



# U. S. Marine Corps Research Findings: Where is the Case for Co-Ed Ground Combat?

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**Interim CMR Special Report**  
October 2014

**Kathleen Parker**, Author and syndicated columnist, the *Washington Post*

"Women have performed admirably throughout history in a variety of roles that have included combat situations, which is not the same as directly engaging an enemy. But there are other ways to promote women without pitting them against men, who, if women *are* given special treatment, will resent them to the endangerment of all. That our Congress is accepting this change without any debate isn't progress. It is a dereliction of duty and, one is tempted to say, suggestive of cowardice."

– *Washington Post*, ["Combat Puts Women at Unique Risk,"](#) Apr. 13, 2013.

**Interim CMR Special Report – October, 2014**  
**US Marine Corps Research Findings: Where is the Case for Co-Ed Ground Combat?**

**Abstract**

This is an Interim Special Report on the multi-phased research effort, initiated by **Marine Corps Commandant General James Amos** to gather quantitative data identifying the physical strength requirements of combat arms units. The goal is to find ways that women can be integrated into the combat arms without lowering standards. Researchers are finding this difficult (actually, impossible) to do, owing to naturally-occurring physical differences that make men significantly stronger. Androgenic hormones that are not going to change account for greater muscle power and aerobic capacity for endurance.

**USMC Training & Education Command (TECOM)** has used research methodology involving convoluted statistical formulas to "correlate" basic **Physical** and **Combat Fitness Tests (PFT and CFT)** with "proxy tests" simulating combat. TECOM also has produced abundant data indicating that gender-related disparities are most obvious and consequential in tests of upper-body strength. Upper body strength and endurance are essential for survival and mission success in direct ground combat. Significant percentages of female volunteers were unable to perform several proxy tests simulating upper body strength requirements in direct ground combat units that attack the enemy with deliberate offensive action.

An analysis of the TECOM data prepared by associated researchers recommends minimum scores for entry-level qualification purposes, determined by average performances of the weakest performers in combat proxy tests. Lower-but-equal standards would elevate risks for all concerned, leaving men less prepared for close combat and women exposed to resentment they don't deserve.

At the present time, training standards at the Marines' **Infantry Officer Course (IOC)** remain high. To date, twenty female officers attempted the extremely tough course but were not successful. It is not clear, however, where announced plans to achieve "**gender neutral standards**" will or will not use "**gender-normed scores**" to account for physiological differences. Administration-endorsed mandates for "**gender diversity metrics**," (read, "quotas") could result in standards that are made equal but lower than before.

Nothing produced by the research so far indicates that women can be physical equals and interchangeable with men in the infantry. Nor is there any evidence that women want to be treated like men in the combat arms. Ongoing research programs are producing significant data, but the methodology and choice of outside advisors effectively precludes careful consideration of many unresolved issues. There is a great need for more transparency, independent analysis, and diligent congressional oversight to defend the interests of women, men, and the armed forces as a whole.

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## Interim CMR Special Report - October 2014

### US Marine Corps Research Findings: Where is the Case for Co-Ed Ground Combat?

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## Interim CMR Special Report – October, 2014

### US Marine Corps Research Findings: Where is the Case for Co-Ed Ground Combat?

#### Executive Summary

In February 2012, then-Secretary of Defense **Leon Panetta** set in motion incremental policy changes intended to result in the assignment of women to **direct ground combat (DGC)** units that attack the enemy with deliberate offensive action. These include **Marine** and **Army infantry, armor, artillery, and Special Operations Forces**. The deadline for this unprecedented policy change, which was not mandated by Congress or needed to advance women's career opportunities, is **January 2016**.

Physical strength is not the only issue of concern, but it is the primary focus of USMC research programs that Marine Corps Commandant **General James Amos** initiated in April 2012. The goal is to find ways that women can be integrated into the combat arms without lowering standards. Researchers are finding this difficult (actually, impossible) to do, owing to naturally-occurring physical differences that make men significantly stronger. Androgenic hormones that are not going to change account for greater muscle power and aerobic capacity for endurance.

This is an Interim Summary of significant data and findings produced so far:

**1. Gender-Related Differences in Physical Strength** – In 2013, the **USMC Training and Education Command (TECOM)** collected data from **409** male and **379** female volunteers performing five "**proxy**" tests simulating **ground combat element (GCE)** tasks. Data produced in Physical and Combat Fitness Tests (PFT and CFT), together with proxy test battery results, confirm that gender-related disparities are most significant in events measuring upper-body strength and endurance. These capabilities are *essential* for survival and mission success in direct ground combat.

- In a **Pull-up** test of upper-body strength used in the PFT, women averaged **3.59** pull-ups, compared to **15.69** for the men – more than four times as many.
- The **Clean & Press** event involves single lifts of progressively heavier weights from the ground to above the head (**70, 80, 95, 115 lbs.**), plus **6 reps** with a **65 lb.** weight. In this event **80%** of the men passed the **115 lb.** test, but only **8.7%** of the women passed.
- In the **120 mm Tank Loading Simulation**, a gunnery skills test, participants were asked to lift a simulated round weighing **55 lb.**, **5 times**, in **35 seconds** or less. Quoting the report, "*Less than 1% of men . . . [compared to] 18.68% of the women . . . could not complete the tank loading drill in the allotted time.*" The report added, "*It would be very likely that failure rates would increase in a more confined space [such as a tank].*"

- In the **155 mm Artillery Lift-and-Carry**, a test simulating ordnance stowing, volunteers had to pick up a **95 lb.** artillery round and carry it **50 meters** in **under 2 minutes**. Noted the report, *"Less than 1% of men, compared to 28.2% of women, could not complete the 155 mm artillery round lift-and-carry in the allotted time."* If trainees had to *"shoulder the round and/or carry multiple rounds, the 28.2% failure rate would increase."*
- On the **Obstacle Course Wall-with-Assist-Box** test, a **20"** high box, (used to simulate a helping-hand) essentially reduced the height of the **7 ft. wall** to approximately **5'4."** Quoting the report, *"Less than 1.2 % of the men could not get over the obstacle course wall using an assist box, while wearing [protective equipment] . . . [compared to] 21.32% of women who could not get over the obstacle course wall . . ."*

Recent TECOM proxy tests cannot replicate the demands of actual direct ground combat, but they do constitute empirical data based on reality, not theories about gender equality. Some physically-demanding artillery and armor MOSs already have been gender-integrated even though significant percentages of women volunteering for proxy tests were not able to perform tasks simulating physical requirements of the recently-opened MOSs.

**2. "Gender-Norming" Contradicts "Gender-Neutral"** – Pentagon leaders insist that women eligible for combat arms units will be required to meet **"gender-neutral standards."** Research data compiled so far indicates that this expectation cannot be met.

- In a June 2013 report to Congress, the Marines indicated that *"gender-neutral"* events in **Physical Fitness** and **Combat Fitness Tests (PFT and CFT)** and obstacle courses would be *"gender-normed for score . . . in order to account for physiological differences."*
- Researchers have described the USMC project as a way to determine whether the PFT and CFT can serve as *"valid predictors"* of success in *"combat-related tasks."* The gender-normed PFT and CFT, however, were designed to reduce injuries and encourage overall physical fitness – not to train personnel for the infantry and other combat arms.
- Gender-norming for fitness is appropriate in basic, pre-commissioning, and entry-level training, but it is not acceptable when determining qualifications for combat arms units such as the infantry, armor, artillery, and Special Operations Forces.

**3. Will "Gender Diversity Dividends" Be Used to Qualify for the Combat Arms?** – In a March 2014 briefing on the Combat Fitness Test presented to the Pentagon's **Defense Advisory Committee on Women in the Services (DACOWITS)**, Marine officials again stated that *"Gender-neutral events [would include] gender- and age-normed scoring."*

- Gender-normed scoring tables allow women to accumulate more "points" or "gender diversity dividends" adding up to **3rd, 2nd, or 1st Class** status.



- It is not clear whether *extra* points for women only will become the key to achieving supposedly "gender-neutral standards." If this happens, promises of gender-neutrality will be perceived as statistical deception.

**4. "Lower but Equal" Minimum Standards** – Some researchers analyzing the new data have suggested acceptance of **lower-but-equal** performance standards, with *"the worst performing decile"* to calculate minimum qualifications.

- Pressures to accept "lower but equal" standards would be accelerated by political and ideological demands for "**gender-diversity metrics**" (read, quotas) recommended by the Pentagon-endorsed **Military Leadership Diversity Commission (MLDC)**.
- Joint Chiefs Chairman **Gen. Martin Dempsey** has suggested that if a particular standard was found to be *"so high that a woman couldn't make it,"* officials would ask the services, *"Does it really have to be that high?"*
- Acceptance of lower-but-equal minimum standards would erode fundamental principles of excellence in elite fighting units. This would leave men less prepared for ground combat and women exposed to disproportionate injuries and undeserved resentment.

**5. "Training to Task" and Other "Amazon Warrior" Myths** – Some researchers have claimed that more *"training to task"* would help women to significantly improve in pre-screening and other upper-body strength tests. No specific study is cited in support of this assertion; there are none that withstand scrutiny.

- In 1997 the **US Army Medical Research and Materiel Command** found that specialized, more intense training could strengthen some women on a temporary basis, but the same intense training, if offered to men, would strengthen them even more.
- According to retired **RADM Hugh Scott**, an expert in military medicine, *"Androgenic hormones that are not going to change account for greater muscle power among men and aerobic capacity for endurance. . . That also is the reason why women develop less muscle in weight training and exercise."*
- Women have served bravely "in harm's way," at risk of incident-related combat, but not in direct ground combat units that *attack* the enemy with deliberate offensive action.

**6. Contrary to Popular Beliefs** – Eligibility for the combat arms would harm women, not help them. There is a need to be honest about sound policy for women, men, and the combat arms.

- Defense Department data have shown for decades that military women are promoted at rates equal to or faster than men.

- A 2013 survey of **Army** women found that **92.5%** of **30,000** respondents would reject combat arms assignments if they were offered.
- As stated in 2013 congressional testimony confirming involuntary assignments should women become eligible for the combat arms, *"That's why we call them orders."*
- The theoretical **3%** who might qualify under minimal male standards would move from rising career levels to lower status in ground combat units where they are physically disadvantaged and subject to disproportionate stress and risks of debilitating injury.

**7. Future Experiments & Unresolved Issues** – Marines will soon stand up "**Ground Combat Element Integrated Task Forces**" (**GCEITF**), to include **25%** women, which will engage in simulated combat experiments in groups.

- These bear watching, since task-shifting that disguises individual weaknesses would be unworkable in small units actually engaged in direct ground combat.
- Some of the organizations involved in the design of **Marine Corps Force Integration Plan** projects and subsequent studies, such as **RAND**, are not independent, objective, or likely to challenge the administration's monolithic group-think on military/social issues.

**8. Need for Diligent Oversight** – Congress should review all research closely, and consider the many unresolved controversies that are barely mentioned in current research. For example:

- Military women's opposition to being treated like men in the combat arms
- Disproportionate risk of debilitating injuries among female personnel
- Readiness implications of non-deployability and health-related personnel losses
- Impact on unit cohesion, properly defined as mutual trust for *survival* in battle
- Dynamics of male and female relationships in the military "workplace"
- Distractions and tensions leading to sexual misconduct, both voluntary and involuntary
- Consequences for recruiting, retention, and reassignment costs
- Cultural ambivalence about combat violence against women
- Eligibility for Selective Service obligations, tied to direct ground combat assignments

None of the USMC research results produced so far support activists' theories that women can be physical equals and interchangeable with men in the combat arms. Reliance on unrealistic "best case" scenarios would impose heavy burdens on women and put all troops at greater risk. Congress should exercise diligent oversight, challenging all assumptions and theories, political mandates, media bias, public misperceptions, and misguided group-think in academia and the administration. Respect for military women, which is greater than ever, demands nothing less.

*Prepared by the **Center for Military Readiness (CMR)**, an independent, non-partisan, public policy organization that specializes in military/social issues. More information at: [www.cmrlink.org](http://www.cmrlink.org).*



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## **Introduction & Overview**

This is an interim analysis of events and research that have occurred since February 2012, when then-Secretary of Defense **Leon Panetta** set in motion incremental changes intended to result in the assignment of women in **direct ground combat (DGC)** units. At issue today are **Marine** and **Army infantry, armor, artillery, and Special Operations Forces** units that attack the enemy with deliberate offensive action.

The administration set a January 2016 deadline for this unprecedented policy change, which was not mandated by Congress or needed to advance women's career opportunities. In response, **Marine Corps Commandant General James Amos** initiated a multi-phased research effort called the **Women in Service Restrictions Review (WISRR)**, leading into the **Marine Corps Force Integration Plan (MCFIP)** in 2014.

The **Center for Military Readiness**, an independent public policy organization that specializes in military/social issues, has been following this program closely since 2012. This **Interim CMR Special Report** presents new information on results already obtained, and anticipates research plan changes in the coming months – some of which may be implemented without notice.

USMC research projects have included a troop survey, proxy tests simulating combat physical requirements, "exception to policy" assignments, and try-outs for female volunteers on officer and enlisted infantry training courses. In the fall of 2014, the MCFIP will stand up gender-integrated experimental task forces to simulate ground combat operations.

Physical strength is not the only concern in this controversy, but it is the primary focus of current research programs. The stated goal is to assign women to the formerly all-male combat arms without lowering standards. New data produced so far, however, in addition to three decades of highly credible studies involving physiology, indicate that this goal cannot be met.

When a member of the **Presidential Commission on the Assignment of Women in the Armed Forces** asked a female Marine whether women should serve in ground combat, she replied, *"Not if it's not good for the Corps, Ma'am."* Military officials, who are accountable to Congress as well as the President, should assert the same principle today.

None of the specific data resulting from research done so far meets the burden of proof that inclusion of military women into what the Marines call **ground combat element (GCE)** units would *strengthen* those fighting (infantry) units, or improve combat readiness and effectiveness

in battle. The case for gender-integrating direct ground combat units simply has not been made.

CMR will continue to analyze ongoing research projects, encouraging policy makers to safeguard high, uncompromised standards and sound policies for the only military we have.

## **I. The Women in Service Restrictions Review (WISRR)**

The courage of women serving "in harm's way," especially since the attacks of September 11, 2001, is not in question. Nor is the controversy under discussion about support for women in uniform. Respect for military women for their courage while serving "in harm's way" has never been higher. To an unprecedented degree, women have been subjected to incident-related or contingent combat violence in war zones. They still remain exempt from assignment to DGC units such as the infantry, in which they would be at a severe disadvantage.

Direct ground combat units, which historically have been designated all-male, require superior physical strength and endurance for survival and successful mission accomplishment. The WISRR and subsequent projects were established to assess military occupational standards (MOSs), and to draw logical conclusions about the need for women to serve in the combat arms.

### **A. Correlations of PFT/CFT Scores with Proxy Tests of Physically Demanding Tasks**

In 2013, the **USMC Training and Education Command (TECOM)** conducted a series of tests involving **409** male and **379** female volunteers performing physically demanding tests. At the April 2014 **Training, Strength, and Conditioning (TSAC)** professional conference in San Diego, CA, **Col. Brian J. McGuire, USMCR**, presented data resulting from these tests on an unofficial, personal-opinion basis.

The 20-page slide presentation, which was posted on the conference website, acknowledged contributions of the **Naval Health Research Center (NHRC)** and TECOM. Data confirms that women are strong, but not as strong as men in tests of upper body strength. These results do not support unrealistic expectations of "gender-neutrality" in the combat arms.

#### **1. Performance Results: PFT, CFT, and Proxy Tests**

The McGuire presentation compares requirements of the **Physical Fitness Test (PFT)** to the **Combat Fitness Test (CFT)**, and both of these to a battery of five proxy tests selected to simulate the physical demands of combat.<sup>1</sup> The presentation does not acknowledge ways that gender-normed scoring systems are used in evaluations of the PFT and CFT events.

- In the PFT, for example, women still do timed flexed-arm hangs instead of pull-ups, and are allowed extra minutes to finish the 3 mile run. In the CFT, extensive differences in gender-specific (normed) scores make it possible for women to earn ratings higher than men would earn for performing at the same levels.<sup>2</sup>
- Gender-normed training, which makes allowances for physiological differences, should not be described as "gender-neutral." Gender-specific requirements or scoring systems for men and women are not the same; they are determined by gender.
- The 1992 **Presidential Commission on the Assignment of Women in the Armed Forces**, which carefully considered all aspects of the women-in-combat issue, approved of gender-normed training in basic, entry-level, and pre-commissioning training, but not in preparation for the combat arms.<sup>3</sup>

The McGuire briefing includes several pages evaluating physical capabilities measured by the PFT and CFT, and correlates performance results on those events to a Proxy Test Battery composed of the following five tasks and 14 variations: (p. 15)

1. **Deadlift:** Lower/upper body lift of 60, 70, 80, 95, 115, and 135 lbs, 1 repetition each
2. **Clean & Press:** Overhead lift of 70, 80, 95, 115 lbs and 6 X 65 lbs.
3. **120 mm Tank Round Lift & Load:** Lift and load (5) 120mm projectiles @ 55 lbs <35 sec.
4. **155 mm Artillery Round Lift & Carry:** Pick up and carry one 155 mm projectile @ 95 lbs, 50m < 2 min. wearing 40 lb. fighting load
5. **Execute Lower-Level Entry:** Negotiate Obstacle Course 7' Wall with 20" box assist, wearing 40 lb. fighting load

Several pages of the briefing present complicated calculations to draw "correlations" between PFT, CFT, and limited "proxy" test scores.<sup>4</sup> On page 17, an "Overall Closed MOS Testing Score" is calculated as a simple percentage of the 14 pass/fail proxy tasks that were successfully completed on the five overall tests.<sup>5</sup>

The purpose of the composite score is not clear, since the individual events are not uniform in levels of difficulty. Data in the TECOM presentation is useful, but the overall methodology of the research plan is flawed. Correlating gender-normed PFT and CFT scores with proxy tests provides only limited information about the abilities of women to train for or serve in direct ground combat units such as the infantry.

