IMPROVING PHYSICAL READINESS TESTING (PRT) RESULTS FOR U.S. NAVY SAILORS ENROLLED IN THE FITNESS ENHANCEMENT PROGRAM (FEP) USING A 10-WEEK PROGRESSION PLAN

INTRODUCTION

Maintaining an acceptable level of physical fitness is an increasingly important matter for the entire United States Navy workforce (1,3). Sailors who do not meet the Physical Fitness Assessment (PFA) minimum requirements will be automatically enrolled in the Fitness Enhancement Program (FEP) until they demonstrate the proper criteria needed to remove themselves from the program (3,6,7,8,10). Sailors enrolled in FEP require specialized attention to improve their physical fitness levels up to, or above, the minimum requirements for continued naval career success and lifelong health benefits. Tactical Strength and Conditioning Facilitators® (TSAC-F®) can assist struggling sailors with reaching and sustaining satisfactory or better scores, as determined by their age group and gender. Allowing the fit to become more fit is a laudable and attractive goal for military physical training (PT) programs. However, assuring that those struggling at the other end of the spectrum have the opportunity and support to succeed and contribute to a ready fleet is of equal importance. This article will focus on the requirements that must be met for sailors to pass a PFA, and resources the Command Fitness Leader (CFL) and TSAC-F has at their disposal to assist sailors on FEP. In addition, an example program is provided for the CFL and TSAC-F to help support sailors struggling to meet PFA requirements.

ROLE OF THE CFL AND PFA REQUIREMENTS

CFLs, Assistant CFLs (ACFLs), and the enrolled FEP member must work together to accomplish the goal of meeting and/ or exceeding age and gender-specific minimum PFA thresholds (10). CFLs are trained to seek out helpful resources to assist with weight loss and performance enhancement. These resources include, but are not limited to: a registered dietitian (RD), Navy sports medicine personnel, military treatment facilities (MTFs), the Navy's Ship Shape 8-session/8-week lifestyle education program, the Mission Nutrition program, galley/mess hall's Go For Green program guides, Navy Operational Fitness and Fueling Systems, and Operation Supplement Safety (4).

The U.S. Navy assesses personnel via a semi-annual PFA, which includes a medical screen, a body composition assessment (BCA), and a physical readiness test (PRT) (3). PFAs are conducted by the command's designated CFL and, oftentimes, with help from one or more ACFLs. The Navy has become more stringent with the fleet's sailor readiness requirements to be deployment ready. Physical fitness and injury/rehabilitation status are getting a heavy

focus as per the Deputy Chief of Naval Personnel (11). It thus becomes critical for the Navy's fleet to have a fit and ready fleet around the world to meet the operational demands expected of all Navy sailors.

The BCA is used to identify the sailor's estimated body fat percentage. Only CFLs or trained ACFLs are authorized to conduct official BCA measurements (3,6). The components of the BCA include a height and weight measurement, followed by a circumference measurement if the member exceeds the weight for height screen (3,6). Females are to be measured at the neck, waist, and hips, and males are to be measured at the neck and abdomen (6). Sailors will fail the BCA if they exceed the maximum allowable body fat limits of 36% for females and 26% for males (3,6). Members who pass the BCA but are not within the graduated BCA standards for their respective age group will be placed in FEP until they are within the graduated standards (6). Screening tables and chart information can be found under Section 4 in Guide 4 in *The Body Composition Assessment of the Navy Physical Readiness Program Handbook* (6).

