



DACOWITS Quarterly Business Meeting

12 Sep 2017

Mr. Brian McGuire, MS ATC CSCS

Deputy Director

Force Fitness Division

Training and Education Command

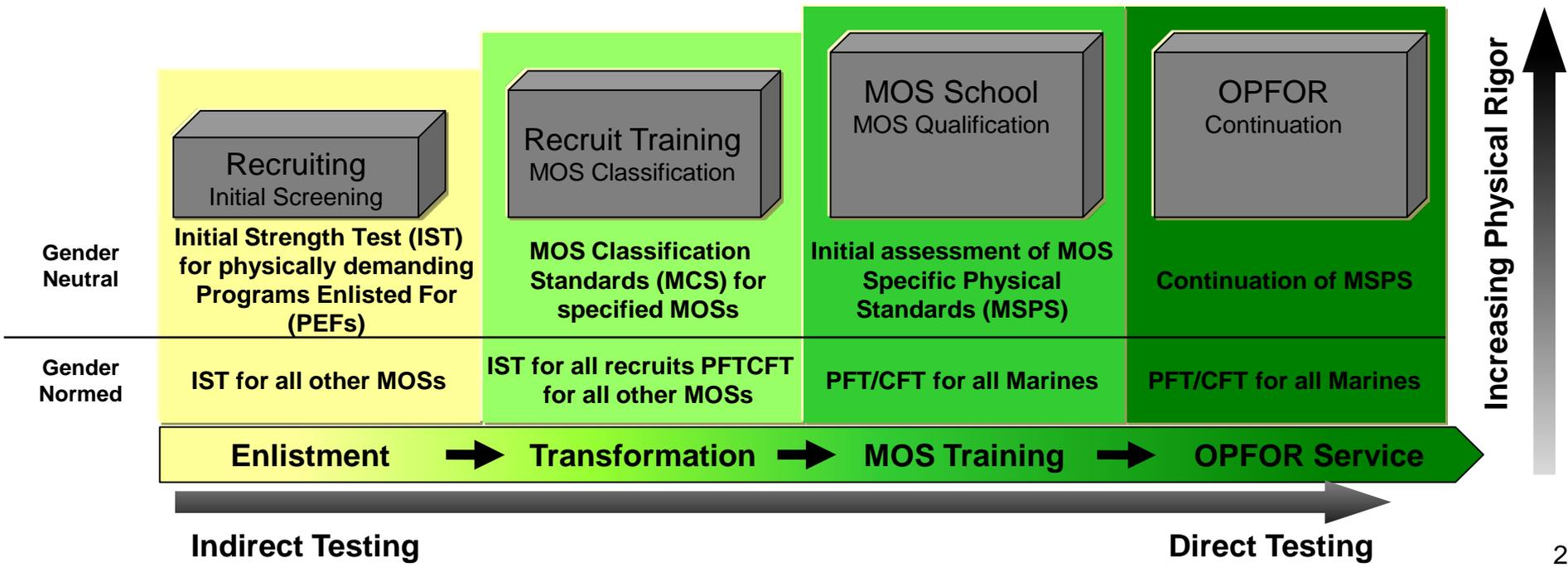
Quantico, VA



RFI #4

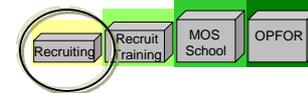
Physiological Differences

- A descriptive layout of each of the operationally relevant gender neutral physical fitness tests and standards the Services have established for physically demanding military occupations at each of the following levels: recruit/accession, basic training, advanced training, and operational units. Please describe the physical fitness category/component or physical task tested and the linkage and progression at each level.