Color graphics on page 18 highlight "mean" (average) scores, deviations, and "standard error means," but the statistical jargon does not disguise plain facts such as these:

- On a page titled "Testing Results," the first of two box graphs shows average performance figures on the five PFT and CFT events. Among other things, the first graph

indicates that **379** female trainees averaged **3.59** pull-ups, while the average for **409** male trainees was **15.69** pull-ups – more than four times as many. (p. 16)

- The second box graph shows scores on the Clean & Press event that are not close. The exercise involves single lifts of progressively heavier weights from the ground to above the head (**70, 80, 95, 115 lbs.**) plus 6 reps with a **65 lb.** weight. Of the men, **80%** passed the **115 lb.** Clean & Press test, but only **8.7%** of the women did so successfully.
- Women performed better in some of the other events, but men still achieved at levels higher or faster than women. This was the case even in the PFT sit-up crunch test, in which women are not physiologically disadvantaged.<sup>6</sup>

As stated by the Presidential Commission, gender-norming to promote fitness and wellness is acceptable in basic, entry-level, and pre-commissioning training, but not in preparation for the combat arms. It would be demoralizing and disruptive to gender-norm PFT, CFT, and obstacle courses, awarding extra "gender diversity dividend" points only to women.

Findings derived from the McGuire data are useful, even though the standard PFT/CFT and proxy tests performed were not comparable to actual direct ground combat. It is unfortunate that results were stretched into a highly-misleading overstatement in the Naval Health Research Center paper, which is analyzed in Section B below.

## **2. Concerns About McGuire Presentation re PFT and CFT Correlations with Proxy Tests**

### ***a. Gender-Normed PFT/CFT Requirements***

No one disputes the point that PFT and CFT tests provide useful information in determining the abilities of men and women to perform routine military tasks. And of course, the more demanding CFT evaluates physical abilities better than the PFT does. However,

- The primary purpose of PFT and CFT tests is to promote fitness and wellness, not to prepare men for service in the combat arms.
- The McGuire presentation correlates PFT and CFT performance with a battery of five proxy tests, employing elaborate statistical computations that professionals often use. The purpose of the exercise, from a policy perspective, is not clear.
- There are important facts to consider in the professional jargon, but most non-professionals (including members of Congress) would find it incomprehensible.

## **b. Proxy Test Battery Results**

Findings presented in the McGuire presentation do not support theories that women can be interchangeable with men in physically-demanding direct ground combat units. Instead, they discredit the case for co-ed combat.

- Quantitative tests that measure upper-body strength are most relevant to the discussion of direct ground combat requirements. Because the Clean & Press tests evaluate both upper body strength and endurance, they are more significant than other TECOM proxy tests.
- Lower-body and mid-section strength can narrow the gap in some tests, but upper-body strength and physical endurance over time are essential for survival and mission accomplishment in the combat arms.
- With the exception of the one-time **135 lb.** dead-lift event, which involves lower body strength, female volunteers in the proxy tests did not come close to the men's levels of physical performance in tests of upper-body strength. This information, though not conclusive, is relevant to the discussion of future policies regarding military women.

## **c. Basic Facts Have Not Changed**

Present-day research results confirm what was already known years ago. In a September 22, 2011, presentation to the **Defense Advisory Committee on the Assignment of Women in the Armed Services (DACOWITS)**, the Marines noted that women on average have **20%** lower aerobic capacity, **40%** lower muscle strength, **47%** lower lifting strength, and **26%** lower road march speed.<sup>7</sup>

The same briefing indicated that female attrition and injury rates during entry-level training were twice those of men, and non-deployable rates were three times higher. Other physiological studies have shown even higher rates of injury. Nothing has changed since then, except increased political pressure to pretend that unchanged facts do not matter.

## **B. Naval Health Research Center (NHRC): Analysis in Support of the Women in Service Restriction Review Study**

Researchers associated with the **Naval Health Research Center (NHRC)** in San Diego, CA, prepared a 39-page paper titled **Analysis in Support of the Women in Service Restriction Review Study**.<sup>8</sup> The document, associated with the U.S. Marine Corps Training Command (TECOM) under work unit **N1235**, presents unofficial views of the authors, **Jason Jameson** of SAIC and **Karen Kelly, Ph.D.** The names of Brian McGuire and **Leon M. Pappa** of TECOM also appear on the cover page.



The paper expands upon highly relevant information that appears in the McGuire presentation described above, but also includes inaccurate statements and the same flawed methodology that fails to live up to expectations.

## **1. NHRC Discussion of Performance Levels**

In its Summary and Introduction, the NHRC paper repeats the unsupported claim that ground combat roles are essential for career advancement. It also suggests that physical differences are "obstacles" to overcome (as if the military could redesign the human race), and poses a rhetorical question: *"Can women overcome them?"* (p. 2) The paper fails to answer that question, except to provide data, in two Appendices, indicating that the answer is "no."

When distracting statistical jargon and stretched interpretations are stripped away, the NHRC paper presents abundant evidence that men are better performers in a variety of proxy tests and, presumably, heavy ground combat element MOSs that the tests attempt to simulate. The methodology is not perfect, but resulting data are more credible than unsupported theories of gender-equality. In combat MOSs, deficiencies in upper body strength cannot be ignored.

## **2. Concerns About Naval Health Research Center Analysis of PFT/CFT Correlations to Proxy Tests**

### ***a. No Evidence of Discrimination Against Military Women***

The main premise of the Navy Health Research Center Analysis appears in the first sentence but not in the McGuire presentation: *"Military career advancement depends crucially on service in combat roles, which is a restriction that has placed inherent limits on a woman's abilities to advance to leadership roles."* (p. 2 and p. 6) This unsupported statement is not correct.

- The Department of Defense has acknowledged numerous times that for decades, women have been promoted at rates equal to or faster than men.<sup>9</sup> Combat (infantry) training or experience is not required for advancement to high rank.
- Despite higher attrition rates, women are significantly represented in leadership positions.<sup>10</sup> Factors of personal choice affect the number of female admirals and generals, in the same way that many successful civilian women do not choose to become corporate CEOs. Implementation of radical changes affecting all military women, to address a non-existent problem, cannot be justified.

Emphatically stating an unsupported first premise calls into question the objectivity of the paper's authors, even though the paper presents raw data requiring careful review.

## **b. Stretching the Truth with Misleading Claims**

The NHRC analysis describes the purpose of the research as follows: "*The primary aim of this [WISRR] study was to determine whether the benchmark physical fitness tests – the PFT and the CFT – can serve as valid predictors of successful completion of combat-related tasks.*" (p. 8)

This fails to acknowledge that the Physical and Combat Fitness Tests were not designed to train personnel for the combat arms; they were designed to promote wellness and fitness. The statement also omits mention that the PFT and CFT in question are evaluated with gender-normed scoring tables that are different for men and women.<sup>11</sup>

The NHRC paper includes several pages of convoluted statistical jargon purporting to calculate whether PFT crunches or CFT maneuver-under-fire events are better "*predictors of combat readiness.*"<sup>12</sup> (pp. 16-17) These conclusions, which over-state the obvious, may divert attention from actual physical requirements and realities of direct ground combat that are not reflected in basic tests such as the PFT and CFT.

An exaggerated claim in the NHRC analysis stretches modest findings of the McGuire/TECOM research. The original Bottom Line Up Front (BLUF) in the McGuire presentation reads, "*The PFT and CFT can serve as a sound basis for making valid inferences about a Marine's capability to perform physically demanding MOS tasks.*" (Pages 5 and 19, emphasis added)

The NHRC analysis cites the same data but stretches the final phrase to read, "*The PFT and CFT can serve as a sound basis for making valid inferences about a Marine's **physical capability to perform well in combat.***" (p. 21, emphasis added)

Given widespread misunderstandings about the word "combat," the highlighted words easily could become a highly-misleading "money quote" used to spin a false headline in the *Washington Post*; e.g., "USMC Research Proves Women Can Serve in the Infantry."<sup>13</sup>

## **c. Tables & Graphs of Running Performances**

The NHRC analysis presents data from the McGuire TECOM slide presentation discussed above, but there are additional tables and illustrations to consider in the attached appendices. In Appendix A, for example, three color-bar graphs show male/female performance time distributions in three events: the **PFT 3-Mile Run**, the **CFT Movement to Contact (MTC)**, and **CFT Maneuver Under Fire (MANUF)**.<sup>14</sup>

These bar graphs, reproduced in Exhibit A of this report, illustrate wide differences in the capabilities of male and female test subjects. Men perform significantly better in all events, with small overlaps representing a few women who achieved at male minimum levels.

Running events show significant differences in speed, even though some women are strong runners. The graphs do not analyze how abilities would be affected when heavy weights comparable to infantry loads are being carried.

#### **d. Previous Studies Disregarded**

The NHRC paper does not acknowledge the many research studies and reports that have been produced in the **United States** and **United Kingdom** over more than 30 years. Exhibit B of this paper includes a partial list of extensive research, experiments, and studies, some of which involved experiences with gender-integrated basic training.

**William J. Gregor, PhD**, Professor of Social Sciences at the School of Advanced Military Studies, Fort Leavenworth, KS, has written extensively about his work with ROTC and other training programs. Dr. Gregor explains why these military studies remain useful and relevant today: <sup>15</sup>

*"There is no study that indicates that training can overcome the large physical differences between men and women. Additionally, training women to perform heavy work jobs increases dramatically the skeletal-muscular injury rate among women which is already far greater than men. Attempting to train women with men will require either training men less well or accepting a high attrition rate among the very few women who will meet the nominal qualifications for heavy work jobs."*

Recent articles and commentaries also have provided abundant empirical evidence and insightful commentary on the subject. For example, in an article published in the July 2014 edition of *Marine Corps Gazette*, **Dr. Paul Davis** drew several conclusions based on the empirical results of his own performance tests with Marines in High Altitude/Cold Weather conditions, and with **Police & Fire Combat Challenges** over 23 years. <sup>16</sup> These are a few of Dr. Davis's conclusions:

- The current initiative of revisiting the subject of women in combat has seemingly ignored the large body of evidence-based science that suggests significant differences between men and women.
- Ergonomics can greatly enhance our understanding of the reasonable, versus wishful thinking.
- Performance under load is highly influenced by lean body mass and muscular power.
- Smaller Marines are at a distinct disadvantage when required to carry heavy loads.
- The pull-up has face validity in the performance of those tasks that require manipulation of one's body over barriers.
- Lack of critical physical abilities carries a risk for injury or loss of life.
- Women can train up to standards; [staying there] results in overuse injuries disproportionate to their numbers. Attempting to perform like-duties at similar

intensities exacerbates the musculoskeletal system, resulting in four times the frequency (and costs) of injuries.

#### e. Significance of Relevant Findings

Appendix B of the NHRC analysis provides greater context for basic data in the McGuire presentation that resulted from PFT, CFT, and proxy tests. For example:

- **Pull-ups** - In addition to findings that men performed four times as many pull-ups, (p. 33), TECOM research found no correlations between PFT "flexed-arm hang" exercises, still permitted for women only, with upper-body strength. (p. 33-39) Attempts to replace the timed flexed-arm hang option with a 3 pull-up requirement had to be suspended until December 2015, since **55%** of female Marine recruits were unable to perform the minimum test. These facts call into question theories about gender equality in physical strength required to perform effectively in the combat arms.
- In the **Deadlift** test, **100%** of the men could lift **135 lbs.**, and **98.4%** of the women were able to do the same. The report adds, *"The deadlift is primarily a lower-body weight movement utilizing the larger and stronger muscles of the posterior chain."* (pp. 33-39)
- Participants in the Clean & Press exercise had to do single lifts of progressively heavier weights (70 to 115 lbs.) from the ground to above the head. Of the 409 men, **80%** lifted the heaviest weight, but only **8.7%** of 378 women did so successfully. Six repetitions of a lesser weight (65 lb.) increased the failure rate even more.<sup>17</sup>
- In the **120 mm Tank Loading Simulation**, a gunnery skills test, participants were asked to lift a simulated round weighing **55 lb.**, **5 times**, in **35 seconds** or less. Quoting the NHRC report, *"Less than 1% of men . . . [compared to] 18.68% of the women . . . could not complete the tank loading drill in the allotted time."* The report added, *"It would be very likely that failure rates would increase in a more confined space [such as a tank] and actually taking a round out of a horizontal tube and placing it into a horizontal breach."* (p. 35-39)<sup>18</sup>
- In the **155 mm Artillery Lift-and-Carry**, a test simulating ordnance stowing, participants were asked to pick up a replica 155 mm artillery round weighing **95 lb.** and carry it a distance of **50 meters** in **under 2 minutes**. Quoting the NHRC report, *"Less than 1% of men . . . [compared to] 28.2% of women could not complete the 155 mm artillery round lift-and-carry in the allotted time."* The report added, *"Marines were not required to place the round on their shoulder and were allowed to cradle the round. [If women had been] required to 'shoulder' the round and/or carry multiple rounds, the 28.2% failure would increase."* (pp. 35-39)

- On the **Obstacle Course Wall-with-Assist-Box** test, a **20"** high assist box, (used to simulate and standardize what could be a 1- or 2-Marine's helping-hand) essentially reduced the height of the **7 ft. wall** to approximately **5'4."** Quoting the report, *"Less than 1.2 % of the men could not get over the obstacle course wall using an assist box, while wearing Kevlar helmet, flak jacket, plate carrier, and SAPI . . . [compared to] 21.32% of women who could not get over the obstacle course wall using an assist box, while wearing [the same protective gear.]"* (pp. 35-36)

If the intent is to "follow the numbers," the way forward should be clear.

#### **f. PFT/CFT "Correlations" with Proxy Tests**

The NHRC paper uses technical terms and statistical jargon that dresses up obvious facts. One does not have to be a scientist to know that CFT tests are more challenging than the PFT, and men and women who exercise regularly and lift weights will be better prepared for any civilian or military job that involves physical strength.

So what is the significance of all this? Of course the battery of five proxy tests, performed under controlled conditions, cannot replicate the demands of actual direct ground combat. And physical strength requirements of close combat far exceed minimum levels, whether they "correlate" with the PFT and CFT or not.

Recent TECOM proxy test results are important because they constitute empirical data based on reality, not theory. They are more credible than unsupported claims being made by advocates for the assignment of women to ground combat (infantry) units. Current findings also are consistent with abundant research and reports on military physiology that have been produced in the United States and the United Kingdom over the past thirty years.

Assignment policies that replace men of average strength with female personnel, even women on the higher end of achievement on the physical fitness scale, would weaken the overall capability of units that require superior physical strength, speed, and endurance. The NHRC paper does not contradict these realities; it confirms them.

#### **g. "Validation" of "Lower-but-Equal" Standards**

Some observers expect the WISRR and similar projects to "validate" high training standards, without lowering them. Others believe the research will produce a plan to match women's physical capabilities to the demands of closed MOSs, without lowering standards. Research results and recommendations do not meet these expectations.

In describing their approach to the subject, the authors explain that in calculating minimum standards, they focused on men and women who were defined by *"the worst performing*

*decile."* Then they calculated and adopted as the recommended minimum score for combat readiness the *"mean [average] performance" of the weakest performers in the group deemed most prepared for combat.*" (p. 4)

Use of the *"worst performing decile"* would help in setting lower-but-equal standards, and activists demanding "consistency" will push for extension of this dubious achievement into training for the combat arms. Dr. Paul Davis observes, *"There is no way that standards will not be lowered, since the very nature of this and similar studies is to focus on minimums, not the highest levels of performance."*

Gender-normed standards and qualifying tests have been unnecessary in all-male direct ground combat units because most men are strong enough to do the job. If they are not, most can become strong enough with extra training. This usually is not the case with women, due to physiological differences that retired **Rear Adm. Hugh Scott**, an expert in military medicine, discussed in a letter to **House Armed Services Committee (HASC) Chairman Rep. Howard P. McKeon**.<sup>19</sup>

Drawing attention to medical realities, Dr. Scott explained why additional training can make the difference for men who fall short of high standards. Extra training does not work for women in the same way, due to physiological differences that are not going to change:

*"In the male, testosterone has a profound effect on protein formation and increased muscular development that begins after the start of puberty during which there is a doubling of the muscle mass of all muscle groups. While men and women have an equal number of muscles and muscle fibers, the strength difference relates exclusively to muscle size that is determined by testosterone levels. Because women have less testosterone than men, they have smaller muscle fibers that result in the development of small-size muscles; in effect, women have less muscle to activate. That also is the reason why women develop less muscle when training with weights and exercising."*

How will previously all-male DGC units handle disparities in personal strength in order to make gender-integration "work?" An Army source in the **4th Infantry Division** has reported that in previously all-male armor and artillery units, leaders are interpreting "equality" to mean no entry level standards at all.

Since men did not have to take qualifying tests, women are not being asked to do them either. Nor are the women asked to do heavy work beyond their physical capabilities. Because male colleagues do more to pick up the slack, the experiment is described as an example of successful teamwork.

Approving similar adaptations in Marine GCE units, in order to make gender integration "work," would create a new paradigm that is not consistent with the warrior ethos of the combat arms.

Such a change would do women no favors. Perceptions of policy-imposed "**double standards involving women**" (DSIW) are divisive and demoralizing to all who are aware of them. Double standards also could cost lives and undermine missions in the combat arms.

