

# SUBMARINE SERIES - LEVEL 2



**Navy Operational Fitness Series**



### 3 Simple Steps to Get Started!

#### **Step 1: Choose a Level**

This card series progresses you through 3 levels of training, each with 4 stages. Each level and stage will progressively increase the intensity and volume of the training session. If you are new to this programming start with level 1 to become familiar with the movements and set a solid foundation for your performance to build on. Progress to the next stage when you have successfully completed the prescribed number of circuits in the allotted time. Progress to the next level when you successfully complete Stage D with perfect technique in the desired time. If you are advanced it may not be long until you advance to the next level, however, it is very important to take the time during each stage to achieve mastery of the technique before increasing the resistance and advancing to the next level.

#### **Step 2: How long do you want to work out?**

Each program has three different lengths of workouts. Choose a workout time and follow the program that best fits your schedule. If you are new to the movements throughout the card series the duration of the workouts may be slightly longer. However, as you become familiar with the programming you will be able to complete the programs in the allotted time. Select a time below and follow the color dots throughout the training session.

● **Short = 30 minutes**

● **Medium = 45 minutes**

● **Long = 60 minutes**

#### **Step 3: Start your Program!**

Your training session will consist of 5 training components. Work through each component to complete your training session.

##### **1. Pillar Preparation**

- Your Pillar – which consists of your hips, torso, and shoulders – represents the foundation for all your movement. “Pillar Prep” primes these critical muscles to prepare your body for the work ahead – helping to protect you from injury and boost your performance during your training session.

##### **2. Movement Preparation**

- Lengthen, strengthen, and stabilize your body. “Movement Prep” consists of a series of active and dynamic stretches to help prepare you to move.

##### **3. Strength**

- Strengthen the movements needed to perform on an operational platform. Pay close attention to the quality of your movement. Select a resistance that you feel challenged with for the number of reps prescribed.

##### **4. Cardiovascular Fitness**

- Boost your endurance, leg strength, and speed through a variety of interval training options. The movements in this component are designed to target and develop your energy systems while efficiently burning calories.

##### **5. Recovery**

- A critical component to any training program, recovery brings balance back to your body, helping to relieve tension and the associated aches and pains while enhancing your body’s response to the training.

#### **Training Frequency:**

It is recommended to try to complete 3-4 training sessions per week. On recovery days, you can include the Warm up (Pillar Prep & Movement Prep) and Flexibility routines to assist in the recovery process and prepare you for your next training session.

# SUBMARINE SERIES

## WARM UP & STRENGTH - LEVEL 2



### Warm Up = Pillar Preparation & Movement Preparation

#### Pillar Preparation

Your Pillar – which consists of your hips, torso, and shoulders – represents the foundation for all your movement. “Pillar Prep” primes these critical muscles to prepare your body for the work ahead – helping to protect you from injury and boost your performance during your training session.

Stage:	A	B	C	D
No. of Circuits:	1	1	1	1
Reps:	6	6	8	10

● Short ● Medium ● Long

1

#### PILLAR BRIDGE - W/ ARM LIFT

- Assume pillar position with feet wider than shoulder width apart
- Engage torso & alternate reaching up & out with arms – hold 2 sec ea.
- Keep shoulders & hips square to deck with arm reach



2

#### GLUTE BRIDGE - MARCHING (KNEE EXTENSION)

- Lift hips to create a line from knees, hips & shoulders
- Alternate extending knees – hold 2 sec ea
- Keep back flat & torso engaged & head on the deck throughout the movement



3

#### Y'S - BENT OVER

- Hinge at waist, back flat & chest up
- Glide shoulder blades back & down, and raise your arms over your head to form a Y
- Initiate movement with shoulder blades, not arms & keep thumbs up throughout
- Lower arms back to start & repeat for reps



4

#### 90/90 STRETCH – LEGS CROSSED

- Lie with left knee bent 90°, your right leg crossed over the left
- Roll onto left side with knee & the deck
- Keep hips stationary, rotate chest & arm trying to place back on the deck. Hold 2 sec
- You should feel a stretch through your torso & your mid/upper back
- Complete reps, repeat on opposite side



**Movement Prep**

Specifically designed to lengthen, strengthen, and stabilize your body, "Movement Prep" consists of a series of active and dynamic stretches to help prepare you to move. Execute each movement with control and purpose.

