots, 2) pilots are more inclined to communicate effectively and establish rapport with one of their fellow pilots, and 3) there is no funding for a full-time physician flight-surgeon position within the ANG. Though the pilot-physician would work as a member of the OG, the proposal is that they would report directly to the Wing Commander as their chain-of-command. Most scenarios predicted the PP working closely as a consultant to the Wing Commander, serving as a centralized source of expertise for both the Medical and Operations Groups as well as being a liaison back to those groups from the Wing Commander. Also, since the PP would have duties within both the OG and MDG, reporting directly to the Wing CC seemed logical. The consensus from those who responded to the survey in 2004 was that the PP would serve in both medical and piloting capacities while at home station performing the routine functions of both positions. That remains the current proposal, though suggestions from command individuals at a later date recommended against having pilot-physicians “get bogged down” with the routine clinic and squadron duties and instead concentrate more on higher level administrative, policy, and regulatory issues. For deployments to combat theatres the pilot-physician would have to choose to deploy either as a pilot or as a physician before the deployment. This would set their combatant and Geneva Conventions status for that deployment. Finally, participation in the ANG Pilot-Physician program would be requested and promoted from within the individual wings and not mandated as requirements from higher-headquarters. The technical requirements for being eligible for participation as an ANG PP should closely resemble those of the active duty PPP listed in Table 4 below.

The most recent advances to the program have occurred in the past two months. The first was a meeting with the Human Weapons Systems Council (an advisory council to the Air Surgeon for the ANG). This council is comprised of a director and nominated State Air Surgeons members who are representing each of the ten Federal Emergency Management Agency (FEMA) regions. The HWSC has met with

the individual Weapons System groups and has suggested that each group recruit a pilot-physician consultant for their weapon system (similar to the concept employed by the AD PPP). This would provide an opportunity for pilot-physicians to transcend operational duties confined to their bases and would grant them access to national issues as well as to senior leadership.

#### AD PPP Eligibility from AFI 11-405

- ◆ Completed UPT or SUPT and 3 years of operational flying. In some cases the length of the operational flying requirement may be waived by the Pilot Physician Program Director (PD).
- ◆ Earned an M.D. or D.O. degree and completed 1 year of postgraduate medical training.
- ◆ Completed the Aerospace Medicine Primary Course.
- ◆ Served as an operational flight surgeon for at least one year (or requests pre-selection with final selection contingent upon one year of superior performance as an operational flight surgeon).
- ◆ Volunteered for the PPP.
- ◆ Applicants who have not yet been assigned as flight surgeons, the PPP PD will work to assign these applicants to bases where candidates would be likely to serve as first assignment pilot physicians.

***Table 4 – Eligibility Requirements for AD Pilot-Physicians***

## CHAPTER 7 - COMPLETION

This final chapter discusses some of the considerations that, in my own opinion, remain to be addressed for further development of the ANG PPP. As mentioned previously, though the foundation has been set, there is not yet a formal ANG PPP in place. Continued effort put forth by one or a few individuals who have the time and an interest in seeing this program take flight should provide sufficient momentum for a full-scale launch at any time.

A significant issue lies within the limitations of our ability to inventory the resources (a.k.a. dual-rated individuals) within the ANG. Through my own experiences within the ANG I have discovered other Guardsmen who are both pilots and physicians at some phase of their careers, yet those same individuals (myself included) were not accounted for when the initial survey was sent out. It is most likely that they never received the message at all. There are myriad difficulties for traditional Guardsmen to access their military e-mail due to all of the security precautions in place. The forwarding of messages from a military account to a civilian account is not authorized. Access is not available from non-military computers. Even on military installations one must have a current Common Access Card (CAC) and pin to log onto any computer. And when one is able to access the account there may be hundreds of mass-communication messages waiting to be sorted through. The result is that many traditional Guardsmen are unable to keep up with their military e-mail. Unfortunately, all of the dual-rated individuals I've met in the Guard are traditional Guardsmen and may be susceptible to this chaos. Keep in mind also that this scenario only happens if the message reaches the individual in the first place. As mentioned previously both in 2004 and again this month the message was sent out from Guard Bureau Headquarters to a small list of individuals upon whom we are relying to continue to distribute the message on down the line until it reaches every member who may qualify. The deficiencies inherent in such "chain letters" is self-evident. Passing along this information is at the whim of each individual and their own circumstances. Having said that, this is still

probably the best tool we have available. I think the best use of electronic mail systems would come from carefully considering the message content, the title, and the initial distribution list. Capturing people's attention and investing them into helping the cause is a key to success.

After considering the above, another significant step is to update the roster of qualified and interested individuals. At the request of the director for the HWSC (who is looking for pilot-physician representatives to sit on the various weapons system councils), personnel at the Guard Bureau Headquarters just this month sent out the following:

*Subject: Pilot-Physician program*

*Establishment of a Formal ANG Pilot-Physician Program*

*There has been a resurgence of interest in the establishment of a Pilot-Physician program within the Air National Guard. If you are both a military pilot, and military physician with interest in the pilot-physician program please provide the following information.*

*Name:*

*Rank:*

*Unit & State:*

*Contact email address:*

*Contact telephone number:*

*Technicians: Please forward this email to your Flight Surgeons personal and*

*work email addresses.*

The message requests that the data be returned to the sender, who will presumably compile a new roster of individuals. This list could then be handed over to the HWSC for their specific use, or perhaps more significantly it could be integrated and compiled with the data already collected and those individuals could be queried about interest in carrying the ANG PPP banner.

One of the fundamental issues within the program development is to obtain definitive clarification on whether Guard members with non-medical primary AFSCs can practice medicine in the Guard. Someone with a better comprehension of AFSC assignments could make significant progress with this issue. My limited understanding is that a) a Guardsman can have a primary, secondary, and even a tertiary AFSC, and b) a Wing Commander has the authority to credential an eligible individual to practice medicine in their clinic. If this is, indeed, the case then an ANG PP could maintain a primary line AFSC while holding a secondary medical AFSC and serve as “guest help” in the medical clinics after being credentialed there. If this is not the case then a new AFSC would need to be created that would implicitly allow for a line officer (pilot) to be able to practice medicine if credentialed.

Another point of clarification is the Hague and Geneva Conventions murkiness caused by the dichotomy of simultaneously being a combatant pilot and a non-combatant physician. The AD PPP supports their position on this subject from a discussion paper titled, “Application of the Law of Armed Conflict to Air Force Personnel” dated May 2005 (see Appendix F). This document interprets the mandated Law of Armed Conflict as it applies to Air Force Medical Personnel and clearly defines such individuals as non-combatants. Their position is that during non-combat operations a pilot-physician may perform the duties of both a pilot and a physician, but that prior to combat deployments the pilot-physician must choose to serve exclusively in one capacity or the other.

Because the same laws governing military conduct apply to both the Air Force and the Air National Guard, an ANG PPP would require similar clarification. Since an

ANG PP would be a member of the OG and likely serving as an active pilot in the squadron, the assumption is that they would deploy as a pilot and resume any medical responsibilities upon their return. But this area remains somewhat open for interpretation and clarification. Once specific guidelines have been created, those should be posted in and ANG PPP governing documentation.

The next significant consideration is the practical details of what an ANG PP would do. As mentioned previously, early projections were that they would work in the squadron as a pilot and at the clinic as a flight surgeon while also serving as a consultant to the Wing Commander. Along the way a contrary consideration has also taken shape: that such a resource should not be bogged down with simple paperwork, physicals, and routine squadron operations. Rather they should accomplish the minimal requirements for currencies and then focus their attention on more administrative and non-local concerns (as the AD PPP does). In this capacity they would be performing jobs like setting policy, participating with human factors design of new airframes, serving as consultants on advisory councils, etc. Likely a variety of scenarios could all be accommodated.

Where is an ideal location for ANG PPs to be stationed? Unlike the AD PPP that has a limited number of PPs by design, the concept behind the ANG PPP will support as many PPs as Operations Groups will fund. At one end of the spectrum an argument could be made that every single flying squadron in the ANG would benefit from having a pilot-physician. Some have suggested that an ideal place for an ANG PP would be at the busy flight schoolhouses where the operations tempo can be mired down by medical interruptions. Others have suggested that perhaps test centers would be a good place for a pilot-physician to be best utilized.

Ultimately the program will need to be officially authorized and governing documentation will need to be drafted. While there was brief consideration to supplementing AFI 11-405 (AD PPP), the fundamental difference of the proposed ANG PP program will likely necessitate writing a brand new AFI. As of 2006 there was supposed to be a revision to AFI 11-405 and the author was amenable to proposing



changes to accommodate the ANG, but that lead was never pursued. But once the documentation is in place, the program can be officially implemented and members can be recruited.

## **APPENDIX A**

Air Force Instruction 11-405  
The Pilot Physician Program  
October 2000

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 11-405**

**2 OCTOBER 2000  
Flying Operations**



**THE PILOT-PHYSICIAN PROGRAM**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

**NOTICE:** This publication is available digitally on the AFDPO WWW site at:  
<http://afpubs.hq.af.mil>.

OPR: USAFSAM/CC, PD PPP  
(Col Rodger Vanderbeek)  
Supersedes AFI 11-405, 1 January 2000.

Certified by: AFMOA/CC (Maj Gen P.K. Carlton)

Pages: 21  
Distribution: F

This instruction implements AFPDs 11-4, *Aviation Service*, and 48-1, *Aerospace Medical Program*. The Pilot-Physician Program (PPP) makes the most of the special resources of Air Force officers who are simultaneously qualified both as pilots and flight surgeons. This instruction describes the organization, application, selection, reporting for the PPP, and explains the responsibilities of the Program Director (PD). Major commands (MAJCOMs) or the Air National Guard may further supplement this instruction to outline their command requirements. Two copies of each supplement must be sent to AFMOA/SGOA (Attn: Program Director, Pilot-Physician Program), 110 Luke Avenue, Room 405, Bolling AFB DC 20332-7050. See **Attachment 1** for a glossary of references, abbreviations, and acronyms. This instruction requires the collecting and maintaining of information protected by the Privacy Act of 1974 authorized by Title 10 United States Code 8013. Privacy Act system of records notice, applies.

Records Disposition: Maintain and dispose of all records created as a result of processes prescribed in this instruction IAW AFMAN 37-139, *Records Disposition Schedule*.

**SUMMARY OF REVISIONS**

This revision incorporates IC 2000-1 and incorporates the Report Control Symbol (RCS) report requirements into the AFI. The entire text of the IC is at the last attachment. Changed material from previous edition is indicated by a bar (|).

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## ***Section A—General Information***

### **1. Program Objectives:**

**1.1. Purpose of Pilot-Physicians.** The Air Force implements the PPP to provide integrated operational and aeromedical guidance for the purpose of improving the success and safety of Air Force weapon systems and missions. Pilot-physicians must be involved in the research, development, testing, and evaluation of new Air Force systems and missions as early as possible to realize the greatest effectiveness and cost savings. Pilot-physicians also provide education and analysis to the Air Force. The effective use of pilot-physicians optimizes mission capability, performance, safety, and cost. Pilot-physicians are particularly well suited to help develop new aircraft, life support equipment, and avionics or software upgrades, and to ensure that changing missions can be accommodated by crews and aircraft. Pilot-physicians can help identify and prevent human performance and man-machine interface problems from reaching mature operational systems. They also identify and help correct such problems in systems already in use.

**1.2. Meeting Objectives.** Pilot-physicians can best meet these objectives through four core competencies:

1.2.1. Providing expert guidance:

1.2.1.1. Expert guidance is available as the synthesis from the operational and medical experiences and training of the pilot. It includes:

- 1.2.1.1.1. Bringing operational relevance to aeromedical science and to medical mission support planning
- 1.2.1.1.2. Operational guidance about human performance limitations
- 1.2.1.1.3. Acquisition and operational employment guidance regarding aerospace and life support systems
- 1.2.1.1.4. Human system integration guidance
- 1.2.1.1.5. Guidance about aircrew standards and aeromedical policy
- 1.2.1.1.6. Consultation to mishap investigation boards
- 1.2.1.1.7. Research guidance concerning human subjects in aerospace and life support systems.

1.2.2. Conducting research:

1.2.2.1. The research specialties of pilot-physicians involve the application of operational insights of human performance factors to achieve optimal aircrew performance and better military capabilities and mission effectiveness. This research includes traditional literature based studies and basic science, as well as operationally relevant research, development, test & evaluation (RDT&E) and operational test & evaluation (OT&E), with a focus on human factors, performance, and life support.

1.2.3. Teaching:

1.2.3.1. Pilot-physician teaching responsibilities include:

- 1.2.3.1.1. Aeromedical instruction to aircrew and senior Air Force leaders
- 1.2.3.1.2. Aviation and aeromedical instruction to medical personnel
- 1.2.3.1.3. University based instruction to college and medical students

1.2.3.2. Subjects of particular expertise include:

- 1.2.3.2.1. Human performance in operational employment
- 1.2.3.2.2. Cockpit/Crew Resource Management
- 1.2.3.2.3. Teaching Medical Service and lab personnel about operational issues
- 1.2.3.2.4. Teaching operational aerospace personnel about medical issues and human performance enhancement issues
- 1.2.3.2.5. Medical human factors
- 1.2.3.2.6. Life Support: enhancing performance and protection / prevention of injury

1.2.3.2.7. Weapon system specific knowledge, gained from operational experience

1.2.3.2.8. Flying safety

1.2.4. Conducting Analysis:

1.2.4.1. Pilot-physicians are uniquely suited to conduct analysis of:

1.2.4.1.1. Aerospace system configuration during design, development, production, testing, and operational use

1.2.4.1.2. The person, mission, and machine in the operational environment (cockpit and mission integration, including life support equipment)

1.2.4.1.3. Mishaps as a safety consultant

1.2.4.1.4. Potential solutions for operational human performance problems

**1.3. Pilot-Physician Career Progression and Management.** The PD PPP will maintain a current and prioritized list of all identified pilot-physician requirements and assignments.