#### **h. Initial Strength Test (IST)**

The NHRC paper recommends an **Initial Strength Test (IST)** as a pre-screening system for Marine recruits. To separate recruits aspiring to the combat arms from others, the IST proposal would include a "+" **factor** related to PFT and CFT scores and correlations with proxy tests. (p. 21)

Depending on modest accomplishments, such as five pull-ups in the PFT or a higher percentage of **combat proxy tests (CPTs)** performed (greater than 75%), scores would be used to separate "Good performers" from the "Best" ones. Potential infantry trainees would be considered among the "Best" for doing only five pull-ups and 70 ammo can lifts. (See IST+ table, pp. 21-22)

A footnote adds that according to the statistical analysis, one pull-up *should* be the recommended minimum. The authors nevertheless deferred to the existing minimum standard of 3 pull-ups for all, even though that minimum has not been workable for female basic trainees to date.<sup>20</sup>

The authors used the "*lowest recommended*" values for their Initial Strength Test plan because "*they are strongly influenced by the scores of female students who are early in their Marine training.*" The report notes that of the best performers in the combat proxy tests, **92%** were men and **8%** were women. (p. 22) The paper further explains,

*"We calculated the mean (average) for all Marines whose performance values were worse than the lowest decile cutoff score. Currently, these numbers are higher than those that need to be achieved on the CFT for the AL [ammunition lift] and MTC [movement to contact]. Thus it can alternatively be recommended that the current minimum standards for the CFT be the passing score for the IST+. However, based on this recommendation, the current minimum passing standards for the CFT may be too low."* (p. 22).

The concluding statement is correct and not surprising. Current CFT passing standards, which are gender-normed, are indeed too low for men aspiring to the combat arms. The PFT and CFT were never intended to prepare men for the physical demands of direct ground combat.

Methodology that ties standards to "lowest decile" levels could create lower-but-equal standards that accomplish gender-integration, but Marines soon would recognize on-paper versions of equality that make mediocrity the norm. Such a plan would erode the unique values and ethos of the Marines and elite combat arms communities in the other services.



### i. *Physical Screening Test (PST)*

In a recent article published in the *Marine Corps Gazette*, General James Amos wrote about a **Physical Screening Test (PST)** with requirements that resemble the IST+ system recommended in the NHRC analysis.<sup>21</sup> The PST is supposed to be a "gender-neutral" tool for screening aspirants to the combat arms, but it is difficult to determine when gender-normed PFT and CFT scores are supposed to end and "gender-neutral" standards begin.

The PST concept appears to be a work in progress. General Amos wrote that in order to earn a "third-class" designation, enlisted Marines would have "two steps," including 2 pull-ups, 44 crunches, and a 1.4 mile run under 13:30. **Basic Officer Course (BOC)** graduates from **The Basic School (TBS)** would have to meet higher requirements to accumulate sufficient points for a "first-class" rating.

The Physical Strength Test is supposed to *"include a series of occupational task performance metrics that will inform and determine combat arms MOS assignments."* This sounds logical, but political pressures to extend into the combat arms gender-normed scoring systems that are used in the PFT, CFT, and obstacle courses are unlikely to end. The Pentagon's drive for "gender diversity" and a "critical mass" of women in the combat arms eventually will erode and override promises of gender neutrality.

Several additional concerns come to mind:

- Plans for initial strength tests seem to disregard empirical studies that discredit assumptions behind the current drive to gender-integrate direct ground combat units. (See Exhibit B)
- The costs of establishing pre-screening tests, which were not needed previously in qualifying men for the combat arms, would put additional pressure on tight Marine budgets. There have been no estimates of costs for PSTs, but it should be up to Congress to authorize or reject diversion of funds for this purpose.
- The NHRC paper also suggests a plan for Initial Strength Tests for recruits, but fails to acknowledge that previous Pentagon efforts to "match the person to the job" at entry processing stations have not survived criticisms from recruiters and activists who have perceived such efforts as "barriers" to women's careers.<sup>22</sup>

The **Military Entrance Physical Strength Capacity Aptitude Test (MEPSCAT)** was a well-designed plan for screening new recruits that was proposed in the early 1980s. Initially, the DACOWITS praised the MEPSCAT concept. The committee withdrew its support, however, when they perceived the pre-screening test as a threat to women's careers. The MEPSCAT plan was never implemented as planned, and eventually was dropped.<sup>23</sup>



j. ***"Training to Task" and Other Amazon Warrior Myths***

The NHRC analysis claims that additional *"training to task"* would make it possible for women to significantly improve in pre-screening and PFT and CFT tests that show a "correlation" with *"combat-related tasks."* (pp. 21-23) Anyone of any age can benefit from more physical activity and resistance training, but it is a stretch to suggest that minimal tests and a little extra training would make women the physical equals of men.

General Amos stated in his article, *"[F]emales in the various studies did not match the performance of males."* There are no credible studies supporting the theory that physiological differences can be overcome with extra training.<sup>24</sup>

The NHRC analysis fails to mention a previous study, initiated by then-Congresswoman **Patricia Schroeder** (D-CO), which attempted to prove training-to-task theories but failed to meet expectations. In November 1997, the **US Army Medical Research and Materiel Command** conducted specialized, more intense training with about 50 women, and evaluated the results. The **Natick Study** report noted that specialized training could strengthen some women on a temporary basis, but the same intense training, if offered to men, would strengthen them even more.<sup>25</sup>

Dr. Paul Davis notes that extra training can improve performance, but staying at peak levels of physical fitness over time is another challenge all together:

*"Being 'male' accounts for most of the variability in the physical strength of men and women. Everyone can improve with extra training, but staying there is another thing. Injuries are a consequence of over-training and can be career-ending. This and other studies under consideration are driven by 'minimums,' not excellence; there is no way that standards will not be lowered."*

Dr. Hugh Scott amplified the point in his letter to HASC Chairman McKeon:

*"The fact remains that men and women are not the same due to the intrinsic effects of greater levels of androgenic hormone in males, which give them the edge when it comes to carrying out all of the required PFT and GCE functions, and to serve successfully in all of the combat specialties, without the need to change the current standard."*

Popular culture and films have created images of "Amazon Warriors" – fictional female characters who routinely fight men and defeat them with equal strength. At a Pentagon briefing in June 2013, **General Bennett Socolick**, representing **Special Operations Forces (SOF)**, inappropriately commented, "The days of 'Rambo' are over."<sup>26</sup>

Never mind that the film character played by **Sylvester Stallone** had little in common with highly-professional Special Operations Forces of today. Nor was **Demi Moore** in *GI Jane* typical of women in our military. It makes no sense for Pentagon officials to base their decisions on Hollywood fantasies and ideological theories, not objective reality.

**k. "Gender-Neutral" Might Mean Equal But Lower Than Before**

The NHRC Analysis does not mention the Pentagon Briefing on January 24, 2013, during which Joint Chiefs Chairman **Gen. Martin Dempsey** said, *"If a particular standard is so high that a woman couldn't make it, the burden is now on the service to come back and explain...why is it that high? Does it really have to be that high?"*<sup>27</sup>

Since the stated goal is to "set women up for success," officials will find it difficult if not impossible to defend high standards that detract from "gender diversity" goals. Contrary to promises of gender-neutrality, gender-specific adjustments likely will be made to mitigate injuries and to accommodate gender-related physical differences.

In a June 18, 2013, report to the House Armed Services Personnel Subcommittee, the Marines described plans to implement gender-integration in the combat arms.<sup>28</sup>

- The Marine report stated in a footnote, *"[T]he PFT will be comprised of three gender-neutral events designed to measure general physical fitness."* (pull-ups, crunches, and a 3-mile run) (p. 2)
- The next footnote, however, contradicted that statement with the admission that standards would include *"gender-normed"* requirements and scores in the PFT, the CFT, and on certain obstacle courses, in order *"to allow for physiological differences."*
- The same contradiction follows a statement pledging *"gender-neutral"* standards in the Combat Fitness Test. As stated in the Marine report footnote, *"The CFT is also gender-normed for score, similar to the PFT, in order to account for physiological differences between genders."* (p. 2)

The Marines presented a briefing on the Combat Fitness Test to the **Defense Advisory Committee on Women in the Services (DACOWITS)** on March 14, 2014.<sup>29</sup> The briefing included a bullet-point stating that administration of the CFT involves *"Gender-neutral events; gender and age-normed scoring."* A table showed raw number performance averages of women and men on the three CFT events, together with average total "point" scores that created the appearance of "equality" with the use of gender-normed scoring tables.

According to current CFT tables, all trainees must earn a total of **225** points in the PFT and **270-300** points in the CFT in order to achieve a "1st class" classification.<sup>30</sup> Looking solely at the 17-

26 groups, the average score listed for both men and women on the DACOWITS briefing was **285** – more than enough for a 1st class rating.

However, a comparison of the average raw performance numbers to scoring tables for the three CFT events changes the picture. Women performing at levels lower than men would not achieve high ratings, but gender-normed scores put them over the top.<sup>31</sup> CMR has requested more information to resolve apparent discrepancies, and to determine when gender-norming such as this will continue and where it will end.

Officials keep giving assurances that training standards will not be lowered. However, if gender-normed requirements and scores in PFT and CFT exercises are used to accumulate "points" toward a higher class rating, the extra points given to women would be seen as a **"gender diversity dividend."**

Marines and all combat arms personnel will recognize what is happening if gender diversity dividends are used to achieve supposedly gender-neutral standards in the combat arms. The result would be undeserved resentment of women and increased risks for all. Gender-normed standards serve a purpose in basic training, but they are not the same as high, uncompromised standards that are needed to train men for the physical demands of direct ground combat.

## **I. Impact of "Gender Diversity Metrics" on the Ethos of Combat Arms**

The NHRC report downplays traditional standards of excellence in the Marine Corps and other combat arms, and implies that *minimum* standards that are equal between the genders should be acceptable for the Marine Corps. No one makes the claim that such standards would *improve* combat effectiveness; it is self-evident that they will not.

Conspicuously missing from the NHRC paper is a frank analysis of the implications of mandates for "gender diversity metrics," recommended by the Pentagon-endorsed **Military Leadership Diversity Commission, (MLDC)**. This is a significant omission that disregards the administration's intent to assign highest priority to egalitarian "diversity" goals.

The MLDC is a congressionally-established committee that is largely composed of civilian and a few military "equal opportunity" experts. In March 2011 the MLDC published a 140-page report titled ***From Representation to Inclusion: Diversity Leadership for the 21st Century***.<sup>32</sup> Among other things, the MLDC recommends that all regulations exempting women from the combat arms be repealed, in order to improve women's career opportunities and to promote **"gender diversity metrics."** (pp. xiii - xix)

- On 9 February 2012, DoD Military Personnel Policy officials **Vee Penrod** and Army **Maj. Gen. Gary Patton** officially announced a report to Congress on rule changes affecting

women in combat. The Pentagon briefing specifically referenced the MLDC's recommendations that women's exemptions from direct ground combat be repealed.<sup>33</sup>

- A September 2012 Public Affairs Fact Sheet describing elements of the Marines' **"Assignment of Women to Ground Combat Units Research Program"** also mentioned the Pentagon-endorsed MLDC recommendations.<sup>34</sup>
- "Diversity" – usually thought to be the result of non-discrimination and recognition of individual merit – has been a desirable concept. But the MLDC report and related papers promote a different version of "diversity," effectively redefining the meaning of "equality" and civil rights. The MLDC Report admits that the *new* diversity may be a *"difficult concept to grasp"* because it is not the same as the *"EO-inspired mandate to be both color and gender blind."* (p. 18)
- This redefined concept would replace individual rights and non-discrimination with group rights and "gender diversity metrics," another name for quotas, even without any evidence of discrimination against women.
- The MLDC report recommends that **"Chief Diversity Officers" (CDOs)** be appointed to ensure that "gender diversity metrics" are met. (p. xvii) With promotions contingent on compliance, it is unlikely that any officer desiring promotion would risk saying anything that questions the administration plans for women in land combat.
- In a paper published for Wayne State University Law School, Professor of Law **Kingsley Browne** wrote *"The recommendation of the Military Leadership Diversity Commission to lift the exclusion of women from ground combat is deeply irresponsible and cannot be taken seriously. The Commission's lodestar was diversity, not military effectiveness, and it failed to take into consideration a wealth of information bearing on its recommendation."*<sup>35</sup>

If the decision is made to stop "hiring from the top," in order to advance what former Joint Chiefs Chairman **Adm. Mike Mullen** used to call *"diversity as a strategic imperative,"* the time-proven ethos of the Marine Corps as an elite fighting force could be permanently lost.

## C. WISRR Research Initiated in 2012

### 1. *The Infantry Officer Course (IOC) and Infantry Training Battalion (ITB)*

The most visible element of the WISRR research projects initiated in 2012 was the invitation for female officers to try out on the extraordinarily difficult **Infantry Officer Course (IOC)**, located at **Quantico, VA**. To date, twenty female Marine officers reportedly have attempted the IOC, which begins with a unique **Combat Endurance Test (CET)** and continues for twelve weeks.

Historically, the grueling course has an attrition rate of more than **20%**. High, uncompromised standards reflect the need for tough infantry training, not discrimination against anyone. Female volunteers who were not successful on the course will become respected officers, but their experiences did not support the case for co-ed infantry combat.<sup>36</sup>

Eighty-five enlisted women have made it through the **Infantry Training Battalion (ITB)** at the **School of Infantry East (SOI-E)**, located at **Camp Geiger, NC**. Even though the ITB includes gender-normed PFT and CFT scoring systems, the enlisted women did not do as well as the men.<sup>37</sup>

Because infantry officers must lead others into battle, the IOC was designed to be much tougher than the ITB course for enlisted personnel. IOC trainers are doing an outstanding job, but some women-in-combat advocates have criticized the program.<sup>38</sup>

The Marines need at least **100** female volunteers to attempt the Infantry Officer Course, in order to gather sufficient data points for analysis. In July 2014 **Lt. General Robert Milstead, Jr.**, released an administrative message expanding the population of prospective volunteers.<sup>39</sup>

- Henceforth, in addition to new lieutenants just out of **The Basic School (TBS)**, the IOC will be open to more experienced company-grade female officers, meaning active-duty captains. The *Marine Corps Times* reported that all volunteers would have to meet a *"new requirement...a first-class score on the male physical fitness and combat fitness tests. For the PFT, this means they must complete a minimum of five pull-ups – assuming perfect scores of 18 minutes on the three-mile run and 100 sit-ups – to achieve an overall score of 225 or higher."*<sup>40</sup>
- **Col. Todd S. Desgrosseilliers**, Commanding Officer of TBS, has stated that both male and female officers volunteering for a try-out on the Infantry Officer Course will have to accumulate sufficient points to earn a first-class rating on the PFT and CFT; i.e., at least 225 and 270 points, respectively.
- In this case, women will have to earn their classification points on the more demanding *male* tables, without gender-normed scores.

This appears to be a departure from previously-announced gender-norming policies.

- The Marines' report to Congress in June 2013 indicated that Physical Fitness Tests, Combat Fitness Tests, and obstacle courses would be gender-normed to compensate for physiological differences. The same information was provided to the DACOWITS in March 2014, with an additional note: *"At present, no event or scoring table changes are being considered."*<sup>41</sup>

- If officials intend to hold women to identical standards before and during the IOC, the practice may not survive criticism from activists who want it both ways. Some maintain that they don't want standards lowered, but also insist that since "equal effort" is the same as "equal results," gender-norming should be extended into formerly all-male training.

CMR has requested more information to determine whether other formerly all-male DGC units, such as artillery and armor MOSs, are counting points in the same way. If a line has been drawn to discontinue gender-norming, where has the line been drawn, and is it a Maginot line vulnerable to political pressures for "gender diversity metrics?"

## **2. DSIW & Gender Diversity Dividends**

Whenever gender-normed scoring tables are used, they allow women to achieve higher classifications for performances that earn lower ratings for men.<sup>42</sup> Such practices, which encourage fitness in basic and entry-level training, would be problematic in the combat arms, where all personnel must have superior strength and endurance for survival and mission accomplishment.

Perceptions of double standards involving women (**DSIW**) would do no favors for women trying to gain acceptance in the combat arms. Special allowances, which would be seen as "gender diversity dividends," contradict the phrase "gender-neutral." Officials should clarify exactly what is happening with gender-norming practices, since signals have been mixed for some time.

The **Congressional Research Service (CRS)** has recognized that the phrase "gender-neutral physical standards" raises questions depending on how the words are defined.<sup>43</sup> Many observers believe that "gender-neutral" means absolutely "the same" for men and women. Others define it as meaning equal *effort*, not equal results.

Either way, awarding gender diversity dividend scores to women only, so that they can receive first-class ratings they would not receive otherwise, would be demoralizing to all who are aware of the gender-based differences in treatment. (See Exhibit C) The phrase "gender-neutral" cannot be relied upon as a basis for policy because it has no objective meaning.

## **3. Survey of Marines**

As part of WISRR research, the Marines sponsored an extensive online survey of thousands of active-duty men and women, conducted by the **Center for Naval Analysis (CNA)**. Detailed findings of the 122-question poll, completed in September 2012, were not released. Five months later, the Associated Press obtained and reported on an inadequate five-page **"Quick Look Analysis of Survey Results."**<sup>44</sup>

Even without access to detailed survey responses, it is reasonable to conclude that Marine respondents expressed very little support for women in the combat arms. Opinions would have been easier to discern if the survey had asked, *"Do you favor or oppose the elimination of all direct ground combat exemptions for women?"* Another key question not asked was, *"How would the assignment of women to Marine infantry and Special Operations Forces improve mission effectiveness?"*

It is unfortunate that CNA missed the opportunity to ask these questions, but the survey did ask female respondents whether an assignment to a ground combat PMOS (primary military occupational specialty) would result in *"Pressure to suppress my femininity."* (Q91) The survey instrument also could have asked men whether the integration of women into the infantry might weaken the Marines' masculine culture and unique recruiting "brand." Absent detailed responses to either question, we just don't know.

More importantly, the "Quick Look" summary reported that **17%** and **13%** of male and female Marines, respectively, would likely leave the Corps at the first opportunity if PMOSs were opened to women on an involuntary basis. (p. 4) The same percentage of men, **17%**, indicated that they would not have joined the Marines in the first place under such policies. (p. 3)

Throughout the survey instrument, questions were flawed by the frequently-stated but erroneous suggestion that ground combat assignments for women would be "voluntary." This mistaken belief, often implied in the phrase *"allowed to serve in combat,"* tends to increase support for a policy that would otherwise be opposed.