Stage:	A	B	C	D
No. of Circuits:	1	1	1	1
Reps:	4	4	6	6

● Short ● Medium ● Long

● 1



**MINI BAND - BENT KNEE LATERAL WALK**

- Stand in quarter-squat position with feet hip width & band just above knees
- Take small side steps, lead elbows drive back with each step
- Push with back leg, don't reach with front leg. Keep mild tension on band at all times

● 4



**REVERSE LUNGE - W/ REACH**

- Contract your back glute at the bottom of the lunge
- Reach your one hand overhead, reaching other hand toward the deck - hold for 2 sec
- Keep chest up, don't let your back knee touch the deck
- Alternate sides each rep

● 2



**REVERSE LUNGE, ELBOW TO INSTEP - IN PLACE**

- Place right hand on deck & left elbow inside of left foot. Hold for 2 sec
- Place left hand outside foot & push hips to the sky
- Keep back knee off deck & contract rear glute
- Alternate sides each rep

● 5



**DROP LUNGE - ALTERNATING**

- Reach one foot behind, square hips forward & sit back & down into a squat
- Maintain weight primarily on front leg, keep your chest up, torso engaged, & sit hips back
- You should feel a stretch in the outsides of both hips
- Alternate sides each rep

● 3



**LATERAL SQUAT - LOW ALTERNATING**

- Stand with feet wider than shoulder width apart, shift hips to the side & down
- Keeping your hips low the entire time, push through your hip to shift your weight onto the opposite leg
- Move with control & keep your chest up throughout the movement
- Alternate sides each rep

● 6



**INVERTED HAMSTRING**

- Keep straight line from ear to ankle, hinge at waist & elevate your leg behind you
- When you feel a stretch, return to the standing position by contracting glute & hamstring
- Keep stance leg slightly unlocked, back flat & shoulders & hips parallel to deck
- Complete reps, repeat on opposite side

**Strength – Fit Kit Equipment**

This strength option takes advantage of the FIT KIT equipment using bands and body weight as the primary source of resistance. This component is designed to strengthen the movement needed to perform on an operational platform. Pay close attention to the quality of your movement, once comfortable, select a resistance that you feel challenged with and adjust the tension of the bands by wrapping the band on your foot.

<b>Stage:</b>	A	B	C	D
<b>Reps:</b>	8	10	12	15
	<b>Circuit 1</b>	<b>Circuit 2</b>		
● Short	x2	x1		
● Medium	x2	x2		
● Long	x3	x2		

**Circuit 1**

**1**



**GLUTE BRIDGE – 2 LEGS UP, 1 LEG DOWN**

- With feet shoulder width, lift hips to create a line from knees, hips & shoulders
- Hold the top position while lifting your left knee towards your chest, then slowly lower your hips to the starting position with the right leg
- Keep back flat & torso engaged throughout themovement
- Complete reps, repeat on opposite side

**Circuit 2**

**1**



**SQUAT TO OVERHEAD PRESS (BANDS)**

- Squat hips back & down until thighs are parallel with deck
- Return to standing by pushing through your hips
- At top of stance, press handles overhead
- Keep weight on arches & do not let knees collapse during the movement

**2**



**PUSH UP (STANDARD)**

- Assume a push up position with hands & feet on the deck
- Maintain a straight line from your knees to your ears as you complete the push up
- Push your sternum away from your hands at the top of the movement

**2**



**T'S – BENT OVER (BANDS)**

- Hinge at waist, back flat & chest up
- Glide shoulder blades back & down & raise your arms out to your sides to form a T
- Initiate movement with shoulder blades, not arms & keep thumbs up throughout

