INTRODUCTION
The clinical practice of Aviation Medicine in the U.S. Military revolves around an administrative landscape of aeromedical policy and physical standards which are specific to the four main branches of the U.S. Armed Forces including the U.S. Air Force, Army, Marine Corps, and U.S. Navy. In today’s operational environment, Flight Surgeons are increasingly being asked to practice in a joint military environment in which service members from different services must collaborate in order to accomplish the mission. In this joint military environment, Flight Surgeons are expected to be equally well versed in the policies and procedures of their sister services, as they provide aircrew and aviator members from all services. Despite commonalities in aeromedical concerns, each service’s aeromedical policies have diverged over time, resulting in often confusing and unnecessarily complicated joint framework for aviation physical standards. There is increasing pressure from high levels of U.S. Department of Defense (DoD) defense medicine to consolidate services in many areas of support including, but not limited to aviation medicine. This paper explores the hurdles encountered in developing a set of joint aeromedical physical standards and administrative procedures and proposes potential solutions to some of these problems. While these proposals are not intended to be comprehensive in nature, they are presented to raise awareness and initiate dialog between administrators throughout the aeromedical communities, with the goal of moving toward the authors’ vision of a single common system of aeromedical administration for the U.S. Military. The scope of this article is limited to the U.S. Military for the sake of brevity, but parallel analysis with our international sister services is invited, as many of the same lessons clearly apply in the international military aviation medicine community.

BACKGROUND
The idea of a unified approach to medical service for all branches of the U.S. Armed Forces is not new. With four separate medical departments in the U.S. Navy/Marine Corps, U.S. Army, U.S. Air Force, and U.S. Coast Guard, the efficient delivery of health care to armed service members and their dependents has long been complicated by stove-piping of resources and programs. One of the most energetic attempts to consolidate U.S Department of Defense medical services was put forth by Major General Norman Kirk in 1947. While Kirk did not originate this idea, he materialized the concept in a detailed plan that he presented to the Senate Armed Services Committee (13). Since that time, several more attempts have been made to propose a sweeping unification of all the armed forces medical services into one integrated service. In fact, the Civilian Health and Medical Program for the Uniformed Services (CHAMPUS) was a direct spin-off of these efforts. 

While the authors do not necessarily advocate the unification of the medical services as a whole, the adoption of a common language and a set of common tools within the aeromedical communities of the individual services has several advantages. Issues as simple as which form to use for a flight physical, or which labs to order, or as complex as how to classify an aeromedical disposition or how to process a waiver evaluation frustrate the Flight Surgeon and often lead to duplication of effort, work, or worse. Standardization or increased concordance between the services would lead to more efficient and effective delivery of aviation medical care for aviators and aircrew members from all services. Despite commonalities in aeromedical concerns, each service’s aeromedical policies have diverged over time, resulting in often confusing and unnecessarily complicated joint framework for aviation physical standards. There is increasing pressure from high levels of U.S. Department of Defense defense medicine to consolidate services in many areas of support including, but not limited to aviation medicine. This paper explores the hurdles encountered in developing a set of joint aeromedical physical standards and administrative procedures and proposes potential solutions to some of these problems. While these proposals are not intended to be comprehensive in nature, they are presented to raise awareness and initiate dialog between administrators throughout the aeromedical communities, with the goal of moving toward the authors’ vision of a single common system of aeromedical administration for the U.S. Military. The scope of this article is limited to the U.S. Military for the sake of brevity, but parallel analysis with our international sister services is invited, as many of the same lessons clearly apply in the international military aviation medicine community.

Exploring the Possibility for a Common System for Joint Aeromedical Standards


ABSTRACT: The Physical qualification standards for aviation service used by the United States Army, Navy/Marine Corps, Air Force, and Coast Guard developed in parallel, diverging in many instances due to differences ranging from terminology to mission. Presently, standards and requirements for waiver vary widely between the services, in spite of minimal differences in aeromedical concerns for any given medical condition. Standardization or increased concordance between the services would have several advantages leading to more efficient and effective delivery of aviation medical support to the operational forces. This is particularly true in an increasingly joint operational environment. The authors have identified four major hurdles that must be overcome before the concept of joint aviation physical standards can be explored. These include: a difference in terminology including aviator classification, a difference in mission definitions and requirements, a difference in the processes of policy development, and a difference in the review and application of their policies. These hurdles are explored, and suggestions for their mitigation are presented with open discussion following.