- According to research done by the **Presidential Commission the Assignment of Women in the Armed Forces**, which studied all aspects of the women-in-combat issue in 1992, this is an option that does not exist. A "voluntary" option for women but not for men in the combat arms simply would not work.
- This reality was confirmed at a HASC Personnel Subcommittee hearing on July 24, 2013. **Rep. Loretta Sanchez** (D-CA) asked Marine Lt. Gen. Robert Milstead, Jr., whether close combat assignments could be voluntary. The general said No, *"That's why they're called orders."* All personnel are subject to involuntary assignment to any position for which they are qualified.

#### **4. "Common Task" Research Omitted from WISRR Program**

On April 24, 2012, Gen. Amos issued a message announcing that Training and Education Command (TECOM) would conduct quantitative research to gather physical performance data from male and female volunteers, both officers and enlisted, on a series of "common tasks." <sup>45</sup>



Officials provided partial information on the tests, but CMR recently learned that plans were not implemented as originally planned. Officials are now saying that the previously-announced tasks will be incorporated in the Experimental Ground Combat Task Forces described below.

The April 2012 ALMAR stated that volunteers would participate in three activities: heavy machine gun lift, casualty evacuation, and march under load. The three "common tasks," which were different from the PFT, CFT, and proxy tests, also were specifically described in a September 2012 USMC Fact Sheet titled "**GCE Common Physical Performance Standards:**"<sup>46</sup>

**"Heavy machine gun lift** – Marines, wearing an average assault load of **71 pounds**, will lift a replica **MK-19 (72.5 pounds)** from the ground to overhead, one repetition. This event simulates mounting the weapon onto a tactical vehicle, and tests muscular strength.

**"Casualty evacuation** – Participants, wearing a fighting load of **43 pounds**, will evacuate a casualty for a distance of **25 meters**. The casualty's total weight will be approximately **208 pounds** (rescue mannequin of **165 pounds** plus a **43-pound** fighting load). This event will include an individual movement element where the participant will sprint **25 meters** to the casualty. This event tests muscular endurance and anaerobic power.

**"March under load** – Participants, will conduct a "march under load" consisting of an average assault load of **71 pounds**. The **20 km (12.4 mile)** march must be completed in **five hours** or less, and it tests load-bearing capacity as well as aerobic power."<sup>47</sup>

As CMR reported in 2013, research plans announced to the DACOWITS in September 2011 would have involved six physical tests, three of them much tougher than the three common tasks listed above.<sup>48</sup>

Digging and defending a machine gun fighting position, or doing crawls and sprints with an 83 pound assault load, would not have duplicated direct ground combat, but results of such tests would have provided better insight than PFT, CFT, or field exercises performed in experimental task force groups. There has been no explanation of the change in plans without notice.

#### **D. Future Research and Experimental Task Forces**

##### **1. Marine Corps Force Integration Plan Campaign Summary**

In his article for the July 2014 *Marine Corps Gazette*, General James Amos described research in progress since 2012, and an ongoing project called the **Marine Corps Force Integration Plan (MCFIP)**. Coordinators of the MCFIP have prepared a 14-slide briefing presentation titled "**Marine Corps Force Integration Plan - Campaign Plan Summary.**"<sup>49</sup>

The Campaign Plan begins with "Intentions of the Commandant," stressing the need to *"maintain the highest standards for all Marines to enable them to excel in the unforgiving arena*



*of human combat. For previously closed occupational fields and units, these performance standards have been, are and will remain gender-neutral."* (p. 4)

The presentation also states twice, *"Should our research efforts conclude that we should not open a particular MOS or occupational field, we will pursue an exception to the current policy with the SECNAV and the SECDEF."* (pp. 2, 6)

With multi-colored graphics showing **Lines of Effort** (LOEs) numbered 1 through 4, the Campaign Design proclaims that Research and Assessments will be "Deliberate, Measured, and Responsible." (p. 6) **LOEs 1 and 2** display tables of "Expanded Unit" and "Entry-Level MOSs" that are being studied. (pp. 7-8)

It is not clear how evaluations of these newly gender-integrated positions have been or will be made. Since the Commandant already has declared the experimental assignments to be successful, dissent at any level is not likely.

**LOE #3** introduces the unprecedented **Ground Combat Element Integrated Task Force (GCEITF)** project. (p. 9) GCE Integrated Task Forces, described as "Purpose-Built, Integrated Ground Combat Units" will involve approximately 500 volunteers, including about 120 female Marines.

Units are to begin working up at **Camp Lejeune**, NC, and engage in operational evaluation at three **California** Marine training bases, **Camp Pendleton**, **Twenty-nine Palms**, and **Bridgeport**, starting in the fall of 2014.

**LOE #4** lists the **20 "Focus of Research"** MOSs that remain all-male, including infantry officer (0302), infantry unit leader (0369), field artillery officer (0802), and tank officer (1802). (p. 10) This number is **11** less than the **31** MOSs that were described as "Closed to Female Marines" in a similar briefing presented at a recent DACOWITS meeting. (March 2014)

The presentation reduces to bullets on one page a host of complex **"Analytical Questions,"** categorized as **"Individual, Unit, and Institutional Impacts."** The graph shows **"Research and Assessment"** leading to a decision by the Commandant, with the expectation that standards will have been *"validated"* and *"unnecessary gender barriers eliminated."* (p. 11) No one should assume that "validated" standards will remain as high as they are now.

Final pages in the slide presentation display the logos of several Marine organizations and outside research organizations involved in the four "lines of effort" in the ongoing research. A **"Large Public University,"** now known to be **George Mason University**, would be added, and a **"Major Non-Partisan Think Tank,"** later identified as the **Center for Strategic and International Studies (CSIS)**, would serve as an advisory **"Red Team."** (p. 12-13)

## 2. Concerns About Future Research & the Marine Corps Force Integration Plan

### a. *The Definition of "Direct Ground Combat"*

The Marine Corps and all combat arms communities in the various services are under intense pressure to implement the administration's plans to repeal all Defense Department regulations exempting women from assignments in direct ground combat (DGC) units. General Amos has indicated that he will follow orders, but has also stated that he or his successor may request exceptions to Defense Department plans to gender-integrate all combat arms units.

The Commandant deserves credit for insisting on this option, but to date little has been done to raise awareness of the many reasons why exceptions are justified. (Gen. Amos soon will be succeeded by the former Assistant Commandant, **General Joseph Dunford**.)

In his July 2014 *Marine Corps Gazette* article, General Amos praised the outstanding contributions of Marine women in recent wars, but also acknowledged that there are *"undeniable physiological differences existing between men and women."* He added a bit of truth that is rarely stated: *"We lack direct evidence of female Marines closing with the enemy and destroying them by fire, maneuver, and close combat."*

Both comments are important because much of the confusion surrounding this issue begins with unrealistic expectations of gender "equality" and imprecise definitions of "direct ground combat" units that attack the enemy with deliberate offensive action.

Women always have served with courage "in harm's way," and more than 140 have given their lives in service since the attacks of September 11, 2001.<sup>50</sup> But according to long-standing definitions, the aggressive nature of direct ground combat sets it apart from the experience of being in danger or subject to "incident-related combat" that occurs "in harm's way."

There are some missions in war zones that men cannot do, such as **female engagement teams (FETs)** and **cultural support teams (CSTs)**. These support teams have worked with and gathered intelligence from civilian women in Middle East countries. All FETs and CSTs have been subject to incident-related combat "in harms' way," but their missions have not been the same as direct ground combat assaults on the enemy.

Historically, direct ground combat (DGC) has been defined as *"engaging an enemy on the ground with individual or crew served weapons, while being exposed to hostile fire and to a high probability of direct physical contact with the hostile forces' personnel."* Going beyond the experience of being "in harm's way," DGC involves *"deliberate offensive action" and "seeking out, reconnoitering," or "closing with the enemy by fire, maneuver, or shock effect."*<sup>51</sup>

The Department of Defense is having some difficulty reconciling their vision of the military as an "equal opportunity employer" with long-standing definitions of direct ground combat. Confusion is evident in several notifications that officials have sent to Congress since April 11, 2013, pursuant to a law requiring formal notice 30 legislative days prior to proposed changes in assignment policies affecting women.<sup>52</sup>

Some of the letters have notified Congress that the MOSs or units to be opened to women do not engage in direct ground combat, defined as deliberate offensive action on the ground. Others blur distinctions between MOSs to be opened and units that are described with phrases similar to the classic definition(s) of direct ground combat.<sup>53</sup>

Whether intended or not, imprecise designations could have serious operational and legal consequences. Personnel under fire in DGC battalions often must take the places of colleagues who are injured, lost, or evacuated for other reasons. It is not realistic to place significant numbers of women in MOSs requiring tank-driving skills, knowing that they do not have the personal strength needed to evacuate a wounded colleague, or to make repairs on heavy tracks when the track is stuck in mud. (See below)

Unlike gender designations that are based on consistent, reality-based principles, making women eligible for unsuitable MOSs at the battalion level and below likely would increase risks of injury and needlessly endanger lives and GCE missions.

#### **b. What Will It Take for the Pentagon to "Follow the Numbers?"**

On May 14, 2014, the Department of Defense notified Congress that 11 more DGC MOSs would be opened to women, leaving only 20 designated all-male. Marine officials have expressed complete confidence that women will succeed in the newly-opened positions.

However, members of Congress receiving the notice, and the American people they represent, should have been given the opportunity to review the policy changes in the context of research already done. Diligent oversight is not possible when officials do not provide relevant information on a timely basis.

Data shown in the NHRC Appendix B (analyzed above) shows serious deficiencies in the upper body strength needed for women to perform well in some of the newly-opened occupations.

For example, the May 14 notification letter to Congress described duties of the **Towed Artillery Systems Technician (2131)**, and listed physical requirements for that position: "**Physical Standards:** Lift/carry/load 155 mm projectiles (average 95 lbs); Fire a prepared round (carry 95 lbs for 10 meters and place on tray 48 inches high); Handle/carry nitrogen bottle (213 lbs, 2-man team)."

- This description of the systems technician MOS, recently reported to Congress as now open to women, is almost identical to the 155 mm "Artillery Round Lift & Carry" proxy test described above. It should matter a great deal that **28.42%** of women could not complete the 155 mm artillery round lift-and-carry proxy test in the allotted time, compared to less than **1%** of the men.
- Concern should be even greater because, according to TECOM's analysis, it is "*extremely likely*" that if women were required to "*shoulder*" the round instead of cradling it, and/or carry multiple rounds, the failure rate would increase.<sup>54</sup>

The DoD also opened the **Main Battle Tank (MBT) Repairer/Technician MOS (2146)**, and listed MOS requirements: "**Physical Standards:** Load M1A1 main gun; Mount M2 .50 cal heavy machinegun; Evacuate injured crewman (team of 2) [assuming there are two]; Unload stuck round (requires approx. 100 lbs of strength); attach tow bar or cables (300 lbs, team); Open tank breech (75 lbs); Replace track blocks (60 lbs); Operate tank loaders hatch (70 lbs); Stow ordnance (carry rounds 50 meters, 50-55 lbs); Lift/move tool box & test equipment (average 60 lbs); Remove/install generator (70 lbs); Remove engine access plate (50 lbs); Remove hull turret slip ring (100 lbs); Remove torsion bar (50 lbs); [and] Replace road arm (100 lbs)."

- According to TECOM information in the NHRC Appendix B, "*Less than 1% of men could not complete the tank loading drill in the allotted time [but] 18.68% of women could not [do so. The test] strictly measured a Marine's ability to lift and transfer a simulated round weighing 55 lb.*"<sup>55</sup>
- This should matter, especially since "*It would be very likely that failure rates would increase in a more confined space and actually taking a round out of a horizontal tube and placing into a horizontal breech.*"

If clear correlations such as these do not matter, what would? Expectations of success in ground combat units that engage the enemy are unlikely to be met if almost one-out-of-three female personnel cannot perform basic tasks.

A plan to admit women meeting only minimum male requirements could result in unintended consequences, such as the inclusion of some men with lower scores, or the exclusion of other men with higher ones. Stronger personnel (men) likely will do the heavy lifting in training, but in wartime all personnel must be prepared to do each others' jobs in order to survive and win. Workarounds are likely to fall apart if the unit loses key personnel during close combat fights.

Policies based on best-case scenarios needlessly elevate risks in life-and-death situations. It is not an affront to acknowledge that female failure rates in various tests measuring upper body strength are four to thirty times greater than men's. Some officials are hesitant to acknowledge

inconvenient truths such as this, but it is far worse to pretend "success" that sets up women for life-and-death failures in actual GCE combat.

Author **George Orwell** addressed the risks of putting trust in information known to be false:

*"The point is that we are all capable of believing things which we know to be untrue, and then, when we are finally proved wrong, impudently twisting the facts so as to show that we were right. Intellectually, it is possible to carry this process for an indefinite time: the only check on it is that sooner or later a false belief bumps up against solid reality, usually on a battlefield."* <sup>56</sup>

### **c. Incrementalism + Consistency = Radical Change**

Unjustified distinctions without a difference invite criticism from the DACOWITS, the media, and other pressure groups that are sure to demand that "inconsistencies" be remedied with more incremental steps in the wrong direction. For example, if it is all right to open field artillery to women, knowing that 28% cannot lift and move 155 mm rounds, how can the Marines "validate" or justify exceptions to gender integration in infantry and Special Operations Forces battalions? This is not a rhetorical question.

Arbitrary distinctions between open and closed MOSs are not likely to survive first contact with the enemy – or with egalitarian political forces demanding more "gender diversity metrics." The formula likely to play out is predictable and problematic: **Incrementalism + Consistency = Radical Change.**

Personnel policies should be based on sound principles, not egalitarian agendas. They should also be made by Members of Congress who are accountable to the American people – not by federal judges or outside consultants who work for the Department of Defense.

### **d. Misunderstandings About Legislative Action**

The Force Integration Campaign Plan Summary states that the Marine Corps is following Defense Department directives, but also implies that Congress approved legislation repealing women's direct ground combat exemptions in the **National Defense Authorization Act (NDAA)**, particularly a "**Sense of Congress**" resolution. (pages 2, 3, and 6)

The resolution cited, however, has no legal effect. <sup>57</sup> A senior professional staff member on the Senate Armed Services Committee has confirmed that Congress has not voted for legislation authorizing or mandating that women serve in direct ground combat.

Regulations and directives are enforceable, but there is no law passed by Congress mandating that women be assigned to combat arms units. The absence of law and regulations regarding

such assignments does not create the equivalence of law, and it would not be wise for the Administration to cut Congress out of the decision-making process.

Some officials have muddied the water further by suggesting that the military is subject to long-standing civil rights and equal opportunity (EO) laws. On the contrary, the unique mission of our military, which must be prepared to fight enemy forces that are not limited by EO mandates, justifies continued exemption from federal civil rights and employment laws.<sup>58</sup>

Several European nations that depend on the United States military for defense, such as the **Netherlands** and allies such as **Canada** and **Australia**, have consciously decided to assign higher priority to egalitarian social goals.<sup>59</sup> Some have labor unions or other policies that would be incompatible with the culture and "work conditions" of the United States military. None of these should be considered role models for our military, especially since potential adversary nations and forces do not waste time and resources on social experimentation.

The Department of Defense has endorsed an updated **Charter of Human Rights Goals**, as well as recommendations of the Military Leadership Diversity Commission. Still, calls for "gender diversity metrics" in the combat arms do not have the force of law. Simply stated, the military is not just another equal opportunity employer.<sup>60</sup>

#### **e. "Ground Combat Element Integrated Task Forces" (GCEITF)**

Details are not yet available, but the **Ground Combat Element Integrated Task Forces" (GCEITF)** reportedly will be worked-up at **Camp Lejeune**, NC, and proceed toward operational evaluation at three California bases. (p. 9) According to *USA Today* and the *Marine Corps Times*, "**Experimental Task Forces**," composed of **25%** women, will engage in simulated combat operations with four types of units: all-male, all-female, mostly male, and half-and-half.<sup>61</sup>

The MCFIP Campaign Plan Summary sets forth the "hypothesis" of the GCEITF project: "*An integrated unit under gender-neutral standards will perform equally well as a gender restricted unit.*" (p. 9) This pre-emptive statement, which would seem to preclude any other conclusion, represents a dramatic shift from previous statements of the Marine Corps on this subject, as well as findings resulting from recent research and previous studies conducted in the U.S. and U.K.

The Campaign Plan states that before women join the GCE Integrated Task Forces, they will undergo **entry-level training (ELT)** in previously all-male MOSs. It is not clear, however, how differences in physical strength will be accommodated in those units.

In his *Gazette* article, General Amos noted that ELT provides a "*minimum baseline for a graduate to be able to function in the Operating Forces . . . In many cases, these more advanced occupational tasks require individual capabilities far beyond what is required to complete ELT.*"

The crux of the issue emerges in the general's recognition of a simple truth: *"Heretofore, the Marine Corps has functioned under the assumption that any male ELT graduate could, with sufficient training and motivation, meet these requirements."*

Gen. Amos further writes that the Marines are trying *"to develop a rigorous, realistic, gender-neutral set of physical parameters that can replace this no longer valid assumption."* Stated another way, qualification tests for direct ground combat units have not been necessary because the all-male designation has served as a *surrogate* for specific qualification tests.

Implementation of plans to order women into the combat arms would make it necessary to replace simple procedures with complicated, less effective substitutes that are based on social theories and driven by gender diversity mandates. Combat realities and the best interests of the military will have to assume secondary priority.

Pentagon group-thinkers expect the Marines to come up with new standards that are gender-neutral but not lower than before. These two goals cannot be credibly reconciled. The use of gender-normed requirements and scores in preliminary phases of training already concedes realities about physiology, which are even more obvious when considering the combat arms.

Enter the GCE Integrated Task Forces, which will observe and evaluate the execution of individual and collective tasks in gender-mixed experimental units. (p. 9) This will bear watching as events develop. Dr. William Gregor has observed that "collective" tasks often disguise individual weaknesses: *"It can be expected that commanders will shift tasks from women to men to avoid attrition from non-battle injury. It is a matter of speculation whether such task shifting is tolerable in actual combat."*

Members of the media observing the task forces in action probably will not notice or report on predictable conundrums, but they will not escape the attention of Marines.