**3**



**SPLIT SQUAT (BANDS)**

- Stand in a tall split position w/ a band under your front foot holding the handles at your shoulders w/ elbows facing forward
- Drop hips towards deck by bending your front knee w/ out letting your back knee touch the deck
- Return to tall split position by pushing up w/ your front hip
- Complete reps, repeat on opposite side

**3**



**DYNAMIC LATERAL PILLAR BRIDGE**

- Lie on your side with your forearm on the deck under your shoulder - feet stacked together
- Push your hips off the deck, creating a straight line from ear to ankle, hold for 1-2 sec & return to starting position
- Repeat for reps & repeat on opposite side

**4**



**BENT OVER ROW (BANDS)**

- Stand hinged over at the waist, knees slightly bent with both feet standing on the band, holding handles in each hand
- When rowing - slide shoulder blades toward your spine & then lift the handles to your body by driving elbows to the ceiling
- Keep torso engaged & back flat during movement

**4**



**CRUNCHES**

- Lie faceup with knees bent, & hands across your chest
- Lift chest up until shoulder blades are off the deck & rotate your pelvis towards your belly button
- Slowly return to starting position & repeat for prescribed reps



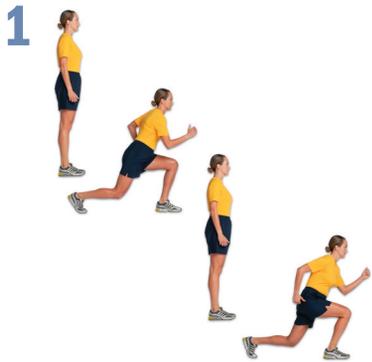
Select 1 Cardio Option:  
METABOLIC or EQUIPMENT BASED

**Metabolic Circuit**

Perform each movement for the time prescribed and then immediately transition into the next movement for the duration of the "Work" interval. Recover for the duration of the "Rest" interval and repeat. Form and technique are critical to pay attention to during the circuit, work hard but stay focused throughout.

**LEVEL 2**

Time Per Movement	Rest Between Circuits	Number of Circuits		
20 sec ea.	1:00	● Short x2	● Med x3	● Long x4



**1 REVERSE LUNGE - ALTERNATING**

- Contract your back glute at the bottom of the lunge
- Return to standing by pushing through your front hip
- Keep chest up, don't let your back knee touch the ground
- Alternate sides each rep



**5 PLANK - RUNNING**

- Start in push up position with hands beneath shoulders, one knee toward chest, one straight
- Begin to alternate leg position while keeping torso engaged & hips still
- Keep your back flat throughout the entire movement



**2 PILLAR BRIDGE - W/ ARM LIFT**

- Alternate reaching up & out with arms - hold 2 sec each
- Keep shoulders & hips square to ground with arm reach
- Keep torso engaged during movement



**6 SINGLE LEG BALANCE - ALPHABET**

- Sit your hips down & back into a quarter squat
- With 'floating' foot spell the alphabet in small letters for the prescribed amount of time
- Keep your torso & hip engaged throughout the movement
- Alternate legs every 5 sec until working time elapsed



**3 LATERAL LUNGE - ALTERNATING**

- Step to the right with your right foot, keeping your toes forward & your feet flat
- Squat through hip while keeping your opposite leg straight
- Keep your back flat & your chest up
- Push through your hip to return to standing, and alternate sides each rep



**7 SPLIT SQUAT - ALT. 5 SEC HOLDS**

- Take a low split position with your weight primarily supported on your front leg
- Keep your torso engaged, tall posture & don't let knee touch the deck
- Alternate legs every 5 sec until working time elapsed



**4 FORWARD LUNGE, ELBOW TO INSTEP - W/ ROTATION**

- Place left hand on ground & right elbow inside of right foot. Hold for 2 sec
- Rotate your right arm & chest to the sky. Hold for 1 to 2 seconds & return
- Place right hand outside foot & push hips to the sky
- Keep back knee off ground & contract rear glute



**8 DROP LUNGE - ALTERNATING**

- Reach one foot across & behind, square hips forward & sit back & down into a squat
- Maintain weight primarily on front leg, keep your chest up, torso engaged & sit hips back
- You should feel a stretch in the outsides of both hips
- Alternate sides each rep

### Equipment Based Option (Bike, Treadmill, Elliptical)

Select a piece of cardio equipment and follow the appropriate interval training session below. Start the session with 2-5 minutes of easy effort to warm up.

