



Translational Research Group

at the USMC Center for Advanced Operational Culture Learning (CAOCL)

Women in Service Review: Deciphering the Studies Behind Integrating Women

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BLUF: This paper serves as a note of concern regarding how the services' research plans for integrating women into previously closed Military Occupational Specialties (MOSs) and units, as well as public statements about those plans, appear from an external standpoint – the only perspective available to most service members and the public. From the perspective of someone outside the execution of the services' research plans, the Department of Defense (DoD) has not formally held the armed services to any defined scientific standards with respect to their plans for research into female integration. Therefore, even if the services are privately conducting rigorously-designed scientific studies, the services' public promise of conducting highly detailed studies, some of which are not clearly scoped, in a short timeframe coupled with a lack of transparency about the process and results will leave the conclusions open to question.

Overview of WISR Plans

In response to recommendations from the Military Leadership Diversity Commission¹ (and likely to related efforts² as well), the U.S. Congress directed the U.S. Secretary of Defense to assess whether equitable opportunities existed for women in the U.S. Armed Forces. To fulfill this, the Secretary of Defense and the Chairman of the Joint Chiefs of Staff initiated the Women in Service Review (WISR) in January of 2013,³ requiring the armed services to submit decisions for implementation or exceptions to policy⁴ regarding integrating women into previously closed MOSs and units by June 1, 2016. Prior to 2016, the services must also report milestones as outlined in their plans. As reviewed by someone outside of the WISR process, this paper poses key questions and concerns about the nature of the proposed research efforts based on the publically available details of the services' plans for the WISR and any public updates on these efforts. Unless otherwise indicated, quotations refer back to service-specific plans.

All service plans include the following core elements:

- Validation of physical and/or mental standards;
- Coordination with Special Operations Command (SOCOM);
- Review of Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities and Policy (DOTMLPF-P) content;
- Assignment of one or more senior female officers to newly integrated units or MOS schools before junior women;
- Facilitation of (new) career progression;
- Assessment of costs - e.g., facility modification (MOS schools, ships, units, etc.); and
- Determination of gender-neutral standards and the process of integration or determination of requests for exceptions-to-policy.

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The plans vary across the services with respect to aspects of the above core elements as well as additional elements. They vary not only due to different service missions and functions but also due to a lack of shared definitions of key concepts and agreement on a common set of data points to collect. For example, all services reference “gender-neutral” physical standards, though definitions vary if provided at all. In addition, only the Marine Corps and the Army describe efforts to collect data on women’s injuries. The services also differ in their approach to recruitment with respect to integration. The Air Force proposes to develop an advertising/recruiting campaign within and external to the service regarding new opportunities, in addition to creating parallel career paths for officers and enlisted personnel for particular (previously closed) occupational specialty codes. The Marine Corps proposes to assess recruiting/retention data, and the Army “may” adjust recruiting efforts, among other steps, to facilitate the presence of a female cadre of noncommissioned officers and officers in previously closed units. The Navy and SOCOM do not address recruitment.

The Army, the Marine Corps, and SOCOM also propose studies beyond physical tests, standards, habitability, and DOTMLPF-P content review. The Army mentions conducting interviews and surveys following their 2012 Exception to Policy (discussed further below), and their Training and Doctrine Command (TRADOC) will study the impact of integration on both cultural and institutional factors, involving literature reviews, surveys, focus groups, and “process mapping” as well as visits to various bases.⁵ TRADOC will then have sister agencies, academics, and military retirees review the study’s resulting recommendations. The Marine Corps’ service plan describes developing proxy MOS tasks to correlate with the Physical Fitness Test [PFT] and the Combat Fitness Test [CFT] in order to create a physical screening test for overall MOS classification. However, the use of the test depends on the ability to implement it during recruit training or prior to MOS school assignment. The Marine Corps does not state if it has or will seek out the expertise necessary to carry out their plans. SOCOM alludes to using surveys and states that the global policy think tank, the RAND Corporation, will conduct a parallel gender-integration study alongside their own government effort, though whether the requisite expertise resides at the Joint Special Operations University is not clear in their plan. Like the Army, SOCOM also proposes to assess the effect of gender integration on cultural factors.

The Navy’s and the Air Force’s plans present the least detail and, therefore, the least opportunity to assess or comment about integrating women into previously closed MOSs and units.

Therefore, this paper does not discuss their service plans further. The Army’s, SOCOM’s, and Marine Corps’ plans indicate more complex efforts for assessing women’s abilities and potential integration processes. This paper will examine only the portions of these service plans’ research efforts, and any subsequent updates, that generated questions or concerns (denoted in *italicized bullets*).