#### **f. Consultants, Objectivity, and the Need for a Real "Red Team"**

The Campaign Plan Summary lists several Marine commands that are involved in this multi-year project, including Training and Education (TECOM), **USMC Recruiting Command**, and the Naval Health Research Center (NHRC), mentioned above. Additional contractors and advisors include the Center for Naval Analysis (CNA), **RAND Corporation**, the **University of Pittsburgh**, and two more organizations, George Mason University (GMU) and the Center for Strategic and International Studies (CSIS), since named as a "Red Team." (pp. 12-13)

Many military leaders associated with the Marines' research effort have distinguished records of military service, including recent experience in the infantry and other combat arms. Their influence, however, likely will be eclipsed by a small army of civilians associated with organizations that were selected to help design or review research events and results.



The Red Team concept, which the late **Lt. General Victor H. Krulak** pioneered in 1986, is supposed to bring in outside experts to review and challenge Pentagon problems and proposed solutions from a completely independent, disinterested perspective. An article in the *Marine Corps Gazette* describes Red Team members as "*contrarian[s] who can help the staff and/or commander realize that they have fallen in love with their own plan.*"

The organizations named to participate in the Marines efforts, particularly those that often seek contracts from the Department of Defense, do not include a true Red Team that "*can challenge assumptions and prevailing notions, rigorously test tactics, techniques, and procedures, and counter groupthink.*"<sup>62</sup> Absent a true Red Team, we have a groupthink chorus.

RAND, for example, has produced credible research for the Department of Defense on a wide variety of military subjects. On military social issues, however, periodic RAND reports have been consistently one-sided and ideological, promoting only a liberal point of view:

- In 2007, RAND produced a "rubber stamp" report approving of Army policies that many members of Congress, led by then-House Armed Services Committee Chairman **Duncan Hunter** (R-CA), recognized as violations of Defense Department regulations.
- The final RAND report used semantics and sophistry to stall and mislead Congress in a report that was released 17 months beyond the deadline set by law. As CMR reported at the time, the report was significantly altered from its original form. Inconvenient information that did not fit the template set by the Defense Department was systematically omitted or "spun" to be consistent with Clinton Administration goals.<sup>63</sup>

RAND is studying gender integration in Allied Forces and "*detection of conditions requiring DOTMLPF changes and early situational awareness of trends for individuals, units, MOSs, and the institution.*"<sup>64</sup> This area of participation and influence, which includes training and education, gives to RAND prime opportunities to promote liberal social agendas that are inconsistent with the best interests of the "institution" in question, the U.S. Marine Corps.

As reported above, the Center for Naval Analysis missed the opportunity to produce a better survey of Marines, and much of their work has been withheld from public view. In addition, the Naval Health Research Center report analyzed above included unsupported spin while relegating significant TECOM findings to appendices. Withholding or downplaying significant information makes it virtually impossible for members of Congress to conduct meaningful oversight *before* radical policy changes are supposed to take place.

It is not clear what role Recruiting Command is playing in the overall project. Little has been said about the March 2014 DACOWITS presentation, which indicated that young women's propensity to serve already is extremely low and likely to decline if combat eligibility rules are changed. (See below)



George Mason University sponsors the **Gender and Conflict Center**, which recently hosted a reception with keynote speaker **Ellen L. Haring**, a colonel in the Army Reserve and one of the plaintiffs filing litigation against the Department of Defense to open combat MOSs to women.<sup>65</sup>

University of Pittsburgh experts in sports physiology have provided useful information to Marine Infantry Officer Course leaders on ways to manage fluid loss in high-heat conditions. This is laudable, but it is not necessary to order women into the combat arms to obtain more research data and advice on this and related issues.

Better athletic equipment can mitigate debilitating injuries. However, the experiences of top-notch, well-equipped female athletes in the Olympics do not support the theory that better athletic equipment can make women as strong as men.

The *Washington Post* recently used drawings and graphs to illustrate the findings of major studies comparing the capabilities of Olympic-caliber male and female athletes. Among other things, the article reports that anterior cruciate ligament (ACL) tears occur in female athletes 2 to 9 times as often as male athletes.<sup>66</sup>

Often-heard pledges that Marine research projects will be "Deliberate, Measured, and Responsible" protest too much. The overall program is producing useful information, but missing qualities include "objectivity" and "transparency." Effective Red Team challenges are not likely to happen with the current array of Defense Department contractors and academic advisors, most of which offer ideological views ranging from A to B.

Given the politics of the Pentagon, voices of women and men who will be most affected by proposed policy changes are not being heard. This is especially so because all leaders in the Pentagon appear to be concurring without reservation or dissent.

#### ***g. "Analytical Questions" Deserve Objective Analysis***

The list of "Analytical Questions" on page 11 of the Marine Corps Force Integration Program presentation is inadequate, except in drawing attention to the scores of important issues that are not being analyzed — except in non-transparent work assigned to RAND, a Defense Department contractor with a long record of liberal advocacy on military/social issues. To name just a few of the Analytical Questions that deserve objective review:

- **Individual Impacts**

Research done so far has not produced evidence that female trainees or personnel will be able to "successfully meet" what are called "Occupational Field Standards" in direct ground combat units. There is no satisfactory way to resolve this dilemma.

If officials quietly gender-norm training standards that used to be high and male-oriented, or if they remove tougher challenges in order to make "gender-integration" work, men will emerge from training less prepared than they would have been. The alternative strategy, placing heavy burdens on women and treating them like men, would result in disproportionate injuries and disabilities at unacceptable rates. Both scenarios, and other compromises used to achieve "gender diversity metrics," would harm everyone involved, including commanders who equivocate about "equality."

Qualified men should not be discriminated against. Nor should women be set up for failure in physically-demanding MOSs that exceed their capabilities.

Marine **Capt. Katie Petronio**, who wrote a widely-circulated article published in the *Marine Corps Gazette*, described the debilitating physical injuries she suffered while serving in **Iraq** and **Afghanistan**, and expressed concern about predictable long-term injuries that will result if women are treated like men in the combat arms.<sup>67</sup>

It is not clear whether researchers will consider studies done and decisions made in the **British military**, which was being pressured to assign women to direct ground combat units, but decided twice not to do so.<sup>68</sup> The British experiment with "gender-free" basic training, described in the Gemmel Report published by the **British Journal of Medicine**, demonstrated the risks of training women as if they were interchangeable with men.<sup>69</sup>

- **Unit Impacts**

**"Medical readiness/deployability"** issues would take on a whole new dimension if female medical issues are extended into GCE units. It is doubtful that anyone has considered the impact on small direct ground combat squads when a large percentage of personnel (say, one or two out of thirteen) are lost to the unit due to pregnancy, either before or after the unit deploys. Injuries at higher rates also should be objectively considered. Extrapolating estimates from current non-deployability and injury figures should not be difficult to do.

**"Cohesion, Morale & Discipline"** – Debates about "cohesion," going back decades, seem tied to the "social/task cohesion" dichotomy, popular in business, academia, and contractors like RAND. But cohesion is not about being liked or working together. Military experts, who provided testimony to the Presidential Commission, defined cohesion as the relationship that develops in units bonded by mutual trust for *survival* in battle.<sup>70</sup>

Commission testimony and findings also noted that cohesion can be negatively affected by the introduction of any element that detracts from "*mutual confidence, commonality of experience, and equitable treatment.*" Absent unit cohesion and vertical trust in the chain of command, morale suffers. Tensions and distractions related to sexual misconduct, both voluntary and involuntary, also detract from morale and discipline, doing great harm to women and everyone concerned.

Discipline in the gender-integrated military involves controversial, time-consuming issues that remain unresolved today. Incidents and accusations of sexual misconduct, both voluntary and involuntary, keep escalating every year. It appears that no one is considering the predictable impact of these demoralizing distractions on readiness and morale in the combat arms. There is no reason to believe that personnel in those units are any more perfect than human beings in other communities.

Every military community has been affected by these thorny personal conduct issues, including situations that cause officers to be removed from command based on accusations alone. It would not help women, or men, to extend these human problems into the combat arms.

The dynamics of male and female relationships in the military "workplace" also deserve closer examination. Drawing upon scholarly research in the fields of anthropology, biology, and psychology, Professor of Law Kingsley Browne has addressed these issues from a scholarly perspective in his book *Co-Ed Combat: New Evidence that Women Shouldn't Fight the Nation's Wars*.<sup>71</sup>

Feminist advocates have suggested that ordering women into combat might increase respect for them as "warriors," and thereby reduce problems of sexual harassment and assault. Joint Chiefs Chairman Gen. Martin E. Dempsey bought in to this unsupported hypothesis, saying in January 2013, "[T]he more we can treat people equally the more likely they are to treat each other equally." A Pentagon report discredited the theory, finding that reports of sexual assaults were twice as high among female combat veterans.<sup>72</sup>

The June 2013 USMC report to Congress mentioned that there would be "**Integration Education**" for instructors at newly-opened MOS schools, but no information on the curriculum and costs of such a program has been provided since. (p. 3)

- **Institutional Impacts**

### **"Recruiting and Retention"**

The December 2010 **Youth Poll 20 Report** of the Defense Department **Joint Advertising, Market Research & Studies (JAMRS)** found that the propensity of young women to serve in the military was only about a third that of men. There are no indications that recruiting rates would improve if female soldiers were involuntarily assigned to infantry battalions.

JAMRS research data that a Marine official presented to the DACOWITS on 22 September 2011 also showed that if women could serve in combat roles, **29%** of potential female recruits would be *less likely* to join the military, compared to **12%** of women who said they would be *more likely* to join.<sup>73</sup>

Recruiting efforts targeted to women reading sports and fitness magazines have been tried in the past, without success. Absent evidence to the contrary, it is reasonable to conclude that eligibility for direct ground combat assignments would reduce the inclination of women to join the military.

In a more recent briefing, Marine Recruiting Command informed the DACOWITS that young women's propensity to serve dropped to **2%** in the spring of 2013, compared to **12%** among young men. The briefing notes, "*Females tend to view military service as incompatible with having an attractive lifestyle, are more risk averse, and [are] less confident in their ability to be successful in the military.*"<sup>74</sup> No one has provided information indicating that combat eligibility would increase women's propensity to serve.

### ***MOS Screening and Selection/Suitability of Entry-Level Training***

When screening tests geared to minimum standards result in the assignment of great numbers of women to previously all-male units for which they are not suited, reassignments that may or may not be possible will increase costs even more. In 1992 the estimated cost of reassigning a person who was placed in a heavy-duty billet for which they were not suited was **\$16,000** – an expense likely to be considerably greater today.<sup>75</sup>

### ***Training & Readiness Manual Tasks/Infrastructure/Equipment and Modifications***

There have been no estimates of costs for assignment pre-screening tests and extra training to achieve gender-integration goals, but there ought to be. Nor have officials released analyses of **DOTMLPF** factors that would be affected by gender-integration. (Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, and Facilities.)

## **E. Unaddressed Concerns: What Is Missing from the Research?**

This Interim Special Report primarily analyzes physical strength issues because the research being done primarily focuses on that. There are several major issues that are not even mentioned in documents associated with current research projects. For example:

### **1. *Most Military Women Do Not Want Combat Arms Assignments***

The WISRR and MCFIP Campaign Plan do not mention the lack of evidence that the majority of military women want to be assigned to the combat arms on a voluntary or involuntary basis. There have been few opportunities for women to express their opinions, but when they do, the idea that gender-integration in the combat arms is a "pro-woman" policy has been vigorously questioned.

- According to the *New York Times*, during a July 2013 private meeting with 15 junior officers at the Marine Infantry School, Secretary of Defense **Chuck Hagel** got an earful when he asked what they thought about President Obama's plans to assign women to Army and Marine infantry battalions and other direct ground combat units. Staff sergeants expressed concerns about lowered standards, negative consequences for families, and sexual misconduct. A fearless captain said, *"I haven't met a female Marine who is standing up and shouting, 'I want to be infantry.'"* This must have been a shock for Secretary Hagel, since the 15 Marines speaking to Hagel were not men; they were women.<sup>76</sup>
- Interview statements reported in an independent academic dissertation indicate that many women Marines are strongly opposed to policies that force them to compete with men in combat arms. (See Exhibit D)

There is no evidence that implementation of this controversial program will help women or improve the military. Secretary Hagel and other policy makers should not disregard the concerns of countless women who want to serve their country but do not want to be treated like men in the combat arms.<sup>77</sup>

## **2. Violence Against Women – Cultural Ambivalence**

In his book *Deadly Consequences: How Cowards Are Pushing Women into Combat*, Lt. Col. **Robert Maginnis, USA, Ret.**, suggests that the debate about women in combat *"should not involve questions no deeper than how far they can carry a seventy-pound rucksack."*<sup>78</sup> For Colonel Maginnis and millions of Americans, a more important question is, *"What kind of society sends its women into combat? Do we want to be that kind of society?"*

While studying all aspects of the issue for a full year, the Presidential Commission carefully considered cultural issues of concern to Col. Maginnis. Commissioner **Kate O'Beirne** summarized deep-seated cultural and family values millions of Americans hold and are still teaching their children: *"Good men respect and defend women."*

The nation needs women in our military, but the question of ordering them into the combat arms deserves thoughtful consideration of the cultural implications.

## **3. Selective Service Obligations on an Equal Basis**

Current research has said little about the consequences of full gender-integration on civilian women. On April 13, 2013, a group called the **National Coalition for Men (NCM)** filed a lawsuit in a California U.S. District Court against the Director of **Selective Service**, challenging the legality of male-only registration and other obligations, including a possible future draft.<sup>79</sup>

This case, put "on hold" until after final decisions at the Pentagon, challenges the landmark *Rostker v. Goldberg* ruling. In that 1981 case, the Supreme Court upheld the right of Congress to exempt women from Selective Service obligations on the same basis as men:

*"The purpose of registration was to prepare for a draft of combat troops. Since women are excluded from combat, Congress concluded that they would not be needed in the event of a draft, and therefore decided not to register them . . . Men and women, because of the combat restrictions on women, are simply not similarly situated for purposes of a draft or registration for a draft."* (453 U.S. at 77-78)

Professor **William A. Woodruff** of Campbell School of Law, who retired from the Army as a colonel and served as a Judge Advocate General, notes that the *Rostker* decision was an easy call. Since women were not eligible for direct ground combat, they were not "*similarly situated*" with men and did not have to be treated the same under Selective Service law.

"However," writes Woodruff, "*If we remove the combat exclusion, the obvious result is that women and men are 'similarly situated' and the justification for Rostker is no longer present.*"

Under law, the Department of Defense must notify congressional leaders of pending changes in women's assignments, and provide a "detailed legal analysis" of how the proposed changes would affect women's exemption from Selective Service obligations.

In an April 11, 2013, letter to Congress written in compliance with this notification law, the Defense Department stated the expectation that positions opened at that time did not have a primary mission to engage in direct ground combat. The letter continued, "*As positions in combat specialties, such as infantry, still remain closed, the rationale in the Rostker decision should still apply -- over 230,000 positions remain closed to women, and consequently, men and women are not similarly situated for purposes of the Military Selective Service Act.*"<sup>80</sup>

This statement changed, however, in all notification letters sent to Congress since December 6, 2013. These letters, which were withheld from public view until July, included speculation about what a future Supreme Court might do on the issue of women and Selective Service:

*"As the Department undertakes a deliberate and thoughtful review and develops detailed implementation plans, previously closed positions will open unless an exception is granted to keep an occupational specialty or position closed. Opening all positions without a deliberate and thoughtful approach could be detrimental to mission accomplishment and impede the ability of men and women to succeed in their positions. Although these developments may alter the factual backdrop to the Court's decision in Rostker, it remains the case that certain occupational specialties, such as infantry, still remain closed to women. Moreover, the Court in Rostker did not consider whether other rationales*

*underlying the statute are sufficient to limit the application of the Military Selective Service Act to men."*

This implies that if or when women's exemptions from DGC are eliminated and litigation brought on behalf of men is reinstated, the administration will try to make an updated argument in support of women's exemption from Selective Service.

There are three things wrong with this argument: a) Decisions as consequential as this should be made by Congress, not federal courts; b) No one can predict what a future Supreme Court will do; and c) The Administration and its key appointees are firmly on record *in favor* of imposing Selective Service obligations on an equal basis; they cannot be counted on to defend the legality of exempting women from Selective Service obligations. Which brings us to the almost totally-neglected role and responsibilities of Congress.

#### **4. Lack of Congressional Oversight & Approval**

Uniformed personnel must obey Defense Department administrative policies, but the **U.S. Constitution** assigns to Congress the power and responsibility to make policy for the military. (**Article I, Section 8**). Decisions to order military women into the combat arms, and thereby to change the facts underlying young women's exemption from **Selective Service** obligations, properly belong in Congress.

The federal judiciary, which is the branch of government least qualified to make policy for the military, should not be given power, by default, to make policies for the armed forces or the Selective Service System.

#### **5. Risks of Relying Upon Best-Case Scenarios**

The administration seems to believe that known risks of gender-integration in the combat arms are justified because nothing will go seriously wrong. An assumption that nothing bad will happen is not the basis for sound policy.

Advocates of women in ground combat units are effectively betting combat effectiveness and national security on an unlikely assumption. This is the unquestioning belief that only best-case scenarios will ensue when dubious, difficult-to-reverse policy changes are made.

The Marine Corps and other combat arms communities are expected to embrace several rosy scenarios in making women-in-land-combat policies "work." One of these, frequently repeated in media reports, suggests that in the future there will be no "front line" combat operations.

This is a short-sighted scenario that seems to forget that the liberation of **Baghdad** occurred in March 2003, only 11 years ago. Fierce fighting in **Afghanistan** during the past decade is still



going on. The United States is a world power and our troops must be prepared to fight on the ground. The strength and endurance requirements of war, therefore, remain undiminished.

