

VOLUNTEER INFO & FAQ

POCKET GUIDE

May 18-21, 2023



LAST UPDATED MAY 2023



Ready.... Set....WELCOME!

This info packet is designed to help our volunteers understand their job roles and make the most out of the Thunder on Cocoa Beach boat race experience!

So...What is “Thunder on Cocoa Beach”?



Also called the “Space Coast Super Boat Grand Prix”, it is part of the APBA (American PowerBoat Association) Offshore Championship series and is held in Cocoa Beach, FL. The boat races are part of a 6-7 race circuit that attracts the top race teams in the world to come and compete based on their boat ‘class’ (see below). The Thunder on Cocoa Beach boat race is a byproduct of the collaboration between our local race directors and Powerboat P1 (P1) which run boat events under the APBA sanctioning umbrella.



- ⇒ **FUN FACT:** In 2019, Thunder on Cocoa Beach attracted 59 teams! In 2023 we expect over 70 race teams!
- ⇒ **FUN FACT:** Depending on the ‘class’ of boat, offshore powerboats can go 70mph to 210 mph!

Who Started Thunder on Cocoa Beach and Why?

In 2010, four local guys, Kerry Bartlett, Mike Schwarz, Rich Hensel, and Kevin Pruett, decided to start Thunder on Cocoa Beach (ToCB) due to their passion for boats, racing and supporting our little town with a big fun-filled event. Now, every year, they work hard to organize an incredible four-day action packed event like no other! Each year the race has grown in scope of race events, number of participants, ecologic stewardship, and support for and from our local community. <https://www.thunderoncocoabeach.com/>

What does the Freedom Fighters charity group do?

As part of the event, Thunder on Cocoa Beach has partnered with a charity. For the last several years the charity is **Freedom Fighters** which stands up against human trafficking. The charity group was founded by Jenny Pruett & Christy Masters and they dared to believe that they could ignite an army dedicated to abolishing human trafficking. Their mission is to support organizations who identify, rescue, rehabilitate and set victims of human trafficking free by raising money, awareness and training Freedom Leaders to carry this mission to the corners of the Earth. <https://www.iamafreedomfighter.org/>

