

## USMC Physical Standards: Development, Implementation and Assessment

Symposium on Integration of Women Into Ground Combat Units February 2019



### **Agenda**

- Purpose / Endstate / BLUF
- Physical Screening and Testing Background and Framework
- 2016-2018 Data

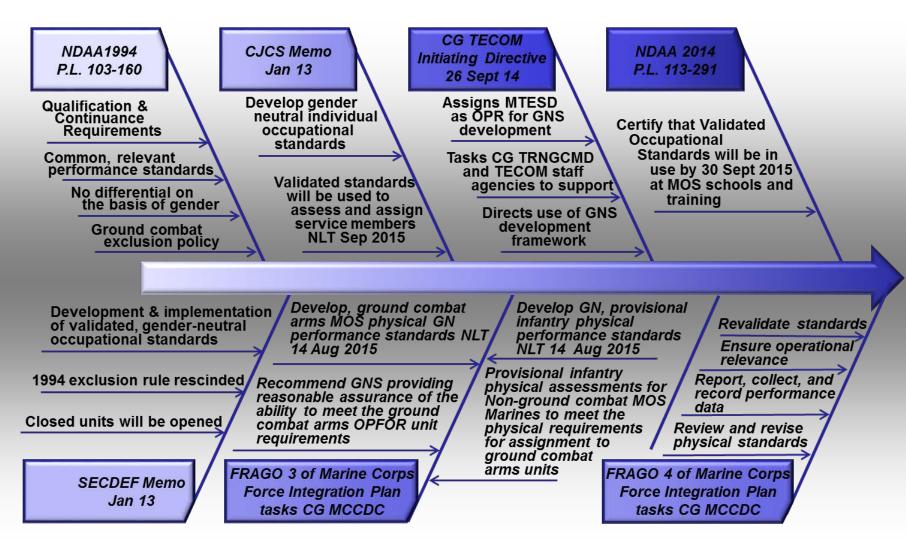


### Purpose / End state / BLUF

- Purpose: TECOM provides Symposium on Integration of Women Into Ground Combat Units attendees an overview and update on the USMC MOS Specific Physical Standards (MSPS).
- End state: Symposium attendees understands USMC MOS physical screening methodology, trends, and way ahead.
- BLUF: MSPS and enhanced physical screening give a reasonable assurance Marines have the physical capacity to perform in physically demanding MOSs and have enabled talent management efforts.



# Taskings for Gender Neutral Standards Development





### **Background**

- NDAA FY15: "Secretaries of the military departments should develop gender-neutral occupational standards that...accurately predict performance of actual, regular, and recurring duties of a military occupation; and are applied equitably to measure individual capabilities.....validated occupational standards will be in use by Sept 30<sup>th</sup>, 2015 at MOS schools."
- MOS standards have been clarified, refined, and validated for the following specified MOSs based on the physical skills required:
  - Infantry, Artillery, Tanks, Amphibious Vehicles, Low Altitude Air Defense, Combat Engineers and Ground Ordnance Maintenance
- MSPS are gender-neutral, operationally relevant, and occupation specific:
  - Comply with DoD guidance and related statutes
  - Maintain combat readiness
  - Better capitalize on the full potential of every Marine
  - Sustain the quality of the Force going forward



### **Initial Questions from Leadership**

- June 2012
  - What is the correlation of the PFT and CFT to physically demanding tasks expected of a Marine operating as part of a Ground Combat Element?
- Sept 2012
  - What is the correlation of the PFT and CFT to physically demanding tasks in the Closed MOSs?
  - Can the PFT and CFT be used as a screen for those who want to go into a physically demanding MOS?



## **Physical Fitness Test (PFT)**

#### **Overview**

The PFT is designed to measure general fitness. It is specifically designed to test the capacity of the upper body, midsection, and lower body, as well as efficiency of the cardiovascular and respiratory system. It is not intended to assess mission or occupationally specific fitness demands. Est. 1972.

#### **Events**

- Hybrid Pull-up/ Push-up test (Max points for pushups is 70 pts)
- Abdominal Crunch
- 3 Mile Run /5,000 meter (5K) row

#### **PFT Administration:**

- Conducted annually for all Marines regardless of age, gender, grade or duty assignment between 1
  January and 31 December
- Events conducted while wearing green-on-green T-shirt, shorts, and running shoes. The green-on-green sweat suit/ running suit with watch cap and gloves may be worn.
- Marines aged 46 years of age and older have the option of the 5K Row as an alternative event for the three mile run. Marines 45 and under may row in lieu of running if recommended by a health care provider and approved by their Commanding Officer.
- Gender-neutral events; gender and age-normed scoring
- Reported on personnel evaluations
- PFT performance linked to body composition program decisions



## **Combat Fitness Test (CFT)**

#### **Overview**

The CFT, as a complement to the Physical Fitness Test, measures functional elements of fitness through the execution of a series of events that emphasizes our ethos of "Every Marine a rifleman." Est. 2009.

