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MEDICAL FITNESS STANDARDS AND MEDICAL EXAMINATION POLICIES OPERATION DESERT SHIELD AND OPERATION DESERT STORM

BY

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United States Department of the Army Civilian

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MEDICAL FITNESS STANDARDS AND MEDICAL EXAMINATION POLICIES OPERATION DESERT SHIELD AND OPERATION DESERT STORM

AN INDIVIDUAL STUDY PROJECT

by

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Introduction

Medical fitness of the Total Force is an integral part of readiness. The end of the cold war has required the promulgation of a new national military strategy. This strategy is divided into categories: strategic deterrence and defense; forward presence; crisis response; and reconstitution (force expansion).[1] The strategy is based on maintaining "a force which can respond quickly, prepared to fight on arrival."[2] The capability to carry out the national military strategy is dependent on soldiers who are medically fit enough to rapidly deploy to, and perform in, a variety of environments.

The Army Medical Department's mission is to maintain the health of members of the Army; to conserve the fighting strength; to provide health care for eligible personnel; and to prepare for health support to members of the Army in time of war, international conflict, or natural disaster.[3] This includes setting realistic medical fitness standards that support a ready force and identifying disease or injury that prevent soldiers from performing duty.

In August of 1990, with the advent of OPERATION DESERT SHIELD, the medical standard and medical screening policies were put to a validity test. The purpose of this paper is to document the policies used during OPERATION DESERT SHIELD AND DESERT STORM, and during the subsequent redeployment of U.S. Army

Forces, and to determine if the policies met the objective of ensuring a ready force. The paper will include a general discussion of the history of past policies and the rationale behind the current policies. The paper will also address some of the policy evaluations that have taken place and resulting recent and proposed changes in medically related Army Regulations and in the United States Code.[4] The paper will focus on the Total Army which includes Active and Reserve Component soldiers. It will not include discussions of policies applying to soldiers who must meet more stringent requirements such as Army aviators, Rangers, Airborne soldiers, and Army deep sea divers. It then specifically recommends changes for medical standards and medical screening procedures.

Medical Fitness Standards

The Department of The Army, Office of The Surgeon General (hereafter referred to as The Office of The Surgeon General) is the proponent of Army Regulation (AR) 40-501. AR 40-501 sets the policies for medical fitness standards of all Active and Reserve Component soldiers.[5] Medical fitness standards are lists of medical conditions (diseases and injuries) which, if present, may render an individual disqualified or unfit for military service. The standards are divided by chapters in AR 40-501 into specific groups (e.g. enlistment, appointment and induction; retention,

separation and retirement; mobilization; aviation, special forces, etc).

The first set of regulations setting medical standards for the Army dates back to 1814, when minimum standards and requirements for examination of Army recruits was implemented.[6] During World War II, standards were mandated in other Army Regulations, such as Mobilization Regulations 1-9 and Army Regulations 40-105.[7] This tradition of setting standards continues today. AR 40-501 was implemented in 1960 and has gone through periodic revisions. The last major revision was in 1989. The last interim change was in 1991.[8] Interim changes are usually limited in length (one to two pages), expire after two years, and are used to mandate immediate changes when there is insufficient time to publish a revision.

Medical standards for appointment, enlistment and induction (hereafter referred to as accession standards) mandate the criteria for medically qualifying Army applicants. Accession standards are more stringent than standards for retention or mobilization. Prior to 1986, the Army set the accession standards for all the military services. Today accession standards are based on Department of Defense Directive 6130.3 which mandates the criteria for all the military services. The directive has been in existence since 1986. The DOD Directive is actually composed primarily of those former Army standards with modifications due to changes in medical knowledge and the recommendations of all the military services.[9] Changes cannot be

made to Army accession standards without approval of the Department of Defense.

During OPERATIONS DESERT SHIELD AND DESERT STORM, the standards for accession were not changed or modified. This policy of maintaining stringent standards for newly accessed individuals was different than in prior wars or contingency operations when they fluctuated according to manpower needs. In World War II, standards were continually lowered as the Army strength increased from 519,804 in 1940 to 7,333,474 in 1943.[10] In Viet Nam, standards were changed to allow qualification of Army recruits with remedial medical defects and lower mental standards.[11] In World War II and Viet Nam, manpower was increased primarily by increasing the numbers of new recruits or inductees. In OPERATION DESERT SHIELD AND DESERT STORM, manpower of the active force was primarily increased with the mobilization of the Army Reserve and the Army National Guard. Decisions had to be made on what standards these Reserve Component soldiers would have to meet.

Mobilization standards are the least stringent of all the standards in AR 40-501. They have been in place for over 30 years with few modifications, and have never been used, except in test exercises. The standards even allow individuals with significant disabilities (e.g. amputations, intermittent convulsions not controlled with medication, best corrected visual acuity of 20/70 in one eye and may be blind in the other eye.) to be qualified for military service.[12] AR 40-501 states that

mobilization standards will only be "implemented on instruction from the Service Secretaries and will apply to personnel categories as directed, including recall of Army retirees for mobilization purposes."[13]

During OPERATION DESERT SHIELD and DESERT STORM, the decision was made at the Office of The Surgeon General (and agreed to by the appropriate Army Staff elements) not to implement mobilization standards. This decision was based on the desire to deploy a fit and ready force, and to maintain a policy of applying the same standards to Reserve Component soldiers as were applied to active duty soldiers.[14] Since the decision was made not to use the mobilization standards, the Army never initiated a request nor received instructions from The Secretary of the Army to implement mobilization standards. There was initial confusion at some mobilization sites on which standards to apply, and clarifying messages had to be transmitted.[15] It appears that part of the confusion was the incorrect assumption that the decision to mobilize would automatically trigger implementation of mobilization standards even without secretarial authority. In addition, mobilization standards had been applied during exercises used to test recall of retired soldiers such as Certain Sage and Gray Thunder. Because mobilization standards were not implemented, the accession standards of Chapter 2, AR 40-501 continued to apply to Army applicants and the retention standards of Chapter 3, AR 40-501 continued to apply to all

