DOWNLOAD PDF MILITARY PERSONNEL MEASUREMENT

Chapter 1 : Tape Test Standards for Body Fat in the Army | blog.quintoapp.com

Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.

Evolutionary science[edit] Anthropometric studies today are conducted to investigate the evolutionary significance of differences in body proportion between populations whose ancestors lived in different environments. On a microevolutionary level, anthropologists use anthropometric variation to reconstruct small-scale population history. Similarly, anthropometric indices, namely comparison of the human stature was used to illustrate anthropometric trends. The research was based on the datasets for Southern Chinese contract migrants who were sent to Suriname and Indonesia and included 13, individuals [14]. Measuring instruments[edit] 3D body scanners[edit] Today anthropometry can be performed with three-dimensional scanners. A global collaborative study to examine the uses of three-dimensional scanners for health care was launched in March The Body Benchmark Study will investigate the use of three-dimensional scanners to calculate volumes and segmental volumes of an individual body scan. The aim is to establish whether the Body Volume Index has the potential to be used as a long-term computer-based anthropometric measurement for health care. In the UK conducted the largest sizing survey to date using scanners. SizeUK showed that the nation had become taller and heavier but not as much as expected. However, recent research has shown that posture of the participant significantly influences the measurements taken [15] , the precision of 3D body scanner may or may not be high enough for industry tolerances [16] , and measurements taken may or may not be relevant to all applications e. Despite these current limitations, 3D Body Scanning has been suggested as a replacement for body measurement prediction technologies which despite the great appeal have yet to be as reliable as real human data. Baropodography Example insole in-shoe foot pressure measurement device Baropodographic devices fall into two main categories: The underlying technology is diverse, ranging from piezoelectric sensor arrays to light refraction , [19] [20] [21] [22] [23] but the ultimate form of the data generated by all modern technologies is either a 2D image or a 2D image time series of the pressures acting under the plantar surface of the foot. From these data other variables may be calculated see data analysis. Sensor technology limits finer resolution. Neuroimaging Direct measurements involve examinations of brains from corpses, or more recently, imaging techniques such as MRI , which can be used on living persons. Such measurements are used in research on neuroscience and intelligence. Brain volume data and other craniometric data are used in mainstream science to compare modern-day animal species and to analyze the evolution of the human species in archeology. With the discovery that many blood proteins vary consistently among populations, followed by the discovery of the DNA code, the invention of the polymerase chain reaction that amplifies trace amounts of DNA, and the decoding of the human genome , phylogeographers largely switched away from craniofacial anthropometry whenever DNA is available. Anthropometric measurements are frequently used to diagnose malnutrition in resource-poor clinical settings. Forensics and criminology[edit] Further information: Forensic anthropology and anthropological criminology Forensic anthropologists study the human skeleton in a legal setting. A forensic anthropologist can assist in the identification of a decedent through various skeletal analyses that produce a biological profile. Forensic anthropologists utilize the Fordisc program to help in the interpretation of craniofacial measurements in regards to ancestry or race determination. People with significant European or Middle Eastern ancestry generally have relatively no[clarification needed] prognathism ; a relatively long and narrow face; a prominent brow ridge that protrudes forward from the forehead; a narrow, tear-shaped nasal cavity; a "silled" nasal aperture; tower-shaped nasal bones; a triangular-shaped palate; and an angular and sloping eye orbit shape. People with considerable African ancestry typically have a broad and round nasal cavity; no dam or nasal sill; Quonset hut-shaped nasal bones; notable facial projection in the jaw and mouth area prognathism ; a rectangular-shaped palate; and a square or rectangular eye orbit shape. A relatively small prognathism often characterizes people with considerable East Asian ancestry; no nasal sill or dam; an oval-shaped nasal cavity; tent-shaped nasal bones; a

horseshoe-shaped palate; and a rounded and non-sloping eye orbit shape. Human factors and ergonomics Today, ergonomics professionals apply an understanding of human factors to the design of equipment, systems and working methods to improve comfort, health, safety, and productivity. This includes physical ergonomics in relation to human anatomy, physiological and bio mechanical characteristics; cognitive ergonomics in relation to perception, memory, reasoning, motor response including humanâ€”computer interaction , mental workloads, decision making, skilled performance, human reliability, work stress, training, and user experiences; organizational ergonomics in relation to metrics of communication, crew resource management, work design, schedules, teamwork, participation , community, cooperative work, new work programs, virtual organizations, and telework; environmental ergonomics in relation to human metrics affected by climate, temperature, pressure, vibration, and light; visual ergonomics; and others.