#### **Events**

- Movement to Contact (880 yd run)
- Ammo Lift (two minute repetitive lift of 30 lb. ammo can from shoulder to overhead)
- Maneuver Under Fire (MANUF) (300 yd shuttle run that includes crawls, sprints, fireman's carry, simulated grenade throw, and ammo can carry)

#### **CFT Administration:**

- Conducted annually for all Marines regardless of age, gender, grade or duty assignment between 1
  July and 31 December
- Events conducted while wearing the seasonal utility uniform and boots
- No less than five minutes rest between events
- On MANUF, individuals paired based on their weight (within 10lb.) for fireman's carry portion
- · Gender-neutral events; gender and age-normed scoring
- Reported on personnel evaluations
- CFT performance linked to body composition program decisions



# Assessment of GCE Physical Performance Standards

- Purpose of Study: To correlate PFT and CFT scores to performances on selected GCE tasks (HMG MK19 Lift; CASEVAC; March under Load) (>2000 males, >400 females)
- Naval Health Research Center (NHRC) Report
- CFT performances (by-event) are good predictors of performance to GCE tasks. The correlation is stronger with females than with males.
  - For males performance on the PFT run & pull-up events are good predictors of performance on GCE tasks.
  - For females the PFT run event is a good predictor of some GCE tasks the flexed-arm hang is not.
  - Males generally outperformed females on GCE tasks, but more physically fit females outperformed less fit males on some events (e.g., 34% of females outperformed slowest male on CASEVAC).
  - Study limitations include: Most of sample 18-23 y/o (not physically mature, especially strength), lack of training on MK-19 lift.

#### Recommendations:

- CMC decision to direct development and testing of a Gender Neutral PFT and CFT that doubles as tests of generalized fitness and serves as GCE classification system
- Further research is necessary to correlate the gender neutral tests to closed MOS tasks



## **Closed MOS Testing Background**

- Validated standards enabled the development of a Test Battery to assess physical performance tasks
  - Tests linked to existing physical standards
    - Replicated physical movements and weight requirements
  - Subject Matter Expert and incumbent agreement
- 409 males, 379 females
  - Active duty, Permanent personnel (non-recruits), fit for full duty
  - Marine Corps Recruit Depot Parris Island SC
  - School of Infantry East, Camp Lejeune NC
  - The Basic School, Quantico VA
- Naval Health Research Center (NHRC) analyzed Test Battery results and correlated these to PFT and CFT events



## **Physical Tasks to Test Event Relationships**

MAER FIDELI		
PROXY	CLOSED MOS PHYSICAL TASKS / ACTION / WEIGHT	MOS / SOURCE DOCUMENTS
GROUND TO OVERHEAD	INSTALL/REMOVE/LOAD UGWS (MK19, M2 50 CAL) @ 60-84 LBS LIFT INTERNAL INTAKE PLENUM COVER @ 50 LBS OPEN INTAKE PLENUMS (2-MAN) – 110 LBS OF FORCE @ 55 LBS EACH OPEN EXHAUST PLENUMS (3-MAN) - 310 LBS OF FORCE TO LIFT 600 LBS @ 103 LBS EACH UNLOAD STUCK ROUND @ 100 LBS OPEN M1A1 TC & LDR HATCHES @ 70 LBS STOW ORDNANCE - CARRY M1A1 ROUND 50M @ 55 LBS TRACK/RANGE AERIAL TARGET – SHOULDER STINGER OR TRACKER HEAD TRAINER @ 53 LBS ASSIST EVAC OF PERSONNEL: MARINE BELOW TURRET 'PUSHING' CREWMAN UP/OUT) @ 115 LBS	- MOS 1833: NAVMC 3500.2A AAV T&R AAV CREWMAN POI (CID# M10AHY3) - MOS 1812: NAVMC 3500.1A TANK T&R TANK CREWMAN POI (CID# A03TBM2) - MOS 7212, 7204: NAVMC 3500.57A LAAD T&R LAAD GUNNER POI (CID# A042141); LAAD OFFICER POI (CID# A04ANS1)
GROUND TO KNUCKLE HEIGHT	LIFT/INSTALL 300 LB TOW BAR (3-MAN) @ 100 LBS EACH ASSIST EVAC OF PERSONNEL: MARINE OUTSIDE TURRET 'LIFTING' CREWMAN UP/OUT) @ 115 LBS REPAIR TRACK BLOCK (AAV) @ 35 LBS REPAIR ROAD WHEEL @ 84 LBS REPAIR SUSPENSION (2-MAN) @ 100 LBS EACH REPAIR STARTER (1-MAN IN CONFINED SPACE) @ 50 LBS REPLACE TRACK BLOCK (M1A1) @ 60 LBS LIFT/MOVE TOOL BOX / TEST EQUIPMENT @ 60 LBS LOAD M1A1 BATTTERIES @ 70 LBS REMOVE/INSTALL M1A1 GENERATOR @ 70 LBS LIFT/LOWER RTNB AND REMOVE HULL TURRET SLIP RING (M1A1) @ 100 LBS REMOVE M1A1 TORSION BAR AND REPLACE ROAD WHEEL @ 100 LBS LOAD/UNLOAD LAAD MANPAD VEHICLE - (4) STINGER CONTAINERS (120 LBS EA) (2-MAN) @ 60 LBS LOAD/UNLOAD (4) STINGER WPN CONTAINERS - MOVE 50M & EMPLACE 40M APART @ 60 LBS EACH MOVE/CARRY 213 LB NITROGEN BOTTLE (2-MAN) @ 105 LBS EACH LIFT (LAV) 400 LB STRUT ASSEMBLY: (3-MAN) @ 135 LBS EACH LIFT LAV CONTROL ARM @ 70 LBS REMOVE/INSTALL LAV COMPONENTS - M242 GUN: 59 LB FEEDER, 90 LB RECEIVER, 95 LB BARREL REMOVE/INSTALL (160 LB) LAV TIRE (2-MAN) @ 80 LBS EACH	- MOS 1833: NAVMC 3500.2A AAV T&R AAV CREWMAN POI (CID# M10AHY3) - MOS 1812: NAVMC 3500.1A TANK T&R TANK CREWMAN POI (CID# A03TBM2)  - MOSS 2131, 2146: NAVMC 3500.33A GROUND ORD MAINT T&R ARTILLERY TECH POI (CID# A140806); TANK TECHNICIAN POI (CID# A03GBN2) - MOS 2147: NAVMC 3500.33A GROUND ORD MAINT T&R LAV REPAIRMAN POI (CID# A14GBD6)  - MOS 7212, 7204: NAVMC 3500.57A LAAD T&R LAAD GUNNER POI (CID# A042141); LAAD OFFICER POI (CID# A04ANS1)
155MM LIFT/CARRY	STOW ORDNANCE/LOAD HOWITZER: LIFT/CARRY 155MM RD (@ 95 LBS) 50M < 2 MIN LIFT & CARRY 100 LB GENERAL MECHANICS TOOLBOX @ 100 LBS	- MOSs 0811: NAVMV 3500.67 ARTILLERY T&R ARTILLERY CANNONEER POI (CID# A200821) - MOS 2131: NAVMC 3500.33A GROUND ORD MAINT T&R POI (CID# A140806)
120MM LIFT/LOAD	GUNNERY SKILLS TEST: LOAD M1A1 ROUNDS FOR TIME - LIFT/TURN/LOAD(STACK) 5X RDS < 35 SEC	- MOS 1812, 1802: NAVMC 3500.1A, TANK CREW T&R NAVMC 3500.2A, TANK OFFICER T&R POIs (CID# A03TBM2, CID# A03T612)
EXECUTE LOWER LEVEL ENTRY	NEGOTIATE OBSTACLE COURSE WALL	MOS 0300, 0311: NAVMC3500.44A, INF T&R POI (CID# M030314, M100312)



