

# MCIWS

## Preparation Guide

2 Week Preparation Guide



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## Purpose

The Marine Corps Instructor of Water Survival Course (MCIWS) is one of the most challenging MOS producing schools in the Marine Corps. The course mixes a heavy load of aquatic conditioning, endurance swims, rescues, and training for aquatic emergencies. Historically, our MCIWS course graduates roughly 50% of its candidates. This document is a preparation guide for the MCIWS course. If you follow the preparation guide as closely as possible, your chances of graduating will increase significantly.

## Areas of Focus

The areas of focus for this preparation guide are based on where students struggle the most throughout the course. Those focus areas include: ***swim endurance*** in the water, a ***strong supporting kick*** in the water, and ***swimming in uniform/boots***.

### Course Graduation Requirements

- 500 meter swim in 11 minutes or less (Crawlstroke only)
- 1500 meter swim in 33 minutes or less (Crawlstroke only)
- 25 meter underwater swim
- 50 meter Sidestroke brick tow (brick must remain out of water)
- 25 meter brick retrieval (must maintain two hands on the brick)
- Ability to execute 4 stations of conducting 4 different rescues
- Rescuer in uniform/ boots, Victim in full combat load  
Ability to conduct all American Red Cross (ARC) rescues
- Ability to administer CPR, AED, Spinal Injury Treatment, Lifeguarding practices in accordance with current ARC standards
- Must pass written Marine Corps Water Survival Training Program (MCWSTP) written exam
- Must demonstrate the ability to instruct a course in accordance with USMC Systems approach to Training (SAT) Manual



## Common Injuries and Injury Prevention

Many students come into the course without swimming on a regular basis, as such many muscles are tested when they come and swim at a high level for three straight weeks. When preparing for the rigorous three week program, it is imperative to ensure and maintain **flexibility** and **strength**. Common injuries seen across the Marine Corps Water Survival Program include: **Hip flexors/groins, Shoulders/rotator cuffs, and IT bands**.

### Hip Flexor

**Starting Position:** Lying facedown on forearms with foam roller just below right hip flexor.



1) Using arms, glide hip flexor over roll for 20-30 reps, and perform 20-30 slow rolls on any trigger spots.

2) Shift weight to left hip flexor and repeat.

### Groin

**Starting Position:** Lying on your back with the resistance band wrapped around your foot, hold the band with the same side hand as working leg.

1) With non-working leg stationary with toes pointed skyward, sweep working leg away from body, keeping knee straight. At end of range of motion, give band gentle pull to assist in stretch. Hold for two seconds while exhaling. Pause, inhale and return to starting position.

Do 10 reps then repeat on opposite side.



### IT Band

**Starting Position:** Lying on your back with the resistance band wrapped around your foot, hold the band in the hand opposite the leg you are stretching. Other hand is flat on ground.

1) While keeping shoulders on the ground and non-working leg stationary with toes pointed to sky, fire inner thigh muscles to bring working leg across your body as you pull with the band. At the end of the range of motion, give a gentle stretch for 2 seconds.

2) Relax and return leg to starting position.

Do 10 reps then repeat on opposite side.



The following link is to the MARSOC exercise handbook filled with tools for stretching techniques, calisthenics, and nutrition. The stretching and nutrition are especially relevant to our course.

<http://www.marsoc.marines.mil/Portals/31/Documents/Assessment%20and%20Selection%2010%20week%20Prep%20guidebook.pdf>

### Groin

**Starting Position:** Lying down with right leg straight and left leg at 45-degree angle supported on your arms, slightly bent. Foam roller positioned along groin and left inner thigh.



- 1) Roll for 20-30 repetitions along groin and inner thigh. Perform 20-30 slow rolls on any trigger spots.
- 2) Switch legs and repeat.

### Rotator Cuff

**Starting Position:** Lying on your right side with your arm in a 90/90 position.

- 1) Externally rotate your right shoulder to try to put the back of your right hand on the ground, maintaining a 90-degree flex on your elbow.
- 2) Now internally rotate your right shoulder and attempt to put your right palm on the ground in front of your belly button. Hand placement should be behind watch. At end of range of motion, gently assist stretch with your left hand. Exhale and hold for 2 seconds. Relax, inhale and return to starting position.



Do 10 reps then repeat on opposite side.