Army

In 2012, the Army opened 14000 positions to female soldiers and began to integrate female leaders with various MOSs into nine Active Component Brigade Combat Teams at maneuver battalion headquarters. Interview and survey data from this integration will feed a phased approach of opening positions to women; opening positions below the headquarters level will rely on assessments, deployment cycles, and “manning” guidance. The Army reports that some

of the major successes of this 2012 integration derived from unit commanders conducting equal-opportunity sexual harassment training for all soldiers, in addition to ensuring a female cadre to support junior soldiers.

- *The plans did not provide a definition of success for this 2012 effort, and therefore, success could mean many things.*
- *It also remains unclear whether or how the act of conducting sexual harassment training or the presence of a female cadre constituted a major contributor to that initial success.*

As previously mentioned, the TRADOC study involves conducting additional interviews and surveys as well as focus groups, a literature review, “process mapping,” and traveling to various bases. As previously stated, TRADOC plans to circulate their findings to various individuals and agencies for review before finalizing the report, which will delay availability of identification of potential lessons learned.

- *The scope of work for TRADOC, including research design, data collection, data analysis, integration of two datasets, coordination of findings, and the associated logistics implies a long timeline that the Army does not have. How well can they realistically fulfill this plan?*
- *The plan does not include how the results of the TRADOC gender integration study will inform the ongoing lessons learned effort - e.g., how will conflicting findings from these parallel efforts be reconciled?*

Special Operations Command

SOCOM will leverage their Center for Special Operations Studies and Research in their Joint Special Operations University and contract RAND to “research and analyze the social science impacts, to include surveys of integrating women into small, elite teams that operate in remote, austere environments.” The SOCOM service plan specifically highlights investigations into “psychological and social impacts.”

- *The SOCOM plan does not discuss the nature of the “psychological and social impacts” nor do they provide the definition of the acceptability of such impacts. Do “psychological and social impacts” pertain to something that impacts the women, the men, or the entire team? Are measurements attitudinal or behavioral or both? What defines an acceptable versus unacceptable impact as a result of integration, and is acceptability tied to the quality of the impact, the duration, or both?*
- *It remains unclear whether their plans refer to solely analyzing “psychological and social impacts” as women integrate into SOCOM teams or to additionally identifying relevant research outside of the United States where women have experienced such integration. Regardless, how does SOCOM propose to integrate a sufficient number of women (or identify sufficient research to consult) in order to draw valid conclusions?*

MajGen Bennet Sacolick (Command General, U.S. Army John F. Kennedy Special Warfare Center and School), the primary point of contact identified in the SOCOM service plan, said the “social, cultural, and behavioral aspects of integration pose bigger concerns than the gender-neutral physical standards that women will have to meet.” He explains that having 12-18 people on a team - possibly the sole Americans in an austere environment - as well as privacy, health,

and welfare issues create special concerns for SOCOM.⁶ However, he did not provide the rationale behind his points. Below, each bullet addresses a potential implication of his concerns.

- *“12-18 people on a team” could imply a cohesion concern with female integration. Lessons learned about replacing past team members could offer critical insight into this issue.*
- *“Austere environment” could imply a concern about biological differences. Would a woman require special survival skills in a remote environment? For example, do they need to ingest more of certain nutrients (iron, calcium) in an austere environment than men do, and do men similarly need to attend to dietary concerns particular to their sex? Do women need newly-designed equipment to address differences in torso, chest, and hip measurements? Some evidence indicates that equipment design might be a concern.⁷*
- *“Privacy” and “health” could suggest concerns about sex-segregation, pregnancy, hygiene, or menstruation:*
 - *SOCOM leadership, like the rest of the services’ leaders, implies the necessity of sex-segregation (separate sleeping quarters, showers, toilets, etc.), despite the fact that the armed forces in Canada, Sweden, and Norway allow unisex barracks and unisex conditions in the field.⁸ Some presumptions behind sex-segregation could include that segregation prevents women from distracting the men⁹ or protects women from men. Regarding the latter, various civilian and DoD resources do not mention toilets/bathrooms as high-risk places for sexual assault but only highlight places of isolation in general as risky.¹⁰ Both concerns imply that highly screened and trained service members can be trusted with issues of grave national security but not with women as team members. The plans do not explain why privacy ranks as a high-priority concern, especially when considering the gravity of SOCOM’s missions, and arguments exist against such concerns.¹¹*
 - *Historically, the Navy and Marine Corps have not required women to use contraceptives on deployment but have offered resources,¹² to include counseling¹³ and assessments of contraceptive needs, prior to deployment.¹⁴ Currently posted policy states that pregnancy will not affect a woman’s career. However, this is not completely accurate as there are clearly stated restrictions on women at various stages of pregnancy, usually the 20th week and beyond, and terminations for pregnancies are only supported if the mother’s life in danger.¹⁵ Considering such obstacles to terminating an unwanted pregnancy or those presented to the mission if the woman decides to carry to term, is it not possible that SOCOM’s research might lead to conclusions that a contraceptive was necessary for women in terms of health and privacy? If so, would leadership consider requiring a contraceptive that did not involve extensive monitoring, such as an implanted hormone-based contraceptive device (so that it can neither be lost nor forgotten), or would such a conclusion translate as an exception to policy? Critics could argue that such a requirement would discriminate on particular religious grounds, yet is it any different, for example, than requiring someone who practices Orthodox Judaism to eat non-kosher meat for survivability in an austere environment? Should health, survivability, mission, or*