1.3.1. Before being selected as a pilot-physician, each applicant to the program must meet the criteria established in **Section C**.

1.3.2. Pilot-physicians need to be involved in the acquisition of new systems from the development of requirements through operational maturity of the system. Early involvement provides the best opportunity for cost avoidance by assuring maximal input from pilot-physicians before large quantities of resources are committed to mockup construction and system production.

1.3.3. As generalists with a broad range of experience, pilot-physicians may compete for leadership roles in the Air Force Medical Service. The operational insights gained from weapons system employment can be applied in senior staff positions -- for combat medical support and medical readiness -- through development of policy, review of aeromedical standards, and development of medical support requirements.

1.3.4. Pilot-physicians may expect the following types of assignments during their careers:

1.3.4.1. Research & Development to provide early design input before precious resources are committed to the mockup and production of new aerospace systems.

1.3.4.2. MAJCOM Requirements staff to provide input to requirements for the development of new systems or the modification of systems operationally deployed.

1.3.4.3. Operational wings to gain or maintain weapon system expertise, perform field research and/or help solve operational problems.

1.3.4.4. Command Positions at all levels.

1.3.4.5. Graduate Medical Education in Aerospace or Occupational Medicine or a clinical specialty or subspecialty.

1.3.4.6. Exchange positions with allied services/forces.

1.3.4.7. Staff positions at MAJCOMs, USAF School of Aerospace Medicine, HQ USAF (SG, XO, SE, AFFSA), or other command levels.

1.3.4.8. Program Director at AFMOA/SGOA.

1.3.4.9. Program management for life support or cockpit design.

1.3.4.10. In residence Professional Military Education.

1.3.5. Typical career options for pilot-physicians:

1.3.5.1. Initial Qualification period: UFT (1 year), initial operational flying (3-6 years), medical school and internship (5 years), initial flight surgeon year (1 year). Total Career Years: 10-13

1.3.5.2. Immediate selection and post-selection period as pilot-physician: Operational flying in new or former weapon system (3-6 years). Total Career Years: 13-19

1.3.5.3. Synthesis years: expect two or three of the following assignments (6-9 years): OT&E, GME, MDG SGP or SQ/CC, RAF Exchange, R&D AFRL or HSW, MAJCOM or HQ USAF Staff. Total Career Years: 19-25

1.3.5.4. AFMS Leadership years: MAJCOM/Lead Agent/HQ USAF; MDG/CC, HSW/CC, MAJCOM/SG or Director (6-16 years). Total Career Years: 25-35.

## ***Section B—Responsibilities***

2. This section lists specific responsibilities at all Air Force levels for the implementation of the Pilot-Physician Program.

### **2.1. The Surgeon General.**

2.1.1. Through the Commander of Air Force Medical Operations Agency (AFMOA/CC), ensures a highly qualified senior consultant to the Surgeon General (preferably a pilot-physician) is appointed as Program Director (PD) of the Pilot-Physician Program.

2.1.2. Reviews candidates that the pilot-physician selection board has chosen.

2.1.3. Reviews the PD's annual report to make sure the PPP meets its goals.

### **2.2. The Director of Operations (HQ USAF/XO):**

2.2.1. Restores the pilot status of flight surgeons who were previously pilots, on request from the PD, with concurrence from the Surgeon General, according to this instruction and AFI 11-401, *Flight Management*, and AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*.

2.2.2. Provides two rated officers to review the operational flying records of applicants and to serve on the pilot-physician selection board.

2.2.3. Makes sure all instructions and directives permit pilot-physicians to serve in all positions available to other pilots. This includes but is not limited to aircraft commander,

flight lead, instructor pilot, and weapon school candidate.

2.2.4. Assigns pilot-physicians to support HQ USAF needs, including XO, SE, SG, and AFFSA.

2.2.5. Pilot-physicians will accrue flying time and months of operational flying duty month credit as pilots and flight surgeons during all time spent actively flying as a pilot-physician (AFSC 48Vx) in a RPI-5 position. This time will be creditable toward advanced aeronautical ratings for both rated positions. [Note: Pilot-physicians fly in aviation career incentive pay (ACIP) status.]

2.2.6. When granted aeronautical orders as a pilot-physician and assigned to a designated pilot-physician position, individuals will have the duty Air Force specialty code of P48VX with appropriate suffix as designated in AFI 36-2105, *Officer Classification*. When not assigned to a designated P48VX position, pilot-physicians will be entitled to ACIP as other flight surgeons.

2.2.7. Responsibilities in the selection and approval process are found in section 3.4. below.

### **2.3. The MAJCOM Surgeon.**

2.3.1. Works closely with the PD and MAJCOM directors to identify where pilot-physicians are needed in the command, then establishes MAJCOM pilot-physician requirements and P48VX positions.

2.3.2. Assigns pilot-physicians to support MAJCOM headquarters needs.

2.3.3. Oversees pilot-physicians assigned to the command and coordinates the ad hoc and annual pilot-physician reports among appropriate MAJCOM staff members.

2.3.3.1. Sends pilot-physician reports to the PD (after review, coordination with MAJCOM staff, and comments from MAJCOM/CC)

2.3.4. Brings changes that pilot-physicians in the field suggest to the command staff's attention and works to implement them, as appropriate.

2.3.5. Identifies potential pilot-physician candidates to the PD.

2.3.6. Makes sure pilot-physicians know about all accidents in the weapon systems in their command and coordinates pilot-physician work as Safety Investigation Board (SIB) flight surgeons or as SIB consultants.

2.3.7. Funds any travel the command orders.

2.3.8. Coordinates assignment of pilot-physicians in the MAJCOM to safety investigation boards, systems reviews, cockpit working group consultations, configuration control boards, specific projects, and other projects as required. First assignment pilot-physicians should be given priority assignments to safety investigation board duty as investigating flight surgeons.

2.3.9. Provides advocacy and support for pilot-physician career progression.



2.3.10. Coordinates usage of pilot-physicians as consultants in the design, development, and acquisition phases of all manned aerospace vehicles.

2.3.11. Utilizes the pilot-physicians within the MAJCOM as expert consultants when SG staff is invited to or is aware of Configuration Control Boards (CCBs), System Safety Working Groups (SSWGs), Requirement Oversight Committees (ROCs) or Tiger Teams.

2.3.12. See section 3.3. below for responsibilities in the selection process.

#### **2.4. The MAJCOM Director of Operations.**

2.4.1. Sets minimum aircraft qualification and currency requirements for pilot-physicians according to the weapon specific Air Force aircrew training publications.

2.4.2. Determine if their pilot-physicians have mission-ready or mission-capable status.

2.4.3. Works with MAJCOM Surgeon to achieve the outcomes and utilization described in section 2.3. above.

2.4.4. Assures each pilot-physician serves as an invited member of the assigned weapon system's Configuration Control Board (CCB) for the weapon system(s) in which he or she is experienced.

2.4.5. See section 3.3. below for responsibilities in the selection process.

#### **2.5. The MAJCOM Director of Requirements.**

2.5.1. Consults with pilot-physicians assigned to the MAJCOM to ensure human factors considerations are inserted into requirements and mission need statements and/or mission area plans.

2.5.2. Ensures the pilot-physicians assigned to the MAJCOM are consulted regularly regarding new systems or missions with human systems requirements issues.

2.5.3. Ensures pilot-physician(s) serve as member(s) of the Requirements Oversight Committee (ROC) or groups with similar functions.

#### **2.6. The MAJCOM Director of Safety.**

2.6.1. Ensures weapon system pilot-physicians are assigned to or consulted by mishap boards when their human factors insights could be of particular value in the investigation.

2.6.2. Ensures that pilot-physicians are included in system safety working groups or system safety reviews for airframes or installed systems with which the pilot-physician is familiar.

#### **2.7. Air Force Materiel Command (AFMC):**

##### **2.7.1. The Commander, AFMC:**

2.7.1.1. Facilitates pilot-physician early involvement in researching, developing, testing, and evaluating human factors and man-machine interfaces.

2.7.1.2. Ensures that pilot-physicians serve on the CCB, System Safety Working Group (SSWG), and Tiger Teams for all manned aerospace systems being developed.

Ensures that pilot-physicians are kept up to date on SPO, Laboratory, and Center efforts and facilitates pilot-physician sharing of the developing technologies with cognizant DR personnel.

2.7.1.3. Establishes a P48V4 consultant position at any new SPOs for aircraft or SPOs where significant life support items are under evaluation to enter the Air Force inventory. This must be done prior to Engineering Manufacturing Development at the 6-3 level. The P48V4 consultant may also be well utilized as 6.3 systems and programs transition to 6.4 operational use.

2.7.1.4. Ensures that pilot-physicians establish a close working relationship with the appropriate SPOs and contractor personnel, to permit a free exchange of information for weapon system enhancement.

2.7.1.5. Makes sure assigned pilot-physicians get adequate administrative, logistic, and funding support for appropriate research and development activities.

**2.7.2. The Commander, Air Force Research Laboratory (AFRL):**

2.7.2.1. Determines the need for pilot-physicians in the laboratory, establishes P48VX positions and (if applicable) funds personnel authorization(s) as necessary to meet requirements.

2.7.2.2. Works with flying organizations to meet pilot-physician flying requirements.

2.7.2.3. Ensures pilot-physicians are utilized as consultants within AFRL to support projects involving aircraft or life support acquisition or modification.

2.7.2.4. May serve as rating/endorsing official for assigned pilot-physicians.

2.7.2.5. Assures pilot-physicians get adequate support for research and development projects.

**2.7.3. The Commander, Human Systems Wing (HSW/CC):**

2.7.3.1. Determines the need for pilot-physicians in the HSW, creates P48VX positions, and funds personnel authorizations as necessary to meet requirements.

2.7.3.2. Reviews annual and ad hoc pilot-physician reports to make sure pilot-physicians are actively involved in human-systems-related research and acquisition.

2.7.3.3. Ensures pilot-physicians are utilized as consultants to the Human Systems (Life Support) Program Office for projects involving aircraft or life support acquisition or modification.

2.7.3.4. Works with flying organizations to meet pilot-physician flying requirements.

2.7.3.5. May serve as rating/endorsing official for assigned pilot-physicians.

**2.8. Air Force Personnel Center (AFPC) (and local personnel offices as appropriate):**

2.8.1. Establishes Air Force specialty code P48VX, a position Air Force officers earn when they work as both pilots or and flight surgeons.

2.8.2. Assigns the AFSC P48Vx to pilot-physicians when approved by AF/XO IAW section 3 below.

2.8.3. In coordination with MAJCOM/XP or DO if required, attaches the appropriate suffixes to Air Force specialty code P48VX, to Air Force officers who work as both pilots and flight surgeons, reflecting the aerospace system in which qualified. For P48V1 candidates, the suffix will reflect the aerospace system in which last qualified.

2.8.4. Officers selected into this program retain the P48VX Air Force specialty code as a primary AFSC, unless they write the PD and ask to leave the PPP or they are asked to leave for cause according to **Section E**. Officers possessing the primary AFSC of P48Vx can be assigned to other positions; in this case the duty AFSC will reflect the assigned position (e.g., 48A4).

## **2.9. Operational Wings and Air Force Bases:**

**2.9.1. Wing Commanders.** Assure flying organizations schedule assigned pilot-physicians for flights and evaluations needed to maintain the level of proficiency set forth in Air Force 11-series publications. The wing commander also:

2.9.1.1. Reviews all pilot-physician reports and recommendations regarding the assigned weapon system or mission, and forwards them as applicable to the NAF and MAJCOM operations and requirements staff for review and action.

2.9.1.2. Requires pilot-physicians to participate in all missions of the assigned weapon systems, as experience and qualifications allow.

2.9.1.3. Coordinates the familiarization of assigned pilot-physicians with all mission tasks in the assigned weapon system(s).

**NOTE:** Pilot-physicians deployed operationally in or near a combat zone deploy either as a pilot (combatant) or physician (noncombatant), as the line commander may decide. Assignment as a combatant does not preclude the accomplishment of medical duties but assignment as a noncombatant does preclude operational duties as a pilot within the theater. Clearly reflect this choice in deployment orders. The status of the pilot-physician for contingency deployments should be discussed and established well in advance of any potential deployment.

## **2.9.2. Flying Organization Commander:**

2.9.2.1. Supports and evaluates pilot-physicians flying duties.

2.9.2.2. Furnishes logistical, administrative, and funding support for operational travel needed to accomplish pilot-physician duties.

2.9.2.3. Supports the professional development of each pilot-physician as a pilot. Determines the level of qualification each pilot-physician will maintain (after consultation with the individual).