Equipment based training can help to reduce the impact on your body throughout your conditioning.

Cross training is an effective way to challenge the body, so try to mix up the equipment you select when possible.

Intensity	Rate of Perceived Exertion	% of Max Heart Rate
Easy	5 out of 10	65%
Moderate	7 out of 10	80%
Hard	9 out of 10	90%
Max	10 out of 10	100%

## How hard should I work?

### Rate of Perceived Exertion (RPE)

Your Rate of Perceived Exertion (RPE) is a simple and effective way to determine the training intensity during the prescribed intervals. The scale goes from 1-10. A rating of 1 would be equivalent to standing still, while a rating of a 10 would be representative of the most strenuous level of activity you could possibly sustain. Here are some general guidelines to follow throughout your training.

- 5/10** -You should be moving with a purpose, but you should still be able to carry a comfortable conversation.
- 7/10** -Your breathing should be more rapid and you should not be able to carry a conversation.
- 9/10** -An extremely strenuous effort. Breathing should be rapid and the effort should be difficult to maintain.
- 10/10** -Maximum effort. Give it all you got!

### Heart Rate (HR) Based Training

If you have a HR monitor you can measure the intensity of your workout based on your HR response. These HR training zones can be created from of an estimated Max HR, based on the following general formula:

**Max HR = 220 – Age.**

From this number use the percentages from the table above to determine your HR training zones for each interval intensity. During your training, if you notice your HR goes higher than your calculated Max HR, simply replace the calculated Max HR with your observed Max HR and re-calculate the percentages for each HR zone.



Level 2:	Hard	Moderate	Easy	● Short	● Medium	● Long
<b>Stage A</b>	1 min	2 min	2 min	x2	x3	x4
<b>B</b>	1 min	3 min	1 min	x2	x3	x4
<b>C</b>	1:30 min	X	1:30 min	x3	x4	x6
<b>D</b>	2 min	X	2 min	x3	x4	x5

**Flexibility - Stretch Strap**

The following flexibility exercises will help bring balance back to your body, relieving tension and the associated aches and pains. Active-isolated stretching will help lengthen short or stiff muscles by re-programming your muscles to contract and relax through new ranges of motion.

Hold each stretch for 2 seconds while exhaling, then relax back to the start position and continue for 10 reps each. Do not bounce through the end range of the stretch.

1



**CALF STRETCH (STRAP)**

- Lie on back with stretch strap wrapped around right foot & leg raised 45 degrees in the air
- Actively pull your right foot to your shin & then give assistance with the rope
- Exhale during the stretch Actively pull your foot to your shin even when assisting with the strap
- Complete reps, repeat on opposite side

4



**ABDUCTOR STRETCH (STRAP)**

- Wrap the stretch strap around foot & outside of leg
- Actively raise leg across body, gently assist with strap until you feel a stretch
- Keep opposite leg on ground by reaching long through heel, toes pointed to the sky
- Complete reps, repeat on opposite side

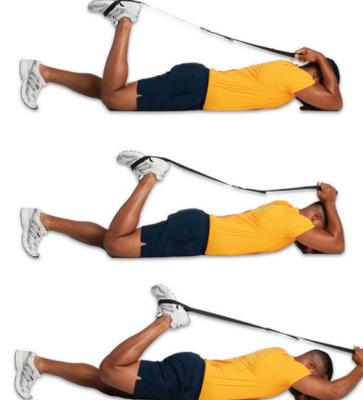
2



**STRAIGHT LEG HAMSTRING STRETCH (STRAP)**

- Keep right leg straight, actively raise it, then give gentle assistance with stretch strap until you feel a stretch
- Keep opposite leg on ground by pushing heel far away from your head as possible
- Contract your glute. Pull the strap above your head
- Complete reps, repeat on opposite side