OFFICIAL SCHEDULE OF EVENTS

THURSDAY MAY 18 TH	FROM	UNTIL	LOCATION
PITS OPEN	10:00AM	05:00PM	PORT CANAVERAL
HIGH OCTANE KICK OFF PARTY	06:00PM	10:00PM	FISH LIPS & RUSTY'S AT THE PORT
THUNDER ON COCOA BEACH AFTER PARTY BY X-INSURANCE	10:00PM	CLOSE	JT'S SOCIAL BAR – COCOA BEACH LA QUINTA
FRIDAY MAY 19 TH	FROM	UNTIL	LOCATION
PITS OPEN & OFFSHORE REGISTRATION	09:00AM	05:00PM	PORT CANAVERAL - PITS
OFFSHORE SAFETY INSPECTIONS	09:00AM	05:00PM	PORT CANAVERAL - PITS
DUNKER TESTING / SWIM TEST – FRIDAY ONLY	10:30AM	05:00PM	COCOA BEACH AQUATIC CNTR
SUPPORT VESSEL AND HELICOPTER PILOT BRIEFING	03:00PM	04:00PM	PORT CANAVERAL PITS
BLOCK PARTY STAGING	04:00PM	04:30PM	PORT CANAVERAL
BLOCK PARTY	05:00PM	10:00PM	DOWNTOWN COCOA BEACH
COCONUTS – CMR WELCOME RECEPTION	06:00PM	10:00PM	COCONUTS – DOWNTOWN
THUNDER ON COCOA BEACH AFTER PARTY BY X-INSURANCE	10:00	CLOSE	JT'S SOCIAL BAR – COCOA BEACH LA QUINTA
SATURDAY MAY 20 TH	FROM	UNTIL	LOCATION
VIP OPEN	10:00AM	04:00PM	LORI WILSON ONLY
REGISTRATION	08:00AM	05:00PM	PORT CANAVERAL PITS
OFFSHORE DRIVER'S MEETING – MANDATORY	08:00AM	09:00AM	FISHLIPS
TESTING – ONLY CLEARED BOATS WILL BE PERMITTED TO TEST	10:00AM	01:00PM	RACECOURSE
OFFSHORE FUELING	08:00AM	05:00PM	SCORPION MARINA
CRANE OPEN – LAUNCHING - RACE PRIORITY	08:30AM	06:00PM	SCORPION MARINA
OFFSHORE INSPECTIONS	08:00AM	12:00PM	PORT CANAVERAL PITS
RACE 1 – BRACKET CLASS 700, 600, 500, 3X	01:00PM	02:00PM	RACECOURSE
CLASS 1 – QUALIFYING	02:00PM	02:40PM	RACECOURSE
RACE 2 – SUPERSTOCK	02:45PM	03:45PM	RACECOURSE
SUPERCAT – QUALIFYING	03:45PM	04:30PM	RACECOURSE
THUNDER ON COCOA BEACH AFTER PARTY BY X-INSURANCE	10:00PM	CLOSE	JT'S SOCIAL BAR – COCOA BEACH LA QUINTA
SUNDAY MAY 21 ST	FROM	UNTIL	LOCATION
VIP OPENS	10:00AM	04:00PM	LORI WILSON, COCONUTS & SHEPARD PARK
DRIVER PHYSICALS	06:00AM	07:00AM	FISHLIPS DOWNSTAIRS
DRIVER BRIEFING - MANDATORY	07:00AM	07:30AM	FISHLIPS UPSTAIRS
RACE 1 LAUNCHED AND UNDERWAY – BRACKET, MOD V, STOCK V	08:00AM	09:15AM	JETY PARK RAMPS / CRANES
RACE 1 MOVE TO RACECOURSE	09:30AM	09:50AM	
OFFSHORE RACE 1 – BRACKET CLASS 400, 300, 200 & MOD V	10:00AM	11:15AM	RACECOURSE
RACE 2 MOVE TO RACECOURSE	11:00AM		CRANES – SCORPION
HELO REFUEL	11:00AM	11:25AM	
OFFSHORE RACE 2 – SUPERCAT	11:30AM	12:45AM	RACECOURSE
RACE 3 MOVE TO RACECOURSE	12:30PM		CRANES – SCORPION
HELO REFUEL	12:30PM	12:55PM	
OFFSHORE RACE 3 – CLASS 1	01:00PM	02:15PM	RACECOURSE
RACE 4 MOVE TO RACECOURSE	02:00PM		
HELO REFUEL	02:00PM	02:25PM	
OFFSHORE RACE 4 – 450R, VX	02:30PM	03:30PM	RACECOURSE
AWARDS	06:00PM		TBA

VOLUNTEER SCHEDULE

MAY 18 2023 (THURSDAY) - KICK OFF

LOCATION: FISHLIPS. Parking anywhere.

4pm-7:30pm Shift 1

7:30pm-10pm Shift 2

MAY 19 2023 (FRIDAY) - PORT CANAVERAL DRY PITTS & CB STREET PARTY

LOCATION 1: PORT CANAVERAL. Parking anywhere.

9am-1pm Shift 1

1pm-5pm Shift 2

LOCATION 2: DOWNTOWN COCOA BEACH—Parking in beach lot behind SunBum corner of 1st St North and AIA (north). Look for trailer across Heidleberg

5pm-7:30pm Shift 1

7:30-10pm Shift 2

MAY 20 2023 (SATURDAY) - PORT & LORI WILSON—BRACKET RACE DAY

LOCATION 1: PORT CANAVERAL. Parking anywhere.

9am-1pm Shift 1

1pm-5pm Shift 2

LOCATION 2: LORI WILSON. Parking inside Lori Wilson for volunteers only.

9am-1pm Shift 1

1pm-5pm Shift 2

MAY 21 2023 (SUNDAY) - MAIN RACE DAY (3 VIP LOCATIONS)

LOCATION 1: SANDBAR. Parking across street or anyplace you find.

