

UNITED STATES MARINE CORPS



MARINE CORPS FORCE INTEGRATION PLAN LINE OF EFFORT 2 EXPANDED ENTRY-LEVEL TRAINING RESEARCH STUDIES FINAL RESEARCH DATA REPORT

11 SEPTEMBER 2015

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MARINE CORPS FORCE INTEGRATION PLAN

LINE OF EFFORT 2: EXPANDED ENTRY LEVEL TRAINING RESEARCH STUDIES

FINAL RESEARCH DATA REPORT

EXECUTIVE SUMMARY

1. Introduction. Training and Education Command (TECOM) was the lead for Line of Effort 2 (LOE 2), Expanded Entry Level Training Research Studies, Marine Corps Force Integration Plan, that assessed the performance of female volunteers assigned to Infantry and non-infantry ground Combat Arms (CA) Formal Learning Centers (FLCs).

2. Background. The MCFIP established a campaign plan comprised of four Lines of Effort (LOE) from which to identify, collect, analyze, and synthesize data on integrating female Marines into previously closed Occupational Fields (OccFlds) and Military Occupation Specialties (MOS), and units to inform policy decisions on the assignment of female Marines to the previously closed OccFlds/MOSs. The four LOEs are:

- LOE 1: Exception to Policy (ETP) Expansion
- LOE 2: Expanded Entry-Level Training (ELT) Research Studies
- LOE 3: Ground Combat Element (GCE) Experimental Task Force
- LOE 4: Early MOS Opening

The LOE 2 effort consisted of three research protocols implemented in accordance with Human Research Protection Program (HRPP) policy guidelines and reviewed by the Marine Corps Institutional Review Board. The research period spanned September 2012 to June 2015 and was conducted at the following infantry and CA FLCs:

- Infantry Officer Course (IOC), Quantico, VA
- Infantry Training Battalion (ITB), School of Infantry-East, Camp Lejeune, NC
- Marine Corps Detachment, Ft. Benning, GA
- Marine Corps Detachment, Ft. Sill, OK
- Assault Amphibian Vehicle School Battalion, Camp Pendleton, CA

3. Approach. The performance of female Marine volunteers was assessed to determine success rates, propensity, attrition, and injury rates. Data collection and analysis was based on identifying significant predictors of graduation. Performance was evaluated against existing 1000-level individual training and readiness standards and performance evaluations and graduation requirements from the respective Programs of Instruction. Survey data was collected to longitudinally track volunteer propensity, along with volunteer perceptions and attitudes regarding the research and training experience.

The TECOM research team conducted comparative analysis of performance and injuries, statistical distributions, and combined multivariate linear regressions to identify significant performance indicators and injury rates at FLCs.

A multivariate logistic regression model was developed based on the 401 ITB female volunteer training starts and 1639 males training starts assigned to ITB from December 2013 to December 2014. This male grouping (1639) represented a complete and dependable basis for comparative analysis. The output variable for the regression model was whether or not the Marines graduated ITB, with the input variables for the model listed below:

- Number of MCRD Final Physical Fitness Test (PFT) Pull-ups
- Time of MCRD Combat Fitness Test (CFT) Movement to Contact (MTC)
- Time of MCRD CFT Maneuver under Fire (MANUF)
- Number of MCRD CFT Ammo Can Lifts
- Time of I MEF PFT 3-Mile Run (from May 2015 I MEF MOS standards assessment)

4. Findings. The LOE 2 spanned 33 months, involved over 90 Marine and civilian personnel in research support, collecting performance, survey and injury data from over 900 LOE 2 (and LOE 3) females and performance data from over 6800 males across five FLCs. The analysis identified the following key findings:

- Propensity
 - 5% (24/454) of female Lieutenants elected to volunteer for IOC
 - 42% (1504/3614) of the 3614 female MCRD graduates met the ITB physical prerequisites to volunteer - 34% (516/1504) volunteered
- Performance
 - 401 ITB volunteer training starts - 144 graduates - 35.9% graduation rate
 - 64% (257/401) of volunteer training starts were ITB drops
 - 48% (124/257) of ITB volunteer drops were due to physical performance
 - 89% of ITB performance drops were PFT/CFT/Conditioning Hike failures
 - 98% (28/29) of IOC volunteer drops were physical performance failures
- Injuries
 - ITB females had a 13% injury rate versus a 2% injury rate for males
 - 9% (23/257 cumulative drops) of female drops were due to injuries
 - 27% of female injuries were attributed to conditioning hikes versus 13% of male injuries from conditioning hikes
 - The one IOC injury drop (foot stress fracture) was manifested following multiple hikes
 - There were no physical injury drops at the CA FLCs

5. Recommendation. None. For information only.

MARINE CORPS FORCE INTEGRATION PLAN
LINE OF EFFORT 2: EXPANDED ENTRY LEVEL TRAINING RESEARCH STUDIES
FINAL RESEARCH DATA REPORT

1. Purpose. To provide the Commandant of the Marine Corps (CMC) a report on the Line of Effort (LOE) 2 Expanded Entry Level Training Research Studies.

2. Objective. This report details the LOE 2 research and will discuss the research approach, recruitment, research support, data collection and findings from the infantry and non-infantry combat arms (CA) Formal Learning Centers (FLCs).

3. Background. Beginning with the Infantry Officer Course (IOC) research in September 2012, the Marine Corps initiated a deliberate, measured, and responsible approach to integrate female Marines into ground combat units, as part of the 'Women in the Services Restriction Review' (WISRR). The 2014 Marine Corps Force Integration Plan (MCFIP) established a campaign plan comprised of four lines of effort (LOEs) from which to identify, collect, analyze, and synthesize data on integrating female Marines into previously closed Occupational Fields (OccFlds) and Military Occupation Specialties (MOS), and units to inform CMC decisions regarding the assignment of female Marines to the previously closed OccFlds/MOSs. The four LOEs are:

- LOE 1: Exception to Policy (ETP) Expansion
- LOE 2: Expanded Entry-Level Training (ELT) Research Studies
- LOE 3: Ground Combat Element (GCE) Experimental Task Force
- LOE 4: Early MOS Opening

The LOE 2 research was led by the MAGTF Training and Education Standards Division (MTESD), Training and Education Command (TECOM). The performance of female Marine volunteers assigned to the infantry and CA FLCs was assessed to determine success rates, propensity, attrition and injury data.

4. LOE 2 Research Methodology.

4.1. Study Details. The LOE 2 research was developed and executed by TECOM as three separate research protocols in accordance with Human Research Protection Program (HRPP) guidelines (DoD Instruction 3216.02, SECNAVINST 3900.18, MCCDC HRPP Policy & Procedures Manual, and MCO 3900.18) and the Marine Corps Institutional Review Board (IRB). Enclosure (1), Tabs (A) (B) and (C) list the LOE 2 research protocols for the following studies:

- Assessment of Female Marine Officer Volunteers at IOC
- Assessment of Female Enlisted Marine Volunteers at the Infantry Training Battalion (ITB), School of Infantry-East (SOI-E)
- Assessment of Female Enlisted Marine Volunteers at the CA FLCs

The study collected data on the performance of female Marine volunteers at designated infantry and CA FLCs. The bulk of LOE 2 was implemented in September 2013 with the ITB research; although the IOC research began in September 2012 as part of the previously discussed Marine Corps' WISRR support. All MCFIP-related research and data collection concluded in June 2015. The LOE 2 research was conducted at the following TECOM entry level training FLCs:

- Infantry Officer Course (IOC), Quantico, VA
- Infantry Training Battalion (ITB), SOI-E, Camp Lejeune, NC
- Marine Corps Detachment, Ft. Benning, GA.
- Marine Corps Detachment, Ft. Sill, OK
- Assault Amphibian Vehicle School Battalion, Camp Pendleton, CA

4.2. Research Support Plan. The LOE 2 research spanned 33 months and involved over 90 Marine and civilian support personnel. The research was supported by an investment of over \$680K, with approximately \$528K allocated for two man years of contracted support (FY13/14). Approximately \$150K was expended on research team travel consisting of over 45 trips to TECOM FLCs and the Marine Corps Recruit Depot, Parris Island, SC (MCRD PISC) for on-site planning and coordination, screening and recruitment of volunteers, and research sustainment oversight.

4.2.1. Research Support Personnel. TECOM was the LOE 2 research lead, with MTESD as the TECOM lead with responsibility for all facets of the research to include research protocol development and implementation, data collection, and reporting of key findings. A key element of the research protocol implementation was the establishment of research support teams at the FLCs and related research support organizations as shown in Table 1 below. Enclosure (2) lists the LOE 2 Research Support Personnel.

The implementation, training, and assignment of the research support teams was the responsibility of the TECOM Research Team Principal Investigator (PI), to include coordination with the IRB for review and certification of all research support personnel, as 'Investigators and Key Research Personnel' and required by HRPP guidelines.

| ORGANIZATION | ROLES / DUTIES / PERSONNEL |
|--|---|
| MTESD (TECOM) | <ul style="list-style-type: none"> ✓ LOE 2 Research Lead ✓ (1) Principal Investigator ✓ (3) Associate Investigators ✓ (7) Research Monitors (TECOM/EDCOM/TRNGCMD) ISO IOC research ✓ (2) Ombudsman (TBS) ISO IOC Informed Consent (recruitment) briefings |
| OAD (MCCDC) | <ul style="list-style-type: none"> ✓ MCFIP Analysis & Integration Lead / Analysis support to LOE 2 ✓ (3) Associate Investigators |
| MCRD (PISC) | <ul style="list-style-type: none"> ✓ Extension of TECOM Research Team: Screening & Recruitment Support ✓ (1) Associate Investigator ✓ (3) Ombudsman (ISO Informed Consent recruitments) |
| SOI (East) | <ul style="list-style-type: none"> ✓ Extension of TECOM Research Team: Research Implementation/Oversight ✓ (5) Associate Investigators (Sep 2013 - Jun 2015) ✓ (80) Research Monitors/Ombudsman (Sep 2013 - Jun 2015) |
| MARDET Ft. Sill, OK MARDET Ft. Benning, GA AAS Battalion, CPCA | <ul style="list-style-type: none"> ✓ Extension of TECOM Research Team: Research Implementation/Oversight ✓ (1) Associate Investigator - MARDET Ft. Sill ✓ (2) Associate Investigators – MARDET Ft. Benning ✓ (1) Associate Investigator – AAV School Battalion ✓ (2) Research Monitors/Ombudsman - MARDETs Ft. Sill ✓ (2) Research Monitors/Ombudsman – MARDET Ft. Benning ✓ (3) Research Monitors/Ombudsman – AAV School Battalion |

Table 1: LOE 2 Research Support

The research Associate Investigators (AI) at each FLC were sourced from the respective schools; e.g., Assistant Operations Officer, Academics Officer, or Course Curriculum Developer. For research related matters, the AIs were an extension of the TECOM research team, supporting the TECOM Research Team Principal Investigator (PI); however, the PI did not write fitness report evaluations for AI's. At the School of Infantry-East, several of the assigned Research Monitors (TBS graduates awaiting MOS school) were recertified as AI's to augment the SOI lead AI. The IOC was the only FLC where an AI was not assigned; this due to the proximity of the TECOM research team. The FLC-based AIs were responsible for on-site research oversight, data collection and weekly reporting to the TECOM research team.

Research Monitors (RM) were required by the IRB following a review and a protocol classification of 'greater than minimal risk' (to research subjects) as was the classification for the three LOE 2 protocols. RMs were appointed in writing by the USMC Institutional Review Board Institutional Official and trained by the PI who also coordinated with the FLCs AI to facilitate assignments an FLC course. RMs were required as an additional layer of protection for the safety of the volunteers and to ensure the Program of Instruction (POI) was fairly and safely administered. They were required to monitor all training, including any data collection as part of physical performance evaluations, as well as assisting the AI in monitoring and reporting injuries during training.

The RMs' duties did not include evaluating the volunteers, FLC staff, or the POI; although they were required to be familiar with the POI from the standpoint of understanding the POI and respective training standards associated with the training schedule. The ITB RMs were Basic Officer Course (BOC) graduates from The Basic School. The TECOM research team PI coordinated the ITB RM assignments with CG Training Command and the Deputy Commandant for Manpower and Reserve Affairs (DC M&RA). Assignment of RMs to the CA FLCs was executed by DC M&RA as PCS orders, with their training the responsibility of the TECOM research team PI. The average RM assignment to ITB was 2-3 months, while at the CA schools, RMs were assigned on average for one year. The PI was the Reporting Senior on the fitness reports for all ITB RM fitness reports and the Reviewing Officer for the CA RMs. The RMs for IOC were assigned from the TECOM major subordinate commands in the National Capitol Region, by company grade or field grade MOS 0302 Infantry officers in all cases but one. The TECOM research team PI was responsible for the training and the assignment of RMs to an IOC class, but did provide a fitness report due to the limited number of IOC classes and actual training days, where monitors were required. All IOC RMs were appointed in writing by the IRB Institutional Official.

The Ombudsman was another research individual mandated by HRPP guidelines as a standing requirement to observe all Informed Consent recruitment sessions. As a representative of the IRB, the Ombudsman ensured that the prospective volunteers were not exposed to undue influence or coercion during the recruitment process. Where possible, RMs could be dual-hatted as an Ombudsman. The TECOM research team PI was responsible for ensuring Ombudsmen were familiar with the protocol and Informed Consent process.

4.3. Recruitment Plan. The recruitment of volunteers was in accordance with HRPP guidelines and was uniform in presentation, and differed only by the volunteer population, training and readiness standards and POIs unique to the FLC and research protocol. Recruitment was aligned to course convening dates to minimize females being assigned to 'Marines Awaiting Training' (MAT) units, while concurrently refraining from ever placing males in a MAT status in lieu of volunteer school seat assignments. The following is an overview of the three research recruitment efforts:

4.3.1. Infantry Officer Course. Volunteer recruitment, as listed in Table 2 below, began in May 2012 and concluded in February 2015, and drew from 18 BOCs, from which 454 female Lieutenants were eligible to volunteer. Enclosure (3) is the IOC Informed Consent recruitment brief. In June 2014, MARADMIN 335/14 (Enclosure 4) expanded the IOC recruitment target population to the Operating Force and Supporting Establishment (OPFOR-SE), to solicit company grade female Captains for assignment

to FY15 IOC classes. In June 2014, all IOC volunteers (BOC / OPFOR-SE) were required to score a male 1st class PFT/CFT as criteria for assignment to IOC. Additionally, OPFOR-SE volunteers were assigned to the IOC MAT Platoon for a minimum of 60 days before an IOC class start. The MAT assignment was intended to mitigate injuries through a strong physical conditioning regimen, preparing them for success by providing the opportunity to refresh critical tactical and field skills training, coupled with daily physical conditioning; e.g., Marching under Load, Obstacle Course, Marine Corps Martial Arts Program (MCMAP), Combat Water Survival.

| INFANTRY OFFICER COURSE RECRUITMENT SUMMARY | | | | |
|---|------------------------|----------------------------------|---------------------------------------|---|
| # BOCs RESEARCH PERIOD | # BOC ELIGIBLE FEMALES | TOTAL BOC FEMALE TRAINING STARTS | TOTAL OPFOR-SE FEMALE TRAINING STARTS | TOTAL FEMALES TOWARDS RESEARCH STUDY |
| 18 | 454 | 24 (5% of 454) | 3 | 29 -24 BOC GRADS -3 OPFOR-SE CAPTS -2 FEMALE 0203s |

Table 2: IOC Recruitment Summary (May 2012 – June 2015)

4.3.2. Infantry Training Battalion. The recruitment for all ITB volunteers was conducted at 4th Recruit Training Battalion, MCRD PISC, beginning in August 2013 and continuing on a bi-monthly schedule until April 2015. In total, 29 ITB companies were sourced with 401 volunteer training starts. Enclosure (5) Tab (A) is the ITB Informed Consent brief. From August 2013 to April 2014, recruitment sourced the 0300 (Basic Rifleman) and 0311 (Marine Infantryman) POIs, and then expanding to the 03xx weapons (0331 Machine Gunner/0341 Mortarman/ 0351 Infantry Assaultman/0352 Marine Antitank Missileman) POIs until June 2015, as listed in Table 3 below

| INFANTRY TRAINING BATTALION RECRUITMENT SUMMARY | | | | |
|---|-----------------------|------------------------------|--------------------------|---------------------------------|
| TOTAL FEMALE MCRD GRADUATES | # ELIGIBLE VOLUNTEERS | TOTAL ITB VOLUNTEERS AT MCRD | # DORs AT SOI-E CHECK-IN | TOTAL VOLUNTEER TRAINING STARTS |
| 3614 | 1504 (42% of 3614) | 516 (14% of 3614) | 115 | 401 |

Table 3: ITB Recruitment Summary (August 2013 – June 2015)

4.3.3. Non-infantry Ground Combat Arms FLCs. Formal recruitment for the CA FLCs was conducted at Marine Combat Training (MCT) Battalion, SOI-East from July 2014 to February 2015. Enclosure (5) Tab (B) is the CA FLC Informed Consent recruitment brief presented to prospective volunteers. There were three recruitments involving four MCT companies that sourced five CA FLC courses (one course at the 1812 Tank Crewman Course; 2 courses at the 0811 Cannon Crewman Course; two courses at the 1833 AAV Crewman Course). There were 28 cumulative training starts (from 61 MCT volunteers) spread across the three FLCs, as shown in Table 4 below:

| COMBAT ARMS (CA) FLCs RECRUITMENT SUMMARY | | | | |
|---|---|------------------------------|------------------------------|------------------------------|
| TOTAL MCT VOLUNTEERS | TOTAL VOLUNTEER TRAINING STARTS AT CA FLS | TOTAL (1812) TRAINING STARTS | TOTAL (0811) TRAINING STARTS | TOTAL (1833) TRAINING STARTS |
| 61 | 28 (46% of 61) | 7 (11% OF 61) | 14 (23% OF 61) | 7 (11% OF 61) |

Table 4: Combat Arms FLCs Recruitment Summary (August 2014-June 2015)

4.4. Volunteer Requirements Summary and Final Status. Table 5 below depicts the final status for volunteer requirements for LOE 2 and LOE 3; the latter were assigned to the GCE Integrated Task Force (GCEITF) after attending one of the FLCs. LOE 3 numbers were included for data collection and augmented LOE 2 volunteer requirements towards the statistical thresholds (for each course) and associated Confidence Levels (CL). The ‘research requirement’ column/figures in Table 5 below, represents the statistical threshold for volunteers which was calculated based on the ‘female end-strength’ in the Marine Corps and the annual male student throughput at each FLC, providing the basis for a 95% CL with a plus/minus 5% margin of error, and allows for reasonable generalizations of data for sample populations.

| LOE 2 (LOE 3) VOLUNTEER REQUIREMENTS SUMMARY | | | | | | | |
|---|----------------------|----------------------|---------------------|------------------------------|--------|-------------|---|
| COURSE | RESEARCH REQUIREMENT | LOE 2 VOLUNTEERS (V) | LOE 2 GRADUATES (G) | LOE 3 VOLUNTEERS & GRADUATES | | LOE 2 DELTA | CONFIDENCE LEVEL (+/- 5% MARGIN OF ERROR) |
| ITB | | 401 | 144 | 61 (V)** | 33 (G) | NA | |
| 0311 | 251 | 307* | 95 | 5 | 5 | 0 | 95% |
| 0331 | 50 | 38 | 15 | 14 | 10 | 0 | 95% |
| 0341 | 51 | 31 | 19 | 10 | 10 | 10 | 74% |
| 0351 | 25 | 14 | 8 | 4 | 4 | 7 | 54% |
| 0352 | 27 | 11 | 7 | 6 | 4 | 10 | 47% |
| 1812 | 13 | 6 | 4 | 8 | 5 | 0 | 95% |
| 1833 | 29 | 7 | 5 | 15 | 13 | 7 | 60% |
| 0811 | 33 | 14 | 12 | 18 | 17 | 1 | 90% |
| IOC | 92 | 27 | 0 | NA | | 65 | 44% |
| * Number of volunteers includes those who began but did not complete the 0300 POI | | | | | | | |
| ** Not all 61 (LOE 3) initial volunteers began an 03xx POI | | | | | | | |