### IT Band

**Starting Position:** With foam roll underneath you, lean on your right side, supported by your forearm.



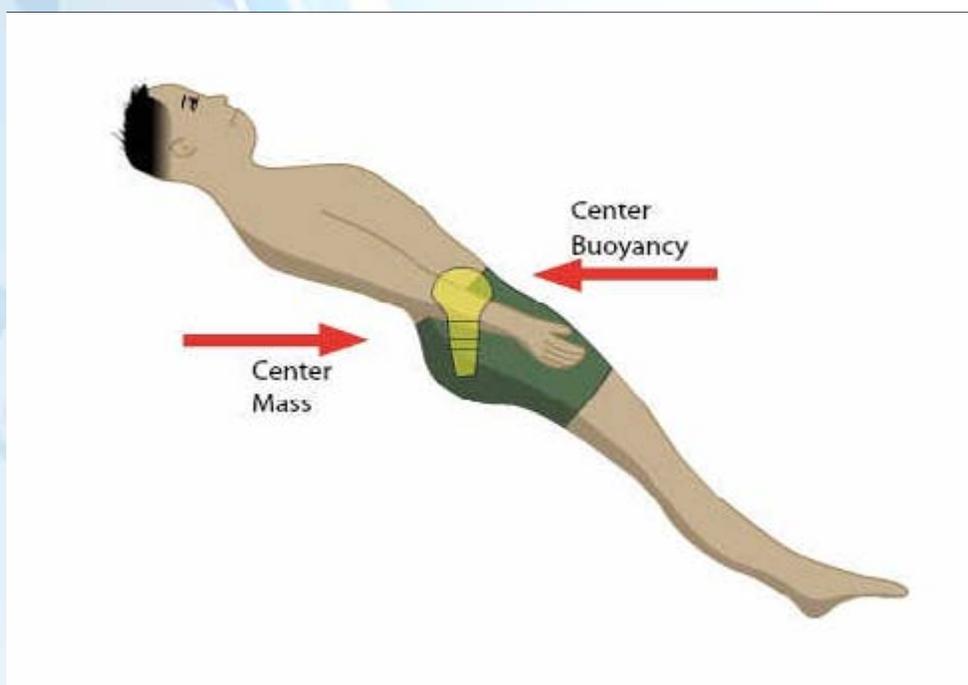
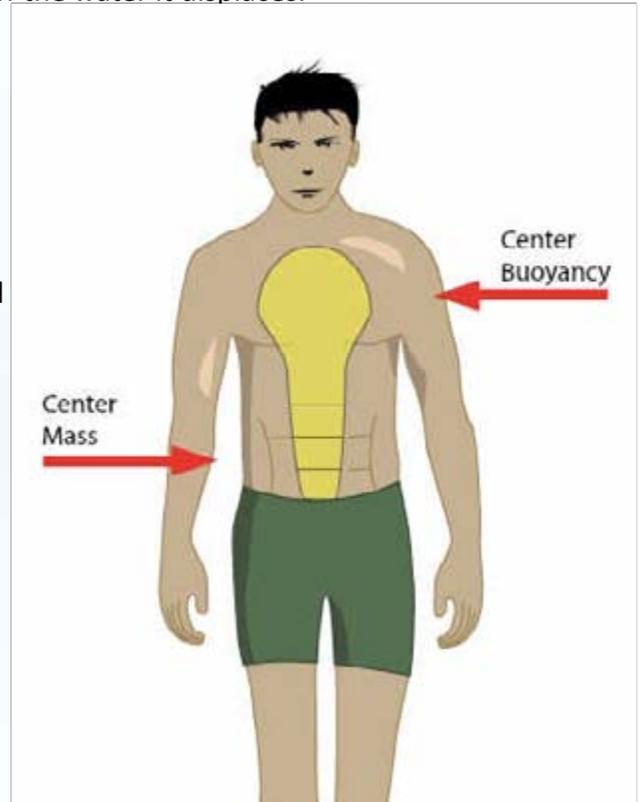
- 1) Do 20-30 rolls for each 1/3 of the leg - hip bone to 1/3 down leg, middle 1/3 of leg, knee to ankle. Perform 20-30 slow rolls on any trigger spots.
- 2) Switch legs and repeat.

## Hydrodynamic Principles

**Buoyancy** - The upward force that water places on an object when the object is in the water. Water's buoyancy opposes gravity's downward force, which has the effect of lessening body weight in the water.

**Specific Gravity** - The amount of buoyancy exerted on an object is primarily determined by the object's specific gravity. Specific Gravity is the ratio of the weight of the object of the water it displaces.