some combination therein guide requirements for extreme positions, or are there some limits that are gender-specific and some that are not?

- *Just as men are more vulnerable than women to some hygienic issues (sexually transmitted infections are not a new concern stemming from potential female integration), women are more vulnerable than men to contracting urinary tract infections (UTIs) and yeast infections. Arming women with proper knowledge and similar easy-access toilet opportunities that men have may help to address these gender-based concerns, though training on how to leverage aspects of the environment or minimize adverse effects when no such tools or techniques exist remains necessary. For example, educating women to drink plenty of water and use the female urinary diversion device¹⁶ can help, though the latter innovation also appears inconvenient as it requires washing right after use and has received “mixed reviews.”¹⁷ In contrast, though, female focus groups in the 2012 Defense Advisory Committee on Women in the Services (DACOWITS) reported that while some women had female-specific health complaints, most did not.¹⁸*
- *In terms of health, menstruation can actually cure infections common to women such as yeast infections.¹⁹ Again, education can help address menstrual issues in an austere environment, from using pads - or something that can substitute as a pad - instead of tampons to avoid toxic shock syndrome,²⁰ to taking oral contraceptives to cease menstruation for months at a time.²¹ Women who require pharmacological support (even non-prescriptive) for menstrual-related conditions such as endometriosis²² should be treated the same as any individual with a condition that requires regular pharmacology. In short, the experience of menstruation in and of itself does not indicate that women are across the board more vulnerable to health problems than men.*
- *“Welfare” could suggest, among other things, a concern about sexual activity. This could refer to sexual activity sans pregnancy and implications therein for cohesion, morale, etc. Many of the services have raised sexual activity as a concern with respect to allowing women into combat, and some fully-integrated militaries have had to address this.²³ Such a concern implies, however, that sexual activity has not already been occurring among men, both wanted and unwanted, in the U.S. military.*
 - *Regarding wanted sexual contact, a publically-known increase in male-male sexual activity did not suddenly appear as a problem following the cessation of Don’t Ask Don’t Tell (DADT). Perhaps training and professionalism have precluded this as an issue and if so, why would this not apply equally to women?*
 - *Unwanted sexual contact among males has also not knowingly increased since the ending of DADT. Most recent (2006, 2010) estimates show that of those who experienced unwanted sexual contact,²⁴ roughly 96% of active duty women and 35% of active duty males experienced this from males, most often another member of the military, even a coworker.²⁵ Of the male victims, 76% claimed that they did not report this incident, compared to 66% of females, illustrating the woeful underreporting common to both sexes.²⁶*
 - *Furthermore, a large, recent study of female warfighters identified a number of risk factors for sexual assault (previous sexual assault, youth, membership in the Marine Corps, etc.) as greater than the risk of sexual assault associated with*

“combat experiences,” as defined in that study.²⁷ All of the above evidence illustrates that these concerns will exist, regardless of context or gender.²⁸

In the end, austere environments mean discomfort and strain, but extant data do not resolve the debate as to whether women would experience greater discomfort and strain than men.

Marine Corps

Since 2012, the Marine Corps has opened more than 20 non-infantry battalions (e.g., Assault Amphibian, Tank, Artillery, Low Altitude Air Defense, Combat Assault, and Combat Engineer Battalions) to female company grade officers and staff noncommissioned officers (SNCOs), and these opportunities have now been extended to the company and battery level.²⁹ The Commandant has also approved the opening of 11 primary MOSs in artillery, ground ordnance maintenance, and low altitude air defense fields.³⁰ The implementation of these efforts is part of the service plan now known as the Marine Corps Force Integration Plan (MCFIP).