* Number of volunteers includes those who began but did not complete the 0300 POI

** Not all 61 (LOE 3) initial volunteers began an 03xx POI

Table 5: Volunteer Requirements Summary (September 2012 – June 2015)

4.5. Volunteer Guidelines/Prerequisites. All volunteers were required to meet pre-requisites for assignment to one of the FLCs, the major pre-requisite for screening and eligibility was the (male standard) PFT and CFT. Enlisted volunteers for infantry and combat arms FLCs were required to meet the minimum male 3rd class PFT and CFT. Prior to July 2014, a 1st class female PFT/CFT was the only physical prerequisite for IOC. Following July 2014 and the release of MARADMIN 335/14 (Enclosure 4), all female IOC volunteers had to achieve a male 1st class PFT/CFT to be eligible for IOC. Table 6 lists the eligibility criteria

| | ITB 0311 | ITB 0331 | ITB 0341 | ITB 0351 | ITB 0352 | 0811 | 1812 | 1833 | IOC 0302 |
|---|-------------|-------------|-------------|-------------|-------------|------|------|------|-------------|
| Volunteers Active Duty Only | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fit for Full Duty | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| One opportunity to recycle to next course | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Minimum GT Score | 80 | 80 | 90 | 100 | 100 | 90 | 90 | 90 | NA |
| 1 st Class Male PFT/CFT | NA | NA | NA | NA | NA | NA | NA | NA | ✓ |
| 3 rd Class Male PFT/CFT: -3 Pull-ups -50 Crunches -28:30 3-mile Run -4:13 MTC -33 Ammo Can Lifts -3:58 MANUF | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | NA |
| Course Completion Code in MCTIMS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Table 6: Volunteer Prerequisites

5. Data Collection Plan. The basis for LOE 2 data collection was to assess performance and training related attrition; e.g., injuries and Drops on Request (DOR). Performance was evaluated against existing 1000-level individual training and readiness manual standards, POI performance events and the FLC's graduation requirements. Performance data was augmented with survey data captured to longitudinally track volunteer propensity to performance in addition to perceptions and attitudes regarding the research and training experience. The amount and type of data collected was dependent upon the respective schools' POIs; e.g., physical standards, performance evaluations, injuries. To this end, the data framework focused on performance, attrition, and injuries as shown in Table 7 below:

| PROPENSITY | PERFORMANCE | ATTRITION | INJURIES |
|--|--|---|---|
| ✓ <u>Propensity Survey</u> - Conducted during formal recruitment - Basis for decision to volunteer or not volunteer ✓ <u>Exit Survey</u> - Completed by volunteer graduates - DORs or volunteer course drops - Revisit propensity - decision to DOR - Perspectives on research & training | ✓ Physical evaluations tests and training events ✓ Weapons evaluations ✓ Academic examinations ✓ Weight standards ✓ Misconduct | ✓ Drops on Request ✓ Medical/Injury ✓ Academic ✓ Weapons performance ✓ Physical | ✓ Type ✓ Location ✓ Disposition ✓ Injury to physical event correlation |
| ✓ Remediation and recycle data captured in conjunction with Academic / Performance evaluations | | | |
| ✓ Male data collected for comparative analysis | | | |

Table 7: Collected Data Framework

5.1. Data Sets Collection:

- Propensity survey data from 900 + LOE 2 (and LOE 3) females
- Performance data from 660+ LOE 2 (and LOE 3) females
- Performance data from 6800+ male data points available for analysis

5.2. Database Management Tracking Application. In order to support the ability to store, collate, and analyze the LOE 2 data, the TECOM research team developed a research database management tracking application or ‘tracker’ as a secure means of recording, retrieving, updating and managing the LOE 2 (and LOE 3) volunteers. The data base tracker was created with the intention of not only storing and tracking volunteer data, but also as an enterprise solution for data sharing between research support personnel and organizations with permissions to access the application in order to pull reports and conduct analysis as needed. The data tracker provided the TECOM research team the opportunity to see the data real time and limited time delays associated with consolidating and delivering dated information between organizations.

These data trackers were accessible only to the TECOM team and specific Associate Investigators (identified/approved by the TECOM research team), to ensure Personal Identifiable Information (PII) compliance and data confidentiality and integrity. Granted access was limited by multiple redundant security restrictions that allowed only the individuals involved with the analysis of collected data, access. The data base tracker was housed in the secure Manpower & Reserve Affairs (M&RA) portal using their unique Electronic Data Interchange Personal Identifier (EDIPI).

Associate Investigators external to the TECOM research team permitted to access the database could only do so if their EDIPI was validated by logging in via Common Access Card (CAC) authentication with pin. Access could be granted to only the base application or permissions to view and edit volunteer data. The TECOM research team created three trackers consisting of personal, training, and survey data. The data base was created with the ability to display every data point in the application, with the option to export to an excel spreadsheet. This ability to export data was vital as it allowed the analyst the ability to manipulate (i.e. sort, filter, organize) the data in order to better understand and display the vast amounts of information. Each of the three trackers included the capability of daily Operational Data Store Enterprise (OSDE) data refresh, allowing for the updating of individual participants personal data to ensure the most up to date information was available. When accessing each volunteer’s data, the ODSE refresh displayed current training and demographic information; e.g., post-LOE 2 PFT/CFT data, updated training and current duty station information.

5.2.1. Training Data Tracker. The personal and training data tracker consisted of FLC training data and ODSE personal information. The application was created to track over 90 individual data points associated with each volunteer with approximately 52,000 individual points of tracked data. These individual data points included personal demographic information as well as every training event tracked in the study, and included both graduates and non-graduates. Examples of the data types included; demographics (Age, Gender, Height/Weight, Ethnicity, Marital status) and training (Initial/Final PFT/CFT, Weapons firing tables, Course Drops by reason and training day, performance on conditioning hikes).

5.2.2. Survey Data Tracker. Two of the three trackers were dedicated to collecting and storing personal and survey data. Volunteers and non-volunteers were asked to complete a Propensity Survey as part of the Informed Consent (recruitment) presentation. A more detailed Exit Survey was completed by course graduates, volunteer DORs, or course drops from the research prior to completing the course. Enclosure (6) Tab (A) is the IOC Exit Survey and Enclosure (7) Tab (A) is the ITB Exit Survey.

The two survey trackers were created to catalog personal data and the survey responses, with one tracker dedicated to propensity survey data for volunteers and non-volunteers, and the second survey tracker used for the more detailed exit survey data. Both survey trackers also displayed ODSE information and were developed to accept the survey responses of yes/no, drop-down, select, and open field type questions. Both of the survey trackers combined contains a total of approximately 10,000 individual data points/responses.

5.3. Research Data Summary. Performance and survey data was collected from over 900 female volunteers in the three research protocols. Additionally, over 6900 male data points (primarily from ITB) were used to conduct comparative analysis and statistical distributions of male and female performance.

5.3.1. Infantry Officer Course Data Summary. Beginning in May 2012, the research team presented 35 recruitment briefings to 18 BOCs that sourced ten of the eleven available classes between September 2013 (IOC 1-13) and April 2015 (IOC 3-15) as shown in Table 8 below. The IOC (2-13) class (January 2013) was the only class without volunteers. In total, 29 females started IOC; with none graduating. There were 978 male training starts with 692 graduates during the research period (September 2013 to June 2015). Enclosure (6), Tabs (B) and (C) present exit survey data extracts with quantitative views of propensity factors and qualitative volunteer perspectives regarding causal factors associated with their research experience.

| Infantry Officer Course | |
|-------------------------|--|
| Propensity | <ul style="list-style-type: none"> 18 BOCs presented with Informed Consent (recruitment) briefs (May 12-Apr 15) 454 BOC Lts eligible to volunteer 29 female IOC training starts: <ul style="list-style-type: none"> - 24 (5% of 454) BOC Lts – IOC training starts - 3 OPFOR Captains – IOC training starts - 2 female 0203 Lts – IOC training starts <u>Reasons for volunteering:</u> <ul style="list-style-type: none"> - 56% - Chance to conduct infantry training - 39% - Believe women should be allowed in the infantry - 33% - Support the research - 55% - cited lack of strength/endurance on Exit Surveys <u>Reasons for NOT volunteering:</u> <ul style="list-style-type: none"> - 26% - risk of injury - 21% - Delay PMOS school - 14% - No 0302 MOS |
| Performance | <ul style="list-style-type: none"> 100% female attrition rate; 29 training starts – 29 course drops - 17% (5/29) females completed the Combat Endurance Test (CET) - 83% (24/29) females failed the CET - 14% (4/29) physical performance drops (2x hike drops) |
| | <ul style="list-style-type: none"> 29% male attrition rate; 913 cumulative <u>male</u> IOC starts (FY13-15) 71% (692/913) average (FY13-15) male graduation rate 15% (138/913) male performance drops (CET, hike, academic drops) 14% (125/913) male DORs |
| Injuries | <ul style="list-style-type: none"> 3% (1/29) of <u>female</u> injury drop 2.6% (24/913) <u>male</u> injury drop |

Table 8: IOC Data Summary (September 2012 - April 2015)

5.3.2. Infantry Training Battalion. The ITB research period included the presentation of 32 Informed Consent briefings at MCRD PISC to over 1500 recruits. Enclosure (7), Tabs (B) and (C) present survey data extracts depicting a quantitative view of propensity factors associated with a decision whether to volunteer or not. The exit survey data extracts provided qualitative volunteer perspectives regarding causal factors contributing to their successes and challenges. Additionally, these surveys queried graduates whether they would consider a lateral move to the infantry OccFld. There were 401 volunteers who began training, sourced through 29 ITB companies from September 2013 (Delta Co 18-13) to June 2015 (Bravo Co 10-15). There were 144 volunteer graduates, yielding a 36% graduation rate. Of the 5503 male training starts during the same period, there were 5220 graduates, yielding a 95% graduation rate. See Table 9 below. Additional data results are listed at Enclosure (8).

| Infantry Training Battalion | |
|-----------------------------|--|
| Propensity | <ul style="list-style-type: none"> 3614 cumulative female MCRD grads (Sep 13-Jun 15) 43% (1504/3189) female MCRD grads met physical prerequisite to volunteer 34% (516/1357) cumulative volunteers at MCRD 78% (401 of 516) MCRD (ITB) volunteers <u>Reasons for Volunteering:</u> <ul style="list-style-type: none"> 78% Training with the infantry 76% Historic participation 54% Believe women should be allowed in the infantry <u>Reasons for NOT Volunteering:</u> <ul style="list-style-type: none"> 50% Risk of injury 36% Delay PMOS school 23% Did not want to waive (PRASP) Recruiters Assistance |
| Performance | <ul style="list-style-type: none"> 35.9% female grad rate - 144 grads 17% (25/144) female graduates were recycled one time 50% 0311 / 42% 0331 graduation rates 61% 0341 / 56% 0351 graduation rates 57% 0352 graduation rate 64% attrition rate (257 of 401 training starts) <ul style="list-style-type: none"> 48% (124/257) physical performance drops 52 PFT/CFT failures /58 Hike failures 14 weight failures 35% (89/257) DORs 6% (15/257) Weapons performance failures 2% (6/257) Academic failures Final PFT avg (194) / final CFT avg (254) 95% male grad rate (5220 of 5503 training starts) <ul style="list-style-type: none"> 99% grad rate for males with one recycle 100% 0311 graduation rate 94% 0331 / 93% 0341 graduation rates 98% 0351 / 98% 0352 graduation rates Male final PFT avg (244) / final CFT avg (279) |
| Injuries | <ul style="list-style-type: none"> 13% females (n=61) <ul style="list-style-type: none"> 25 light duty only 36 recycled 23 (9% of 257) drops due to injury 27% of female injuries are attributed to the 15K/ 20K hikes 28% of all hike-related injuries result in a course drop |
| | <ul style="list-style-type: none"> 2% males (n=131) <ul style="list-style-type: none"> 43 light duty only 88 injury recycles 6 injuries result in male dropped from the course 13% of male injuries are attributed to the 15K/ 20K hikes 41% of all male hike related Injuries are reclassified or attrited |

Table 9: ITB Data Summary (September 2013-June 2015)

5.3.3. Non-infantry Ground Combat Arms. The CA research faced an abbreviated recruitment and research period (August 2014 - June 2015). During the beginning of this period, LOE 3 volunteer recruitment and CA school seats had priority over LOE 2 volunteers. Because of this compressed period, the TECOM research team was able to solicit 61 (LOE 2) cumulative volunteers from the Marine Combat Training (MCT) Battalion, SOI-East. Enclosure (7) Tab (D) is the CA FLC Exit Survey. Enclosure (7) Tab (E) provides CA FLC propensity survey data extracts. The 61 volunteers at MCT provided 28 volunteer training starts total, in the three CA FLCs. The (0811) Cannon Crewman Course had 14 female volunteer training starts with 12 graduates for an 86% graduation rate in two classes. There were 263 male (0811) training starts with 226 graduates for an 86% graduation rate. The (1833) AAV Crewman Course had 7 volunteer training starts with 5 graduates for a 71% graduation rate in two courses. There were 113 male (1833) training starts with 106 graduates for a 94% graduation rate. The (1812) Tank Crewman Course had 7 volunteer training starts with 4 graduates, in one course, for a 57% graduation rate. There were 68 male (1812) training starts with 67 graduates for a 99% graduation rate. Table 10 below provides additional data summary information.

| Combat Arms FLCs | |
|------------------|---|
| Propensity | <ul style="list-style-type: none"> 61 total females eligible to volunteer from 4 solicited MCT companies 28 (46% of 61) cumulative volunteers started training at the CA FLCs <ul style="list-style-type: none"> 11% (7/61) MOS 1812 Tank Crewman Course training starts 23% (14/61) MOS 0811 Cannon Crewman Course training starts 11% (7/61) MOS 1833 AAV Crewman Course training starts |
| Performance | <u>MOS 1812 Tank Crewman Course</u> <ul style="list-style-type: none"> 57% (4/7) <u>female</u> graduation rate 99% (67/68) <u>male</u> graduation rate Handling/Loading of tank ordnance req'd remediation for the majority of volunteers <ul style="list-style-type: none"> 1812 Tank Ordnance Task: <ul style="list-style-type: none"> 25% (1/4) female initial pass rate (all females passed event after remediation) 62% (18/29) male initial pass rate (all males passed event after remediation) Majority of volunteer drops were due to academic performance failures or DORs |
| | <u>MOS 0811 Cannon Crewman Course</u> <ul style="list-style-type: none"> 86% (12/14) <u>female</u> grad rate 86% (226/263) <u>male</u> grad rate Handling/Loading of artillery ordnance req'd remediation for the majority of volunteers <ul style="list-style-type: none"> 0811 Projectile Lift Task: <ul style="list-style-type: none"> 14% (2/14) female initial pass rate (all females passed event after remediation) 73% (146/199) male initial pass rate (all males passed event after remediation) 0811 Projectile Load Task: <ul style="list-style-type: none"> 7% (1/14) female initial pass rate (all females passed event after remediation) 68% (138/199) male initial pass rate (all males passed event after remediation) Majority of volunteer drops were due to academic performance failures or DORs |
| | <u>MOS 1833 AAV Crewman Course</u> <ul style="list-style-type: none"> 71% (5/7) <u>female</u> grad rate 94% (106/113) <u>male</u> grad rate No female (or male) failures due to physical performance Majority of volunteer drops were due to academic performance failures or DORs |
| Injuries | <ul style="list-style-type: none"> No CA FLC volunteers were recycled or dropped due to injuries |

Table 10: Combat Arms FLCs Data Summary (August 2014-June 2015)

6. Analysis Plan. The objective of the LOE 2 research was to identify significant predictors of graduation for men and women which were intrinsically linked to the purpose of the MCFIP to, determine success, assess propensity, and analyze attrition. The analysis framework below enabled the TECOM research team to identify research key findings and determine predictors of graduation:

- Conducted comparative (male/female) analysis across POI functional areas to assess performance, and attrition
- Conducted statistical distributions of ITB and CA males and LOE 2 females using the MCRD Initial Strength Test (IST) and MCRD final PFT and CFT events to identify distribution of performance by gender
- Conducted combined multivariate linear regressions using ITB males and LOE 2 females to identify performance indicators and proposed 03xx classification (screening) standards using the MCRD final PFT/CFT events
- Identified significant injury rates at the FLCs

6.1. Screening Methods. The method for screening females for eligibility as volunteers for ITB and the CA FLCs was the existing prerequisite third-class male PFT/CFT standard required of all students. In the absence of data, it was determined that this prerequisite was a viable point of departure to assess performance and identify significant predictors for graduation. Therefore, alternative screening methods were explored to reduce risk and increase the likelihood of success in the infantry and CA FLCs, while at the same time, doing no harm to graduation rates. In order to keep this process simple and executable, the team explored potential screens for which the Marine Corps evaluates Marines; e.g., PFT/CFT components, Height/Weight, and ASVAB components.

6.2. Analysis Methodology. A multivariate logistic regression model was developed based on the 401 ITB female volunteer and 1639 male training starts assigned to ITB from Charlie Company 4-14 (Dec 13) through Charlie Company 4-15 (Dec 14). This male grouping (1639) represented a large sample data set over a half of the ITB research period and afforded a dependable basis for comparative analysis by gender. The output variable for the regression model was whether or not the Marine graduated ITB and the input variables for the model were:

- Number of MCRD final PHYSICAL Fitness test (PFT) pull-ups
- Time of MCRD final PFT 3-mile run
- Number of MCRD Combat Fitness test (CFT) crunches
- Time of MCRD CFT Movement to Contact (MTC)
- Number of MCRD CFT Ammo Can Lifts
- Time of MCRD CFT Maneuver under Fire (MANUF)
- Armed Services Vocational Aptitude Battery (ASVAB) component scores

Table 11 below lists the p-values associated with each variable as it relates to graduation. The highlighted p-values are significant and set the basis for our analysis and determining viable screening elements. The MCRD final PFT run time did not have as significant p-value as the pull-ups and CFT components; however, additional PFT run data from the May 2015 MOS standards assessment with I MEF units was taken into consideration. The p-values for shipping height/weight were significant from only a gender perspective and not included in consideration as a screening element.

| Variable | p-value | Variable | p-value |
|-----------------------------|---------|---------------------------------------|---------|
| MCRD Final PFT Pull-ups | <.0001 | ASVAB 'AS' (Auto/Shop Information) | .5079 |
| MCRD CFT MTC Time | <.0001 | ASVAB 'CL' (Clerical) | .5273 |
| MCRD CFT MANUF Time | <.0001 | ASVAB 'EI' (Electronics Information) | .6619 |
| Shipping Height | <.0001 | ASVAB 'MK' (Mathematics Knowledge) | .7155 |
| MCRD CFT Ammo Can Lift | .0002 | ASVAB 'GT' (General Technical) | .7363 |
| Shipping Weight | .0019 | ASVAB 'GS' (General Science) | .7572 |
| Crunches | .1037 | ASVAB 'EL' (Electronics) | .7661 |
| ASVAB 'WK' (Word Knowledge) | .348 | ASVAB 'MC' (Mechanical Comprehension) | .8140 |
| MCRD Final PFT Run Time | .3908 | ASVAB 'AR' (Arithmetic Reasoning) | .9339 |

Table 11: LOE 2 Analysis p-values

The p-value used for significance was below .05. The MCRD final PFT run time did not have as significant p-value as the pull-ups and CFT components; however, the research team incorporated I MEF PFT 3-mile run data due to the relevancy of the data (May 2015), numbers of data points, and correlation to performance on marching under load for I MEF units MOS physical standards assessment, as well as a 2012 TECOM assessment of 'Ground Combat Element (GCE) Common Physical Performance Standards' involving entry level training and operating force units, which showed a similar strong correlation between the PFT 3-mile run and marching under load performance by male and female Marines.