9am-1pm Shift 1

1pm-5pm Shift 2

LOCATION 2: LORI WILSON. Parking inside Lori Wilson for volunteers only.

9am-1pm Shift 1

1pm-5pm Shift 2

LOCATION 3: COCONUTS. Parking anyplace you can.

9am-1pm Shift 1

1pm-5pm Shift 2

Ride your bike, carpool, or Uber to events whenever possible!

CHECK LIST FUNDAMENTALS

- ⇒ Wear volunteer shirt for all events
- ⇒ Pack snacks, food, and drinks for your shift
- ⇒ Arrive 10 minutes before your time slot
- ⇒ Help with set up / tear down (see set up tent map)
- ⇒ Keep this book with you for reference, phone numbers, etc

VOLUNTEER JOB DUTIES

- 1. SELL MERCHANDISE**
- 2. ANSWER QUESTIONS**
- 3. HANDLE VIP BADGES AND WRISTBANDS**



1. Know How to Sell Merchandise.

There will be a two tents at each site—one for selling thunderboat t-shirts, hats, etc to the visitors and ticket holders; and another tent right next to it to sell Freedom Fighter charity merchandise. If you work at either, you will need to know how to find the right shirt size, enter the sale info (size, type of shirt, and quantity) and be able to operate the SQUARE credit card machine to collect money. Cash is also accepted and there will be a petty cash pouch.

- ⇒ Make sure you know how to enter a sale and use credit card machine
- ⇒ Make sure you know where to find petty cash pouch and inform someone if you run low, need more change, etc.

2. Know How to Answer Common Guest Questions.

You may also be asked questions like “what time does the race start on Saturday?” or “what does my VIP badge get me access to?” and you will need to know these answers. (hint: most answers are in this book!)



3. Know How to Handle VIP Badges and Wristbands.

Guests either bought tickets online, or some may buy entrance the day-of. The VIP ticket holders who have paid online will have their name in a “VIP BADGE PICK UP” spreadsheet. VIP ticket holders can come to a tent on ANY DAY of the race weekend to pick up their VIP Kit. You must know how to find their name on the VIP Badge Pick Up list, mark it off as “claimed”, and give them the VIP kit items.



The VIP Kit includes:

- VIP Badge and lanyard
- VIP Wristband (this must be worn every day—they cannot remove it!)
- VIP Gift bag (give to all VIP's while supplies last)

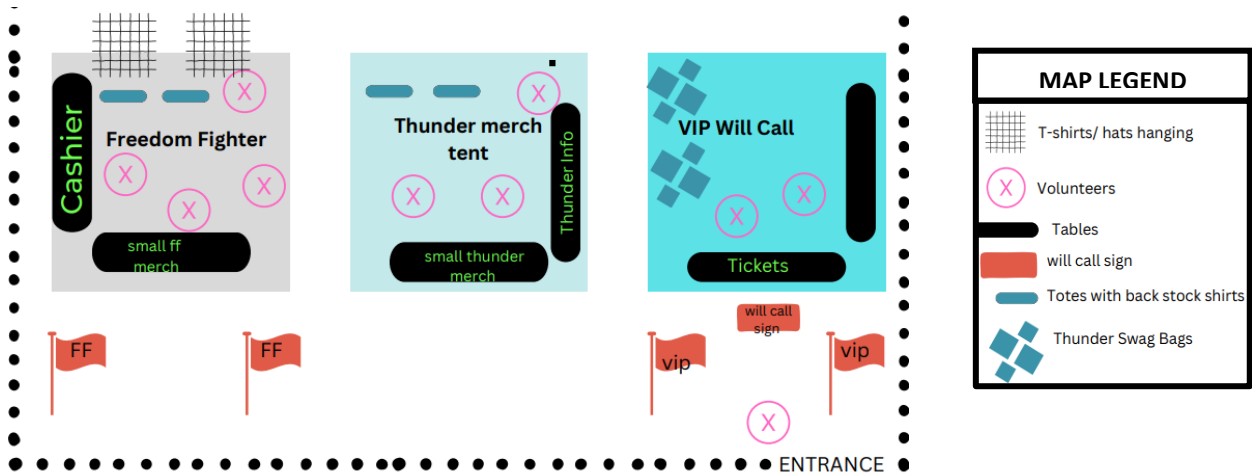
⇒ Know where the VIP Badge Pick Up master list is located and ensure it is up to date (with multiple locations we don't want someone picking up more than one badge!)