Chapter 2 : Military Standards for Fitness, Weight, and Body Composition - Weight Management - NCBI Bo

Students and professionals in the areas of personnel management, business administration, military studies, or anyone interested in the use of new technology in the testing and evaluation of personnel, will find Military Personnel Measurement a valuable resource.

Apr 27, Abstract Background: In most armies, clothes, equipment and weapons are designed according to the physical characteristics and anthropometric data of soldiers. To study the anthropometric characteristics of Iranian army force and their changes over recent years. They had a mean weight of The stature of Iranian army has increased by 14 mm during the last 15 years. The stature was less than those of the western countries and 3â€”4 cm more than those of East Asian personnel. The body mass index has had an increasing trend. Human engineering; Anthropometry; Military personnel; Equipment design; Iran Introduction Problems with ergonomics at work may cause musculoskeletal disorders, early fatigue, physical inabilities, and even accidents and diseases. The standard program to measure physical dimensions of the US military force dates back to Thereafter, a database of the anthropometric dimensions of the military force was developed in and has been in use as a standard for the physical dimensions for designing the required equipment and accessories of the army. These standards have been modified constantly over the past years. Each sector of the US army has declared a number as the maximum allowable weight to height ratio for employment and recruitment. The military sectors are obliged to pay attention to these ratios. In , almost American military forces were dismissed from the army because of weight to height mismatch. To prevent the production of instruments which are not fit for their personnel, the need to perform anthropometric measures. In a study on the physical dimensions of the US military personnel, Anderson asserted that most of the injuries and damages which occurred during military trainings happened to those who suffered from inappropriate body dimensions. Designing based on anthropometric data leads to eliminating awkward postures and their subsequent complications for the body. The last study conducted on the anthropometry measurements of Iranian Military ground forces was conducted in , where soldiers and military staff were evaluated. We also studied the temporal changes occurred over recent years in the indices. The participants were selected using a systematic random sampling method. They were also stratified by age, ie, 18â€”20, 21â€”25, and 26â€—30 years. Physical dimensions of the personnel were measured by a stadiometer, which is consisted of two scaled perpendicular sheets with a measurement accuracy of 1 mm. For each participant, we recorded weight and 89 more parameters. Appropriate instructions and guidelines for measurement teams were provided. Measurement teams were first instructed about the way they should work; they were familiarized with all landmarks Fig 1 that were to be measured and about how to choose them. Some anthropometric parameters measured in this study The accuracy and reliability of anthropometric data are related to method of measurement, standardization of tools and characteristics of population. Result Table 1 shows a number of statistics for the standing and sitting height of the studied participants. Measures of hands, legs, head, and body surfaces are presented in Table 2. Stature and sitting height of the studied participants. The unit of measurement is cm. For numbers in the first column, see Figure 1.

Chapter 3 : Category:Military units and formations by size - Wikipedia

The military only accepts candidates who fall into a specific height range. This is primarily because the military doesn't have the time or money to order custom-made uniforms and equipment for those who fall outside of the standard ranges.