The TECOM research team down-selected the following components/events based on their p-value significance and potential as screening elements for MOS classification:

- Number of MCRD Final PFT Pull-ups
- Time of MCRD CFT MTC
- Time of MCRD CFT MANUF
- Number of MCRD CFT Ammo Can Lifts
- Time of I MEF PFT 3-Mile Run (May 15 - I MEF MOS standards assessment)

Because the above elements could be used for classification, the desire to set the standard at the 5th percentile of the graduates for each of the variables was significant in the regression model. The 5th percentile graduates are listed in Table 12 for each MOS.

| Variable | 03xx | 0811 | 1812 | 1833 | All LOE 2 Combined |
|---------------------------------|-------|------|------|------|--------------------|
| MCRD Final Pull-ups | 6 | 7 | 7 | 6 | 7 |
| MCRD CFT MTC Time | 3:20 | 3:26 | 3:20 | 3:20 | 3:18 |
| MCRD CFT MANUF Time | 3:12 | 3:02 | 2:56 | 3:02 | 3:04 |
| MCRD CFT Ammo Can Lifts | 65 | 61 | 71 | 71 | 68 |
| PFT Run Time (I MEF – May 2015) | 24:51 | | | | |

Table 12: 5th Percentile of LOE 2 Graduates and I MEF MOS Standards Testing

7. Summary and Key Findings. The LOE 2 research spanned 33 months supported by over 90 research personnel from TECOM, Operations Analysis Division, Marine Corps Combat Development Command (MCCDC), the MCRD PISC, and the infantry and CA FLCs. Performance, survey, attrition, and injury data was collected from over 900 females. Performance data was collected from over 6800 males enabling detailed comparative analysis by gender, as well as statistical distributions and combined multivariate linear regressions to identify significant performance indicators for male and female graduates at the FLCs. The analysis identified the following key findings:

- **Propensity**
 - 5% (24/454) of female BOC Lieutenants elected to volunteer for IOC
 - 42% (1504/3614) of the 3614 female MCRD graduates met the ITB physical prerequisites to volunteer - 34% (516/1504) volunteered
- **Performance**
 - 401 ITB volunteer training starts - 144 graduates - 35.9% graduation rate
 - 64% (257/401) of volunteer training starts were ITB drops
 - 48% (124/257) of ITB volunteer drops were due to physical performance
 - 89% of ITB performance drops were PFT/CFT/Conditioning Hike failures
 - 98% (28/29) of IOC volunteer drops were physical performance failures
- **Injuries**
 - ITB females had a 13% injury rate versus a 2% injury rate for males
 - 9% (23 of 257 cumulative drops) of ITB female drops were due to injuries
 - 27% of ITB female injuries were attributed to conditioning hikes versus 13% of male injuries from conditioning hikes
 - The one IOC injury drop (foot stress fracture) was due multiple hikes
 - There were no physical injury drops at the CA FLCs

8. Recommendation. None for Information only.

ASSESSMENT OF FEMALE MARINE OFFICER VOLUNTEERS
AT INFANTRY OFFICER COURSE (IOC)
(IOC PROTOCOL: MCCDC.2012.0007)



DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
3300 RUSSELL ROAD
QUANTICO, VA 22134-5001

IN REPLY REFER TO:
3900
C 4623
13 Jun 14

From: Chair, U.S. Marine Corps Human Research Protection Program (HRPP),
Institutional Review Board (IRB)
To: U.S. Marine Corps Institutional Official (IO)

Subj: HUMAN SUBJECT RESEARCH APPROVAL OF AMENDMENT TO PROTOCOL
MCCDC.2012.0007-AM08: "COLLECTION AND ASSESSMENT OF TRAINING
PERFORMANCE DATA AT INFANTRY OFFICERS COURSE (IOC)"

Ref: (a) 32 CFR 219.110
(b) MCCDC HRPP Policy and Procedures Manual of 30 Sep 13
(c) DoDI 3216.02
(d) MCCDC IRB Chair Transmittal Ltr 3900 C 5623 of 18 Apr 12
(e) MCCDC IRB Chair Transmittal Ltr 3900 C 5623 of 27 Jul 12
(f) MCCDC IRB Chair Transmittal ltr 3900 C 4623 of 4 Mar 13
(g) MCCDC IRB Chair Transmittal ltr 3900 C 4623 of 7 Oct 13
(h) MCCDC IRB Chair Transmittal ltr 3900 C 4623 of 15 Nov 13
(i) USMC IRB Chair Transmittal ltr 3900 C 4623 of 12 Dec 13
(j) USMC IRB Chair Transmittal ltr 3900 C 4623 of 28 Jan 14
(k) USMC IRB Chair Transmittal ltr 3900 C 4623 of 11 Apr 14

Encl: (1) IRB Action Request Protocol MCCDC.2012.0007-AM08 of 12 June 14
(2) Full Protocol with Changes
(3) Draft Message for Release - Announcement/Recruitment
(4) Informed Consent Brief
(5) IRB Approved Informed Consent Form

1. Per references (a) through (c), the enclosures were provided for IRB review.

2. Background. In accordance with reference (b), an Initial Review (IR) of Training and Education Command Protocol MCCDC.2012.0007: "Collection & Assessment of Training Performance Data at Infantry Officers Course (IOC)" was conducted by the convened IRB at the 28 March 2012 meeting. The convened IRB recommended approval of the protocol and found it to be greater than minimal risk. Per references (b) and (c), research that is greater than minimal risk requires appointment of an Ombudsman to monitor the recruitment process and appointment of a Research Monitor to ensure compliance with the approved protocol and to monitor subject safety. Per reference (d) the IO approved the recommendation of the convened IRB on 19 Apr 2012. Reference (e) is the research monitor plan, approved as a first amendment (AM01) to the protocol on 2 August 2012. References (f) through (i) approved minor amendments (AM02) through (AM05). Reference (j) approved the second continuing review (CR02) and sixth amendment (AM06) extending the research until 28 January 2015. Reference (k) was an amendment (AM07) adding an additional Associate Investigator to the protocol.

3. Enclosures (1) through (5) were submitted by the Principal Investigator (PI), requesting an amendment (AM08) to the protocol to allow female Marine Captains and below from the Operating Forces (OPFOR) and Supporting Establishment (SE) to volunteer to participate in this research. Enclosure (3) is the Draft message announcing this change to the Marine Corps. Enclosure (4) is the "Informed Consent Brief" to be provided to prospective

Subj: HUMAN SUBJECT RESEARCH APPROVAL OF AMENDMENT TO PROTOCOL
MCCDC.2012.0007-AM08: "COLLECTION AND ASSESSMENT OF TRAINING
PERFORMANCE DATA AT INFANTRY OFFICERS COURSE (IOC)"

subjects as part of a telephonic interview and consent process. Enclosure (5) is the updated Informed Consent Form for volunteers from the OPFOR and SE to volunteer.

4. The enclosures were reviewed by the IRB at a convened meeting on Thursday 12 June 2014. The IRB recommended the following changes to the amendment, which have been incorporated into the documents attached. The IRB strongly felt that the requirement for female volunteers to have a first class male PFT and CFT made the protocol safer, and made the "admission" standard for the females the same as the males attending IOC.

a. That the Informed Consent process includes a sample of the Marines Awaiting Training (MAT) training schedule and that the sample MAT schedule be made available to prospective subjects so that they know what to anticipate and prepare for. The PI will coordinate with the staff at The Basic School and IOC to obtain a sample MAT schedule and have it available to prospective subjects upon request, but included as a required part of the Informed Consent process. This information has been incorporated into enclosures (3) and (4).

b. That the message being used to announce/recruit potential subjects be released as a MARADMIN vice a general message, to ensure maximum visibility to all Marines. The attached message incorporates input from the PI, Marine Corps Force Innovation Office (MCFIO) and the IRB.

c. That the ability to complete the 12 mile hike with Approach March Load (114 lbs.) in 4 hours be demonstrated in the MAT and not require Commanding Officer certification prior to volunteering. That was perceived by the board to be an administrative burden on the OPFOR/SE chain of command and should not be a prerequisite. This change is reflected in the protocol and the enclosures.

d. The IRB will randomly monitor telephonic informed consent interviews.

5. Subject to the changes above (that were incorporated as directed by the convened IRB), the IRB finds that the protocol remains greater than minimal risk, that the risks have been mitigated by the assignment of research monitors, the additional information provided to subjects regarding the PFT and CFT performance of IOC students and assignment to the MAT. The IRB recommends approval of the amendment (AM08) to the protocol and the updated Informed Consent Form, Recruitment Brief and message announcing the expansion of the subject pool to include female Marine Captains and below from the OPFOR/SE. The approval dates on the ICF will be inserted based on the date of the IO approval of the amendment.

Printed Name of IRB Chair/Vice Chair

Signature

13 June 2013
Date

Full Protocol

Title of Project: Assessment of Training Performance at the Infantry Officer Course

The following amendments of 12 June 2014, reflect the expansion of the IOC research recruitment process, to include company grade female Marine Officers from the Operating Forces and Supporting Establishment (OPFOR and SE).

Planned Inclusive Dates of Project: 19 April 2012 to 28 January 2015

1. List of Principal Investigator name/command/contact information.

Program Analyst
MAGTF T&E Standards Division
Training and Education Command (TECOM)

2. List any other individuals (internal, external, and contractor) who will interact with human subjects or have access to data collected. (Ensure all have signed Investigator's Assurances.)

3. Background. This study is an Assistant Commandant of the Marine Corps (ACMC)-directed and CG, TECOM-led Data Information Gathering (Research) Plan to assess the training performance of female Marine (officer) volunteers assigned to infantry training at the Infantry Officers Course (IOC), The Basic School (TBS). The purpose of the research is to provide institutional baseline data to inform potential policy decisions on the assignment of females to the infantry occupational field. *This amendment expands the recruitment of IOC volunteers to company grade female Marine Officers from the Operating Force (OPFOR) and Supporting Establishment (SE).*

MCCDC HRPP POLICY AND PROCEDURES MANUAL

| IRB Action | IRB Action | Date |
|--|-----------------------|------|
| Package Received | Documents to DON HRPP | |
| Convened IRB Review or Expedited IRB Review | Amendment Received | |
| PI Notification | IRB Action | |
| Approval letter signed/forwarded | | |

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4. Identify sponsor and known, as well as potential, future users of the data/results.
CG, TECOM (C461) is study sponsor. Future and potential users of the data/results are as follows:

DC CD&I
DC PP&O
DC M&RA
CG TECOM
OAD, MCCDC

5. Briefly describe the objectives of the project, the research plan, and methodology with particular emphasis on direct or indirect interaction with human subject or their identifiable data. Describe why human subjects (or their data) must be used in the research and if there are any alternatives.

A. Objectives: Collect training performance data on female Marines attending IOC:

(1) Primary Objective:

- Assign female Marine Officer Basic Officer Course (BOC) graduates as volunteers to the Infantry Officers Course.

(2) *Secondary Objective:*

- *Assign company grade female Marine Officer Volunteers from the OPFOR and SE.*

(3) Tertiary Secondary Objective:

- Collect propensity to volunteer and training performance survey data from IOC volunteers.

B. Research Plans:

(1) Subjects: Cumulative ≥ 120 female BOC graduates and company grade female Marine Officers from the OPFOR/SE, with a minimum of 92 volunteers required to meet 95% Confidence Level (with +/- 5% margin of error).

(2) Inclusion Criteria:

- Must be a volunteer
- Fit for full duty requirement
- Must be a BOC graduate
- *Required to score a minimum 1st Class (Male) PFT and CFT*

C. Methodology:

(1) Female Marine officers who volunteer will train according to the current Program of Instruction standards for 86-training days. In addition to academic and leadership evaluations, students must conduct various performance events that evaluate their ability to perform tasks under combat conditions and include:

- Combat Endurance Test
- Forced Marches (7x Marches; average 8-10 miles with average 97 lb. load)
- Mortar Hike (7.5 miles with average 170 lb. load)

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- Field Firing Exercises (Infantry Battalion weapons; Demolitions)
- Leadership Close Combat Exercise (Decision Making)
- PALMFEX: (Mobilization to 29 Palms for 18-day FEX)

(2) The TECOM Research Team provides formal recruitment Informed Consent briefings to female BOC students, assisted by an IRB-approved Ombudsman. The research will be observed by IRB-approved Research Monitors.

(3) The basis for data collection is to assess female participants and their performance against the POI standards. The performance capabilities of females in IOC is unknown and as such, there will be an established acceptable degree of failure permitted in order to collect data, barring injury, Drop on Request (DOR) disenrollment, and/or repeated failures that are a detriment to the overall training of the IOC class. Additionally, an IOC volunteer recruitment survey will be conducted with all female Marine BOC graduates who attended TBS between May 2012 and October 2013, and who received a formal recruitment (Informed Consent) brief while at TBS, in the form of an 'IOC Propensity Survey.' An 'IOC Exit Survey' will be administered to volunteers who participate in the IOC research in an effort to take a longitudinal approach comparing a volunteer's propensity (to volunteer) to performance in IOC. Enclosure (3) and associated Tabs, lists the 'IOC Volunteer Recruitment and Training Survey' Plan. The Associate Investigator assigned from the Operations Analysis Division, MCCDC, will support the research through survey and data analysis. *The process for performance and survey data collection will be the same for OPFOR/SE volunteers.*

D. Necessity for use of human subjects: The use of human subjects is integral to the nature of this study and could not be conducted without them. *The intent of the research is to derive an institutional baseline data that informs potential policy decisions on the assignment of female Marines to the infantry occupational field.*

6. To what other reviews if any is this project subject? N/A

7. To what other regulations is this data collection effort subject (e.g., Privacy Act) and how will it/they be implemented? USMC Human Research Protection Program (HRPP) Policy and Procedure Manual

8. How will participants be recruited? *Volunteers for IOC will be sourced from the BOCs and the OPFOR/SE. Prospective volunteers from the BOCs will receive two Informed Consent Briefs (ICBs) from the TECOM Research Team (TECOM C466). The initial or preliminary ICB is conducted during the first two months of the BOC, and a second, 'reconfirmation' brief is conducted prior to BOC graduation. As part of the formal recruitment process, an Informed Consent Survey will be administered to collect propensity data from BOC and FMF volunteers.*

The recruitment of OPFOR/SE company grade female Marine Officers will be initiated via a MARADMIN (Enclosure 4) co-authored by the TECOM Research Team (TECOM C466) and the Marine Corps Force Innovation Office (MCFIO). The message will solicit interested company grade female Marine Officers to volunteer to attend IOC. The message will outline course

prerequisites, associated attendance requirements, recommended physical performance levels and the procedures for volunteering. Interested Marines will submit an Administrative Action (AA) Form (NAVMC 10274) via their chain of command to CG TECOM (C 466) – the TECOM Research Team – requesting an assignment to an IOC class and include the following elements:

- *Chain of command verifying that they meet the required minimum 1st Class Male PFT and CFT standards*
- *Understanding that volunteers must undergo a formal Informed Consent interview (by phone) with the TECOM Research Team and IRB-approved Ombudsman*
- *Chain of command endorsements or non-concurrence with comments*

Upon receipt of the AA Form from a prospective volunteer, the TECOM Research Team and an IRB-approved Ombudsman will contact the interested Marine by phone to conduct an Informed Consent Brief (ICB) interview (Enclosure 5). During the ICB, the research team will review the requirement to participate in a 'Marines Awaiting Training' (MAT) period of 60-90 days before starting an IOC class, and provide a sample copy of the MAT training schedule.

Because of the IOC maximum class capacity (of 88 students) and the priority of class assignments to all 0302 and 0303 (male and female) students, BOC volunteers, and OPFOR/SE volunteers; the ICB interview will inform the prospective volunteer that their assignment to IOC may be contingent on available class size and IOC student prioritization. Following the interview, the research team will forward an Informed Consent Form (ICF – Enclosure 6) to the volunteer to review, complete the attached propensity survey, and return a signed copy to the research team.

9. Describe the nature and extent of risks the collection of these data pose to the participants.

There may be greater than minimal risk associated with executing the POI in terms of duration (86 TDs), the frequency and distances of marches and associated prescribed loads carried during foot movements and several conditioning marches, to include a 9-mile Mortar Hike, and an 18-day field exercise (PALMFEX) conducted at 29 Palms, CA. *For the BOC graduate volunteers*, the risks will be mitigated to a certain extent due to the fact that the female officers will have had several months to mentally and physically prepare while in BOC, as well as a MAT assignment. Establishing fit for full duty as inclusion criteria coupled with completion of the TD-1 'Combat Endurance Test' (IOC entry requirement) will help to mitigate injury or risk of failure in the follow-on POI, due to the initial screening test required of all IOC students.

In an effort to mitigate risk and better prepare prospective volunteers for IOC and screen for success, all female Marine Officers must meet the male 1st Class PFT and CFT standard as a prerequisite to volunteer and attend IOC. All BOC graduates (male and female) assigned to IOC will be assigned to the MAT for mandatory training in preparation for IOC. The length of time in the MAT for BOC graduates will be depend on the period of time between BOC graduation and an IOC class start.

For OPFOR/SE volunteers, there will be a 60-90 MAT assignment. The MAT platoon assignment provides the opportunity to refresh the perishable, but important tactical and field skills training of critical combat and physical conditioning (e.g., Marching under Load, Obstacle Course, MCMAP, Combat Water Survival). An OPFOR/SE Marine may have further developed

decision-making skills and physical capacity than the new BOC graduates; however, the MAT represents a more focused and physical regimen than the OPFOR/SE volunteers may have been conducting on their own, further mitigating the risk of physical shortfalls and injury. The FY13 average MAT period for IOC students was 66 days.

There is no guarantee of greater physical maturity and capacity of prospective OPFOR/SE Volunteers. Volunteers are advised that IOC male performance data from the last three FY14 IOC classes, has demonstrated higher PFT/ CFT scores correlate to success in terms of performance, course completion, and injury mitigation, as compared to those male students who score below a 250 on the PFT, in particular:

| | | |
|------------------------|-------------------|-------------------|
| <u>IOC Class 1-14:</u> | PFT average 291.6 | CFT average 298.5 |
| <u>IOC Class 2-14:</u> | PFT average 290.1 | CFT average 299.1 |
| <u>IOC Class 3-14:</u> | PFT average 289.5 | CFT average 296.8 |

10. Describe any anticipated benefits to the participants, the Marine Corps, and/or society. The information gained from the information/data gathering will enable the Marine Corps to validate IOC as a gender-neutral standard and 'infantry gold standard' that could potentially improve BOC and provide institutional assurances to inform policy decisions on future assignments of female officers to closed units. The propensity and training surveys will augment the IOC research data collection plan.

11. How will subjects be informed of their rights? Enclosure (2) provides the Informed Consent to be presented to prospective volunteers. Enclosure (3) provides the 'IOC Volunteer Recruitment and Training Survey Plan that includes an Informed Consent and Privacy Act Statement (Tab A) provided to the TBS graduate survey target population.

12. Describe any question/items that will be asked or data elements that will be collected or accessed from existing databases:

- Name
- Age
- Current PFT and CFT scores from existing data bases; e.g., TBS, IOC (MAT)
- Height / Weight

13. Do any of the questions/items/data elements used in the research involve information that is private or sensitive? If yes, describe and assess the degree of potential risk or harm to the subject if disclosed.

All of the data points described in question #12 have varying degrees of sensitivity, but minimal risk or harm is anticipated if this information is disclosed in spite of the many efforts to protect the data. The research team will also advise the prospective subjects that there is the potential for interest and scrutiny from the media and other individuals or organizations outside of the Marine Corps regarding their participation in this research. They will be advised that the interest and scrutiny may be immediate and may continue after the research is completed and throughout their careers.

~~FOR OFFICIAL USE ONLY~~

14. What would be the impact to the research if private or sensitive information could not be collected?

The Marine Corps could not complete its research regarding the potential assignment of women in open MOSs to closed MOS units. The IOC data collection, in conjunction with a planned analysis of closed MOS schools to refine and validate school graduation requirements, to establish Marine Corps schools as the MOS common skill (gender-neutral) standards. The combined research approach will provide institutional baseline data informing service policy decisions on future assignments of female Marines.