As part of its overall integration research, the Marine Corps’ service plan alludes to a continuation of its assessment of Active and Reserve components newly opened to female Marines to drive further adjustments, and that it would open MOS positions and units sequentially to “reduce risk.”

- *The integration plan does not offer details on the nature of the continued assessment beyond command climate surveys (Interviews? Observations? Other surveys?), only that data would be in the form of “feedback from participants, unit commanders and senior enlisted leadership.”*
- *In addition, the integration plan fails to specify what constitutes sufficient feedback in terms of quantity or quality to produce further adjustments.*
- *The plan also does not define risk or successful or unsuccessful implementation, nor did it detail the determination of successful or unsuccessful implementation based on the nature of the feedback (e.g., would some feedback from particular types of participants or senior leadership be given more weight than other feedback? Will the Marine Corps weight feedback more than accomplishment of the MOS-specific physical tasks?).*
- *Therefore, based on these gaps, the implied success thus far with the expansion of opportunities to the company and battery level remains ambiguous, as will any future success or failure.*

In 2013, the Marine Corps stated that their comprehensive approach to the first phase of preparation, research, and evaluation would include multiple steps: a DOTMLPF-P review to facilitate integration, an assessment of the costs for facility modification (schoolhouses and operating forces), an analysis of female recruiting and retention, an analysis of female health/injury data, and a review of how leadership, education, and “proven performance” influence unit cohesion and effectiveness.

- *The last item in the list above presents concerns and questions:*
 - *The Marine Corps does not define cohesion nor describe how they will measure it. For example, does the Marine Corps regard “cohesion” as task or social cohesion or both?³¹*

- *The Marine Corps' plans do not define unit effectiveness or leadership, nor are these concepts described in terms of the method of measurement.*
- *The plans do not define what constitutes education in this context. Furthermore, no clarity exists on the type of education that could influence unit cohesion and effectiveness nor the nature of the research that led to choosing this type of education.*
- *The plans also did not address the means of measurement regarding the influence of leadership and education on unit cohesion and effectiveness.*
- *"Proven performance" lacks a definition and an associated form of measurement. Does this mean physical performance, social, both? If women prove themselves physically, can they fail for other reasons, such as adverse impact on social cohesion or other concerns cited here?*
- *The plans do not describe what will determine an exception to policy:*
 - *Does a threshold exist with respect to costs for female integration? For example, can costs associated with facility modification or injury rates (possibly prompting a need for special diets or medical attention) reach a level that warrants an exception to policy?*
 - *Does a threshold exist for female recruits for these new positions, i.e., will a certain percentage of potential female recruits need to express interest in these newly available MOSs to avoid an exception to policy?*
 - *Does a leader's receptivity or resistance define successful female integration?*

In 2013, the Marine Corps initiated efforts to review and validate gender-neutral physical standards. The service plan indicates that the Marine Corps will pursue one standard per MOS task regardless of gender (e.g., carrying a specific weight). In pursuit of developing gender-neutral standards, the Marine Corps originally proposed to review and validate the physical standards for all 335 primary MOSs based on a study of ~400 males and ~400 female volunteers.

- *A failure occurred with respect to aligning research design and methodology with available time horizons and manpower.*
 - *In a Marine Corps Times article, a comment from a member overseeing this effort appeared to question the logic of this plan element: "It becomes a problem of logistics," said [Colonel Jon] Aytes of swapping to the proxy tests. "To run 800 Marines to do 259 individual physical tasks, you can imagine how much work that would be."³²*

The Marine Corps adjusted its approach by selecting five proxy physical tasks to represent the physical standards for all MOSs.

- *The methodology used to select the five physical tasks as representative of the physical standards for all primary MOSs remains unknown.*
 - *A Marine Corps Times' journalist revealed that, since testing for all of the different MOSs' tasks (of which he only refers to 242) would not be possible in a few months, "the Corps used five tests that account for all of the tasks."³³ How did staff arrive at these five tasks? The Marine Corps did not conduct the study, as outlined in the plan, to arrive at these new tasks. Therefore, the outcome – the five tasks – appears questionable with respect to valid task selection.*

According to the original plans for developing gender-neutral standards, Marine volunteers would receive a physical screening test developed to simulate the actual MOS physical *tasks* – now presumably the aforementioned five tasks. A correlation between the Marines’ performance on these five tasks with their performance on the Physical Fitness Test (PFT) and Combat Fitness Test (CFT) would then form the basis for an overall physical screening test for MOS classification.

