



January 15, 2020

To: World Sailing Equipment Committee  
Fr: Jeffrey S. Johnstone, J/Boats, Inc.

Re: Mixed Keelboat Offshore Equipment Request for Information

We wish to thank the committee for the opportunity to provide information on potential designs that might be suitable for the upcoming qualification events for the 2024 Olympic Offshore Keelboat event. We support and applaud World Sailing's efforts to bring offshore sailing into the Olympics. This initiative will do more to increase the awareness and interest in Sailing as a sport and recreation than any sailing discipline before.

It will be no small task to identify and select equipment that will ultimately deliver on safety and durability while meeting performance standards befitting an Olympic class. Olympic competition in most sports (including sailing) requires that the highly trained athletes also have specific "body types" to fit the equipment or exact discipline. Mixed Keelboat Offshore changes all that. The challenge for designers and manufacturers will be to offer a high-performance platform that rewards agility, skill and endurance more than brute strength or a particular body size.

Three of our current designs (between 8 and 11 meters) are particularly well suited for mixed gender double-handed racing and would be suitable for qualification events. The J/88 and J/99 are in active production. The J/105 was produced between 1992 and 2015. Submitted with this letter please find a .pdf information file for each design.

Sincerely,

A handwritten signature in black ink, appearing to read 'J.S. Johnstone', written in a cursive style.

Jeffrey S. Johnstone  
President





## J/88 - Mixed Keelboat Offshore

The **J/88** (29', 8.9m), introduced in 2014, is a high performance, sloop-rigged monohull with fixed low VCG keel and carbon deck-stepped mast that can be single-point lifted and trailered. With 108 boats sailing in 17 countries on 5 continents, the J/88 has a well-established track record of success in offshore and inshore (one-design) racing. <https://www.jboats.com/j88>

The J/88 structure and composite laminates are engineered to ISO 12215 structural standards. The all-composite hull, deck and structural grid are infusion molded under vacuum bag for optimum strength to weight ratios. J/88s are built in France by J/Composites in Les Sables d'Olonne and in Rhode Island, USA by CCF Composites.

J/88 class racing allows 6 crew, but the boat can be sailed by 1-2. Unmodified J/88s have competed successfully in several offshore, short-handed events including the 2016 Single-handed Transpac Race and the 2018 Solo Challenge Mac Race (winner). The standard J/88 sail plan and deck layout are well set-up for double-handed sailing, so the current one-design configuration only requires minimal modification (mostly safety gear) to be suitable for offshore double-handing.

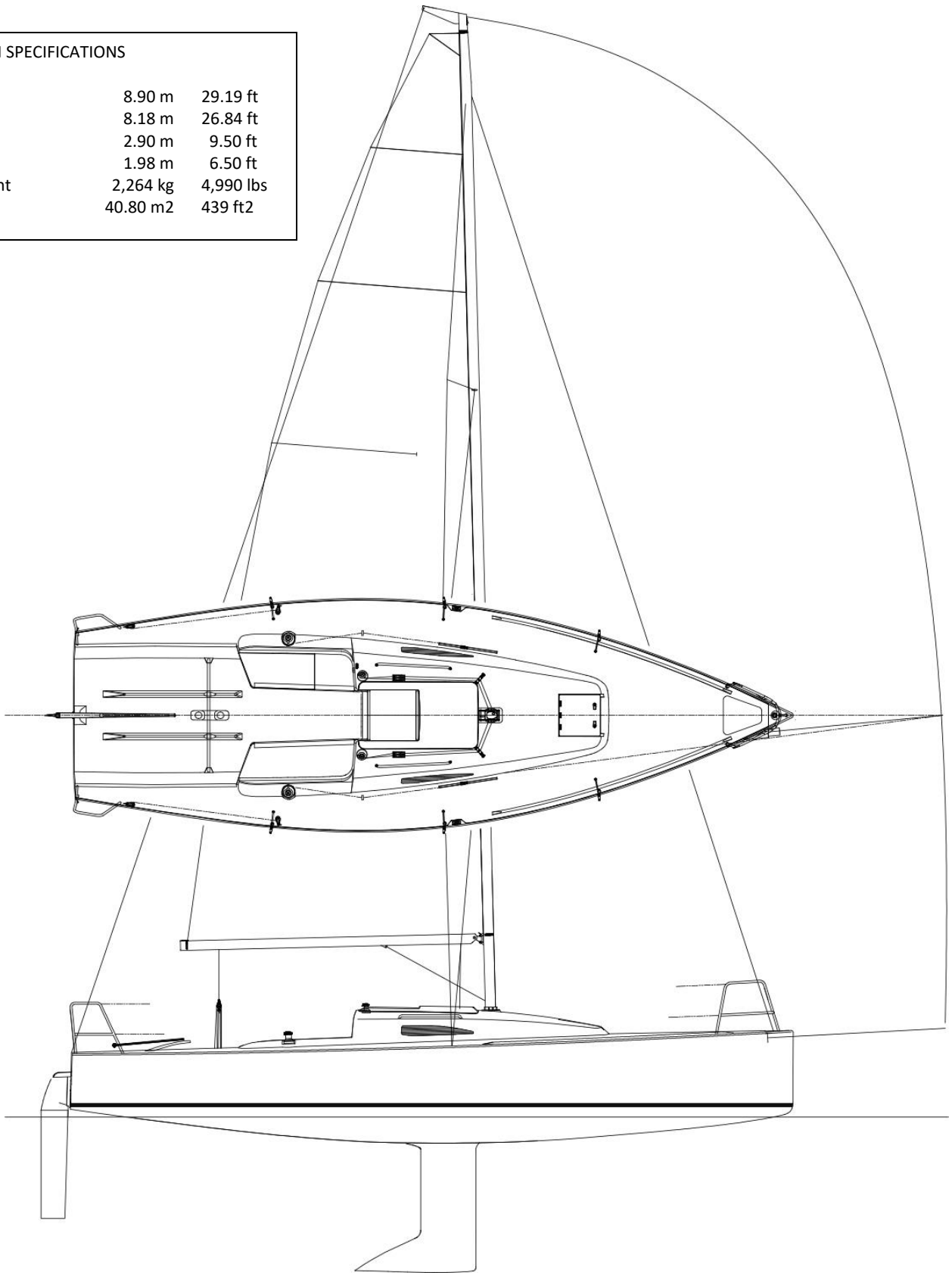
We believe the J/88 would be very suitable equipment for use in qualification events leading up to the 2024 Olympics.





#### J/88 DESIGN SPECIFICATIONS

LOA	8.90 m	29.19 ft
LWL	8.18 m	26.84 ft
Beam	2.90 m	9.50 ft
Draft	1.98 m	6.50 ft
Displacement	2,264 kg	4,990 lbs
100% SA	40.80 m <sup>2</sup>	439 ft <sup>2</sup>



The standard Class inventory is 5 sails including mainsail, AP #1 jib, #2 jib, A2 and A4 spinnakers. Most owners also carry Code 0's and HW jibs for distance racing.









## Distribution of Boats

There are 108 J/88s sailing in 17 countries on 5 continents. The majority of boats are located in North America and Europe. There are established one-design fleets in the USA in Long Island Sound, NY; Western Lake Ontario; Chicago, IL; and San Francisco, CA. In the UK, there is a fleet in the Solent.

## Class Association

The J/88 Class Association <https://j88class.org/> is professionally managed by the same team that manages the J/22, J/24, J/70 and J/111 classes. Annual North American, midwinter and fleet championships are held. For 2020, thanks to the support of J/88 Fleet #4 in Chicago, the J/88 has been selected by Chicago Yacht Club as the equipment for the US Qualifier for the Offshore World Championship.

## J/88 Results List 2016-2019

2016-10-08- J/88 North American Championship- Rye, NY- 7 boats  
2016-12-10- Hamble Winter Series- Hamble, England- J/88 Class- 6 boats  
2017-01-12- Fort Lauderdale- Key West Race- Fort Lauderdale, FL- 160.0nm- PHRF A Class- 4th  
2017-01-27- Key West Race Week- Key West, FL- J/88 Class- 7 boats  
2017-02-25- St Petersburg NOOD Regatta- St Petersburg, FL- ORC Class- 1st  
2017-03-11- St Maarten Heineken Regatta- Phillipsburg, St Maarten- CSA 5 Class- 2nd  
2017-03-17- Hobart Doublehanded Offshore Series- Hobart, Tasmania- 1st  
2017-03-23- Doublehanded Farallones Island Race- San Francisco, CA- PHRF 12 Class- 2nd  
2017-04-01- St Thomas International Regatta- St Thomas, USVI- CSA 2 Racing Class- 2nd  
2017-04-28- Charleston Race Week- Charleston, SC- J/88 Class- 5 boats  
2017-04-28- Warsash Spring Series- Warsash, England- J/88 Class- 6 boats  
2017-05-07- American YC Spring Series- Rye, NY- J/88 Class- 5 boats  
2017-05-15- Edlu Distance Race- Larchmont, NY- 35.0nm- J/88 class- 5 boats  
2017-06-01- COLORS Regatta- Chicago, IL- PHRF Offshore Class- 1st  
2017-06-01- Cedar Point One-Design Regatta- Cedar Point, CT- J/88 Class- 9 boats  
2017-06-15- Chicago NOOD Regatta- Chicago, IL- ORR Distance Class- 2nd, 3rd, 5th  
2017-06-25- Block Island Race Week- Block Island, RI- J/88 Class- 9 boats  
2017-07-01- Queens Cup Race- Milwaukee, WI- 110.0nm- PHRF 6 Class- 2nd, 3rd, 4th  
2017-07-08- Round Island Race- Cowes, UK- 60.0nm- J/88 Class- 9 boats  
2017-07-22- Chicago Mackinac Race- Chicago, IL- 289.0nm- ORR 8 Division- 1st, 2nd, 3rd  
2017-08-09- J/88 North American Championship- Youngstown, NY- 13 boats  
2017-08-09- Ugotta Regatta- Harbor Springs, MI- PHRF B Class- 5th  
2017-08-11- Cowes Race Week- Cowes, England- J/88 Class- 6 boats  
2017-08-22- Verve Cup Offshore Regatta- Chicago, IL- ORR 2 Class- 4th & 5th  
2017-09-05- Vineyard Seaflower Reef Race- Stamford, CT- 150.0nm- PHRF 4 Class- 2nd, 3rd, 4th  
2017-09-05- Chicago Bi-State Race- Chicago, IL- 55.0nm- PHRF 4 Class- 1st, 2nd, & 4th  
2017-09-05- Round the Island Race- Newport, RI- 23.0nm- PHRF G Class- 3rd  
2017-09-25- Rolex Big Boat Series- San Francisco, CA- PHRF Sportboat Class- 3rd & 5th  
2017-10-12- American YC Fall Series- Rye, NY- J/88 Class 6 boats  
2017-12-05- Hamble Winter Series- Hamble, England- J/88 Class- 5 boats  
2018-01-25- J/Fest St Petersburg Regatta- St. Petersburg, FL- J/88 Class- 6 boats  
2018-02-25- St Petersburg NOOD Regatta- St. Petersburg, FL- J/88 Class- 6 boats

2018-04-23- Charleston Race Week- Charleston, SC- J/88 Class- 7 boats  
2018-04-26- SSS Round the Rocks Race- 19.3nm- PHRF 6 Doublehanded Class- 2nd  
2018-04-30- Warsash Spring Series- Warsash, England- J/88 Class- 6 boats  
2018-05-15- American YC Spring Series- Rye, NY\_ J/88 Class- 7 boats  
2018-06-18- Chicago NOOD Regatta- Chicago, IL- J/88 Class- 7 boats  
2018-06-22- **Midsummer Solo Challenge**- Marstrand, Sweden- 123.0nm- 2nd Overall  
2018-07-05- **Mackinac Solo Challenge**- Chicago, IL- 289.0nm- 1st Class, 1st Overall  
2018-08-07- J/88 Great Lakes Championship- Youngstown, NY- 7 boats  
2018-08-10- Ugotta Regatta- Harbor Springs, MI- PHRF B Class- 3rd & 4th  
2018-08-21- J/88 North American Championship- Chicago, IL- 13 boats  
2018-09-24- Rolex Big Boat Series- San Francisco, CA- J/88 Class- 6 boats  
2018-09-26- Long Island Sound Championship- Riverside, CT- J/88 Class- 7 boats  
2018-10-12- American YC Fall Series- Rye, NY- J/88 Class- 7 boats  
2018-10-25- Annapolis Offshore Series- Annapolis, MD- 100.0nm- PHRF A2 Class- 1st  
2018-12-03- Hamble Winter Series- England- 15-25.0nm races- 9 total- J/88 Class- 5 boats  
2019-02-14- J/88 Midwinter Championship- St Petersburg, FL- 6 boats  
2019-02-26- St Petersburg NOOD Regatta- St Petersburg, FL- J/88 Class- 6 boats  
2019-04-05- **Doublehanded Farallones Race**- 58.0nm- PHRF 5 Class- 4th  
2019--4-22- Charleston Race Week- Charleston, SC- J/88 Class- 7 boats  
2019-05-05- Warsash Spring Series- Warsash, England- 11 races- J/88 Class- 6 boats  
2019-05-11- Royal New Zealand YC Offshore Series- Auckland, NZ- C Light Division- 1st  
2019-05-05- American YC Spring Series- Rye, NY- J/88 Class- 8 boats  
2019-05-15- Edlu Distance Race- Larchmont, NY- 35.0nm- PHRF 2 Class- 5th & 6th  
2019-06-05- Cedar Point One-Design Regatta- Cedar Point, CT- J/88 Class- 8 boats  
2019-06-05- Skyway COLORS Regatta- Chicago, IL- J/88 Class- 6 boats  
2019-06-11- Chicago NOOD Regatta- Chicago, IL- J/88 Class- 6 boats  
2019-06-08- Waukegan Race- Chicago, IL- 35.0nm- J/88 Class- 6 boats  
2019-07-09- Stratford Shoal Race- Riverside, CT- 65.0nm- PHRF 4 Class- 4th  
2019-06-25- Block Island Race Week- Block Island, RI- 15-35.0nm races- J/88 Class- 7 boats  
2019-07-11- Queens Cup Race- Milwaukee, WI- 110.0nm- PHRF 6 Class- 1st & 2nd  
2019-07-11- **Midsummer Solo Challenge**- Marstrand, Sweden- 123.0nm- 1st Mid-size Class  
2019-07-22- Chicago Mackinac Race- Chicago, IL- 289.0nm- ORR Section 8 Class- 3rd & 4th  
2019-09-06- Vineyard Seaflower Reef Race- Stamford, CT- 65.0nm- PHRF 5 Class- 1st  
2019-09-23- Rolex Big Boat Series- San Francisco - 15-30.0nm race- 7 total- J/88 class- 6 boats  
2019-10-17- Stratford Shoal Race- Greenwich, CT- 46.0nm- PHRF 3 Class- 2nd  
2019-10-25- J/88 North Americans- Larchmont, NY- 14 boats  
2019-11-25- Hamble Winter Series- England- 15-25.0nm races- 11 total- IRC 2 Class- 2nd  
2019-12-05- Wirth Munro Ocean Race- Palm Beach, FL- 60.0nm- PHRF 2 Class- 1st

## Testimonials

[This online video](#) documents two sailors sailing a J/88 for 865 miles from Hamble, UK to Gothenburg.