Active and Reserve component soldiers. Retention standards were also applied to recalled retired soldiers.[16]

The retention standards of Chapter 3, are based on Department of Defense Directive 1332.18. Unlike Chapter 2, however, they can be modified without Department of Defense approval.[17] The retention standards are less stringent than accession standards. They allow serving soldiers, generally older than Army applicants, to have certain medical problems as long as the problems are not incompatible with continued military service. All soldiers are required to meet the retention standards. If they do not, they can only remain in the Army if found fit by a physical evaluation board for active duty soldiers or receive a waiver from the respective component of the Army Reserve or the National Guard.[18] Retention standards are more stringent than the "limited duty" standards used during World War II.

There are over 400 separate medical conditions listed under retention standards as well as a miscellaneous category which includes any other condition that would prevent satisfactory performance of duty, compromise the soldier's health if she or he were to remain on active duty, or in some way prejudice the best interest of the government (e.g. a carrier of a communicable disease).[19] The medical conditions listed under retention standards were modified in 1989 after review by The Surgeon General's military medical specialty consultants. Two of the conditions, diabetes and asthma, were not modified and became

immediate issues at the start of OPERATION DESERT SHIELD.

Diabetes requiring medication is one of the conditions listed under retention standards.[20] Soldiers with diabetes are medically retired or separated from the Army unless found fit by a physical evaluation board or waived by the Army Reserve or the National Guard. Since the physical evaluation board is under the purview of the U.S. Army Physical Disability Agency, subordinate to the U.S. Total Army Personnel Command, the final decision on retaining soldiers with diabetes is a personnel, not a medical decision.[21]

Prior to OPERATION DESERT SHIELD The Office of The Surgeon General provided physical profile guidance for diabetic soldiers whose condition was controlled with medication and who remained on active duty. The guidance did not prohibit soldiers from field duty since these soldiers could perform strenuous activity, consume field rations such as "Meals Ready to Eat," and could carry their insulin to the field (most insulin used today can be stored at room temperature).[22]

At the start of OPERATION DESERT SHIELD, the Eli Lilly Pharmaceutical company was contacted in an effort to obtain accurate data on the storage of insulin in the extreme temperatures of Southwest Asia. Eli Lilly reported that insulin would lose only 1.5% of its potency if stored at temperatures not exceeding 86 degrees F for 30 days but would lose 100% of its potency at temperatures over 122 degrees F for 10 days. Exposure to light would significantly increase any loss of potency.

Unlike some medications, the loss of potency would not affect the physical appearance of the medication.[23]

There was the realization that the Army could not guarantee the viability of the insulin in the climatic environment of Southwest Asia and, therefore, could not guarantee the safety of soldiers whose diabetes was controlled with the medication. Therefore, the decision was made at the Office of The Surgeon General to prohibit deployment of insulin dependent soldiers to Southwest Asia.[24] Later, subsequent to OPERATION DESERT STORM, the Office of The Deputy Chief of Staff for Personnel advised the U.S. Army Physical Disability Agency (which oversees the physical evaluation boards) to "ensure physical fitness standards for Type I diabetics are strictly enforced". Enforcement only ensures that soldiers with diabetes are referred to medical evaluation boards and physical evaluation boards. The decision on fitness remains with the physical evaluation boards who retain the authority to find soldiers fit for duty even with insulin controlled diabetes.[25] Every soldier with diabetes is considered by the boards on an individual basis. The physical evaluation boards must consider the new concerns about restricting diabetic soldiers from serving in Southwest Asia or other in other extreme climates as part of their determinations on fitness for duty.

Another medical problem that became an issue during OPERATION DESERT STORM was asthma. Asthma is only disqualifying under retention standards if the soldier's asthma cannot be controlled with medication. Therefore, most asthmatic soldiers

are not referred to medical evaluation boards or physical evaluation boards. In general, there have been no assignment restrictions placed on these soldiers with controlled asthma. At the start of OPERATION DESERT SHIELD, the recommendation was made at the Office of The Surgeon General not to restrict the deployment of asthmatic soldiers unless there was a confirmed history of recent hospitalizations/emergency room visits for treatment of asthma or unless they were on steroid bursts.[26] In retrospect, it could be argued that the policy should have been more stringent since over 200 soldiers were evacuated from Southwest Asia for asthmatic related problems.[27]

Questions were raised on whether the large number of soldiers being evacuated from Southwest Asia was because of new medical conditions or preexisting conditions that should have been identified prior to deployment. In October 1990, a review was conducted of the admitting diagnoses of all soldiers evacuated from Southwest Asia between 21 August 1990 and 11 October 1990 to determine if a preexisting versus not preexisting correlation could be made. The results indicated that the majority of diagnoses did not preexist deployment and, therefore, would not have been identified in pre-deployment examinations. Of the 239 soldiers evacuated, the largest single cause for evacuation was new (non-combat) injuries (36.8%). There were 13 evacuations because of asthma (5.4%).[28] Data is now available covering the period August 1990 to June 1991. The data is based on the primary admitting diagnosis of 9060 soldiers evacuated to

Germany or the continental United States from Southwest Asia. Of the 9060 soldiers, 251 were evacuated with a diagnosis of asthma (2.8%). Once again, the largest single cause (3364 or 37.1%) of evacuations was new injuries (primarily non-combat).[29]

The solutions to decreasing the number of medical evacuations are complex. Unfortunately, decreasing the number of evacuations by preventing new non-combat injuries may be an impossible task which would involve an in depth study on the types of injuries sustained. Variables such as the physical condition of soldiers prior to OPERATION DESERT STORM and the physical tasks (job related or sports activities) they were involved in at the time of the injury would have to be considered. Decreasing evacuations by not deploying (or not retaining) soldiers with chronic conditions that are severely exacerbated by the climatic or physical environment in the theater of operations, is a more viable option.