TENT SET UP MAP

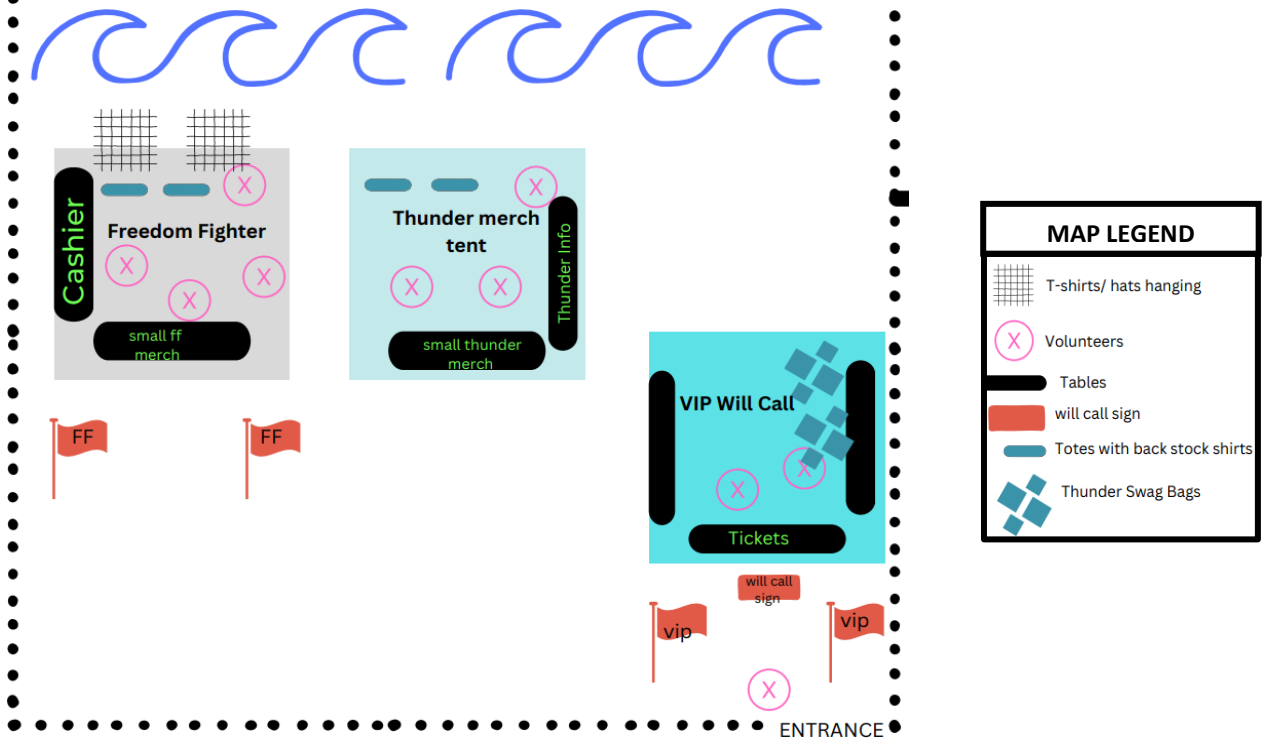
Most locations have all three (3) tents set up for all scheduled activities and at race locations. Note the placement of tents and flags for each day of the event. Tents include:

- Freedom Fighter merchandise tent
- Thunderboat merchandise tent
- VIP badge and wristband tent to pick up badges