Excerpts of J/88 owner quotes from past events:

1. "The best part of racing at the Rolex Big Boat Series is the wildly varying conditions," said Gary Panariello, skipper of COURAGEOUS and the 2018 winner of a Rolex timepiece and the Richard Rheem Perpetual Trophy in San Francisco Bay. "Breeze on and more on, water flowing in every direction, heavy metal (ships) moving down through the middle of the race course and lots and lots of boats trying hard to get to the same spot. Driving the boat downwind in big breeze is super exciting."

2. Drew Hall's J/88 NEVERMORE said, "we had a scream in the IHYC Gearbuster on our J/88. We were 1st in PHRF 3 Class beating 49-foot boats and were 11th overall. We sailed very fast to Stratford Shoal and back. The wind was 8-14 knots with flat water. We were using a small flat Code 0 for 90% of the race with angles 45-75 AWA. Kerry Klingler from Quantum Sails designed the sail for us, my goodness it was quick! We wanted something to fill the gap when you are cracked off with the jib and not into the larger code sails. Worked like a charm! Especially when we could double-slot with our jib, too!"

3. J/88 HORNET owner Bill Walczak, said, "in the last four races, we got three 1sts and a 2nd. We had up to twenty-four boats racing in PHRF A2 class. HORNET stung them all! The J/88 is a really fun PHRF platform! Here is what happened in each race.

Annapolis to Oxford: we had 18-23 kts downwind for 16 miles then reach with 3 mile upwind, 30 miles. That race was a scream, nearly a full-on plane for most of the race!

AYC race to Oxford: it was light; we had 3-6 kts abeam and downwind. We were 4 miles ahead of 14 boats in class when the RC abandoned the race, such a bummer! We were 1/4 mile from the shortened finish! That was our first ultralight air race and were all surprised how well our J/88 HORNET performed.

AYC race to Solomons: it was another windy race. We had 20 kts plus for 40 miles downwind, then we reached across the bay to the Pax river and finished. We won by 5 seconds corrected for the Overall win and crushed our A2 Class.

We have been lucky with downwind planing conditions, but other planing boats have not kept pace with us.

Last year race to Oxford we had 17 miles upwind and struggled against the Navy 44s. However, once we turned the mark to reach off with a code zero, we simply took off and finished first by 6 seconds overall and won class. Very fun boat! Love it!"

4. Rich Stearns J/88 HOKEY SMOKES sailed 2018 Mackinac Solo Challenge- here is his story and quotes:

<https://jboatnews.blogspot.com/2018/07/j88-wins-mackinac-solo-challenge.html>

5. Race To Alaska- 800 nm- amazing story of sailing the J/88:

<https://jboatnews.blogspot.com/2018/07/j88-blue-flash-race-2-alaska-done.html>

6. J/88 HOKEY SMOKES- all-women crew story- Chicago NOOD Regatta:

<https://jboatnews.blogspot.com/2018/06/the-tale-of-stearns-all-women-crew-on.html>

7. Interview with J/88 ALBONDIGAS owner Al Minella:

<https://jboatnews.blogspot.com/2018/03/interview-with-j88-winner-al-minella.html>

8. Chicago NOOD Regatta quotes:

The J/88 Chicago fleet report contribution comes from Andy Graff on EXILE:

“Five J/88s raced at the Chicago NOODs, including Ben Wilson's RAMBLER, which took first place in a the 15-boat distance racing section. Three J/88s competed all three days in a 10-boat PHRF section for course racing. On Friday, J/88s EXILE and Tim Wade’s WINDSONG ended the day in the top two spots after two races in medium-light, shifty breeze. Saturday was a completely different story, with steady breeze building to 30 knots by the end of racing. At 29 feet, the J/88s were five feet shorter than anyone else in the fleet and lost a bit of ground upwind, but not so much as to fall out of contention. Tod Patton's BLONDIE 2 had the best boat speed uphill in the higher winds and improved their standing with a 4-4-3. EXILE was the only boat to fly a running kite in the last race and promptly broached a few times after the set in 27 knots. However, this proved to be worth the risk as EXILE still made large gains on the downwind despite the delay and ended the day with a 3-3-2. Sunday featured some match racing at the start between EXILE and the J/35 NOMATA, which entered the day with a two-point lead. NOMATA went on to win the regatta, while the J/88s EXILE, WINDSONG and BLONDIE 2 took 2nd, 3rd and 5th, respectively.”

Ben Wilson’s report about their adventures offshore on the J/88 RAMBLER indicated they had a scream racing in the EPIC sailing conditions on Saturday:

“RAMBLER had another fun day in big-breeze racing in the ORR 2 Section of the NOOD Distance Race. Conditions were nice for the Blue Course of roughly 32 miles in SSW breezes of 25-30 knots. Staying patient in the first 17 miles upwind, it came time for the 15-mile downwind leg bearing 349 degrees to the Wilson Intake Crib. RAMBLER followed the polar chart that had them hoisting the Doyle A3 Spinnaker. After popping the A3 kit, RAMBLER was sending it at 16.5 knots boat speed virtually the entire leg!! And like that, RAMBLER was gone!! Never saw anyone again!! Team RAMBLER MVP was 12 year old Danielle Ewing, a student at Columbia Yacht Club Sailing School- Danielle enjoyed the big breeze, the excitement of ripping along at 16 knots, and the experience of winning her first bullet in a J/88!”

# J/88 Specifications

---

## **Construction**

- J/88 hull & deck infusion molded with biaxial and unidirectional E-glass fabrics and balsa core in the hull for rugged durability and Corecell foam core in the deck for light weight. High density core material and additional glass reinforcements are placed in way of highly loaded hardware and components.
- Molded internal bulkheads and liners finished with gelcoat, bonded and/or tabbed to the hull and/or deck.
- White gelcoat hull with single boot stripe.
- 10 year transferable warranty against osmotic hull blistering, 5 year structural warranty.
- Infused GRP molded structural grid with longitudinal and transverse keel support beams.
- One large cockpit seat storage locker.
- Open transom for easy access with lightweight ORC transom safety ladder.
- High strength, inward turning and overlapping hull to deck joint bonded with structural adhesive.
- White gelcoat deck with molded non-skid on horizontal deck surfaces.
- Molded ISO/ORC height foredeck toe-rails on deck.
- Large self-draining cockpit with molded secure helmsman foot braces in cockpit.
- 6.5' draft low VCG keel with lead ballast featuring molded GRP finish.

## **Engine, Steering & Systems**

- 13hp, two cylinder Volvo D1-13 diesel engine with 115amp alternator and Saildrive SD-20 leg.
- Keyless start/stop engine panel and tachometer with alarms and engine hour counter.
- Geared 2-bladed bronze folding prop.
- Engine single throttle control with neutral safety switch.
- Waterlock muffler with exhaust run aft to transom.
- 10 gal fuel tank.
- High aspect transom mounted rudder with custom SS gudgeon hardware.
- Custom molded composite tiller in white gelcoat finish.
- Adjustable tiller extension with handle.
- Cockpit operated manual bilge pump operable from the helm position plumbed to transom fitting.

## **Electrical**

- One AGM 75amp battery (option for 2nd battery).
- 12V DC On/Off battery switch.
- 12V DC electrical distribution panel w/ 6 circuit breakers.
- LED navigation lights.
- UL approved stranded, tinned copper ABYC color-coded wiring.
- Bonding system to meet ABYC regulations.
- Two reading lights in main cabin, 1 in V-berth area.
- Automatic electric bilge pump and panel switch for manual operation.

## **Deck Hardware**

- Low maintenance stainless grab rails on cabin house (P&S).
- Companionway opening with PVC slider tracks, large gutter drains, molded seahood and sliding cover.
- Acrylic offshore removable drop board with inside/outside lockable hasp.
- SS custom fabricated chain plates for shrouds and headstay terminations.
- Foredeck skylight hatch mounted on cabin house forward of mast.
- Two fixed cabin side portlights.
- Two aluminum 2-speed 40:1 self-tailing primary winches in cockpit.
- Two aluminum 2-speed 30:1 self-tailing secondary winches on cabin top.
- Two winch handles.
- Cockpit operated Harken adjustable jib car and 4:1 in-hauler systems to P&S.
- 6:1 Mainsheet system leading to ratchet block and cam mounted on centerline swivel cam base aft of traveler.

- 18:1 mainsheet fine-tune adjuster mounted to swivel base cam forward of traveler.
- Adjustable mainsheet traveler with 4:1 control line and cam cleats P & S.
- 24:1 Double ended backstay adjuster purchase system leading forward to P & S cam cleats.
- Internal bowsprit launching system to exit aft face of the cabin house to cam cleat.
- Harken underdeck headsail furling system with black anodized foil and control line on cabinside mounted cam cleat.
- Spinnaker tack line side mounted rope clutch mounted to starboard on cabin side.
- Spinnaker sheet blocks outboard of primary winches on stanchion bases and aft at stern rail.
- Halyard lead blocks mounted at mast base, halyard organizers and double Antal Vcam rope clutches one per side.
- SS stanchions, two SS stern rails at transom corners and custom SS bow rail with 9.5" lower lifeline height.
- SS double lifelines.
- Foredeck and transom mooring cleats.

### **Spars & Rigging**

- Selden Spars carbon fiber mast with double swept spreaders, long masthead crane and mainsail luff track. Deck step design and SS tabernacle system. Mast finished in satin black with contrasting white bands.
- Boom with internal 8:1 outhaul, mainsheet attachment points, outhaul and single reef sheaves as well as provision for reef cleat and block at inboard end. Finished in satin black with contrasting white bands.
- Carbon bow sprit with tack ferrule fitting, painted black finish. Bow sprit seal system mounted between sprit bearings.
- 1 x 19 compacted strand wire headstay & side rigging with adjustable open-body turnbuckles, and DSK78 Ultra Wire backstay.
- Running rigging package including 1 main halyard, 1 jib halyard, 1 spinnaker halyard, 1 set of spinnaker sheets, 1 set of jib sheets, rough/fine tune mainsheet, tack line, backstay, traveler lines, Cunningham, reef line, in hauler and jib lead adjuster controls, and pole outhaul.

### **Interior**

- Molded main salon liner with full length settee berths, molded backrests, storage access bin in backrests and below cushions. Molded areas for sink (forward to port) and hinged utility counter (forward to starboard).
- Choice of fabrics for 3" standard main salon cushions.
- Synthetic high-wear cabin sole in main cabin with centerline access to bilge.
- Igloo Cooler.
- Fabricated companionway ladder with teak treads.
- Molded V-berth and hull support liner. (Option for V-berth platform & cushions)
- Head compartment with portable toilet and deck pump out fitting.
- Bin storage opposite head.
- Molded cockpit support liner surrounding engine and mechanicals with foam insulated engine area.
- Three engine access hatches.
- Low maintenance painted gelcoat finish on all interior hull & deck surfaces.
- Black anodized aluminum compression post to transfer mast loads to internal hull structure.
- Soft storage bags on hulls sides in main cabin.

### **Options**

- Opening ports on aft end of cabin facing the cockpit.
- Black Powder-coated stanchions & rails.
- Wide Opening lifeline gates (P&S).
- V-berth Package with platform, two cushions and one swiveling reading light.
- 110V Shore Power: 30amp shore power cord, deck receptacle, belowdecks breaker, Xantrex battery charger, AC panel, one 110v outlet, equipment leakage circuit interrupter (ELCI), galvanic isolator.
- Additional AGM battery.