Access to these personnel files is limited to veterans, their primary next of kin and federal agencies, largely for validating benefits. In most cases, veterans are looking for copies of their DD or separation documents that show proof of military service to establish benefits, or for background checks or employment verification. In a subsequent agreement, it was decided that the personnel files become archival 62 years after an Airmen was discharged, retired or died in service. Among the Air Force personnel files now part of the public record of the national archives are those of such airpower pioneers as Gen. James Doolittle and Brig. William "Billy" Mitchell as well as other records of persons of exceptional prominence to include Capt. As Air Force personnel files continue to reach maturity at 62 years, they will be transferred to national archives ownership. The ownership of these records by the national archives now makes them open to the public. While the Privacy Act no longer applies to archival records, exemptions of the Freedom of Information Act continue to protect the personal privacy of the veterans and their families and Social Security numbers are redacted before release. Genealogists, family members, historians and a variety of researchers already have and will continue to seek material obtained in these valuable records to better understand military service, family ties and the price of freedom. Response times for records requests vary and depend on records availability and workload. Air Force veterans who separated or retired on or after Oct. Requests for records or documents cannot be made by phone. If the relative was deceased after their separation or retirement, proof of death must also be provided as described on the instruction page of the SF Veterans who separated or retired before Oct. NPRC holds the historical military personnel records of nearly million veterans. The vast majority of these records are paper-based and not available on-line. Requests that involve reconstruction efforts due to the Fire, or older records that require extensive research efforts, may take six months or more to complete. You are still required to either mail or fax this form to NPRC. Airmen should bring all supporting documents to their local MPS to correct an error. The Secretary of a military department, acting through a BCMR, has authority to change any military record, when necessary, to correct an error or remove an injustice. A correction board may consider applications for correction of a military record, including a review of a discharge issued by court-martial. Otherwise, the Board will deny the case on that basis. The case file consists of military records, an advisory from the Office of Primary Responsibility and statements, arguments and documents provided by the applicant. The burden of proof of either error or injustice rests with the applicant. Vietnam Veterans who received a less-than-honorable discharge and have since been diagnosed with post-traumatic stress will be given all due consideration for an upgrade of characterization of discharge, according to guidance published in the National Defense Authorization Bill. Veterans who desire a correction to their service record or who believe their discharge was unjust, erroneous or warrants an upgrade, are encouraged to apply for review. If your contention involves a medical issue, you must also fill out a consent form to release your medical records from the Veterans Administration. If the former Airman is deceased or incompetent, the surviving spouse, former spouse, next of kin or a legal representative may apply with supporting documentation e. AFPC does not store medical and dental records. Medical and dental records for Airmen who retired or separated between June 1, and Dec. Airmen who separated or retired after Jan.

Chapter 4 : Anthropometry - Wikipedia

In , there were over 12 million active duty military personnel. The Army, Navy, and Air Force had significant cuts in the numbers of personnel with the end of the Cold War, while the Marine Corps numbers have stayed relatively flat.

Because an accurate measurement of height and weight is considerably easier than an accurate measurement of percent body fat, the initial body composition screen for accession consists of a weight-for-height assessment using service-specific maximum allowable weight-for-height tables. Height and weight can be used to compute BMI, a widely accepted surrogate index of percent body fat Gurrici et al. It should be noted, however, that the military standards for maximum weight-for-height were established long before the science supporting the use of BMI was developed. When only two measurements are used, height and weight have the highest level of association with the percentage of body fat. However, each service has conducted extensive anthropometric measurements of service personnel and used these data, together with data on body composition, to assess the best single additional measurement for estimating body fat Friedl, ; Hodgdon, Until quite recently DOD, , none of the services had adopted the BMI per se as an alternative to maximum weight-for-height standards. However, the Air Force has considered BMI as part of the evaluation process before assigning an overweight individual to a weight-control program. The maximum allowable weights-for-height have varied across services for individuals of the same height, age, and gender. The individual service standards were uniformly more stringent than the DOD recommendations. The disparity in maximum BMI between men and women was marked: However, in the recent revision of DOD Instruction Thus, the Marine Corps had to raise its previous standard of Prospective recruits who exceed the accession weight limit for their height must undergo a body-fat assessment. The maximum allowable percentage of body fat for women on entry into the service ranges from 26 percent to 34 percent, depending on the service and for the Army, age. The maximum allowable percentage of body fat for men on entry into the service ranges from 18 percent to 26 percent depending on service and age USAF, ; U. Each service uses circumference measurements to estimate body composition and, until recently, each employed its own set of measurement equations. However, as of November , DOD has mandated a single circumference equation to be used across all the services for assessing percent body fat in men, and a different equation to be used in women. In , the Navy adopted a maximum standard of 23 percent body fat for men and 34 percent for women Hodgdon, However, height and weight were the only measurements for which a great deal of epidemiological data were available Hodgdon, Ideally, more sophisticated body-fat measurements should augment the weight-for-height indices. Setting accession standards has implications for recruiting. When the services set restrictions on recruitment eligibility based on weight-for-height and estimated percent body fat, they eliminate a portion of individuals who might otherwise qualify for service. Their analysis indicated that 13 to 18 percent of men and 17 to 43 percent of women in this age range exceeded the military standards. The authors concluded that these data indicated a need for the military to reassess their standards. Perhaps a more appropriate conclusion particularly for long-term health would be to highlight the need for weight-gain prevention strategies targeted towards adolescents, particularly minority women. Data from the â€" NHANES indicate that BMI continues to increase, with the most recent data indicating that the prevalence of overweight and obesity in all men over the age of 20 years has now increased to Retention Standards The retention standards are the maximum weights-for-height and percent body fat that military personnel are allowed to avoid referral to a weight-management program DOD, The current BMI retention standards for men and women for each military service are presented in Table The maximum allowable percentage of body fat for men ranges from 18 to 26 percent depending on service and age, while for women it ranges from 26 to 34 percent See Table Each of the services screens active duty personnel either annually or semiannually for fitness and compliance with weight-for-height standards. Personnel may be screened several times a year in the course of medical examinations, physical fitness tests, or training school examinations. Thus, personnel receive regular feedback on how well they meet the standards of weight-for-height. The consequences of these practices are clear. Additionally, 57 percent of active duty men and 25 percent of active duty women exceeded the newer