15. Describe precautions that are being used to minimize risk to the subject and safeguard the data (e.g., limiting access, storage and destruction of data, password-protected network security, etc.)

A. Materials associated with this study will be stored in locked cabinets in the office spaces of the researchers. When in transit and offsite, researchers will maintain positive control over the materials and password-protected laptops. Only the principal investigator and the identified researchers will have access to the data and project files.

B. Acknowledgement of the informed consent will be recorded as an individual data point in the dataset. Data from this research will be retained and may be used in future research. Listed data protections will be maintained during storage and any additional uses of data sets.

C. Regarding data safeguarding, full DoD ID will be used to accurately match the data from the records to scores recorded in the study. Once the matching has taken place, names and other personal identifiers will be removed from the file. All forms utilized to collect data will be secured by the PI following data collection and stored in locked filing cabinets. Once data is entered into a password protected electronic database, the forms will be destroyed.

D. In no case will data be presented with names or other personal identifiers. Unit Identification will be included in the data presentation but the numbers of personnel participating in the study along with other data protections make it highly improbable individuals could be identified in the data presentation.

16. Enclosures to this Protocol:

- Enclosure (1): Informed Consent: Basic Officer Course
- Tab (A): Investigator Affirmation
- Enclosure (2): Sample Recruitment Announcement
- Enclosure (3): 'IOC Volunteer Recruitment and Training Survey Plan'
- Enclosure (4): "OPFOR/SE Female Officer Volunteers For Infantry Officers Course" (Call for Volunteers Message)
- Enclosure (5): (Modified) Informed Consent Brief (OPFOR/SE Volunteers)
- Enclosure (6): (Modified) Informed Consent Form (OPFOR/SE Volunteers)

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UNCLASSIFIED/

MARADMIN xxx/14

MSGID/GENADMIN, USMTF, 2007/CMC WASHINGTON DC

DMCS (UC) /F002//

SUBJ/ OPERATING FORCE AND SUPPORTING ESTABLISHMENT
FEMALE OFFICER VOLUNTEERS FOR INFANTRY OFFICER COURSE
RESEARCH//

REF/A/ MCO /CMC WASHINGTON DC CDI/21JAN2011//

REF/B/DOC/CMC WASHINGTON DC SDMC/

REF/C/DOC/CMC WHITE LETTER ON INTEGRATION/

AMPF/ REF A IS MCO 3900.18, HUMAN RESEARCH PROTECTION
PROGRAM, WHICH PROVIDES DIRECTION FOR RESEARCH
INVOLVING HUMAN SUBJECTS. REF B IS MARINE CORPS FORCE
INTEGRATION PLAN. REF C IS CMC WHITE LETTER ON
INTEGRATING FEMALE MARINES WITHIN THE GROUND COMBAT
ELEMENT. ./.

POC/

GENTEXT/REMARKS/1. THE PURPOSE OF THIS MESSAGE IS TO
SOLICIT COMPANY GRADE FEMALE OFFICER VOLUNTEERS FROM
THE OPERATING FORCES (OPFOR) AND SUPPORTING
ESTABLISHMENT TO ATTEND THE INFANTRY OFFICERS COURSE
(IOC). THE RESEARCH IS CONDUCTED IAW REF (A) AND IN
SUPPORT OF THE MARINE CORPS FORCE INTEGRATION PLAN -
LINE OF EFFORT 2 - EXPANDED ENTRY LEVEL TRAINING
RESEARCH STUDIES.

2. REFERENCE (B) IS THE CAMPAIGN PLAN DESIGNED TO TAKE
DELIBERATE, MEASURED AND RESPONSIBLE IMPLEMENTATION
ACTIONS TO ACHIEVE INTEGRATION OF FEMALE MARINES INTO
PREVIOUSLY CLOSED UNITS AND OCCUPATIONAL FIELDS BY 1
JANUARY 2016 AS DIRECTED BY THE SECRETARY OF DEFENSE.
AS PART OF THIS EFFORT, CMC DIRECTED AN EXPANSION TO
LOE 2 WHICH ALLOWS FEMALE MARINES TO ATTEND SOME GROUND
COMBAT ARMS ENTRY LEVEL TRAINING SCHOOLS.

3. SINCE SEPTEMBER 2012, FEMALE BASIC OFFICER COURSE
(BOC) GRADUATES HAVE BEEN AFFORDED THE OPPORTUNITY TO
PARTICIPATE IN THIS RESEARCH BY ATTENDING IOC. IN ORDER
TO EXPAND THE POPULATION OF PROSPECTIVE VOLUNTEERS, CMC
HAS DIRECTED THAT COMPANY GRADE FEMALE MARINE OFFICERS

ASSIGNED TO THE OPFOR AND SUPPORTING ESTABLISHMENT BE ALLOWED TO VOLUNTEER FOR IOC, BEGINNING WITH THE OCTOBER 2014 IOC CLASS 1-15.

4. ELIGIBILITY AND RECRUITMENT. OPFOR AND SUPPORTING ESTABLISHMENT COMPANY GRADE FEMALE MARINE OFFICERS INTERESTED IN VOLUNTEERING FOR IOC WILL SUBMIT AN ADMINISTRATIVE ACTION (AA) FORM (NAVMC 10274) VIA THEIR CHAIN OF COMMAND, TO CG TECOM (C466) - THE TECOM IOC RESEARCH TEAM - REQUESTING ASSIGNMENT TO IOC. THE MARINE'S PARENT COMMAND WILL CERTIFY THE MARINE MEETS THE PREREQUISITES TO VOLUNTEER LISTED BELOW AND PROVIDE ENDORSEMENT OR NON-CONCURRENCE WITH COMMENTS. 4.A. VOLUNTEER PREREQUISITES:

4.A.1. ACTIVE DUTY FEMALE COMPANY GRADE ONLY.

4.A.2. BE IN A FULL DUTY STATUS.

4.A.3. HAVE MINIMUM SIX MONTHS OF OBLIGATED SERVICE REMAINING AFTER COMPLETION OF IOC.

4.A.4. VOLUNTEERS CANNOT BE PENDING DISCIPLINARY ACTIONS (I.E., NON-JUDICIAL PUNISHMENT, COURTS MARTIAL, ADMINISTRATIVE SEPARATION).

4.A.5. IOC PHYSICAL PREREQUISITE OF A 1ST CLASS PFT AND CFT SCORE USING THE MALE STANDARDS.

5. INFORMED CONSENT. UPON RECEIPT OF THE AA FORM, THE TECOM RESEARCH TEAM AND OMBUDSMAN WILL CONDUCT AN INFORMED CONSENT (FORMAL RECRUITMENT) INTERVIEW BY PHONE, WITH THE PROSPECTIVE VOLUNTEER, TO VERIFY THE PHYSICAL PREREQUISITES AND RECOMMENDED PHYSICAL CAPABILITIES AND PERFORMANCE EXPECTATIONS DURING IOC TRAINING. THE RECRUITMENT INTERVIEW WILL INFORM PROSPECTIVE VOLUNTEERS ON RESEARCH PARTICIPATION AND IOC PERFORMANCE AND DATA COLLECTION, RISK MITIGATION, PERSONAL IDENTIFIABLE INFORMATION, AND RELATED CONFIDENTIALTY GUIDANCE. PROSPECTIVE VOLUNTEERS ARE INFORMED THAT THE TIMING OF THEIR ASSIGNMENT TO IOC AND/OR LENGTH OF TIME IN THE 'MARINES AWAITING TRAINING' (MAT) PLATOON, WILL BE CONTINGENT ON AVAILABLE CLASS SIZE AND ASSIGNMENT PRIORITIZATION TO MOS 0302 (INFANTRY OFFICER) MALES AND MOS 0203 (GROUND INTELLIGENCE OFFICER) MALES AND FEMALES; NEW BOC GRADUATE FEMALE VOLUNTEERS, AND FEMALE COMPANY GRADE

VOLUNTEERS FROM THE OPFOR AND SUPPORTING ESTABLISHMENT. A SAMPLE MAT ROUTINE/SCHEDULE WILL BE PROVIDED TO ALL VOLUNTEERS DURING THE INFORMED CONSENT PROCESS.

6. COORDINATING INSTRUCTIONS:

6.A. VOLUNTEERS WILL BE PROVIDED AN INFORMED CONSENT FORM (FOLLOWING THE INFORMED CONSENT INTERVIEW) TO REVIEW, COMPLETE THE ATTACHED PROPENSITY SURVEY, AND RETURN A SIGNED COPY TO THE TECOM RESEARCH TEAM.

6.B. IN AN EFFORT TO MITIGATE RISK, BETTER PREPARE AND SCREEN VOLUNTEERS FOR SUCCESS, OPFOR AND SUPPORTING ESTABLISHMENT VOLUNTEERS WILL BE ASSIGNED TO THE IOC MAT PLATOON FOR 60-90 DAYS PRIOR TO AN IOC CLASS. THE MAT PLATOON PROVIDES THE OPPORTUNITY TO REFRESH THE PERISHABLE, BUT IMPORTANT TACTICAL AND FIELD SKILLS TRAINING AND CRITICAL COMBAT AND PHYSICAL CONDITIONING (I.E., MARCHING UNDER LOAD, OBSTACLE COURSE, MCMAP, AND COMBAT WATER SURVIVAL). ONE OF THE EVENTS WHILE IN THE MAT INCLUDES A 12 MILE HIKE WITH APPROACH MARCH LOAD (114 LBS) IN 4 HOURS. A SAMPLE MAT TRAINING SCHEDULE IS AVAILABLE UPON REQUEST FROM THE TECOM RESEARCH TEAM.

6.C. MALE PERFORMANCE DATA FROM THE FY14 IOC CLASSES DEMONSTRATES HIGH PFT/CFT SCORES CORRELATE TO SUCCESS IN TERMS OF PERFORMANCE, COURSE COMPLETION, AND INJURY MITIGATION.

IOC CLASS 1-14: PFT AVG 291.6; CFT AVG 298.5;

IOC CLASS 2-14: PFT AVG 290.1; CFT AVG, 299.1;

IOC CLASS 3-14: PFT AVG 289.5; CFT AVG 296.8.

6.D. CG TECOM WILL COORDINATE WITH DC M&RA (MM) TO ISSUE TAD ORDERS FOR VOLUNTEERS TO THE BASIC SCHOOL (TBS), QUANTICO, VA NLT 1 AUGUST 2014 FOR ASSIGNMENT TO IOC CLASS 1-15. REPORT DATES FOR FOLLOW-ON IOC CLASSES WILL BE PROVIDED TO FUTURE VOLUNTEERS DURING THEIR INFORMED CONSENT BRIEF.

6.E. TAD FUNDING IS THE RESPONSIBILITY OF THE PARENT COMMAND. COMMANDS MAY REQUEST REIMBURSEMENT FROM DC P&R CITING SUPPORT OF MCFIP AS JUSTIFICATION.

6.F. PARTICIPATION IN THIS RESEARCH EFFORT IS VOLUNTARY AND FALLS UNDER THE RULES AND REGULATIONS OF REF A.

7. RELEASE AUTHORIZED BY THE DIRECTOR, MCFIO AND CG TECOM (C466).//

INFORMED CONSENT FOR SURVEY PARTICIPATION:

INFANTRY OFFICER COURSE VOLUNTEER RECRUITMENT AND TRAINING SURVEY

PRIVACY ACT STATEMENT

Authority to request this information is granted under 5 U.S.C. 301, Departmental Regulations; 10 U.S.C. 5041 and 5042; and Executive Order 9397.

Background

You have been selected for this survey in order for the Training and Education Command to assess your propensity to volunteer for the IOC research. Your selection was determined by the fact that you attended The Basic School during CY 12 / CY 13 and received IOC recruitment (Informed Consent) brief from the IOC research team, from MAGTF T&E Standards Division (MTESD), TECOM.

When the IOC research protocol was initially developed, a survey element was not included. In December 2013, the MCCDC Institutional Review Board (IRB) approved the inclusion of a volunteer recruitment and training survey plan as a modification to the IOC research protocol. The survey plan encompasses three components that include a Propensity Survey, which you are being asked to complete and focuses on TBS graduates during 2012/2013 who received an IOC research recruitment brief. An Informed Consent Survey will solicit feedback from prospective volunteers currently in TBS, and an IOC Exit Survey for those Marines who volunteer for the IOC research.

Purpose

The purpose of this survey is to capture propensity data from you decision to volunteer or not volunteer for the IOC research.

Participation

Your participation in this survey is entirely voluntary. No compensation will be provided for participating. The Propensity Survey and IOC Exit Survey (as applicable) are being administered to those female Marine Officers who attended TBS during May 2012 to October 2013 and received an IOC research recruitment brief or who volunteered for IOC during this period.

IRB Approved

Approval Date 16 Dec 13

Expiration Date 25 Feb 14

You consent to participating by acknowledging the Informed Consent and submission of a completed survey. If you received a recruitment (Informed Consent) brief, while at TBS, and did not volunteer for IOC, you are asked to complete the four-question Propensity Survey. You are asked to complete both the Propensity Survey and IOC Exit Survey if you volunteered for IOC under any of the following situations:

- ✓ Volunteered and began IOC
- ✓ Volunteered and entered the MAT, but withdrew before an IOC class

If you elect to not complete the surveys, regardless of your prior status, it is request you reply at the negative response option, which will assist the research team to tabulate the number of respondents.

INFORMED CONSENT

You are invited to participate in an IOC research Propensity Survey. This survey is sponsored by the MAGTF Training and Education Standards Division (MTESD), Training and Education Command (TECOM), who is the quantitative research lead for TECOM and the Marine Corps' 'Women in the Services Restrictions Review' (WISRR) efforts.

This survey will take less than 30 minutes and the results will fill a current information void by addressing propensity and highlighting attitudes and perspectives of female Marine Officers involved in the recruitment and research process. Your participation in this survey is voluntary; refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled and you may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. If you agree to complete this survey, you are asked to check that you 'agree to complete the survey' and continue with the instructions and survey questionnaire. If you elect to not complete the survey, you are asked to check that you 'do not agree to complete the survey' as a negative response.

Instructions

This online Propensity Survey and IOC Exit Survey (as applicable) is being administered to those female Marine Officers who attended TBS during May 2012 to October 2013 and received an IOC research recruitment brief or who

IRB Approved _____
Approval Date 16 Dec 13
Expiration Date 25 Feb 14

volunteered for IOC during this period.

All surveys responses are received directly by the MTESD IOC research team as anonymous responses. Your participation will be handled in accordance with the Privacy Act Statement above. In order to keep the survey as short as possible, some basic demographic data is read from a TECOM server based on your CAC credentials, but is received anonymously via the survey link. The research team does not and cannot link your response to the original by-name roster used for a previous introductory email received by you from the research team.

Risks

We do not anticipate that participation in this survey will pose physical or psychological risks beyond what you encounter in everyday life. Your decision whether or not to participate will not prejudice your future relations with the Marine Corps in any way.

Benefits

The results from this survey will fill a current information void by addressing propensity and highlighting general attitudes and perspectives regarding the research, which along with the IOC performance by volunteers, has the intent to inform potential policy decisions on the assignment of women to the infantry occupational field. Results and survey trends will be incorporated into a prospective IOC research analysis report to CMC during late CY14 or early CY15.

Confidentiality

Please note that all survey records and data will be kept strictly confidential. Your participation in the survey and your responses to the survey remain anonymous and are only reported as aggregate data. Survey responses will be received directly by the research team.

Routine Uses

The information provided in this survey will be included in the overall IOC research data collection, by capturing propensity and training-related information of volunteers.

Compensation

You will receive no direct compensation for participating in this survey.

IRB Approver. _____
Approval Date 16 Dec 13
Expiration Date 25 Feb 14

Contact Information

If you have questions or concerns about this survey please contact the IOC

Research Principal Investigator,

Education Starboards Divisions, TECOM at 7

email

_____, O.

email

For questions about the Human Research Protection Program and your rights as a voluntary subject in this research, contact I

Review Board, MCCDC) at

IRB Approved _____
Approval Date 16 Dec 13
Expiration Date 25 Feb 14

IOC PROPENSITY SURVEY

1. Why did you elect NOT to volunteer for IOC? (Check all that apply)

I did not want to risk injury during IOC training

I did not want to delay reporting to my primary MOS school

I do not believe women should be assigned to the infantry

I believe there are better promotion opportunities than serving in the infantry

I would not have received the 0302 MOS if I had completed IOC

Other:

2. Why did you volunteer for IOC? (Check all that apply)

I wanted to take part in something historic

I wanted to experience the challenge of infantry training at IOC

I hoped to fight with the infantry in combat

I believe women should be allowed in the infantry

I wanted to support Marine Corps research

Other:

3. If you volunteered for IOC, would you have done so if the 0302 MOS was open and you would have been required to accept an assignment to the infantry occupational field upon completing IOC? (Check all that apply)

Yes

No

Unsure

IRB Approved _____

Approval Date 16 Dec 13

Expiration Date 25 Feb 14

4. If you volunteered for IOC, would you have done so if the 0302 MOS was open and you could have volunteered for an assignment to the infantry occupational field upon completing IOC? (Check all that apply)

Yes

No

Unsure _____

IRB Approved _____
Approval Date 16 Dec 13
Expiration Date 25 Feb 14

INFORMED CONSENT FORM

Protocol Title: Collection & Assessment of Training Performance Data at Infantry Officers Course (IOC): Operating Force (OPFOR) and Supporting Establishment (SE) Recruitment of Company Grade Female Marine Officers)

Principal Investigator:

Training and Education Command, MAGTF T&E Standards Division
Quantico, Virginia

Protocol Number: MCCDC.2012.0007

INTRODUCTION.

The Commandant of the Marine Corps has directed the Commanding General, Training and Education Command (CG, TECOM) to allow company grade female Marine Officers from the Operating Force (OPFOR) and Supporting Establishment (SE) to volunteer for the Infantry Officers Course (IOC). Your participation in this study is voluntary. After receiving an Informed Consent brief from the TECOM Research Team, you are requested to review the information below and if deciding to volunteer, sign the Consent Form, complete the attached survey, and return to the TECOM Research Team. By signing the Consent Form, you are acknowledging that you have received the Informed Consent briefing, read this form, had questions answered, and had the research study satisfactorily explained, to include verifying that you meet the physical prerequisites and understand the recommended physical performance expectations.

PURPOSE OF RESEARCH

The purpose of this study is to assess the training performance of female Marine Officer Volunteers assigned to IOC, for the purpose deriving institutional baseline data that informs potential policy decisions on the assignment of female Marines to the infantry occupational field. This research is in support of Line of Effort 2 of the Marine Corps Force Integration Plan – Expand Entry Level Training Research Studies.

DURATION OF STUDY INVOLVEMENT

If you volunteer, you will be required to participate in the 'Marines Awaiting Training' (MAT) Platoon at IOC, for a minimum of 60 to 90 days, prior to the start of an IOC class. The IOC Program of Instruction (POI) is approximately 86 days and does not include the MAT period. The priority of IOC class assignments will be to 0302 (Infantry Officer) and 0203 (Ground Intelligence Officer) males and females; BOC female graduate volunteers, and female company grade OPFOR/SE volunteers. With that said the reporting date to the MAT Platoon and/or length of time spent in the MAT, coupled with the start of a specific IOC class, and may be contingent upon class size and prioritization of seats.

After you begin training and are unable to complete the course, it is unlikely you will be recycled due to the impact of additional time to complete the next course and delaying an eventual return to your PMOS and unit. Such a delay could have a possible negative impact on fitness reporting cycles, career path, and complications with equitable career designations. Nonetheless, volunteers may request to be recycled, whereby the IOC Student Performance Review Board will make a recommendation to the Director, IOC, who will evaluate the particular circumstances and consultation with the Officer Assignments Branch, Manpower & Reserve Affairs, on the needs of the Marine Corps, and make a decision to whether to recycle.