**NOTICE: Specifications are subject to change prior to delivery due to deletions, additions or revisions in quantities, brand or design at the sole discretion of J/Boats, Inc. Newport, RI**



World Leader in Rating Technology

2016  
ORC Club  
Certificate

**Rating Office**  
US Sailing  
15 Maritime Dr  
Portsmouth, RI



**Certificate**

Number **US6103**  
Issued On **10/25/2016**  
ORC Ref **USA00000519**  
VPP Ver. **2016 1.01**  
Valid until **2/28/2017**

**Crew Weight**

Declared **528kg**  
Default\* **528kg**  
Non Manual Pwr **No**

**Special Scoring**

ToD ToT  
Non Spin GPH **663.2 0.9047**  
Non Spin OSN **643.5 0.9324**  
N/S Perf. Line **12.0 0.594**

**Sails Limitations**

Headsails **6** Spinnakers **3**

**Spinnaker configuration**

Symmetric: **No**  
Asymmetric: **Yes 94.98**  
Flying H/S: **No**  
Spin. Pole: **No**

**Class Division Length**

CDL = **8.563**

**Stability**

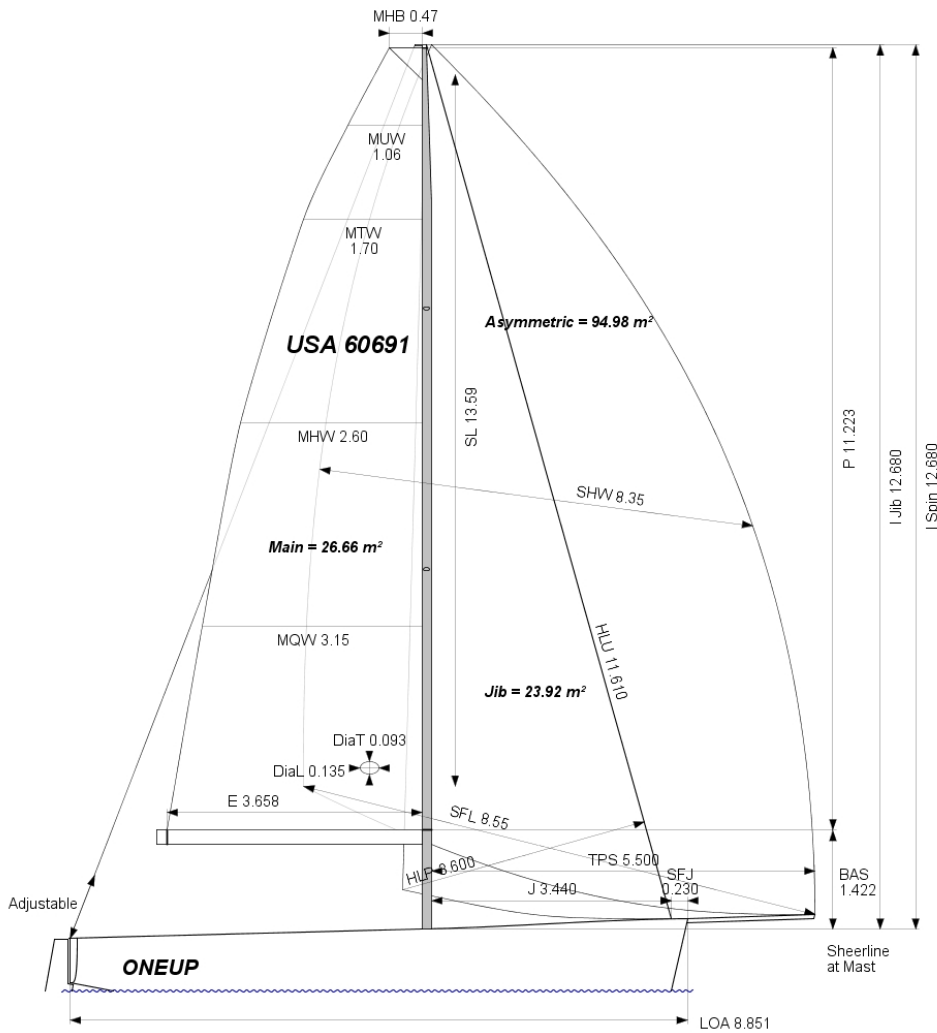
LPS (Estimated): **117.6°**  
Stability Index: **113.1**  
OSR Category: **N/A**

**Owner**

Bernard Blum  
1000 5th St. STE 200  
FLORIDA  
33139 Miami Beach United States

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature



<b>BOAT</b> Name <b>OneUP</b> Sail Nr <b>USA 60691</b>		<b>GPH</b> <b>621.4</b>	<b>HULL</b> Data File <b>US6103.dxt</b> LOA <b>8.851m</b> Offset File <b>US42432.OFF</b> MB <b>2.893m</b> Displacement <b>2,406kg</b> Draft <b>1.961m</b>		
<b>CLASS</b> Class <b>J-88</b> Designer <b>Johnstone</b> Builder <b>J Boats</b> Series <b>06/2013</b> Age Date <b>01/2014</b> Age Allowance <b>0.098%</b>		IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.056%</b> Fwd Accom. <b>Yes</b> Construction <b>Cored</b> Fiber Rigging <b>No</b> Aramid Core <b>No</b> Crew Arm Ex Carbon Rudder <b>No</b> Light Stanchions <b>No</b>			
<b>COMMENTS</b>		IMSL <b>8.542m</b> VCGD <b>-0.103m</b> Sink <b>12.63kg/mm</b> RL <b>8.581m</b> VCGM <b>-0.113m</b> WS <b>16.58m<sup>2</sup></b> LSM0 <b>8.307m</b> Displacement/Length ratio <b>4.1972</b>			
<b>PROPELLER</b> Installation <b>Strut</b> PRD <b>0.360</b> Type <b>Folding 2 blades</b> PBW <b>0.110</b> PIPA <b>0.0039</b>		<b>CENTERBOARD</b> N/A			
<b>SCORING OPTIONS</b>					
	<b>OFFSHORE</b> COASTAL / LONG DISTANCE		<b>INSHORE</b> WINDWARD / LEEWARD		
Time On Distance	<b>604.5</b>		<b>679.8</b>		
Time On Time	<b>0.9925</b>		<b>0.9929</b>		
Performance Line	PLT <b>0.698</b>	PLD <b>51.7</b>	PLT <b>0.994</b>	PLD <b>309.7</b>	
Triple Number	Low <b>0.9590</b>	Medium <b>1.2192</b>	High <b>1.3751</b>	Low <b>0.7436</b>	Medium <b>0.9915</b>
				High <b>1.1295</b>	



World Leader in Rating Technology

# 2016

## ORC Club Certificate Appendix

### BOAT

Name **OneUP** Certificate Number **US6103**  
 Sail Nr **USA 60691** Issued On **10/25/2016**

### TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1045.4</b>	<b>859.8</b>	<b>758.0</b>	<b>720.8</b>	<b>703.2</b>	<b>691.3</b>	<b>680.5</b>
52°	<b>686.6</b>	<b>575.2</b>	<b>533.2</b>	<b>518.6</b>	<b>511.1</b>	<b>506.7</b>	<b>495.3</b>
60°	<b>647.6</b>	<b>553.6</b>	<b>520.0</b>	<b>502.7</b>	<b>493.6</b>	<b>488.0</b>	<b>475.4</b>
75°	<b>616.9</b>	<b>539.2</b>	<b>508.1</b>	<b>482.2</b>	<b>463.7</b>	<b>454.6</b>	<b>446.7</b>
90°	<b>616.0</b>	<b>532.0</b>	<b>509.3</b>	<b>482.5</b>	<b>454.5</b>	<b>432.3</b>	<b>412.0</b>
110°	<b>607.4</b>	<b>524.7</b>	<b>485.8</b>	<b>462.8</b>	<b>443.8</b>	<b>425.2</b>	<b>393.8</b>
120°	<b>625.2</b>	<b>531.9</b>	<b>491.1</b>	<b>450.3</b>	<b>425.0</b>	<b>405.5</b>	<b>369.8</b>
135°	<b>704.6</b>	<b>568.1</b>	<b>514.5</b>	<b>476.8</b>	<b>437.4</b>	<b>397.5</b>	<b>333.1</b>
150°	<b>832.2</b>	<b>662.4</b>	<b>564.8</b>	<b>520.2</b>	<b>493.4</b>	<b>461.2</b>	<b>388.2</b>
Run VMG	<b>961.0</b>	<b>764.9</b>	<b>652.1</b>	<b>599.4</b>	<b>561.0</b>	<b>524.3</b>	<b>448.3</b>

### Selected Courses

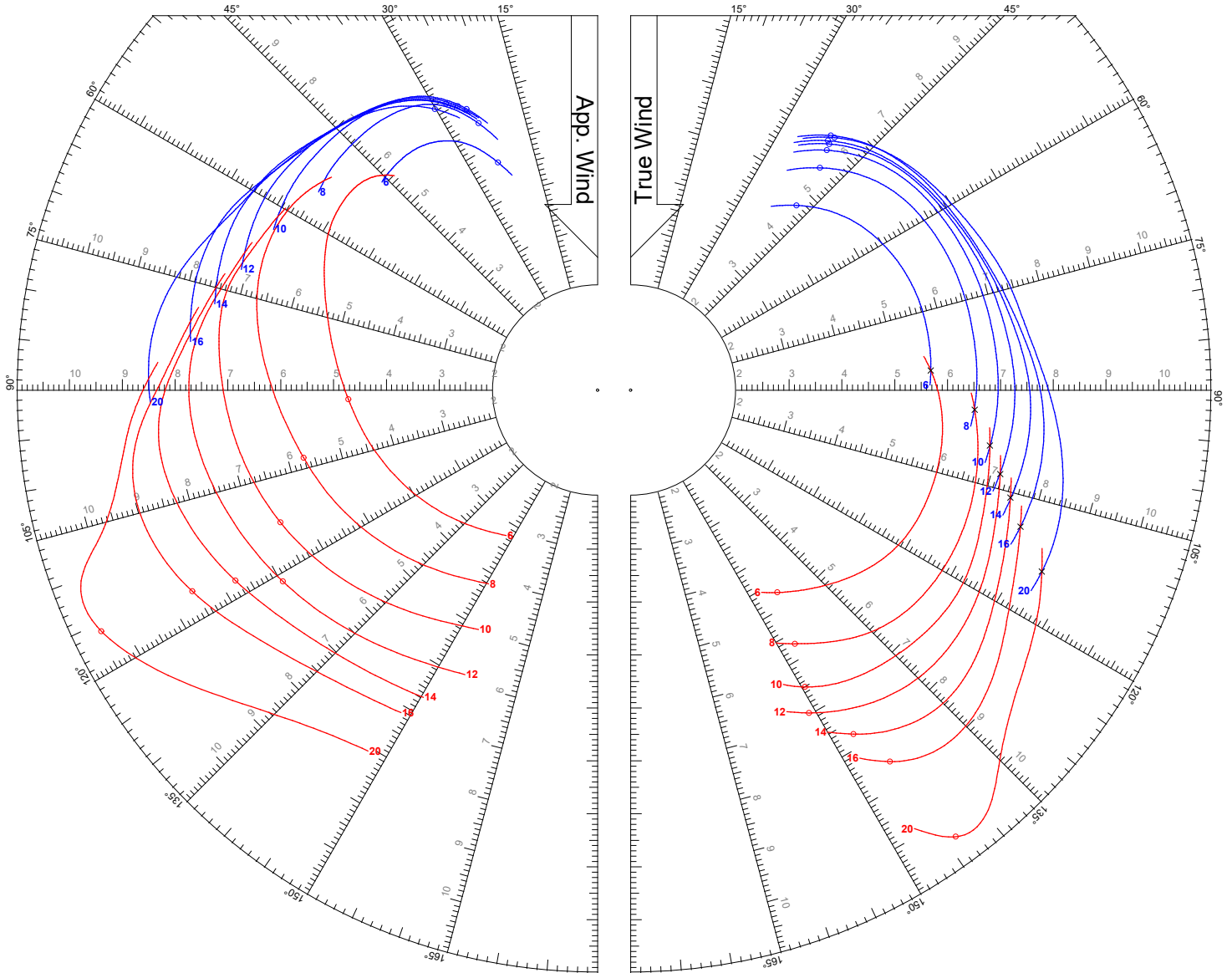
Windward / Leeward	<b>1003.2</b>	<b>812.4</b>	<b>705.1</b>	<b>660.1</b>	<b>632.1</b>	<b>607.8</b>	<b>564.4</b>
Circular Random	<b>848.8</b>	<b>688.5</b>	<b>603.6</b>	<b>554.3</b>	<b>522.9</b>	<b>500.2</b>	<b>466.0</b>
Ocean for PCS	<b>1037.6</b>	<b>805.1</b>	<b>675.1</b>	<b>595.7</b>	<b>543.0</b>	<b>504.1</b>	<b>445.3</b>
Non Spinnaker	<b>925.7</b>	<b>742.3</b>	<b>642.8</b>	<b>584.1</b>	<b>546.9</b>	<b>521.5</b>	<b>486.5</b>

