Preparing for the Boat Forces Physical Fitness Test

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Objectives

- Overview of the Boat Forces PFT
- Describe training variables for PFT components
- Example exercises and sample workouts
- Describe Recruit Training Physical Training Program





What is the PFT?

- Required for law enforcement and boat crew members
 - Performed during qual, recert, and semi-annually or when required by superiors
- Required for members not in compliance with weight or body fat standards





What is the PFT?

- 1-minute push-up
- 1-minute sit-up
- 1.5-mile run

12-minute swim alternative





PFT Standards

Males	Push- ups	Sit-ups	1.5-Mile Run	12-Minute Swim*
Under 30	29	38	12:51	500 YDS
30 to 39	24	35	13:36	450 YDS
40 to 49	18	29	14:29	400 YDS
50 to 59	13	25	15:26	350 YDS
60+	10	22	16:43	300 YDS

Females	Push- ups	Sit-ups	1.5-Mile Run	12-Minute Swim*
Under 30	15	32	15:26	400 YDS
30 to 39	11	25	15:57	350 YDS
40 to 49	9	20	16:58	300 YDS
50 to 59	9	16	17:55	250 YDS
60+	9	15	18:44	200 YDS

Notes:

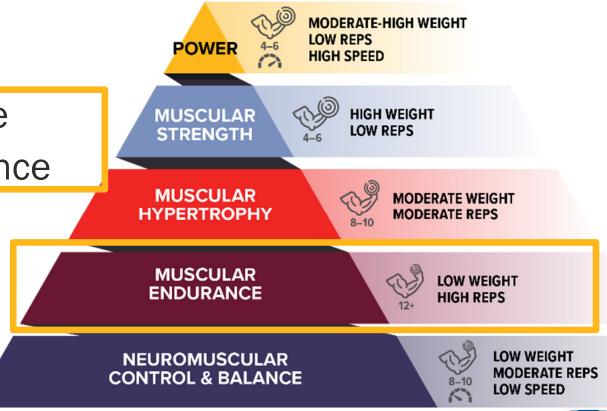
- (01) 12-minute swim test chart is based on Dr. Kenneth Cooper's research.
- (02) Push-ups and sit-ups must be performed within a one-minute time period.
- (03) Either the 1.5-mile run or the 12-minute swim may be performed to meet the standard.





PFT Domains of Fitness

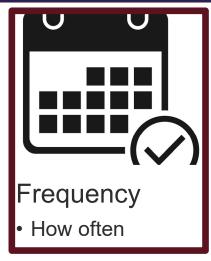
- Aerobic endurance
- Anaerobic endurance
- Speed
- Agility

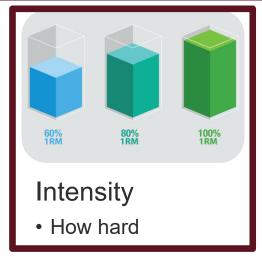




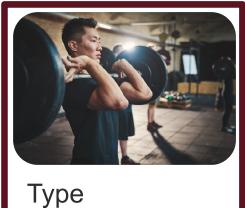


Variables in a PT Program









What you do







- Frequency: 2-3 days/wk
- Intensity & volume

Training goal	Intensity (% 1RM)	Goal repetitions	Goal sets per muscle group	Rest duration
Strength				2–5 minutes
Multi-joint exercises	≥85%	≤6	2–6	5' rest most appropriate for
Single joint exercises	75–80%	≤6	2–6	loads close to 1RM
Power				2–5 minutes
Single-effort lift	80–90%	1–2	3–5	5' rest most appropriate for
Multiple-effort lift	75–85%	3–5	3–5	loads close to 1RM
Hypertrophy	67–85%	6–12	3–6	30-90 seconds
Muscular endurance	≤67%	≥12	2–3	≤30 seconds

- Time: Depends on training goal & program structure
- Type:











- Progression
 - 2-for-2 rule: Increase weight when perform 2 reps over goal in the last set, 2 workouts in a row