PROCEDURES

In order to be a volunteer, you must meet the IOC physical prerequisite of scoring a 1st Class Male PFT and CFT. During the Informed Consent Brief, you were informed of the physical prerequisite, as well as the highlighting IOC male legacy performance data and the requirement to complete a 12-mile hike in 4 hours with an Approach March Load (114 lbs.) while in the MAT. The 'call for volunteers' message directed you to ensure your AA Form and command endorsement certified your PFT/CFT scores.

IRB Approved

Approval Date 13 Jun 2014

Expiration Date 28 Jan 2015

INFORMED CONSENT FORM

Protocol Title: Collection & Assessment of Training Performance Data at Infantry Officers Course (IOC)

performance of female Marine Officers assigned to IOC) that informs potential policy decisions on the assignment of female Marines to the infantry occupational field.

COMPENSATION

You will not be compensated for your participation in this research.

ALTERNATIVES TO PARTICIPATION

Elect not to participate in the project.

CONFIDENTIALITY

Research studies occasionally are evaluated by Institutional Review Boards (IRBs) and other oversight agencies (i.e., Department of the Navy Human Research Protection Program, Food and Drug Administration, Office for Human Research Protections) to determine that the study was conducted properly. If such an evaluation is requested for this project, your personal information will remain confidential. The TECOM Research Team is required to report only when the research is completed and/or when issues arise over problems in conducting the research, and not individual results from volunteers at IOC. The data collected from his research can be used in future research studies; however, IOC data will be presented as anonymous data in the aggregate.

VOLUNTARY PARTICIPATION AND WITHDRAWAL

Participation in this data collection effort is voluntary and refusal to participate involves no penalty or loss of benefits to which you are entitled. You may discontinue participation at any time without penalty or loss of such benefits. If you choose to withdraw from the study after agreeing to participate, and before reporting to IOC, inform The Principal Investigator, TECOM Research Team. If you choose to withdraw after reporting and during the MAT and/or IOC training, inform one of the IOC staff, or TECOM Research Team, to include any Research Monitor. If you complete IOC, you will be assigned a Course Completion Code (for tracking) in the Marine Corps Training Information Management System (MCTIMS). You will not be assigned the 0302 MOS.

CONTACT INFORMATION

If you have questions about this project, please contact one of the following:

— (b)(6)

For questions regarding the recruitment of subjects for this research, you may contact the appointed Ombudsman:

— (b)(6) School, Training Command, Quantico, VA 22134

— (b)(6) The Basic School, Training Command, Quantico, VA

The appointed Research Monitors for the IOC research are:

— (b)(6)

For questions regarding the Human Research Protection Program and your rights as a voluntary subject in this research, contact:

— (b)(6) 2079 Barnett Avenue, Quantico, VA 22134

IRB Approved

Approval Date 13 Jun 2014

Expiration Date 28 Jan 2015

INFORMED CONSENT FORM

SURVEY QUESTIONNAIRE

Survey Question #1: Why have you decided to volunteer for IOC? (Check all that apply)

- ☐ I want to be part of something historic
- ☐ I want to experience the challenge of infantry training at IOC
- ☐ I hope to fight with the infantry in combat
- ☐ I believe women should be allowed in the infantry
- ☐ I want to support Marine Corps research
- ☐ Other _____

Survey Question #2: If you are volunteering for IOC, would you have done so if, if upon completing IOC, you would have been involuntarily assigned to the infantry occupational field?

- ☐ Yes
- ☐ No
- ☐ Unsure

Survey Question #3: Why are you not volunteering for IOC? (Check all that apply)

- ☐ I do not want to risk injury during IOC training
- ☐ I do not want to delay reporting to my primary MOS school
- ☐ I do not believe women should be assigned to the infantry
- ☐ I believe there are better promotion opportunities than serving in the infantry
- ☐ I will not receive the 0302 MOS if I complete ITB
- ☐ I have (requested) been assigned the 0203 MOS
- ☐ Other _____

Survey Question #4: Would you have volunteered for IOC if you could have voluntarily been assigned to the infantry occupational field, upon completing IOC?

- ☐ Yes
- ☐ No
- ☐ Unsure

IRB Approved

Approval Date 14 Jun 2014

Expiration Date 28 Jan 2015

ASSESSMENT OF FEMALE ENLISTED MARINE VOLUNTEERS
AT INFANTRY TRAINING BATTALION (ITB)
(ITB PROTOCOL: MCCDC.2013.0005)



UNITED STATES MARINE CORPS
MARINE CORPS COMBAT DEVELOPMENT COMMAND
3300 RUSSELL ROAD
QUANTICO, VIRGINIA 22134-5135

IN REPLY REFER TO:
3900
C 4623
20 Sep 13

From: Institutional Review Board (IRB), Human Research Protection Program (HRPP), Marine Corps Combat Development Command (MCCDC)
To: (b)(6) Division, Training and Education Command, Principal Investigator
Subj: PROTECTION OF HUMAN SUBJECTS RESEARCH - APPROVAL OF PROTOCOL MCCDC.2013.0005-IR-CONV-A/TECOM - "ASSESSMENT OF TRAINING PERFORMANCE OF FEMALE ENLISTED MARINES AT THE INFANTRY TRAINING BATTALION (ITB), SCHOOL OF INFANTRY - EAST (SOI-EAST)"

Ref: (a) MCCDC HRPP Policy and Procedures Manual of Nov 2010
(b) DoDI 3216.02
(c) DoD-N40068-IIA-0329 Individual Investigator Agreement 1

Encl: (1) MCCDC IRB Transmittal Ltr 3900.C 5623 of 6 Sep 13
(2) IRB Approved Informed Consent Form (ICF) (Approved 9 Sep 13)
(3) IRB Chair Ombudsman Appointment Ltr
(4) IRB Chair Ombudsman and Research Monitor Appointment Ltr ICO
(5) IRB Chair Ombudsman and Research Monitor Appointment Ltr ICO

1. Per the references, the subject protocol was recommended for approval of by the MCCDC HRPP IRB, DoD Assurance Number N-40068, based on discussion and review at the 28 August 2013 convened IRB meeting. The IRB recommendation was approved by (b)(6)

on 9 September 2013. Enclosure (1) is a copy of the IO's approval. The MCCDC protocol Identification Number MCCDC.2013.0005 has been assigned to this protocol and should be used in all future correspondence and documents submitted on this study. The Informed Consent Form (ICF) at enclosure (2) has been reviewed and approved. Based on our previous communications an amendment is pending with an expanded exit survey which will require an updated ICF.

2. The convened MCCDC IRB reviewed this protocol and determined that the protocol posed greater than minimal risk. As a result, an Ombudsman is required to monitor the recruitment of potential subjects to ensure that the voluntary involvement or recruitment of the Marines is clearly and adequately stressed to the potential subjects and to ensure that the information provided about the research protocol is clear, adequate and accurate. Appointment of a Research Monitor is also required to ensure the safety of subjects in compliance with the approved protocol, due to the risk involved in the protocol. The IRB and the IO reviewed and approved the research monitor plan. Enclosures (3) through (5) are the approved Ombudsmen and Research Monitor appointment letters. Notes from the IRB discussion were provided to the Institutional Official but are not included in this correspondence. Please ensure that these individuals receive copies of their appointment letters and the approved protocol.

3. Reference (c) is the approved Individual Investigator Agreement for work as an Associate Investigators for this protocol. A copy of the approved IIA was previously provided via separate correspondence.

Subj: PROTECTION OF HUMAN SUBJECTS RESEARCH - APPROVAL OF PROTOCOL
MCCDC.2013.0005-IR-CONV-A/TECOM - ASSESSMENT OF TRAINING PERFORMANCE
OF FEMALE ENLISTED MARINES AT THE INFANTRY TRAINING BATTALION (ITB),
SCHOOL OF INFANTRY - EAST (SOI-EAST)

4. As required by references (a) and (b) continuing review is required for this protocol. The approval period for this research is one year, starting on the date of IRB approval, 6 September 2013. The approval for this protocol will expire 5 September 2014. Should the protocol not be completed prior to that date, a request for extension should be submitted to the IRB at least 60 days prior to this expiration date along with the request for continuing review. If the research is completed, a Project Completion Report is due, as outlined in reference (b). The forms for these reports and the IRB Action Request form are contained in reference (b).

5. It is your responsibility, as the principal investigator of this protocol, to ensure that the proposed protocol is being followed as planned and any adverse events or unanticipated problems be reported to the MCCDC IRB. Should there be a need for modification to the approved protocol, it will be your responsibility to submit an amendment for further review and approval prior to implementation.

6. If you have any questions or require further information, please contact me, as the MCCDC IRB Chair and Administrator, at

IRB Chair and Administrator



UNITED STATES MARINE CORPS
MARINE CORPS COMBAT DEVELOPMENT COMMAND
3300 RUSSELL ROAD
QUANTICO, VIRGINIA 22134-5135

IN REPLY REFER TO:
3900
C 4623
6 Sep 13

From: Chair, Human Research Protection Program (HRPP), Institutional Review Board (IRB)
To: Institutional Official
Subj: HUMAN SUBJECT RESEARCH APPROVAL - MCCDC.2013.0005-IR-CONV-A
Ref: (a) MCCDC HRPP Policy and Procedures Manual of Nov 2010
(b) DoDI 3216.02

Encl: (1) Protocol MCCDC.2013.0005-IR-CONV-A: "Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) (SOI East)."
(2) E-mail from IRB Chair to PI of 7 Aug 13
(3) E-mail from the IRB Chair to the PI of 29 Aug 13
(4) E-mail between the IRB Chair and IRB members of 4-6 Sep 13
(5) IRB Approved Informed Consent Form
(6) Appointment Letters for Ombudsmen and Research Monitors

1. In accordance with reference (a), the IRB has determined the above protocol to be:

a. ☐ Exempt Research, Category ____

b. Based on expedited review under Category ____ the IRB has determined this is a minimal risk protocol recommended for:

☐ Approval, all criteria of 32 CFR 219.111 have been satisfied.

c. Based on convened IRB review this protocol has been recommended for:

☒ Approval, all criteria of 32 CFR 219.111 have been satisfied.

☐ Minimal Risk

☐ Future submissions may be reviewed via the Expedited process:
Category ____

☐ Future submissions, unless determined to be a minor change, required
Convened Board review

☒ Greater than Minimal Risk

d. ☐ The IRB has reviewed and DISAPPROVED this protocol.

2. Comments: An Initial Review of subject protocol at enclosure (1) was conducted by the convened IRB on 17 July 2013. The Principal Investigator was present and briefed the IRB on the protocol. There was not a quorum at the 17 July meeting and therefore a vote was deferred and the IRB convened again on 22 July 2013. Additional information was requested by the board and clarification of the data collection plan, as reflected at enclosure (2). An update to the protocol was submitted by the PI and was reviewed by the convened IRB on 28 August 2013. The IRB approved the protocol, subject to corrective measures that were requested and communicated to the PI per enclosure (3). All matters addressed to the PI based on the 28 August convened meeting were clarified and/or corrected. Per enclosure (4), the version of the protocol submitted here for approval was reviewed by all members of the IRB who were present at the 28 August meeting and recommended for approval.

Subj: HUMAN SUBJECT RESEARCH APPROVAL - MCCDC.2013.0005-IR-CONV-A

The convened IRB found the protocol to be greater than minimal risk. Per references (a) and (b), because the finding was that the protocol was greater than minimal risk, it requires appointment of both an Ombudsman to monitor the recruitment process and a Research Monitor. Because no research or data collection will take place at Parris Island, the Ombudsman there will serve as an Ombudsman only. The individuals serving as Ombudsman for the "confirmation" of volunteers at ITB will also serve as research monitors. The IRB reviewed and approved the Research Monitor Plan, the draft Ombudsman/Research Monitor Appointment Letters and the Informed Consent Form. The Ombudsmen and Research Monitors have completed appropriate training through Collaborative Institutional Training Initiative (CITI). ~~The IRB approved Informed Consent Form is provided at enclosure (5).~~ The appointment letter for the Ombudsman at Parris Island is provided at enclosure (6). Signed appointment letters for the Ombudsman and Research Monitors at ITB will be provided by the IO to the PI via separate correspondence, upon IO approval of the protocol.

3. Recommend approval of the protocol and the Ombudsman and Research Monitor appointment letters. Also recommend approval of the Informed Consent Form. No volunteers will start training under this research until the Ombudsman and Research Monitor appointment letters are signed and the Informed Consent Forms are updated with names of the Research Monitor.

4. It is noted that an amendment will be submitted with the "exit survey" for approval by the IRB and the IO.

Printed Name of IRB Chair/Vice Chair

Signature

Date

6 Sep 2013

FIRST ENDORSEMENT on Chair HRPP IRB ltr 3900 C 4623 of 11 Feb 13

From: Institutional Official
To: IRB Chair

1. In regards to Protocol MCCDC.2013.0005 - ""Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) (SOI East)"" the recommendation of the IRB is:

☒ The protocol and Informed Consent Form are approved.

☐ Approved, subject to the following modification(s):

☐ Disapproved

2. The Ombudsman and Research Monitor Plan and Appointment letters are:

☒ Approved

☐ Approval subject to the following modification(s):

☐ Disapproved

Printed Name

Date

9/9/2013

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

Full Protocol

Title of Project: Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) (SOI-East)

Planned Inclusive Dates of Project: 1 September 2013 to 1 August 2014

1. List of primary investigator name/command/contact information.

(b)(6)

ision (MTESD)
mand (TECOM)

2. List and other individuals (internal, external, and contractor) who will interact with human subjects or have access to data collected. (Ensure all have signed Investigator's Assurances.)

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

h Monitor/Ombudsman)

The Basic School
Quantico, VA

Research Monitor/Ombudsman)

The Basic School
Quantico, VA

3. Background. This study is a Commandant of the Marine Corps (CMC)-directed and CG TECOM-led research to assess the performance of female enlisted Marine volunteers assigned to the Infantry Training Battalion (ITB), School of Infantry-East (SOI-E). The purpose of this research is to provide institutional baseline data to inform policy decisions on the potential assignment of female Marines to the infantry occupational field.

4. Identify sponsor and known, as well as potential, future users of the data/results.

CG, TECOM (C461) (MTESD) is the study sponsor. Future and potential users of the data/results are as follows:

DC CD&I

DC PP&O

DC M&RA

CG TECOM

CG TRAINING COMMAND

5. Briefly describe the objectives of the project, the research plan, and methodology with particular emphasis on direct or indirect interaction with human subject or their identifiable data. Describe why human subjects (or their data) must be used in the research and if there are any alternatives.

A. Objectives:

(1) Primary Objectives:

- a. Assess performance of female enlisted Marine volunteers assigned to the 0300 (Basic Rifleman)/0311 (Marine Rifleman) course at ITB (SOI-East).

B. Research Plans:

(1) Subjects: ≥ 300 female enlisted recruits from 4th RCTBN, PISC to meet a 95% Confidence Level (with +/- 5% margin for error)

(2) Inclusion Criteria: Female enlisted graduates of MCRD PISC. Fit for full duty by all volunteers. Ability to pass the final recruit training PFT and CFT. Volunteers must meet or exceed the ITB minimum ITB physical standards:

- 3 Pull-ups (PFT)
- 50 Crunches within 2 minutes (PFT)
- 3-mile run in less than 28:00 minutes (PFT)
- 880 yard run in less 4 minutes, 13 seconds (CFT)

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

- Ammo Can Lift: 33 times within 2 minutes (CFT)
- Maneuver under fire in less than 3 minutes, 58 seconds (CFT)

Volunteers must pass the ITB inventory PFT (TD-1) to ensure they possess the requisite physical fitness to begin infantry training. Failure of the inventory PFT will recycle volunteers to Lima Company (ITB) for physical remediation and reassignment to the next ITB company. ITB companies normally start every two weeks. The physical remediation recycle path is the same as with male ITB students failing the inventory PFT.

C. Methodology. Volunteers will train to the current ITB standards required to achieve course mastery in both performance and written examinations:

- Attain an 80% mastery in all academic examinations (ability to retain/apply MOS knowledge) and in all performance examinations (ability to perform tasks under combat conditions).
- Pass Inventory PFT (TD 1) and CFT (TD 4)
- Infantry Skills: Offensive/Defensive Operations
 - Patrolling
 - Military Operation in Urban Terrain (MOUT)
 - Demolitions
 - Weapons Employment:
 - M16 (w/RCO) – Tables 3,4 (Day/Night field firing)
 - AT-4
 - Infantry Automatic Weapon (IAR)
- Pass Common Skills Retention Exercise (Tactical Skills/Weapons Employment)
- Combat Conditioning
- Physical training to include MCMAP sustainment
- Conditioning Hikes:
 - 5km Hike (with avg 80-96 lbs)
 - 10km Hike (with avg 80-96 lbs)
 - 15km Hike (with avg 80-96 lbs) in 3:45
 - 20km Hike (with avg 80-96 lbs) in 5 hrs (0311 Graduation requirement)
- Pass Final PFT and CFT (Graduation requirement)

Enclosure (1) lists the ITB (0300/0311) training schedule.

The MAGTF Training and Education Standards Division (MTESD), TECOM as the research lead, will conduct formal recruitment (Informed Consent) briefings with 4th RCTBn recruits on training day (TD) 68. Formal recruitments will be conducted per HRPP guidelines and observed by a MCCDC-approved Ombudsman from the MCRD PISC staff (Mr. Brian Patrick, G-4 Safety, PISC). The recruitment and screening process will be further assisted by an IRB-approved Associate Investigator. The ITB course will be overseen by Research Monitors (TBS 2nd Lts awaiting assignment to their formal MOS school) will be overseen by the SOI (E) Associate Investigator. The assignment of associate investigators at PISC and SOI are an extension of the TECOM research team, assisting with key on-site research functions. The (MCRD) Associate Investigator will conduct information and survey sessions with each 4th RCTBn series on TD-6 and TD-56, designed to inform recruits and conduct

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

anonymous surveys to gauge interest to volunteer for ITB. The (SOI) Associate Investigator will assist with the research data collection and conduct a 'reconfirmation' to verify voluntary status at SOI check-in and on TD-29 (ITB 0300/0311 course split). The (SOI) Associate Investigator will conduct an exit survey whenever a volunteer is no longer part of the research. Research Monitors will observe all training during the 0300 and 0311 ITB POI, working in support of the (SOI) Associate Investigator. They will also serve as the Ombudsman for 'reconfirmation' briefs and exit surveys by the Associate Investigator. The Investigator Affirmation for the MCRD Associate Investigators (pending Tab E) to Enclosure (2) of the Research Monitor Plan, will be submitted as a modification to the ITB protocol.

The Associate Investigators and Research Monitors/Ombudsman will not be authorized to perform their duties until they have been appointed in writing by the MCCDC IRB and until the protocol has been approved and they have received a copy of the approval endorsement for the protocol (Enclosure 2 - Research Monitor/Ombudsman Plan). In addition, the TECOM research team will provide research information briefs to the MCRD PISC and SOI-East prior to research commencement.

D. Research Data Collection Plan. The basis for data collection will be to assess volunteer performance at ITB. Performance will be evaluated against existing ITB standards, augmented with survey collected data to capture attitudes and associated reasons when a Marine is no longer part of the research.

(1) Survey Data. The collection of survey data will capture the propensity for females to volunteer, not volunteer, or withdraw (drop on request) from the research. Both anonymous and non-anonymous surveys will be used throughout the research. During the screening and recruitment phase at recruit training, two anonymous surveys will be conducted on TD-6 and TD-56 (Enclosure 3) and a non-anonymous survey conducted on TD-68, in conjunction with the Informed Consent brief (Enclosure 4). During the training and performance period at ITB, exit surveys will be used at any point a volunteer 'exits' the research for any reason.