### Velocity Prediction in Knots for True Wind Speeds

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>42.5°</b>	<b>41.3°</b>	<b>39.1°</b>	<b>37.2°</b>	<b>36.4°</b>	<b>35.7°</b>	<b>35.7°</b>
Beat VMG	<b>3.44</b>	<b>4.19</b>	<b>4.75</b>	<b>4.99</b>	<b>5.12</b>	<b>5.21</b>	<b>5.29</b>
52°	<b>5.24</b>	<b>6.26</b>	<b>6.75</b>	<b>6.94</b>	<b>7.04</b>	<b>7.10</b>	<b>7.27</b>
60°	<b>5.56</b>	<b>6.50</b>	<b>6.92</b>	<b>7.16</b>	<b>7.29</b>	<b>7.38</b>	<b>7.57</b>
75°	<b>5.84</b>	<b>6.68</b>	<b>7.09</b>	<b>7.47</b>	<b>7.76</b>	<b>7.92</b>	<b>8.06</b>
90°	<b>5.84</b>	<b>6.77</b>	<b>7.07</b>	<b>7.46</b>	<b>7.92</b>	<b>8.33</b>	<b>8.74</b>
110°	<b>5.93</b>	<b>6.86</b>	<b>7.41</b>	<b>7.78</b>	<b>8.11</b>	<b>8.47</b>	<b>9.14</b>
120°	<b>5.76</b>	<b>6.77</b>	<b>7.33</b>	<b>7.99</b>	<b>8.47</b>	<b>8.88</b>	<b>9.74</b>
135°	<b>5.11</b>	<b>6.34</b>	<b>7.00</b>	<b>7.55</b>	<b>8.23</b>	<b>9.06</b>	<b>10.81</b>
150°	<b>4.33</b>	<b>5.43</b>	<b>6.37</b>	<b>6.92</b>	<b>7.30</b>	<b>7.81</b>	<b>9.27</b>
Run VMG	<b>3.75</b>	<b>4.71</b>	<b>5.52</b>	<b>6.01</b>	<b>6.42</b>	<b>6.87</b>	<b>8.03</b>
Gybe Angles	<b>144.4°</b>	<b>147.6°</b>	<b>149.1°</b>	<b>151.3°</b>	<b>175.2°</b>	<b>177.2°</b>	<b>139.3°</b>



# Speed Guide



### Polar Plot for Boat

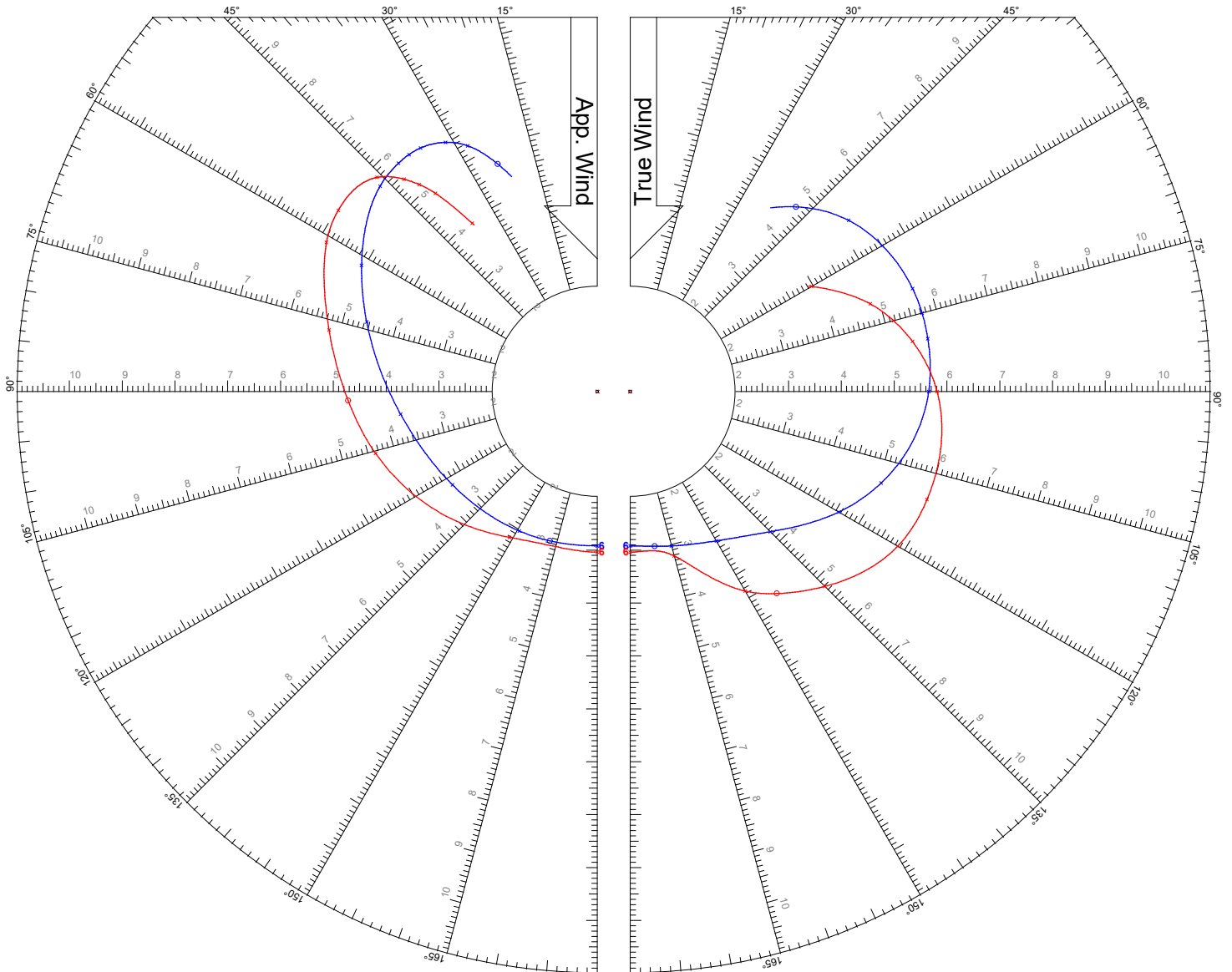
Name **J/88**  
Sail Number **One Design**  
Class **J/88 Class**  
Designer **Rodney S Johnstone**  
Builder **CCFC**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 6, 8, 10, 12, 14, 16, 20 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

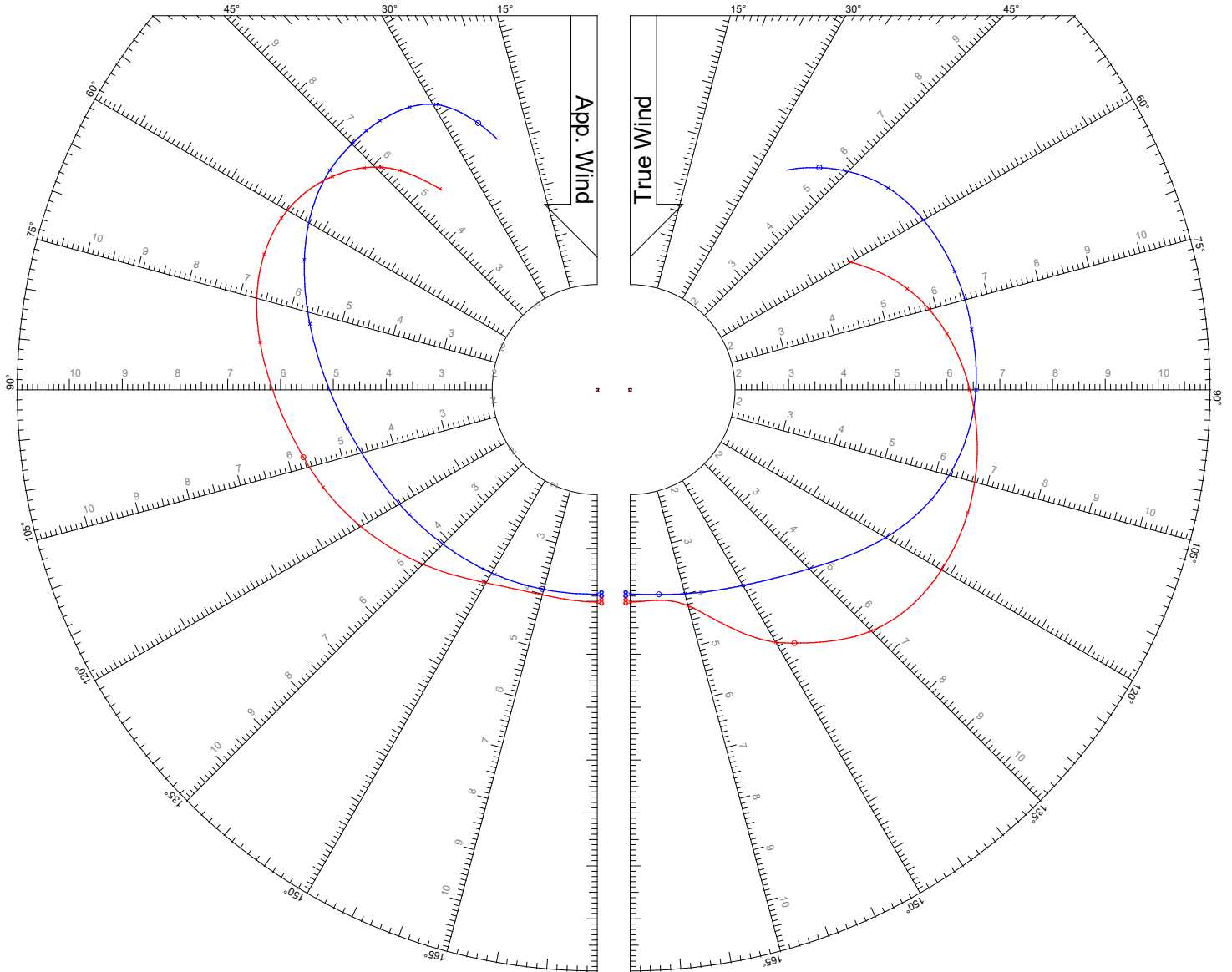
Name **J/88**  
Sail Number **One Design**  
Class **J/88 Class**  
Designer **Rodney S Johnstone**  
Builder **CCFC**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 6 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



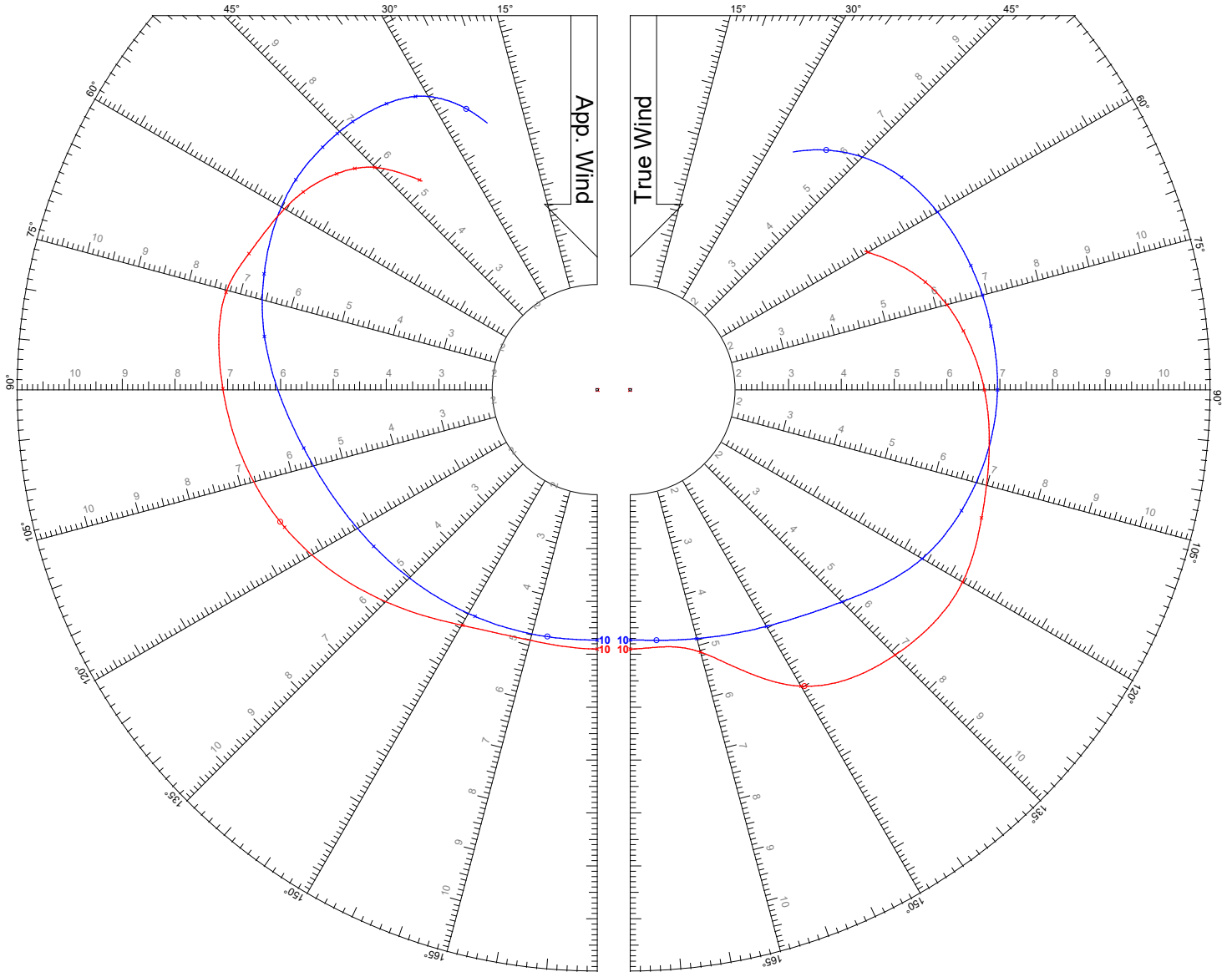
Polar Plot for Boat	
Name	J/88
Sail Number	One Design
Class	J/88 Class
Designer	Rodney S Johnstone
Builder	CCFC
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 8 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