## **2.9.3. Director, Base Medical Services or Medical Group Commander (MDG/ CC):**

2.9.3.1. Supports and evaluates pilot-physician medical functions.

- 2.9.3.2. For pilot-physicians assigned to flying units, provides a letter of evaluation to the unit commander for the Officer Performance Report.
- 2.9.3.3. Furnishes logistical, administrative, and funding support for medically related temporary duty, meetings, or conferences needed to accomplish pilot-physician duties.
- 2.9.3.4. Assures the pilot-physician is afforded the opportunity to maintain clinical privileges that permit the performance of all aerospace medicine functions.
- 2.9.3.5. Supplies medical ancillary support services the pilot-physician needs to practice aerospace medicine.
- 2.9.3.6. Ensures that institutional review is available for human use studies proposed by pilot-physicians.
- 2.9.3.7. Supports the professional development of the pilot-physician as a physician.
- 2.9.4. The local Host Operations Systems Management (HOSM) will award aeronautical orders with AFSC 48Vx, to pilot-physicians approved by AF/XOO and/or MAJCOM/DO. Appropriate suffixes to the AFSC will be applied based on qualification or requalification status.

## **2.10. The Pilot-Physician PD.**

- 2.10.1. Is the career manager for all pilot-physicians.
- 2.10.2. Works with MAJCOM/ARC/SGs and AFPC to assign available pilot-physicians, to fill identified pilot-physician positions to the maximum extent possible.
- 2.10.3. Assigns whenever possible newly selected pilot-physicians to operational wings with established weapon systems to provide them with operational experience before being assigned to newer weapon systems.
- 2.10.4. In coordination with gaining MAJCOM DO and Wing Commanders, ensures that pilot-physicians assigned to them participate in the initial operations of new weapon systems, and in missions with upgrades to existing systems, and in weapon system operations with potential significant human factors issues.
- 2.10.5. Prepares POM submissions at the Air Staff level as applicable for resourcing requirements not otherwise provided by MAJCOM or local resourcing support.
- 2.10.6. Receives all pilot-physician entrance applications and prepares them for the selection board's review.
- 2.10.7. Chairs the pilot-physician selection board.
- 2.10.8. May sponsor outstanding flight surgeons for Undergraduate Flying Training (UFT), with the selection board's recommendation and HQ USAF/SG and XO agreement.
- 2.10.9. Maintains a current list of HQ USAF/SG and MAJCOM pilot-physician

requirements.

2.10.10. Conducts an annual meeting, usually during the Aerospace Medical Association scientific meeting, to update pilot-physicians on activities in the PPP, and the overall program status.

2.10.11. Compiles reports from all pilot-physicians and shares this information with all PPP participants to keep them informed of the latest developments and the activities of other pilot-physicians.

2.10.12. Consolidates all information collected and publishes it in the PPP annual report sent to HQ USAF/SG and circulated to HQ USAF/XO, SAF/AQ, AFFSA, HSW/CC, and other offices that need to know about program accomplishments.

2.10.13. Is the Air Force advocate for the PPP and educates commanders at all levels about the program.

2.10.14. Coordinates the use of pilot-physicians to the extent resources allow as consultants in the design, development, and acquisition phases of all manned aerospace vehicles, and to programs with human performance implications.

2.10.15. Acts to take care of problems that pilot-physicians cannot resolve within their MAJCOM.

## **2.11. Pilot-Physicians.** Pilot-physicians will:

2.11.1. Prepare an annual RCS: HAF-SGP(SA)9109, *Pilot Physician Report*, on all pilot-physician-related activities for the preceding fiscal year. (See **Attachment 2** for the format). The pilot-physician sends these reports to the command surgeon through the chain of command by 31 January of each year. Pilot-physicians assigned to AFMC send similar reports through the laboratory or center commander to HQ AFMC/SG. Copies of the report with all attachments go to AFMOA/SGOA (Attn: Program Director, Pilot-Physician Program).

2.11.2. First assignment pilot-physicians should prepare and submit an annual and semiannual RCS: HAF-SGP(SA)9109, *Pilot Physician Report*, for their first two years after aircraft qualification; these reports should be submitted NLT 31 January and 31 July of each year.

2.11.3. Communicate immediately in writing, when an urgent need for action exists (with an information copy to the PD, PPP), through the line commanders to the command surgeon, who will notify appropriate staff elements at command level.

2.11.4. Maintain currency and proficiency in as many mission elements of the weapon system to which assigned as possible. Extent of qualification will be determined jointly by the pilot-physician and the flying unit commander. Pilot-physicians should be qualified ASAP in any mission elements that are new to the flying unit. Pilot-physicians newly assigned to a weapon system and assigned to an operational unit will be expected to attain full mission qualification and experience during their first one to two years with the unit.

- 2.11.5. Maintain medical credentials as a flight surgeon in the local medical treatment facility. The pilot-physician's responsibilities must be appropriately balanced between medical, flying, research, administrative, and human performance consultancy tasks.
- 2.11.6. Serve as a member on the assigned weapon system's CCB, SSWG's and Tiger Teams with MAJCOM representatives. Particular attention should be given to issues with human system interface implications.
- 2.11.7. Serve as investigating flight surgeon or special consultant to SIBs convened to investigate mishaps involving the assigned weapon system, human systems interface concerns, or special circumstances where their expertise is needed.
- 2.11.8. Continually evaluate the weapon system design and mission profiles, and make recommendations to improve safety and operational effectiveness.
- 2.11.9. Establish a close working relationship with appropriate personnel and organizations to permit a free exchange of information for the enhancement of the weapon system. These include but are not limited to the Air Force Inspection & Safety Center, AFFSA and AF/XO, appropriate SPOs and Labs, ASCC, AGARD, and NATO.
- 2.11.10. Evaluates aeromedical requirements relating to crew resource management, flight time and crew duty limitations, environmental stresses, and personal or physical stresses relating to Air Force flying activities.
- 2.11.11. Provide platform or individual instruction for life support and protection, aerospace physiology, human performance, crew resource management, and flying safety.
- 2.11.12. Submit identified needs and deficiencies to the wing or medical group mission support planning process and forward a copy of these inputs to the MAJCOM Chief of Aerospace Medicine for inclusion into MAJCOM Mission Area or Mission Support Plans (MAP/MSP).

### ***Section C—Application and Selection for the PPP***

**3. General Overview.** This section sets criteria for entering the PPP and makes sure those selected are highly qualified pilots **and** physicians.

#### **3.1. Applicants.**

3.1.1. All applicants entering the PPP will have:

- 3.1.1.1. Completed UPT or SUPT and a minimum of three years of operational flying. In some cases the length of the operational flying requirement may be waived by the PPP PD.
- 3.1.1.2. Volunteered for the PPP.
- 3.1.1.3. Earned an M.D. or D.O. degree and completed one year of postgraduate medical training.

- 3.1.1.4. Completed the USAF Aerospace Medicine Primary Course.
- 3.1.1.5. Served as an operational flight surgeon for at least one year (or requests pre-selection with final selection contingent upon one year of superior performance as an operational flight surgeon).
- 3.1.1.6. For applicants who have not yet been assigned as flight surgeons, the PPP PD will work to assign these applicants to bases where candidates would be likely to serve as first assignment pilot-physicians.
- 3.1.2. All applicants must formally apply to the PD by sending an application package containing:
  - 3.1.2.1. Complete flying records, including copies of all certificates from formal courses attended, flight evaluation reports, and other information.
  - 3.1.2.2. Summary of all undergraduate and medical training.
  - 3.1.2.3. Transcripts from formal medical training programs.
  - 3.1.2.4. Letter of application stating personal goals and reasons for requesting pilot-physician status.
  - 3.1.2.5. Written recommendations from at least two medical and two line supervisors.
  - 3.1.2.6. Current Flying Class II Physical Examination Report.
  - 3.1.2.7. Copies of all Officer Performance Reports and training reports.

### **3.2. The PPP Selection Board:**

- 3.2.1. Includes as members the PD and two representatives each from HQ USAF/XO and HQ USAF/SG. At least one HQ USAF/SG representative is a pilot-physician.
- 3.2.2. Meets at least annually if it has received pilot-physician applications within the year, or to fulfill requirements identified by MAJCOMs.
- 3.2.3. Reviews applicants' records to make sure they meet minimum entry requirements and are highly qualified pilots **AND** physicians.
- 3.2.4. Selects one or more qualified applicants as candidates to fill the positions MAJCOMs have identified, as numbers permit.
- 3.2.5. The PD PPP compiles the results of the selection board and sends a list of selected candidates for each position to the MAJCOM DO and SG.

**3.3. MAJCOM DO & MAJCOM SG.** Coordinates candidate packages for review and concurrence in accordance with the MAJCOM pilot-physician approval process. Returns packages to the PD, PPP who in turn will forward those packages with MAJCOM concurrence through HQ USAF/SG to HQ USAF/XO for final approval.

**3.4. HQ USAF/XO.** Reviews and provides final approval for all candidates the PPP selection

board nominates that subsequently gained MAJCOM and HQ USAF/SG concurrence.

3.4.1. Directs the local HOSM of the pilot-physician to publish aeronautical orders IAW AFI 11-401, para **2.10.3.**, reflecting the dual designated status as a pilot-physician.

3.4.2. Advise AFPC of newly selected pilot-physicians requiring award of AFSC P48Vx.

### **3.5. Provision for Navigator, Electronics Warfare Officer, or Flight Test Physicians:**

3.5.1. This paragraph allows that Air Force flight surgeons with prior line experience as navigators, electronic warfare officers, or flight test engineers may apply to AF/XO and the pilot-physician PD for utilization in this program as extenders of the Pilot-Physician Program.

3.5.2. Candidates will apply as in **3.1.** above, and if approved as a candidate will be offered to potential gaining MAJCOMs for utilization as a navigator-physician or flight test-physician. If approved IAW **3.3.** and **3.4.** above, AFPC will assign the appropriate prefix and suffix to the 48XX primary flight surgeon AFSC.

### ***Section D—Previously Approved Pilot-Physicians***

#### **4. Assignment of previously approved pilot-physicians will be managed IAW this section.**

4.1. pilot-physicians previously selected and approved IAW **Section C** above do not require HQ USAF/XO approval for subsequent assignments.

4.1.1. The PD will coordinate subsequent assignment of pilot-physicians with potential gaining organizations.

4.1.2. MAJCOM/DO is the approval authority for previously approved experienced pilot-physicians offered by the PD to fill MAJCOM identified positions.

4.1.3. HQ USAF/XOO is the approval authority for previously approved experienced pilot-physicians offered by the PD to fill Air Force headquarters positions (e.g., AFMOA/SGOA//SGOO, SAF/AQx, AF/XOOT, AF/SE, ANG/DO//SG, AFFSA etc.)

4.1.4. HQ USAF/XOO will revalidate when necessary the assignment of FAC Code 9 for active pilot-physicians.

4.1.5. Officers possessing the primary AFSC of P48Vx can be assigned to other positions; in this case the duty AFSC will reflect the assigned position (e.g., 48A4). Such assignment to other than a P48Vx billet does not remove the pilot-physician from the PPP.

### ***Section E—Termination Procedures***

#### **5. Reasons and Methods for Terminating a Pilot-Physician:**

5.1. Terminating for Cause. A pilot-physician may be terminated for any of these reasons:

5.1.1. Flying Evaluation Board (FEB). Any pilot-physician who is found to be an unskilled pilot by a FEB will be terminated.



5.1.2. Faulty Medical Practice. An individual who loses clinical privileges in aerospace medicine or whose professional or personal behavior does not meet the standards of the Air Force Medical Service also loses pilot-physician status. According to AFI 11-402, the individual may be disqualified from aviation service.

5.1.3. Voluntary Removal. A pilot-physician may ask to resign from the program by sending a written request, endorsed by the individual's commander, to the PD.

5.1.4. Failure to Comply. An individual may be terminated from the PPP if he/she fails to comply with this instruction or to accomplish the training mandated in this instruction unless waived.

5.2. Removal. The PD with AF/XOOT removes a pilot-physician by:

5.2.1. Requesting local HOSM of the pilot-physician to rescind aeronautical orders as a P48Vx.

5.2.2. Request AFPC to remove the award of AFSC P48Vx from the pilot-physician.

5.2.3. Asking AFPC to reassign the officer to work in a physician capacity only, unless the physician's medical practice was substandard.

**NOTE:** A pilot-physician terminated for substandard medical practice can be considered for appointment to the line of the Air Force, if the HQ USAF/SG and HQ USAF/XO agree, or may be discharged from the Air Force by administrative or judicial means, if circumstances warrant.

## ***Section F—Training and Utilization***

**6. General Overview.** This section outlines training programs utilized by pilot-physicians. Much of the training will be required in order to fulfill pilot-physician duties while the remainder may be considered highly desirable. Pilot-physician backgrounds, abilities, and interests are highly variable and should be considered when allocating training slots and/or funds. This list should not be considered comprehensive in nature as a complete list would be cumbersome, require constant update, and too restrictive. Rather, this section is intended as a guide in the maturation process of individuals in this career field. Funding for TDY training should be shared among the PPP, medical group, and assigned flying unit.

**6.1. Initial flying training.** All selected applicants will complete a transition course or its equivalent in the assigned aircraft after completion of internship or residency and one year of flight surgeon duties. All pilot-physicians, when returning to a flying assignment in an aircraft not previously flown following medical training of five or more years, will be afforded the opportunity to upgrade and fly as a mission ready (MR) crewmember for a period of at least one year after becoming MR. The minimum qualification is mission support (MS) or comparable for the first operational tour as a pilot-physician, in order to gain competency as a dual rated officer. Clinical responsibilities during this period will be maintained at a level to permit continued medical credentialing. At the end of this one year period, the operations and medical group commanders will meet with the PD and reach a consensus on how best to utilize the pilot-physician for the remainder of his/her tour.