For example, asthma is a condition that in most cases, pre-exists deployment. As a result of OPERATION DESERT STORM, the Pulmonary and Allergy consultants to The Surgeon General have made recommendations on changes to the retention standards on asthma. Their report concluded that although the Office of The Surgeon General did not recommend restricting all asthmatics from theater, some local deployment policies did not follow the guidance. Seventh Corps, for example, reported that over 500 soldiers were not deployed because of asthma. Since they were not deployed, it is impossible to say if these soldiers would

have experienced problems. In general, however, the medical concerns are based on asthmatics being at risk of exacerbations of symptoms with exercise, upper respiratory illnesses or exposure to irritating gases or fumes, and that many asthmatic medications cannot easily be taken while wearing Mission Oriented Protective Posture (MOPP) gear.[30] In view of the increasing danger of chemical weapons used in the future by rogue states, and of the life or death need to wear protective gear as a result of that danger, conditions such as asthma cannot be ignored in determining the fitness of a soldier.

The recommendations on changes to the retention standards include referring all soldiers who require medications to control asthma to medical evaluation boards and physical evaluation boards. The physical evaluation boards will determine, on an individual basis, whether the soldier can be retained based on assignment and physical limitations and the requirements of the MOS.

Medical Screening

There were five documents that had a direct effect on medical screening for deployment and redeployment policies during OPERATION DESERT SHIELD AND DESERT STORM. These are:

a. AR 40-501, STANDARDS OF MEDICAL FITNESS, mandates policies on medical examination requirements, and physical

profiles. The Office of the Surgeon General is the proponent for AR 40-501.

b. AR 600-8-101, PERSONNEL PROCESSING (IN AND OUT AND MOBILIZATION PROCESSING), sets the administrative criteria that must be met before a soldier deploys in war or contingency operations. The Office of the Deputy Chief of Staff for Personnel is the proponent for AR 600-8-101.

c. ARMY MOBILIZATION AND OPERATIONS PLANNING AND EXECUTION SYSTEM (AMOPES) provides planning and implementation guidance for the management of soldiers during mobilization. The Office of the Deputy Chief of Staff for Operations is the proponent for AMOPES.

d. U.S. FORCES COMMAND MOBILIZATION AND DEPLOYMENT PLANNING GUIDE (FORMDEPS) implements part of AMOPES. U.S. Forces Command is the proponent for FORMDEPS.

e. Title 10 of UNITED STATES CODE sets the legal requirements for mobilization and the requirements to be met before a soldier is eligible for disability processing. Title 10 also sets the medical screening requirements for National Guard soldiers called to active duty or on release from active duty. Title 10 does not mandate screening requirements for USAR soldiers called to active duty or on their release from active duty.

During OPERATIONS DESERT SHIELD AND DESERT STORM there was no change in the medical examination requirements for Army applicants. Applicants continued to be examined at Military

Entrance Processing Stations prior to enlistment. It became clear at the start of OPERATION DESERTS SHIELD, however, that exceptions to existing policies for men and women already in the Army, would have to be made as problems were identified.

There are peacetime requirements for routine periodic medical examinations mandated in AR 40-501. Routine periodic medical examinations are not required incident to mobilization.[31] AR 600-8-101 requires that a soldier be current in his or her periodic medical examination prior to deployment, but this requirement can be waived by a General officer in time of war or contingency operations.[32] In accordance with Title 10, United States Code, Section 3502, National Guard soldiers must be "examined as to their physical fitness" at the time of mobilization and at the time of release from active duty. The law does not specify the manner in which physical fitness is determined (e.g. interview, full medical examination etc.). The law does not require the government to keep a record of the results of examinations at the time of mobilization. The law does require the government to keep a record of any examination results at the time of release from active duty.

The AMOPES in effect at the time of OPERATIONS DESERT SHIELD AND DESERT STORM did not cover specific medical standards or examination criteria. It tasked U.S. Army Forces Command with developing and promulgating the FORMDEPS and defining the specific mobilization/deployment responsibilities of all Army commands."[33] The FORMDEPS in effect at the time required current

periodic medical examinations only as part of the preparatory phase (peacetime phase). It also outlined steps to be taken to delay a soldier due to his or her hospitalization. Any soldier who could travel without a danger to his or her health was expected to report to a mobilization site.[34]

The policy of having soldiers report unless they were hospitalized was reiterated in a Department of Defense memorandum at the start of the operation, on 24 August 1990, which stated that soldiers should only be delayed if they were hospitalized, convalescing or in the process of being evaluated for retention. All others would be subject to Uniformed Code of Military Justice action if they did not report.[35] There was no guidance in any of the aforementioned documents on specific medical screening to be done prior to deployment.

Because of the lack of guidance in August 1990 on medically screening soldiers who reported for duty but had not yet deployed, The Office of The Surgeon General developed the policies for predeployment medical screening, and later, for redeployment medical screening. Guidance on predeployment screening was sent from The Office of the Surgeon General to U.S. Army Forces Command and U.S. Army Health Services Command.[36] U.S. Army Forces Command with the support of U.S. Army Health Services Command implemented the policies.[37] Coordination during development of the policies was made primarily with the Office of the Deputy Chief of Staff for Personnel, U.S. Army Health Services Command, the Office of the Deputy Chief of Staff for

Operations, and U.S. Army Forces Command. In other words, a concerted effort to obtain consensus prior to the final decision.