Keywords: Aerospace Medicine, Aviation Medicine, Physical Standards, Military Medicine
**Report Documentation Page**

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14. ABSTRACT
The Physical qualification standards for aviation service used by the United States Army, Navy/Marine Corps, Air Force, and Coast Guard developed in parallel, diverging in many instances due to differences ranging from terminology to mission. Presently, standards and requirements for waiver vary widely between the services, in spite of minimal differences in aeromedical concerns for any given medical condition. Standardization or increased concordance between the services would have several advantages leading to more efficient and effective delivery of aviation medical support to the operational forces. This is particularly true in an increasingly joint operational environment. The authors have identified four major hurdles that must be overcome before the concept of joint aviation physical standards can be explored. These include: a difference in terminology including aviator classification, a difference in mission definitions and requirements, a difference in the processes of policy development, and a difference in the review and application of those policies. These hurdles are explored, and suggestions for their mitigation are presented with open discussion following.

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political service-based policy boundaries, and continue to delineate with the highest degree of fidelity which conditions, and to what degree these conditions will have a different impact on aviators operating from different platforms based on valid medical evidence. By and large, this work has lacked the broader perspective of military aviation medicine as a whole. Increasing collaboration and improved distribution of labor will lead to improved policies and improved Risk Management for the entire military aviation community.

Our vision is very simple. We are advocating and have been working in what has proven to be a very political realm towards the simple goal of having one system in which flight surgeons can experience true interoperability, providing aeromedical services across service boundaries—an operational reality and necessity which we believe can no longer be ignored.

To this end, in 2002, the authors began a series of posters, panel discussions and working groups presented at international conferences including the Aerospace Medical Association Scientific Meeting and Medicine in Challenging Environments which brought together aviation medicine representatives from all of the U.S. Armed Services in order to discuss and further delineate the possibilities for improved collaboration in the development of aeromedical policy and practices. As a result of these and many other sidebar discussions, we are happy to report several significant movements in the development of aeromedical jointness. In 2009, the U.S. Navy, U.S. Army, and U.S. Coast Guard have adopted a common administrative framework in the Aeromedical Epidemiological Research Office (AERO) for the workflow of flight physicals, and the U.S. Coast Guard and U.S. Army have agreed to share a common system of physical standards for aviation. Other special duty communities within the Army are also evaluating these systems as a viable solution to parallel processes within those communities. While there is still significant work to do in the areas which will be explored in this article, these landmark decisions mark a significant and growing support for the vision of one common system of Aeromedical administration.

AEROMEDICAL DECISION MAKING PROCESS

Critical to the process of joint aeromedical administration, must be a common system of evidence based decision making and analysis. Doctors Sauer and Woodson described the Aeromedical Decision Making Process (1) as an analog of Operational Risk Management applied to aviation medicine clinical and policy decisions.

The goal of the Aeromedical Decision Making Process is to “prevent aviation mishaps due to physical or medical deficiencies...without unnecessarily restricting [military] aviation.” It is the method that Flight Surgeons employ in order to evaluate specific conditions and crewmembers for entering or remaining on an aviation service.

Within this framework, aeromedical policy and physical standards for aviation service are viewed as risk management controls to increase aviation safety. The effects of a given medical condition must be evaluated on an individual and population basis in order to assess the impact upon severity and probability of contributing to a mishap or mission failure.

When applied to policy development, this process provides an objective means by which to evaluate the common Aeromedical concerns for a given medical condition which all sister services share, while attending to the specific differences in mission requirements free from the individual bias which has long skewed aeromedical policy. It should be noted that mission differences, rather than service differences, drive this aeromedical risk assessment process based on the real and observed aviation operating environment. The commonalities between service-specific considerations for a specific mission or platform type far outweigh the differences.