Less trained	Upper Body	2.5-5 lb
	Lower Body	5-10 lb
More trained	Upper Body	5-10 lb
	Lower Body	10-15 lb



- Don't exclusively work the chest
 - Contributes to excessive head/shoulders forward posture
- Incorporate upper back exercises



Seated Row

Start Position



Finish Position



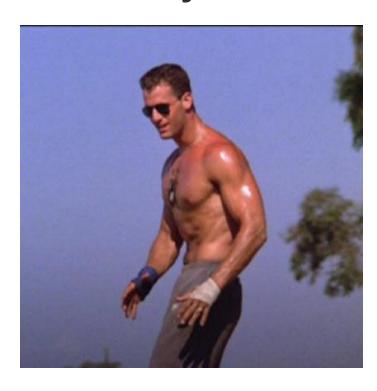
Training for Sit-up Component

- Test of core muscle endurance
- Excessive sit-up training can contribute to back pain
 - Tight, over-active hip flexors





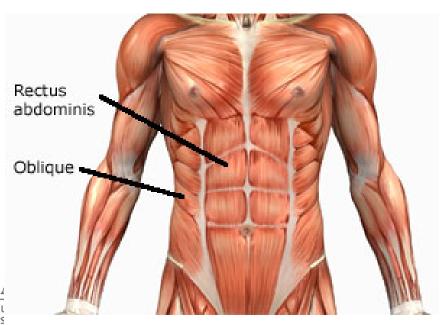
Myth Fact





Not only gross movers

Rectus Abdominus, Back Extensors, etc.



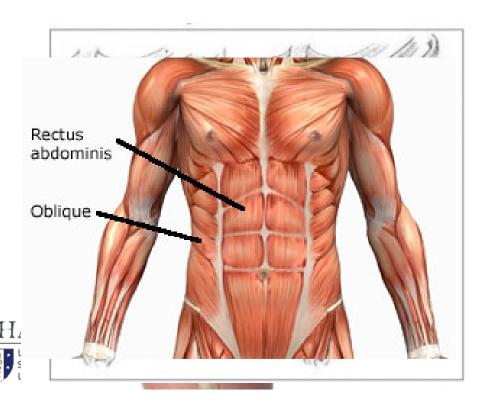


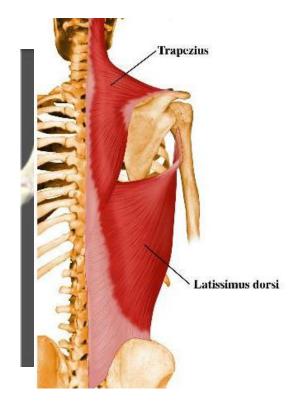




Primarily small stabilizing muscles

Transverse Rectus Abdominus, Internal and External Obliques, Multifidi







Myth



50 sets of 1000 reps

Fact









How do we strengthen the core?

The core is the foundation for movement

- Start small and work your way up
 - Stationary
 - Limited Movement
 - Dynamic Exercises

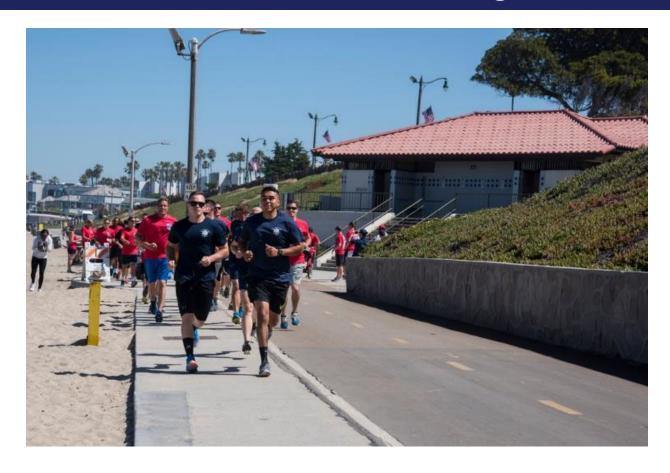


Core for Sit-up Performance

- Core strengthening exercises will improve sit-up performance as well as exclusive sit-up training
- Can be incorporated as part of a regular PT program, and doesn't need to be exclusively trained
- Use muscular endurance program variables