**Center of Mass and Center of Buoyancy** - Specific gravity is not the only factor affecting how a body floats in the water. Two other factors affect the position of a floating body: the *center of mass* (sometimes called the center of gravity) and the *center of buoyancy*. The center of buoyancy is a theoretical point in a body where the entire buoyancy of that body can be considered to be concentrated. Likewise, the center of mass is a theoretical point in a body where the entire mass of that body can be considered to be concentrated. If you were to try to balance a body on a seesaw, the pivot point would have to be directly below the center of mass. In other words, the supporting upward force exerted on the body by the pivot point would have to go through the center of mass in order for balance to occur.





*Click the image to activate video.*

1. Move into a tuck float position (watch the above video to view the step by step procedures). Lean over and tuck your knees up into your chest. Hold your knees against your chest until the body stops rising or sinking.
2. Recover to a standing position.
3. Take a large breath of air, hold it and return to the tuck float position.
4. Recover to a standing position.
5. Return to the tuck float position, then slowly let air out through your mouth and nose.
6. Recover to a standing position.
7. Move into a back float with your arms at your side.
8. Recover to a standing position.

## Change Between Center Mass and Center Buoyancy



*Click the image to activate video.*

**The following steps demonstrate how to change the relationship between the center of mass and the center of buoyancy:**

1. Float on the back with your arms at your side.
2. Move your arms above your head.
3. Flex the wrists so your hands (or fingers) are out of water.
4. Bend the knees.

Treading water is an important personal safety skill that allow swimmers to remain upright in deep water with the head out of the water. Treading water typically involves a **scissors**, **breaststroke** or **rotary kick** along with sculling or finning movements of the hands and arms. The combination of these movements allows swimmers to remain in place with the head above water. However, treading water is a versatile technique. With practice, people can tread water using only the arms or the legs. Whichever movements are used, treading water should be done using just enough movement to keep the body vertical.



*Click the image to activate video.*

### **Breaststroke or Scissors Kick**

1. Stay nearly vertical, with the upper body bent slightly forward at the waist and the legs separated.
2. Make continuous sculling movements with the hands a few inches below the surface in front of the body, with the palms facing downward and elbows bent. Make sculling movements with a much wider reach than used to hold position during a back float.
3. Kick with just enough thrust to keep the head above water.



*Click the image to activate video.*

### **Rotary or “Eggbeater” Kick**

1. Stay nearly vertical, with the upper body bent slightly forward at the waist, making the same sculling movements with the arms.
2. Keep the back straight and the hips flexed so that the thighs are comfortably forward.
3. Pull up the lower legs so that they are at an angle of nearly 90 degrees to the thighs and the knees are slightly wider than hip-width apart.
4. Rotate the lower legs at the knees, one leg at a time, making large circular movements with the foot and lower leg. One leg moves clockwise and the other counterclockwise.
5. As each foot moves sideways and forward, extend it sharply outward. The power of the kick comes from lift forces created by the inward sweeping action of the foot.

## Swim Conditioning Uniforms

### Slick

Slick - PT shorts/UDT shorts/jammers



### Cammies

Nothing in pockets, untucked



### Strip Swim

Remove one item of clothing every designated distance. (Order of priority = blouse, boots, pants)



## Beginner Preparation/Conditioning Notes

The days are recommended to be broken down over the course of the month.

**Week 1 (Days 1 & 2)   Week 2 (Days 3-5)   Week 3 (Days 6-8)   Week 4 (Days 9-12)**

Day	Exercise	Reps	Equipment	Uniform	Notes	Time
1	100 meter Crawlstroke	5		Slick		
(1000m total)	50 meter Sidestroke	5		Slick		
	50 meter Backstroke	5		Slick	Keep hands out of water	
2	200 meter Crawlstroke	3		Cammies	Strip Swim (every 200m)	
(1100m total)	50 meter Sidestroke	5		Slick	Top arm out of water	
	50 meter Backstroke	5		Slick	Keep hands out of water	
3	400 Meter Crawlstroke	1		Slick		
(700m total)	Card 1			Slick		
4	200 meter Crawlstroke	4		Cammies/Boots	Strip Swim (every 200m)	
(1300m total)	50 meter Sidestroke	5	Brick	Slick	First Rep use brick	
	50 meter Backstroke	5		Slick	Keep hands out of water	
5	700 meter Crawlstroke	1		Slick		
(1200m total)	50 meter Sidestroke	5		Slick	First Rep use brick	
	50 meter Backstroke	5	Brick	Slick	First Rep use brick	
6	500 meter Crawlstroke	1		Slick		
(900m total)	Card 2	1	Brick	Cammie Pants		
7	250 meter Crawlstroke	4		Slick		
(1500m total)	50 meter SideStroke	5	Brick	Slick	First Rep use brick	
	50 meter Backstroke	5	Brick	Cammie Pants	First Rep use brick	
8	200 meter Crawlstroke	5		Cammies/Boots	Strip Swim (every 200m)	
(1500m total)	50 meter Sidestroke	5		Cammies/Boots		
	50 meter Backstroke	5		Cammies/Boots		
9	500 meter Crawlstroke	1		Slick		
(1000m total)	Card 3	1	Brick	Cammies/Boots		
10	800 meter crawlstroke	1		Slick		
	50 meter Sidestroke	5	Brick	Slick	First Rep use brick	
	50 meter Backstroke	5	Brick	Cammies/Boots	Brick on all 5 reps	
11	500 meter Crawlstroke	1		Slick	Easy relaxed swim	
12	Pre-screener	1	Brick	Slick	Will need MCIWS to proctor	