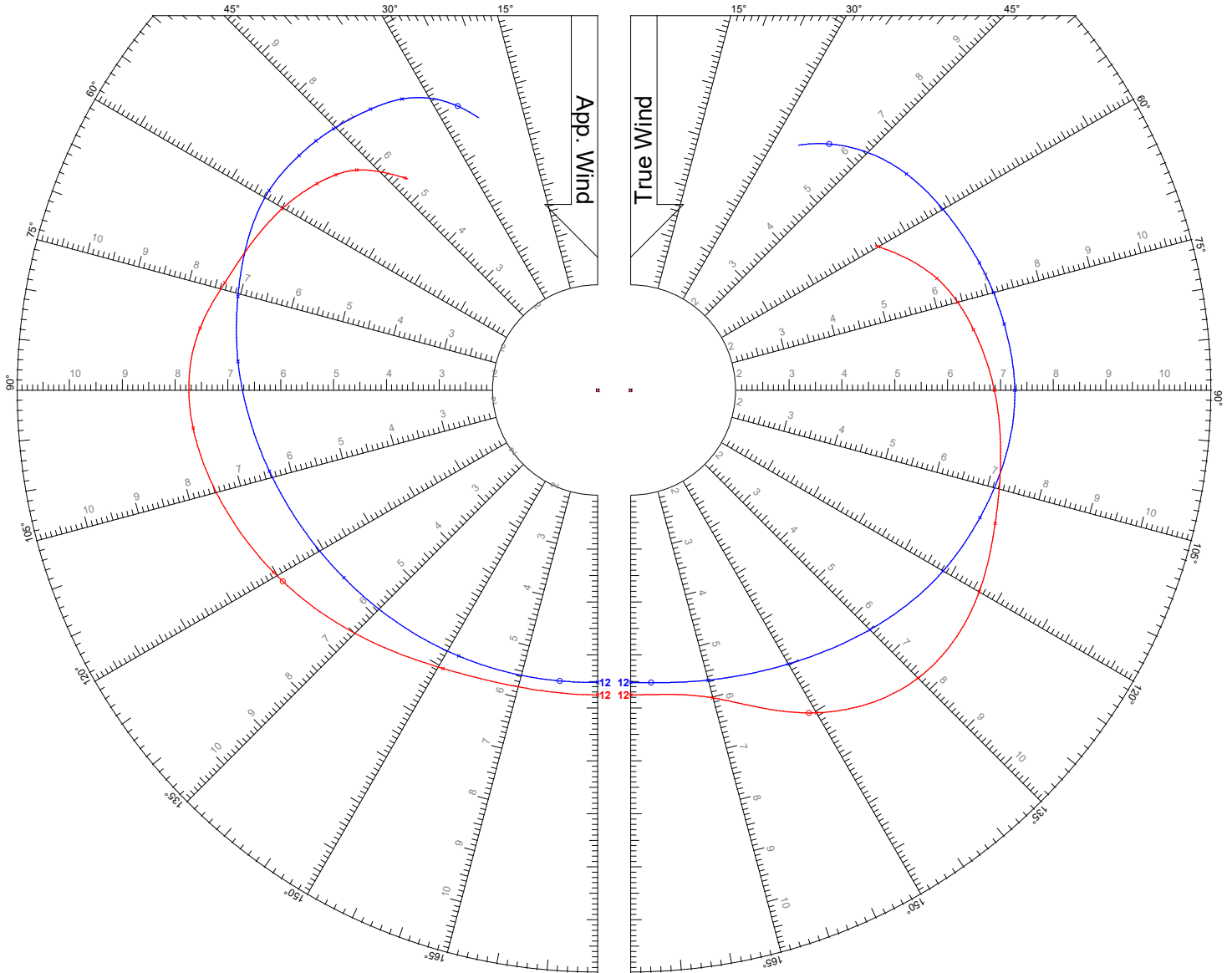
Name **J/88**  
Sail Number **One Design**  
Class **J/88 Class**  
Designer **Rodney S Johnstone**  
Builder **CCFC**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 10 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

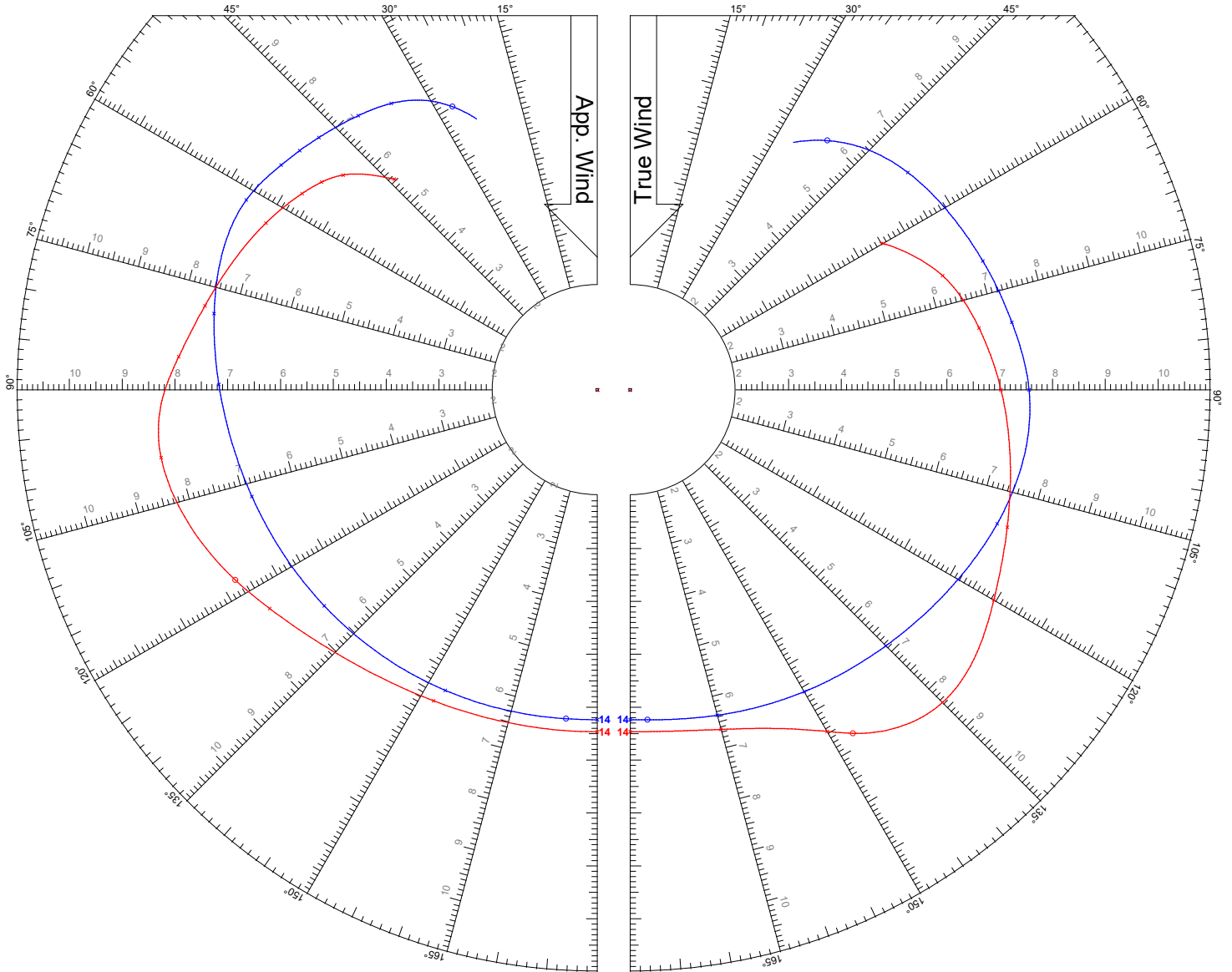
Name **J/88**  
Sail Number **One Design**  
Class **J/88 Class**  
Designer **Rodney S Johnstone**  
Builder **CCFC**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 12 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



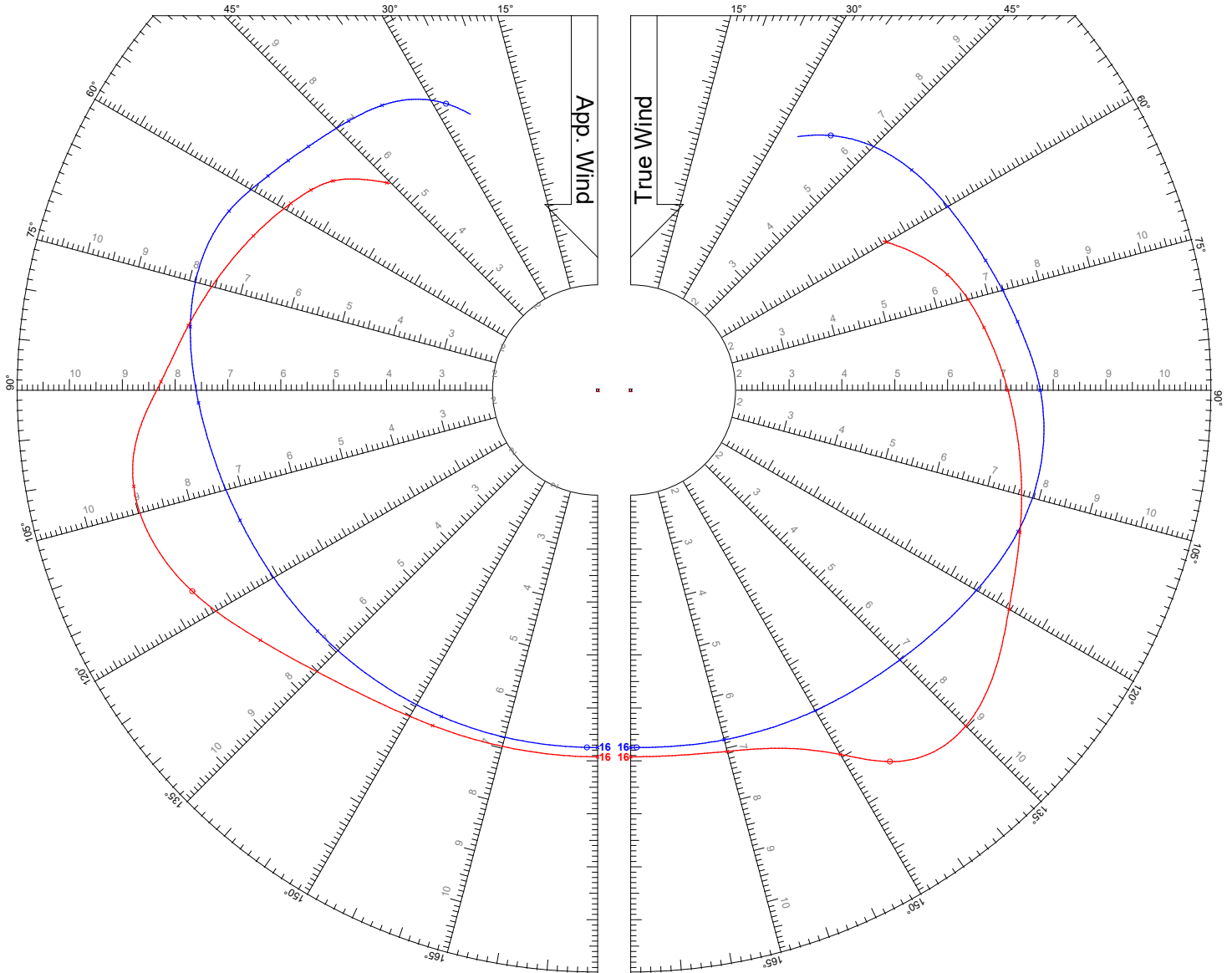
Polar Plot for Boat	
Name	J/88
Sail Number	One Design
Class	J/88 Class
Designer	Rodney S Johnstone
Builder	CCFC
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 14 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