- Frequency: 2-3 days/wk
- Intensity:
 - % Max HR
 (220 Age) OR (208 0.7*Age)
 - Moderate = 64-76%
 - Vigorous = 77-93%
 - RPE
 - Moderate = 12-14
 - Vigorous = 15-17

Rating	Intensity
6	
7	Very, very light
8	
9	Very light
10	
11	Fairly light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very hard
18	
19	Very, very hard
20	

Training type	Description		
Long, slow distance	High volume, consistent moderate intensity		
Interval training	Alternates periods of vigorous intensity cardio for 3–5 minutes and active recovery for an equal period		
Pace or tempo	Consistent pace at higher intensity than LSD. Vigorous, but sub-maximal		
Repeated sprints	200 meters or shorter and <30 seconds in duration.		
HIIT	Similar to interval training, but at maximal intensity for shorter bouts of time—usually about 30–90 seconds of work with 15–90 seconds of rest		
Fartlek	Combination of LSD and pace/tempo. Run at moderate intensity with short bursts of vigorous-intensity running		

Training type	Frequency (per week)	Intensity	Time
Long, slow distance	1–2 days	Moderate intensity	30–120 minutes
Interval training	1–2 days	Vigorous intensity, near maximal effort	3–5 minutes (work:rest ratio of 1:1)
Pace or tempo	1–2 days Vigorous intensity 2		20–30 min
Repeated sprints	1–2 days	Maximal intensity	5–20 sprints, depending on distance and fitness
HIIT	1 day Maximal intensity		30–90 seconds (work:rest ratio ranging from 2:1 to 1:1)
Fartlek 1 day		Moderate to vigorous intensity	20–60 minutes

- Volume Low if unfit
 - 30 minutes of moderate-intensity LSD 2x/week is a good place to start
 - Walk or jog intervals for unfit people should have fairly low work:rest ratios (1:3-1:4) and progress to the recommended 1:1 over a period of a few weeks, with a total training day volume of 20-30 minutes





- Progression
 - Cardio: 10% rule
 - Increase frequency, duration, or intensity a max of 10% each week
 - Some research is questioning this old guideline
 - Low volume, can increase >10%
 - High volume, <10%







Example Training Programs





Sample Schedule

Sunday	Off
Monday	Upper-body & core
Tuesday	LSD cardio
Wednesday	Lower-body & core
Thursday	Pace cardio, short to moderate distance
Friday	Total-body & core
Saturday	Off