## **Closed MOS Test Battery**

- 1. Ground to knuckle height Lift (lower body movement, anaerobic, strength)
  - 1 rep max progressing ladder (60, 70, 80, 95, 115, 135 lbs)
  - Little variance in performance
- 2. Ground to Overhead Lift (lower/upper body movement, anaerobic, strength)
  - 1 rep max progressing ladder (70, 80, 95, 115 lbs and 6x65 lbs)
  - High variance among participants
- 120mm Tank Round Lift & Load (lower/upper body movement, anaerobic, strength/ endurance)
  - Lift and load five (5) 120mm projectiles (@ 55lbs) <35 sec
  - High variance among participants
- 155mm Artillery Round Lift & Carry (lower/upper body movement, anaerobic, strength/ endurance)
  - Pick up and carry a 155mm projectile (@95lbs) 50m < 2 minutes wearing 40lb fighting load
  - Moderate variance among participants
- **5. Execute Lower-Level Entry** (upper body movement, anaerobic, strength)
  - Negotiate Obstacle Course 7' Wall with 20" box assist wearing 40lb fighting load
  - Moderate variance among participants



## **Overall Closed MOS Testing Score**

- Used to quantify a Marine's performance across the spectrum of test events. Similar to an <u>overall</u> PFT or CFT score.
- More variability in the overall score allows for more meaningful correlations to PFT and CFT component tests.
- The overall Closed MOS Testing score is a simple percentage of the pass/fail proxy tasks that were successfully completed. Though there were 5 overall tests, there were a total of 14 pass/fail elements:
  - 6 for the Ground to Knuckle Height: 135 lbs, 115 lbs, 95 lbs, 80 lbs, 70 lbs, 60 lbs
  - 5 for the Ground to Overhead: 115 lbs, 95 lbs, 80 lbs, 70 lbs, 65 lbs for 6 reps
  - 1 each for the Tank loading drill, 155 mm round carry and the wall obstacle
- Example 1: Marine passed all the events except the heaviest two ground to overhead lifts (115 and 95 lbs) Pass=1, Fail=0:
  - Ground to Knuckle Height (1+1+1+1+1) + Ground to Overhead: (0+0+1+1+1) + Tank Loading (1) + 155mm
     rd carry (1) + wall obstacle (1) = 12/14= <u>.86</u>
  - This score (.86) is correlated to all the PFT and CFT events
- Example 2: Marine passed all the events but failed all ground to overhead lifts and the wall obstacle:
  - Ground to Knuckle Height (1+1+1+1+1+1) + Ground to Overhead (0+0+0+0+0) + Tank Loading (1) + 155mm rd carry (1) + wall obstacle (0) = 8/14= .57
  - This score (.57) is correlated to all the PFT and CFT events
- Summary: Since the overall Closed MOS Testing Score quantifies a Marine's performance across all tasks and adds variability to the range of scores, correlations between this score and PFT / CFT events should have equal or greater consideration than correlations of individual closed MOS events to PFT / CFT events.



# Correlation of PFT and CFT Events to Closed MOS Tasks

PFT / CFT Components Correlation <sup>1</sup> to Overall Closed-MOS Physical Tasks Test Scores <sup>2, 3</sup>				
PFT				
Pull Ups	0.75			
Crunches	0.38			
3-mile Run	-0.61			
Flexed Arm Hang	0.23			
CFT				
Movement to Contact	-0.71			
Ammo Lift	0.76			
Maneuver Under Fire	-0.77			

Very Strong*	≥.81
Strong	.4980
Moderate	.2548
Weak	.0024

\*Pett, M. A. (1997). Nonparametric Statistics for Health Care Research: Statistics for Small Samples and Unusual Distributions. Thousand Oaks, CA: Sage Publications, Inc.