Methods of warfare and technology, as well as physical training techniques, have changed. It is also true that loads and weights carried on the backs of individual combat arms soldiers have not become lighter since Roman legions conquered Gaul. A recent Army Technical Bulletin reported,

*"[A]verage loads that soldiers carried into battle during **Operation Enduring Freedom** in 2003 exceeded recommended maximums in all load configuration categories (Table 3-1). Although PT has been shown to improve load carriage performance, it is unclear whether enhanced physical fitness confers protection against the assumed increase in musculoskeletal injury risk from excessive combat load carriage."*<sup>81</sup>

The same Army Technical Bulletin analyzed intrinsic risk factors for injury during Basic Combat Training (BCT). The strongest evidence, supported by five or more studies, indicated that "female gender," together with low aerobic fitness," and "low muscular endurance," were factors contributing to the highest risks of injury in BCT. (p. 18)

The inability to perform pull-ups or to lift heavy weights over the head do not disqualify women from most MOSs that are already open. Reasonable accommodations make it possible to recruit and retain women who are valuable members of the **All-Volunteer Force (AVF)**.

Requirements are different, however, in the combat arms. In that environment, a person's inability to carry heavy loads over long distances, to climb over high obstacles, and to dig fighting holes before attacking the enemy – could compromise missions and cost lives.<sup>82</sup>

It is possible that future combat arms units could fight and win battles with a significant percentage of personnel who are less strong, less deployable, less versatile, and more likely to experience debilitating injuries and other health conditions that require evacuation from the war zone. It seems impossible, however, that this could occur without needless increases in casualties. If the best-case scenarios prove *wrong*, consequences in time of war could be catastrophic.

## Conclusion

The January 2016 deadline for gender integration, announced by former Defense Secretary Leon Panetta in 2013, effectively sidesteps Congress. If the Marines choose to ask for "exceptions" to policy, perhaps for the infantry and/or other ground combat MOSs, the administration could ignore that request in January 2016.



Congress could intervene with legislation to codify sound policy, but members will be reluctant to do so if they are misled by constant claims that all standards in the combat arms will be "gender-neutral" and as high as they are now. These expectations cannot be met simultaneously.

The process of "salami-slicing" the list of open MOSs down to 20 and potentially less already has gone too far. The Marines should reconsider the situation. Recommendations for consistent, reality-based policies, supported by research findings that are most relevant, could change the direction and political dynamics of future events.

Congress should assert its power and responsibility for oversight, mandating that recent policy changes be suspended pending comprehensive, balanced hearings, and objective reviews of all relevant information. Members of Congress should use their legislative power to codify sound policy for women (and men) in the military, and to stipulate that changes should not be made without an affirmative vote of Congress.

Historically, the Supreme Court has deferred to the judgment of military leaders in matters of dispute affecting the armed forces. A reality-based legal position incorporating sound principles would be far more likely to withstand legal challenge than convoluted statistical language and "correlations" with basic physical tests.

The legislative calendar prior to January 2016 is closing in, even though comprehensive hearings on women in land combat have not been held since 1979 in the House, 35 years ago, and 1991 in the Senate, 23 years ago. Women in America's military deserve more respect and diligent oversight than this.

This is an Interim Report and more information is expected in coming months. At this time, however, nothing in the research done so far indicates that there is or can be a workable plan to train and deploy women in units that engage in deliberate offensive against the enemy.

Instead of talking about minimum standards as an acceptable goal in the infantry and other GCE units, military leaders should present to Congress abundant research data that reconfirms the need for continued sound priorities and high, uncompromised standards in all military communities, especially the combat arms.

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<sup>1</sup> Col. Brian J. McGuire, MS ATC CSCS, Colonel, USMCR, USMC Training & Education Command, ["Correlation of Performance on USMC Physical Fitness Test and Combat Fitness Test Events to Physically Demanding Military Occupational Specialty Tasks,"](#) National Strength and Conditioning Association TSAC Conference, April 15-17, 2014, San Diego, CA, p. 15.

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<sup>2</sup> [Marine PFT/CFT Standards](#), confirmed to be still in effect. The Physical Fitness Test (PFT), which is done by all personnel at least once a year, involves pull-ups or flexed-arm hangs (women only), abdominal crunches, and a 3 mile run. The Combat Fitness Test (CFT) has three requirements, an 880 yard run, repetitive 30 lb. ammo can lifts in 2 minutes, and maneuvers under fire involving a 300-yd. shuttle run, crawls, sprints, brief fireman's carry, simulated grenade throw, and an ammo can carry.

<sup>3</sup> The 1992 **Presidential Commission on the Assignment of Women in the Armed Forces** approved of gender-normed standards in basic, pre-commissioning, and entry-level training, in order to accommodate physiological differences and to promote wellness. The commission's recommendations were contingent on women's continued exemption from heavy MOSs and the combat arms. (Recommendation C, "Fitness/Wellness Standards," p. 5)

<sup>4</sup> Page 12, for example, lists 32 Closed MOS School Programs of Instruction, 11 of which are designated "MOSs with no associated physical tasks." Page 18 uses color bars to illustrate the "Correlation of PFT and CFT Events to Closed MOS Tasks," described in convoluted technical terms: *"Spearman's non-parametric version of the Pearson correlation, which does not require the assumption of normality and can partially correct for range restriction."*

<sup>5</sup> Passing 12 out of 14 events, for example, would result in a .86 score correlated to all PFT and CFT events. The 14-point scoring system could be faulted for assigning the same value, one "point," to each of 14 tasks without regard for levels of difficulty.

<sup>6</sup> McGuire presentation, footnote #1, p. 16. Proxy test scores on other events show that women performed at varying levels compared to men: 135 lb. Deadlift, (100/97.1%); 120mm Round (99.8/81.5%); 155 mm Round (99.8/71.5%); and obstacle course wall with box assists (98.8/78.6%). In the PFT, average scores were Crunches (98.89/93.5) and 3-Mile Run minutes (21:21/24:30. In the CFT, Movement to Contact (MTC) minutes (2:52/3:31), Ammunition Can Lifts (AL) (96.62/56.76), and Maneuver Under Fire (MANUF) minutes, (2:24/3:19).

<sup>7</sup> **Col. John Nettles, USMC**, ["Women in the Service Restrictions Review \(WISRR\)"](#) DACOWITS Brief, 22 Sep 2011, p. 7.

<sup>8</sup> Jason Jameson and Karen Kelly, Naval Health Research Center, San Diego, CA, ["Analysis in Support of the Women in Service Restriction Review Study,"](#) 2014.

<sup>9</sup> [Report to Congress on the Review of Laws, Policies and Regulations Restricting the service of Female Members in the U.S. Armed Forces](#), February 2012.

<sup>10</sup> According to the Department of Defense, *"Women constitute approximately 14.5 percent of the 1.4 million Active Component military personnel and comprise 7.25 percent of general/flag officers and 10.86 percent of the senior enlisted force. These figures are strong given that retention of women is significantly less than that of men beyond 20 years of service, where the majority of these promotions to the senior grades occur. The Department reviewed all available information from the Military Services and did not find any indication of females having less than equitable opportunities to complete and excel under current assignment policy."* In its recent study on *Minority and Gender Differences in Officer Career Progression*, the RAND Corporation found no statistical differences in the career progression of female officers in open occupations with closed positions as compared to women in fully open occupations; both groups of women shared the same likelihood of reaching pay grade O-6 (Colonel or Captain). The Department reviewed all available information from the Military Services and did not find any indication of females having less than equitable opportunities to compete and excel under current assignment policy. (DoD Report to Congress, February 2012, *Ibid.*, pp. 3-4.

<sup>11</sup> USMC: June 2013 [Report to Congress](#), p. 2, footnotes #3 - #6.

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<sup>12</sup> For example: "Both Pearson product-moment correlation coefficients and Spearman's [Greek letter rho] correlations were computed; placing maximum scores on several of the tests led to restricted range and non-normal distributions. Spearman's [Greek letter rho] is the nonparametric measure of association that does not require normality and partially corrects for range restriction."

<sup>13</sup> Media spin contributed to policy change in November 2010, when a highly misleading story leaked to the *Washington Post* claimed that 70% of military personnel were not opposed to repeal of the 1993 law regarding gays in the military. A Department of Defense Inspector General investigation revealed irregularities leading up to that headline, which eclipsed all evidence to the contrary that had been compiled by a Defense Department **Comprehensive Working Group** in 2010. See CMR: [DoD Investigation Exposes Improper Activities to Repeal Gays-in-Military Law](#), June 27, 2011.

<sup>14</sup> The three charts in the NHRC Analysis' Appendix A, pp. 31-33, are reproduced in this paper's Exhibit A.

<sup>15</sup> **William J. Gregor, PhD**, Professor of Social Sciences at the School of Advanced Military Studies at Fort Leavenworth, KS. [Why Can't Anything Be Done? Measuring Physical Readiness of Women for Military Occupations](#) **Excerpt:** "The data clearly reveals a very large gap between the physical strength, aerobic capacity and size of Army men and women. Training men and women correctly improves the performance of both groups but it also widens the gap in performance."

<sup>16</sup> Paul O. Davis, PhD, *Marine Corps Gazette*, ["Looking for a Few Good Women: Physical Demands of Combat,"](#) July 2014.

<sup>17</sup> The NHRC analysis further reports: "With all weights there is a large disparity between male and female failure rates. What this suggests is that women have less upper-body strength than men. Indeed, **91.32%** of women failed to lift **115 lb.** whereas **20%** of men failed at that weight. At the lesser weight of 65 lb., we had our test population clean and press that weight six times in 1 minute or less. While only **26.6%** of women could not lift **70 lbs.**, when attempting to perform the lesser weight of **65 lb.** for 6 repetitions, **31.32%** of them failed that task." (pp. 34-39)

<sup>18</sup> In testimony presented to the Presidential Commission on October 7, 1992, Dr. William Gregor stressed the physical requirements of armor operations: "A survey of the components of a tank reveals that almost all the component parts, special tools, and assemblies are very heavy. . . However, the equipment is heavier and the tasks more difficult when a tank is disabled or mired. . . Often when a tank throws a track or hits a mine, the crew has only its socket set, sledgehammer, crowbar, and brute strength with which to remove the damaged track blocks and install spare track. . . [i]t is unlikely the wounded crewman can assist in his own evacuation. He must be pulled out. In an emergency, therefore, the tanker's survival depends on the strength of his comrades."

<sup>19</sup> RADM Hugh Scott, USN (Ret.), letter titled ["Physical and Physiological Issues Associated with the Assignment of Women to Direct Ground Combat Units,"](#) June 22, 2012.

<sup>20</sup> AP/Fox News, [Marines Delay Female Fitness Test After \[More Than\] Half Fail Pull-Up Test](#), Jan. 2, 2014.

<sup>21</sup> General James Amos, USMC, *Marine Corps Gazette*, July 2014, ["Marine Corps Force Integration,"](#) pp. 10-15.

<sup>22</sup> Brian Mitchell, [Women in the Military: Flirting with Disaster](#), Regnery Publishing, 1998, p. 109.

<sup>23</sup> Presidential Commission, CF 22, p. C138. Under the direction of Army Chief of Staff **General Edward C. "Shy" Meyer**, a set of tests were established to determine individual capabilities at the Military Entrance Processing

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Station, or MEPS. The DACOWITS praised the plan initially, but later criticized it when they perceived a negative impact on women's careers. MEPSCAT did not survive the criticism.

<sup>24</sup> In his article, General Amos quotes a document prepared by two officials associated with the Center for Naval Analysis, which analyzes a paper by **William J. Kraemer** and several others. The Kraemer study cited by CNA indicates that in virtually every event, described and analyzed in detail, performances of the "MEN" group were "significantly greater" and/or faster than the women. CMR requested a copy of the CNA article cited, but CNA declined the request. According to Dr. Paul Davis, the design of the 2001 Kraemer research project was seriously flawed. In the study, a group of men were asked to perform a set of tests only once. Unlike women in the study, the men were not given six months of specialized training. Fifteen pages of "scientific" analysis came to an obvious conclusion: If a woman does resistance training for 3 or 6 months she will be stronger in her performance of physically demanding tasks. A man given the same special training would become even stronger.

<sup>25</sup> US Army Medical Research and Materiel Command: [Natick Study, Nov. 1997](#), and CMR: [The Amazon Myth - Natick Study Stretches Science](#).

<sup>26</sup> [Department of Defense briefing on Implementing Women Into Previously Closed Positions](#), June 18, 2013.

<sup>27</sup> The Final Report of the 1999 **Congressional Commission on Military Training and Gender-Integrated Training** noted similar stereotypical divisions of labor in gender-integrated basic training programs in all services but the Marine Corps, which has separate-gender training (Volume I, p. 246, footnote 334)

<sup>28</sup> USMC: June 2013 [Report to Congress](#), p. 2, footnotes #3 - #6.

<sup>29</sup> Col. Mayer (TECOM HQMC), presentation to the DACOWITS, ["Marine Corps Combat Fitness Test Brief to DACOWITS,"](#) March 14, 2014.

<sup>30</sup> [Marine PFT/CFT Standards](#), confirmed to be in effect in email from Capt. Maureen Krebs, USMC, July 24, 2014.

<sup>31</sup> On the MANUF, a woman would receive 97 points, a man performing at the same level, 76. Respective points earned on the MTC and AL would be 95/76 and 100/79. The accumulated total for women with gender-norming (97+95+100), would be 292 (1st class). The total for men performing at the same levels (76+76+79) would be 231 (2nd class). It is not clear what the 285 total score on the table represents. Nor is it clear whether "gender diversity dividends" awarded to women only are being used in formerly all-male communities recently opened to women.

<sup>32</sup> [From Representation to Inclusion, Diversity Leadership for the 21st-Century Military](#), Final Report, March 15, 2011. Instead of being blind to racial and gender differences, the MLDC report recommends race and gender consciousness. It repeatedly pushes for "diversity metrics," which are supposed to enforce race- and gender-conscious "inclusion" that goes beyond EO, and "needs to become the norm." (p. 18)

<sup>33</sup> Department of Defense Briefing [Transcript](#), February 9, 2012.

<sup>34</sup> The [USMC Assignment of Women to Ground Combat Units Research Plan "Fact Sheet,"](#) prepared in September 2012, mentioned the MLDC in the 2nd paragraph of the Public Affairs Fact Sheet "Background" section.

<sup>35</sup> **Kingsley Browne**, Professor of Law, ["The Report of the Military Leadership Diversity Commission: An Inadequate Basis for Lifting the Exclusion of Women from Direct Ground Combat,"](#) Wayne State University, April 2012.

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<sup>36</sup> The allegation has been made that men who did not succeed on the IOC were allowed to "recycle" for a second try, but women were not given the same opportunity. However, in the July 9, 2014, administrative message cited in footnote #38 below, Lt. Gen. Robert Milstead, Jr., stated, *"Previous IOC volunteers are not eligible to volunteer a second time for this research due to the following: Data has already been captured from these officers' previous participation; they were offered an opportunity to recycle and declined; and additional time spent out of their primary MOS for the purpose of this research may have a detrimental impact on their MOS credibility and eligibility for promotion."*

<sup>37</sup> General James Amos, *Marine Corps Gazette*, footnote #21.

<sup>38</sup> Ellen Haring, ["Can Women Be Infantry Marines?"](#) War on the Rocks, May 29, 2014. Ms. Haring's article was effectively countered by Marine 2nd Lt. J. Emma Stokien in her article, ["The Mission Goes First: Female Marines and the Infantry."](#) War on the Rocks, June 3, 2014.

<sup>39</sup> [MARADMIN 335/14](#), "Operating Force and Supporting Establishment Female Officer Volunteers for Infantry Officer Course Research," July 9, 2014.

<sup>40</sup> Hope Hodge Seck, *Marine Corps Times*, ["Marines Open Infantry Training to Hundreds More Female Officers,"](#) July 10, 2014. Also see Dan Lamothe, *Washington Post*, ["Marine Corps Dilemma With Women Prompts Change at Infantry School,"](#) July 10, 2014. The *Post* reported that the new requirement would involve *"Completion of the male version of the service's annual Physical Fitness Test and the Combat Fitness Test with first-class scores. The PFT requirement is the likely sticking point for many female Marines: To score a first-class PFT, men must do at least five pull-ups, assuming they rack up maximum points by running three miles in 18 minutes or less and complete 100 sit-ups."*

<sup>41</sup> [Marine Corps Combat Fitness Test Brief to DACOWITS](#), Col. Mayer (TECOM, HQMC), March 2014.

<sup>42</sup> [MCO 6100.13 CH1](#), footnote #30, *supra*. To earn a "first class" rating in the CFT, all Marines must earn 270-300 points, but women get a "gender diversity dividend" in how their performances are scored. For example; a man who does the "movement to contact" (MTC) event in 2:45 min earns 100 points. He gets 100 points for lifting 91-100 ammo cans (AL), and 70 more for doing the "maneuver under fire" course (MANUF) in 3:31 to 3:33 minutes. Simple math: 100+100+70 = 270, the minimum "first class" score. If gender-normed scores are used, a woman would get 100 points for the MTC test in 3:23 minutes, but a man gets only 83 points for the same performance. In the ammo lift (AL), she can score 100 for doing 60 (a man gets 79) and 70 more points by doing the MANUF in 5:16 to 5:20 minutes. This performance would fall well below the failing grade for men (60 points for MANUF in 3:58). With the gender diversity dividend, these scores (100+100+70) would add up to the "first class" minimum: 270 points, for a woman. A man performing at the same levels would get only 83+79+0 = 162 points, a failing grade. (See pp. 2-5, 2-6, 2-7, 3-8, 3-9, 3-10, 3-14, 3-17, 3-18, and 3-20.)

<sup>43</sup> David F. Burrelli, Congressional Research Service, [Women in Combat: Issues for Congress](#), April 5, 2012, p. 10.

<sup>44</sup> Center for Military Readiness: [Women-in-Combat Survey of Marines Fails to Show Support for Women in Direct Ground Combat Units](#).