- *While characterizing the PFT and CFT as “gender neutral events,” the Marine Corps simultaneously claims they are gender-normed for physical differences.³⁴ They do not state that this gender-norming will end with female integration. In this instance, it appears that the Marine Corps characterizes “gender neutral” as exposing both genders to the same events but holding them to different standards according to physiological differences.*
- *The Center for Military Readiness characterized the Marine Corps as “contradictory,” arguing that they cannot have gender-neutral standards and yet maintain gender-norming.³⁵*
- *Nonetheless, the following questions remain unanswered:*
 - *What will determine the nature of the correlations between the five tasks and the individual events within the PFT and CFT?*
 - *How do these correlations translate into an overall screening test for MOS classification?*
 - *If no differences exist between the sexes regarding the correlation between the five tasks and PFT and CFT events (however they are matched), then gender-norming need not exist. If, however, gender differences arise, such as a higher correlation between an MOS task and a PFT or CFT event for women than men, then holding men to that higher score would unfairly punish men.*
 - *What course of action would follow if performance on one of the five tasks inversely correlated with one of the events of the PFT or CFT?*
- *Lastly, why the lack of attention to mental tasks?*

The Marine Corps’ plan contains significant fluidity regarding when they will offer the finalized gender-neutral physical screening test to both officers (possibly) and enlisted—during the Basic Officer Course (BOC) at the Basic School (for officers) and either through recruiters or during recruit training/prior to MOS school assignment (for enlisted). Furthermore, if these options do not prove viable, the Marine Corps would use MOS school completion as the screening tool as opposed to screening out individuals during recruiting or initial training.

- *Offering the physical screening test through the recruiters or initial training would ensure the most stringent application and importance of these five physical tasks, removing people who could possibly finish an MOS school but are unable to meet the demands of the physical screening test. In the opposite extreme, successful completion of the MOS school would indicate that the Marine Corps would not need to use the physical screening test at all. The Marine Corps incurs a small cost if screening occurs during recruitment, a somewhat greater cost if screening occurs during recruit training, and much greater cost if recruits fail to complete an MOS school.*

- *What determines the physical screening test to be viable or not, however, remains unclear. The Marine Corps does not explain why they would invest so much time, effort, and money into something that might ultimately not be used.*

Additionally, the service integration plan describes MOS instructors as receiving “integration education” but does not describe this in further detail.

- *What would the development and institutionalization of gender integration education involve?*

One key aspect of these research efforts is the participation of female volunteers. The above example of gender-neutral standards relies on recruiting sufficient volunteers as do the Marine Corps’ research efforts into the enlisted Infantry Training Course and Infantry Officers Course (IOC). Recently, the Commandant also opened additional previously closed MOS training schools and training in closed MOS skills to female volunteers.³⁶ In addition, the Commandant has approved the development of a Ground Combat Element Experimental Task Force to train and observe both entry-level training of women as well as their operational performance in an integrated ground combat battalion. Of 461 Marines involved in the task force, the Marine Corps anticipates women to number ~120.³⁷

- *Women face a disincentive to participate in these research efforts. They receive no external incentives to participate in the research, they cannot enter the MOS even if they succeed at this time, and they consequently experience delays in pursuit of their current MOSs if they choose to participate.*
 - *The Marine Corps’ ability to recruit enough female volunteers is questionable and challenges its participant figures provided in its research proposals.*
 - *Under such circumstances, what kinds of female Marines will volunteer and how is that factored into data analysis? Would the “best” female Marines volunteer under such circumstances?*
- *This could severely hamper the efforts and certainly lead to questionably valid conclusions due to sample size and make-up. Does this mean, for example, that if only eight women volunteer, the Marine Corps will draw conclusions nonetheless?*

In addition, the task force effort raises concerns similar to those referenced earlier in the paper about the first phase of Marine Corps research with respect to definitions, methods of measurement, and scientific validity. For example, an article about the task force effort describes some of their metrics as including the “psychological and social integrity of the units.”³⁸ The proposed task force will also contain four distinct squad-level compositions: All men, all women, approximately half men and half women, and a squad with a minority of women.³⁹

- *What are the standards against which all teams will be assessed and how will they be assessed— i.e., how is psychological integrity defined and measured, and what is considered an acceptable level for an individual vice unit?*
- *The four squad varieties differ in ways other than gender, such as skill-level in the MOS. In conducting observations, how will the study design control for confounding variables or account for their potential influence when drawing conclusions?*

What's Missing?

While clearly several of the services address the assessment of qualitative factors such as cohesion or culture, no plans mention assessing values. All of the services promote honor and selflessness among many other gender-neutral values. Do we not want honorable, courageous, and committed military personnel? Where do these values fall relative to physical standards? Alternatively, if leaders informally measure these values as part of the physical events, why not formalize them?