overweight standard of 25, compared with 59 percent and 51 percent of civilian men and women, respectively Bray et al. Because the data from Bray and coworkers are self-reported rather than actual measurements, some bias may exist. However, investigators who collected both self-reported data and actual measurements concluded that such biases were small. Moreover, the data of Bray and coworkers were taken from surveys completed anonymously and collected by personnel who were outside the military chain of command of the respondents. Thus, these data most likely accurately portray the scope of the problem of overweight in the military services. Assignment to these programs requires paperwork and other administrative costs and may involve lost duty time. As of December , 0. Data on weight-management programs recidivism or long-term success are not systematically compiled by any of the services, a situation that is, at least in part, intentional. The services attempt to minimize the stigma associated with participation in these programs by purging records. The Impact on the Health Care System Another way to assess the impact of body-fat standards on the military is to estimate their cost to the health care system. A different approach was reported by Robbins and colleagues , who examined anthropometrics, demographics, and health behaviors of 4, active duty Air Force men and women. Unfortunately, the statistics on visits to military clinics for weight-related matters do not provide a complete picture. Military personnel are likely to enroll in commercial weight-reduction programs or to self-treat with supplements or over-the-counter medications rather than call attention to their weight, which invites possible disciplinary action or separation from the service with loss of benefits. Diabetes, hypertension, and ischemic heart disease accounted for less than 1 percent of the visits made to ambulatory care clinics by active duty personnel in Thus, since the military is made up predominately of young, healthy individuals who exercise with some regularity, it appears that they are far more likely to suffer musculoskeletal injuries than they are to present health problems associated with obesity. The Impact on Weight-Loss Behavior and Disordered Eating Eating disorders have been widely studied among civilian women and among select groups of men e. Gross disturbances in eating behavior characterize the conditions of anorexia nervosa currently seen in 1 to 2 percent of females in the general population, and bulimia nervosa, which has a prevalence of 1 to 3 percent in this population. Both disorders have a female-to-male ratio of occurrence of Another category of eating disorders, known as not otherwise specified NOS , has been reported in the literature to occur in 3 to 35 percent of the population. The need to maintain weight-for-height and body composition standards does place pressure on military personnel, particularly those who may find themselves in more sedentary occupations after completing initial entry and advanced individual training. The military policy of testing personnel annually or semi-annually can lead to undesirable and potentially unhealthy practices. For example, Peterson and coworkers examined the incidence of bulimic weight-loss behaviors in individuals in a military weight-management program, a civilian weight-loss program, and military personnel not in a weight-loss program. Military personnel in a weight-management program engaged in significantly more bulimic behaviors than either of the other two groups. Behaviors such as vomiting, strenuous exercise, and use of saunas or steam rooms was four times more common in those assigned to the military weight-management program. These results are more notable in that this group of individuals was predominantly male 65 percent. In a series of studies of Navy personnel and of military women in all services, McNulty used the Stanford Eating Disorders Questionnaire with active-duty Navy nurses McNulty, a , 1, active-duty Navy men The existence of eating disorders was found to be wide-spread in the Navy nurses, even among normal-weight women within the standard of 30 percent body fat. The prevalence of bulimia nervosa was Among the top five reasons given by these women for engaging in these practices were: Among Navy men, While the use of diuretics, vomiting, diet pills, laxatives, and fasting all had a 2 to 4 percent prevalence under normal conditions binge eating at 14 percent , these behaviors increased to a prevalence of 14 to 15 percent at the time of weigh-ins and fitness testing binge eating at 26 percent. The top four reasons for engaging in these behaviors were: In another study focused on women in all branches of the service McNulty, , data were gathered from Army women, Navy women, Air Force women, and Marine Corps women. For the combined sample of 1, service women, the prevalence of eating disorders was 1. Marine Corps women scored significantly higher for all disorders than women in other service branches, although they had the lowest reported percent body fat Of the Marine Corps women surveyed, The prevalence of use of various purging