**6.2. Advanced flying training.** Pilot-physicians should be allowed to continue to upgrade in the assigned aircraft along with his/her contemporaries based on squadron/wing requirements and individual competency. In addition, the USAF Test Pilot School offers tremendous potential to the development of the pilot-physician. Qualified pilot-physicians will be favorably considered for age and/or rank waivers as required and allowed to compete as fully qualified applicants for advanced training.

**6.3. Continuation flying training.** In general, absences from the cockpit in excess of three years following selection to the PPP are discouraged. The PD will facilitate return to flying status following non-flying assignments to ensure needed expertise is maintained.

**6.4. Human performance training.** It is desirable that all pilot-physicians develop and maintain expertise in three critical areas: mishap prevention and investigation, human performance enhancement, and human systems integration. The pilot-physician will be considered not qualified, unless waived by the PD, if mandatory training is not accomplished. If not previously accomplished, mandatory training will be accomplished within six months after transition qualification in the assigned weapon system.

6.4.1. Mishap prevention and investigation:

6.4.1.1. Mandatory training: Aircraft Mishap Investigation and Prevention Course (USAFSAM) or the Aircraft Mishap Investigation Course (AFSA).

6.4.1.2. Recommended: Each pilot-physician candidate will accomplish at least one mishap investigation following above mandatory training, and mishap investigation consultation will be an ongoing process.

6.4.2. Human performance enhancement:

6.4.2.1. Mandatory training: Human Performance Enhancement course taught at USAFSAM.

6.4.2.2. Recommended: Human Factors Fellowship (AFOTEC) and Human Performance Factors in Aircraft Accident Prevention (Trinity University).

6.4.3. Human systems integration:

6.4.3.1. Mandatory training: CRM Instructor Course.

6.4.3.2. Recommended: Human System Integration Course and Operational Risk Management Course.

6.4.3.3. The requirements for most of the above may be found in AFCAT 36-2233. If exact requirements for entry are not met, pilot-physicians will be allowed to attend by virtue of their position, training, and future potential contribution to mishap prevention and cockpit design. Although no maximum amount of training in this area is stipulated, it is assumed that courses will be attended based on interest, cost, and need.

**6.5. Medical Training.** Pilot-physicians maintain aerospace medicine clinical credentials and expertise. They are expected to receive specialized and/or recurrent medical training.

Asterisked items should be attended on a regular basis while others may provide continuing medical education.

6.5.1. Global Medicine

6.5.2. Operational Aeromedical Problems Course\*

6.5.3. ASMA\*

6.5.4. Hyperbaric Medicine

6.5.5. Medical Intelligence Training

6.5.6. Medical Effects of Nuclear Weapons Course (or equivalent)

6.5.7. Chemical Defense Training for Medical Personnel (Army Course)

6.5.8. Emergency Medicine/Family Practice Review Courses

6.5.9. Master of Public Health Degree Granting Programs

**6.6. Graduate Medical Education (GME).** Pilot-physicians not already certified by an American Medical Specialty Board are encouraged to complete the USAF Residency in Aerospace Medicine, preferably after their first or second operational pilot-physician tour. Alternatives to this include residencies in Preventive and or Occupational Medicine, or a non-preventive medicine residency with operational application (e.g., ophthalmology). The timing for GME must be carefully considered in order to maximize return on investment and minimize time spent out of the operational environment.

**6.7. Professional Military Education (PME).** PME is an integral requirement for the professional military officer. Most pilot-physicians can be expected to occupy positions of medical command at some point in their career. For these reasons, pilot-physicians will complete intermediate and/or senior service schools. Those interested in PME in residence will be allowed to compete (with appropriate waivers when necessary) for resident positions in Squadron Officers School or Intermediate or Senior Service Schools.

**6.8. Miscellaneous Training.** It is impractical to list all courses that might be beneficial. The following courses are included here as they serve to broaden the pilot-physician overall knowledge base:

6.8.1. Systems Acquisition 101 (1 week course offered at AFMC bases)

6.8.2. Air Force Research Lab (AFRL) "Review Days" (annually)

6.8.3. Fatigue Course offered by NASA's Ames Lab

6.8.4. Night Vision Goggle Course

6.8.5. Instrument Pilot Instructor Course

PAUL K. CARLTON, JR., Lt General, USAF, MC,

CFS Surgeon General  
**Attachment 1**

**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

***References***

AFPD 11-4, *Aviation Service* AFPD 48-1, *Aerospace Medical Program* AFI 11-401, *Flight Management* AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges* AFI 36-2105, *Officer Classification* AFMAN 37-139, *Records Disposition Schedule*

***Abbreviations and Acronyms***

**ACIP**—Aviation Career Incentive Pay **ACC**—Air Combat Command **AETC**—Air Education and Training Command **AFFSA**—Air Force Flight Standards Agency **AFMC**—Air Force Materiel Command **AFMOA**—Air Force Medical Operations Agency **AFORMS**—Air Force Operations Resource Management System **AFOTEC**—Air Force Operational Test and Evaluation Center **AFPC**—Air Force Personnel Center **AFRL**—Air Force Research Lab **AFRTPS**—Air Force Research Test Pilot School **AFSA**—Air Force Safety Agency **AFSC**—Air Force Specialty Code **AFSOC**—Air Force Special Operations Command **AGARD**—Advisory Group for Aeronautical Research and Development **AMC**—Air Mobility Command **ARC**—Air Reserve Component **ASMA**—Aerospace Medical Association **CC**—Commander **CCB**—Configuration Control Board **CRM**—Crew Resource Management **DBMS**—Director Base Medical Services **D.O.**—Doctor of Osteopathy **DR**—Directorate of Requirements **FAC**—Flying Activity Code **FEB**—Flying Evaluation Board **FS**—Flight Surgeon **GME**—Graduate Medical Education **HOSM**—Host Operations Systems Management **HSW**—Human Systems Wing **JUNT**—Joint Undergraduate Navigator Training **MAJCOM**—Major Command **MAP**—Mission Area Plan **M.D.**—Doctor of Medicine **MDG/CC**—Medical Group Commander **MSP**—Mission Support Plan **NAF**—Numbered Air Force **NASA**—National Aeronautics and Space Agency **NATO**—North Atlantic Treaty Organization **OT&E**—Operational Test and Evaluation **PD**—Program Director **PME**—Professional Military Education **POM**—Program Objective Memorandum **PP**—Pilot-Physician **PPP**—Pilot-Physician Program **RAM**—Residency in Aerospace Medicine **R&D**—Research and Development **RD&A**—Research, Development and Acquisition **SIB**—Safety Investigation Board **SPO**—Systems Program Office **SSWG**—System Safety Working Group **SUPT**—Specialized Undergraduate Pilot Training **UPT**—Undergraduate

**Attachment 2**

**RCS: HAF-SGP(SA)9109, PILOT-PHYSICIAN REPORT, SUGGESTED FORMAT**

- 1 Executive Summary, with Recommendations
  2. Safety and Life Support:
    - a. Summary of incidents and accidents (sanitized).
    - b. Trends identified (if any).
    - c. Review of significant aircraft or technical order changes for the aeromedical, operations, and safety communities.
3. Training and Research:
  - a. Papers authored.
  - b. Lectures and briefings presented.
  - c. Program or working group involvement.
  - d. Articles of aeromedical interest.
  - e. Training received this period.
4. Aircraft and Mission Integration:
  - a. Aircraft-specific integration issues.
  - b. Current mission environment.
  - c. Human Performance issues.
5. Flying Activity This Period:
  - a. Aircraft type(s).
  - b. Sorties.
  - c. Time.
6. Narrative:
  - a. Discussion of any other topic(s) of aeromedical significance.
  - b. Constraints or challenges to fulfillment of pilot-physician responsibilities.
  - c. Plan for next reporting period.
  - d. Recommendations.

**Attachment 3**

**IC 2000-1 TO AFI 11-405, THE PILOT PHYSICIAN PROGRAM**

**2 OCTOBER 2000**

***SUMMARY OF***

***REVISIONS***

This revision incorporates IC AFI11-405. This change incorporates the Report Control Symbol (RCS) report requirements into the AFI.

2.11.1. Prepare an annual RCS: HAF-SGP(SA)9109, *Pilot Physician Report*, on all pilot-physician-related activities for the preceding fiscal year. (See **Attachment 2** for the format). The pilot-physician sends these reports to the command surgeon through the chain of command by 31 January of each year. Pilot-physicians assigned to AFMC send similar reports through the laboratory or center commander to HQ AFMC/SG. Copies of the report with all attachments go to AFMOA/SGOA (Attn: Program Director, Pilot-Physician Program).

2.11.2. First assignment pilot-physicians should prepare and submit an annual and semiannual RCS: HAF-SGP(SA)9109, *Pilot Physician Report*, for their first two years after aircraft qualification; these reports should be submitted NLT 31 January and 31 July of each year.

**Attachment 2 RCS: HAF-SGP(SA)9109, *PILOT-  
PHYSICIAN REPORT*, SUGGESTED FORMAT**

## **APPENDIX B**

Department of the Navy - OPNAVINST 1542.4C N789J3  
Dual Designator (AMDD) Program  
July 2001



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON WASHINGTON, DC 20350-2000

OPNAVINST 1542.4C  
N789J3  
11 July 2001

OPNAV INSTRUCTION 1542.4C

From: Chief of Naval Operations

To: All Ships and Stations (less Marine Corps field addressees not having Navy personnel attached)

Subj: AEROMEDICAL DUAL DESIGNATOR (AMDD) PROGRAM

Ref: (a) MILPERSMAN 1542-010  
(b) OPNAVINST 3710.7R  
(c) U.S. Code, Title 37, Section 301a

1. Purpose. To provide information, policy, and procedures for the administration of the AMDD Program. This instruction is a complete revision and should be reviewed in its entirety.
2. Cancellation. OPNAVINST 1542.4B.
3. Discussion. Throughout this instruction, "naval aviator" shall refer to pilot or naval flight officer (NFO). The term "aeromedical officer" shall refer equally to flight surgeons (MC), naval aerospace physiologists (MSC), aerospace experimental psychologists (MSC) and aerospace optometrists (MSC).
4. Background. Development of effective new air weapon systems in the past has been highly sensitive to human engineering factors. The unique demands of naval aviation and the multiplicity of aviation programs have required the support of a limited officer inventory skilled concurrently in the professional qualifications of a naval aviator and of a flight surgeon. To meet that requirement, selected individuals trained as medical officers have been cross-trained as naval aviators. Their assignments were selectively made to meet the identified requirements of billets or projects/programs requiring the skills of both disciplines in a single individual. The billets predominated in, but were not limited to, Navy research and development activities. The number and complexity of emerging weapons systems have required dual designation of a naval aviator and flight surgeon (MC) in the past. An improved understanding of the roles and capabilities of dually-designated, aeromedically trained officers has now led to the more precise codification of the dual designator program, with the inclusion of naval flight officers, as well as aerospace physiologists, aerospace experimental psychologists, and aerospace optometrists.



5. Program Description. The program shall meet the following guidelines:

a. Reference (a) stipulates that trainees shall incur the same minimum service obligation as that incurred for naval aviator training, to commence upon designation as an AMDD. Previously designated aviators receiving refresher training only shall incur the same minimum service obligation as all other naval aviators who undergo like training. Trainees who attrite from flight training shall likewise incur the same minimum service obligation as all other student pilots or student naval flight officers who attrite from equivalent training.

b. Physical standards established for Service Group I Naval Aviators and Class II Naval Flight Officers apply to those personnel entering the AMDD program. Previously designated naval aviators who subsequently were designated flight surgeons/aerospace physiologists/aerospace experimental psychologists shall be under the age of 38 at commencement of flight refresher training. Selectees not previously designated pilots or naval flight officers shall be under the age of 34, and in the grade of O-4 or below at the commencement of undergraduate flight training. Selection of not previously designated pilots or naval flight officers must be endorsed by the Surgeon General (Code N93) and approved by Chief of Naval Operations (CNO) (Code N78). CNO, if required, may approve age waivers for flight training, on a case-by-case basis.

6. Administration. Procedures and criteria for the AMDD program are:

a. Those aeromedical officers who were previously designated naval aviators are primary candidates for this program. Those aeromedical officers not previously designated as a pilot or NFO, or who hold aeronautical ratings from other military services are not primary candidates for the AMDD program, but may be considered.

b. Applicants shall submit enclosure (1) to CHNAVPERS (PERS-43) via Chief, Bureau of Medicine and Surgery (BUMED) (MED-23). Requirements for supplemental information shall be promulgated via application announcement message.

c. CHNAVPERS (PERS-43) will annually convene and chair the formal AMDD Selection Board to consider program applicants. The board will have representatives from CNO (N789), Commandant of the Marine Corps (CMC), BUMED (MED-23), Chief of Naval Air Training (CNATRA), and Chair of the Aeromedical Dual Designator Advisory Group (DDAG).

d. AMDD Advisory Group: An AMDD advisory group (DDAG) will be established. Membership will be representative of all AMDD communities, i.e., aerospace medicine, aerospace physiology, aerospace optometry, and aerospace experimental psychology. The chair shall be a senior AMDD. Current DDAG membership includes representatives from BUMED, CMC, Commander, Naval Air Force, U.S. Atlantic Fleet (CNAL), CNATRA, CHNAVPERS, Naval Strike and Air Warfare Center (NSAWC) and Air Test and Evaluation Squadron NINE (VX-9). DDAG primary function is to advise BUMED, and when necessary CNO and CHNAVPERS, in all matters concerning the AMDD program. Other functions will include development and maintenance of program strategic and business plans, review and recommend

prioritization of AMDD applicants for formal selection board consideration, and other such functions as may be determined necessary to facilitate program coordination.