The first hurdle to overcoming service boundaries in aviation medicine may very well be to adopt a common framework for the discussion and evaluation of aeromedical concerns. This model provides such a framework and may supply an efficient means for converting available medical evidence into better risk controls and aeromedical policies which serve all aircrew and flight surgeons regardless of nationality or service membership.

HURDLES TO JOINT AEROMEDICAL STANDARDS

Each of the U.S. armed services enjoys its own unique culture and challenges. These may range from differences in language to more complex significant mission requirements such as accounting for the additional challenge of performing an aircraft carrier landing. An effective joint system for aeromedical administration must account for these differences. Before moving forward with any type of program implementation, we must first reach consensus on what hurdles these differences may represent. As this question has been analyzed, the authors have identified four primary hurdles: 1) a difference in terminology including aviator classification, 2) a difference in mission definitions and requirements, 3) a difference in the processes of policy development, and 4) a difference in the review and application of those policies.

DIFFERENCES IN TERMINOLOGY

Individual service cultures and administrative landscapes have contributed to the development of non-standard terminology in aviation medicine. While the meaning in most cases translates in the same manner, it is difficult for members of one service to understand another service’s contributions for no other reason than differences in language. Before moving forward with common policy or programs, we must begin to adopt standard terminology or “common language.”

Table 1: Aeromedical Classification System

<table>
<thead>
<tr>
<th>Air Force</th>
<th>Navy</th>
<th>Army/Cruise Guard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flying Class I: Selection for Pilot Training</td>
<td>Class I: Pilots (Naval Aviators)</td>
<td>Class 1A: Initial pilot applicant (Commissioned)</td>
</tr>
<tr>
<td>Flying Class IA: Selection for Navigator Training</td>
<td>Service Group I: unrestricted (including night carrier operations)</td>
<td>Class 1W: Initial pilot applicant (Warrant)</td>
</tr>
<tr>
<td>Categorical Flying Class II</td>
<td>Service Group II: no shipboard operations (except helicopter)</td>
<td>Class 2: Rated aviator</td>
</tr>
<tr>
<td>• FC IA: Low-G aircraft (turboprop, transport, bomber)</td>
<td>Service Group III: dual-control only; with SG I/II copilot</td>
<td>Class 2F: Flight Surgeon, Aeromedical Physician Assistant</td>
</tr>
<tr>
<td>• FCIB: Non-ejection Seat</td>
<td>Class 2: All other aircr (Navel Flight Officer, Flight Surgeon, etc.)</td>
<td></td>
</tr>
<tr>
<td>FCIC: Specified restrictions</td>
<td>Class 3: Air Traffic Controllers, UAV operators, etc.</td>
<td></td>
</tr>
<tr>
<td>Service Group IV: unrestricted (including night carrier operations)</td>
<td>Class 3: Air Traffic Controllers, UAV operators, etc.</td>
<td>Class 4: Air Traffic Controllers</td>
</tr>
</tbody>
</table>

The wide variation in terminology used illustrates our incoherences. Even simple concepts such as the retention of a service member on active duty, the status of an individual’s physical and mental condition for flight, or identification of the service member’s work code specialty each have different nomenclature between the services. For example, the Army and Navy may refer to “Retention” while the Air Force may refer to “continued military service.” The Air Force may refer to an aviator who does not meet designated physical standards for aviation as “Not Qualified” while the Army refers to the same aviator as “Disqualified” and the Navy as “Not Physically Qualified (NPQ).” The Army and Air Force will describe physical limitations as “profiles” (based on a system of physical profiling as outlined in the regulations) while the Navy will describe “Limited Duty.” Similar terminology differences abound in the regulations across service boundaries.