The PRT provides Commanding Officers (COs) with a method of assessing the fitness level of the members in their respective commands (7). The components of the PRT include two muscular endurance events (push-ups and curl-ups) and one cardiorespiratory event (3,7,9). The PRT must be administered in the following order: curl-ups, push-ups, and a cardiorespiratory event (3,7,9). All events must be completed on the same day, with 2 - 15 min between each event (3,7,9). Both curl-ups and push-ups are repeated as many times as possible in two minutes and are monitored by the CFL and/or ACFL (7). The 1.5-mi run and/or walk must be completed as quickly as possible and is graded corresponding to the time of completion recorded by the CFL (7). The CO determines whether or not members will be allowed to use the treadmill, stationary bike, or swim option for the PRT (3,5,7,9,10). Other forms of cardio include a 1.5-mi run on a treadmill, 500-yd or 400-m swim, and a 12-min stationary bike test that measures caloric output (3,5,7,9). Event procedures are physically demonstrated and verbally described before each trial. Any sailor who fails to meet those guidelines will forfeit the event and be graded off of the repetitions or time completed (7). Scoring standards can be found in Sections 4 and 5 in Guide 5 in The Physical Readiness Test of the Navy Physical Readiness Program Handbook (7).

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Members must perform and pass all three events to receive an overall score, which is given as a category-level corresponding to the average of points accumulated on PRT events (7). The results of both the BCA and PRT are used to create an overall score for the PFA cycle (3,5,6,7). The PRT is failed when a sailor does not achieve "probationary" or better for any PRT event; provided they were not medically waived (7). Moreover, if a member attempts and fails to complete a cardiorespiratory event, it will be considered a PRT failure (7). A failure of either the BCA or PRT component constitutes a PFA failure (3,8). Members with one or more PFA failures are subject to administrative actions (3,8,10). Those who fail the BCA and/or PRT are automatically enrolled in FEP (2,3,8,10). Participation in FEP is mandatory until the sailor passes the next regularly scheduled PFA cycle with a "good" or better score (3,10). Multiple PFA failures on record will immediately impact a sailor's advancement ability and, in some cases, will result in being separated from the Navy (3,8,10).

FITNESS ENHANCEMENT PROGRAM (FEP)

FEP is a command-wide program offered to improve fitness and nutrition habits for sailors who struggle to meet PFA standards (10). Moreover, a command member is enrolled into the program in one of two ways: 1) failure of a PFA or 2) voluntary enrollment regardless of PFA scores (3,8,10). Each member enrolled in FEP must select a nutrition option based on the needs of the individual, and is required to track PT sessions and body weight on a weekly basis (10). FEP training sessions are designed and led by CFLs, ACFLs, and/or Morale, Welfare, and Recreation (MWR) Fitness Specialists (10). It is important to note that although MWR Fitness Specialists can assist with programming, the CFL is responsible for administering all aspects of the program (3,10). Although sailors should maintain a year-round level of physical fitness capable of passing a PRT at any given time, adhering to the Navy's motto of "always ready," it can help the TSAC-F to have a focused peaking or preparatory program in place for those sailors who may be lacking in one or more areas of testing within the PRT. The TSAC-F should be aware of potential challenges that may prevent the use of a multi-week progression plan. Examples include a member's change of command, temporary assigned duty (TAD), military-service school schedules, deployments, and shorter underway at-sea periods.

Appendix A is an example of a scalable, 10-week progressive training program designed to help struggling sailors with enhancing their PRT performance and overall PFA score. This example will only highlight one single training session, which can be repeated 2 – 3 times per week. This training program can be used by sailors enrolled in FEP, assuming no orthopedic contraindications have been noted by command medical personnel. CFLs and FEP members should also seek nutritional advice from a RD or the other programs mentioned above to maximize the effectiveness of this program and to improve BCA results if weight management is also an issue for a particular sailor.

APPENDIX A

WARM-UP AND DYNAMIC MOVEMENT PREPARATION

- 1 x 400 m light jog for general warm-up on track
- 10 min of dynamic movement preparation
- 3 4 pillar preparation movements of choice for shoulders, core, hips, and glutes
- 2 3 central nervous system (CNS) activation movements of choice (e.g., jumps, bounds, quick feet, sprint-starts, etc.)