Upper-body Exercises

Seated Row

Start Position



Finish Position



Chest Press

Start Position



Finish Position



Lat Pulldown

Start Position



Finish Position



Shoulder Press

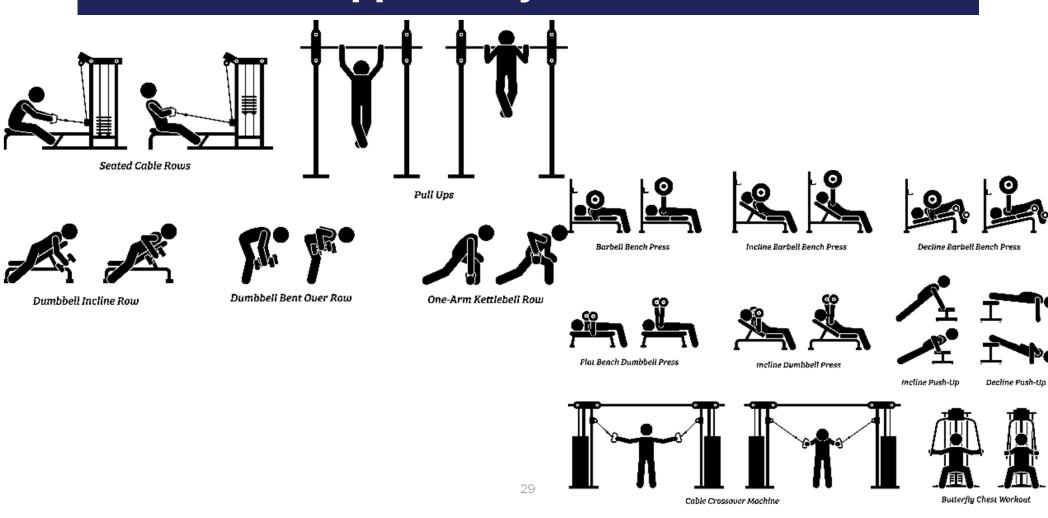
Start Position



Finish Position



Upper-body Exercises



Sample Upper-body workout

Muscle Group	Exercise	Sets x reps
Chest	Dumbbell press	3 x 12
Back	Bent-over row	3 x 12
Chest	Chest fly	3 x 12
Back	Back fly	3 x 12

Weight guidance: ≤67% of 1-rep max

- Reps 10-12 are a challenge, but you can do them
- 2-for-2 rule to increase weight
- OR start at 10 reps, increase 2 reps weekly until 16 reps. If unable to increase reps, stay at that level for another 2-3 weeks

Core Exercises

Glute Bridge

- Lie on back, knees bent, place feet about 18in from buttocks.
- Raise your hips until your body forms a straight line from your shoulders to your knees.
- Hold for 2s then return to the starting position. Repeat.



Superman Hold

- Lie on stomach with arms straight out over your head.
- 2. Raise chest, arms and legs of the deck.
- Hold for 2s then return to the starting position. Repeat.



Squat

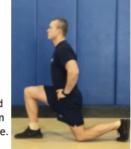
- · Stand tall with feet shoulder width apart.
- Hips descend back and down.
 Hips descend to at least to the top of the knees.



- Keep Chest tall and back straight.
- · Knees in line with toes

Forward Lunge

- · Stand tall with feet shoulder width apart.
- Take a step forward with one foot.
- Lower hips until forward thigh is parallel to deck and back knee touches deck.



- Forward shin and knee should form a 90 degree angle.
- Drive into heel and press back up to standing. Repeat stepping with other leg.

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Low Plank Hold

- Lie on stomach with elbows placed under shoulders and legs extended.
- Raise body as a single unit until your body forms a straight line from shoulders to feet. Hold position.

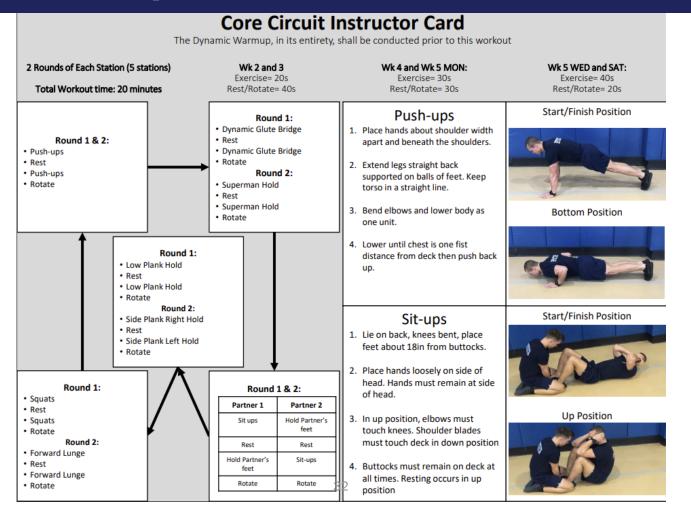


Side Plank Hold

- Lie on side with elbow placed under shoulder and legs extended. One leg stacked on the other.
- Raise body as a single unit until your body forms a straight line from shoulders to feet. Hold Position.