With the exception of the Army (based on a recent article⁴⁰), the services' plans also make no mention of assessing whether the gender-neutral standards they propose reflect the future warfighting landscape. Will the service standards reflect, based on projections of future conflicts, "objective assessments of combat effectiveness in the field?"⁴¹ The deputy chief of staff for the Army, for example, has proposed that the landscape has changed and, as a consequence, the importance of "mental agility" has increased.⁴²

Conclusion

All the services agree on one component: the importance of gender-neutral physical standards (however defined). In addition, some services are instituting steps to enhance objectivity, such as SOCOM's use of RAND to conduct a parallel study of gender integration impacts and the Army's proposal of circulating results for review.

As stated at the outset of this report, the conclusions here rest on publically-available documents. Each service might have solid, scientific plans they are/have been executing. Based on public documents, however, and despite claims by Jessica Wright, Acting Undersecretary of Defense for Personnel and Readiness,⁴³ the services' plans and public updates about their progress do little to reassure the public that valid methods of scientific design or analysis will influence the services' final decisions in the end. The WISR plans for both SOCOM and the Marine Corps in particular offer more questions than answers. SOCOM seeks data that might not be available or is potentially impossible to collect (e.g., research on women in small teams in remote environments). The Marine Corps' decision not to conduct the research on MOS capabilities as originally envisioned leaves many unanswered questions about their other initiatives under their plan. As publically supported government agencies, it would behoove all of the services to provide extensive detail on the design, implementation, and outcomes of these studies and how these outcomes will inform their decisions.

The services want good people in terms of relevant physicality, cognition, and character. This *Women in Service Review* could provide an opportunity for the services to step back and ask if they could do better, regardless of the sex of the recruit. Given the lack of transparency of many of the services' efforts, though, and the red flags produced by any results revealed to date, perhaps this request asks too much at the wrong time, and in too brief a window.⁴⁴ Given the incredible and often insurmountable tasks the services have faced in the last two wars, they could legitimately feel less than enthusiastic about engaging in critical self-reflection. However, the American public that they so bravely protect and serve also deserves nothing less than the most robust of scientifically-based conclusions regarding who can defend the country. Exceptions to policy might be highly warranted, but due to the ambiguous plans and the lack of transparent processes, the reasoning behind them will remain unknown.

¹ Military Leadership Diversity Commission, "From Representation to Inclusion: Diversity Leadership for the 21st-Century Military: Final Report," (Arlington, VA: March 15, 2011): 70 – 73

<http://www.usafa.edu/superintendent/diversityoffice/links/AFD-110315-066.pdf>.

² See American Civil Liberties Union, "Hegar, et al. v. Panetta – Plaintiffs," (November 2012), <https://www.aclu.org/womens-rights/hegar-et-al-v-panetta-plaintiffs>.

³ General Martin E. Dempsey, "Women in Service Implementation Plan," *Information Memo*, (January 9, 2013), <http://www.defense.gov/news/WISRImplementationPlanMemo.pdf>; Martin E. Dempsey & Leon E. Panetta, "Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule," *Memorandum for Secretaries of the Military Department*, (January 24, 2013), <http://www.defense.gov/news/WISRJointMemo.pdf>.

⁴ Instances where the service requests a specific unit and/or MOS remain closed to women.

⁵ Note: The Army states their plans are scientific in nature, see Chris Carroll, "Supporters, Critics Open Fire on Women in Combat," *Stars and Stripes*, June 19, 2013, <http://www.stripes.com/news/supporters-critics-open-fire-on-women-in-combat-1.226563>.

⁶ Andrew Tilghman, "SOCOM has Concerns about Spec-Ops Women," *Military Times*, June 24, 2013,

<http://www.militarytimes.com/article/20130624/CAREERS/306240012/SOCOM-has-concerns-about-spec-ops-women>.

⁷ Complaints of hip, knee, and back pain cited due to military equipment designed for men: *Defense Advisory Committee on Women in the Services: 2012 Report*, 9.

⁸ Comments from military representatives of Sweden, Norway, and Canada on May 2, 2014 at the *Women in Combat Units: Experiences of Partner Nations* conference

⁹ As implied in this quotation from MajGen Bennet Sacolick: "'I'm actually more concerned with the men and their reaction to women in their formations, quite frankly,' he said." Andrew Tilghman, "Spec Ops May Need to be Exempt from Integrating Women, SOCOM Official Says," *Marine Corps Times*, June 18, 2013,

<http://www.marinecorpstimes.com/article/20130618/CAREERS/306180035>.