7. Training. Initial and follow-on training requirements for the AMDD program are:

- a. Initial flight refresher training for candidates previously designated as naval aviators, or
- b. A tailored syllabus in the intermediate and advanced phases of the appropriate pipeline, as necessary, followed by an appropriate syllabus in a fleet replacement squadron (FRS) for those acceptable candidates holding previous aeronautical (pilot or navigator) ratings from another military service. To preclude unnecessary training, CNATRA will determine training requirements on an individual basis.

8. Career Pattern

a. Upon completion of appropriate training, officers designated as AMDD shall remain members of the Navy Medical Corps/Medical Services Corps. Once designated as AMDDs, officers shall be assigned duty maximizing their dual designator qualifications and where appropriate, follow-on dual designator tours shall be directed. This assignment strategy will sustain the highest measure of flight skill currency and safety, and assure a broadly based and current cadre of dual designation experience from which to draw for senior management assignments requiring such background and qualification.

b. The following duty assignment categories provide maximum career/program development potential. These assignments support the requirement for sufficient AMDDs to meet research and development programmed personnel requirements.

(1) Assignment to a fleet readiness squadron for a normal tour in a flight surgeon/aerospace physiologist/aerospace experimental psychologist/aerospace optometrist operational flying billet.

(2) Assignment to a research and development (R&D) type squadron or activity for at least one tour in a flight surgeon/aerospace physiologist/aerospace experimental psychologist/aerospace optometrist operational flying billet.

(3) Assignment as Senior Medical Officer aboard an aircraft carrier (flight surgeons only).

(4) Assignment to an aeromedical safety, operation/fleet staff billet, or selected research, development, test, and evaluation (RDT&E) management billet.

(5) Assignment to further management/military training and command billets, as appropriate.

9. Billet Identification. The DDAG will annually review billet and billet assignments and make recommendations to MED 23.

10. Program Implementation

a. Aeromedical Officers formerly designated as pilots are not authorized to fly as pilots unless in training for, or designated as, AMDDs. They may, however, fly in actual control of any dual-controlled aircraft, and log pilot time, in accordance with the provisions of reference (b) for aeromedical officers.

b. AMDDs assigned as such under the provisions of this instruction, for duty in a flying status involving operational or training flights (DIFOPS orders), shall comply with, but are not limited to, the annual minimum flight hour requirements specified for naval aviators and the aviation qualification/currency requirements outlined in reference (b). Such AMDDs who are pilots are authorized to pilot any naval aircraft, in all phases of flight, commensurate with their qualifications.

c. In consonance with the statutory provisions of reference (c), AMDDs will not be entitled to continuous aviation career incentive pay or accumulation of operational flying credit, but will be entitled to monthly incentive pay when assigned to operational flying status, provided performance requirements are met.

## 11. Responsibilities

a. CNO (N789)

(1) Resource sponsor for the program.

(2) Direct specific pilot training requirements to support the AMDD Program.

b. Chief, BUMED (MED-23) shall:

(1) Act as Program Manager.

(2) Coordinate with CNO (N789) and Chief of Naval Personnel in joint areas of program management.

(3) Act as the Medical Specialty Advisor for flight surgeons (MC), and liaison with Specialty Leaders of aerospace physiologists (MSC), aerospace optometrists (MSC), and aerospace experimental psychologists (MSC) regarding their personnel designated as AMDDs.

(4) Appoint and provide oversight for an AMDD Advisory Group (DDAG) with representation consistent with AMDD program activities.

c. CHNAVPERS (PERS 43/44) shall coordinate all personnel actions relating to the general training and assignment of AMDD personnel.

d. CNATRA shall ensure personnel are trained for the AMDD program in accordance with guidelines established by CNO (N78).

e. Dual Designator Advisory Group shall review the AMDD program annually and assist in the recruitment, application process and selection of AMDDs as directed by MED-23.

## 12. Action

a. CNO (N789)

(1) Determine each year the actual number of aeromedical officers to be trained as AMDD based on existing naval aviation requirements in coordination with BUMED (MED-23).

(2) Annually assess, in conjunction with BUMED, the AMDD program.

b. BUMED (MED-23)

(1) Receive and track all applications for AMDD Training.

(2) Coordinate and monitor duty assignments of AMDD designated individuals to achieve maximum program benefit.

(3) Identify, coordinate, and ensure the provision, in conjunction with CNO (N789), of subsequent specialized training as may become necessary to fill program requirements.

(4) Monitor career paths of individuals designated AMDD.

(5) Annually assess the AMDD program, in conjunction with CNO (N789).

c. CHNAVPERS (PERS-43)

(1) When required, convene and chair a board for the selection of applicants for training as an AMDD.

(2) Notify applicants of their selection.

(3) Keep current inventory database of all personnel in training and/or designated in the AMDD program.

d. CNATRA

(1) On a case-by-case basis, determine individual training requirements for candidate AMDDs.

(2) Monitor the progress of personnel in training for the AMDD designation and report, as appropriate, to CNO (N789) and BUMED (MED-23).

<b>c. Aeromedical Designation</b>					
<b>d. Other Service Pilot Ratings</b> <b>Air Force</b>					
<b>Name (Last, First, MI)</b>	<b>2. Grade</b>	<b>3. SSN</b>	<b>4. Date of Birth</b>		
<b>13. Previous Military Service beginning with most recent</b>		<b>(include any broken service):</b>			
<b>5. Home Address (Zip+4)</b>	<b>6. Home Telephone</b>	<b>Dates</b>	<b>7. Complete Duty Address</b>		
	( )				
<b>8. Duty Telephone: ( )</b>		<b>9. Email Address:</b>			
<b>10. Designation(s)</b>		<b>11. Date of Designation</b>		<b>12. Certification Type/Number</b>	
<b>a. Naval Aviator</b>					
<b>14. Flight Experience:</b>					
<b>b. Naval Flight Officer</b>					
<b>Military</b>		<b>Civilian</b>			

Aircraft Type	Time	Aircraft Type	Time

**15. Date of current complete aviation physical exam:** \_\_\_\_\_

**16. Attach curriculum vitae.**

e. Applicants. Submit enclosure (1) to CHNAVPER (PERS-43) via BUMED (MED-23).

13. Form. OPNAV 1542/2 (3/01), Naval Aeromedical Dual Designator Program Application, is provided as enclosure (1).

M. J. McCABE Rear Admiral, U.S. Navy Director, Air Warfare (N78)

Distribution:

SNDL Parts 1 and 2

#### NAVAL AEROMEDICAL DUAL DESIGNATOR PROGRAM APPLICATION

I certify the above information is true and complete to the best of my knowledge.

Signature , Date: \_\_\_\_\_

#### PRIVACY ACT STATEMENT

Authority: 5 U.S. C. 301, Department Regulations, Executive Order 9397 (SSN), and OPNAVINST 1542.4B.

Purpose: To apply for the Dual Designator Program.

Routine Uses: Information will be provided to the Dual Designator board for the purpose of selection to the program. Information not disseminated outside DOD.

Disclosure: Voluntary. However, failure to provide the requested information may result in your not being considered for the Dual Designator Program.

OPNAV 1542/2 (3/01)

**Enclosure (1)**

## **APPENDIX C**

Air National Guard Pilot Physician Program  
Letter of Intent  
September, 2004



**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS 147 FIGHTER WING (ACC)  
ELLINGTON FIELD, TEXAS 77034-5586



**Letter of Intent for ANG Pilot Physician Program**

MEMORANDUM FOR Dual Qualified Air National Guard Pilots/Physicians

SUBJECT: Survey of Interest in the Establishment of a Formal ANG Pilot-Physician Program

1. The Air National Guard is undergoing significant transformation as we address Vanguard initiatives and the force-shaping issues required to fight the War on Terrorism in the years ahead. Restructuring and the efficient use of our resources, including manpower, is paramount in the face of fiscal and training challenges.
2. Inquiries from the ANG flying wings regarding the potential development of a “dual-rated”, dual-tasked ANG pilot-physician have increased over the past year. The USAF does have a formal Pilot Physician Program (PPP), which operates under the provisions of AFI 11-405. In the past, when the ANG operated weapons systems that were no longer supported by the Active Component, a parallel ANG PPP existed. With the retirement of the A-7, the ANG PPP dissolved.
3. As technology and human factors challenges become increasingly sophisticated and the medical requirements of our Guardsmen and women escalate, the time has come to consider the increased utilization of our dual-qualified, subject matter experts. The Air National Guard Medical Service is focusing on rising to the challenge of the critical care Expeditionary Medical System (EMEDS), which is THE wartime medical mission of the USAF. Consideration should be given to addressing the technical, aeromedical aspects of deployment and aircraft development which a dual-rated pilot-physician may bring to the table. Also, as medical resources become increasingly scarce and difficult to recruit/deploy, the dual-use capability of an operational pilot and practicing physician may present flexibility to a wing or theater commander.
4. We have asked Captain Andy Davenport, a 147 FW F-16 pilot, Ellington ANGB, Texas, who is completing a combined internal medicine-aerospace medicine residency at University of Texas Medical Branch, to spearhead this initiative. Captain Davenport entered UPT immediately upon graduation from medical school and is actively pursuing a dual-track pilot-physician career both in the military and civilian sectors. He has ideas

about operational efficiency and dual-tracking which are worth considering across the ANG system. Certainly, there are other members of the ANG community with similar expertise and interest.

5. Attached is a survey questionnaire for distribution to all ANG members who hold both military pilot and physician qualifications. Request that these members complete the attached survey and return this information electronically to Captain Davenport, [pilotphysician@houston.rr.com](mailto:pilotphysician@houston.rr.com). ANG/SG and XO will work closely with Capt Davenport to evaluate field interest in an ANG PPP and whether a PPP is efficacious and useful as we project support for deployments and training in the 21<sup>st</sup> Century ANG. Your participation is solicited, with response to Capt Davenport NLT 01 January 2005, and your assistance appreciated.

BROCK T. STROM  
Colonel, USAF  
Director, Plans and Operations, ANG

RANDALL M. FALK  
Colonel, USAF, MC, CFS  
Director, Medical Services, ANG

Cc: ANG WING/CCs, OG/CCs, MDG/CCs, SASs, ESSOs, NGB/CF



## **APPENDIX D**

Air National Guard Pilot Physician Program  
Data Collection Survey  
September, 2004

## Initial Survey - September 2004

Date Fields are month/year except DOB

Are you aware of other dual-qualified (pilot & physician) ANG members? Please list name and contact points.			
Name (first)	(last)	Rank	E-mail Address
Any final thoughts or info you would like to share?			

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## **APPENDIX E**

Air National Guard Pilot Physician Program  
Program Design Survey  
September, 2004



**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS 147 FIGHTER WING (ACC)  
ELLINGTON FIELD, TEXAS 77034-5586



## **AIR NATIONAL GUARD PILOT-PHYSICIAN SURVEY**

### **Purpose:**

1. To determine the number of ANG members who have military qualifications as both pilots and physicians
2. To evaluate the interest in an ANG Pilot-Physician Program (PPP) and the utility of a program which either mirrors the Active Duty PPP or develops an enhanced, purposeful ANG capability

### **SECTION I. DEMOGRAPHICS**

Please complete the accompanying “ANGPPData.xlt” electronically and return these forms together to Captain Davenport at [pilotphysician@houston.rr.com](mailto:pilotphysician@houston.rr.com) by 30 November 2004. The Data form is essential for individuals desiring information and consideration for a developing ANG PPP.

Please provide the following information on this form as well for proper matching:

<b>Rank</b>	<b>First Name</b>	<b>Last Name</b>	<b>E-Mail</b>

### **SECTION II. GENRAL SURVEY QUESTIONS**

Prior to completing the following questions, please review AFI 11-405 (downloadable at <http://www.e-publishing.af.mil/pubfiles/af/11/afi11-405/afi11-405.pdf>) or the attached summary of this document attached as “Appendix 1”. Note: a potential ANG Pilot-physician Program may or may not mirror the current Active Duty PPP.

1. Are you interested in pursuing the concept of establishing a pilot-physician program in the Air National Guard?

--

2. List the objectives of a PPP as you would conceive it. (flying, medical, research, or other)

--

3. List advantages and disadvantages, as you see them, of establishing a pilot-physician program in your flying wing.

<u>Advantages:</u>	<u>Disadvantages:</u>
--------------------	-----------------------

4. Do you see such a program as an active flying and medical role, or more as a society of pilot-physicians who meet to discuss issues of common interest?

--

5. Do you envision this program as requiring active flying and medical training requirements? Explain.

--

6. Would you and your Wing Commander support a pilot-physician as a flying line pilot (MRC or BMC)?

--

7. Which pilot-physician role would you and your Wing Commander support during a deployment: 1) one serving as a “pilot with medical skills who can supplement the clinic” or 2) one serving as a “medical provider who, with short ‘spin-up’ from BMC, could fly as an MRC pilot”?

--

8. Which do you believe that an ANG pilot-physician should hold for a primary AFSC: 1) medical or 2) line pilot? Explain

9. Would your Wing and OG Commanders support flying hours for a pilot-physician holding a medical AFSC (e.g. SME)? How about a line pilot AFSC? In other words, would you get the same flying hours holding a medical AFSC that allows for flight vs. a flying AFSC that allows for medical duties?