## Polar Plot for Boat

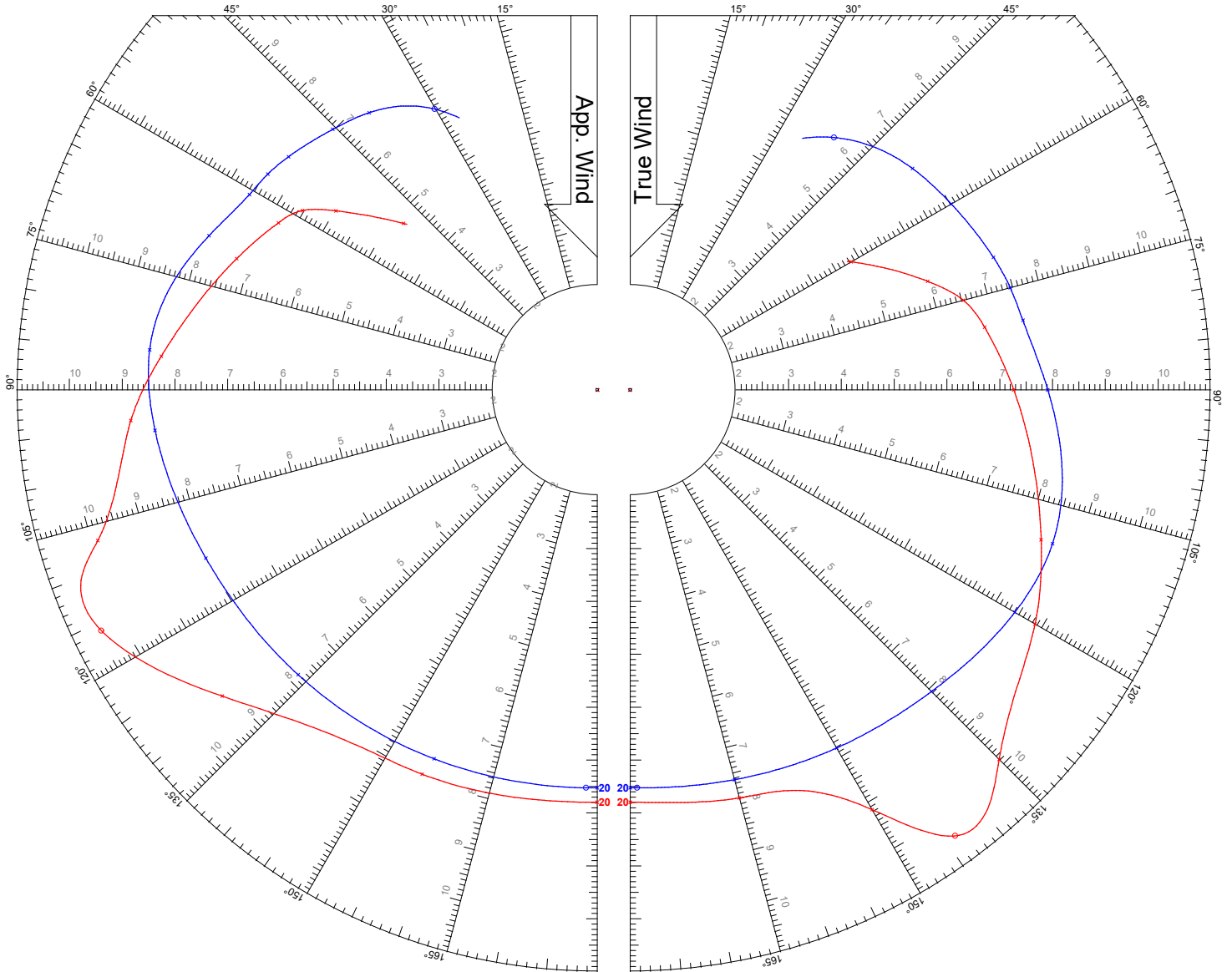
Name **J/88**  
Sail Number **One Design**  
Class **J/88 Class**  
Designer **Rodney S Johnstone**  
Builder **CCFC**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 16 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



Polar Plot for Boat	
Name	J/88
Sail Number	One Design
Class	J/88 Class
Designer	Rodney S Johnstone
Builder	CCFC
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 20 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**





Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

### Polar Tables

Boat Name: **J/88**

Sail No: **One Design**

Sail: **Best Performance**

Issued On: **1/13/2020 - VPP 2020 1.00**

### TWS = 6 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.0° (b)	4.69	3.49	9.99	23.7°	10.6°	1.00	1.00
52°	5.25	3.23	10.12	27.9°	11.0°	1.00	1.00
60°	5.51	2.76	9.97	31.4°	10.4°	1.00	1.00
70°	5.69	1.95	9.58	36.1°	9.0°	1.00	1.00
75°	5.72	1.48	9.30	38.5°	8.2°	1.00	1.00
80°	5.73	0.99	8.98	41.1°	7.2°	1.00	1.00
90°	5.81	0.00	8.35	45.9°	19.0°	1.00	0.95
110°	5.98	2.05	6.87	55.1°	13.0°	1.00	0.98
120°	5.85	2.93	5.93	61.2°	9.0°	1.00	1.00
135°	5.21	3.69	4.35	77.1°	1.7°	1.00	1.00
150°	4.36	3.77	3.11	105.6°	4.2°	1.00	1.00
165°	3.22	3.11	3.01	148.9°	4.5°	1.00	1.00
180°	3.04	3.04	2.96	180.0°	3.9°	1.00	1.00
144.0° (r)	4.72	3.82	3.53	92.1°	0.1°	1.00	1.00

### TWS = 8 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	5.52	4.20	12.71	24.1°	20.4°	1.00	0.97
52°	6.20	3.82	12.79	29.5°	21.8°	1.00	1.00
60°	6.42	3.21	12.51	33.6°	20.2°	1.00	1.00
70°	6.54	2.24	11.94	39.0°	17.3°	1.00	1.00
75°	6.57	1.70	11.59	41.8°	15.6°	1.00	1.00
80°	6.57	1.14	11.20	44.7°	13.9°	1.00	1.00
90°	6.55	0.00	10.34	50.7°	10.3°	1.00	1.00
110°	6.80	2.33	8.55	61.6°	22.1°	1.00	0.93
120°	6.81	3.40	7.48	67.9°	17.4°	1.00	1.00
135°	6.45	4.56	5.71	82.0°	5.7°	1.00	1.00
150°	5.51	4.77	4.24	109.5°	4.7°	1.00	1.00
165°	4.23	4.08	4.07	149.4°	5.0°	1.00	1.00
180°	4.01	4.01	3.99	180.0°	3.9°	1.00	1.00
147.0° (r)	5.71	4.79	4.47	102.9°	0.0°	1.00	1.00

### TWS = 10 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.4° (b)	5.86	4.53	15.00	25.0°	26.7°	1.00	0.86
52°	6.53	4.02	14.93	31.9°	28.7°	1.00	0.91
60°	6.72	3.36	14.57	36.5°	27.8°	1.00	0.95
70°	6.86	2.35	13.93	42.4°	24.8°	1.00	0.98
75°	6.91	1.79	13.55	45.5°	23.6°	1.00	1.00
80°	6.94	1.20	13.12	48.6°	21.0°	1.00	1.00
90°	6.96	0.00	12.18	55.2°	15.6°	1.00	1.00
110°	7.08	2.42	10.09	68.7°	22.2°	0.93	0.84
120°	7.27	3.64	8.95	75.3°	22.0°	1.00	0.94
135°	7.09	5.02	7.07	89.8°	9.4°	1.00	1.00
150°	6.47	5.60	5.46	113.7°	1.6°	1.00	1.00
165°	5.13	4.96	5.21	150.2°	5.8°	1.00	1.00
180°	4.90	4.90	5.10	180.0°	4.2°	1.00	1.00
149.5° (r)	6.50	5.60	5.50	112.6°	2.7°	1.00	1.00

### TWS = 12 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	5.98	4.65	17.07	26.3°	28.2°	1.00	0.72
52°	6.63	4.08	16.91	34.0°	30.0°	1.00	0.77
60°	6.83	3.41	16.51	39.0°	30.3°	1.00	0.82
70°	7.03	2.40	15.84	45.4°	30.6°	1.00	0.91
75°	7.11	1.84	15.45	48.6°	29.4°	1.00	0.94
80°	7.18	1.25	15.02	51.9°	26.9°	1.00	0.96
90°	7.27	0.00	14.03	58.8°	21.7°	1.00	1.00
110°	7.35	2.51	11.73	74.0°	22.2°	0.85	0.85
120°	7.62	3.81	10.52	81.2°	22.2°	0.93	0.92
135°	7.69	5.44	8.52	95.3°	13.8°	1.00	1.00
150°	7.04	6.09	6.88	119.2°	2.9°	1.00	1.00
165°	6.02	5.81	6.38	150.9°	6.6°	1.00	1.00
180°	5.75	5.75	6.25	180.0°	4.2°	1.00	1.00
151.0° (r)	6.97	6.10	6.80	121.2°	2.5°	1.00	1.00

### TWS = 14 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.4° (b)	6.01	4.71	19.08	27.1°	25.5°	0.84	0.60
52°	6.67	4.11	18.86	35.8°	30.2°	1.00	0.65
60°	6.88	3.44	18.43	41.1°	31.2°	1.00	0.70
70°	7.11	2.43	17.74	47.9°	31.2°	1.00	0.78
75°	7.23	1.87	17.34	51.3°	31.3°	1.00	0.83
80°	7.34	1.27	16.90	54.7°	31.4°	1.00	0.89
90°	7.56	0.00	15.91	61.6°	27.0°	1.00	0.97
110°	7.60	2.60	13.45	77.9°	22.2°	0.79	0.85
120°	7.95	3.98	12.16	85.5°	22.1°	0.85	0.93
135°	8.36	5.91	10.02	98.8°	19.3°	1.00	1.00
150°	7.46	6.46	8.41	123.7°	3.1°	1.00	1.00
165°	6.65	6.42	7.77	152.2°	7.8°	1.00	1.00
180°	6.46	6.46	7.54	180.0°	4.1°	1.00	1.00
147.0° (r)	7.74	6.49	8.61	117.7°	5.4°	1.00	1.00

### TWS = 16 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.3° (b)	6.12	4.81	21.15	27.9°	27.1°	0.50	0.60
52°	6.75	4.16	20.85	37.2°	26.8°	0.60	0.60
60°	6.93	3.47	20.37	42.9°	27.0°	0.76	0.60
70°	7.15	2.45	19.63	50.0°	31.7°	1.00	0.67
75°	7.29	1.89	19.22	53.5°	32.4°	1.00	0.73
80°	7.44	1.29	18.78	57.0°	32.2°	1.00	0.78
90°	7.76	0.00	17.78	64.1°	31.8°	1.00	0.93
110°	7.84	2.68	15.22	81.0°	22.1°	0.72	0.88
120°	8.27	4.13	13.86	88.9°	22.1°	0.80	0.93
135°	8.97	6.34	11.55	101.7°	22.1°	1.00	0.95
150°	7.94	6.88	9.95	126.5°	5.1°	1.00	1.00
165°	7.06	6.82	9.36	153.7°	5.7°	1.00	1.00
180°	6.92	6.92	9.08	180.0°	3.8°	1.00	1.00
145.0° (r)	8.56	7.01	10.24	116.3°	10.2°	1.00	1.00

### TWS = 20 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	6.13	4.77	25.07	30.1°	27.5°	0.42	0.60
52°	6.79	4.18	24.76	39.5°	29.0°	0.44	0.60
60°	7.02	3.51	24.28	45.5°	29.8°	0.46	0.60
70°	7.32	2.50	23.53	53.0°	30.6°	0.50	0.60
75°	7.45	1.93	23.08	56.8°	27.5°	0.50	0.60
80°	7.55	1.31	22.57	60.8°	27.1°	0.67	0.60
90°	7.91	0.00	21.51	68.4°	34.0°	1.00	0.74
110°	8.51	2.91	18.87	84.9°	28.3°	1.00	1.00
120°	8.86	4.43	17.36	93.8°	22.2°	0.70	0.93
135°	9.88	6.99	14.77	106.8°	22.1°	0.88	0.94
150°	9.16	7.94	12.90	129.2°	11.0°	1.00	1.00
165°	7.99	7.72	12.46	155.4°	7.1°	1.00	1.00
180°	7.80	7.80	12.20	180.0°	4.0°	1.00	1.00
143.9° (r)	10.44	8.43	13.10	115.8°	21.0°	1.00	1.00



Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

Polar Tables	
Boat Name: <b>J/88</b>	
Sail No: <b>One Design</b>	
Sail: <b>Jib</b>	
Issued On: <b>1/13/2020 - VPP 2020 1.00</b>	

TWS = 6 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.0° (b)	4.69	3.49	9.63	22.7°	10.6°	1.00	1.00
52°	5.25	3.23	9.76	26.6°	11.0°	1.00	1.00
60°	5.51	2.76	9.63	30.0°	10.4°	1.00	1.00
70°	5.69	1.95	9.25	34.5°	9.0°	1.00	1.00
75°	5.72	1.48	8.99	36.9°	8.2°	1.00	1.00
80°	5.73	0.99	8.69	39.5°	7.2°	1.00	1.00
90°	5.65	0.00	7.98	44.9°	5.0°	1.00	1.00
110°	5.06	1.73	6.17	59.6°	0.6°	1.00	1.00
120°	4.56	2.28	5.21	70.7°	0.0°	1.00	1.00
135°	3.75	2.65	4.05	94.0°	0.1°	1.00	1.00
150°	3.26	2.82	3.29	120.5°	4.8°	1.00	1.00
165°	3.02	2.92	2.86	149.2°	4.4°	1.00	1.00
180°	2.92	2.92	2.75	180.0°	4.1°	1.00	1.00
171.0° (r)	2.96	2.93	2.78	161.5°	4.2°	1.00	1.00

TWS = 8 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	5.52	4.20	12.10	22.1°	20.4°	1.00	0.97
52°	6.20	3.82	12.11	26.9°	21.8°	1.00	1.00
60°	6.42	3.21	11.84	30.9°	20.2°	1.00	1.00
70°	6.54	2.24	11.33	36.5°	17.3°	1.00	1.00
75°	6.57	1.70	11.01	39.4°	15.6°	1.00	1.00
80°	6.57	1.14	10.66	42.4°	13.9°	1.00	1.00
90°	6.55	0.00	9.89	48.5°	10.3°	1.00	1.00
110°	6.07	2.08	7.90	63.9°	3.1°	1.00	1.00
120°	5.59	2.79	6.81	74.7°	0.5°	1.00	1.00
135°	4.79	3.39	5.41	96.3°	0.0°	1.00	1.00
150°	4.27	3.70	4.43	121.4°	5.5°	1.00	1.00
165°	3.99	3.86	3.85	149.5°	4.8°	1.00	1.00
180°	3.86	3.86	3.70	180.0°	4.2°	1.00	1.00
172.0° (r)	3.91	3.87	3.73	163.7°	4.5°	1.00	1.00