PRIMARY STRENGTH CIRCUIT 1

 Push-ups (demonstrate and teach proper form each and every time)

SET 1	SET 2	SET 3
Maximum repetitions to failure	75% of repetitions in set 1	75% of repetitions in set 1

2 min rest between sets

PRIMARY STRENGTH CIRCUIT 2

 Curl-ups (demonstrate and teach proper form each and every time)

SET 1	SET 2	SET 3
Maximum repetitions	75% of repetitions	50% of
to failure	in set 1	repetitions in set 1

2 min rest between sets

ASSISTANCE MOVEMENTS

Keep opposing muscles balanced and gross movement efficiency. There should be one minute of rest between all sets.

- Band face-pulls: 3 x 20 with 1-s isometric hold at back
- Bird-dogs: 3 x 10 per side with 2-s isometric hold at top
- Front plank with glute bridge isometric hold, superset: 30 s each x 2 - 3 sets

ENERGY SYSTEM DEVELOPMENT (ESD) CIRCUIT

Assuming the 1.5-mi run is the PRT test modality of choice:

- 4 laps on 400-m track
 - Lap 1: 100% effort, fast walk 1 lap
 - Lap 2: 75% effort, fast walk ¾ lap
 - Lap 3: 50% effort, fast walk ½ lap
 - Lap 4: 50% effort, fast walk ⅓ lap
- · 10 min of soft tissue work and flexibility
- Foam rolling/trigger point work
- Proprioceptive neuromuscular facilitation (PNF) stretching/ band stretching/partner stretching

This program can be kept consistent and repeated week to week for about 10 weeks with a frequency of 2 – 3 times per week being ideal with one day of rest between sessions. Because the first set of each exercise/lap is the key to the rest of the sets/repetitions,

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as fitness improves, overall repetitions will increase week to week. This can be documented from week to week to assure progression is taking place and to help motivate the sailor. Sailors must be instructed to give a true all-out effort on the first set of each exercise for optimal effectiveness.

Additional exercises and workouts tailored to any one sailor's unique needs can be added in as "homework" or extra help in areas of weakness. Some sailors may be strong in one area (e.g., push-ups and curl-ups) but struggle in another area (e.g., cardiovascular work). Rotation between running, biking, intervals and elliptical options can provide additional choices for the sailor as well. However, most of the time should be spent in the testing modality they will plan to test for in the PRT (bike, run, swim).

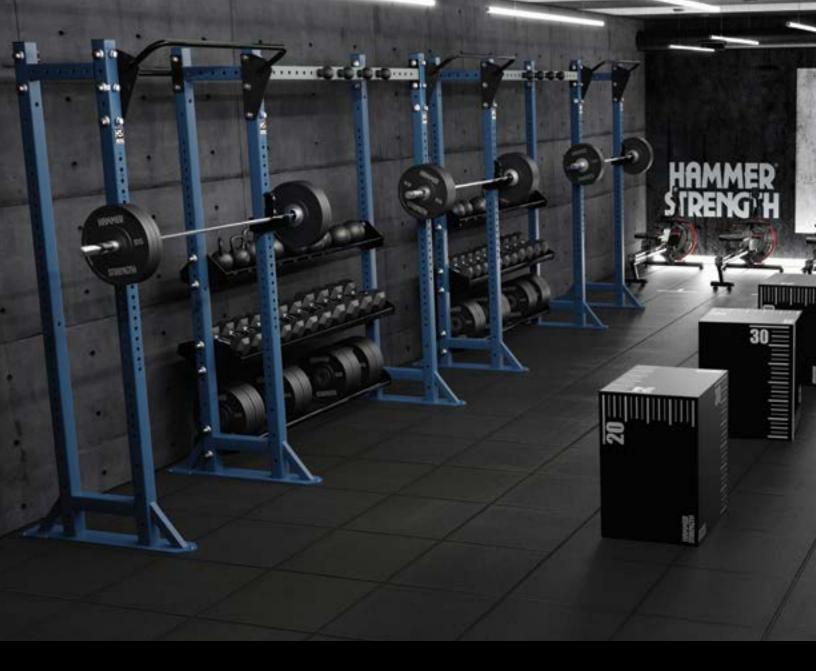
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ABOUT THE AUTHORS

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