Note1: Spearman's  $\rho$  is a non-parametric version of the Pearson correlation, which does not require the assumption of normality, and can partially correct for range restriction.

Note 2: Overall closed-MOS physical tasks test scores were based on the percentage of 14 pass-fail tasks completed successfully on the Proxy Test Battery.

Note 3: Correlation values range from -1 to +1 with weakest correlations occurring at values near zero.



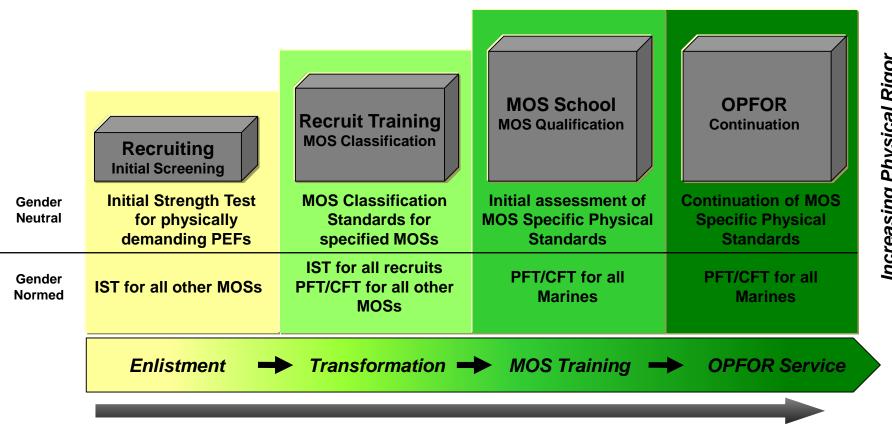
#### **Summary of GCE and Closed MOS testing**

 Performance on most USMC PFT and CFT events serve as a sound basis for making valid inferences about a Marine's capability to perform physically demanding Military Occupational Specialty tasks.



Indirect Testing

## **Physical Standards Screening and Testing**



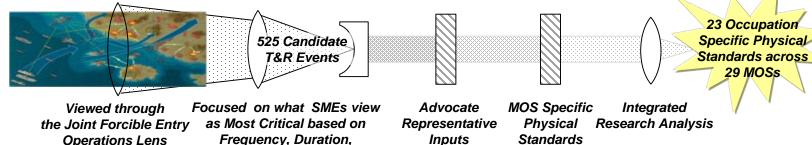
**Direct Testing** 

Increasing Physical Rigor



## **MSPS** Development

>1000 Physical T&R events from specified MOSs



Development

- Who were the SMEs who provided inputs to the MSPS development process?
  - A mix of over 600 officers, SNCOs and NCOs from TECOM (task analysts, schoolhouse instructors, OPSOs/chiefs) and the Operating Forces (Bn COs, XOs, OPSOs/Chiefs, Marines currently serving in the specified MOSs) with an average of 6.1 years MOS time
  - SMEs involved throughout process from Sept 14-Jul 15

Intensity and Importance

- Were the Advocates involved? What levels?
  - Yes; in every phase of MSPS development at the 0-6 level and higher
- What other agencies were involved?
  - Internal: Manpower, Office of General Counsel, USMC Force Innovation Office
  - External: Naval Health Research Center, RAND, Government Accounting Office, University of Pittsburgh, Secretary of Defense



# MOS Specific Physical Standards Development Framework

#### **Phase**

- 1. MOS Physical Task Identification
- 2. Task Criticality Assessment (TCA)
- 3. Task Observation
- 4. MOS Specific Physical Standard Event Recommendations & Selection
- 5.a. MOS Specific Physical Standards Development
- 5.b. MOS Specific Physical Standards Testing
- 5.c. MOS Specific Physical Standards Refinement (Informed by all analysis of previous TECOM research along with LOE 2, and LOE 3 data)



## **Task Criticality Assessment**

#### Methodology:

- Criteria and Weights recommended by TECOM, approved by Advocates
- > 5.0 is max possible score on each task
- Respondents blinded to criteria weight and by-task composite score
- Provides a means to objectify large amounts of subjective data

Task: 0313-M242-1007- Perform immediate action procedures for an M242 25mm automatic gun         Task: 0313-M242-1002: Load the M242 25mm automatic gun           Criteria (weight)*         Score =Likert scale classification x (criteria weight)         Score =Likert scale classification x (criteria weight)           Frequency (.10)         1 X (.10)= .1         2 X (.10)= .2           Duration (.20)         2 X (.20)= .4         2 X (.20)= .4           Intensity (.30)         4 X (.30)= 1.2         4 X (.30)= 1.2           Importance (.40)         3 X (.40)= 1.2         5 X (.40)= 2           Composite Score         2.9         3.8           *Criterion and Weights will require CG TECOM with Advocate concurrence					
(weight)*       classification x (criteria weight)       classification x (criteria weight)         Frequency (.10)       1 X (.10)= .1       2 X (.10)= .2         Duration (.20)       2 X (.20)= .4       2 X (.20)= .4         Intensity (.30)       4 X (.30)= 1.2       4 X (.30)= 1.2         Importance (.40)       3 X (.40)= 1.2       5 X (.40)= 2         Composite Score       2.9       3.8		Perform immediate action procedures for an M242	Load the M242 25mm		
(.10)  Duration (.20)  Intensity (.30)  Importance (.40)  Composite Score  2 X (.20)= .4  2 X (.20)= .4  4 X (.30)= 1.2  5 X (.40)= 2		classification x (criteria	classification x (criteria		
(.20)  Intensity (.30)  Importance (.40)  Composite Score  A X (.30)= 1.2  4 X (.30)= 1.2  5 X (.40)= 2  3.8	' '	1 X (.10)= .1	2 X (.10)= .2		
(.30) Importance (.40) Composite Score  3 X (.40)= 1.2 5 X (.40)= 2 3.8 3.8	2 4.141.011	2 X (.20)= .4	2 X (.20)= .4		
Composite Score 2.9 3.8	,	4 X (.30)= 1.2	4 X (.30)= 1.2		
Score	•	3 X (.40)= 1.2	5 X (.40)= 2		
*Criterion and Weights will require CG TECOM with Advocate concurrence	•	2.9	3.8		
	*Criterion and Weights will require CG TECOM with Advocate concurrence				