behaviors across the services are shown in Table The top five reasons given for engaging in these types of behaviors were: Clearly, these types of behaviors, coupled with the high prevalence of amenorrhea, could have significant long-term health implications for military women. The Impact on the Loss of Personnel The impact of body-fat standards on the military also can be assessed in terms of the separation of personnel. In , almost 1. The data of Lindquist and Bray suggest that 54 percent of active duty personnel are in danger of being assigned to a weight-control program, and some of these may be at risk of separation from the service due to overweight based on self-reported BMIs. As shown in Table , over 4, individuals were discharged from the military for being overweight in , but the numbers show a steady decline. Navy personnel who fail to meet the standards are now allowed to serve out their current term of enlistment, but they are not permitted to re-enlist. In , total early separations for persistent failure to meet weight and body composition standards totaled just over 1, individuals. This is approximately 0. DOD-wide uniformity in the use of these methodologies and standards is being sought to promote maximum objectivity and fairness to service members across the four services. In addition, this policy also mandates the implementation of a single circumferential equation to estimate percent body fat for men and one for women to be used by all the services. The weight and body-fat standards of the military services were predicated on the need for the highest level of physical performance in adverse environments, and to a lesser degree on the image that the individual may convey of the military. These standards theoretically take precedent even when individuals demonstrate an ability to perform their assigned tasks in an exceptional manner. There are a number of problems created by these standards. Second, there is a high cost for recruiting, training, and assimilating individuals with needed skills into some highly technical positions. Third, the pool of potential applicants is small during good economic times. Finally, once trained by the military, many of these individuals in critical career fields can find higher-paying jobs in the civilian community where their body composition presents no problem. Alternatively, the case can be made that all military personnel are potentially needed for duty in situations of armed conflict and thus even individuals that have occupational specialties that foster sedentary activity may be required to perform other tasks that demand physical strength and endurance. There is also the perception that individuals who have a low body-fat mass are likely to have less illness, which is important in hostile environments. Unfortunately, there are few data available on the relationship of body composition and performance of occupational specialties that do not require significant physical activity. There is an abundance of data on the relationship of body composition and long-term health, but less is known about this relationship in young individuals in the short term. Compliance with the military weight and body-fat standards may provide significant benefits to individuals after they retire from active duty, but it may not provide significant benefit to the services in terms of increased reliability of performance in many occupational specialties. In an era of recruitment and retention difficulties, the military could decrease the loss of trained personnel by capitalizing on these developments, improving existing programs, and attempting to provide more uniformity to weight-management programs across the services. More importantly, DOD needs to develop a strong focus on prevention programs, as well as on remedial programs. Several factors have encouraged the military services to expand and refine their weight-control programs: The elimination of the draft and the conversion to an all-volunteer military has reduced the number of new recruits. The impact of obesity on long-term health has been more fully defined by epidemiological studies. Increases in manpower costs due to duty restriction or separations have been found to be significant. Where the services diverge most is in their approach to weight management see Table

Chapter 5 : Military Personnel Records

virtual autopsy cases were used to determine chest wall thickness in deployed male military personnel. Measurement was made in the second right intercostal space at the midclavicular line.