¹⁰ DoD Safe Helpline, "Reducing Your Risk of Sexual Assault", <https://www.safehelpline.org/ways-to-reduce-your-risk-of-rape-in-the-military>; Rape, Abuse, and Incest National Network, "Avoiding Dangerous Situations," <http://www.rainn.org/get-information/sexual-assault-prevention/avoiding-dangerous-situations>.

Also no mention of location as a risk at all in this DoD report about prevention of sexual assault: Joint Chiefs of Staff, *Strategic Direction to the Joint Force on Sexual Assault Prevention and Response* (May 7, 2012), [http://www.jcs.mil/content/files/2012-05/050812085404_Joint_Strategic_Direction_on_Sexual_Assault_\(7_May_12\).pdf](http://www.jcs.mil/content/files/2012-05/050812085404_Joint_Strategic_Direction_on_Sexual_Assault_(7_May_12).pdf).

¹¹ E.g. Navy Lt. Cmdr. Shannon Stout, commenting on working with her battalion in the field: "A port-a-john's a port-a-john, and they didn't designate any female ones. Things like that haven't been an issue": Hope Hodge Seck, "Female Lt. Cdr. Makes Second Tanks History," *Marine Corps Times*, October 1, 2013,

<http://www.marinecorpstimes.com/article/20131001/CAREERS03/310010002/>.

¹² Navy and Marine Corps Public Health Center, *Family Planning*, <http://www.med.navy.mil/sites/nmcphc/health-promotion/reproductive-sexual-health/Pages/unplanned-pregnancy-prevention.aspx>.

¹³ Navy Personnel Command, *Pregnancy and Parenthood Advisor*, <http://www.public.navy.mil/bupers-npc/organization/bupers/WomensPolicy/Pages/CommandWomen%27sHealthCoordinator.aspx>.

¹⁴ See document "Screen Female Sailors for Contraceptive Needs Prior to Operational Duty", http://www.med.navy.mil/sites/nmcphc/Documents/health-promotion-wellness/reproductive-and-sexual-health/BUMED_SCREEN_CONTRACEPTION_DEC_2012.pdf.

¹⁵ Department of the Navy, *Navy Guidelines Concerning Pregnancy and Parenting* (June 14, 2007), <http://doni.documentservices.dla.mil/Directives/06000%20Medical%20and%20Dental%20Services/06-00%20General%20Medical%20and%20Dental%20Support%20Services/6000.1C.PDF>, 2, 2-18.

¹⁶ See YouTube video on "Female Urinary Diversion Device," published June 12, 2013, <http://www.youtube.com/watch?v=JXRjmfjO8>.

¹⁷ See *Defense Advisory Committee on Women in the Services: 2012 Report*: 98.

¹⁸ *Ibid*: 88.

¹⁹ E.g., see Brown University, "Women's Health: Yeast Infection" http://brown.edu/Student_Services/Health_Services/Health_Education/womens_health/yeast_infections.php.

²⁰ E.g., see Mayo Clinic, "Diseases and Conditions: Toxic Shock Syndrome," <http://www.mayoclinic.com/health/toxic-shock-syndrome/DS00221>.

²¹ E.g., see Mayo Clinic, "Birth Control" <http://www.mayoclinic.com/health/birth-control-pill/WO00098>.

²² E.g., see Mayo Clinic, "Diseases and Conditions: Endometriosis," <http://www.mayoclinic.com/health/endometriosis/DS00289>.

²³ Remarks by Major Adamsen, Denmark, at May 2, 2014 at the *Women in Combat Units: Experiences of Partner Nations* conference.

²⁴ Defined as sexually touched them (e.g., intentional touching of genitalia, breasts, or buttocks) or made them sexually touch someone; attempted to make them have sexual intercourse, but was not successful; made them have sexual intercourse; attempted to make them perform or receive oral sex, anal sex, or penetration by a finger or object, but was not successful; or made them perform or receive oral sex, anal sex, or penetration by a finger or object. See Department of Defense, Sexual Assault Prevention and Response, *Department of Defense Annual Report on Sexual Assault in the Military, Volume II* (Fiscal year 2012): 9.

²⁵ Department of Defense, Sexual Assault Prevention and Response, *Department of Defense Annual Report on Sexual Assault in the Military, Volume II* (Fiscal year 2012): 34, 37, 38.

²⁶ *Ibid.*: 73, 74.