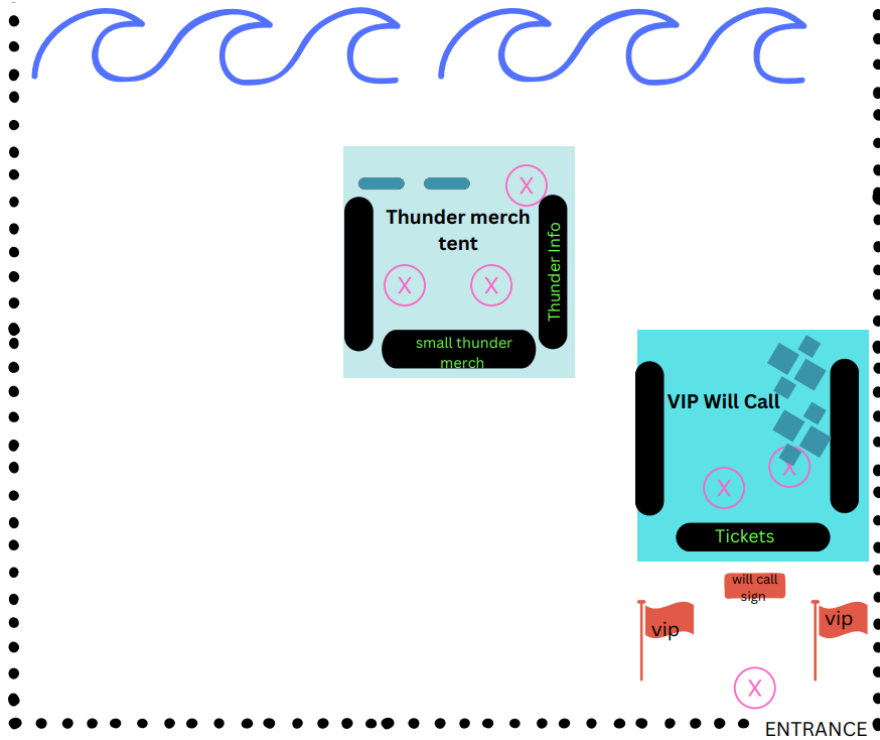
Thursday, Friday & Saturday Tent Set Up – Dry Pitts in Port Canaveral



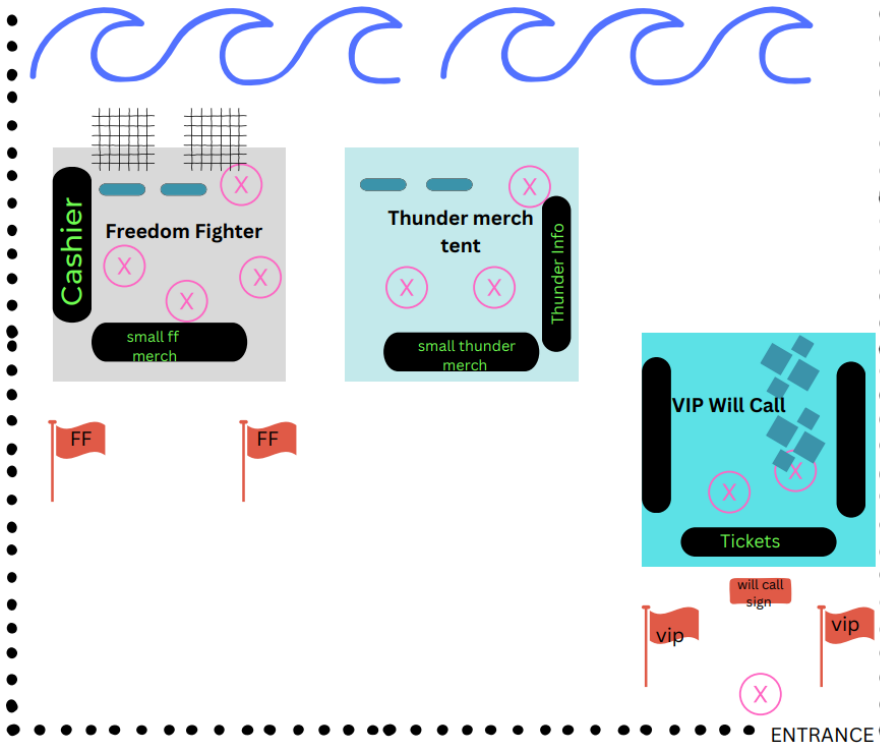
Saturday & Sunday Tent Set Up – Lori Wilson Park