Cards should be completed as fast as possible. It's intended to be a change of pace, high intensity workout.

**Card 1**

***Gear to be worn:***

***PT Gear Only***

- 100 meter Crawlstroke warm up
- 2 min stretch
- Crawlstroke 25 meter (4X)
- Sun Gods (4 count, 10 up, side, front)
- Superman 25 meters
- Flutter kicks max 25 (4 count)
- Crawlstroke 25 meter
- Push-ups max 25 (4 count)
- 10 minute tread: use only hands or legs. Switch every 30 seconds

**Card 2**

***Gear to be worn:***

***Cammie Pants***

- 100 meter Crawlstroke warm up
- 2 min stretch
- Crawlstroke 25 meter (4X)
- Squats max 25
- Superman 25 meters

***Strip Pants:***

- Crawlstroke 25 meter (4X)
- Flutter kicks max 25 (4 count)
- U Boat 25 meter
- Gutter-ups max 20
- 10 minute tread: cammie pants on for first 5 minutes, holding for second 5 minutes

**Card 3**

***Gear to be worn:***

***Full Cammies***

- 100 meter Crawlstroke warm up
- 2 min stretch
- Crawlstroke 25 meter (4X)
- Squats max 25
- Superman 25 meters

***Strip Blouse:***

- Splash Recovery 25 meter
- Sun Gods (4 count, 10 up, side, front)
- U Boat 25 meter
- Gutter-ups max 20 Strip Boots:
- Crawlstroke 25 meter (4X)
- Push-ups max 25 (4 count)
- U Boat 25 Meters
- Flutter kicks max 25 (4 count)

***Strip Pants:***

- Splash Recovery 25 meter
- Brick Recovery-swim 25 meters
- 30 Second Brick Tread
- 5 minute standard tread using all 3 kick techniques