10. How many hours per month could you devote to meeting the following: 1) operation flying requirements. 2) Military medical training requirements?

11. If you are currently occupying the role of a flight surgeon (previously a pilot), would your Wing Commander support a transition course making you MRC or BMC?

12. If you are an MRC pilot, would your Wing Commander support your attending the Aerospace Medicine Primary (AMP) course and continued military medical training requirements?

13. Do you envision an ANG pilot-physician program as a part-time (Traditional) or full-time (AGR/Technician) program - or either/both?

14. Would you be interested in a full-time AGR position with both flying and medical requirements?

15. Whom do you feel should oversee the ANG PPP program at the local wing? (CC, CV, OG, Medical Group Commander or other)

16. List any operation aeromedical or aeronautical issues that you feel an ANG pilot-physician program should address.

17. Would you be willing and able to attend a meeting of interested dual-rated ANG members at Medical Readiness Frontiers (Salt Lake City, Utah), the first week of June 2005?

## **APPENDIX F**

Air National Guard Pilot Physician Program  
Summary of Active Duty Pilot Physician Program  
September, 2004  
*(included as a supplement with the data collection survey)*



## **Summary - The Active Duty Air Force Pilot-Physician Program**

### **PURPOSE**

The Air Force implements the Pilot Physician Program (PPP) [AFI 11-405] to provide integrated operational and aeromedical guidance for the purpose of improving the success and safety of Air Force weapon systems and missions. Pilot physicians must be involved in the research, development, testing, and evaluation of new Air Force systems and missions as early as possible to realize the greatest effectiveness and cost savings. Pilot physicians also provide education and analysis to the Air Force. The effective use of pilot physicians optimizes mission capability, performance, safety, and cost. Pilot physicians are particularly well suited to help develop new aircraft, life support equipment, and avionics or software upgrades, and to ensure that changing missions can be accommodated by crews and aircraft. Pilot physicians can help identify and prevent human performance and man-machine interface problems from reaching mature operational systems. They also identify and help correct such problems in systems already in use.

### **Pilot physicians can best meet these objectives through (4) core competencies:**

1. Providing expert guidance through the following types of activities:
  - a. Bringing operational relevance to aeromedical science and to medical mission support planning
  - b. Operational guidance about human performance limitations
  - c. Acquisition and operational employment guidance regarding aerospace and life support systems
  - d. Human system integration guidance
  - e. Guidance about aircrew standards and aeromedical policy
  - f. Consultation to mishap investigation boards
  - g. Research guidance concerning human subjects in aerospace and life support systems
2. Conducting research:

The research specialties of pilot physicians involve the application of operational insights of human performance factors to achieve optimal aircrew performance and better military capabilities and mission effectiveness. This research includes traditional literature based studies and basic science, as well as operationally relevant research, development, test & evaluation (RDT&E) and operational test & evaluation (OT&E), with a focus on human factors, performance, and life support.
3. Teaching:
  - a. Pilot physician teaching responsibilities include:
    1. Aeromedical instruction to aircrew and senior Air Force leaders
    2. Aviation and aeromedical instruction to medical personnel
    3. University based instruction to college and medical students
  - b. Subjects of particular expertise include:

1. Human performance in operational employment
  2. Cockpit/Crew Resource Management
  3. Teaching Medical Service and lab personnel about operational issues
  4. Teaching operational aerospace personnel about medical issues and human performance enhancement issues
  5. Medical human factors
  6. Life Support: enhancing performance and protection / prevention of injury
  7. Weapon system specific knowledge, gained from operational experience
  8. Flying safety
4. Conducting Analysis:
- a. Pilot physicians are uniquely suited to conduct analysis of:
    1. Aerospace system configuration during design, development, production, testing, and operational use
    2. The person, mission, and machine in the operational environment (cockpit and mission integration, including life support equipment)
    3. Mishaps as a safety consultant
    4. Potential solutions for operational human performance problems

## **APPLICANTS**

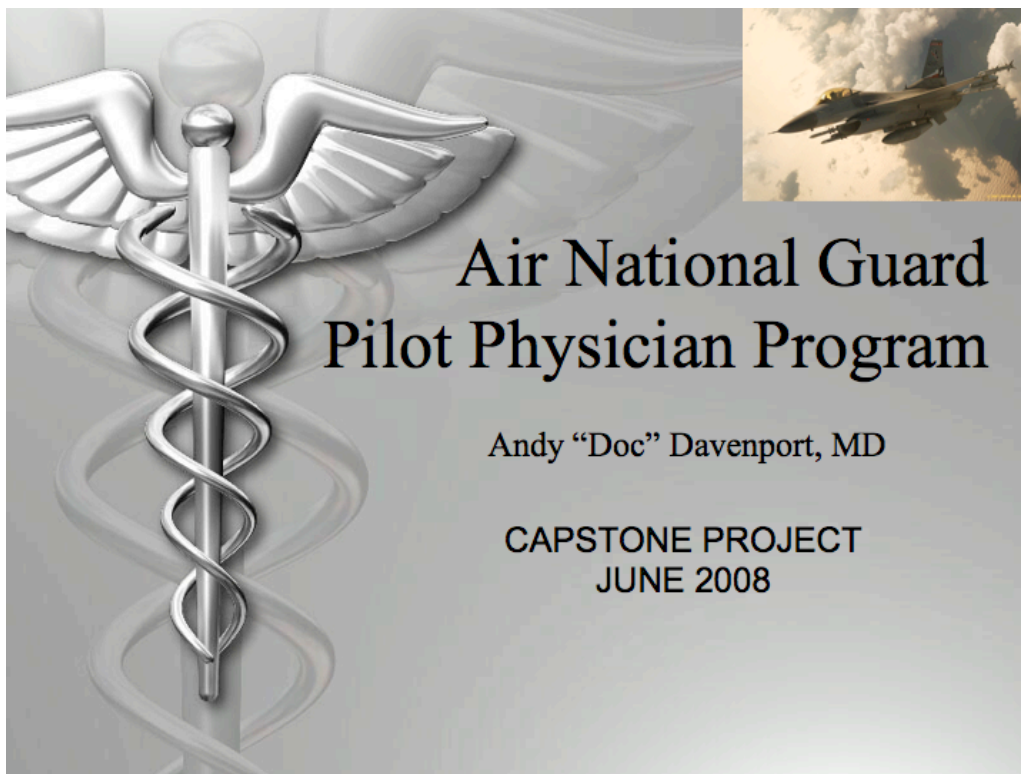
**This section sets criteria for entering the PPP and makes sure those selected are highly qualified pilots and physicians.**

**All applicants entering the PPP will have:**

- Completed UPT or SUPT and 3 years of operational flying. In some cases the length of the operational flying requirement may be waived by the Pilot Physician Program Director (PD).
- Volunteered for the PPP.
- Earned an M.D. or D.O. degree and completed 1 year of postgraduate medical training.
- Completed the Aerospace Medicine Primary Course.
- Served as an operational flight surgeon for at least one year (or requests pre-selection with final selection contingent upon one year of superior performance as an operational flight surgeon).
- Applicants who have not yet been assigned as flight surgeons, the PPP PD will work to assign these applicants to bases where candidates would be likely to serve as first assignment pilot physicians.

## APPENDIX G

Air National Guard Pilot Physician Program  
Presentation Briefing (Power Point Slides)  
June, 2008



# Overview

- Background
- ANG PPP Interest
- Nuts & Bolts
- Roadmap of Development
- Current Status
- Summary
- Questions

## PPP Background

- What is the PPP?
- Is there a precedent?
  - Active Duty
    - Air Force
    - Navy
  - Russia
- Purpose & Function
- Structure

### AD Objectives:

- Provide Expert Guidance
- Conduct Research
- Teaching
- Conduct Analysis

# ANG PPP Interest

- Shift in Guard mission and composition of total U.S. Force
- Physicians who want to fly (again)
- Pilots who want to "help out" their squadron
- Individuals looking for AGR positions
- Active Duty to Palace Chase
- Commanders looking to integrate
- Human Weapon System Council

## ANG PPP - Initial survey Qualified Participants - 2006

First Name	Last Name	Rank	Unit	State	Aircraft	Pilot	MD/DO
XXXX	XXXX	LTC	137 MDG	OK	C-130	YES	YES
XXXX	XXXX	Capt	111 FS - Ellington Field	Tx	F-16C	YES	YES
XXXX	XXXX	LTC	171ARW	PA	KC 135	YES	YES
XXXX	XXXX	LTC	113FS	Indiana	F-16C	YES	YES
XXXX	XXXX	Major	190 FS IdahoAir National Guard	ID	A-10	YES	YES
XXXX	XXXX	Major	169 MDS McEntire ANG	SC	F-16 CJ	YES	YES
XXXX	XXXX	LTC	121 ARW	OH	KC-135	YES	YES
XXXX	XXXX	MAJ	183RD	IL	F16	YES	YES
XXXX	XXXX	Maj	178FW	Ohio	F-16	YES	YES
XXXX	XXXX	2Lt	186th Fighter Squadron	Montana	F-16 (starting UPT)	YES	YES
XXXX	XXXX	Capt	149th?	Tx		NO	YES
XXXX	XXXX	LTC	178th FW/162nd FS	Ohio	F-16C	YES	YES
XXXX	XXXX	LtCol	117ARW	AL	KC135R	YES	YES
XXXX	XXXX	Lt Col	ACC/A8MH	VA	F-15C	YES	YES
XXXX	XXXX	Maj		CO	F-16	YES	NO

XXXX - names marked out for privacy



# ANG PPP - Initial Survey

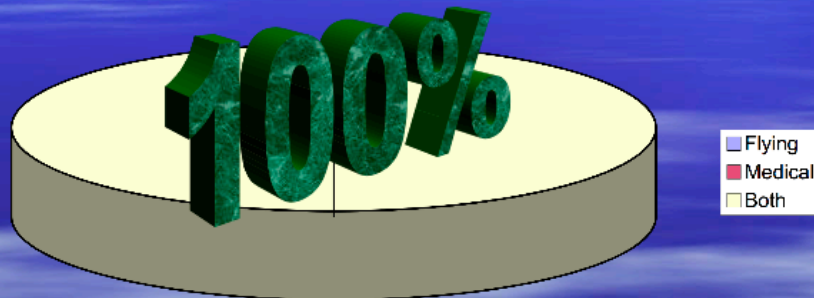
## Topics of Consideration

- Define objectives and goals of program
- What is the primary role of a Pilot Physician
  - Pilot who augments Med Group (MDG)
  - Physician who spins up Operations Group (OG)
  - Which AFSC (Line vs Med)
- What's the "bone" for the Wing? Member?
- What requirements would we develop
- Employment status – fulltime/traditional
- Oversight and Career Progression
- Cost / Benefits analysis

## ANG PPP Objectives

- Advisor to Commanders
- Recruiting & Retention
- Medical Expertise at Wing Table
- New Program Development
- Human Factors Interface issues with current weapons systems
- Ops – Medical Liaison
- Medical Practice – clinical role
- Operational Flying (BMC, CMR)
- Deployments & Local Interface
- Safety Officer (AIB's SIB, local trained asset and expert)
- AFI 11-405
  - Provide Expert Guidance
  - Conduct Research
  - Teaching
  - Research (Programming)

# Role of ANG PPP



## REQUIREMENTS

### (ACTIVE DUTY ENTRY REQUIREMENTS):

- Completed UPT or SUPT and 3 years of operational flying. In some cases the length of the operational flying requirement may be waived by the Pilot Physician Program Director (PD).
- Volunteered for the PPP.
- Earned an M.D. or D.O. degree and completed 1 year of postgraduate medical training.
- Completed the Aerospace Medicine Primary Course.
- Served as an operational flight surgeon for at least one year (or requests pre-selection with final selection contingent upon one year of superior performance as an operational flight surgeon).
- Applicants who have not yet been assigned as flight surgeons, the PPP PD will work to assign these applicants to bases where candidates would be likely to serve as first assignment pilot physicians.