Sunday ONLY Tent Set Up – Sandbar



Sunday ONLY Tent Set Up – Sandbar



RACE MAP

During the race days (Saturday and Sunday), the boats leave Port Canaveral and head down the coast of the Atlantic ocean to the "START" line.

The **START/FINISH** line is located directly across from Lori Wilson Park. Here a referee onboard a boat signals the start/finish of each race. Boats go south and turn at a buoy at Coconuts marking **TURN 1**. From there they go north along the coastline to a buoy at **TURN 2** near Sandbar and the Cocoa Beach Pier.

- ⇒ The **START/FINISH** line, **TURN 1**, and **TURN 2** are the best places to watch the boat race!
- ⇒ One lap is 7 miles (from Coconuts to the Pier is 3.5 miles)



COMMON RACE QUESTIONS

When does the Race Start and End?

An official start time begins when the bow of the boat crosses the start line. The boat is then scored based on GPS course accuracy, best adherence to speed (for their category), and fastest time to complete all laps without penalty. The race ends when all boats cross the finish line.

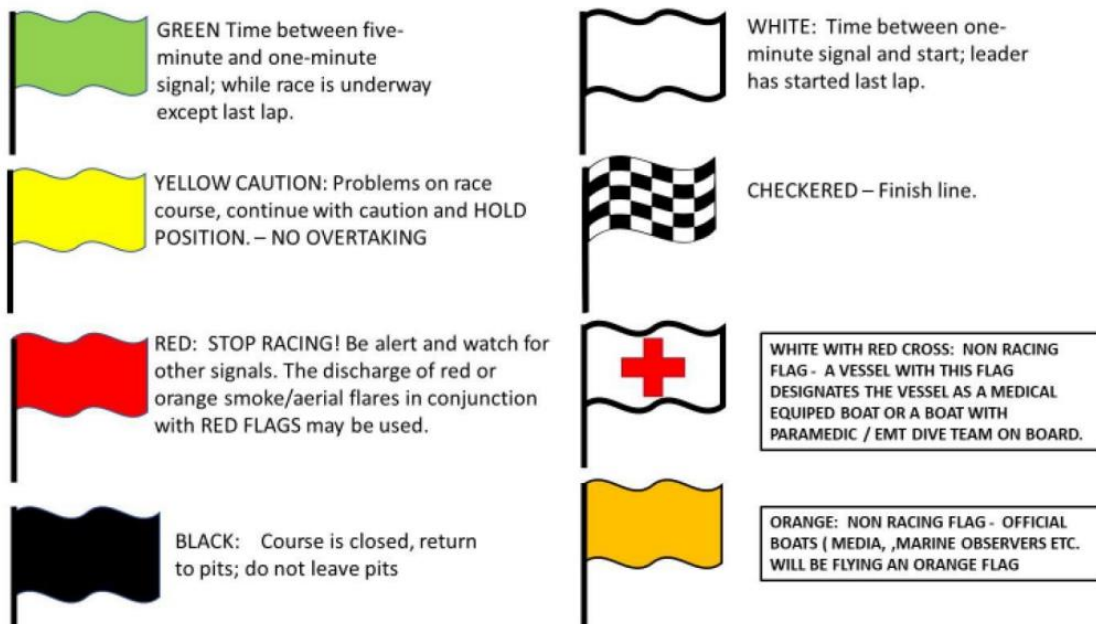
Who is Winning?

It is often difficult to tell who is winning the race. This is because several different “classes” of boats race at the same time. They appear to be racing against each other, however each class runs ONLY against others of its same class and the final scores are calculated once all the boats have raced over the course of the weekend event. In the P1 series, there are 6-7 races in the season. The boat (in its class) that has the highest score at end of season wins.