<sup>45</sup> ALMAR 012/12, titled [Assignment of Women to Ground Combat Units](#), April 12, 2012.

<sup>46</sup> U.S. Marine Corps, ["Assignment of Women to Ground Combat Units Research Plan,"](#) prepared by Maj. Shawn Haney, M & RA PAO, p. 7.

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<sup>47</sup> These tests are less difficult than the original list of six tasks that were presented in a briefing to the DACOWITS on September 22, 2011. Sometime between then and April 2012, three of the most difficult tasks were omitted, and the remaining three were made less difficult. Changes such as this have been and will be made without public notice. See CMR Special Report: [Defense Department "Diversity" Push for Women in Land Combat](#)," January 2013, pp. 15-17.

<sup>48</sup> CMR Special Report, *Ibid*. The three common task tests omitted all together involved strenuous movement techniques and defending a position with an 83 lb. assault load, and constructing a heavy machine gun fighting position under a time standard and wearing standard body armor (43 lb).

<sup>49</sup> Marine Corps Force Integration Plan, [Campaign Plan Summary](#), Marine Corps Force Integration Office, **Brig. General George W. Smith, Jr.**, Director.

<sup>50</sup> CMR: [Grim Total of Military Women Killed in War](#).

<sup>51</sup> Presidential Commission, CF 1.5 through 1.9, pp. C-33 through C-34.

<sup>52</sup> Office of the Secretary of Defense and the Joint Staff, FOIA Requester Service Center, [Personnel & Personnel Readiness](#). See drop-down list of notices under "Service of Female Members in the Armed Forces."

<sup>53</sup> The [December 6, 2013, Notification](#) sent to House and Senate Armed Committee leaders describes missions of units in which some MOSs were being opened. The unit missions, though not the MOSs (adjutant, admin chief, communications officer, etc.), use phrases similar to the definition of direct ground combat. The Tank Battalion Mission, for example, "Close[s] with and destroy[s] the enemy using armor-protected firepower, shock effect, and maneuver, and to provide precision direct fires against enemy armor, fighting vehicles, troops, and hardened positions." Since personnel under fire in DGC battalions often become interchangeable, arbitrary gender limits at the battalion level and below would be difficult to validate or defend. Designations that are consistent and based on principle would be more consistent and legally defensible.

<sup>54</sup> NHRC Analysis, Appendix B, p. 35. Excerpt: *"The 155 mm lift and carry consisted of picking up a replica 155 mm artillery round weighing 95 lb. and carrying it a distance of 50 m in under 2 minutes. Marines were not required to place the round on their shoulder and were allowed to cradle the round. While 28.42% of women failed to complete this task, it is extremely likely that if required to "shoulder" the round and/or carry multiple rounds, that failure rate would increase."*

<sup>55</sup> An infantry officer explained in an email to CMR what the armored tank repair MOS entails: *"Some of the wrenches used in this job are the length of a man's arm and they are made of cast iron or steel. One of the bigger challenges for tank (and self-propelled artillery) mechanics is the process of "breaking track." This requires a "tanker bar" which is a 5 or 6 foot crow bar designed to be used as a wedge between tracks. This process is demanding and requires consistent, applied strength under ideal conditions (i.e., in a stateside motor pool, which is the only time I've done it on a Bradley) and it can be hell if done in the mud and rain. Just as every infantryman has his favorite uphill road march in the freezing rain story, every tanker has a story about breaking track in a foot of mud. Those wrenches would be used by one man. They are so long because it provides leverage."*

<sup>56</sup> George Orwell, "In Front of Your Nose," *London Tribune*, March 22, 1946.

<sup>57</sup> Paul S. Rundquist, [Congressional Research Service Report for Congress, "Sense of " Resolutions and Provisions](#), Order Code 98-825 GOV, updated March 7, 2001. Excerpt: *"Even if a "sense of [Congress]" provision is incorporated into a bill that becomes law, such provisions merely express the opinion of Congress or the relevant chamber. They have no formal effect on public policy."*



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<sup>58</sup> Presidential Commission, CF 1.32, p. C-40.

<sup>59</sup> Presidential Commission, CF 1.104A, 1.105, 1.106, 1.125, 1.129, pp. C-61 through C-67, and Canadian Trip Report, 28-31 July and International Trip Report, 16-26 Sept., pp. C-21 through C-31.

<sup>60</sup> [News Release](#) announcing the Department of Defense [Charter of Human Rights Goals](#), signed by all military service secretaries and chiefs of staff, April 28, 2014.

<sup>61</sup> Jim Michaels, *USA Today*, ["Experimental Force Will Test Marine Women in Combat Arms,"](#) Mar. 12, 2014, and Martin Matishek, *Marine Corps Times* Battle Rattle Blog, "One Simple Graphic Shows the Backbone of the Marine Corps' New Infantrywoman Experiment," March 17, 2014.

<sup>62</sup> Maj. Jose E. Almazan, *Marine Corps Gazette*, ["Dissent Through Red Teaming,"](#) August 2014, pp. 35-37.

<sup>63</sup> CMR: [Rubber Stamp RAND Report](#), October 1, 2007, and [CMR Analyzes 1997 RAND Study](#), Mar. 1, 2006.

<sup>64</sup> Email from Deputy Director, Marine Corps Force Integration Office, Sept. 30, 2014. DOTMLPF is a military acronym meaning Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel and Facilities.

<sup>65</sup> Buzz McClain, University News, GMU, ["Women in Combat Plaintiff to Present Keynote at Gender and Conflict Center Reception,"](#) April 9, 2014, and David Zacchino, Los Angeles Times, ["Female Soldiers Fight Pentagon in Court for Combat Positions,"](#) October 11, 2012.

<sup>66</sup> *Washington Post*, Health & Science, ["National Gender Performance in Sports - Fit But Unequal,"](#) Feb. 24, 2013.

<sup>67</sup> Capt. Katie Petronio, USMC, *Marine Corps Gazette*: [Get Over It -- We are Not All Created Equal](#), March 2013. Capt. Petronio described long-term debilitating injuries she suffered while deployed, including infertility problems that she was able to overcome only with extensive medical intervention.

<sup>68</sup> In 2002, the **British Ministry of Defence** issued a report providing the rationale for the decision to retain women's exemption from direct ground combat: United Kingdom, May 2002: [Women in the Armed Forces Excerpt](#): *"The study concluded that only 0.1 percent of female applicants and 1 percent of trained female soldiers would reach the required standards to meet the demands of these roles. . . . The military viewpoint was that under the conditions of a high intensity close-quarter battle, group cohesion becomes of much greater significance to team performance and, in such an environment, the consequences of failure can have far-reaching and grave consequences. To admit women would, therefore, involve a risk with no gains in terms of combat effectiveness to offset it."* (emphasis added) CMR: Jan. 14, 2002: [British Study Finds Female Soldiers "Too Weak" for Land Combat](#) Eight years later, the United Kingdom reviewed the issue again, and came to the same conclusion: [UK Ministry of Defence Report on the Review of the Exclusion of Women From Ground Close-Combat Roles - 2010 Excerpt](#): *"[Women's] capability in almost all areas is not in doubt...But these situations are not those typical of the small tactical teams in the combat arms which are required deliberately to close with and kill the enemy."*

<sup>69</sup> Ian M. M. Gemmell, *Journal of the Royal Society of Medicine*, ["Injuries Among Female Army Recruits: A Conflict of Legislation,"](#) 2002 January. Excerpt: *"[A] 'gender fair' policy was . . . changed to a 'gender free' policy, whereby identical physical fitness tests were used for selection of male and female recruits and the training programme made no allowances for gender differences.... The cross-gender (F/M) odds ratio for discharges because of overuse injury rose from 4.0...under the gender-fair system to 7.5... under the gender-free system. Despite reducing the number of women selected, the gender-free policy led to higher losses from overuse injuries."*

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<sup>70</sup> Presidential Commission Report, "Characteristics of Cohesion – Cohesion is the relationship that develops in a unit or group where (1) members share common values and experiences; (2) individuals in the group conform to group norms and behavior in order to ensure group *survival* and goals; (3) members lose their personal identity in favor of a group identity; (4) members focus on group activities and goals; (5) unit members become totally dependent on each other for the completion of their mission or *survival*; and (6) group members must meet all standards of performance and behavior in order not to threaten group *survival*." CF 2.5.1, p. C-81. (emphasis added)

<sup>71</sup> Kingsley Browne, Professor of Law, Wayne State University, [Co-Ed Combat: New Evidence that Women Shouldn't Fight the Nation's Wars](#), Sentinel, 2007.

<sup>72</sup> U.S. Department of Defense, [Transcript](#), Jan. 24, 2013, and Andrew Tilghman, *Navy Times*, ["Female Combat Vets Report More Assaults,"](#) Oct. 14, 2013.

<sup>73</sup> USMC WISRR DACOWITS Brief, September 2011, *supra* note #7, p. 8.

<sup>74</sup> Col. Smitherman, USMC Recruiting Command, ["Female Enlisted Marine Accessions Brief to DACOWITS,"](#) March 2014, p. 7. The DoD FOIA website has not posted current JAMRS information on the results of surveys to determine how direct ground combat eligibility would affect recruiting.

<sup>75</sup> Presidential Commission Testimony of **Col. Dennis Kowal, USA**, April 6, 1992.

<sup>76</sup> Thom Shanker, *New York Times*, ["Marines Share Frank Views With Hagel on Women in Combat,"](#) July 19, 2013.

<sup>77</sup> Capt. Lauren F. Serrano, USMC, *Marine Corps Gazette*, ["Why Women Don't Belong in the U. S. Infantry,"](#) September, 2014.

<sup>78</sup> Lt. Col. Robert Maginnis, USA (Ret.), [Deadly Consequences: How Cowards Are Pushing Women into Combat](#), Regnery, 2013, p. 194.

<sup>79</sup> [National Coalition for Men v. U.S. Selective Service System](#), 13-cv-02391-DSF-MAN, available at: <http://ncfm.org/wp-content/uploads/2013/04/130405-NCFM-Selective-Service-lawsuit-complaint-3.pdf>.

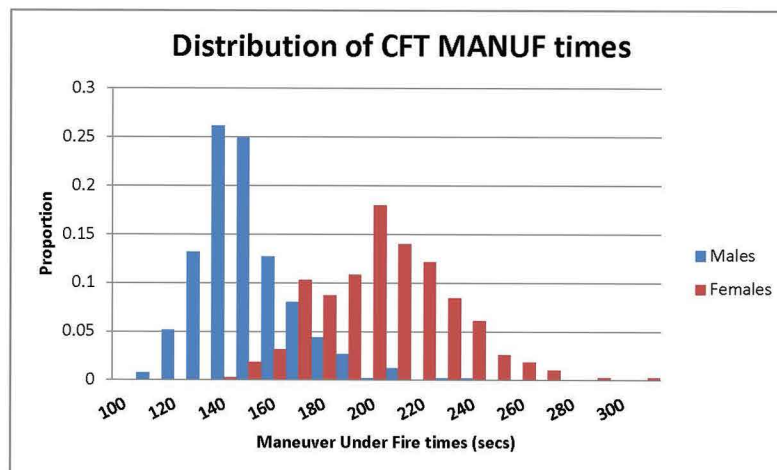
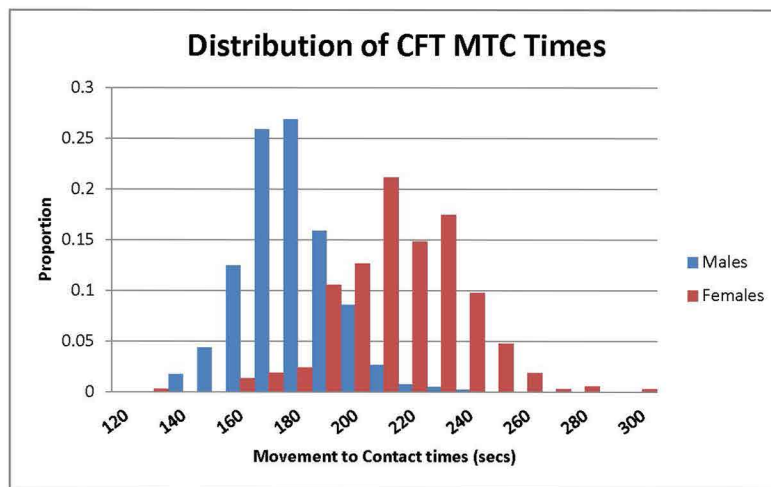
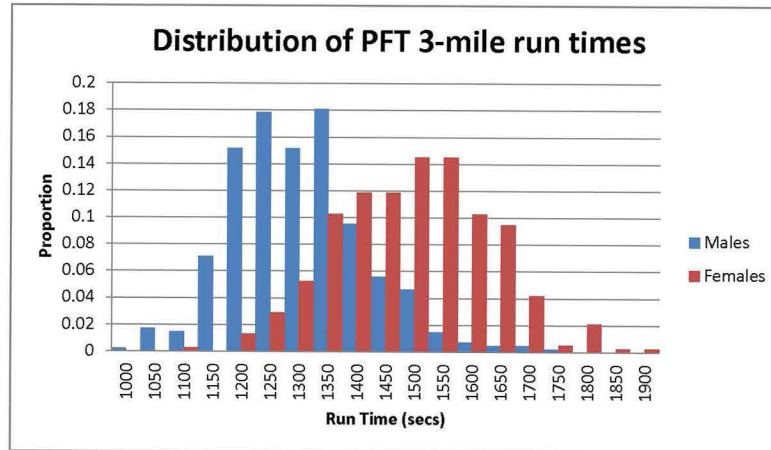
<sup>80</sup> DoD Notice to Congress, [April 11, 2013](#); also see *supra* note #52.

<sup>81</sup> Headquarters, Department of the Army, TB MED 592 Technical Bulletin, ["Prevention and Control of Musculoskeletal Injuries Associated with Physical Training,"](#) May 2011, pp. 13-14.

<sup>82</sup> Paul O. Davis, PhD, *Marine Corps Gazette*, *supra* note #16. *"Like the Marine Corps, the lack of physical ability in the firefighting profession can have disastrous consequences. In a tragic fatal firefighting training exercise, a female recruit was unable to self-rescue by pulling herself up and over a window ledge."*



## EXHIBIT A



These graphs, reproduced from pages 31-32 of the Navy Health Research Center Analysis, show small overlaps between the performances of men on the Physical Fitness Test (PFT) 3-mile run, the Combat Fitness Test Movement to Contact (MTC) test, and the CFT Maneuver Under Fire (MANUF) event. Strength disparities are less apparent in running events that do not involve heavy load carriage.

Source: "Analysis in Support of the Women in Service Restriction Review Study," Jason Jameson and Karen Kelly, Naval Health Research Center, San Diego, CA, Appendix A, pp. 31-32.

## EXHIBIT B

### Partial List of Studies and Reports Relevant to USMC Research on Women in Direct Ground Combat

1. LTC Philip J. Belmont Jr., MC USA; CPT Gens P. Goodman, MC USA; CPT Brian Waterman, MC USA; LTC Kent DeZee, Me USA; COL Rob Burks, QM USAF; MAJ Brett D. Owens, MC USA, *Military Medicine*, "[Disease and Non-Battle Injuries Sustained by a U.S. Army Brigade Combat Team During Operation Iraqi Freedom](#)," Vol. 175, July 2010.

**Abstract Excerpt:** This is an analysis of disease non battle injuries (DNBI) sustained by a large combat-deployed maneuver unit in a U.S. Army Brigade Combat Team (BCT) during a counterinsurgency campaign of Operation Iraqi Freedom. *"The DNBI casualty rate for the BCT was 257.0/1,000 soldier combat-years. Females, compared with males, had a significantly increased incidence rate ratio for becoming a DNBI casualty . . . Of 47 female soldiers receiving MEDEVAC 35 (74%) were for pregnancy-related issues. Musculoskeletal injuries (50.4%) and psychiatric disorders . . . were the most common body systems involved with DNBI casualties . . . Conclusions: Musculoskeletal injuries and psychiatric disorders accounted for 74% of the total DNBI casualties, and 430/0 of the DNBI casualties requiring subsequent MEDEVAC."*

2. British Ministry of Defence (MOD), United Kingdom, "[Women in the Armed Forces](#)," May 2002. This report provided the rationale for the decision to retain women's exemption from direct ground combat. Also see CMR, Jan. 14, 2002: "[British Study Finds Female Soldiers 'Too Weak' for Land Combat](#)."

**Excerpts:** *"The study concluded that only 0.1 percent of female applicants and 1 percent of trained female soldiers "would reach the required standards to meet the demands of these roles . . . The military viewpoint was that under the conditions of a high intensity close-quarter battle, group cohesion becomes of much greater significance to team performance and, in such an environment, the consequences of failure can have far-reaching and grave consequences. To admit women would, therefore, involve a risk with no gains in terms of combat effectiveness to offset it....[T]he Secretary of State for Defence concluded that the case for lifting the current restrictions on women serving in combat roles has not been made for any of the units in question. Taking the risk that the inclusion of women in close combat teams could adversely affect those units in the extraordinary circumstances of high intensity close combat cannot be justified."*

3. British Ministry of Defence, (MOD), United Kingdom, [Report on the Review of the Exclusion of Women From Ground Close-Combat Roles](#), November, 2010. Eight years later, the MOD reviewed the issue again, and came to the same conclusion:

**Excerpt:** "[Women's] capability in almost all areas is not in doubt...But these situations are not those typical of the small tactical teams in the combat arms which are required deliberately to close with and kill the enemy."

4. **Kingsley Browne**, Professor of Law, ["The Report of the Military Leadership Diversity Commission: An Inadequate Basis for Lifting the Exclusion of Women from Direct Ground Combat,"](#) Wayne State University, April 2012

**Excerpt:** "The recommendation of the Military Leadership Diversity Commission to lift the exclusion of women from ground combat is deeply irresponsible and cannot be taken seriously. The Commission's lodestar was diversity, not military effectiveness, and it failed to take into consideration a wealth of information bearing on its recommendation."