Most of these language differences are not critical in nature. Certainly, a common meaning is normally inferred. The important thing to recognize is that they can be misleading and cumulatively, they do create confusion when working in a cross-cultural aviation medicine environment. More importantly, such language will have to migrate towards commonality as joint policies, procedures, and systems are developed.

More troubling than differences in language is the variance in aeromedical classification systems of the different services. Looking at the differences between the U.S. Coast Guard and a classical Air Force aeromedical classification systems, different approaches are immediately evident (Table 1).

Aeromedical policies are designated for specific classes of aviators as outlined in Table 1.
Aeromedical disposal in each service is grounded in its own aeromedical classification system, each of which have developed through an amalgamation of service culture and regulatory framework entirely outside the realm of aviation medicine. It is fairly easy to recognize that these classes are defined in each service based on fundamentally different frameworks. In many cases, the difficulty in interpreting aeromedical physical standards is rooted in the differences in these classification systems.

It is difficult to see a truly joint aeromedical system that uses the current service-specific aircrew classification structure. Standardization of this system into a common inter-service aircrew classification would seem the only plausible solution to this problem and a vital step towards unification of aeromedical systems in the U.S. Military. Several solutions may present themselves, but one potential solution could be based upon crewmember type and basic aeromedical distinction. There are only four essential types of individuals who require aeromedical clearance, each of which represents unique job-related physical requirements. 1) flight crew who control aircraft, 2) flight crew who do not control aircraft 3) crewmembers who perform ancillary duties in flight (aerial observers, weapons system operators, equipment operators, etc) unrelated to the control of the aircraft 4) individuals who perform flight-related duties, but not involving actual flight duties (ground crew, ATC, UAS operators etc). Accordingly, one potential inter-service classification system might look like that seen in Table 2a, which separates mission specific considerations and initial vs. retention considerations from the basic element of disposition classification. A second option could link aeromedical risk to aeromedical threat (Table 2b).

Any classification system will require the Flight Surgeon to make decisions based on individual crewmembers and their specific job requirements, but an effective classification system must account for differences in physiological requirements. The key point is that adoption of a common inter-service classification structure such as that presented in tables 2a or 2b would facilitate cross-service communication and allow for a common framework in these regulations, moving us much further down the road towards a unified joint aeromedical system.

FRAMEWORK FOR STANDARDS DEVELOPMENT (MISSION VS. PHYSIOLOGY)

The major services of the U.S. Armed Forces frequently distinguish themselves based upon their stated mission. On the most basic level, these missions may be categorized based upon service distinct missions (e.g. land-based vs. carrier-based systems, the platform flown (e.g. fixed vs. rotary wing) or the complement of crew (e.g. single pilot vs. multi-crew aircraft). However, each type of aviation platform places its own unique set of physical demands on the aviator, while many demands are common to all aviation platforms.

Aeromedical concerns are more appropriately described in reference to the mission the aircrew member is serving than to the branch of service of which he or she is a member. There is no doubt that due diligence must be paid to the physiological classification of specific missions and equipment, the crewmember. It must be noted, however, that these demands are grouped into categories that transcend service boundaries. The present system effectively prevents aeromedical categorization of missions across the services. More importantly, it frequently does not even account for actual physical stresses on different categories of crew members within a given service. An effective framework for aeromedical standards would appropriately account for differences in physiological demands based on mission, equipment, environment and other job requirements.

One example of the failure to consider mission specific physical demands is illustrated by comparing the differences between high-Gz platforms, carrier-based landings, rotary wing platforms and Unmanned Aerial Systems (UAS). Other critical differences in demands exist based on differences in operating altitude and G-Forces. One approach to developing a functional joint system would be to examine the unique physiological aspects of broad categories of aircraft (Table 3).