- a. The anonymous surveys conducted on TD-6 and TD-56, are designed to gauge potential interest in volunteering.
The (MCRD) Associate Investigator will provide survey results to the TECOM research team only. Survey results provided to organizations outside the Depot research support and the TECOM research team, prior to the Informed Consent, could lead to undue influence on the recruits' decision. The Depot, RTR, and 4th RCTBn staffs have been briefed on the research to include cautionary guidance (for Drill Instructors) to be objective and honest with their recruits when fielding research-related questions. The survey conducted during the Informed Consent brief (Enclosure 4), initiates the data collection process whereby volunteers will be tracked linearly, in terms of why they volunteered; why they change their minds, and why they drop, against their performance. Exit surveys during ITB will be conducted for any reason a volunteers is no longer part of the research, tracked again, to performance and within the context of why they initially

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

volunteered. The ITB Survey (pending Enclosure 5) will be finalized by TECOM and SOI, and submitted as a modification to this protocol.

The TECOM research team, assisted by the IRB-approved Ombudsman, will conduct an Informed Consent briefs on TD-68 for each 4th RCTBn series. The Informed Consent will include survey questions to query the recruits for their reasons in deciding to volunteer or not volunteer. Recruits will be briefed that they are not required to answer the survey, regardless if they are volunteering (or not) for ITB. The intent of the Informed Consent survey is to establish a linear tracking to support a comparative analysis, assessing performance against a propensity to volunteer and/or decision to withdraw from the research.

(2) Attrition Data: (Attrition rates/percentage and cause)

- a. Medical injuries
- b. Academic difficulty
- c. Misconduct
- d. Drop on Request (DOR)
- e. Exit survey

(3) Level of Mastery

- a. Graded events evaluating performance throughout ITB (objective evaluation) and ITB Instructor cadre surveys (subjective evaluation) intended to track and record performance during the following ITB (0300/0311) events:
 - 0300 TD 1: Inventory PFT
 - TD 4: CFT
 - TD 5: 5k Hike
 - TD 7-10: Range Week (M67/M16/M203/AT-4/LAAW)
 - TD 11: 10k Hike
 - TD 14-18: Land Nav/Patrolling/IA Drills
 - TD 24: Offensive Ops (Fire & Movement)
 - TD 28: 15k Hike
 - 0311 TD 30-32: MOUT
 - TD 35: 20k Hike
 - TD 36-39: Patrolling Exercise
 - TD 42-46: Range Week (Table 4A-D/M27/Squad Attacks)
 - TD 52-54: Infantry Integrated Field Exercise
 - TD 56: PFT

(4) Comparative male student data for attrition and course mastery

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

- E. Necessity for use of human subjects. The use of human subjects is integral to the nature of this study and could not be conducted without them. Performance of volunteers must be directly measured against existing ITB standards.
6. To what other reviews if any is this project subject? N/A
7. To what other regulations is this data collection effort subject (e.g., Privacy Act) and how will it/they be implemented?
MCCDC HRPP Policy and Procedures Manual and the Privacy Act.
-
8. How will volunteers be recruited?
TECOM will release an ITB research announcement via the Marine Corps Action Tracking System (MCATS), to MCRD PISC and CG Training Command (SOI-East) outlining the research protocol, recruitment plan, and identifying required research support personnel (Enclosure 6). Volunteers will be recruited from the 4th RCTBN, PISC, beginning on 11 Sep 13. Enclosure (7) lists the Research Population & Key Dates for MCRD recruitment and ITB class dates. Prior to the Informed Consent (TD-68), the (MCRD) Associate Investigator will conduct information and survey sessions with 4th RCTBN recruits to inform recruits and conduct anonymous surveys.

On TD-68, TECOM will conduct an Informed Consent brief to formally recruit volunteers. By TD-68, the recruits will have been physically prescreened to meet the ITB minimum physical standards derived from the final PFT/CFT and Pull-up data. The Informed Consent will be presented to only those recruits who meet the ITB physical prerequisites. The Informed Consent will include specific ground rules for volunteers:

- Volunteers not eligible for Permissive Recruiters Assistance Program (PRASP)
- Volunteers may drop on request (DOR) from the program at any time
- Volunteers not meeting ITB standards will be receive the same remediation opportunity afforded male students
- In the case of injury, the severity and recovery prognosis for each individual case will be reviewed to determine whether the volunteer continues in the program
- A volunteer may recycle to a follow-on company not more than once to complete the 0300/0311 POIs.
- Volunteers that complete ITB receive a 0311 Completion Code for tracking.

Upon reporting to SOI (ITB), volunteers receive a 'reconfirmation' brief by the (SOI) Associate Investigator, to verify voluntary status. Volunteers electing to withdraw will be reassigned to Marine Combat Training (MCT). Volunteers electing to continue, must pass the inventory PFT to begin infantry training and will be 'reconfirmed' on TD-29, at the 0300/0311 course split, to again, verify their voluntary status. Volunteers electing to not continue in the 0311 course, will be considered 'MCT complete' and proceed to their MOS school, unless in the case of injury, the severity prognosis for each individual case will be reviewed to determine the timing for medical treatment and rehabilitation and its bearing on MOS school assignment and reporting date. Volunteers withdrawing during the 0300 portion will be recycled to MCT. Volunteers who withdraw or dropped from

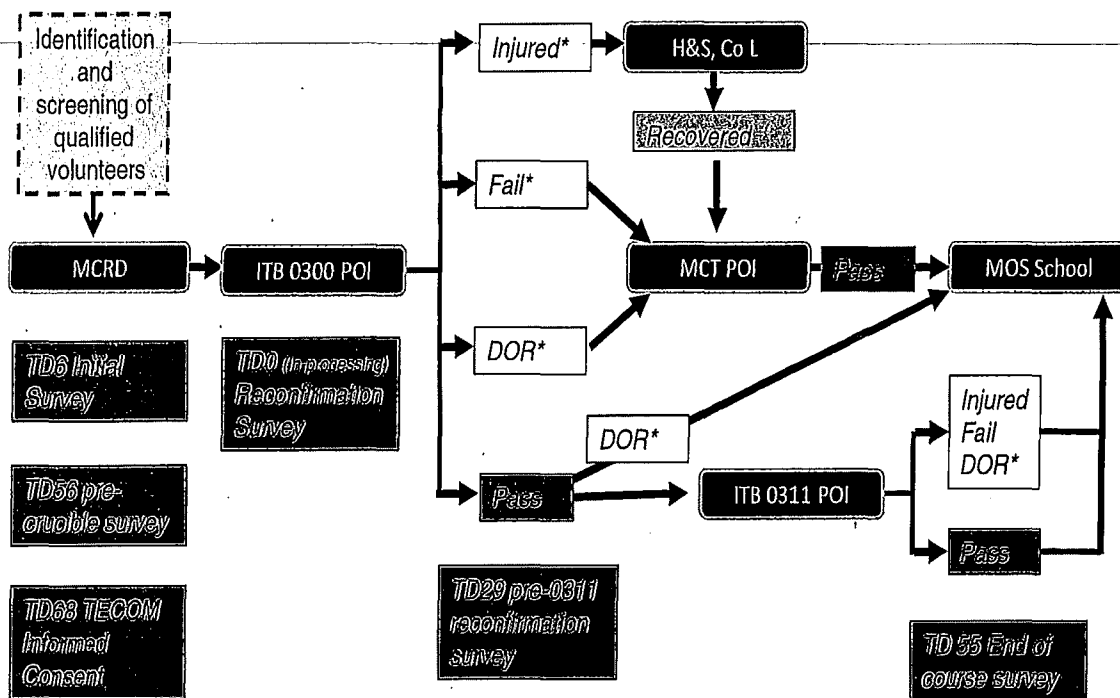
Assessment of Training Performance of Enlisted Marine Volunteers at ITB

the research for any reason will complete an exit survey with the (SOI) Associate Investigator. The figure below outlines the (MCRD/ITB) research volunteer pipeline.



DRAFT UNCLASSIFIED//FOUO

Research Volunteer Pipeline



* Partial exit survey

DRAFT UNCLASSIFIED//FOUO

5

9. Describe the nature and extent of risks the collection of these data pose to the participants. Volunteers at ITB will undergo a longer POI (28 training days longer than MCT) and greater physical demands as compared to the MCT POI. There is an expected increase in injuries, based on the significantly greater incidence of female than male injuries at MCT. For example, there are 4 conditioning hikes (5k, 10k, 15k, 20k) at ITB, with only three (5k, 10k, 15k) hikes at MCT, as well as the heavier average loads carried at ITB, averaging 80-96 lbs., while the MCT march loads average approximately 70 lbs.

Injury rates differ significantly between populations at SOI-East (Marine Combat Training Battalion, Infantry Training Battalion, and Advanced Infantry Training Battalion). Within MCT, females incur far more injuries (18.67 injuries per 100 Marines) at a rate 4.8 times higher than MCT males, who incur injuries at 5.7 per 100 males. ITB students incur injuries at a rate 1.46 times higher than male MCT students. If the female injury rate parallels the 1.46 increase from MCT to ITB for males, their expected injury rate could be extrapolated to 27.22

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

per 100 females if they were to undergo the complete ITB POI. The 20km March under Load is the most strenuous physical event at ITB. Sixteen of the 17 physical event drops in the past year were related to this event, with 35 of the 92 medical drops in the past year were hike related. MCT students (male and female) must complete a 15km hike, as an MCT graduation requirement; a shorter distance and with lighter loads. There is a certain mitigation that can be argued that with the three preliminary hikes (5km, 10km, and 15km) during the 0300 portion of the ITB course, that female volunteers, as with their male counterparts, will be exposed to a ramping up in distance and average weight. However, there is no mitigation to address the existing medical/injury statistics for MCT females and the extrapolation of potential injury rates for female volunteers at ITB. Establishing fit for full duty as inclusion criteria coupled with requirement to meet or exceed the ITB minimum (PFT/CFT) physical standards, mitigates to a certain extent, the operational risk.

10. Describe any anticipated benefits to the participants, the Marine Corps, and/or society. The information gained from the research will help to inform potential policy decision on the assignment of females to the infantry occupational field.
11. How will subjects be informed of their rights?
Enclosure (7) provides the Informed Consent (brief) presented to prospective volunteers.
12. Describe any question/items that will be asked or data elements that will be collected or accessed from existing databases. Pending the development of a follow-on data collection plan (and amendment to this protocol), there data collection may include conducting training and assignment surveys to solicit attitudes and causal factors in connection to attrition.
13. Do any of the questions/items/data elements used in the research involve information that is private or sensitive? If yes, describe and assess the degree of potential risk or harm to the subject if disclosed. Only the principal investigator and the identified associate researchers will have access to the data and project files. Only DoD ID # will be used to accurately match the data from the records to scores recorded in the study. All forms utilized to collect data will be secured by the investigator team following data collection and stored in locked filing cabinets.
14. What would be the impact to the research if private or sensitive information could not be collected? The Marine Corps could not complete its (research) assessment of female enlisted Marines training at ITB.
15. Describe precautions that are being used to minimize risk to the subject and safeguard the data (e.g., limiting access, storage and destruction of data, password-protected network security, etc.)
 - Materials associated with this study will be stored in locked cabinets in the office spaces of the researchers. When in transit and offsite, researchers will maintain positive control over the materials and password-protected laptops. Only the research team will have access to the data and project files.
 - Acknowledgement of the informed consent will be recorded as an individual data point in the dataset.

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

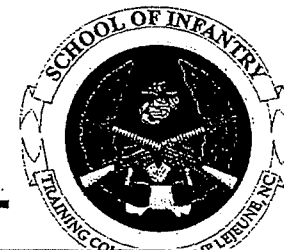
- Regarding data safeguarding, DoD ID # will be used to accurately match the data from the records to scores recorded in the study. All forms utilized to collect data will be secured by the PI following data collection and stored in locked filing cabinets.
- The research team will protect data collected as part of the research, to include training scores and any reports using de-identifiable data and reported in the aggregate.
- Researchers will not provide the names or personal information of subjects to others outside the project; however, routine orders processing and training evaluations will require that volunteers' names and other PII will be known to the staffs involved in the research. If volunteers choose to withdraw from the research, the specific reasons for individual withdrawal will not be shared outside of the (SOI) Associate Investigator, the immediate ITB training staff and the TECOM research team, other than an aggregate.

16. List all enclosures to this Protocol:

- Enclosure (1) ITB (0300/0311) Training Schedule
- Enclosure (2) Research Monitor Plan
- Tab A: Ombudsman (CITI) certification
- Tab B: Research Monitor (CITI) certification
- Tab C: Research Monitor (CITI) certification
- Tab D: SOI Associate Investigator Affirmation
- Tab E: SOI Associate investigator (CITI) Certification
- Tab F: MCRD Associate Investigator Affirmation (Submitted as mod to protocol)
- Tab G: MCRD Associate Investigator (CITI) Certification (Submitted as mod to protocol)
- Enclosure (3) MCRD Anonymous Survey
- Enclosure (4) Informed Consent (with Survey)
- Enclosure (5) ITB Exit Survey (To be submitted as mod to protocol)
- Enclosure (6) MCATS Research Announcement
- Enclosure (7) Research Population & Key Dates



0300 POI



| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|-----------------------------------|---|---|-----------|---|-----------------------------------|---------------------------------------|
| | | 01 | 02 | 03 | 04 | 05 5k hike |
| | | Pick Up | | Service Rifle/Grenade Launcher/ Light Anti Armor Weapons | | Hand Grenades/ Observation Devices |
| 06 | 07 | 08 | 09 | 10 | 11 | 12 |
| | 0300 Range Week (M167 / M16 / M203 / AT4 / LAAW) | | | | 10k hike | |
| | Tactical Combat Casualty Care | | | Tactical Communication | Offensive Fundamentals | Marine Corps Values |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | Land Navigation / Patrolling Fundamentals / Immediate Action Drills | | | | | |
| Nutrition, Sleep Hygiene, E2W2 | | Combat Hunter | | | Anti-Personnel Mines | Marine Corps Values |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | | Offense (Table 3A-3E / Fire and Movement) | | | | |
| | Defensive Fundamentals | | | | Detainee Handling IEDs MOUT | |
| 27 | 28 | 29 | | | | |
| | 15k hike | MOS Split | | | | |
| Marine Corps Values | MOUT | 0300 Written Exam Basic Skill Exercise | | | | |

UNCLASSIFIED



0311



| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--------|--|-----------------------------|------------------------------|--|--------|----------|
| | | | 1 | 2 | 3 | 4 |
| | | | 0311 MOUT | | | |
| | | | M27 Infantry Automatic Rifle | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | 20k hike | 0311 Patrolling Exercise | | | | |
| | Offensive Operations | | | | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | 0311 Range Week (Table 4A-D // M27 // Squad Attacks) | | | | | |
| | | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | | Infantry Integrated Field Exercise (IIFEX) | | |
| | 0311 Review IIFEX Prep | 0311 Written Examination | 0311 Retention Exercise | | | |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| | | Out processing / Graduation | | | | |
| | PFT Warrior Case Study | | | | | |

UNCLASSIFIED

MCCDC HRPP POLICY AND PROCEDURES MANUAL

Appendix E: Investigator Affirmation

I, the principal investigator or associate investigator named below, acknowledge my responsibilities for performing and monitoring the research to be conducted under the protocols entitled: "Assessment of Female Enlisted Marines at the Infantry Training Battalion (ITB), School of Infantry-East."

I am familiar with and understand the provisions of:

- a. DHHS Regulation, "Protection of Human Subjects," (45 CFR Part 46 the "Common Rule")
- b. DoD Regulation, "Protection of Human Subject," (32 CFR Part 219) of 19 Aug 91
- c. DoD Directive 3216.02 "Protection of Human Subjects in DoD-Supported Research," of 25 Mar 02
- d. SECNAVINST 3900.39D, "Protection of Human Subjects," of 25 Feb 02
- e. Privacy Act (5 USC 301, 552a (1994))
- f. MCCDC XXXX, Policy and Procedures for the Expeditionary Systems Evaluation, Human Research Protection Program

I will abide by all applicable laws and regulations, and agree that in all cases, the most restrictive regulation related to a given aspect of research involving protection of research volunteers will be followed. In the event that I have a question regarding my obligations during the conduct of this Navy sponsored project, I have ready access to each of these regulations, as either my personal copy or the immediate resource for clarification is the MCCDC IRB.

| | | |
|------------------------|--------|------------|
| | (b)(6) | (MM/DD/YY) |
| Principal Investigator | | 09/20/13 |
| Associate Investigator | | 09/20/13 |
| Associate Investigator | | 09/20/13 |
| Associate Investigator | | 29/03/13 |

Approved 4 November

Research Monitor Plan

"Assessment of Training Performance of Female Enlisted Volunteers at Infantry Training Battalion, School of Infantry-East"

1. General. The assessment of female enlisted Marine volunteers at Infantry Training Battalion (ITB) will be supported by Research Monitors/Ombudsmen at ITB, School of Infantry (East) and with a separate Ombudsman to support the recruitment and enrollment of volunteers at 4th Recruit Training Battalion (RCTBN), MCRD PISC. The ITB Research Monitors/Ombudsmen will observe the ITB (0300 Basic Rifleman/0311 Marine Infantryman) courses over the 59 training day POI and serve as an Ombudsman, assisting the (SOI) Associate Investigator (Tab D, Investigator Affirmation) in conducting 'confirmation' sessions to verify the voluntary status of the female volunteers upon check-in to ITB and at the 0300/0311 course split on TD-29.

Research support personnel (Associate Investigators and Research Monitors/Ombudsman) will not be authorized to perform their duties until they have been appointed in writing by the MCCDC IRB and until the protocol has been approved and they have received a copy of the approval endorsement for the protocol

2. Duties:

- a. Ombudsman. The primary role of the Ombudsman will be to observe all recruitment (Informed Consent) briefings with female recruits from 4th RCTBN, PISC and the confirmation briefs at ITB by the SOI Associate Investigator. Enclosure (1) lists the 'Research Population & Key Dates' as the schedule for all Informed Consent briefings at 4th RCTBN. The MCRD (b)(6) (b)(6) has complete 'CITI' training and certification (Tab A) and was previously approved by the MCCDC IRB, as the Ombudsman for the Closed MOS Physical Performance Standards research in May 2013.

The MCRD Ombudsman will ensure the voluntary recruitment at MCRD is clearly and adequately stressed to the Marines, without coercion or undue command influence. The SOI Research Monitor/Ombudsman will ensure the same conditions exist during the 'reconfirmation' of voluntary status briefs at ITB.

- b. Research Monitor. Research Monitors are assigned as additional protection for the safety of the research subjects when the research protocol is greater than minimal risk. The RMs are familiar with the research protocol (ITB 0300/0311 POIs) and have completed the CITI training and certification for 'Investigators and Key Research Personnel' (Tabs B, C).

The Research Monitors have been briefed by the TECOM research team and will undergo an orientation with the SOI (ITB) staff and (SOI) Associate Investigator prior to the first ITB company start on 24 Sep. The Research Monitors are 2nd Lieutenants (recent graduates from the Basic School), awaiting assignment to their MOS school. They will report to SOI NLT 16 Sep 13, and will support the ITB research until Jan 2014. The TECOM research team will continue coordination with Training Command to identify/assign additional research monitors to support follow-on ITB companies and this research through Sep 2014.

The RMs will perform general oversight of the research study at the ITB company level, ensuring the safety of subjects and that the protocol (POI) is administered fairly, by their presence at all ITB key training events. Enclosure (2) lists the detailed (59-training day) schedule.

- ITB Key Training Schedule Events:
 - 0300: Confirmation Brief #1 (Upon volunteers checking in to SOI)
 - TD 1: Inventory PFT
 - TD 4: CFT
 - TD 5: 5k Hike
 - TD 7-10: Range Week (M67/M16/M203/AT-4/LAAW)
 - TD 11: 10k Hike
 - TD 14-18: Land Nav/Patrolling/IA Drills
 - TD-24: Offensive Ops (Fire & Movement)

- TD-28: 15k Hike
- 0311 TD-29: Confirmation Brief # 2
- TD 30-32: 0311 MOUT
- TD 35: 20k Hike
- TD 36-39: 0311 Patrolling Exercise
- TD 42-46: Range Week (Table 4A-D/M27/Squad Attacks)
- TD 52-54: Infantry Integrated Field Exercise
- TD-56: PFT

The SOI Research Monitors also serve as an Ombudsman during 'confirmation' briefs by the (SOI) Associate Investigator and exit surveys conducted by the Associate Investigator.