5. **Elaine Donnelly**, President, Center for Military Readiness, [Statement for the Record](#), House Armed Services Personnel Subcommittee, July 24, 2013. (Includes Appendix discussing policies of other nations with regard to women in combat.)

6. **Ian M. M. Gemmell**, *Journal of the Royal Society of Medicine*, ["Injuries Among Female Army Recruits: A Conflict of Legislation,"](#) 2002 January.

**Excerpt:** "[A] 'gender fair' policy was . . . changed to a 'gender free' policy, whereby identical physical fitness tests were used for selection of male and female recruits and the training programme made no allowances for gender differences.... The cross-gender (F/M) odds ratio for discharges because of overuse injury rose from 4.0...under the gender-fair system to 7.5... under the gender-free system. Despite reducing the number of women selected, the gender-free policy led to higher losses from overuse injuries."

7. **William J. Gregor, PhD**, Professor of Social Sciences, School of Advanced Military Studies Fort Leavenworth, KS, [Why Can't Anything Be Done? Measuring Physical Readiness of Women for Military Occupations](#), Paper on physiology presented at the 2011 International Biennial Conference of the Inter-University Seminar on Armed Forces and Society:

**Excerpt:** "The data clearly reveals a very large gap between the physical strength, aerobic capacity and size of Army men and women. Training men and women correctly improves the performance of both groups but it also widens the gap in performance."

**Additional Comment by Dr. Gregor:** "There is no study that indicates that training can overcome the large physical differences between men and women. Additionally, training women to perform heavy work jobs increases dramatically the skeletal-muscular injury rate among women which is already far greater than men. Attempting to train women with men will require either training men less well or accepting a high attrition rate among the very few women who will meet the nominal qualifications for heavy work jobs. In units, it can be expected that commanders will shift tasks from women to men to avoid attrition from non-battle injury. It is a matter of speculation whether such task shifting is tolerable in actual

*combat. Given the non-battle injury rate of Army women in Operation Iraqi Freedom, increasing the presence of women below the brigade level may result in even greater losses."*

8. Venerina Johnson, Julia Coyle , Rodney Pope and Robin M Orr, "[Load Carriage and the Female Soldier](#)," Review Article Issue, Volume 19, No. 3, *Journal of Military and Veterans' Health*, A peer reviewed journal, Australasian Military Medicine Association. July 2011, (p. 29)

**Excerpt:** *"Physiological factors such as fat mass, strength, and aerobic endurance, as well as biomechanical factors, like stride length and forward lean, have the propensity to increase both the energy cost of completing a load carriage task, and the potential for injury. The female athlete triad, which can be induced or worsened by intense physical activity (like load carriage), poor nutritional intake, and stressors within the combat environments, likewise raises injury potential concerns. Furthermore, iron deficiency, PFM dysfunction or fatigue, and military equipment issues can reduce performance, increase fatigue and increase the risk of injury in female soldiers."*

9. **Report of the Presidential Commission on the Assignment of Women in the Armed Forces**, November 15, 1992, Section II, [Alternative Views: The Case Against Women in Combat](#), pp. 43-48, and [Selected Findings of the Presidential Commission](#), compiled by CMR. Some of the commission's findings have been overtaken by events; e.g., repeal of the Defense Department Risk Rule and Collocation Rule in 1993 and 2012, respectively. Most are very relevant, however, especially findings and testimony regarding women in direct ground combat.

**Excerpt:** *"Civilian society forbids employment discrimination. But the military, in building fighting units, must be able to fight and win in battle. There is good reason for this. In a combat unit serving on land, at sea, or in the air, the inability of any member of the group to perform at levels demanded by the battlefield can present a direct risk to the lives of others and to the accomplishment of the infantry mission. This is one of several reasons why the Armed Forces differ in many important respects from civilian employers, including police forces that preserve order close to home. It is a separate society governed by a set of rules and regulations because its principal purpose is to fight and win wars. While civilian workers operate on a "9 to 5" schedule, units in combat operate 24-hours-a-day, seven-days-a-week. For the deployed fighting man, there is no home and family waiting at the end of the day. The home is where the soldier stands to face the enemy. Good order and discipline are crucial for morale, survival, and victory in battle." (p. 44)*

10. Rear Adm. Hugh P. Scott, MC, USN (Ret.), [Letter to House Armed Services Committee Chairman Howard P. "Buck" McKeon](#), June 22, 2012.

**Excerpt:** *"While men and women have an equal number of muscles and muscle fibers, the strength difference relates exclusively to muscle size that is determined by testosterone levels. Because women have less testosterone than men, they have smaller muscle fibers that result in the development of small-size muscles; in effect, women have less muscle to*

*activate. That also is the reason why women develop less muscle when training with weights and exercising."*

- 11. Col. Barbara A. Springer, PhD, PT, OCS, SCS, and Major Amy E. Ross, MD, Borden Institute** Monograph Series, "[Musculoskeletal Injuries in Military Women](#)," 2011.

**Excerpt:** *"Military women tend to suffer a higher incidence of injuries than military men. Several studies have identified female gender as a risk factor for injury in Army basic training programs in the United States and around the world. For example, one study shows the cumulative injury incidence in Basic Combat Training (BCT) was 52% for women versus 26% for men. . . Other studies showed a similar incidence for training injuries in BCT populations: approximately 50% for women and 25% for men." (p. 3)*

- 12. Daniel W. Trone, MA, Military Medicine magazine,:** "[Negative First-Term Outcomes Associated with Lower Extremity Injury During Recruit Training Among Female Marine Corps Graduates](#)," Jan 2007, 172, p. 83.

The Trone study, a four-year study of Marine Corps training graduates at Parris Island, focused on the career impacts of elevated injury rates among female trainees, reinforced questions about the short- and long-term consequences of training women and men with identical standards. In addition to the cost of early separations, negative outcomes included failure to complete first-term of service, failure to achieve rank of corporal, and failure to re-enlist.

- 13. US Army Research Institute of Environmental Medicine (USARIEM),** "[Effects of a Specifically Designed Physical Conditioning Program on the Load Carriage and Lifting Performance of Female Soldiers](#)," **November 1997**, and "[The Amazon Myth – Natick Study Stretches Science](#)."

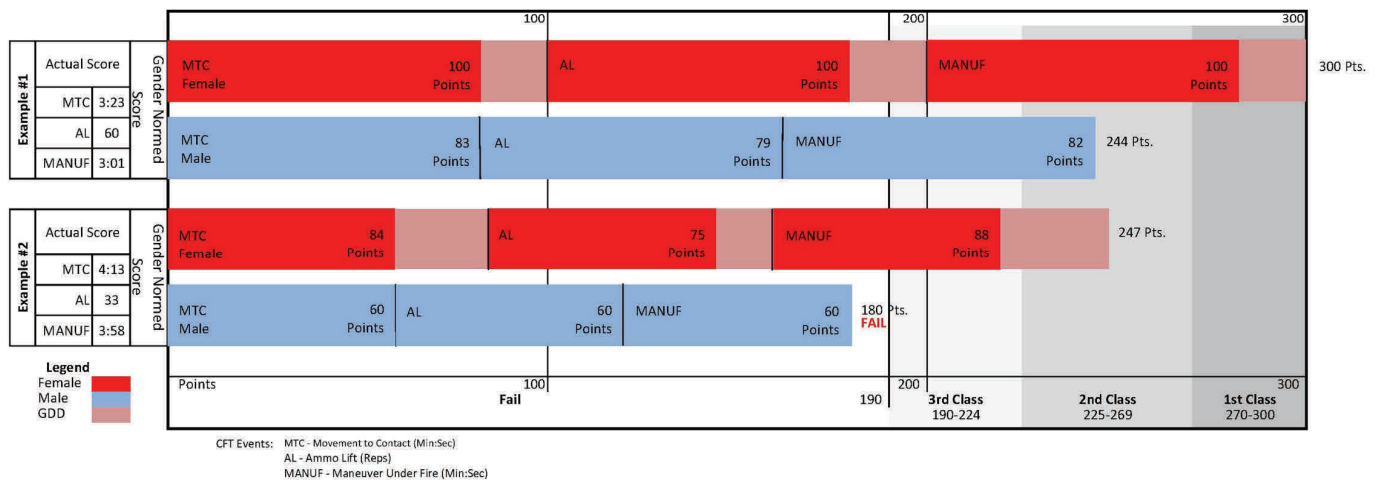
This USARIEM **Report**, often referred to as the **Natick Study**, has been cited in some misleading reports as evidence that special training can overcome physical differences between men and women in close combat. On closer examination, the study did not meet expectations of its sponsor, then-Representative **Patricia Schroeder**, D-CO.

- 14. Laurel Wentz, Pei-Yang, Liu, Military Medicine,** "[Females Have a Greater Incidence of Stress Fractures Than Males in Both Military and Athletic Populations: A Systemic Review](#)," Apr. 1, 2011.

**Abstract Excerpt:** *"The purpose of this study was to review incidence and identify factors explaining causes and differences in the incidence among genders. . . Of several thousand studies . . . 11 focusing on military populations and 10 on athletes are discussed. Results: In both populations, females had higher incidence of stress fractures, with incidence of ~3% and ~9.2% for males and females, respectively, in military populations and ~6."*

## EXHIBIT C

### The Gender Diversity Dividend (GDD)



#### How Gender-Normed (Extra) Points on the Combat Fitness Test (CFT) Help Women Achieve Higher Ratings Denied to Men Performing at the Same Levels

Example #1: Female trainee achieves perfect score (300 points) with the help of "gender diversity dividend" points. Male trainee achieves 2nd Class rating.

Example #2: Female trainee achieves 2nd Class rating with the help of "gender diversity dividend points. Male trainee performing at the same level falls short of 3rd Class rating.

As directed in July 2014, female officers applying for a USMC Force Integration Plan research try-out on the Infantry Officer Course (IOC) must achieve a 1st Class rating using male-designated PFT and CFT scoring charts. It is not clear whether similar requirements will apply to other formerly all-male MOSs opened to female officers since April 2013. Enlisted women attending previously all-male entry-level training courses will be required to achieve 3rd Class ratings using male-designated charts (ages 17-26). Gender-normed PFT and CFT scoring systems, which are still in effect, will be used for other Marines.

**Marine PFT/CFT Standards:** The Physical Fitness Test (PFT), which is done by all personnel at least once a year, involves pull-ups or flexed-arm hangs (women only), abdominal crunches, and a 3 mile run. The Combat Fitness Test (CFT) has three requirements, an 880 yard run, repetitive 30 lb. ammo can lifts in 2 minutes, and maneuvers under fire involving a 300-yd. shuttle run, crawls, sprints, brief fireman's carry, simulated grenade throw, and an ammo can carry.

## EXHIBIT D

### Statements from Women Marines

The following excerpted statements reflect the opinions of fifteen female Marines (NCOs, enlisted, and one officer, identified with pseudonyms) who were interviewed for an academic dissertation by **Beth-ann Vealey** for the Virginia **Commonwealth University School of Social Work**. Ms. Vealey's March, 2014, dissertation, titled [United States Women Marines' Experiences and Perspectives About Coping With Service Life: A Phenomenological Study](#) is even more compelling because it does not address or debate the question of whether women should serve in direct ground combat. The women's statements are a clear reminder that civilian activists and female officers with career ambitions do not speak for the majority of women in the military. They also contradict claims that ordering women into the combat arms is a pro-women policy. (Topic titles are from the dissertation, but page citations are omitted throughout.)

#### 1. Harder work to be a woman Marine — The superstar

Victoria explained, *"because you are a woman, you have to work harder just to be a Marine and you will never be at the same level as the men! They are always watching and we will always be below it!"* (p. 2, line 79-81). *"We are women trying to be them, we gotta do everything they do plus everything else! So it's difficult"* (p. 70)

Maggie believed it is *"harder to try to meet the new standards.... [T]hey are trying to make them more equal to the men"* and wondered if *"maybe they are trying to get rid of us."* (p. 71)

#### 2. Conflict being women while being Marines

Arlene struggled with the physical demands to be a woman and a Marine: *"[H]ow do I get my body to adjust and how come we have to be able to do what males do? Male Marines haven't had to adapt to a lot of changes like us, we are constantly having changes to adjust."*

Expressing concerns about her future if she cannot meet the new standards: *"[I]t seems like the Marine Corps is trying to push the women out."* (p. 72)

Jessica felt similarly to Arlene, and stated, *"I do feel like the Marine Corps is trying to weed us out.... "[W]e are just not recognized for being women and it's just hard to explain!"* (p. 72)

#### 3. Stereotyping women Marines — The object

More than half of the women participants described how they perceived or experienced negative stereotyping and labeling for being both a woman and a Marine. Jamie shared her perspective about why women Marines are stereotyped: *"[B]eing a female in the Marine Corps is hard because if you can't do what the men can do or want you to do, then you're viewed differently and in a negative way"* (p. 73)



Sophie explained how she was stereotyped upon arrival to her first command assignment:  
*"[W]hen I first checked in, you had three labels, you were either a bitch, a lesbian, or a whore, and you know as soon as you check in they will stereotype you...It was tough"* (p. 73.)

#### **4. Harassment: women Marines' perspectives – being hit on and violated**

Other participants detailed accounts of harassment, in the form of direct and indirect threats or fraternization, perpetrated by senior leadership. One participant (Marysol) described, *"this one Sergeant Major made it his mission to run as fast and as hard to drop any female Marines."* Footnote: *"Physical training for the unit often is comprised of running in formation. When those in front of the formation, such as the Sergeant Major, run very fast, those in the back have to run very, very fast to try to keep up. Many women, smaller and shorter, have a difficult time keeping up, especially if in the back of the formation."* (p. 77)

#### **5. Women Marines are inferior to men in the Marines – The quota filler**

Louisa reported that the male Marines question her, *"why aren't you as good as the rest of us?" meaning male Marines* and, she added, *"It's like we're not good enough to be here.... [T]hey yell at us like 'oh, just another female Marine not being able to do what we do' as Marines."* Maggie asked her fellow Marines to treat her the same as the men she worked with: *"[But when] it is time to pick up Corporal...my fellow Marines will think that I got it through favoritism... [A] lot of times when females pick up the next rank...they will say... 'oh, you know how she picked it up...[T]hat's what I don't want...I want to be respected."* (pp. 79-80)

#### **6. Women Marines are the variable for change — Because we are different?**

JoJo *"believes in equality for women, but . . . They keep trying to make me do things like them and look like them and I will never be able to do that. It feels isolating."* Jamie reported, *"[W]ith the uniform changes and the pull-ups and stuff like that, they are trying to make men and women equal, and in Marine life we are never gonna be equal."* To JoJo, women will never achieve equality with men in the Marines because *"We are not equal, we are a different species, men are different from women. To try and put us all on the same playing field, is not fair. Men have to do 20 pull-ups for 100 points and now women have to do 6 for 100 points. They see that as unfair..It will never be equal in their eyes."* (pp. 81-82)

#### **7. Role uncertainty experienced by women Marines – But I am a woman!**

*"You have to lose your womanhood to meet the male standard . . . [T]hat is not okay with me."* (Hayden)...*"To be a Marine I had to hide being a woman as much as possible" because as a woman, "when you take care of yourself...it is a sign of weakness."* (Autumn) *"It seems like the Marine Corps is trying to push the women out...because of the whole females in the infantry thing."* (Arlene) (pp. 84-85)

*"Listen, I am a woman and they are men and there is a difference...I don't want to be gender neutral!"* (Robin) Robin provided an example of how being a woman is not consistent with



uniform changes: "[T]hey are making the covers and the uniform look the same...absolutely stupid...trying to make this androgynous-looking uniform and I am sorry, I have womanly curves, I am a woman...and they are men." (p. 85)

#### **8. Against women in combat-designated billets – Who decided that?**

Several other women expressed their views and concerns about the changes to military policy allowing women into combat-designated billets. Autumn was concerned about women being combat-designated. *"Who decided that? I know me and other women I know are against it. But they are pushing forward and we don't know why or who is behind it."* *"Women in combat is a bad idea,"* said Valencia. JoJo agreed: *"I don't think females belong in the infantry..."* [S]aid Robin, *"there are jobs we [women] can do well in the Marine Corps.... I don't think we should be in infantry, period" . . . because "I am putting someone's life on the line."* Suzie wondered *"about the whole thing with putting women in the infantry... '[O]h, if you put women in the infantry they will be more respected.'... [N]o, they f---ing won't be! Because you are trying to make them be men...[W]e will be respected if we could be treated like the women that we are!"* (p. 86)

#### **9. Manage multiple roles to be women Marines — Being not just a Marine**

[Some women] made decisions to be a Marine first. *"If you are gonna be a good Marine, you gotta focus more on meeting the standards, not having kids and getting married. It's too hard to do both!"* (Arlene). One woman participant, who was also a wife and a mother, managed her roles *"by putting my career first.... [I] put my work before everything else, they [children] knew that [they] were second place and I think it bothered them, especially when they were teenagers."* (Robin) (p. 87-88)

Some of the women participants expressed the challenges of being pregnant while serving on active duty in the Marines. Autumn described her experience during her first pregnancy this way: *"[I]t was bad, my Staff NCO at the time was like 'we can't use her for anything' and always made a point of making me feel as though I was a burden."*

Valencia perceived that *"when I was pregnant, I feel like that is one of the biggest things that marked me as a woman because, yeah, you wear a uniform but you are just like any other pregnant woman, just because you wear a uniform doesn't make you any stronger.... [Y]ou are still in pain and they tell you 'take it like you are a Marine and suck it up.'* So to me, I was like, *I never want to get pregnant again in the Marines. I can't and don't want to deal with it. It was too hard."* Another participant tearfully reported that *"I was scrutinized for being pregnant...told that I did it on purpose to get out of [being deployed to] Iraq.... [T]hen when I didn't get selected [for promotion]...I hated being pregnant. I wanted an abortion. I felt like a failure as a Marine"* (Marysol) (p. 89)

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