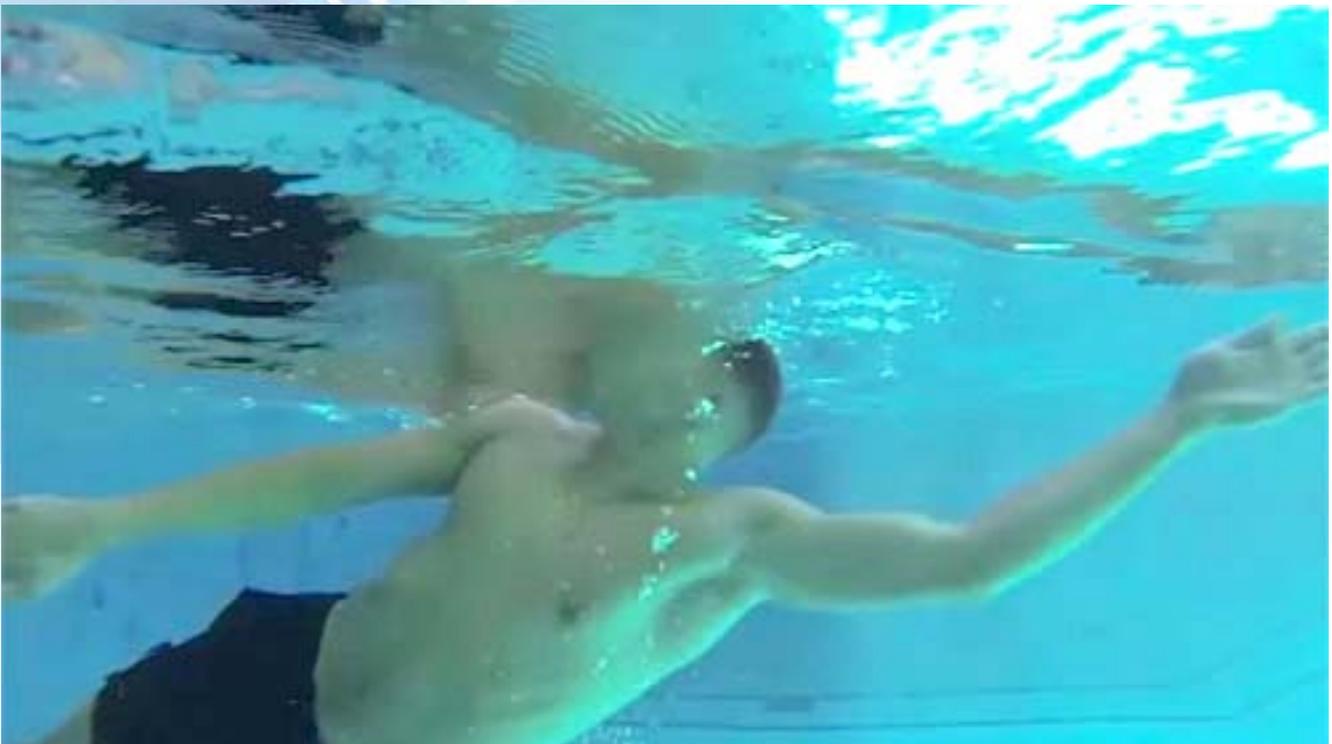
***\*\*\*If you do not have the facility resources to accommodate this training guide, do your best to meet the intent of each day's work out.***

## Exercise Videos



*Click the image to activate video.*

**Crawlstroke** - The crawlstroke, sometimes called the front crawl or freestyle, while it provides speed, it is not a preferred survival stroke, as it is exhausting, and is difficult for beginners.



*Click the image to activate video.*

**Sidestroke** - The side stroke is a survival stroke because you use both arms for buoyancy, with each arm creating a slight propulsion. The majority of your body's propulsion comes from your kick.



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**Backstroke** - The elementary backstroke is also an excellent survival stroke. It relieves the muscles that you use for other strokes, and it is the recommended stroke for weak swimmers or non-swimmers.



*Click the image to activate video.*

**Brick Retrieval** - This exercise is intended to assess beginner-level abilities in retrieving a person or equipment from subsurface to the surface. The exercise requires two hands to pick up the brick and to remain on the brick from start to finish. Additionally, the face must remain out of the water.

## Exercise Videos



*Click the image to activate video.*

**Brick Tow** - This exercise is intended to demonstrate the ability to carry equipment outside the water. Additionally, it ensures the ability to conduct the beginner-level side stroke.



*Click the image to activate video.*

**Treading Water** - Treading water is an important personal safety skill that allow swimmers to remain upright in deep water with the head out of the water.



*Click the image to activate video.*

***Finding Your Natural Buoyancy*** - As you float, your weight presses down into the water; the water presses back, pushing you up.



*Click the image to activate video.*

***Balancing Your Buoyancy and Mass*** - Your head and chest are your main method of controlling your body position. Your head is actually fairly heavy and the further you raise your head the more your hips will sink in the water.

## Exercise Videos



*Click the image to activate video.*

**U Boat** - This exercise is intended to engage and strengthen your core muscles in the water. The exercise requires both legs to be straight and feet to be out of the water.



*Click the image to activate video.*

**Splash Recovery** - This exercise is intended to replicate a situation in which there is an oil fire on the surface of the water. The swimmer must clear the water at the surface and continue to push the fire away as he swims forward.



*Click the image to activate video.*

**Superman** - This exercise is designed to ensure a swimmer keeping his body position long and to use the power from his supporting kick. This exercise is conducted by using a flutter kick with arms straight and hands together.



*Click the image to activate video.*

**Gutter Up** - This exercise is designed to engage and strengthen a swimmer’s triceps and core muscles. It is conducted by pulling yourself out of the water and completely locking out your arms.

Marine Corps Water Survival School:

[www.trngcmd.marines.mil/Units/South-Atlantic/MCCSSS/MCCSSS-Schools/Marine-Corps-Water-Survival-School/](http://www.trngcmd.marines.mil/Units/South-Atlantic/MCCSSS/MCCSSS-Schools/Marine-Corps-Water-Survival-School/)



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