3. Authorities / Training / Certification). The current Research Monitors and Ombudsman have completed the required CITI training and certification for 'Investigators and key Research Personnel.'

| Ombudsman / Research Monitors | | | |
|-------------------------------|--------|-----------|--|
| | Name | Location | Certification |
| Ombudsman | (b)(6) | MCRD PISC | ✓ <u>Completed</u> CITI certification for 'Investigators and Key Research Personnel' |
| Research Monitor | (b)(6) | SOI-East | ✓ <u>Completed</u> CITI certification for a 'Investigators and Key Research Personnel' |



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Research Population & Key Dates

| Start 4 th RCTBn | CO | Proj 4 th RCTBN Females | Proj (39%) ITB eligible* | Informed Consent | Start ITB 0300 | 0311 Start | ITB Grad |
|--------------------------------|------|---|-----------------------------------|---------------------|-------------------|------------|-----------|
| 22 Jun 13 | D&P1 | 100 | 39 | 11 Sep 13 | 24 Sep 13 | 22 Oct 13 | 22 Nov 13 |
| 13 Jul 13 | M&N1 | 122 | 47 | 2 Oct 13 | 15 Oct 13 | 12 Nov 13 | 20 Dec 13 |
| 27 Jul 13 | E&Q1 | 100 | 39 | 16 Oct 13 | 29 Oct 13 | 23 Nov 13 | 10 Jan 14 |
| 10 Aug 13 | B&P2 | 100 | 39 | 30 Oct 13 | 12 Nov 13 | 13 Dec 13 | 24 Jan 14 |
| 24 Aug 13 | F&N2 | 122 | 47 | 13 Nov 13 | 3 Dec 13 | 10 Jan 14 | 7 Feb 14 |
| 14 Sep 13 | G&O2 | 96 | 37 | 4 Dec 13 | 17 Dec 13 | 28 Jan 14 | 28 Feb 14 |
| 28 Sep 13 | D&P1 | 96 | 37 | 18 Dec 13 | 7 Jan 14 | 4 Feb 14 | 7 Mar 14 |
| 19 Oct 13 | H&O3 | 106 | 41 | 8 Jan 14 | 28 Jan 14 | 25 Feb 14 | 27 Mar 14 |
| 2 Nov 13 | A&N1 | 129 | 50 | 22 Jan 14 | 11 Feb 14 | 11 Mar 14 | 10 Apr 14 |

* Based on percentage of females at the end of recruit training able to execute 3 or more pull-ups. 39% is the FY13 average through July 2013.

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1



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Research Population & Key Dates (cont.)

| Start 4 th RCTBn | CO | Proj 4 th RCTBN Females | Proj (39%) ITB eligible* | Informed Consent | Start ITB 0300 | 0311 Start | ITB Grad |
|--------------------------------|------|---|-----------------------------------|---------------------|-------------------|------------|-----------|
| 23 Nov 13 | I&O1 | 106 | 41 | 12 Feb 14 | 11 Mar 14 | 8 Apr 14 | 8 May 14 |
| 7 Dec 13 | B&P2 | 106 | 41 | 26 Feb 14 | 11 Mar 14 | 8 Apr 14 | 8 May 14 |
| 21 Dec 13 | K&N2 | 129 | 50 | 12 Mar 14 | 25 Mar 14 | 22 Apr 14 | 22 May 14 |
| 11 Jan 14 | C&O2 | 106 | 41 | 2 Apr 14 | 22 Apr 14 | 20 May 14 | 19 Jun 14 |
| 1 Feb 14 | L&P1 | 106 | 41 | 23 Apr 14 | 13 May 14 | 10 Jun 14 | 10 Jul 14 |
| 15 Feb 14 | H&O3 | 106 | 41 | 7 May 14 | 10 Jun 14 | 8 Jul 14 | 7 Aug 14 |
| 1 Mar 14 | M&N1 | 126 | 50 | 21 May 14 | 10 Jun 14 | 8 Jul 14 | 7 Aug 14 |
| 15 Mar 14 | E&Q1 | 106 | 41 | 4 Jun 14 | 1 Jul 14 | 29 Jul 14 | 28 Aug 14 |
| | | TOTAL | 722 | | | | |

* Based on percentage of females at the end of recruit training able to execute 3 or more pull-ups. 39% is the FY13 average through July 2013.

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2



0300 POI



| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|----------------------------------|----------------------------------|---|-----------|---|------------------------------------|---------------------------------------|
| | | 01 | 02 | 03 | 04 | 05 |
| | | Pick Up | | Service Rifle/Grenade Launcher/ Light Anti Armor Weapons | | Hand Grenades/ Observation Devices |
| 06 | 07 | 08 | 09 | 10 | 11 | 12 |
| | Tactical Combat Casualty Care | | | Tactical Communication | Offensive Fundamentals | Marine Corps Values |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | | Anti Personnel / Explosive Fundamentals | | | | |
| Marathon, Sleep Hygiene, EZW2 | | Combat Hunter | | | Anti-Personnel Mines | Marine Corps Values |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | Defensive Fundamentals | Power / Rifle / Shotgun / Rifle / Shotgun | | | Defensive Training IEDs MOUT | |
| 27 | 28 | 29 | | | | |
| Marine Corps Values | MOUT | 6400 Written Exam Basic Skill Exercise | | | | |

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0311



| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--------|--|-----------------------------|------------------------------------|--------------------------------------|--------|----------|
| | | | 1 | 2 | 3 | 4 |
| | | | 3rd Year | | | |
| | | | ME7 Infantry Automatic Rifle | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | 3000 Pottery Exercise | | | | | |
| | Offensive Operations | | | | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | Anti-Armor / New Grenade / ME7 / Rifle / Shotgun | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | 0311 Review BFEK Prep | 0311 Written Examination | 0311 Retention Exercise | Weekly Integrated Readiness Training | | |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| | | Out processing / Graduation | | | | |
| | PFT Warrior Case Study | | | | | |

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INFORMED CONSENT FORM

Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) Basic Rifleman (0300) and Marine Infantryman Course (0311): 3 Sep 13

Principal Investigator:

Training and Education Command, Ground Training Division
Quantico, Virginia

Protocol Number: MCCDC.2013.0005

INTRODUCTION

You are invited to participate in a study sponsored by the Commanding General, Training and Education Command (CG, TECOM). Your participation in this study is voluntary and has no bearing on your current standing and graduation from Recruit Training or your primary MOS assignment. You should read the information below and ask questions about anything you do not understand before deciding whether to participate.

PURPOSE OF RESEARCH

The purpose of this study is to; (1) Collect data on female enlisted Marine volunteers assigned to the Infantry Training Battalion, School of Infantry-East, Camp Lejeune, NC., to participate in the 0300 (Basic Rifleman) and 0311 (Marine Infantryman) courses at ITB. The research will inform policy decisions on the potential assignment of women to the infantry occupational field. This research supports the 'Women in the Services Restrictions Review' (WISRR).

DURATION OF STUDY INVOLVEMENT

The study duration is for the length of the 0300 (Basic Rifleman)/0311 (Marine Infantryman) ITB Program of Instruction, which is 59 training days total. The first phase of ITB is the 0300 (Basic Rifleman) course of 29 training days, followed (with no interruption) by the 0311 (Marine Infantryman) course of 30 training days. If you volunteer, you will report to ITB following graduation from Recruit Training and Boot Leave. If you volunteer, you will not be eligible for a 'Recruiters Assistant' assignment in conjunction with Boot Leave. Following ITB, you will report to your primary MOS school.

PROCEDURES

Training: You will conduct infantry and related military skills training, and combat conditioning during ITB. You will train to the current ITB standards that are required to achieve course mastery in both performance and written examinations. ITB students must attain an 80% mastery in all academic examinations, demonstrating the ability to retain/apply MOS knowledge in all performance examinations, and demonstrating the ability to perform tasks under combat conditions. The written and performance evaluations include:

- Pass Inventory PFT (TD 1) and CFT (TD 4): Every Marine assigned to ITB must pass the inventory PFT and CFT before commencing training to ensure students possess the requisite physical fitness to undergo infantry training. By your attendance today, you have been prescreened and meet the ITB minimum (PFT/CFT) physical standards:

- 3 Pull-ups (PFT)
- 50 Crunches within 2 minutes (PFT)
- 3-mile run in less than 28:00 minutes (PFT)
- 880 yard run in less 4 minutes, 13 seconds (CFT)
- Ammo Can Lift: 33 times within 2 minutes (CFT)
- Maneuver under fire in less than 3 minutes, 58 seconds (CFT)

IRB Approval

Approval Date 9 Sep 2013

Expiration Date 6 Sep 2014

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INFORMED CONSENT FORM

Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) Basic Rifleman (0300) and Marine Infantryman Course (0311): 3 Sep 13

- Infantry Skills: Offensive/Defensive Operations
 - Patrolling
 - Military Operation in Urban Terrain (MOUT)
 - Demolitions
- Weapons Employment:
 - M16 w/RCO) – Tables 3,4 (Day/Night field firing)
 - AT-4
 - Infantry Automatic Weapon (IAR)
- Pass Common Skills Retention Exercise (Tactical Skills/Weapons Employment)
- Combat Conditioning:
 - Physical training to include MCMAP sustainment
 - Conditioning Hikes:
 - 5km Hike (avg 80-96 lbs)
 - 10km Hike (avg 80-96 lbs)
 - 15km Hike (avg 80-96 lbs) in 3:45
 - 20km Hike (avg 80-96 lbs) in 5 hrs (Graduation requirement)
- Pass Final ITB minimum (PFT/CFT) physical standards (Graduation requirement)

Screening and Recruitment. This recruitment brief will be your opportunity to volunteer to attend ITB. Based on your final PFT/CFT and Pull-up scores, you have been prescreened and meet the ITB minimum physical standards and are eligible to volunteer. If you volunteer and upon reporting to ITB, you will be asked to reconfirm your voluntary status by the (SOI) Associate Investigator (Captain Andrew Szwejbka). If you elect to withdraw from the research at that time, you will be reassigned to MCT. If you elect to begin ITB, you must pass the ITB minimum (inventory PFT) physical standards on TD-1 in order to begin infantry training. If you do not pass the PFT you will be reassigned to Lima Company (ITB) for physical remediation and recycled to the next ITB company after meeting ITB (PFT) physical standards.

Ground Rules for Volunteers:

- Volunteers for ITB will be graduates of recruit training and fit for full duty
- Volunteers must meet or exceed the ITB minimum physical standards
- Volunteers are not eligible for Permissive Recruiters Assistance Program (PRASP)
- Volunteers may DOR from the program at any time
- Volunteers not meeting ITB standards will receive the same remediation opportunity afforded male students
- In the case of injury, the severity and recovery prognosis for each individual case will be reviewed to determine whether the volunteer continues in the program
- A volunteer may recycle to a follow-on company not more than once to complete the 0300/0311 courses
- Volunteers that complete ITB will receive an 0311 Completion Code for tracking

Training. If you start ITB and upon completion of the (0300) Basic Rifleman course on TD-29, you will be asked to reconfirm your voluntary status before proceeding on to the 0311 (Marine Infantryman) course, for an ITB total of 59 training days. If you decide to withdraw from the research on TD 29, you will not be recycled to MCT, but reassigned to your MOS school, unless you are delayed pending resolution of any medical or injury condition.

RISKS AND DISCOMFORTS

There are risks associated with training at ITB, many of which would be expected with any physical conditioning and infantry field skills training, but are greater than what you would undergo at MCT. The risks include the

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Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) Basic Rifleman (0300) and Marine Infantryman Course (0311): 3 Sep 13

possibility of minor muscle strains/sprains and added stress on the lower body (hips and legs). There may be some minor Delayed Onset Muscle Soreness (DOMS) a day or two after any of the physical and/or field training. If you are injured during training or experience more soreness than what is explained here, please report your injury to one of the ITB staff, study investigators, or medical personnel.

ITB students undergo a longer POI (59 training days), that is more physically demanding than the 29-training day MCT course. Throughout ITB, you will experience longer and heavier road marches under conditions that may result in an increased chance of injury. The ITB 20km march under load (as compared to the MCT 15k march) is conducted with loads averaging 80 lbs - 96 lbs, which is greater than the MCT average of 70 lbs - 80 lbs. Injury rates for females at MCT (18.67 injuries per 100 Marines) are greater than MCT males (5.7 injuries per 100 Marines), which equates to females being injured 4.8 times more than MCT males. Male ITB students incur injuries at a rate 1.46 times higher than male MCT students.

Medical treatment will be provided, if you are injured during ITB and participation in this research. Compensation benefits will also be provided if the injury results in medical discharge. In the case of injury, the severity and recovery prognosis for each individual case will be reviewed to determine whether the volunteer continues in the program.

POTENTIAL BENEFITS

As a volunteer, you will be involved in an effort that directly supports the Marine Corps research to assess female training performance at ITB that will inform potential policy decisions on the assignment of female Marines to the infantry occupational field. If you complete ITB, you will receive an 0311 Completion Code for tracking in the Marine Corps Total Force System (MCTFS).

ALTERNATIVES TO PARTICIPATION

Elect not to participate in the project.

CONFIDENTIALITY

Research studies occasionally are evaluated by Institutional Review Boards (IRB) (which reviewed this ITB protocol) and other oversight agencies (i.e., Department of the Navy Human Research Protection Program, Food and Drug Administration, Office for Human Research Protections) to determine that the study was conducted properly. If such an evaluation is requested for this project, your personal information will remain confidential. Information collected during training will be safeguarded and only viewed by the research team, to include the (SOI) Associate Investigator who will oversee the (ITB) data collection and conduct 'confirmation' briefs and exit surveys.

- The research team will not provide the names or personal information of subjects outside the research project; however, routine orders processing and training evaluations will require that names and PII (of volunteers) be known to the immediate SOI (ITB) staff and TECOM research team.
- The research team will protect data collected as part of the research, to include individual performance (training) scores, and in the case of prepared reports, the results will use de-identifiable data reported in the aggregate.
- Materials associated with this study will be stored in locked cabinets in the office spaces of the ITB and TECOM researchers.
- When in transit and offsite, researchers will maintain positive control over the materials and password-protected laptops. Only the principal investigator and the identified associate researchers will have access to the data and project files.
- Acknowledgement of volunteer status (informed consent form) will be recorded as an individual data point; e.g., numbers volunteering against numbers not volunteering. Data from this research will be retained and may be used in future research. Only your DoD ID # will be used to accurately match the data from the records to scores recorded in the study. All forms used to collect data will be secured by the investigator team following data collection and stored in locked filing cabinets.

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Assessment of Training Performance of Female Enlisted Marines at the Infantry Training Battalion (ITB) Basic Rifleman (0300) and Marine Infantryman Course (0311): 3 Sep 13

VOLUNTARY PARTICIPATION AND WITHDRAWAL

Participation in this data collection effort is voluntary and refusal to participate involves no penalty or loss of benefits to which you are entitled. ~~You may discontinue participation at any time without penalty or loss of such~~ benefits. Upon reporting to ITB, you will be asked to reconfirm your original decision to volunteer by an Associate Investigator and again on TD 29, before proceeding onto the 0311 (Marine Infantryman) course portion of ITB.

If you choose to withdraw from the study after agreeing to participate, inform one of the ITB staff or research personnel, to include the (SOI) Associate Investigator and the two Research Monitors, present during ITB training.

If you withdraw from this research, are injured and removed from the course, or dropped for performance, during the 0300 phase and before the 15k hike, you will be recycled to an MCT company. If you withdraw or are dropped at any time during the 0311 phase, you will not be recycled to an MCT company, but will be reassigned to your primary MOS school, unless physical/medical issues require attention at SOI before your school orders are executed. In the case of injury, the severity and recovery prognosis for each individual case will be reviewed to determine whether the volunteer continues in the program. You may recycle to a follow-on ITB company not more than once to complete the 0300/0311 courses.

CONTACT INFORMATION

If you have questions about this project, please contact one of the following:

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INFORMED CONSENT FORM

Assessment of Training Performance of Female Enlisted Marines at the Infantry Training
Battalion (ITB) Basic Rifleman (0300) and Marine Infantryman Course (0311): 3 Sep-13

SIGNATURE OF RESEARCH SUBJECT

I have read this form and have had all my questions answered to my satisfaction..

Printed Name _____

Signature (I agree to take part in this study) _____

_____ Date

Signature of Person Obtaining Consent (Investigator Team) _____

_____ Date

SURVEY QUESTIONS:

Answers to this survey (as part of collected data) will be presented as anonymous or aggregate data.
You are not required to answer the survey questions, even if you are volunteering for ITB.

Survey Question #1: Why have you decided to volunteer for ITB? (Check all that apply)

- I want to be part of something historic
- I want to experience the challenge of infantry training
- I want to fight as an infantryman in combat
- I believe women should be allowed in the infantry
- I want to support Marine Corps research
- Other _____

Survey Question #2: Why are you not volunteering for ITB? (Check all that apply)

- I do not want to risk injury during ITB training
- I do not want to delay the MOS training that I enlisted for
- I do not want to give up 'PRASP' (Recruiter Assistance)
- I do not believe women should be assigned to the infantry
- I believe there are better promotion opportunities than serving in the infantry
- I will not receive the 0311 MOS if I complete ITB
- Other _____

IRB Approval _____

Approval Date 9 Sep 2013

Expiration Date 6 Sep 2014

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

Protocol Modification: Assessment of Training Performance of Female Enlisted Marine Volunteers at the Infantry Training Battalion (ITB) 03xx Weapons Courses, SOI-East.

This protocol is a modification to the "Assessment of Female Enlisted Marines at ITB" (MCCDC.2013.0005), incorporating the assessment of female enlisted Marine volunteers assigned to the ITB 03xx Weapons Courses at SOI-East. The expanded ITB research is in support of the Expanded Entry-Level Training (ELT) Research Studies (Level of Effort 2), of the Marine Corps Force Integration Campaign Plan (MCFIP). This modification will extend the overall ITB research protocol to July 2015 in support of the MCFIP.

Planned Inclusive Dates of Project: 27 March 2014 to 1 July 2015

1. List of primary investigator name/command/contact information.

Principal Investigator:

(b)(6)

Program Analyst

MAGTF Training and Education Standards Division (MTESD)
Training and Education Command (TECOM)

2. List and other individuals (internal, external, and contractor) who will interact with human subjects or have access to data collected. (Ensure all have signed Investigator's Assurances.)

Associate Investigator (MTESD)

(b)(6)

Physical Readiness Programs Officer

MAGTF Training and Education Standards Division (MTESD)
Training and Education Command (TECOM)

(b)(6)

Associate Investigator (MTESD)

(b)(6)

MAGTF Training and Education Standards Division (MTESD)
Training and Education Command (TECOM)

(b)(6)

Associate Investigator (MTESD)

(b)(6)

MAGTF Training and Education Standards Division (MTESD)
Training and Education Command (TECOM)

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

Associate Investigator (Operations Analysis Division)

*Operations Research Analyst
Operations Analysis Division, MCCDC*

Associate Investigator (Operations Analysis Division)

*Operations Research Analyst
Operations Analysis Division, MCCDC*

School of Infantry-East:

Associate Investigator:

(b)(6)

School of Infantry-East
Camp Lejeune, NC

(b)(6)

Associate Investigator:

(b)(6)

*School of Infantry-East
Camp Lejeune, NC*

Associate Investigator:

(b)(6)

School of Infantry-East
Camp Lejeune, NC

(b)(6)

Associate Investigator:

(b)(6)

*School of Infantry-East
Camp Lejeune, NC*

Associate Investigator:

(b)(6)

*School of Infantry-East
Camp Lejeune, NC*

(b)(6)

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

Associate Investigator:

(b)(6)

School of Infantry-East

Camp Lejeune, NC

(b)(6)

MCRD Parris Island:

Associate Investigator:

(b)(6)

Marine Corps Recruit Depot, Parris Island, SC

(b)(6)

Ombudsman:

(b)(6)

Safety Technician, G-4 Safety

Marine Corps Recruit Depot, Parris Island, SC

Ombudsman:

(b)(6)

Operations Officer

Marine Corps Recruit Depot, Parris Island, SC

3. Background. This research is a Commandant of the Marine Corps (CMC)-directed and CG TECOM-led effort to assess the performance of female enlisted Marine volunteers assigned to the Infantry Training Battalion (ITB), School of Infantry-East (SOI-E). The purpose of the research is to provide institutional baseline data to inform policy decisions on the potential assignment of female Marines to the infantry occupational field. The modifications to this protocol will extend the research period to 1 September 2014 in support of the Expanded Entry-Level Training (ELT) Research Study, that will assess the performance of female enlisted Marine volunteers assigned to one of the SOI (ITB)-East Weapons Courses: 0331 MACHINEGUNNER Course, MOS 0341 MORTARMAN Course, MOS 0351 INFANTRY ASSAULTMAN Course, and MOS 0352 ANTI-TANK MISSILEMAN Course.