<table>
<thead>
<tr>
<th>Aircrew Class</th>
<th>Description</th>
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<tbody>
<tr>
<td>Class A</td>
<td>Non-flight crew performing aerial duties</td>
</tr>
<tr>
<td>Class B</td>
<td>Non-flying, flight-related personnel</td>
</tr>
<tr>
<td>Class C</td>
<td>Flight Crew, Pilot in Control, single-control aircraft</td>
</tr>
<tr>
<td>Class D</td>
<td>Flight Crew, Pilot in Control, dual-control aircraft</td>
</tr>
<tr>
<td>Class E</td>
<td>Flight Crew, Not-pilot</td>
</tr>
</tbody>
</table>

Table 2a: Proposed Interservice Aircrew Classification System, version 1

| Flight Critical | Class A | Class C |
| Flight Important | Class B | Class D |

Table 2b: Proposed Interservice Aircrew Classification System, version 2

When examining physical standards from this perspective, a more suitable framework for physical standards emerges; one which would serve the needs of all services, and would be based on physiological demands rather than political boundaries. A very important consideration is that each service does not necessarily operate within its own traditional boundaries; missions traditionally reserved for one service may be conducted by aircrew from another service. One commonly cited difference is the Navy requirement for carrier-based operations, an obviously demanding aviation task. Yet Army, Coast Guard, and Air Force rotary wing aircrew are often called on to land on ship-based platforms. Current aeromedical administrative structure would not account for these challenges and their associated physical demands. If modified to address platform and mission based differences, a new joint aeromedical structure would allow us to speak the same aeromedical language across service boundaries and would better reflect an evidence based approach to aviation medicine.

An aeromedical evaluation of an aviator could be made in the context of platform-mission-based parameters. A pilot, flight officer or aircrew member can be effectively authorized or restricted to fly on different types of missions, based on the

<table>
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<tr>
<th>Rotary Wing</th>
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<tbody>
<tr>
<td>Lerner’s Gz</td>
</tr>
<tr>
<td>Vibration (2-35 Hz)</td>
</tr>
<tr>
<td>Intermittent disc of 4-5 Hz</td>
</tr>
<tr>
<td>Neck pain</td>
</tr>
<tr>
<td>Hypoxia Concern</td>
</tr>
<tr>
<td>Visual Acuity</td>
</tr>
<tr>
<td>Contrast sensitivity</td>
</tr>
<tr>
<td>Close proximity to the ground</td>
</tr>
<tr>
<td>Vomiting</td>
</tr>
<tr>
<td>Air Target acquisition</td>
</tr>
<tr>
<td>Monocular displays/NVG</td>
</tr>
<tr>
<td>Hypoxia Concern</td>
</tr>
<tr>
<td>Stereopsis eliminated (Terrain within limit)</td>
</tr>
<tr>
<td>Neck pain</td>
</tr>
<tr>
<td>Lerner’s Gz</td>
</tr>
<tr>
<td>Lateral Motion demand</td>
</tr>
<tr>
<td>Ocular Motility</td>
</tr>
<tr>
<td>Headache</td>
</tr>
<tr>
<td>Neck pain</td>
</tr>
<tr>
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</tr>
<tr>
<td>Hypoxia Concern</td>
</tr>
<tr>
<td>Stereopsis less critical</td>
</tr>
<tr>
<td>Decompression (also pressure suits)</td>
</tr>
<tr>
<td>Radiation (high altitude region)</td>
</tr>
<tr>
<td>7 Canadian rhythm shifting</td>
</tr>
</tbody>
</table>

| Fixed Wing – Low Gz |
| Lerner’s Gz |
| Long Duration Missions |
| Large Crews, often dual piloted |
| Hypoxia Concern |
| Stereopsis critical |
| Decompression |
| Acuity (20/40) |
| Fields of view (40 deg) |
| Color vision eliminated |
| Tolerance to decompression |
| Depth perception |
| Noise |
| NOE flying |
| MOPP |
| Living conditions/Heat stress |

| Tactical Jet – Hi Gz |
| High, rapid-onset Gz |
| 7 T Hypoxia Concern |
| Long Duration Missions |
| Decompression |
| Visual Acuity |
| Increased visual demand for tactical mission |
| Close proximity to the ground |
| Air Target acquisition |
| Ejection Seats |

| Unmanned Aerial Systems (UAS) |
| Ground Based |
| No Hypoxia Concern |
| No pressure differentials |
| No environmental stress |
| No Ocular Motility |
| Stereopsis not required |
| Dual Pilot |
| Potential for in-flight crew changes |
| Increased demands on decision making and situational awareness challenge traditional views of UAS requirements |
| Flying in Class A Airspace |
| Weapons and targeting systems |