# REQUIREMENTS

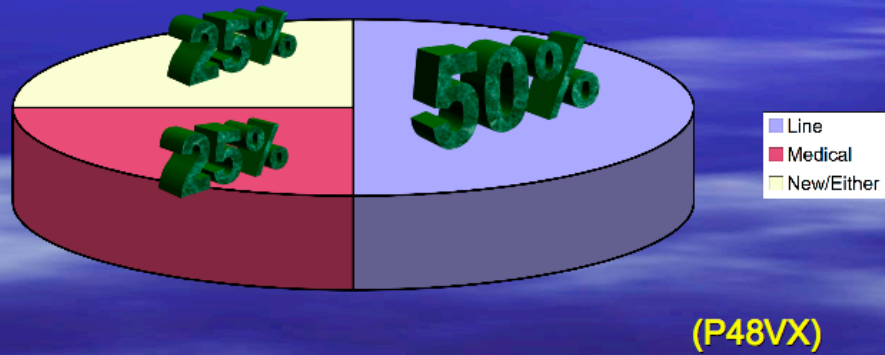
- Clinical & Flying
- Overlap during UTA's
  - Flying versus Medical duties
  - What is our responsibility
  - SME?
- Currencies (flying & medical)

## Primary Duty





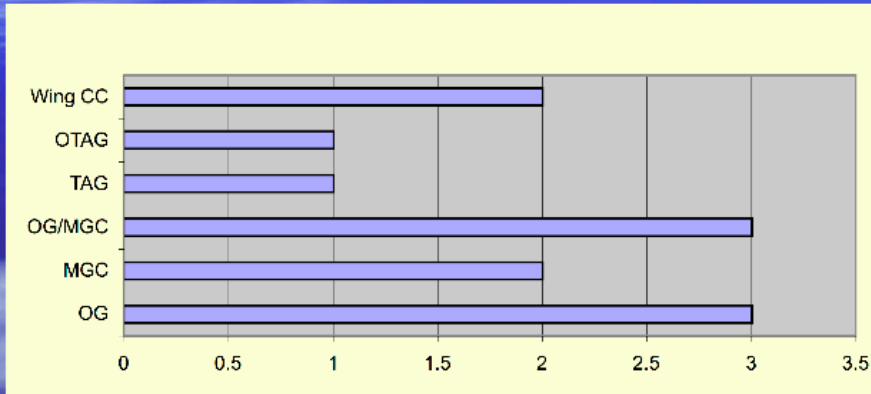
## Primary AFSC



## Employment Status



# Command Authority



## Points to Ponder AGR - Full Time Position

### ■ Benefits

- Sufficient days to accomplish dual training requirements
- SME Oversight
- Deployable Asset (for dual functions?)
- Able to maintain BMC or CMR status
- No conflict of interest between civilian and military employment
- Potential to replace 2 traditional personnel with 1 AGR
- Greater availability of FS

### ■ Drawbacks

- How to maintain clinical medicine skills
- Limited clinical medicine on base
- Individual's desire to maintain private practice lifestyle
- No support for full time clinical practice
- No medical liability coverage for clinical practice

## Points to Ponder Traditional - Part Time Position

### ■ Benefits

- Individual's desire to maintain private practice
- Ability to maintain clinical skills (in private practice)
- No need for additional AGR position
- Dual expertise in one body (Multi-role individual)

### ■ Drawbacks

- Questionable ability to maintain dual currency without additional AT days
- Division of responsibilities during UTA's
- Deployment Status (pilot vs physician)

## Points to Ponder Medical AFSC

### ■ Benefits

- Rapid progression of rank
- More O5+ positions available (not in competition for Ops positions)
- Clinic would not feel "slighted" by Ops
- Medical bonus \$ if funded
- Increased requirements for medical training/knowledge
- Deployed with medical group
- Can maintain Ops function (SOF, mission planning)

### ■ Drawbacks

- Not in a command (line) position
- Possibility of lesser flying priority to Ops
- One less pilot if deployed with medical group

# Points to Ponder

## Line AFSC

- **Benefits**
  - Ops flying priority
  - Flying bonus \$
  - Command position
  - Increased Availability/Access of FS
  - Improves relationship between Ops and Medical
  - Increased proficiency requirements for weapon systems
  - Increased ability for RUTA's
  - OPS likely to have more AT days than medical group
- “Guest Help” credentialed at clinic
- Greater exposure to Ops personnel and their medical needs
- Built-in Safety Officer, training, education
- **Drawbacks**
  - Medical responsibilities may be secondary to Ops
  - Concern for side-stepping the clinic and putting medical decisions in Ops
  - Less O5+ positions for retention

## General Issues & Concerns

- **Geneva Convention Status**
  - As per AFI 11-405 sec 2.9: Pilot-Physicians may deploy in either capacity as decided by line commander. A pilot may still perform medical duties. A FS may NOT perform combat duties.



# Implementation

- Initial Survey 2004
  - Requested data from all ANG units
  - Evaluation of resources and Interest
- Readiness Frontiers 2005
  - Meeting of 13 dual-rated ANG individuals
  - ANG Assistant to ACC: Gen Webster
  - ANG Assistant to Air Surgeon: Gen Harmon
- Washington DC 2006
  - ANG Chief of Operational Readiness: Col Quint
  - AND Director of Air Operations: Col Swadener

# Current Status

- Full Time AGR position
- Funded by OPS (Line Officer)
- Report to Wing CC
- Serve in both capacities at home station
- Chose Pilot OR Physician role prior to deployment
- Requests from the Wings – not mandated by Washington
- Human Weapon Systems Council Integration

# Summary

- Background
- ANG PPP Interest
- Nuts & Bolts
- Roadmap of Development
- Current Status

QUESTIONS?

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## **APPENDIX H**

Department of the Air Force  
Application of the Law of Armed Conflict to Air Force Medical Personnel  
May, 2005



**DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC**

**APPLICATION OF THE LAW OF ARMED CONFLICT  
TO AIR FORCE MEDICAL PERSONNEL**

**MAY 2005**

**Introduction**

Air Force medical personnel frequently seek guidance from Air Force judge advocates about the law of armed conflict as it applies to military medical personnel, facilities and missions. The questions typically focus on issues such as the protections afforded medical personnel, requirements for medical personnel and facilities under the law of armed conflict, and responsibilities placed on medical personnel and commanders to ensure compliance with the law. The discussion below addresses questions of the law of armed conflict as it applies to Air Force medical personnel.

**Discussion**

It is DoD policy for all military personnel, including medical personnel, to comply with the law of armed conflict "during all armed conflicts, however such conflicts are characterized, and with the principles and spirit of the law of war during all other operations."<sup>1</sup> Law of armed conflict sources that contain relevant guidance include the 1907 Hague Conventions<sup>2</sup> and the 1949 Geneva Conventions.<sup>3</sup> The 1907 Hague and 1949 Geneva Conventions are binding treaty obligations of the United States and apply to any armed conflict between the United States and one or more parties to these conventions. The United States has not ratified the 1977 protocols that would potentially extend Geneva protections to parties and conflicts not contemplated by the 1949 Conventions.<sup>4</sup> However, to the extent that certain provisions of Protocol I and Protocol II

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<sup>1</sup> DoD Directive 5100.77, DoD Law of War Program (Dec. 9, 1998). *See also* CJCSI 5810.01B Implementation of the DoD Law of War Program (Mar. 25, 2002).

<sup>2</sup> Hague Convention (IV) Respecting the Laws and Customs of War on Land (Oct. 18, 1907) [hereinafter Hague IV].

<sup>3</sup> Law of armed conflict sources that contain relevant guidance include the Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field of Battle, 6 U.S.T. 3114, 75 U.N.T.S. (Aug. 12, 1949) [hereinafter GWS]; Geneva Convention for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, 6 U.S.T. 3217, 75 U.N.T.S. 85 (Aug. 12, 1949); Geneva Convention Relative to the Treatment of Prisoners of War, 6 U.S.T. 3316, 75 U.N.T.S. 135 (Aug. 12, 1949) [hereinafter GPW]; Geneva Convention Relative to the Protection of Civilian Persons in Time of War, 6 U.S.T. 3516, 75 U.N.T.S. 287 (Aug. 12, 1949; and Hague (IV).

<sup>4</sup> The United States signed, but did not ratify either Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (1977) (hereinafter Protocol I) or Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts. The United States did not ratify Additional Protocol I due to the objectionable nature of certain articles that could arguably be read to give status/legitimacy to terrorists and criminals.) *See* Letter of Transmittal from President Ronald Reagan, PROTOCOL II ADDITIONAL TO THE 1949 GENEVA



(or the Geneva or Hague Conventions) are recognized by the United States as customary international law, DoD personnel must comply with those provisions.<sup>5</sup> Medical personnel are subject to special rights and obligations under the law of armed conflict and the requirements detailed herein are applicable in any type of armed conflict regardless of its characterization.<sup>6</sup>

The United States recognizes an obligation to protect and treat the sick and wounded, use of the red cross emblem to denote medical personnel and facilities, and the protected status of medical personnel and facilities. Under the laws of war, medical personnel are non-combatants and medical facilities are protected structures. As a result, the enemy cannot lawfully target either medical personnel or medical facilities. Additionally, medical personnel are "retained personnel" if captured, meaning they shall be allowed to tend to prisoners of war and shall be retained only in so far as the state of health and the number of prisoners of war require. They shall be repatriated when their services are no longer indispensable, and as soon as a road is open for their return and military requirements permit.<sup>7</sup> It is incumbent upon the AF/SG community to ensure that medical personnel are aware of these special requirements.<sup>8</sup> While it is a practical

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CONVENTIONS, AND RELATING TO THE PROTECTION OF VICTIMS OF NONINTERNATIONAL ARMED CONFLICTS, S. TREATY DOC. NO. 2, 100th Cong., 1st Sess., at III (1987), *reprinted in* 81 A.J.I.L. 910 (1987). President Reagan's letter transmitting Additional Protocol II to the Senate also served as his official comments on Additional Protocol I. He recommended against ratification for the following reasons:

1. Subjective distinctions in the Protocol based on a war's alleged purposes would politicize humanitarian law and eliminate the distinction between international and non-international conflicts and give special status to "wars of national liberation," an ill-defined concept expressed in vague, subjective, politicized terminology.
2. Another provision would grant combatant status to irregular forces even if they do not satisfy the traditional requirements to distinguish themselves from the civilian population and otherwise comply with the laws of war; and
3. The Joint Chiefs of Staff concluded that a number of the provisions of the Protocol are militarily unacceptable.

Significantly, the United States supports many of the provisions of Additional Protocol I as customary international law. See, e.g. Michael J. Matheson, *Session I: The United States' Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Conventions*, 2 Am. U.J. Int'l L. & Pol'y 419 (1987).

<sup>5</sup> The interpretation and even the existence of a customary international law principle is often controversial, and the means for establishing whether or not a given principle has been authoritatively adopted as binding on the United States is beyond the scope of this paper.

<sup>6</sup> The United States recognizes a number of principles as to the status and obligations of medical personnel as binding obligations in any type of armed conflict regardless of its characterization, but it is not clear whether or not these principles would be legally required in other types of military operations. However, consistent with DoD Directive 5100.77 and CJCSI 5810.01B, commanders are required to comply with the principles of the law of war in all military operations unless otherwise directed by competent authorities.

<sup>7</sup> GWS at Arts. 28, 30; GPW, Art. 33.

<sup>8</sup> GWS, Art. 24 states that "[m]edical personnel exclusively engaged in the search for, or the collection, transport or treatment of the wounded or sick, or in the prevention of disease, staff exclusively engaged in the administration of medical units and establishments . . . shall be respected and protected in all circumstances." AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict* (July 19, 1994), mandates that all Air Force personnel "will comply with [the law of armed conflict] (LOAC) in the conduct of military operations and related activities in armed conflict, regardless of how such conflicts are characterized." As medical personnel have unique

reality that our adversaries may not honor the law of armed conflict applicable to medical personnel, United States military personnel must nevertheless comply with these requirements and otherwise comply with the law of armed conflict.

In order to receive the benefits of their protected status, medical personnel cannot serve in a combatant role and they must comply with certain identification requirements such as wearing a suitable identification device and carrying a special Geneva Convention identification card. Generally speaking, AF/SG personnel are considered permanent medical personnel entitled to protected status provided they are “exclusively engaged” in medical treatment or the administration of medical units and are not engaged in “acts harmful to the enemy.”<sup>9</sup> Likewise, fixed medical facilities and mobile medical units may in no circumstances be attacked.<sup>10</sup> Accordingly, commanders shall ensure that medical facilities and mobile units are, as far as possible, situated in such a manner that attacks against military objectives cannot imperil their safety.<sup>11</sup> Given that medical personnel and facilities have a protected status, but also have special requirements to be distinguished from lawful targets, questions arise with respect to deployment of medical personnel and the use of medical facilities.

*Who is covered by the special rules governing the conduct of medical personnel on the battlefield?*

There are two classifications of medical personnel on the battlefield – “exclusively engaged” (permanent)<sup>12</sup> and “auxiliary” (temporary) personnel.<sup>13</sup> Permanent medical personnel “exclusively engaged” in medical treatment or administration of medical units are entitled to protected status and are obligated to identify themselves as medical personnel. Permanent medical personnel include any personnel exclusively engaged in the prevention of disease, in the search for, or the collection, transportation or treatment of the wounded or sick, or in the administration of medical units and establishments.<sup>14</sup> Permanent medical personnel include both traditional medical specialists such as physicians, dentists, nurses, medical/dental assistants, or Medical Service Corps personnel, and non-medical personnel assigned to a medical unit or establishment such as cooks, clerks and supply personnel, and crews operating permanent medical aircraft.<sup>15</sup>

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obligations under LOAC, para. 2.5 requires the Surgeon General (HQ USAF/SG) to “[d]evelop plans, policies and procedures to ensure that requirements of LOAC, as they relate to medical service personnel, are observed,” and “[s]upervise the individual training of medical service personnel to ensure adequate specialized training and instruction of such personnel in requirements of this area of LOAC.”

<sup>9</sup> GWS, Art. 24.

<sup>10</sup> *Id.* at Art. 19.

<sup>11</sup> GWS at Art. 19.

<sup>12</sup> GWS, Art. 24.

<sup>13</sup> GWS, Art. 25.

<sup>14</sup> *Id.* at Art. 24.