Likert	Frequency (10%)	Duration (20%)	Intensity (30%)	Importance (40%)	
Scale					
5	11-20 or more times a day	45 minutes to greater than an hour at a time	Most intense of all tasks (maximum anaerobic, aerobic or strength effort)	Most important of all tasks (If the Marine is unable to do this they will endanger lives and the mission)	
4	1-10 times a day	21-45 minutes at a time	More intense than most tasks	More important than most tasks	
3	At least once a day	11-20 minutes at a time	Very intense	Very Important	
2	3 or more times a week	6-10 minutes at a time	More intense	More Important	
1	Weekly or less frequently	1-5 minutes at a time	Intense	Important	
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<sup>\*</sup>Intensity; Level of anaerobic, aerobic or strength effort necessary to complete the task



<sup>\*\*</sup> Importance: Describes how necessary completion of the physical task is to the overall mission



### **MSPS** Development

Standards recognize that the physical capability of today's Force is sufficient to meet mission demands

- Testing of over 1,000 Marines from I MEF in May 2015 served as the basis for MOS specific physical standards recommendations
  - Statistical analysis of task performance
    - Fastest, Slowest, Average and Standard Deviation
    - Analysis performed with and without outliers
    - Timed event distributions approximated normality but did not yield consistent results across all tasks (eliminated too many Marines on some tasks)
- Naval Health Research Center supported study design, data collection and development of standards methodology



## **MSPS** Development

- What they are:
  - A means for reasonable assurance of satisfactory physical performance in an MOS
  - Derived from critical and physically demanding MOS T&R tasks
  - Pass/fail requirements to verify & sustain key physical abilities
  - Based on direct individual tasks & surrogate performance for critical crew tasks
  - Easily administered within existing Entry Level Training (ELT) programs of instruction (POIs), with remediation as necessary
- What they are not:
  - An assessment of procedural proficiency or fine motor skills
  - A pre-requisite for entering an MOS school



#### **MSPS Execution**

- MSPS are administered at various points in Programs of Instruction concurrent with when specific T&R events are conducted
  - MSPS are not administered like a final exam or culminating event
- Recycle / Reclassification policy
  - Marines are recycled for failing a single MSPS 3x
  - Marines are reclassified for failing a single MSPS 6x



## **IST Standards for Specified MOSs**

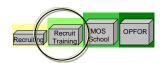


	IST Standards				
Event	Pull-ups 1.5 mile run Crunches Ammo Lift				
Time/Reps	3	13 mins 30 secs	44	45	

- The Gender Neutral IST with the standards given in the above table must be met by all enlistees seeking the following MOSs: Infantry, Artillery, Tanks, Amphibious Vehicles, Combat Engineers, Low Altitude Air Defense, and Ground Ordnance Maintenance
- IST (gender normed and gender neutral) are administered at Recruiting Stations
- Standards are based on 2013 research done in collaboration with the Naval Health Research Center on performance of combat related tasks correlated with PFT and CFT events



#### **MOS Classification Standards**



	MOS Classification Standards				
Event	Pull-ups 3 mile run MANUF MTC Ammo Lift				
Time/Reps	6	24:51	3 mins 12 secs	3 mins 26 secs	60

- The MOS Classification Standards (MCSs) above must be met by all personnel seeking classification in the following MOSs: Infantry, Artillery, Tanks, Amphibious Vehicles, Combat Engineers, Low Altitude Air Defense, and Ground Ordnance Maintenance
- Standards must be met at the MCRDs (recruits) or The Basic School (officers) and are based on final PFT /CFT
- Standards for pullups, MANUF, MTC and Ammo lift based on Ground Combat Element Integrated Task Force graduates
- Run standard based on PFT data of I MEF units during May 2015 MOS standards testing



#### MCS Event Breakdown for MCRDs 1 Apr 2016 - 31 Dec 2018



#### (1 Apr 2016 was the first MCRD graduation date with MCS tested students)

BLUF: MCRDs have an overall 95.7% MCS pass rate (30,161 tested, 1,294 failures)

MCRDPI: 94.6% pass rate\* (15,108 tested, 818 failures)

Males: 95.5% pass rate\* (14,852 tested, 674 failures)

**Failures** 

MANUF: 117
Pull-ups: 142
3-mile run: 315 \*\*
MTC: 156
ACL: 24

Females: 56.3% pass rate\* (256 tested, 144 failures)