Table 3: Aeromedical Aspects of Broad Categories of Aircraft
corresponding aeromedical stressors and that per-
son’s physical and mental capabilities. More ap-
propriately, the categories may be organized so
that the service member is fully qualified for all cat-
egories except for those indicated. One example of
this classification, as it might appear on a joint aero-
medicale clearance chit (up slip) is seen in Figure 2.
Such a system would allow classification of pil-
ots, flight officers and enlisted crewmembers, re-
gardless of service, based upon physical and men-
tal capabilities from an aeromedical perspective.
With the increasing incidence of exchange tours,
particularly among pilots between the services, this
difference in the processes of policy development
would be a common basis of categorization.

DIFFERENCES IN THE PROCESSES OF POLICY
DEVELOPMENT

Currently, each service maintains parallel ana-
logous organizations which develop and imple-
ment aeromedical policy (Code 42, Army Aeromed-
ical Activity (AAMA), Aeromedical Corporate Board,
Aeromedical Consult Service, Aeromedical Advi-
sory Council, etc). Each service also maintains its
respective process for submission, review, and dis-
position of waiver applications. Differences exist in
issues as simple as who is required to undergo
EGC testing, or who must have a G6PD, urinalysis,
or lipid panel. Chest X-rays do not share common
mandates and each service has its own variation of
anthropometric testing and cardiac risk profili-
ing. One will seek the same outcome. Most of
these differences probably reside not in the med-
ical merit of the tests themselves, but in the differences
in policy development as outlined previously. Yet
these differences are extensive: they are the culprit
in wasting numerous man-hours when an aviator
from one service is forced to complete a flight phys-
ic with his sister-service flight surgeon which does
not meet his service standards.

Diffusion of a single, unified set of diagnos-
tic testing requirements for initial applicants and es-

tablished aircrew members should be fairly simple to
achieve and would represent tremendous prog-
ress toward commonality. The net effect of this one
change would be a dramatic improvement in interop-
erability of the flight surgeon in the joint environment.

Another hurdle which presents a fairly
significant opportunity for convergence is found in
the paper-based system. In spite of Department of De-
defense (DD) systems, each service is used to
working. In spite of Department of Defense
requirements for initial and periodic aeromedical

evaluations across services and mission platforms.
Wasting through the service-specific regulations
and instructions, we identify a grossly incongruent
set of physical exam requirements. Differences ex-
it in issues as simple as who is required to undergo
EGC testing, or who must have a G6PD, urinalysis,
or lipid panel. Chest X-rays do not share common
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Another hurdle which presents a fairly
simple opportunity for convergence is found in the
paper-based system. In spite of Department of Defense
requirements for initial and periodic aeromedical
exams, we have not seen uni-
versal adoption of these forms in aviation medicine.
Additionally, we have abbreviated physical exam forms
for interim flight physicals remain distinct. Forms
represent a standardized method of collecting and
presenting basic clinical data and are critical “glue”
for the aviation medicine program. In addition to
the joint up chit described previously, adoption of
a common “short form” and agreement to utilize
the DD2807/8 for comprehensive physicals in all
services would appear an easy fix and should not
evoke significant resistance within individual
service cultures.

Another opportunity for convergence exists
in our method of submission, review and disposi-
tion of aeromedical evaluations. Each service re-

dominates in its own service and retains its own au-
horitative body on disposition. Traditionally, physical exams were
submitted on paper to the corresponding adminis-
trative body (AAMA, Code 42, ACS, etc) for review.
Modern world-wide-web technology has present-
ed the possibility for a new model for review and
disposition which may potentially bring us closer
together. A common internet application shared by
the service authorities would better facilitate cross-
communications between aeromedical specialists
and provide for a common process which would
better facilitate joint aeromedical communications
and research.