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, Air Defense, Combat Engineers and Ground Ordnance Maintenance
- IST is administered at Recruiting Stations for all recruits
- 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

- Standards must be met at the recruit depots/The Basic School and are based on final PFT /CFT



MSPS (1 of 5)

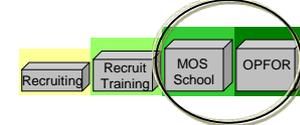


Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
Ground CASEVAC	0302, 0303, 0300, 0313, 0321, 0802, 0811, 0842, 0844, 0847, 0861, 1302, 1371, 1802, 1803, 1812, 1833, 2131, 2141, 2146, 2147, 7204, 7212	While wearing a fighting load and carrying a service rifle, sprint 25 meters to a simulated casualty, 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 deck to overhead height	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 fighting load	0300-COND-1001	5 Hours *
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 *

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



MSPS (2 of 5)

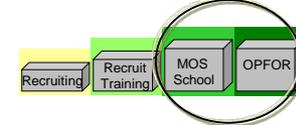


Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
0311 Rush 300M to Objective	0302, 0311	While wearing a fighting load and carrying a service rifle, run/rush for 300 meters through a course with an agility network	0300-PAT-1005	3Min, 56Sec *
0331 Rush 200M as MG Ammo Bearer	0331	While 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	Ground to Overhead lift 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-1001	Pass/Fail **
Hesco Lift 100lb Surrogate	1302, 1371	Ground to Overhead lift 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	Floor to knuckle height lift of 150 lbs and hold for 30 seconds (Surrogate)	1802-VOPS-1009, 1803-VOPS-1007, 1812-VOPS-1008, 1833-VOPS-1014, 0313-MOBL-1005, 2141-VOPS-1002, 2143-VOPS-1002, 2147-VOPS-1002	Pass/Fail **
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)

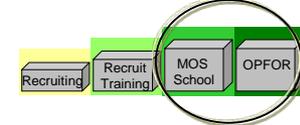


Task Name	Applicable MOS	Task Description	T&R Events	Minimum Standard
Battery Lift	1372, 1802, 1812, 2146	Lift vehicle battery from the deck and clean to chest height in order to hand off to a Marine receiving battery from vehicle deck. Perform three times	1802-VOPS-1007, 1812-VOPS-1007, 1372-MANT-1001, 2146-MAIN-1501, 2147-MAIN-1402	1Min, 50Sec *
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 *
15KM Hike	0302	Lead a forced march of 15KM while wearing the fighting load	0302-OPS-1008	3 Hours *

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



RFI #4

Physiological Differences

- The stage of development the Services are in (planning / research and development / field trials / implementation / draft policy-Congressionally mandated adaptation period / full implementation with official policy in place) with regard to the Services regarding the tests and standards at each level?
- USMC in full compliance with directives/issuances related to physical standards
 - IST for Combat Arms implemented 1 Oct 2015
 - MSPS implemented 1 Oct 2015
 - MCS implemented 1 Apr 2016



RFI #4 Physiological Differences

- How the Services are integrating the new tests and standards into policy and how are they are communicating these changes to their personnel at all levels and to potential recruits?
 - Marine Corps Integration Implementation Plan signed by the Commandant of the Marine Corps on 16 Dec 2016. Approved by SECDEF.
 - All IST, MCS and MSPS standards codified in the implementation plan
 - IST part of recruiting policy, MCS part of recruit training SOP and MSPS are codified in Programs of Instruction and Training and Readiness Manuals
 - Numerous messaging efforts, media engagements, videos, etc. have communicated the changes
 - Applicants desiring a Combat Arms MOS must acknowledge and sign a Statement of Understanding indicating they are aware they must meet IST, MCS and MSPS standards to earn the MOS