**Failures** 

MANUF: 92\*\*
Pull-ups: 66
3-mile run: 73
MTC: 92 \*\*
ACL: 15

\*Several Recruits, at both Depots, failed multiple events

\*\*Most commonly failed MCS in red

#### MCRDSD: 97% pass rate\* (All Males- 15,053 tested, 476 failures)

MANUF: 49
Pull-ups: 129
3-mile run: 160 \*\*
MTC: 145 \*\*
ACL: 34

#### Male MCS Pass Rate based on MCRD Graduation Date

100% 98% 96%	96.3% 95.7% 96.2% 96.0% 96.7% 96.5% 96.2% 95.7% 96.3% 95.8% 95.8%
94% 92%	3rd Qtr 4th Qtr 1st Qtr 2nd Qtr 3rd Qtr 4th Qtr 1st Qtr 2nd Qtr 3rd Qtr 4th Qtr 1st Qtr FY16 FY16 FY17 FY17 FY17 FY18 FY18 FY18 FY18 FY19

#### Female MCS Pass Rate based on MCRD Graduation Date



	MOS Classification Standards				
Event	Pull-ups 3 mile run MANUF MTC Ammo Lift				
Time/Reps	6	24 mins 51 secs	3 mins 12 secs	3 mins 26 secs	60



#### 



#### 99.5% - Passed MSPS Requirements

Students Tested: 34,267 Reclassified: 162

Reclassifications by Gender:

Males Passed: 33,956 (99.6%) Reclassified: 143

Females Passed: 158 (89.3%) Reclassified: 19

MSPS events failed resulting in Reclassification\*:

Cross a Wall
 93x males, 5x females

MK-19 Lift 26x males, 10x females

Vehicle CASEVAC 17x males, 3x females

Ground CASEVAC 10x males, 5x females

HESCO Lift 10x females

20 km Hike 7x males

Carry Artillery Rounds 4x males

• 2k Yard Fin 2x males

20 km Ruck Run 1x male

#### MOSs with Reclassifications:

• 03xx 122x males, 5x females

• 08xx 12x males, 2x females

• 1371 9x females

• 0321 3x males

• 2146 2x females

• 2147 2x males

• 1812 2x males

• 1833 1x male, 1x female

• 2131 1x males

#### Weight / Height Data

#### **MSPS** Reclassifications:

Avg weight: 135 lbs, height: 65 in

M:136 lbs, 66 in

F: 123 lbs, 63 in

#### **MSPS Qualified:**

Avg weight:165 lbs, height: 69 in

M:165 lbs, 69 in

F: 139 lbs, 65 in

(30 lbs heavier and 4 inches taller)

#### Takeaways:

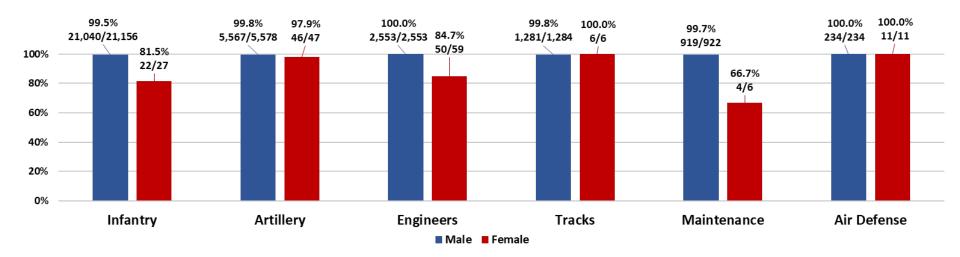
- Minimal impact to MOS production or T2P2 thus far
- MOS Classification Standards implemented Apr 2016 in recruit training
- Reclassified personnel are generally shorter and lighter than those who passed but not the shortest and the lightest who have tested and passed.
- Minimal injuries

<sup>\*</sup> Those who fail, commonly fail multiple events.



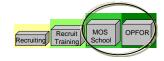
# MSPS Pass Rate 01 Oct 2015 – 31 May 2018



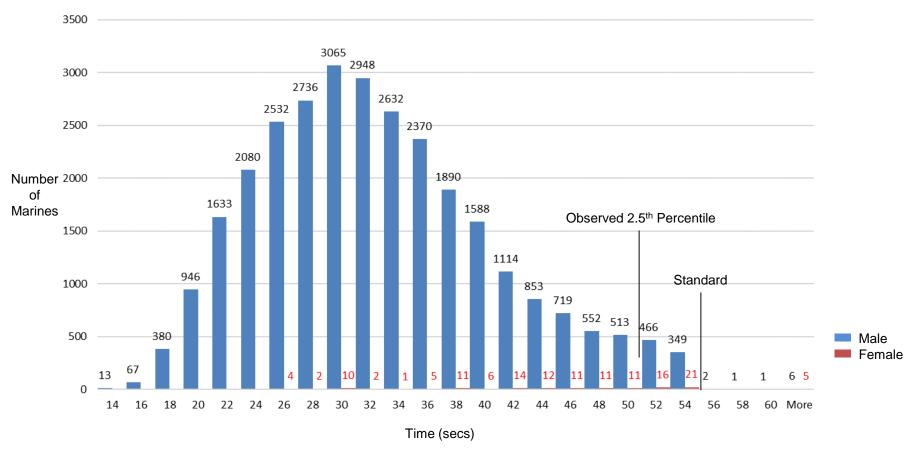




#### **Ground CASEVAC**



#### **Ground CASEVAC**



Standard = 54 seconds 2.5<sup>th</sup> Percentile = 51 Seconds 2.5<sup>th</sup> Percentile = 6% faster than Standard



# Non-Combat Arms Assignment to Load Bearing Units



	Criteria for Assignment of Non-Combat Arms Marines to Load Bearing Units				
Event	3 mile run	MTC	Ammo Lift	MANUF	
Time/Reps	28:00	3:40	60	3:17	

 Standards are based on analysis of all male non-combat arms MOSs\* across the force which are assignable to previously closed GCE units.