4. Identify sponsor and known, as well as potential, future users of the data/results. CG, TECOM (C461) (MTESD) is the study sponsor. Future and potential users of the data/results are as follows:

- ***DC CD&I/DCG MCCDC (Marine Corps Force Integration Campaign Plan Lead)***
- ***DC PP&O***
- ***DC M&RA***
- ***CG TECOM***

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

• CG TRAINING COMMAND

5. Briefly describe the objectives of the project, the research plan, and methodology with particular emphasis on direct or indirect interaction with human subject or their identifiable data. Describe why human subjects (or their data) must be used in the research and if there are any alternatives.

A. Objectives:

(1) Assess performance of female enlisted Marine volunteers in the 0300 BASIC RIFLEMAN/ 0311 MARINE INFANTRYMAN Programs of Instruction (POI) at SOI-East.

(2) Assess performance of female enlisted Marine volunteers in the 0331 MACHINE GUNNER, 0341 MORTARMAN, 0351 INFANTRY ASSAULTMAN, and 0352 ANTI-TANK MISSILEMAN courses/Programs of Instruction (POI) at ITB, SOI-East.

B. Research Plans:

(1) Table 1 (ITB 03xx Weapons Courses: Throughput / Volunteer Requirements) outlines the required minimum number of volunteers for each of the weapons courses to meet a 95% Confidence Level (CL) with a +/- 5% margin for error. The 7% column/figure represents the current number of females in the Marine Corps as the percentage taken against the annual (male) throughput for the respective 03xx courses. The volunteers required allows for generalization of data and a sampling of the population.

| COURSE | ANNUAL THROUGHPUT | 7% OF ANNUAL THROUGHPUT | # VOLUNTEERS REQ'D FOR 95% (CL) |
|---|------------------------------|-------------------------|---------------------------------|
| 0300: BASIC RIFLEMAN/ 0311: MARINE INFANTRYMAN | 5157: (2144-E) / (3013-W) | | 255 |
| 0331: MACHINE GUNNER | 817: (399-E) / (418-W) | 57 | 50 |
| 0341: MORTARMAN | 846: (413-E) / (433-W) | 59 | 51 |
| 0351: MARINE ASSAULTMAN | 390: (191-E) / (199-W) | 27 | 25 |
| 0352: ANTI-TANK MISSILEMAN | 421: (206-E) / (215-W) | 29 | 27 |

TABLE 1: ITB (03xx) WEAPONS COURSES: THROUGHPUT / VOLUNTEER REQUIREMENTS

(2) Inclusion Criteria: Female enlisted graduates of MCRD PISC. All volunteers will be fit for full duty and meet or exceed the ITB minimum physical standards to be eligible to volunteer:

- 3 Pull-ups (PFT)
- 50 Crunches within 2 minutes (PFT)
- 3-mile run in less than 28:00 minutes (PFT)
- 880 yard run in less 4 minutes, 13 seconds (CFT)
- Ammo Can Lift: 33 times within 2 minutes (CFT)
- Maneuver under fire in less than 3 minutes, 58 seconds (CFT)

(3) ITB Entry Requirements. All ITB students must pass the initial PFT (TD-1) and CFT (TD-2) to ensure they possess the requisite physical fitness to begin infantry training. Failure of the initial PFT/CFT will recycle students to Lima Company (ITB) for physical remediation and reassignment to the next ITB company. Volunteers may elect to withdraw from the research and not recycle at

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

this time, and if they do so, will be reassigned to Marine Combat Training (MCT), to complete that phase of entry-level training required of all non-infantry Marines.

C. Methodology:

(1) 0300/0311: Volunteers will train to the current ITB standards required to achieve course mastery in both performance and written examinations;

- Attain an 80% or higher on all written examinations (ability to retain/apply MOS knowledge) and demonstrate mastery in all performance examinations (ability to perform tasks under combat conditions).
- Pass Inventory PFT (TD 1) and CFT (TD 4)
- Infantry Skills: Offensive/Defensive Operations
 - Patrolling
 - Military Operation in Urban Terrain (MOUT)
 - Demolitions
 - Weapons Employment:
 - M16 (w/RCO) – Tables 3,4 (Day/Night field firing)
 - AT-4
 - Infantry Automatic Weapon (IAR)
- Pass Common Skills Retention Exercise (Tactical Skills/Weapons Employment)
- Combat Conditioning
- Physical training to include MCMAP sustainment
- Conditioning Hikes:
 - 5km Hike (with avg 80-96 lbs)
 - 10km Hike (with avg 80-96 lbs)
 - 15km Hike (with avg 80-96 lbs) in 3:45
 - 20km Hike (with avg 80-96 lbs) in 5 hrs (0311 Graduation requirement)
- Pass Final PFT and CFT (Graduation requirement)

(2) 03xx Weapons Courses: Volunteers will train to the current ITB standards required to achieve course mastery in both performance and written examinations. Table 2 outlines the details and evaluated performance events of the Weapons Courses.

| COURSE | REQ'D VOLUNTEERS | # TDs | CLASSES PER YEAR | CLASS SIZE | PERFORMANCE EVALUATIONS |
|--------|---------------------|----------|------------------------|---------------|--------------------------------|
| | | | | | COURSE COMPLETION REQUIREMENTS |

Assessment of Training Performance of Enlisted Marine Volunteers at ITB

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| 0331 MACHINE GUNNER COURSE | 50 | 30 | 14 | 28 | <ol style="list-style-type: none"> 1. CONSTRUCT MG FIGHTING POS 2. M240B MG OPERATOR MAINTENANCE 3. M240B MG OPERATING PROCEDURES 4. M240B MG TROUBLESHOOTING PROCEDURES 5. PLACE M240B MG INTO ACTION 6. M240B WRITTEN EXAM 7. M240B MG ZERO PERFORMANCE EXAM 8. M240B MG 12.7M PERFORMANCE EXAM 9. M240B MG TECHNIQUES OF FIRE TARGET ENGAGEMENT 10. M240B MG RANGE CARD PERFORMANCE EXAM 11. M240B MG LIMITED VISIBILITY TARGET ENGAGEMENT 12. M249 LIGHT MG OPERATOR MAINTENANCE 13. M249 MG OPERATOR PROCEDURES 14. M249 MG TROUBLESHOOTING PROCEDURES 15. TABLE II (M249) MULTIPLE TARGET ENGAGEMENT 16. TABLE V (M249) LIMITED VISIBILITY TARGET ENGAGEMENT 17. M249 PERFORMANCE EXAM 18. M249 WRITTEN EXAMINATION 19. M2 .50 CAL HEAVY MG OPERATOR MAINTENANCE 20. M2 .50 CAL HMG OPERATING PROCEDURES 21. M2 .50 CAL HMG TROUBLESHOOTING PROCEDURES 22. PLACE M2 HMG INTO ACTION 23. M2 .50 CAL HMG WRITTEN EXAM 24. M2 .50 CAL HMG BASIC COURSE PERFORMANCE 25. M2 .50 CAL HMG TRANSITION FIRE PERFORMANCE 26. RANGE CARD EXAM (M2. 5 CAL HMG) 27. M2. 50 CAL HMG VEHICLE-MOUNTED COURSE EXAM 28. MK-19 HMG OPERATOR MAINTENANCE 29. MK-19 HMG OPERATING PROCEDURES 30. MK-19 HMG TROUBLESHOOTING PROCEDURES 31. PLACE MK-19 HMG INTO ACTION PERFORMANCE 32. MK-19 HMG WRITTEN EXAM 33. MK-19 HMG FIELD ZEROING 34. MK-19 HMG BASIC COURSE TABLE I EXAM 35. MK-19 HMG VEHICLE-MOUNTED COURSE EXAM 36. MK-19 HMG RANGE CARD EXAM INATION <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>➤ WRITTEN EXAMINATIONS (WEAPON TECHNICAL KNOWLEDGE)</p> <p>➤ PERFORMANCE EXAMINATIONS (WEAPON FUNCTIONAL KNOWLEDGE)</p> <p>➤ M249 / M240 / M2 .50 CAL / MK-19: LIVE-FIRE PERFORMANCE EVALUATIONS</p> <p>➤ CONDUCT 20K FINAL CONDITIONING HIKE</p> </div> |
| 0341 MORTARMAN COURSE | 51 | 30 | 18 | 28 | <ol style="list-style-type: none"> 1. MORTAR FIGHTING POSITION EXAM 2. MAINTAIN 60 MORTAR PERFORMANCE EXAM 3. MOUNT/PRE-SAFETY CHECKS FOR 60 MORTAR PERFORMANCE EXAM 4. 60 MORTAR SMALL DEFLECTION/ELEVATION CHANGE PERFORMANCE EXAMINATION 5. 60 MORTAR LARGE DEFLECTION/ELEVATION CHANGE PERFORMANCE EXAMINATION 6. BORESIGHT 60 MORTAR PERFORMANCE EXAM 7. 60 MORTAR MISFIRE PROCEDURES EXAMINATION 8. 60 MORTAR REFER /REALIGN PERFORMANCE EXAM 9. 60 MORTAR WRITTEN EXAMINATION 10. 60 MORTAR LIVE FIRE PERFORMANCE EXAM 11. MAINTAIN A 81 MORTAR PERFORMANCE EXAM 12. 81 MORTAR MOUNT/PRE-FIRE SAFETY CHECKS 13. 81 MORTAR SMALL DEFLECTION/ELEVATION CHANGE PERFORMANCE EXAM |

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| | | | | | 14. 81 MORTAR LARGE DEFLECTION/ELEVATION CHANGE PERFORMANCE EXAM 15. BORESIGHT 81 MORTAR PERFORMANCE EXAM 16. 81 MORTAR REFER/REALIGN PERFORMANCE EXAM 17. LAY 81 MORTAR RECIPROCAL LAY EXAM 18. 81 MORTAR MISFIRE PROCEDURES EXAM 19. 81 MORTAR WRITTEN EXAM 20. 81 MORTAR LIVE FIRE PERFORMANCE EXAM <div> <div>➤ WRITTEN EXAMINATIONS (WEAPON TECHNICAL KNOWLEDGE)</div> <div>➤ PERFORMANCE EXAMINATIONS (WEAPON FUNCTIONAL KNOWLEDGE)</div> <div>➤ 60MM / 81MM MORTARS: LIVE-FIRE PERFORMANCE EVALUATIONS</div> <div>➤ CONDUCT 20K FINAL CONDITIONING HIKE</div> </div> |
| 0351 INFANTRY ASSAULTMAN COURSE | 25 | 30 | 11 | 28 | 1. SMAW OPERATOR MAINTENANCE EXAMINATION 2. SMAW WEAPONS HANDLING/TARGET ENGAGEMENT PERFORMANCE EXAMINATION 3. SMAW WRITTEN EXAMINATION 4. SMAW PERFORMANCE EXAMINATION 5. INITIATION SETS PERFORMANCE EXAM 6. DETONATION CORD INITIATION EXAMINATION 7. CUTTING CHARGES PERFORMANCE EXAM 8. IMPROVISED EXPLOSIVE PERFORMANCE EXAM 9. DEMOLITIONS WRITTEN EXAM 10. BASIC DEMOLITION PERFORMANCE EXAM 11. BREACHING CHARGES PERFORMANCE EXAM 12. MECHANICAL BREACHING PERFORMANCE EXAM 13. MOBILITY WRITTEN EXAM <div> <div>➤ WRITTEN EXAMINATION (TECHNICAL KNOWLEDGE)</div> <div>➤ PERFORMANCE EXAMINATIONS (WEAPON FUNCTIONAL KNOWLEDGE)</div> <div>➤ LIVE-FIRE EVALUATION FOR INITIATION SETS, CHARGE CONSTRUCTION, MK-153 SMAW</div> <div>➤ CONDUCT 20K FINAL CONDITIONING HIKE</div> </div> |
| 0352 ANTI-TANK MISSILEMAN COURSE | 27 | 30 | 7 | 30 | 1. ARMOR VEHICLE IDENTIFICATION EXAM 2. ANTI-ARMOR RANGE CARD PERFORMANCE EXAM 3. OPERATOR MAINTENANCE FOR M98A2 JAVELIN COMMAND LAUNCH UNIT PERFORMANCE EXAM 4. PREPARE M98A2 JAVELIN FOR FIRING PERFORMANCE EXAM 5. M98A2 IMMEDIATE ACTION PERFORMANCE EXAM 6. JAVELIN BASIC SKILLS TRAINER QUALIFICATION 7. JAVELIN WRITTEN EXAM 8. OPERATOR MAINTENANCE FOR A HEAVY ANTI-ARMOR WPN SYSTEM PERFORMANCE EXAM 9. PREPARE A HEAVY ANTI-ARMOR WPN SYSTEM FOR FIRING PERFORMANCE EXAM 10. IA FOR HEAVY ANTI-ARMOR WPN SYSTEM PERFORMANCE EXAM 11. VEHICLE MOUNT A HEAVY ANTI-ARMOR WPN SIMULATOR SYSTEM 12. HEAVY ANTI-ARMOR WPN WRITTEN EXAM <div> <div>➤ WRITTEN / PERFORMANCE EXAMINATIONS (TECHNICAL KNOWLEDGE) FOR JAVELIN AND SABER WEAPONS, ARMOR IDENTIFICATION</div> <div>➤ SIMULATED TARGET ENGAGEMENT WITH JAVELIN AND SABER MISSILE SYSTEMS</div> <div>➤ CONDUCT 20K FINAL CONDITIONING HIKE</div> </div> |

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TABLE 2: ITB (03xx) MOS WEAPONS COURSES: COURSE DETAILS AND PERFORMANCE EVENTS

Performance data will be collected by the SOI Associate Investigator and reported on a weekly basis to the TECOM research team for all ITB courses. The data collection construct for the weapons courses will be the same as for the 0300/0311 POIs as depicted in Table 3 below:

Marine Corps Recruit Depot, Parris Island

- Propensity to volunteer or not volunteer (% and reasons)
- Pre-Crucible (anonymous) surveys (TD-6, TD-56)
- Post-Crucible Informed Consent survey (TD-68)

Infantry Training Battalion, SOI-East

- ITB Attrition Rates (% and reasons)
- Medical Injuries / Academic Difficulty / Misconduct / DOR
- Exit survey
- Injury Tracker
- Level of Mastery (Performance Evaluations)
- Graded events from the 0300
- Weapons Assessment and Selection
- 0331/0341/0351/0352 POIs
- ITB Graduation Requirements (PFT/CFT; 20k Hike)
- Comparative male student data for recycles, attrition & mastery

TABLE 3: DATA COLLECTED

(3) Screening and Recruitment. The MTESD research team will conduct formal Recruitment (Informed Consent) briefings with 4th RCTBn recruits (Marines) on training day 68 (TD-68). Recruitments will be conducted per HRPP guidelines and observed by a MCCDC-approved Ombudsman from the MCRD PISC staff, further assisted by the MCRD Associate Investigator to coordinate physical prerequisite screening requirements with 4th RCTBn and as required, conduct the actual Informed Consent (IC) briefings.

The screening and recruitment of volunteers for the weapons courses will begin during April 2014 pending IRB approval, and will be conducted as part of the current IC process at 4th RCTBn. The research team will brief eligible Marines to volunteer for the weapons courses, with the same eligibility requirements (minimum male PFT and CFT) as for the 0300/0311 POIs. The 4th RCTBn eligible volunteers will not choose a specific weapons course, but rather for consideration to be selected for one of the weapons courses, based on the SOI (ITB) selection process conducted early in the 0300 POI. During the IC, prospective volunteers will be provided an overview of each weapons course, highlighting the course length, performance

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events, completion requirements, and the selection process. The selection process to a weapons MOS course includes screening based on the pre-requisite GT score (as designated in the specific weapons course POIs) and completion of a weapon specific MOS assessment. The weapons assessment is a sequential execution of events that simulate the requirements of a combat environment for weapons MOSs as depicted in Table 3 (Weapons Assessment and Selection).

(4) Weapons Course Assessment and Selection. The weapons assessment is conducted on the third Saturday of the 0300 POI, between the week following the 10K Hike and week before the 15K Hike. For assessment and screening purposes, the Marines are assigned to a prospective weapons MOS, by their GT score, the Marines' 'wish list', the Combat Instructors' assessment of what MOSs would best suit the Marine, and what MOS Courses will be conducted during that Company's Training Schedule. Other than the 5k hike conducted by all prospective 'weapons' students, the remaining weapons assessment events are performed by the students in their pre-designated MOSs only (e.g., pre-designated 0331 students, perform only the 0331 events). Final selection and assignment to a specific weapons course will be based on the ability to complete the initial assessment.

| MOS | GT SCORE | 5 KM WEAPONS HIKE | MOS DRILLS |
|------|----------|--|--|
| | | COMPLETE HIKE IN 70 MINUTES OR LESS CARRY SEASONAL SUSTAINMENT LOAD (82/87 LBS) CARRY ASSOCIATED WEAPONS, AMMO, EQUIPMENT | |
| 0331 | 80 | M122 TRIPOD w/SL-3 COMPONENTS (27 LBS) M240 MACHINE GUN (27 LBS) ➤ THE ABOVE LOAD IS DIVIDED BETWEEN TWO MARINES, WHO MAY SWITCH CONFIGURATIONS THROUGHOUT THE HIKE. | * MOVE M2 RECEIVER (62 LBS) 25M * LIFT/HOLD M2 RECEIVER ABOVE HEAD FOR 3 SECONDS (SIMULATES VEHICLE MOUNTING) A WEAPONS SYSTEM) ** T&R: 0331-M2-1003 * CHARGE M2 & MK19 (SIMULATES MG FUNCTION CHECK) **T&R: 0331-M2-1001 **T&R: 0331-MK19-1001 |
| 0341 | 80 | M224A1 (60mm) CANNON (13 LBS) M170 BIPOD (13 LBS) FOUR (4) DUMMY ROUNDS (8 LBS EACH) ➤ THE ABOVE LOAD IS DIVIDED BETWEEN TWO MARINES, WHO MAY SWITCH CONFIGURATIONS THROUGHOUT THE HIKE. STUDENTS CARRY THE 60mm (VICE 81mm) DUE TO LIGHTER WEIGHT AS A RISK MITIGATION TO AVOID/ MINIMIZE INJURIES FOR AN INITIAL ASSESSMENT | *CONDUCT 25m SHUTTLE MOVEMENT w/M3A1 (81mm) BASE PLATE (29 LBS) - STAGE IT - *CARRY M177 BIPOD (27 LBS) - STAGE IT - * CARRY M253 TUBE (35 LBS) - STAGE IT - (SIMULATES 81mm GUN DRILL) ** T&R: 0341-81MM-1002 * LIFT/HOLD 81mm AMMO BOX (50 LBS) OVERHEAD FOR 3 SECONDS (SIMULATES HANDLING AMMO) ** T&R: 0341-WPNS-1007 |