How does Scoring work?

Each turn has a race buoy and/or “Turn Boat” with Race Officials on board. They keep track of the racers and their performance. There is also a Start/Finish boat with officials on it. As each boat passes the “Turn Boat” and “Start/Finish” boat, the officials mark their sheets according to the rules. Boats must race according to a speed bracket. Any boat caught going more than 3mph over their speed bracket will be docked points or disqualified. GPS units are mandatory on each race boat and they give speed and course precision data to the race officials. At the end of the race, all times, speeds and path traveled are calculated to determine the winner for each boat class.

What do the Flags Mean?



What are the Different Classes of Boats, Speeds, & Who is Racing Who?

There are (15) fifteen boat classes that can be racing at one time. They are:

- **Class ONE:** The premier racing class, attracting race teams from all over the world. Class one is a catamaran class twin inboard 1100 mercury racing engines. Speeds can reach 150mph!
- **SUPER CAT:** Catamaran boats powered by twin 750 inboard engines. Boats are canopied and can be up to 42ft in length. This class is a fan favorite as they are not limited by speed.
- **SUPERSTOCK:** The most competitive class. Superstock is a Catamaran boat powered with twin 300hp outboard engines.
- **VX, PRO STK V, SVX:** V (or Vee) bottom boats. Boats in these classes are canopied with inboard engines. Each sub-category separated by boat length and engine size.
- **CLASS 1-7:** Each class is assigned as speed bracket. Class 7 (or 700) is considered an entry level class and must not break 60mph. Class 1 (or 100) may not break 100 mph.

CLASS	BOAT #	TYPE	LENGTH	TOP SPEED	ENGINE(S)
Unlimited	2-999	Canopy	40'-50'	Unlimited	Piston Power
ClassONE USA	2-99	Canopy	40'-50'	Unlimited	Twin 1100
Super Cat	2-99	Canopy	34' - 42'	Unlimited	Twin 750
Super Stock	S2-S999	Canopy	32' limit	Unlimited	Twin Stock Outboards
Vee Extreme	2-99	Canopy	35' - 46'	Unlimited	Twin (see Rule Book)
Super Vee Xtreme	2-99	Canopy	32' limit	Unlimited	Single (see Rule Book)
ProStock V	2-99	Canopy	30' limit	Unlimited	Single 525 EFI
Class 1	100-199	Canopy	50' limit	100 MPH*	Twin
Class 2	200-299	Cats/V-hull	42' limit	90 MPH*	Twin
Class 3	300-399	Cats / V-hull	42' /36'	95 MPH*	Twin
Class 4	400-499	V-hull	40' limit	85 MPH*	Single or Twin
Class 5	500-599	Open V-hull	30' limit	75 MPH*	Single
Class 6	600-699	V-hull	26' limit	70 MPH*	Single
Class 7	700-799	V-hull	20' - 22'	60 MPH*	Single Outboard (300HP limit)
P1 SuperStock	2-999	-----	28'	70+ MPH	Single Outboard



What is Bracket Class Racing?

Bracket class boats are class 100-700 and are the “bread and butter boats” in a boat race. Bracket classes are designed to provide an affordable race category for a variety of newer to older boats with different performance capabilities. (For example, it is easier and cheaper to take an older boat and put a more powerful engine on than build a costly supercat power boat).

Each bracket class has a top speed category. Each boat must have manual throttle and are fitted with a RaceLogic VBox. This onboard GPS unit tracks and sends every move the boat makes, where it made it and when it made it.

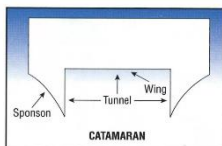
The rules for breaking out are simple. You’re allowed a three-second period over your maximum speed. Surpass it for four seconds and you’re disqualified.

A good Bracket throttleman will keep the boat as close to the allowed maximum as possible, banging the max speed number numerous times and hopefully never for more than three seconds. The winner will be the team that consistently found the fastest way around the course.