TWS = 10 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.4° (b)	5.86	4.53	14.05	22.0°	26.7°	1.00	0.86
52°	6.53	4.02	13.81	27.7°	28.7°	1.00	0.91
60°	6.72	3.36	13.41	32.0°	27.8°	1.00	0.95
70°	6.86	2.35	12.81	38.3°	24.8°	1.00	0.98
75°	6.91	1.79	12.46	41.5°	23.6°	1.00	1.00
80°	6.94	1.20	12.13	45.1°	21.0°	1.00	1.00
90°	6.96	0.00	11.41	52.4°	15.6°	1.00	1.00
110°	6.68	2.28	9.49	68.7°	5.9°	1.00	1.00
120°	6.38	3.19	8.37	78.7°	2.5°	1.00	1.00
135°	5.67	4.01	6.81	98.9°	0.0°	1.00	1.00
150°	5.16	4.47	5.62	122.9°	6.4°	1.00	1.00
165°	4.87	4.70	4.91	150.2°	5.3°	1.00	1.00
180°	4.73	4.73	4.73	180.0°	4.3°	1.00	1.00
174.0° (r)	4.76	4.74	4.74	168.0°	4.6°	1.00	1.00

TWS = 12 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	5.98	4.65	15.83	22.8°	28.2°	1.00	0.72
52°	6.63	4.08	15.42	29.3°	30.0°	1.00	0.77
60°	6.83	3.41	14.89	33.8°	30.3°	1.00	0.82
70°	7.03	2.40	14.06	39.7°	30.6°	1.00	0.91
75°	7.11	1.84	13.69	43.1°	29.4°	1.00	0.94
80°	7.18	1.25	13.39	47.1°	26.9°	1.00	0.96
90°	7.27	0.00	12.72	55.1°	21.7°	1.00	1.00
110°	7.04	2.41	11.00	73.3°	8.8°	1.00	1.00
120°	6.83	3.42	9.90	83.4°	4.7°	1.00	1.00
135°	6.40	4.52	8.20	101.8°	6.1°	1.00	1.00
150°	5.97	5.17	6.85	124.5°	7.5°	1.00	1.00
165°	5.67	5.48	6.04	151.1°	5.9°	1.00	1.00
180°	5.52	5.52	5.83	180.0°	4.5°	1.00	1.00
176.0° (r)	5.54	5.52	5.83	172.2°	4.8°	1.00	1.00

TWS = 14 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.4° (b)	6.01	4.71	17.62	24.1°	25.5°	0.84	0.60
52°	6.67	4.11	17.03	31.0°	30.2°	1.00	0.65
60°	6.88	3.44	16.38	35.6°	31.2°	1.00	0.70
70°	7.11	2.43	15.50	42.0°	31.2°	1.00	0.78
75°	7.23	1.87	15.01	45.2°	31.3°	1.00	0.83
80°	7.34	1.27	14.50	48.6°	31.4°	1.00	0.89
90°	7.56	0.00	13.86	57.0°	27.0°	1.00	0.97
110°	7.40	2.53	12.47	76.7°	12.6°	1.00	1.00
120°	7.17	3.58	11.42	87.4°	7.5°	1.00	1.00
135°	6.85	4.84	9.74	105.3°	3.7°	1.00	1.00
150°	6.59	5.71	8.19	126.8°	8.5°	1.00	1.00
165°	6.37	6.15	7.26	152.1°	6.6°	1.00	1.00
180°	6.24	6.24	7.00	180.0°	4.7°	1.00	1.00
177.0° (r)	6.25	6.24	7.00	174.3°	5.0°	1.00	1.00

TWS = 16 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.3° (b)	6.12	4.81	19.25	24.5°	27.1°	0.50	0.60
52°	6.75	4.16	18.75	33.1°	26.8°	0.60	0.60
60°	6.93	3.47	18.17	38.4°	27.0°	0.76	0.60
70°	7.15	2.45	16.91	44.0°	31.7°	1.00	0.67
75°	7.29	1.89	16.34	47.2°	32.4°	1.00	0.73
80°	7.44	1.29	15.82	50.8°	32.2°	1.00	0.78
90°	7.76	0.00	14.78	58.4°	31.8°	1.00	0.93
110°	7.80	2.67	13.81	79.0°	17.2°	1.00	1.00
120°	7.56	3.78	12.90	90.1°	11.0°	1.00	1.00
135°	7.20	5.09	11.27	108.4°	6.0°	1.00	1.00
150°	6.99	6.05	9.70	129.3°	7.9°	1.00	1.00
165°	6.84	6.60	8.69	153.4°	7.1°	1.00	1.00
180°	6.75	6.75	8.38	180.0°	5.0°	1.00	1.00
179.0° (r)	6.75	6.75	8.38	178.2°	5.1°	1.00	1.00

TWS = 20 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	6.13	4.77	22.35	26.5°	27.5°	0.42	0.60
52°	6.79	4.18	21.65	34.7°	29.0°	0.44	0.60
60°	7.02	3.51	20.92	40.1°	29.8°	0.46	0.60
70°	7.32	2.50	19.89	47.3°	30.6°	0.50	0.60
75°	7.45	1.93	19.72	52.0°	27.5°	0.50	0.60
80°	7.55	1.31	19.27	56.2°	27.1°	0.67	0.60
90°	7.91	0.00	17.18	62.6°	34.0°	1.00	0.74
110°	8.51	2.91	15.62	82.2°	28.3°	1.00	1.00
120°	8.41	4.21	15.38	93.8°	20.2°	1.00	1.00
135°	8.07	5.71	14.12	112.2°	12.9°	1.00	1.00
150°	7.82	6.77	12.73	132.4°	7.0°	1.00	1.00
165°	7.63	7.37	11.68	155.5°	7.2°	1.00	1.00
180°	7.52	7.52	11.38	180.0°	5.3°	1.00	1.00
179.0° (r)	7.53	7.53	11.39	178.3°	2.6°	1.00	1.00



Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

### Polar Tables

Boat Name: **J/88**

Sail No: **One Design**

Sail: **Asymmetric Spinnaker on CL**

Issued On: **1/13/2020 - VPP 2020 1.00**

### TWS = 6 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	3.97	1.98	8.44	35.6°	11.4°	1.00	0.95
70°	4.84	1.65	8.58	37.5°	15.6°	1.00	0.94
75°	5.16	1.34	8.52	38.6°	17.4°	1.00	0.94
80°	5.43	0.94	8.38	39.9°	18.7°	1.00	0.94
90°	5.81	0.00	7.96	43.1°	19.0°	1.00	0.95
110°	5.98	2.05	6.64	52.9°	13.0°	1.00	0.98
120°	5.85	2.93	5.78	59.3°	9.0°	1.00	1.00
135°	5.21	3.69	4.29	75.7°	1.7°	1.00	1.00
150°	4.36	3.77	3.01	103.9°	4.2°	1.00	1.00
165°	3.22	3.11	2.84	148.0°	4.5°	1.00	1.00
180°	3.04	3.04	2.77	180.0°	3.9°	1.00	1.00
144.0° (r)	4.72	3.82	3.45	90.5°	0.1°	1.00	1.00

### TWS = 8 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	4.83	2.41	10.60	35.3°	22.2°	0.97	0.93
70°	5.59	1.91	10.50	38.8°	22.6°	0.92	0.87
75°	5.87	1.52	10.35	40.8°	22.6°	0.92	0.83
80°	6.09	1.06	10.13	43.0°	22.6°	0.92	0.82
90°	6.43	0.00	9.53	47.5°	22.5°	0.94	0.83
110°	6.80	2.33	7.87	57.9°	22.1°	1.00	0.93
120°	6.81	3.40	7.01	65.0°	17.4°	1.00	1.00
135°	6.45	4.56	5.55	80.1°	5.7°	1.00	1.00
150°	5.51	4.77	4.10	107.9°	4.7°	1.00	1.00
165°	4.23	4.08	3.84	148.6°	5.0°	1.00	1.00
180°	4.01	4.01	3.74	180.0°	3.9°	1.00	1.00
147.0° (r)	5.71	4.79	4.35	101.3°	0.0°	1.00	1.00

### TWS = 10 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.20	2.60	12.42	37.2°	22.4°	0.82	0.92
70°	5.95	2.04	12.23	41.6°	22.7°	0.80	0.84
75°	6.21	1.61	12.01	44.0°	22.6°	0.80	0.82
80°	6.41	1.11	11.72	46.7°	22.4°	0.81	0.82
90°	6.71	0.00	10.98	52.3°	22.4°	0.83	0.82
110°	7.08	2.42	9.12	65.2°	22.2°	0.93	0.84
120°	7.27	3.64	8.08	72.1°	22.0°	1.00	0.94
135°	7.09	5.02	6.73	87.7°	9.4°	1.00	1.00
150°	6.47	5.60	5.25	112.0°	1.6°	1.00	1.00
165°	5.13	4.96	4.93	149.5°	5.8°	1.00	1.00
180°	4.90	4.90	4.79	180.0°	4.2°	1.00	1.00
149.5° (r)	6.50	5.60	5.28	110.9°	2.7°	1.00	1.00

### TWS = 12 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.42	2.71	14.12	39.0°	22.7°	0.72	0.92
70°	6.17	2.11	13.87	44.0°	22.6°	0.72	0.83
75°	6.41	1.66	13.59	46.9°	22.5°	0.72	0.82
80°	6.59	1.14	13.24	49.9°	22.4°	0.73	0.82
90°	6.89	0.00	12.42	56.3°	22.3°	0.75	0.81
110°	7.35	2.51	10.44	70.5°	22.2°	0.85	0.85
120°	7.62	3.81	9.34	78.2°	22.2°	0.93	0.92
135°	7.69	5.44	7.94	93.4°	13.8°	1.00	1.00
150°	7.04	6.09	6.50	117.3°	2.9°	1.00	1.00
165°	6.02	5.81	5.94	150.0°	6.6°	1.00	1.00
180°	5.75	5.75	5.80	180.0°	4.2°	1.00	1.00
151.0° (r)	6.97	6.10	6.43	119.3°	2.5°	1.00	1.00

### TWS = 14 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.54	2.77	15.76	40.6°	22.6°	0.66	0.88
70°	6.30	2.15	15.44	46.2°	22.6°	0.66	0.82
75°	6.53	1.69	15.12	49.3°	22.6°	0.66	0.82
80°	6.71	1.17	14.74	52.6°	22.4°	0.66	0.82
90°	7.02	0.00	13.86	59.5°	22.3°	0.68	0.82
110°	7.60	2.60	11.81	74.7°	22.2°	0.79	0.85
120°	7.95	3.98	10.67	82.7°	22.1°	0.85	0.93
135°	8.36	5.91	9.03	97.2°	19.3°	1.00	1.00
150°	7.46	6.46	7.95	122.1°	3.1°	1.00	1.00
165°	6.65	6.42	7.24	151.5°	7.8°	1.00	1.00
180°	6.46	6.46	7.00	180.0°	4.1°	1.00	1.00
147.0° (r)	7.74	6.49	8.14	116.0°	5.4°	1.00	1.00

### TWS = 16 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.59	2.80	17.35	42.1°	22.8°	0.61	0.86
70°	6.38	2.18	16.98	48.0°	22.6°	0.60	0.83
75°	6.61	1.71	16.64	51.4°	22.5°	0.60	0.82
80°	6.80	1.18	16.23	54.9°	22.4°	0.61	0.82
90°	7.14	0.00	15.31	62.2°	22.3°	0.63	0.83
110°	7.84	2.68	13.21	77.9°	22.1°	0.72	0.88
120°	8.27	4.13	12.04	86.3°	22.1°	0.80	0.93
135°	8.97	6.34	10.20	100.5°	22.1°	1.00	0.95
150°	7.94	6.88	9.39	125.2°	5.1°	1.00	1.00
165°	7.06	6.82	8.76	153.1°	5.7°	1.00	1.00
180°	6.92	6.92	8.46	180.0°	3.8°	1.00	1.00
145.0° (r)	8.56	7.01	9.59	115.0°	10.2°	1.00	1.00

### TWS = 20 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	4.83	2.42	20.54	47.3°	16.8°	0.58	0.52
70°	6.00	2.05	20.32	53.0°	18.2°	0.58	0.52
75°	6.53	1.69	19.86	55.6°	20.9°	0.58	0.58
80°	6.82	1.18	19.22	58.8°	22.9°	0.58	0.64
90°	7.27	0.00	18.24	66.5°	22.7°	0.58	0.72
110°	8.28	2.83	16.02	82.7°	22.2°	0.62	0.93
120°	8.86	4.43	14.82	91.5°	22.2°	0.70	0.93
135°	9.88	6.99	12.85	105.7°	22.1°	0.88	0.94
150°	9.16	7.94	12.05	128.4°	11.0°	1.00	1.00
165°	7.99	7.72	11.69	155.0°	7.1°	1.00	1.00
180°	7.80	7.80	11.44	180.0°	4.0°	1.00	1.00
143.9° (r)	10.44	8.43	11.67	115.5°	21.0°	1.00	1.00



## J/99 - Mixed Keelboat Offshore

The **J/99** (32.6', 9.9m) is a purpose-built offshore speedster designed for double-handing but can also accommodate a normal racing crew. First launched in December 2018, there are already 40 J/99s sailing in 13 countries on 3 continents and the order book is out to hull #62. Nearly all of the J/99s are customer-owned and not factory/dealer stock.