Sample Core-circuit Workout



Lower-body Exercises





Sample Lower-body workout

Muscle Group	Exercise	Sets x reps
Glutes	Deadlift	3 x 12
Quads	Weighted lunge	3 x 12
Hamstrings	Romanian deadlift	3 x 12
Quads	Lateral lunge	3 x 12

Weight guidance: ≤67% of 1-rep max

- Reps 10-12 are a challenge, but you can do them
- 2-for-2 rule to increase weight
- OR start at 10 reps, increase 2 reps weekly until 16 reps. If unable to increase reps, stay at that level for another 2-3 weeks

Sample Cardio Program

Schedule

Week 2 TUE: 15 min Run

Week 2 THU: 15 min Run

Week 2 SAT: 10 x 100m Run

Week 3 MON: 18 min Run

Week 3 WED: 18 min Run

Week 3 FRI: 7 x 200m Run

Week 4 FRI: 12 x 100m Run

Week 4 SUN: Company Run

Week 5 TUE: 3 x 800m Run

Week 5 SUN: Company Run

Week 6 FRI: 20 min Run

Week 6 SUN: Company Run

Week 7 SUN: Company Run

Timed Runs (15min, 18min, & 20min)

Recruits shall run in ability groups based on forming run times.

Goal Run Pace per 1.5 mile Run Ability Group:

Forming Run	Goal Pace	La	os on Red Tr	ack
	(min/mile)	15min	18min	20min
<8mins	7:00	8.5	10.25	11.5
8-8.5	7:30	8	9.75	10.75
8.5-9	8:00	7.5	9	10
9-9.5	8:30	7	8.5	9.5
9.5-10	9:00	6.5	8	9
10-10.5	9:20	6.25	7.75	8.5
10.5-11	9:40	6	7.5	8.25
11-11.5	10:00	6	7.25	8
11.5-12	10:20	5.75	7	7.75
12-12.5	10:40	5.75	6.75	7.5
12.5-13	11:00	5.5	6.5	7.25
13-13.5	11:15	5.5	6.25	7.25
13.5-14	11:30	5.25	6.25	7
14.5-15	12:00	5	6	6.75
>15	12:30	4.75	5.75	6.5

Sample Cardio Program

100 meter Run

Goal Run Times per 1.5 mile Run Ability Group:

<8min	18s
8-8.5	19s
8.5-9	20s
9-9.5	21s

١.	Null Times per .	
	9.5-10	22s
	10-10.5	23s
	10.5-11	24s
	11-11.5	26s

11.5-12	27s
12-12.5	29s
12.5-13	30s
13-13.5	31s

ıμ.	
13.5-14	32s
14-14.5	34s
14.5-15	35s
>15	37s

Rest/Walk: 2 minutes

200 meter Run

Goal Run Times per 1.5 mile Run Ability Group:

<8min	38s
8-8.5	40s
8.5-9	43s
9-9.5	45s

9.5-10	48s
10-10.5	50s
10.5-11	53s
11-11.5	55s

11.5-12	58s
12-12.5	60s
12.5-13	63s
13-13.5	65s

13.5-14	68s
14-14.5	70s
14.5-15	73s
>15	78s

Rest/Walk: 3 minutes

800 meter Run

Goal Run Times per 1.5 mile Run Ability Group:

_		
	<8min	2:50
	8-8.5	3:00
	8.5-9	3:10
	9-9.5	3:20

9.5-10	3:30
10-10.5	3:40
10.5-11	3:50
11-11.5	4:00

11.5-12	4:10
12-12.5	4:20
12.5-13	4:30
13-13.5	4:40

13.5-14	4:50
14-14.5	5:00
14.5-15	5:10
>15	5:30

Rest: 7 minutes



Summary

- Boat Forces PFT tests cardiorespiratory and muscular endurance
- Both components of fitness take time to improve
- Train both chest and back for push-ups
- Train core for sit-ups
- Don't exclusively take the PFT as a training program





How Did We Do?

CHAMP Poll Everywhere Questions:

https://pollev.com/surveys/MmiS4qczUlihM RxBW7S6M/respond







For Further Information

Please contact: timothy.gribbin.ctr@usuhs.edu

Web Resources:

https://www.hprc-online.org/

https://www.opss.org/