STATEMENT OF UNDERSTANDING	
NO Mistakes are permitted on this document	
APPLICANT	The applicant must read the form in the full hearing, understand the contents, and sign and date the agreement accordingly. Unless you receive a copy of this document (Block 1 & 4 included).
MEPS (MOS) CODE	1. Circle the appropriate code of the agreement to be applied: (1) Family agreement (qualifier); (2) Family (MOS) (MOS) personnel have assigned a program in MEPS (MOS); (3) I agree for applicant to give a copy of the agreement of the test of completion.
NAME	1a <input type="checkbox"/> 1b <input type="checkbox"/> 1c <input type="checkbox"/> 1d <input type="checkbox"/> 1e <input type="checkbox"/> 1f <input type="checkbox"/> 1g <input type="checkbox"/> 1h <input type="checkbox"/> 1i <input type="checkbox"/> 1j <input type="checkbox"/> 1k <input type="checkbox"/> 1l <input type="checkbox"/> 1m <input type="checkbox"/> 1n <input type="checkbox"/> 1o <input type="checkbox"/> 1p <input type="checkbox"/> 1q <input type="checkbox"/> 1r <input type="checkbox"/> 1s <input type="checkbox"/> 1t <input type="checkbox"/> 1u <input type="checkbox"/> 1v <input type="checkbox"/> 1w <input type="checkbox"/> 1x <input type="checkbox"/> 1y <input type="checkbox"/> 1z <input type="checkbox"/> XXX-XX-XX
AGREEMENT	
I understand that the inclusion of understanding represents the final agreement, and agreement, between myself and the United States Marine Corps concerning enlistment program and other matters.	
I understand that the inclusion of the program code in the program code is the final agreement, and agreement, between myself and the United States Marine Corps concerning enlistment program and other matters.	
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PRIMARY INCENTIVE (JOB SKILL)	
1. Job Code	2. Program Description
UH	0300 - Infantry
I understand that the inclusion of the program code in the program code is the final agreement, and agreement, between myself and the United States Marine Corps concerning enlistment program and other matters.	
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APPLICANT ACKNOWLEDGEMENT AND CERTIFICATION	
I understand that this Statement of Understanding (SOU) represents all agreements between me and the Marine Corps concerning my enlistment Program, and that this SOU is not valid or binding on the Marine Corps until Blocks 15 through 17a are completed by the MEPS Liaison. I further understand that any promises regarding enlistment bonuses made by my recruiter or anyone else, which are not contained in an addendum and certified by the MEPS Liaison, are not binding on the Marine Corps and are considered INVALID.	
SIGNATURE	13
FRONT NAME	14

STATEMENT OF UNDERSTANDING
NO Mistakes are permitted on this document

- f Must pass Physical requirements of 3 pull-ups, 44 crunches and 1 1/2 mile run within 13:30 minutes, & 45 Ammo Can Lifts reps for assignment of this program.
- g Must pass MOS Classification Standards (MCS) of 6-pullups, and 3 mile run within 24:51 minutes; Must pass Movement to Contact in 3:26 minutes, Ammo Can Lift of 60 reps, and Maneuver Under Fire within 3:12 minutes. (Conducted at Recruit Training) IAW MARADMIN 367/16

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RFI #4

Physiological Differences

- With respect to the influence tests and standards have on physical training behavior, how are the Services are developing physical training at each of the levels: recruit/accession, basic training, advanced training,
 - Physical Training playbooks have been developed to prepare personnel to meet and exceed physical standards. Developed in collaboration with cadres, civilian Certified Athletic Trainers and Force Fitness Instructors (new USMC initiative)
 - MSPS have provided focus to occupational fitness training programs and have aided in talent management efforts



RFI #4

Physiological Differences

- For physically demanding military occupations, what specific training procedures and techniques are the Services employing that account for anatomical and physiological gender differences in the above training programs to aid women in the accomplishment of arduous operationally relevant physical tasks? For example, do physical training programs include a specific training technique for women designed to close the gender gap on overhead lift (muscular strength)?
 - Emphasis on utilizing core strength (v. relying solely on extremities) and training in compound functional movements is characteristic of occupational fitness training for both men and women
 - Any Marines having difficulty with accomplishing MSPS are given remediation training
 - Marines have 3x opportunities to pass MSPS before they are recycled to another class
 - Marines are given 3x additional attempts to pass MSPS. If unable to pass, they are reclassified into another MOS