<sup>15</sup> Veterinarians are not themselves protected, but they may be co-located with a medical facility without compromising the protected status of the facility. *See id.* at Art. 22 (4); JEAN S. PICTET, INTERNATIONAL COMMITTEE OF THE RED CROSS COMMENTARY (hereinafter ICRC Commentary) GENEVA CONVENTION I 204-205



The other category of medical personnel, auxiliary medical personnel, include those members of the armed forces who are specially trained as “temporary” hospital orderlies, nurses, or stretcher-bearers. In this context, “temporary” means the exclusive discharge of medical duties or functions for limited periods, but during the whole of those periods. Auxiliary medical personnel are entitled to protection as non-combatants only if they are executing medical duties at the time contact is made with the enemy and are not otherwise engaged in acts harmful to the enemy. Auxiliary medical personnel shall be respected and protected while carrying out their duties, but if captured while carrying out their medical duties are considered Prisoners of War (POWs) rather than retained persons.<sup>16</sup> Consequently, they have no right to repatriation prior to the end of hostilities.

AF/SG personnel performing assigned duties within their respective Air Force Specialty Codes (AFSCs) would appropriately be categorized as permanent medical personnel. This includes Independent Duty Medical Technicians (IDMTs) who are assigned to combat units and those who deploy with combat units but are not assigned to those units, provided the IDMTs are exclusively engaged in the performance of medical duties. IDMTs lose their protected status as permanent medical personnel if they are not exclusively engaged in medical duties and if they engage in any activities inconsistent with a non-combatant role. For example, performing entry control point and static resource guard duties for non-medical units is inconsistent with non-combatant status. If IDMTs are not exclusively engaged in the performance of medical duties, they might, nevertheless, meet the criteria for auxiliary medical personnel. However, auxiliary medical personnel status would not entitle the IDMT to retained personnel status and would only entitle the IDMT to protection from attack for those periods when the IDMT was solely engaged in the performance of medical duties. Furthermore, the IDMT would be prohibited from outwardly identifying himself as a medical professional (e.g. with a red cross brassard) if he engaged in any combatant activity whatsoever.<sup>17</sup>

*What are the medical personnel and facilities identification requirements?*

Under the direction of the competent military authority, the red cross on white background symbol, universally recognized as the symbol of the Red Cross, shall be displayed

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(International Committee of the Red Cross) (1952); ICRC Commentary on Art. 22, Geneva Convention I available at <http://www.icrc.org/ihl> (last visited Mar. 22, 2005) (noting that a proposal to protect veterinarians as medical personnel was rejected during the 1929 negotiations of the Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armies in the Field).

<sup>16</sup> GWS, at Art. 29.

<sup>17</sup> It is not necessarily inconsistent with either permanent or auxiliary medical status for IDMTs to parachute into a hostile battlefield alongside combatants, as long as the IDMTs do not engage in any combatant activity, i.e., offensively firing at enemy personnel. However, combatants deploying by parachute can be lawfully attacked throughout their descent and upon landing and it is unlikely that enemy personnel would be able to recognize the medical armband during the parachute drop. Therefore, the enemy would not be able to distinguish between the IDMTs and the other combatants. Attacks on the IDMTs made because their protected status was not clear or as a result of collateral damage from attacks on nearby combatants would be permissible under LOAC.

on all flags, armlets, and equipment employed in the medical service.<sup>18</sup> Permanent medical personnel are required to wear a government issued and stamped, water resistant armlet bearing the symbol on the left arm.<sup>19</sup> Additionally, permanent medical personnel are required to carry a special identity card bearing the red cross, and that, among other things, states in what capacity he or she is entitled protection under the Geneva Conventions.<sup>20</sup>

Auxiliary medical personnel are not entitled the same special identity card as permanent medical personnel, but rather shall carry military identity documents that specify what special training that person has received, the temporary character of the duties engaged upon, and the authority for wearing the armlet.<sup>21</sup> Auxiliary medical personnel captured by the enemy are POWs, not retained personnel. Auxiliary medical personnel must also wear an armlet similar to those worn by permanent medical personnel but bearing a miniature distinctive emblem.<sup>22</sup> The auxiliary medical personnel armlet shall be worn only during those periods when they are performing medical duties.

*When and where are the red cross identification symbols required?*

Medical units and establishments display the red cross emblem to identify their protected status.<sup>23</sup> The International Committee of the Red Cross (ICRC) commentary to the Geneva Conventions proffers that the emblem may be camouflaged or removed when tactical conditions requiring concealment outweigh the need for clear identification of medical units.<sup>24</sup> Failing to display the red cross emblem does not affect the protected status of the medical facility, but as the ICRC Commentary notes, “as the enemy can respect a medical unit only if he knows of its presence, respect for the camouflaged unit will be purely theoretical.”<sup>25</sup>

There are practical difficulties with establishing an inflexible rule that all medical personnel and all medical facilities wherever located must comply with the red cross identification requirements. Indeed, the primary source of reference for LOAC provisions for medical personnel is the Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces *in the Field* (emphasis added). The Global War on Terrorism highlights the potential for OCONUS and CONUS locations that are not currently the site of combat operations to become part of the battlefield. Thus, while the risk that medical personnel or medical units and facilities will be mistakenly targeted (or targeted at all) is considerably

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<sup>18</sup> GWS, Arts. 38-39, 42.

<sup>19</sup> *Id.* at Art. 40.

<sup>20</sup> *Id.*

<sup>21</sup> *See id.* at Art. 41.

<sup>22</sup> *Id.* at Art. 39, 41.

<sup>23</sup> *Id.* at Art. 42.

<sup>24</sup> ICRC COMMENTARY GENEVA CONVENTION I 319-320 (noting that “the military authority may alone decide to ‘camouflage’ a medical unit (by not marking it) when it considers that such a course is necessary). ICRC Commentary on Article 42, Geneva Convention I available at <http://www.icrc.org.ihl> (last visited Mar. 22, 2005)

<sup>25</sup> ICRC COMMENTARY GENEVA CONVENTION I 307; ICRC Commentary on Article 39, Geneva Convention I, available at <http://www.icrc.org.ihl> (last visited Mar. 22, 2005)

diminished in non-hostile areas, planners and decision-makers must, nevertheless, take into account the possibility that medical personnel and facilities may be the subject of attack even in what would be considered non-hostile areas. A commander may decide that the use of red cross symbols is impractical or unnecessary given the remoteness of a medical facility and personnel from the battlefield. LOAC provides the commander with the discretion to do so without crossing the line into improper conduct. On the other hand, even in non-hostile areas, medical facilities and personnel must be situated away from military facilities and personnel that would be legitimate military objectives for attack since the risk of attack is not insignificant for even OCONUS and CONUS locations that are generally considered non-hostile.

A hypothetical example illustrating how identification requirements are to be applied is the wear of medical armbands while performing Crisis Action Team (CAT) duties in the command post.<sup>26</sup> If medical personnel are performing administrative medical duties or patient care in support of the CAT, they would identify themselves as medical personnel by wearing the distinctive emblem and would continue to be entitled to protected status. However, since a command post is a legitimate military target, medical personnel would be under risk of attack because the enemy cannot be expected to distinguish between a small number of protected persons and the larger legitimate military target of the command post. If, on the other hand, the medical personnel are performing non-medical duties in the CAT, they are expressly prohibited from identifying themselves as protected medical personnel and have relinquished their protected medical status because they are no longer “exclusively engaged” in the performance of medical duties. In order to properly relinquish protected medical status, medical personnel should give up the ID card identifying themselves as protected persons and should not wear or use any type of red cross emblem. As indicated earlier, the commander can prohibit the wear of the red cross emblem even if medical personnel are “exclusively engaged” in the performance of medical duties in the CAT if tactical conditions justify concealment of the emblem.

*What are the penalties for misusing the red cross emblem?*

Misuse of the red cross emblem, such as participating in offensive military operations as a combatant while holding oneself out as a protected medical provider, could bring accusations of perfidious conduct and may result in criminal sanctions.

*Can medical personnel be armed?*

Yes, but only for self-defense or the defense of the sick and wounded in their charge.<sup>27</sup> For example, medical personnel may be armed with light, individual weapons, in a purely

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<sup>26</sup> This example presupposes that CAT duties are being performed in a hostile area or as part of an exercise that simulates on-going hostilities. Medical personnel are not required to comply with identification requirements in non-hostile areas.

<sup>27</sup> GWS, Art. 22 (1). This limited use of force is not intended to include resisting lawful capture by a belligerent acting in accordance with the law of armed conflict. See ICRC COMMENTARY GENEVA CONVENTION I 203-204;



identification card or otherwise outwardly identify themselves as entitled to a protected status. Their deployment documents should reflect their non-medical duties, they should relinquish their ID card indicating they are permanent medical personnel and they must avoid holding themselves out as medical personnel. If medical personnel relinquish their status as protected persons, they may be deployed as combatants without risk of being accused of perfidious conduct and without undermining the protected status of medical personnel. If deployed in this capacity, medical personnel no longer have protected status. They can then lawfully participate in hostilities, but they also can be lawfully targeted by the enemy, and if captured, they are POWs rather than retained personnel.

*Can medical personnel perform non-medical duties in non-hostile areas?*

Yes. Medical personnel may perform non-medical duties in non-hostile areas provided they take certain precautions. If permanent medical personnel perform non-medical duties, they are no longer “exclusively engaged” in the performance of medical duties and could be viewed as having relinquished “permanent” (and therefore protected) status. Thus, even in non-hostile areas, if medical personnel are performing augmentee duties that are inconsistent with non-combatant status (such as performing base security), they can be viewed as having abandoned their “permanent” medical status. However, presuming that the area remained non-hostile, medical personnel could be returned to a protected status simply by returning to exclusively engaging in medical duties. In this case, there is little risk of undermining the protected status of permanent medical personnel status by switching back provided there is a clear delineation between non-medical duties (when personnel are combatants) and return to exclusively medical duties (when personnel are again protected persons). In order to establish this clear delineation, medical personnel performing non-medical duties cannot wear distinctive medical identification items such as the red cross brassard.

*What are the legal and policy implications of conversion in status from permanent medical duties to non-medical duties?*

The United States has a longstanding interest in maintaining the protected status for medical personnel and in communicating adherence to the laws of war. Consequently, caution should be exercised whenever permanent medical personnel are considered for deployment in non-medical roles even if those roles do not directly involve combat operations. The decision to deploy permanent medical personnel in non-medical roles is also a decision to change a person’s status to that of a combatant who may be lawfully targeted.<sup>30</sup> However there are broader policy implications that must be considered beyond the impact on the individual deployed. Planners and decision-makers must also take into account that deployment of medical personnel in non-medical roles might create a temptation on the part of an adversary to unlawfully attack medical

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<sup>30</sup> Medical personnel performing medical duties are non-combatants. Any other member of the Armed Forces with the exception of Chaplains is considered to be a combatant under the law of war as are medical personnel who are performing non-medical duties. See GWS, Art. 24.

personnel in retaliation for previous combatant activity or out of fear that medical personnel would become combatants at a later point in time. Furthermore, planners and decision-makers should consider the likelihood that United States medical personnel might be accused of engaging in perfidious conduct. In these instances, planners and decision-makers should take into consideration the underlying purpose of the law—that adversaries should be able to rely on the fact that permanent medical personnel will be exclusively assigned to medical duties and their protected status shall therefore be respected.

*Can medical facilities be used for other than medical purposes?*

The same analysis that applies to medical personnel also applies to medical facilities.<sup>31</sup> If a medical facility is used for acts inconsistent with its medical mission and protected status and potentially harmful to the enemy, it may lose its protected status. Loss of its protected status can occur only after due warning has been given to cease the improper use within a reasonable time, and the warning has been disregarded.<sup>32</sup>

Medical units and establishments organized for medical purposes, whether fixed or mobile, permanent or temporary, are legally protected from attack if they are exclusively engaged in the prevention of disease, or the search for, or the collection, transportation, diagnosis or treatment (including first-aid treatment) of the wounded, sick or shipwrecked. Medical facilities include hospitals, blood transfusion centers, preventive medical centers and institutes, medical depots, and medical and pharmaceutical stores of such units

Medical facilities do not lose their protection by using non-medical personnel for perimeter security;<sup>33</sup> the temporary storage of weapons and ammunition recovered from the wounded; the temporary presence of combatant personnel for official business (e.g., receiving immunizations, visiting wounded and sick); the temporary presence of non-medical vehicles or aircraft that have delivered wounded, sick or shipwrecked; or the fact that they are providing care to civilian wounded and sick.<sup>34</sup> However, in order to avoid giving the impression that medical personnel or facilities are being used for non-medical purposes, commanders should limit the amount of time spent in or near medical facilities by combatants, medical personnel who have lost their protected status, and Article 25 personnel not performing medical duties. Their long-

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<sup>31</sup> GWS, Art. 19, GWS; *See also* Protocol I, Art. 8(e). Medical units and establishments organized for medical purposes, whether fixed or mobile, permanent or temporary, are legally protected from attack if they are exclusively engaged in the prevention of disease, or the search for, or the collection, transportation, diagnosis or treatment (including first-aid treatment) of the wounded, sick or shipwrecked. Medical facilities include hospitals, blood transfusion centers, preventive medical centers and institutes, medical depots, and medical and pharmaceutical stores of such units.

<sup>32</sup> GWS, Art. 21.

<sup>33</sup> GWS, Art. 22. Non-medical security personnel detailed to guard medical facilities are under the same restrictions as medical personnel performing security duties “and may not oppose the occupation or control of the unit by the enemy.” *See* ICRC COMMENTARY GENEVA CONVENTION I 204; ICRC Commentary on Article 22, Geneva Convention I, at <http://www.icrc.org/ihl> (last visited Mar. 22, 2005).

<sup>34</sup> GWS, Art. 22.

term presence in or near a medical facility may cause the facility to be mistaken for a valid military target or give an adversary cause to believe the facility is being used for non-medical purposes such as sheltering combatants.



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