DIFFERENCES IN REVIEW AND APPLICATION
PROCESS

While medical conditions may be inter-

ed in different ways by each service, or in aircrew
members flying different mission platforms, most
Aeromedical Physical Exam requirements are (and
should be) based on sound medical/public health
screening principles, and should not vary by ser-
vice or mission.

One of the easiest and highest yield obsta-
cles we can overcome is that of unifying the actual
requirements for initial and periodic aeromedical

Figure 2: Example of Proposed Up Chit (Recommendation for Flying Duty)

Table 4: Policy Development and Implementation of Process
THE AEROMEDICAL ELECTRONIC RESOURCE OFFICE (AERO) AND CURRENT JOINT INITIATIVES AS EXAMPLES OF CONVERGENCE

Opportunities to converge towards common systems, policies, and practices abound and do not require a monumental overhaul of what is currently in place. While compromise is important, the service-specific aeromedical authori-
ties do not need compromise on their standards or requirements for each common ground. One example of such endeavors can be found in recent developments in the integration of the Aeromedical Electronic Resource Office (AERO) at Fort Rucker, Alabama.

In 2002, the U.S. Army Aeromedical Activity (USAAMA) adopted AERO as an internet-based solution to aeromedical review and disposition, re-
placing a cumbersome paper-based submission process in the Army. This government owned and developed system was fielded, and over a short pe-
riod of time, resulted in significant improvements in the disposition of Army flight physi-
cal. In addition to improving the submission process, internal pro-
cessing times at USAAMA were reduced from 150 days to 1-2 days on average, while also making provisions for immediate review when necessary. AERO provided for data checking and was eas-
ily compatible with the Army’s Flight Surgeons office, both CONUS and OCONUS in the deployed setting. Administrative errors on submitted physicals were reduced from 40% on the paper-based system to <1% on AERO, and immediate feedback was pro-
vided to the Flight Surgeon on the disposition of air-
crew physicals. Backlogs were cleared and overall efficiency was dramatically improved.

In 2008, with pressure similar to those ex-
erienced using the Army’s paper-based systems, steps were taken independently in the U.S. Navy and U.S. Coast Guard to implement AERO as their system for aeromedical disposition and review. While still undergoing testing and implementation in both services, it is already clear that this system has the potential to drive significant improvements in the process of disposition and allows for commo-
nalization on an entirely different level than ever before.

There are several points about this AERO migration that must be emphasized. Firstly, the Army, Coast Guard, and Navy all shared a simi-
lar pathway for review and disposition within their own organizational structures (e.g. all three use a centralized review authority). Secondly, the Coast Guard and Army share a common footing in aero-
medical culture as a result of the sharing of a common training base for Flight Surgeons, and a

common migration of Army Flight Surgeons into the Coast Guard medical service. Thirdly, in the case of the Coast Guard, physical exam parameters (items required for physical exams) were already very similar. To cement these similarities, the Coast Guard agreed to adopt the same standards utilized by the Army, and Code 42 in the Navy has worked diligently to more closely align physical exam parameters with the Army and Coast guard in order to facilitate AERO integration.

The opportunity presented by Navy and Coast Guard AERO integration allowed AAMA to make some minor modifications to AERO to ac-
count for differences in requirements within the Na-
vy’s aeromedical policy. Without modification, the process of review within AERO very easily accom-
modated differences in the waiver process in both services. Because AERO utilizes a role-based sys-
tem, the actual waiver authority could be retained in the service and allow for service-specific review while allowing all three services to utilize a common system and begin to migrate specific physical exam parameters, beginning to overcome one of the pre-
viously mentioned hurdles to commonality.

While AERO is only one system and one example, it serves the purpose of this article, as a vivid example of the capacity for convergence to-
wards the future vision of a single common aero-
medical system, while simultaneously raising the program standards within each individual service.

CONCLUSION

The prospect of developing a joint AERO-

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