The new policies developed for Active and Reserve Component soldiers did not require soldiers to be current in their routine periodic medical examinations prior to activation or deployment. The policies required that a medical interview be conducted by a physician or a physician's assistant and that an examination would be accomplished if clinically indicated (i.e. based on the soldier's physical complaints or if the physician was concerned based on a history of past medical problems). A cardiovascular screen (CVSP) of soldiers over the age of 40 was not required. As an exception, if a soldier had taken and failed a portion of the CVSP prior to activation and had received no follow-up, he or she could not deploy unless cleared. The policy that was developed was believed to be medically safe while ensuring there was no delay in deployment due to unnecessary medical consults or procedures.

The rationale for these policies was based on a variety of factors. Although there are benefits in accomplishing certain specific tests (e.g.pap smears, blood pressure, rectal examinations for those over 40) on high risk individuals, routine periodic examinations in individuals with no physical complaints rarely identify injury or disease.[38] This is a critical point to understand when formulating policies to screen soldiers prior to deployment. Periodic medical examinations are peacetime procedures and are not suitable as deployment screens. Even if a

soldier was medically current (for a reserve soldier this meant within the last four years), the individual would still have to be interviewed prior to deployment to ensure there were no problems or complaints since his or her last examination. The interview, therefore, was considered the most critical element of the screen.

Routine periodic medical examinations and follow-up medical consultations are resource intensive. At the start of OPERATION DESERT SHIELD, when many Active Army medically personnel were deployed to Southwest Asia, the Army hospitals had not been immediately backfilled with replacement Reserve Component medical personnel. Any plan that utilized the remaining Army personnel for medical screening would have to take into account that the hospitals were primarily focused on preparing for mass casualties and therefore all resources had to be used wisely. This was clearly not a time to catch up on routine examinations or procedures not accomplished prior to OPERATION DESERT SHIELD.

The cardiovascular screen had been recently reevaluated by The Office of The Surgeon General and was determined to be a useful health promotion tool to identify individuals at high risk and help them modify behavior in the long term. The cardiovascular screen could not predict or prevent sudden cardiac death and was not considered a necessary deployment screen.[39]

In addition to medical screening requirements, the dental screening policy included the requirement to have a dental record and a panographic x-ray prior to deployment. A duplicate

panograph would be filed at a central location. Soldiers in "Dental Class" 3 or 4 would be referred for treatment ("Dental Class 3" refers to personnel who require dental treatment that is likely to cause a dental emergency within 12 months; "Dental Class 4" refers to personnel who require a dental examination, generally because their last one is no longer valid or because there is no record available).[40] A discussion of the impact of the policies is included in the section of this paper on nondeployed soldiers.

Medical Screening For Redeployment/Deactivation

The development of policies for redeployment/demobilization examinations was based on different criteria than that of deployment. As early as November 1990, The Office of The Surgeon General sent instructions to U.S. Army Health Services Command, U.S. Army Forces Command, and the Army Reserve and National Guard outlining the existing policies on separation medical examinations. The policies covered only those soldiers who were required to undergo separation examinations in accordance with Army Regulation 40-501 and Title 10, UNITED STATES CODE 3502. This meant medical examinations were mandated for any soldier requesting one, any National Guard soldier being released from active duty, and any soldier retiring from the Army. All other categories were excluded.[41]

Toward the end of OPERATION DESERT STORM there was considerable discussion on the part of the Army Staff elements on all the policies related to redeploying/separating soldiers and general consensus that all policies would have to apply to both Army Reserve and National Guard soldiers equally (even if Title 10 only required that National Guard soldiers be examined). There was also considerable public and political pressure once the operation had ended, to rapidly redeploy soldiers.[42] Initial input from The Office of the Deputy Chief of Personnel indicated soldiers might have as little as three days once back in the continental United States before separation. Because of the many administrative requirements that also would need to be met prior to separation, the time to complete the medical requirements would be severely limited.

The Office of The Surgeon General submitted policy recommendations for redeployment medical screening to the Deputy Chief of Staff for Operations in February, 1991.[43] Prior to the formal submission of the recommendations, there was considerable informal coordinations that took place between The Office of The Surgeon General, U.S. Army Health Services Command, and the Command Surgeons of U.S. Army Forces Command and Army Central Command, again to obtain consensus on a policy that would affect those commands. The conclusions were based on assumptions that the health and medical readiness of soldiers would continue to be a high priority during demobilization and redeployment; that there existed a possibility of soldiers having developed new

medical conditions during their time in Southwest Asia; and that health evaluations would support readiness and would help ensure that soldiers received earned benefits and understood that their service was appreciated.[44]

In general, the recommendations (implemented in the policies) emphasized the need to evaluate all soldiers, and because of time constraints and the continued presence of medical assets in theater, to incorporate health evaluations into the CINC's in-theater redeployment plan. Toward the end of the major redeployments, as medical assets were also redeployed, the final examinations were completed in CONUS. The examination (required for all Reserve Component soldiers) included a "hands on" physical examination including audiogram and T.B. testing and the completion of two medical history forms (a routine history form used in all Army medical examinations and a second history form specific for soldiers serving in Southwest Asia). Dental evaluations would be conducted in the theater of operations with the goal of placing all soldiers in a "Dental Class 2" condition prior to deactivation ("Dental Class 2" refers to personnel whose existing dental condition is unlikely to result in a dental emergency within 12 months).[45] Army Central Command asked for, and received additional audiometric and dental equipment and personnel to assist in the examinations.[46]