All dropped dramatically as that war drew down. In , there were over 12 million active duty military personnel. The Army, Navy, and Air Force had significant cuts in the numbers of personnel with the end of the Cold War, while the Marine Corps numbers have stayed relatively flat. Like the Marine Corps, its core strength lies in the prospect of boots on the ground. Technology can certainly help boots on the ground be more effective, but numbers matter. And a large number of front-line troops means an even larger number of support personnel. In the mids, the Army was demobilizing from the Korean War. It ramped up again sharply for the escalation of U. From the late s to the mids, with the end of the Cold War, there was another significant reduction of nearly 40 percent. Since then, aside from a relatively small percentage bump for the so-called surge in Iraq around , the number have hovered at around , Navy The numbers of Navy personnel have mostly declined over the past 60 years, although the reductions have been neither as sustained nor as deep as those of the Air Force. Like the Air Forceâ€”although perhaps to a somewhat lesser revolutionary extentâ€”the Navy has benefited from technological developments over the past 60 years. That broad spectrum of options is paired with a high degree of mobility. The Navy is no longer confined to patrolling the high seas. And sending a carrier to a troublespot projects immense power relatively quickly without the time and bureaucracy involved in negotiating base agreements or flight corridors. More than any of the other services, the Marine Corps has been able to maintain relatively stable personnel numbers aside from a spike during the Vietnam War. More than any of the other services, its trend in personnel numbers is one of decline. The manpower force levels today are just over one third of what they were in the s. While some of the explanation for that comes down to shifting emphasis and the endless competition for Defense resources and funding, much of it comes down to the massive shifts in technology over the past 60 years that have revolutionized Air Force power. Missiles, computers, more effective airplanes and weapons, satellites, and even drones have all meant that over the past 60 years Air Force effectiveness has relied less and less on sheer numbers of personnel.

Chapter 6 : U.S. Military Personnel The Numbers

Changing personnel readiness reporting to measure capability a process in which a battalion human resources specialist is supposed to conduct a transaction in the Electronic Military Personnel.

The committee was asked to identify sources of potentially damaging noise in the military setting and to review and assess available evidence on hearing loss incurred by members of the armed services as a result of noise exposure during military service since World War II. Concern about noise exposure and hearing loss among military personnel has been evident throughout this period e. Examples of the kinds of data collected through these efforts are provided. Obvious sources of potentially hazardous noise are weapons systems and jet engines, but vehicles, other aircraft, watercraft, communication systems, and industrial-type activities also serve as sources of potentially damaging noise. Page 73 Share Cite Suggested Citation: Noise and Military Service: Implications for Hearing Loss and Tinnitus. The National Academies Press. In addition, information has been collected on estimated noise doses for personnel working in steady-state noise. In the late s, the Department of Defense DoD established, as part of an overall hearing conservation program, a department-wide requirement for periodic surveys of noise-hazardous environments and, subsequently, requirements for noise dosimetry. Each military service was responsible for collecting and maintaining information about hazardous noise environments and noise exposures. Many military sites had been collecting such information well before the DoD requirements were put in place. This section briefly reviews DoD-level requirements concerning measurement of noise levels and noise exposure. Noise-exposure limits are discussed in Chapter 5. Department of Defense Requirements In , DoD established a requirement that each of the military services conduct sound surveys to identify and periodically monitor noise-hazardous environments DoD, By , the requirements included provisions for measuring noise exposures for workers exposed to noise levels of 85 dBA or more DoD, Also included were separate specifications for the measurement of impulse noise and performance criteria for the measurement devices to be used. The current requirements, contained in DoD Instruction The DoD instruction does not require measurement of noise doses associated with military activities, whether actual operations or training exercises. Noise exposure during such activities can be highly variable, and typical dosimeters are not designed to capture the rapid rise to briefly sustained peak sound pressure levels in excess of dB that occur 1 Page 74 Share Cite Suggested Citation: Requirements for maintaining data from noise surveys and exposure assessments have changed over time. The initial requirement in was that data be maintained for 5 years. By , the period had been extended to 30 years. DoD also has established design standards for noise levels of new materiel designed or purchased for the military services. In the most recent version of these standards DoD, , the stated purpose is to lead to equipment that minimizes noise-induced hearing loss, permits acceptable speech communication in a noisy environment, minimizes aural detection by an enemy, minimizes community annoyance, and provides acceptable habitability of personnel quarters DoD, The design standards include limits for steady-state and impulse noise in occupied areas and noise from shipboard equipment and aircraft, including rotary-wing aircraft. Air Force The Air Force began requiring noise measurements in with its first regulation regarding hazardous noise: By , regulations required the use of either direct measurement or published data to plot master plans of bases to indicate where exposure to hazardous noise might occur. One notable compendium contains measurements from within cockpit areas of hundreds of types and models of aircraft Gasaway, ; also see Gasaway, Dosimetry measurements began at selected airbases in the late s Fairman and Johnson, They include combat, combat training, and operation, testing, and maintenance of military equipment and systems, among which are weapons, aircraft, ships, submarines, missiles, ordnance, and tactical vehicles. The designation applies to such operations as peacekeeping missions, field maneuvers, naval operations, and military flight. Page 75 Share Cite Suggested Citation: Current noise evaluation procedures Department of the Air Force, require dosimetry for a minimum of 3 worker-days defined as one worker for 3 days, or three workers for 1 day to identify the average daily exposure. Starting in the late s, various Air Force installations began automating their recordkeeping for sound pressure levels and dosimetry. In , each installation continues to maintain its own