5



**QUAD STRETCH (STRAP)**

- Lie on your stomach with a stretch strap wrapped around one foot
- Actively bend knee, gently assist with stretch strap until you feel a stretch
- Contract the glute on the leg that is being stretched Keep your back flat & torso engaged during the stretch
- Complete reps, repeat on opposite side

3



**ADDUCTOR STRETCH (STRAP)**

- Wrap the stretch strap around foot & inside of lower leg
- Actively raise leg out to the side, gently assist with strap until you feel a stretch
- Keep opposite leg on ground by reaching long through heel, toes pointed to the sky
- Complete reps, repeat on opposite side

6



**SHOULDER/TRICEPS STRETCH (STRAP)**

- Hold the stretch strap behind head with one hand reaching over and one hand reaching under
- Actively reach top hand down back, gently assist by pulling strap with bottom hand
- Next, actively reach bottom hand up, gently assist by pulling rope with top hand
- Complete reps, repeat on opposite side

**Flexibility - No Equipment**

The following flexibility exercises will help bring balance back to your body, relieving tension and the associated aches and pains. Active-isolated stretching will help lengthen short or stiff muscles by re-programming your muscles to contract and relax through new ranges of motion.

**Hold each stretch for 2 seconds while exhaling, then relax back to the start position and continue for 10 reps each. Do not bounce through the end range of the stretch.**

1



**BENT KNEE HAMSTRING STRETCH**

- Pull knee to chest, grasping behind the knee with both hands
- **Actively straighten knee, gently assist with hands until you feel a stretch**
- Keep opposite leg on ground by reaching long through heel, toes pointed to the sky
- **Complete reps, repeat on opposite side**

4



**QUAD/HIP FLEXOR STRETCH - 1/2 KNEELING**

- Keep a slightly forward lean in torso, engage torso & contract the glute of your back leg
- **Maintain posture, shift body slightly forward. Exhale & hold the stretch for 2 seconds**
- Avoid excessive arching in your lower back
- **Complete reps, repeat on opposite side**

2



**KNEE HUG – SUPINE**

- **Actively lift knee to your chest, gently assist by grabbing the knee & pulling it closer to chest**
- **Exhale & hold the stretch for 2 seconds, then return to the starting position**
- Keep your non stretching leg flat on the floor by pushing the bottom of your heel away from your head
- **Complete reps, repeat on opposite side**

5



**TRICEPS STRETCH**

- Lift one arm up over head & reach hand down your back, gently assist with opposite hand
- **Exhale & hold for 2 seconds, then relax & repeat**
- Keep your back flat & torso engaged throughout the stretch
- **Complete reps, repeat on opposite side**

3

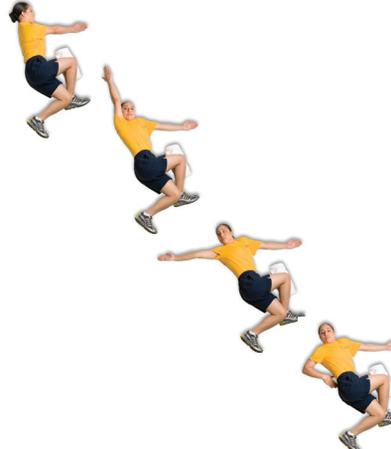


**LEG CRADLE – SUPINE**

- **Actively lift knee to your chest, placing one hand on knee & one under ankle**
- **Pull leg to chest with both hands into a gentle stretch**
- **During the movement, contract the glute of the leg that's on the ground**
- **Complete reps, repeat on opposite side**



6



**90/90 STRETCH – W/ ARM SWEEP**

- Lie with left knee bent 90°, your right leg crossed over the left
- **Roll onto left side with knee and the deck**
- Keep hips still, rotate chest & sweep with long arm – palm up, bending your elbow at the end reaching for your back pocket – palm down. Hold 2 sec
- **You should feel a stretch through your torso, mid/upper back, chest & shoulder**
- **Complete reps, repeat on opposite side**