A General Accounting Office (GAO) report on "Physical Exams and Dental Care Following the Persian Gulf War" was generally positive in its comments on the Army's efforts. It did note that

the Military Services had different redeployment policies. The Navy did not require separation examinations for most called up Navy Reservists (although at mobilization they required an examination on any Navy Reservist who had not had an examination within 12 months). The Air Force also did not require separation examinations for any Air Reserve or Air Guard members as long as their periodic examinations were up to date. The Army clearly had the most stringent policy. The GAO noted that even though Army regulations did not require it, most Army Reservists and National Guard soldiers called up for the Persian Gulf War received some form of separation medical examination. The GAO also noted that the Department of Defense's efforts to assess potential long-term health problems was adequate, giving tracking of soldiers exposed to oil well fires and the efforts on identifying soldiers with Leishmaniasis (a parasitic disease transmitted by the bite of a sandfly) as examples.[47]

The GAO did not focus on the issue of missing records. When the Army Reserve Personnel Center began reviewing records of Individual Ready Reservists following OPERATION DESERT STORM, one report indicated that of 54,000 records screened, approximately 7000 records did not contain medical examination reports.[48] There was considerable discussion as to whether or not the examinations were accomplished and if they were, why the examination record was never filed. During demobilization, there was significant focus on the examinations completed in theater and in the continental United States. This even included visits

by the Assistant Deputy Chief of Staff for Personnel with a team of other Army Staff representatives, to several demobilization sites and documented efforts to send necessary supplies and personnel to Southwest Asia to assist in the theater examinations.[49]

During demobilization, staff within the Office of The Surgeon General surveyed by telephone demobilization sites to determine if there were any problems completing the examinations.[50] Except for one group of soldiers at Camp Shelby who missed getting audiograms there were no reports of large numbers of soldiers not being examined.[51] It appeared from the perspective of The Office of The Surgeon General that examinations were given to the Individual Ready Reservists prior to their demobilization but examination records were either not properly filed or were turned over to the soldier without filing a duplicate copy. A decision was made, at the urging of the Office of the Chief, Army Reserve, to send letters to soldiers with incomplete records. If the soldier indicated he or she never received an examination, one would be offered.[52] The Military Entrance Processing Command agreed to help complete the examinations. Approximately 10,000 letters have been sent. To date, approximately 700 soldiers have indicated they did not have a complete physical and wanted to be given one.[53] Although the Army cannot confirm or dispute the claim, these soldiers will be given make-up medical examinations as they requested.

MOS Medical Review Board

AR 600-8-101 requires that any soldier with a numerical designator of 3 or 4 in the physical profile must be cleared by an MOS Medical Review Board (MMRB) prior to deployment.[54] The MMRB is under the purview of The U.S. Army Physical Disability Agency, which is part of the U.S. Total Army Personnel Command.[55] This is a completely different system than the medical evaluation board under the purview of The Office of The Surgeon General or of the physical evaluation board, which like the MMRB, is under the purview of the U.S. Army Physical Disability. The Office of The Surgeon General had been concerned about the MMRB prior to OPERATION DESERT SHIELD and asked that the system undergo a complete review to evaluate the necessity and efficacy of the system.[56]

The main purpose of the MMRB is to screen the force to ensure that all soldiers on active duty are world-wide deployable. Historically, MMRBs returned most soldiers back to duty since its inception in 1986. The MMRB was viewed by The Office of the Surgeon General as an ineffective system. In comparison, approximately 90% of soldiers who were processed through the medical evaluation boards and physical evaluation boards were found unfit for duty. The position of The Office of The Surgeon General was that the MMRB system duplicated efforts by medical evaluation boards and physical evaluation boards and

produced no positive results. During OPERATION DESERT SHIELD, however, the MMRB delayed rather than facilitated deployment.

Reserve Component soldiers are not required to undergo MMRB processing unless they are on active duty. As a result, when they were activated with profiles, there was an MMRB backlog (the MMRB often took 6 months to process) at the mobilization sites and the potential for serious delays in deployment. Because of the backlog, although The Office of The Deputy Chief of Staff for Personnel had not responded favorably to the previous requests to permanently rescind the MMRB, it did respond favorably to a new request by The Surgeon General to temporarily suspend the MMRB for the duration of OPERATION DESERT SHIELD. This suspension continued throughout OPERATIONS DESERT SHIELD and DESERT STORM. The decision was made that if the physician during predeployment screening believed the soldier was medically able to perform duty with his or her profile, and if the commander agreed, soldiers with those profiles could deploy.[57] The Office of The Surgeon General, simultaneously with the suspension of the MMRB, instructed medical commands that soldiers who did not meet retention standards must undergo a medical evaluation board and that profiling officers must be advised of the importance of producing realistic profiles.[58]

Since the suspension of the MMRB system was only valid through the end of OPERATION DESERT STORM, The Office of The Surgeon General has since requested a permanent rescission of the system. The Work Reduction Branch at the Total Army Personnel

Command has also concluded there are serious problems with the MMRB system. It is clear from initial input that if the system is not rescinded, there will still be significant problems to address. The system is currently under review by The Office of The Deputy Chief of Staff for Personnel.