²⁷ Cynthia A. LeardMann, Amanda Pietrucha, Kathryn M. Magruder, Besa Smith, Maureen Murdoch, Isabel G. Jacobson, Margaret A.K. Ryan, Gary Gackstetter, Tyler C. Smith, the Millennium Cohort Study Team, "Combat Deployment Is Associated with Sexual Harassment or Sexual Assault in a Large, Female Military Cohort," *Women's Health Issues* 23, no. 4 (2013): e220; LeardMann et al., combat experiences included "witnessing death; witnessing physical abuse; dead and/or decomposing bodies; maimed soldiers or civilians; or prisoners of war, or refugees" e216; the LeardMann et al study did not isolate those women who had combat experiences and assess whether, given their combat experiences, the other factors mentioned (youth, etc.) still mattered more with respect to risk of sexual assault. They only looked across the board at a wide variety of risk factors for this female warfighter sample.

²⁸ E.g., see Nick Duke, "Sexual Assault is Not a Gender Issue," *The Official Homepage of the United States Army*, August 21, 2013, http://www.army.mil/article/109633/Expert_Sexual_assault_is_not_a_gender_issue/.

²⁹ Commandant of the Marine Corps, "White Letter No 1-14: Integrating Female Marines Within the Ground Combat Element" (March 12, 2014), 2, point #3, a.

³⁰ Commandant of the Marine Corps, point #3, d.

³¹ Many psychological studies have investigated different types of cohesion – e.g., Robert J. MacCoun & William J. Hix, "Chapter 5: Unit Cohesion and Military Performance," in *Sexual Orientation and U.S. Military Personnel Policy: An Update of RAND's 1993 Study* (Santa Monica, CA: RAND, 2010).

³² Dan Lamothe, "Corps Rolls Out New Plans to Test Women's Suitability for Combat Jobs," *Marine Corps Times*, July 8, 2013, <http://www.marinecorpstimes.com/article/20130624/CAREERS/306240015/Corps-rolls-out-new-plan-test-women-s-suitability-combat-jobs>.

³³ Dan Lamothe, "Physical Screening for Military Jobs Planned" *Marine Corps Times*, July 15, 2013: 19. These tasks include dead-lifting a barbell up to 135 pounds; clean-and-pressing a barbell up to 115 pounds; lifting and carrying a 95-pound 155mm artillery shell replica 50 meters while wearing a full combat load; lifting and loading a 120mm tank round that weighs more than 50 pounds; and scaling a wall, up to 7 feet tall, while wearing a full combat load.

³⁴ See footnotes 2-5 on page 2 of the Marine Corps Women in Service Review Implementation Plan, May 2, 2013.

³⁵ House Armed Services Committee, *Hearing on Women in Service Review, Statement of Elaine Donnelly, President, Center for Military Readiness* (Wednesday – July 24, 2013).

³⁶ Commandant of the Marine Corps, point #2, b.

³⁷ Marine Corps Force Integration Plan: Information Brief for DACOWITS (March 13, 2014), 9; Commandant of the Marine Corps, point #3, c.

³⁸ Martin Matishak, "Social Engineering? Gender Mixed MAGTF has Huge Hurdles," *The Marine Corps Times*, March 24, 2014: 14.

³⁹ *Ibid.*: 15.

⁴⁰ E.g., Alex Sanz & Russ Bynum, "Army Tests Both Women, Men in Combat Fitness Study," *Associated Press*, March 12, 2014, <http://bigstory.ap.org/article/army-tests-both-women-men-combat-fitness-study>.

⁴¹ Robert Egnell, "Gender Perspectives and Fighting," *Parameters* 43, no. 2 (Summer 2013): 35.

⁴² Anna Mulrine, "Women in Combat No Later than 2016, Pentagon Says," *Christian Science Monitor* (July 25, 2013), <http://www.csmonitor.com/USA/Military/2013/0725/Women-in-combat-no-later-than-2016-Pentagon-says>.

⁴³ "She said military officials are consulting with fitness experts, occupational therapists and other medical and health professionals to ensure that the emerging physical standard will be based on 'science' rather than 'opinion.'" See [Andrew Tilghman](#), "DoD Personnel Chief: New Job-specific Physical Standards Being Drafted," *Marine Corps Times*, October 29, 2013, <http://www.marinecorpstimes.com/article/20131029/NEWS05/310290024/DoD-personnel-chief-New-job-specific-physical-standards-being-drafted>.

⁴⁴ Countries with much smaller forces have taken five years or more, such as Australia and Canada – see: Greta C. Kovach, "Marines Study Foreign Women in Combat," *UTSanDiego.com*, September 27, 2013, <http://www.utsandiego.com/news/2013/sep/27/marines-women-combat-foreign/all/?print>.