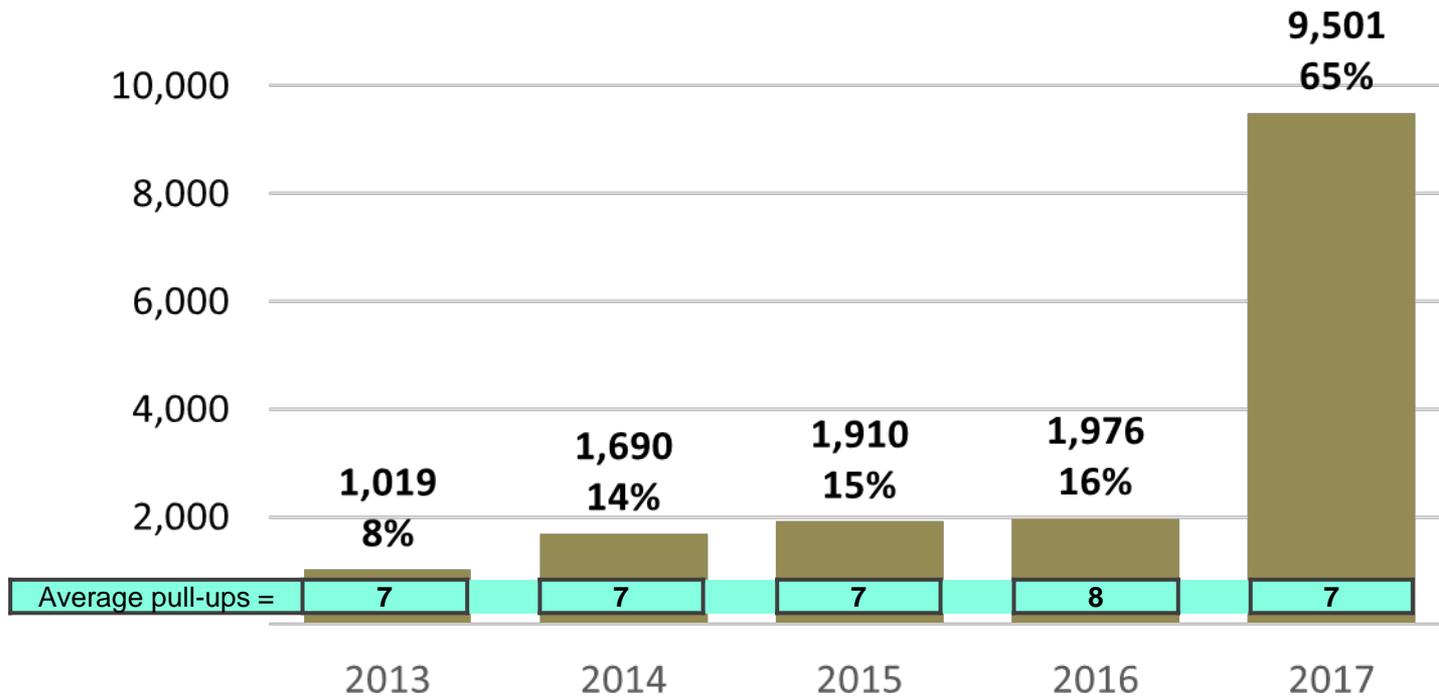
2017 Physical Fitness Test Changes

- Standards raised in order to better distinguish between fitness levels
- Elimination of Flexed Arm Hang for female Marines
- Replaced by Hybrid Push-up/Pull-up test for men and women
 - Marines can opt for push-ups but points max out at 70
 - To earn a higher score and to max the test, Marines must do pull-ups
- Marines ≥ 46 years old may row 5K on a Concept 2 rowing ergometer as the cardiovascular PFT assessment in lieu of running
- PFT and Combat Fitness Test performances are considerations in the Body Composition Program
 - ≥ 250 on each test earns an additional 1% Body Fat for BCP decisions
 - ≥ 285 on each test exempts Marines from weight standards
 - Must maintain acceptable military appearance
- Max weight for Female Marines increased by 5-9 lbs depending on height
 - Previously, male max weights were at the most liberal allowed by DoD, where female max weights were at the most stringent levels allowed



Female Marine Pull-ups

Number of Female Marines Electing Pull-ups on PFT 2013-2017*



* From 2013-2016, Female Marines had the option of doing the Flexed Arm Hang (FAH) or Pull-ups on the PFT.