Nondeployed Soldiers

Just prior to OPERATION DESERT SHIELD The Office of The Deputy Chief of Staff for Personnel took the lead in a significant review of deployability issues that involved the Army Staff elements and all major Army commands. At that time, it was in the process of analyzing all the comments and recommendations received in order to develop new policies. Many of the comments were based on problems with Active Duty soldiers since there had been no call up of reservists in recent years.[59]

The issue of the numbers and reasons for soldiers being unable to deploy because of medical reasons was raised at the beginning of OPERATION DESERT SHIELD and continues to be an issue today. A basic premise in developing new policies is to be able to accurately assess the problem. Unfortunately, the statistics compiled during OPERATIONS DESERT SHIELD and DESERT STORM on nondeployable Reserve Component soldiers were often inaccurate or compiled in such a way to prevent an accurate analysis, once the operation was completed. The General Accounting Office (GAO) cited one reason for the inaccurate data. The number of

nondeployables reported by the Army represented a moving average rather than a total average.[60] U.S. Army Forces Command provided periodic reports to The Office of the Deputy Chief of Staff for Personnel on the numbers of soldiers determined nondeployable. U.S. Army Forces Command obtained the numbers from individual units. GAO was correct in their final assessment that the numbers were never aggregate. Units could report on a given day how many soldiers were nondeployable because of medical or administrative problems. These problems could be temporary or permanent. Numbers changed daily as soldiers who recovered from temporary conditions were taken off the list of nondeployables or as soldiers with new conditions were added. Because there was no aggregate accounting, at the end of OPERATION DESERT STORM, there was no data base that could tally how many individual soldiers were actually nondeployable during the entire operation. It also could not determine how many were temporarily nondeployable verses soldiers permanently nondeployable. The numbers were useful during the operation in the short term since they enabled the Army to identify immediate problems at mobilization sites and develop solutions (e.g. suspension of the MMRB system, cross level of soldiers). The system served the purpose it was set up to accomplish. It had not been set up for future analysis of nondeployable soldiers.

GAO, throughout their report was never able to come up with accurate statistics (since the military services could not provide them) yet they concluded that the numbers of

nondeployable personnel was sizable. The Department of Defense response to the GAO was that:

> Nondeployability is not a serious problem in the department. Military manpower factors such as illness, leave, and training account for time away from the job. The DoD plans on nondeployables in its manpower calculations, just as engineers plan on downtime for equipment and purchase backup systems. Cross-leveling and task-specific packaging insure that forces required to meet a contingency are trained and available in sufficient numbers. The system worked in the Persian Gulf conflict.[61]

The National Guard had reported to the Department of Defense that their estimated number of nondeployed soldiers was six percent. The Surgeon General's Office provided some additional information to the Department of Defense on Reserve Component soldiers in a May 1991 memorandum. Aggregate numbers had been kept by Fort Dix on soldiers from 19 Army Reserve units and 12 National Guard Units, and Individual Ready Reservists who had processed thorough the mobilization site. Out of 4384 soldiers screened, 500 were still considered nondeployable at the end of OPERATION DESERT STORM, of which 440 were nondeployable for medical reasons (temporary or permanent). From a percentage perspective, approximately ten percent of the total number of National Guard soldiers, USAR soldiers, and Individual Ready Reservist soldiers who reported to Fort Dix at mobilization were nondeployable. Of that ten percent, approximately 9.5 percent of the National Guard, seven percent of the Army Reserve, and 15 percent of the Individual Ready Reserve were nondeployable. The

numbers did not include soldiers who were disqualified at home station and were never activated, numbers not reported to the Department of Defense. Fort Dix also reported, however, that efforts to render soldiers deployable was considerable. Approximately 3000 of the soldiers needed evaluations, HIV tests, etc. that were required prior to deployment.[62]

Numbers compiled during dental mobilization screening were much more complete. The Office of the Chief, Dental Corps reported that over 145,935 reserve component soldiers were screened. Of that total 81% were treated and placed in a "Dental Class 2" status. No units were delayed because of dental treatment time. The Office of the Chief, Dental Corps made the assumption that the average "Class 3" soldier could be raised to a "Class 2" status with one hour of dental work. They also assumed, based on a previous study by the U.S. Army Health Care Studies and Clinical Investigation Activity, that approximately 27% to 35% of Reserve Component personnel would be "Class 3." "The mobilization of Reserve Component personnel was executed as planned. Because the magnitude of "Class 3" soldiers was anticipated, adequate dental care providers were made available to raise the oral fitness of the population to a deployable standard with a minimum investment in time."[63]

The data on medical nondeployed soldiers is simply not good enough to truly identify the extent of the problem. What is clear is that the problems with medical nondeployed soldiers and

temporarily dental nondeployed soldiers did not prevent the mission from being accomplished.

On 23 October 1992, as part of the Defense Appropriations Bill, Title XI became law.[64] Title XI is not an initiative of The Surgeon General. It was sponsored by former Congressman Aspen and is focused primarily on training requirements, not medical requirements. This authorization bill (Army National Guard Combat Readiness Reform Act of 1992) is a sincere effort to improve National Guard Readiness, but the assumption that the medical portions of the law are needed to improve readiness is invalid and the justification for the medical portion of the law is perplexing, especially since The National Guard reported to the Department of Defense earlier that only six percent of their soldiers were medically nondeployable (this is to be expected when one considers temporary medical conditions). The Department of Defense reported that nondeployability was not a serious problem and that the system of insuring sufficient numbers of trained and available forces worked in the Persian Gulf Conflict.

The medical requirements of Title XI should be challenged on their efficacy in promoting readiness. They are monetarily significant, with initial estimates for medical and dental screening of over 29 million dollars annually, and include yearly medical and dental examinations of all National Guard soldiers and biannual cardiovascular screening examinations for all National Guard soldiers over 40.[65] Title 10, UNITED STATES CODE only requires examinations for all Reserve Component members

every 4 years. AR 40-501 requires medical examinations for active duty soldiers every 5 years at age specific intervals. Considering that periodic medical examinations are not cost efficient in terms of identifying illness in soldiers who are without complaints, the justification for increasing examinations of National Guard soldiers from every 4 years to promote readiness is seriously flawed.

The frequency of dental examinations in Title XI is the same as the policy for active duty soldiers. However, active duty soldiers also receive treatment. There is no requirement to provide dental treatment to these soldiers under Title XI or Title X. Cost effectiveness of the dental policy is also at issue. The dental screening and treatment accomplished for OPERATIONS DESERT SHIELD and DESERT STORM were successful. This involved a one time expenditure of dental personnel and resources. Units were not delayed because of the treatment.