\*MOSs:: 01xx, 02xx, 04xx, 06XX, 2100, 2111, 2171, 2311, 2401, 2844, 2862, 30xx, 3381, 3521, 3529, 3531, 3537, 4100, 5702, 5711, 7502, 8404, 8421, 8425, 8432, 8999, 9954



#### **Phase II Prioritized MOS List**

Advocate	MOS#	MOS Description	Rank(s)
	6173	Helicopter Crew Chief, CH-53	Pvt - GySgt
	6174	Helicopter Crew Chief, UH-1N/Y	Pvt - GySgt
	6176	Tiltrotor Crew Chief, MV-22	Pvt - GySgt
	6511	Aviation Ordnance Trainee	N/A
DC AVN	6531	Aviation Ordnance Technician	Pvt - SSgt
DC AVIV	6541	Aviation Ordnance Systems Technician	Pvt - SSgt
	6591	Aviation Ordnance Chief	GySgt - MGySgt
	6091	Aircraft Intermediate Level Structures Mechanic-Trainee	Pvt - GySgt
	6092	Aircraft Intermediate Level Structures Mechanic	Pvt - GySgt
	7051	Aircraft Rescue and Firefighting Specialist	Pvt - MGySgt
	2336	EOD Technician	Sgt-MGySgt
	2305	EOD Officer	WO-CWO5/Capt-LtCol
DC I&L	1341	Engineer Equipment Mechanic	Pvt-SSgt
DC I&L	1345	Engineer Equipment Operator	Pvt-SSgt
	1342	Small Craft Mechanic	LCpl-SSgt
	1316	Metal Worker	Pvt-SSgt
	5811	Military Police	PVT to MGYSGT
	5803	Military Police Officer	2ndLt to LtCol
DC PP&O	5812	Military Working Dog Handler	PVT to MSGT
201100	5816	Special Reaction Team (SRT) Member	CPL to GYSGT
	5831	Correctional Specialist	PVT to MGYSGT
	5804	Corrections Officer	WO to CWO5



## **Arthur Schopenauer**

"All truth passes through three stages:

- First, it is ridiculed.
  - Second, it is violently opposed.
    - Third, it is accepted as being self-evident."



1788 - 1860



### Leadership Feedback

Brigadier General George Smith, Commanding General Ground Combat Element Integrated Task Force, Letter to Commandant, 2015:

"This is perhaps the single-most important result of this almost three year process. Moving forward, the Marine Corps in general and the Ground Combat Element of our Marine Air Ground Task Forces in particular, will be more capable as a result of more clearly defined individual performance standards that will ensure that Marines are assigned to MOSs for which they are best and most fully qualified."

General Robert Neller, Commandant of the Marine Corps, Marine Corps Gazette, 2018:

"Of all the things that have changed in our Corps...the most significant is the establishment of individual MOS physical standards. These standards are now codified for each MOS in their respective Training and Readiness Manuals."



# Questions?

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## MSPS (1 of 5)



Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
Ground CASEVAC	0302, 0303, 0300, 0313, 0321, 0802, 0811, 0842, 0844, 0847, 0861, 1302, 1371, 1802, 1803, 1812, 1833, 2131, 2141, 2146, 2147, 7204, 7212	While wearing a fighting load and carrying a service rifle, sprint 25 meters to a simulated casualty (214 lbs), evacuate the casualty 25 meters	INF-MAN-4208, 0300-MED- 1001, RECN-MED-1002	54 Sec *
MK-19 Lift	0302, 0303, 0300, 0313, 0321, 0802, 0811, 0842, 0844, 0847, 0861, 1302, 1371, 1802, 1803, 1812, 1833, 2131, 2141, 2146, 2147, 7204, 7212	Lift the MK-19 heavy machinegun from the ground to overhead	0300-TVEH-1001, RECN-WPNS- 2043, 1803-GNRY-1006, 1833- GNRY-1005	Pass/Fail **
Cross a Wall	0302, 0311, 0331, 0341, 0351, 0352, 0321	Scale a 56" wall unassisted while wearing the fighting load and carrying a service rifle	0300-MOUT-1001	30 Sec *
20KM Hike	0311, 0331, 0341, 0351, 0352	March 20 km with MOS specific weapons & equipment while wearing the assault load	0300-COND-1001	5 Hours *

- \* New Event with Time Standard
- \*\* New Pass/Fail Event
- \*\*\* Existing Event & Standard