database. The dosimetry data are used primarily for local shop or worksite decisions, or occasional installation-level uses. Compilation of such data across the entire Air Force is possible but is not done for routine analysis Weisman, Navy and Marine Corps Navy requirements for the collection of noise survey data date back at least to a regulation requiring noise measurements and personal dosimetry with appropriate equipment and calibration Department of the Navy, The Navy is also responsible for noise surveys for Marine Corps facilities. To date, data on sound pressure levels are routinely collected at Navy and Marine Corps facilities but are not routinely transferred to a central database. Noise dosimetry data are routinely collected by local Navy medical units to perform exposure assessments and to make recommendations for placement of personnel into the hearing conservation program. Under current procedures, such noise exposure data, in the form of time-weighted average sound levels, must be provided to the exposed individuals, the command, and the entity providing medical surveillance Navy Environmental Health Center, b. Starting in , noise dosimetry data collected for a variety of industrial, shipboard, and other naval operations, including Marine Corps activities, have been added annually to the Navy Occupational Exposure Database Crowder, Some of these data date back to Army The Army has both a centralized program to evaluate the sound pressure levels of new weapons systems and equipment and a distributed pro- Page 76 Share Cite Suggested Citation: Through the centralized Health Hazard Assessment Program, begun in , new equipment is tested to assess various potential hazards, including noise, chemicals, radiation, and vibration. The measurements of sound pressure levels are used to estimate likely time-weighted averages during use of the equipment, but noise dosimetry is not carried out as part of this program. The test information is used to make recommendations regarding the need for personal hearing protection as well as possible restrictions on training time with the systems personal communication, F. The Army also has comprehensive data on sound pressure levels from weapons and equipment beginning from the s and a more limited set of data going back to the s. In addition, each Army installation evaluates work environments for potential noise hazards from steady-state noise in industrial-type operations. Dosimetry measurements are not routinely attempted for military-unique activities in the Army, in part because the impulse noise components are not readily measured by current instrumentation U. Coast Guard Coast Guard noise surveys were part of the Coast Guard hearing conservation program by the late s and early s McConnell, Sound pressure level and noise dosimetry measurements made by the Coast Guard are provided to units in the form of written reports McConnell, Defense Occupational and Environmental Health Readiness Systemâ€”Industrial Hygiene In , as this report was being written, all the services were still using their own databases on sound pressure levels and noise dosimetry. However, development of a DoD-wide database for recording, storing, and retrieving sound pressure level and noise dosimetry data, as well as information related to other occupational exposures, is in advanced stages.