The medical and dental portions of Title XI cannot be justified in terms of readiness. They can be viewed as a means of providing additional benefits to National Guard Soldiers, but the money might better be spent on clearly identified medical needs of National Guard soldiers, for instance on age specific screening tests not covered by their private insurance and health promotion programs to improve their quality of life. Also, there is no justification in the law for providing additional services to National Guard soldiers but not to USAR soldiers. The Army Staff is currently working on policies to address the provisions

of Title XI, including a contributory dental insurance program for National Guard soldiers.

Conclusions And Recommendations

The Office of the Surgeon General has been setting medical standards and medical screening policies for over 150 years. These policies have changed over time with an increase in medical knowledge and because of the experiences obtained in fighting wars especially in the 20th century, World War I, World War II, Korea, Viet Nam and now OPERATIONS DESERT SHIELD and DESERT STORM. Some of the policies are now based on Department of Defense Directives and must adhere to the UNITED STATES CODE.

Lieutenant General Heaton (The Surgeon General, Army, 1967) commented that "An Army is built of men who must be physically and emotionally fit to withstand the rigors and hardships of combat in any part of the world, from steaming jungle or blazing desert to the perpetual ice and snow of the arctics and from sandy or rugged coastlines to craggy mountain peaks."[66] These parameters are still valid. Today, soldiers (men and women) are faced with additional dangers because of new nuclear, biological and chemical threats, and new weapons systems. The Army is faced with the critical need in a reduced base force to ensure that the majority of both Active and Reserve Component soldiers are medically ready to perform in such an environment.

Most of the policies in place today, with the added changes because of OPERATION DESERT STORM should be adequate to conserve fighting strength. The policies should be continually reviewed as medical knowledge increases and the needs of the Army change. Subsequent to OPERATION DESERT STORM, Army Regulation 40-501 was rewritten with an emphasis on more realistic retention standards. The revised AR 40-501 is expected to be published by November 1993. This includes changes on asthma based on recommendations from The Surgeon General's Pulmonary and Allergy consultants. The chapter on mobilization standards has been rescinded. The accession standards for Army applicants and the retention standards for serving soldiers rather than mobilization standards, more appropriately meet the Army's need for a fit force. In accordance with AR 40-501, the Army still maintains authority to grant waivers for critical specialties if manpower needs dictate such a change.

Sections clarifying deployment and redeployment screening procedures are included in Chapter 8, AR 40-501. The changes in the redeployment examinations require The Surgeon General to mandate the scope of the redeployment examination based on the length of the mobilization/contingency operation and the occupational environment the soldier has been exposed to. For example, the scope of redeployment examinations for OPERATION DESERT STORM should be expected to be somewhat different than the requirements of soldiers who have served in Somalia, or those soldiers who were federalized for the Los Angeles riots.

It was apparent during OPERATION DESERT STORM that if changes had to be made in medical screening policies because of the nature of conflict, they needed to be made quickly and disseminated to the field almost immediately. This goal was accomplished. Therefore, policies which allow flexibility based on current needs are valid. The Surgeon General should retain the right to modify deployment and redeployment medical screening requirements based on the nature and duration of the conflict. The new changes on redeployment examinations also take into consideration the new AMOPES (which only allow 5 days for any outprocessing of Reserve Component soldiers).

AMOPES has been rewritten. Because of lessons learned in OPERATION DESERT SHIELD, AMOPES now includes a statement that "soldiers can be deployed if they have been medically cleared but have not completed their periodic medical examination. MMRBs are no longer required of Active or Reserve Component soldiers prior to deployment in war or contingency operations." Similar recommendations on deployment requirements have been submitted to the proponent of AR 600-8-101 by The Office of The Surgeon General. Suspension of the MMRB during war or contingency operations is absolutely necessary to prevent delays in deployment. The Army needs to go further, however, and rescind the MMRB completely. The MMRB has failed to meet its objectives of ensuring a world-wide deployable force in peace or in war. The Army's efforts should be focused more on emphasizing the enforcement of the medical evaluation board and physical

evaluation board requirements and on producing more realistic physical profiles, than on the MMRB.

Promoting readiness by increasing periodic medical examinations remains an issue. There are no valid studies or indications that an increase in routine periodic medical examinations will improve readiness. The Office of The Surgeon General is currently reviewing the scope of the periodic medical examination based on studies on the usefulness of such examinations in civilian and military populations. There are no plans to increase the frequency of periodic examinations in the Active force. There will be more emphasis on age specific tests and examinations and less emphasis on portions of the examinations that are no longer considered medically valid. This approach is contrary to the approach of Title XI. Title XI will mandate more frequent examinations for soldiers in the National Guard than in the Army Reserve or Active Army.

Any plans proposed to ensure a healthy and ready force must be evaluated on their efficacy. The questions that should be considered are: Is the problem clearly identified? Do the objectives address the problem and are they measurable? Are the policies in place to achieve the objectives realistic and cost effective? Do the policies consider the needs of the soldier as well as the needs of the Army? The medical portions of Title XI cannot be evaluated on the above criteria. There has been no accurate assessment of medical problems in the National Guard. Increasing the frequency of examinations will not address the

perceived problem of large numbers of National Guard soldiers who cannot perform duty. The medical portions of Title XI should be repealed. If Title XI is not repealed, at a minimum there should be a requirement for a review of the impact of the new law within twelve months of its implementation. The review should include the numbers of soldiers screened, the percentage of National Guard soldiers who were identified with permanent medical conditions who could not meet medical standards, the ultimate disposition of those soldiers, and the costs incurred in screening. If Title XI is not changed or repealed, the issue of different criteria for USAR versus National Guard soldiers needs to be addressed.