## MSPS (2 of 5)



Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
0311 Rush 300M to Objective	0302, 0311	While wearing a fighting load and carrying a service rifle, run/rush for 300 meters through a course with an agility network	0300-PAT-1005	3Min, 56Sec *
0331 Rush 200M as MG Ammo Bearer	0331	While wearing a fighting load and carrying a service rifle, Spare barrel bag and two ammo cans, run/rush for 200 meters through a course with an agility network	0300-PAT-1005	2Min, 11Sec *
0341 Rush 200M with 60MM Mortar	0341	While wearing a fighting load and carrying a service rifle, and a 60mm mortar in hand-held mode, run/rush for 200 meters through a course with an agility network	0341: 0300-PAT	1Min, 45Sec *
0351 Rush 200M with SMAW	0351	While wearing a fighting load and carrying a service rifle, and a SMAW, run/rush for 200 meters through a course with an agility network	0300-PAT-1005	1Min, 40Sec *
0352 Rush 200M with Javelin	0352	While wearing a fighting load and carrying a service rifle, and a Javelin, run/rush for 200 meters through a course with an agility network	0300-PAT-1005	1Min, 43Sec *

- \* New Event with Time Standard
- \*\* New Pass/Fail Event
- \*\*\* Existing Event & Standard



## MSPS (3 of 5)



Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
13xx Rush 150M with APOBS	1302, 1371	While wearing a fighting load and carrying a service rifle, with an APOBS pack assembly, run/rush 150 meters through a course with a agility network	1302-MOBL-1005, 1371- MOBL-1003,	1Min, 12Sec *
Vehicle CASEVAC	0303, 0313, 2146, 2147, 0802, 0811, 0842, 0844, 0847, 0861, 2131, 1372, 1802, 1812, 1803, 1833, 2146, 2141	weight of 115 lbs (Surrogate)	1802-GNRY-1011, 1812- GNRY-1008, 0313-MOBL- 1004, 0811-MED-1030, 1372- MOBL-1007, 1803-GNRY- 1021, 1833-GNRY-1017, 2131- MED-1001, 2141-MED-1001, 2146-MED-1001, 2147-MED-	Pass/Fail **
Hesco Lift 100lb Surrogate	1302, 1371	Ground to overhead lift of Olympic bar with total weight of 100 lbs. (Surrogate)	1302-CMOB-1001, 1371- SURV-1001	Pass/Fail **
Towbar 150lb Surrogate	0303, 0307, 0313, 2147, 1802, 1812, 2146, 1803, 1833, 2141	, ,	1802-VOPS-1009, 1803-VOPS- 1007, 1812-VOPS-1008, 1833- VOPS-1014, 0313-MOBL-1005, 2141-VOPS-1002, 2143-VOPS- 1002, 2147-VOPS-1002	
Breach a Door	0302, 0351, 1302, 1371	While wearing a fighting load and carrying a service rifle, breach a door with a battering ram	0351-DEMO-1009, 1302- MOBL-1006, 1371-MOBL-1001	14Sec *

- \* New Event with Time Standard
- \*\* New Pass/Fail Event
- \*\*\* Existing Event & Standard



## MSPS (4 of 5)



Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
Recon Rush 100M with Breaching Equipment	0307, 0321	While carrying a service rifle, breaching equipment, and wearing the reconnaissance load, run/rush for 100 meters through a course with an agility network	RECN-RAID-1001	44Sec *
Disassemble / Reassemble M242 25MM Gun	0303, 0313, 2147	Disassemble/Assemble the M242 25mm automatic gun by manipulating the receiver and feeder	0313-WPNS-1001, 2147- WPNS-1001	2Min, 24Sec ***
Recon 20KM Ruck Run	0307, 0321	Run 20 km with a service rifle while wearing the reconnaissance load	RECN-COND-1003	3 Hours ***
Recon 2K yard Fin	0307, 0321	Fin 2,000 yards with a service rifle while wearing & pulling/pushing the reconnaissance load	RECN-AMPH-1010	1 Hour ***
Climb Caving Ladder	0307, 0321	While wearing the reconnaissance load and carrying a service rifle, climb a caving ladder to a 10 meter platform	RECN-SPIE-1018	2Min, 27Sec *

- \* New Event with Time Standard
- \*\* New Pass/Fail Event
- \*\*\* Existing Event & Standard



## MSPS (5 of 5)



Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
Carry Rounds	0802, 0811	Lift artillery round from deck to shoulder height and carry 50 meters - press overhead to handoff to Marine receiving round from bed of 7-ton truck. Perform five times	0811-GUNS-1021	4Min, 56Sec *
Load Artillery Rounds	0802, 0811	Lift artillery round from deck to waist height and carry 5 meters from ammunition staging point to howitzer, then lift to place on loading tray. Perform five times to simulate maximum rate of fire	0811-GUNS-1014	1M, 15Sec ***
Load Tank Rounds	1802, 1812	Perform the actions of a loader in an M1A1 Tank crew by transitioning 120mm rounds from the stowed position to the main gun breech	1802-GNRY-1010, 1812- GNRY-1009	7Sec ***
Open TC or VC hatch	1372, 1802, 1812, 2146	One handed over head press to open and secure TC / VC hatch	1802-VOPS-1008, 1812- VOPS-1005, 1372-MOBL- 1002, 2146-VOPS-1001	30Sec *
LAAD 10K Hike	7203, 7212	Conduct a foot movement of 10KM in 3 hours with an Assault Load and Stinger Missile specific load.	7204-AIRS-1504, 7212-AIRS- 1402	3 Hours *
Battery Lift	1372, 1802, 1812, 2146	Lift vehicle battery from the deck and clean to chest height in order to hand off to a Marine receiving battery from vehicle deck. Perform three times	1802-VOPS-1007, 1812- VOPS-1007, 1372-MANT- 1001, 2146-MAIN-1501, 2147-MAIN-1402	1Min, 50Sec *

- \* New Event with Time Standard
- \*\* New Pass/Fail Event
- \*\*\* Existing Event & Standard