- Both events offered a pathway to 100 pts on the event (FAH max=70 secs, Pullup max=8 reps).
- Most Female Marines in these years who elected Pull-ups were those who knew they could do ≥ 8 pull-ups since 100 pts was available on the easier FAH event.
- In 2017, Female Marine pull-up propensity in the total force ranges from 72% in the 26-30 age group to 50% in the 46-50 age group.

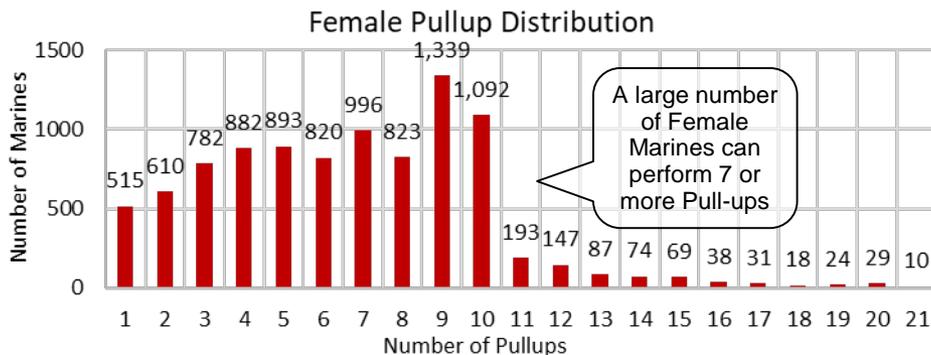


Female Marine Pull-ups

Pushup/Pullup Preference

	Pushups	Pullups
Male	5%	95%
Female	35%	65%

Majority of Males and Females Opted for Pull-ups as expected



A large number of Female Marines can perform 7 or more Pull-ups

With exception of youngest age group, average PFT scores are comparable across the age groups

Average PFT Score by Age and Gender

	17-20	21-25	26-30	31-35	36-40	41-45	46-50	51+	All ages
Male	250.5	246.7	251.5	252.9	251.6	249.8	252.9	256.8	249.1
Female	238.2	245.7	251.5	253.6	250.8	253.6	252.9	263.8	245.6

Promotion Timing*

		Male	Female
E3 to E4	2016	2.7**	2.5
	2017	2.6	2.4
E4 to E5	2016	4.1	3.9
	2017	4.1	3.8

*The first month any PFT effects would have been noticed was April 2017. Time periods are April through August of each year.

**Average Time in Service (years) at promotion April through August of each year

Effects of changes on E-6 and above difficult to assess due to varying board emphasis on PFT scores



Entry Level Training

Female Marines in Entry Level Training in CY 2017				
	Percentage electing Pull-ups	Average # of Pull-ups	Average PFT Score	
			Pull-ups	Push-ups
OCS (PLC Jr)	90%	6	277	258
OCS (A Co OCC)	92%	8	272	238
OCS (C Co OCC)	98%	8	267	213
OCS (PLC Sr)	100%	8	272	N/A
TBS BOC	93%	10	286	251
TBS WOBC	92%	6	261	263
Recruit Training	57%	5	246	213

-Pull-up propensity and pull-up average in ELT is highest at OCS.

-Introducing pull-ups and other strength training early in Female Marines' training will lay foundation for increased strength gains as careers progress



The New York Times



Well

Why Women Can't Do Pull-Ups

BY TARA PARKER-POPE **OCTOBER 25, 2012 12:01 AM**

- The sample size was very low (17)
- Low fitness levels of subjects
- Training program didn't use actual pullups, assisted or otherwise
- Study done in 2003, much has changed in fitness programming since that time



Really?



Summary



The collective enhancements to occupational and general fitness testing / training have incentivized fitness for all Marines and enabled USMC talent management efforts.