This paper has focused on the medical responsibilities in setting medical standards and medical screening policies to promote readiness. However, promoting medical readiness is not solely the responsibility of the Army Medical Department. Some medical conditions (especially orthopedic diagnoses) listed under retention standards require referral to a medical evaluation board and physical evaluation board only if the condition is serious enough to affect successful performance of duty. The soldier's commander, rather than the physician, is often in a better position to determine if a particular soldier's back pain or knee pain, for example, is serious enough to keep the soldier from performing in a particular military occupational specialty, under combat conditions if necessary. The Active or Reserve Component commander has a responsibility to refer the soldiers

who are having obvious problems performing duty, for fitness for duty evaluations and to inform the physician of any concerns once it is clear that performance is being effected.

Performance of duty is the key. There are soldiers on active duty with chronic medical problems that require medication or that limit taking some of the events on the physical training test. If the commander can depend on those soldiers to perform well with the chronic conditions, there is no reason the soldier should be medically separated. If, on the other hand, the soldier has significant limitations, including the inability to wear protective gear, or perform in a variety of climates, the systems in place to identify these soldiers and refer them to medical evaluation and physical evaluation boards cannot be ignored.

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[3] Department of The Army, Office of The Surgeon General, Composition, Mission, And Functions of The Army Medical Department, Army Regulation 40-1, Washington D.C., 1 July 1983.

[4]The author is the Chief, Medical Standards Branch, Clinical Policy Consultants Division, Office of the Surgeon General, and worked in that capacity during Operations Desert Shield and Desert Storm. Comments on the rationale are based on that experience and cited references.

[5]Department of The Army, Office of The Surgeon General, Standards of Medical Fitness, Army Regulation 40-501, Washington, D.C., 15 May 1989, p.1.

[6]Department of The Army, Office of The Surgeon General, Physical Standards In World War II, Washington D.C., GPO:1967, p.xv.

[7]Ibid p.3.

[8]Department of The Army, Standards of Medical Fitness, Army Regulation 40-501, Interim Change No. I01, Washington, D.C., 1 October 1991.

[9]Department of Defense, Directive, "Physical Standards For Enlistment, Appointment, and Induction," No. 6130.3, March 31, 1986.

[10]Physical Standards In World War II, p.15.

[11]Department of The Army, Office of The Surgeon General, Annual Report FY 1968, Washington, D.C.

[12]Standards of Medical Fitness, Army Regulation 40-501, 15 May 1989, p. 38-44.

[13]Standards Of Medical Fitness, Army Regulation 40-501, 15 May 1989,
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[15]Ibid; Message 291500Z January 1991, DAMO-ODO-AOC, "Subject: Medical Fitness Standards, Medical Screening/Operation Desert Storm."

[16]Message 200225Z September 1990, DAPE-MO, "Subject: Periodic medical examinations for Recalled Retirees - Operation Desert Shield Personnel Policy No. 23."

[17]Department Of Defense, Directive, "Separation From The Military Service By Reason of Physical Disability," No. 1332.18, February 25, 1986.

[18]Department of The Army, Physical Evaluation For Retention, Retirement, or Separation, Army Regulation 635-40, Washington, D.C., 1 September 1990, pp.8-21; Standards of Medical Fitness, Army Regulation 40-501, p.63; Department of The Army, Medical, Dental, and Veterinary Care, Army Regulation 40-3, 15 February 1985, pp.37-40; The Medical Evaluation Board (MEB) is under the purview of the Army Medical Department. The MEB describes a soldier's medical condition and refers the soldier to a Physical Evaluation Board (PEB). The Physical Evaluation Board (PEB) is under the purview of The U.S. Army Physical Disability Agency and U.S. Total Army Personnel Command. The PEB determines if the soldier is fit for duty or should be medically separated or medically retired. The PEB determines fitness based on whether the soldier can continue to perform in his or her military occupational specialty with his or her medical limitations. In accordance with Title 10, United States Code, Sections 1201 through 1204, soldiers are not eligible for disability processing unless they have been on orders for active duty for more than 30 days. Army Regulation 40-501, Chapter 9, explains the waiver process for Reserve Component soldiers who do not meet retention standards but are continued on active duty. The waiver is granted by the National Guard or the Army Reserve, not the Active Army.

[19]Standards of Medical Fitness, Army Regulation 40-501, p.24.

[20]Ibid. p.18.

[21]Ibid p.16; See also Endnote 20.

[22]Message 041900Z May 1989, SGPS-CP-B, "Subject: Physical Profiles."

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[37]Message 061600Z October 1990, CINC FORSCOM, "Subject: Medical/Dental Screening During Desert Shield - At Home Station and During POM."

[38]Oboler, Sylvia K. and Marc La Force, "The Periodic Examination in Symptomatic Adults," Annals of Internal Medicine 1989; 110: 214-226; Rose, Steven, "The Periodic Health Examination", Primary Care, Vol 7, No.4, December 1980; Charap, Mitchell H., "The Periodic Health Examination: Genesis of a Myth, Annals of Internal Medicine, 1981:95;733-735; Dembert, Mark L, Arthur H. Brownstein, and Julian F. Keith, "Principals and Practices of Screening for Disease", Military Medicine, VOL 153, January 1988, p.16-20.

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[41]Ronald R. Blanck, "Separation Medical Examinations, Operation Desert Shield," Memorandum For Commanders, U.S. Army Health Services Command, U.S. Army Forces Command, U.S. Army Reserve, and Army National Guard, 13 November 1990.

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[45]Medical, Dental, and Veterinary Care, p. 42; Message 050100Z March 1991, DAMO-ODO-AOC, "Subject: Medical Examinations, Desert Shield Demobilization."

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[65]Jon R. Beckenhauer, "Resource Impact," Information Paper, 26 October 1992.

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