CLASS	TYPE	LENGTH	MAX SPEED
100	Cats / V-hull	36'-50' ft	100
200	Cats / V-hull	36'-42' ft	90
300	V-hull Cats	36'-42' ft 32'- 36' ft	95
400	V-hull only	27'-35' ft	85
500	Open V-hull	26'-30' ft	75
600	V-hull	22'-26' ft	70
700	V-hull	20'-22' ft	60



What is the Difference between a CAT and a V-HULL?



A V-hull is a mono-hull while a catamaran is two mono-hulls connected by supporting structure. The two hulls are called “sponsons” and the space between them is called the “tunnel”. The bottom of the supporting structure is the wing. Cats were designed to improve a boats lateral stability.



At low speeds, the cat provides a stable platform in the water like a person standing on two feet, versus one foot, like a V-hull.

As speed increases, a lifted or “planning” hull reduces drag from the water. A V-hull has to balance upright as the ‘wetted’ area narrows. When the wet area becomes very narrow, wind, water disturbance, and steering input can result in chine walking—a lateral instability where a V-hull rocks back and forth. As speeds increase, chine-walking amplitudes can increase to dangerous levels.

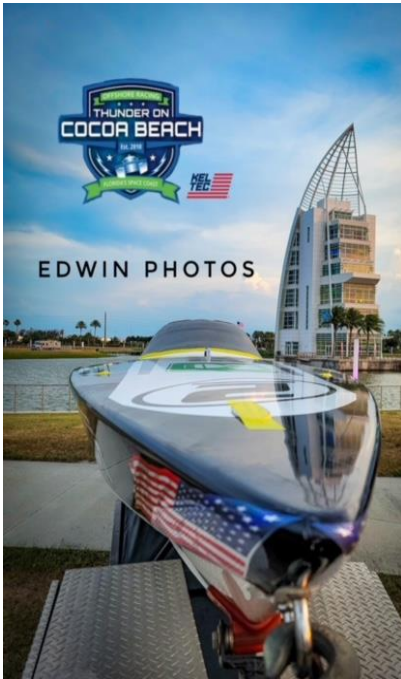
Deep-V boats provide a softer ride in rough water, but are more prone to this condition than flatter bottomed boats. The catamaran, with its wider stance, provides a solution to this problem. The cat’s sponsons can be sharpened along their keels to reduce slamming in rough water and increase stability.



As more powerful engines have been produced, speeds now increase to the point where aerodynamic forces become significant. The wing like supporting structure between the hulls of a cat can be shaped to provide aerodynamic lift. Since water is more than 800 times as dense as air, using a cat’s wing to generate lift, reduces water contact with the boat and improves lift to drag ratios significantly as compared to a V-hull. This makes cats stable/faster than V-hulls. Designing a cat properly to balance aerodynamic and hydrodynamic forces is not easy. If the center of an aerodynamic force is too far forward, a cat can blow over if the angle of attack is too great when launching off a wave. In addition, if insufficient aerodynamic lift is generated, waves can impact the wing (called tunnel slap), resulting in excessive slamming in rough conditions.

Early design deficiencies used to keep high-speed cats from running as fast as V-hulls in rough water. Today cats are the premier race boat. Thus the reason why it is extremely expensive to design and build a great cat, and thus, cheaper classes 1-7!

CONTACT INFO



VOLUNTEER DIRECTORS

- Jenny Pruett—321-795-4616
- Brienna Rommes—321-544-3321
- Faye Gallant—321-960-6144

RACE DIRECTORS

- Kerry Bartlett—321-863-5228
- Kevin Pruett—321-795-9500
- Rich Hensel—321-908-8089

WEBSITES

- www.thunderoncocoabeach.com
- www.iamafreedomfighter.org

A VERY BIG THANK YOU to all the coordinators, volunteers, set up crew, bartenders, events team, race teams, marketing, media, and so so so many more! Thunder on Cocoa Beach could not happen without YOU!