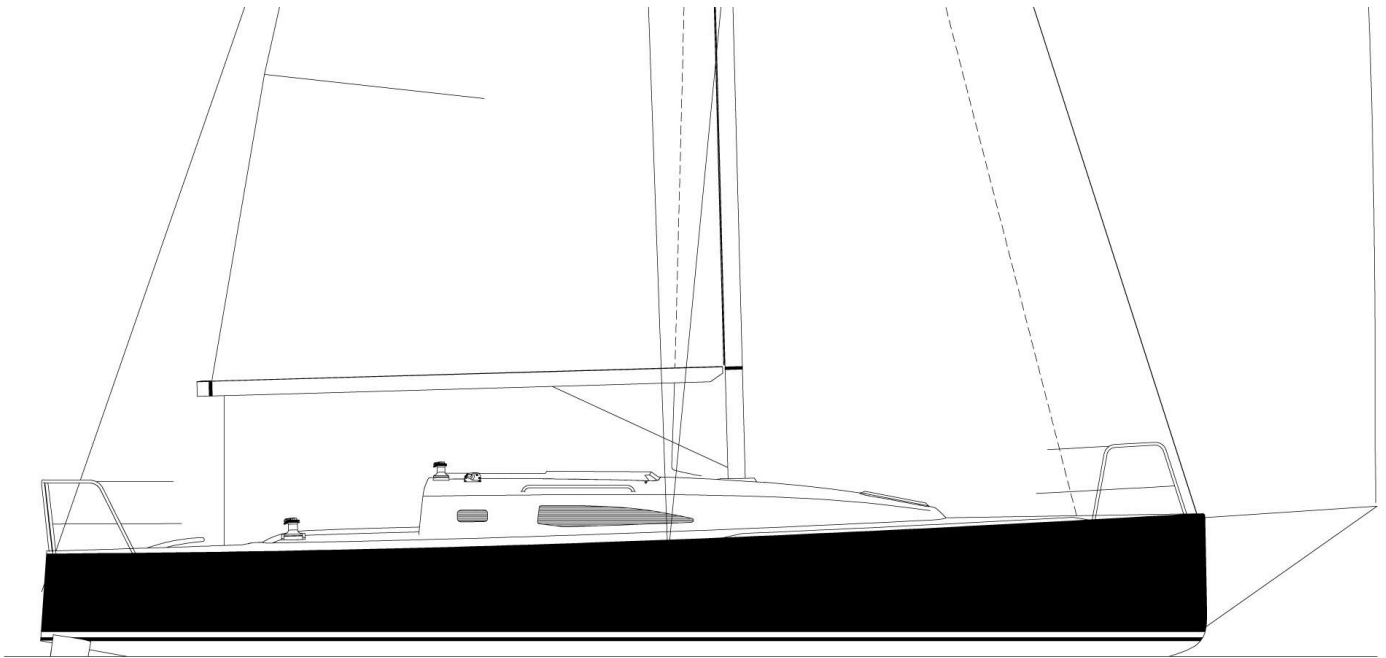
<https://www.jboats.com/j99>

The J/99 is optimized for short-handed distance sailing where straight-line speed, sail handling, strategy and weather routing are all equally put to the test. The versatile sail plan, balanced hull form and efficient cockpit also make the J/99 well suited for all-around sailing, opening up the market to a much wider sailing audience than just hard-core double-handers.

The J/99 structure and composite laminates are built to exceed ISO 12215 structural standards. The all-composite hull, deck and structural grid are infusion molded under vacuum bag for optimum strength to weight ratios and minimal emissions. J/99s are built in France by J/Composites in Les Sables d'Olonne.

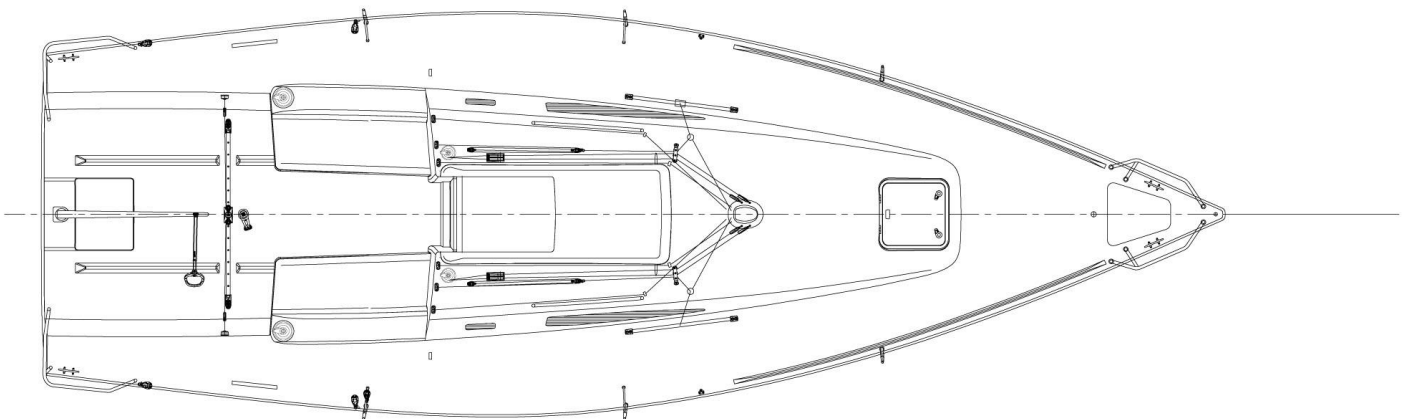
The J/99 is ideally suited for the qualification events leading up to the 2024 Olympics, so we would highly recommend this design for consideration.





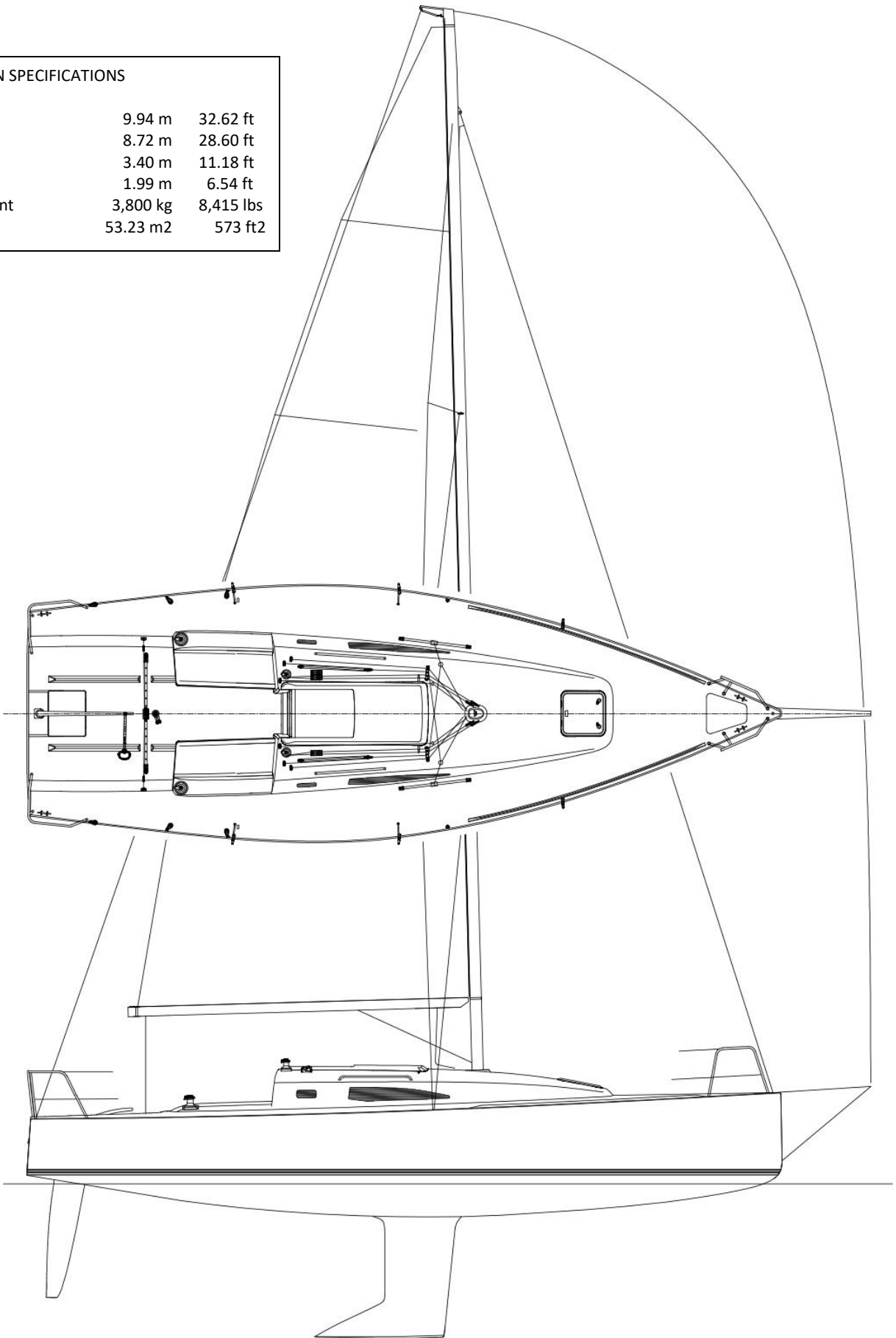
The deck plan includes a hybrid floating jib lead system, 8:1 in hauler system, cockpit-led controls (including outhaul, cunningham, and vang), and an optional water ballast system. The adjustable backstay is a 48:1 double-ended, cascading system that's double-ended to each side of the cockpit. The two self-tailing primary winches are located near the aft end of the coaming to allow easier trimming by the driver.

The J/99 is tiller driven standard with a choice of a single centerline, balanced rudder, or an optional twin rudder configuration. A wheel package is also available as an option.



### J/99 DESIGN SPECIFICATIONS

LOA	9.94 m	32.62 ft
LWL	8.72 m	28.60 ft
Beam	3.40 m	11.18 ft
Draft	1.99 m	6.54 ft
Displacement	3,800 kg	8,415 lbs
100% SA	53.23 m <sup>2</sup>	573 ft <sup>2</sup>



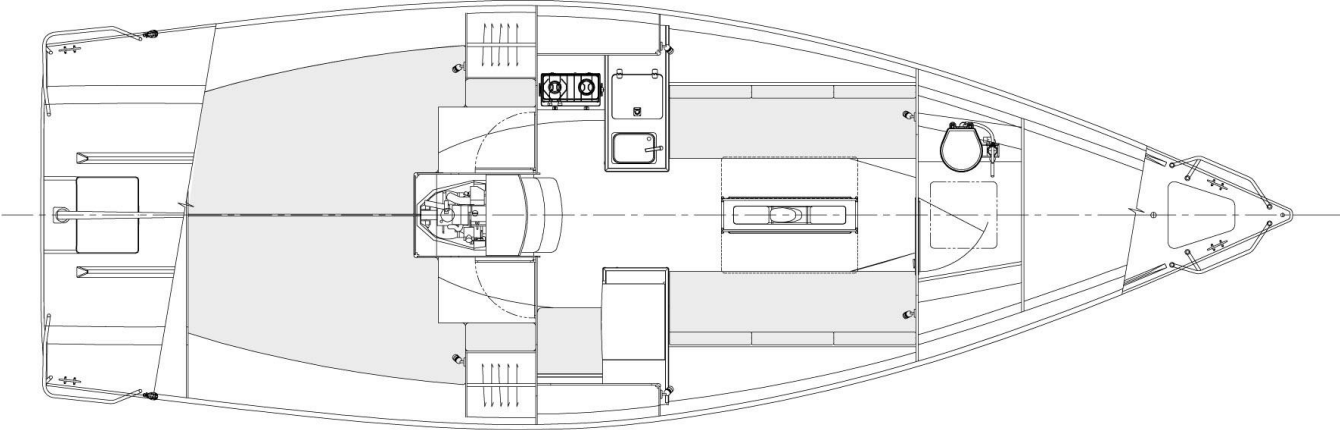








The J/99 interior is roomy with clean lines and uncluttered spaces. The main cabin features two full length settee berths with optional flip-up pilot berths. The L-shaped galley has a stove, an ice-box and an inboard sink. There's a proper sit-down, forward-facing, navigation station to starboard. The forepeak is dedicated as a head and sail storage area, and otherwise kept as light as possible. There are matching double aft berths.



## Distribution of Boats

There are 40 J/99s sailing in 13 countries on 3 continents with the largest concentration of boats in Europe and North America. There will be several J/99s sailing together at Spi Ouest in La Trinite, France this April, and the first owner events in the States will kick off in Long Island Sound this June.

## Race Results

2019-04-20- Spi Ouest- La Trinite, FRA- IRC Double-handed Class- 50 boats- 3rd  
2019-04-20- Spi Ouest- La Trinite, FRA- IRC B Class- 26 boats- 4th  
2019-06-08- Waukegan Race- Chicago, IL- 35.0nm- PHRF 3 Class- 1st  
2019-06-14- New York Yacht Club Around the Island Race – 20nm- PHRF 3 Class- 2<sup>nd</sup>  
2019-06-15- New York Yacht Club Annual Regatta – PHRF 3 Class- 13 boats- 2<sup>nd</sup>  
2019-06-21- Duo Cat Amania – France - 5 races / 250.0nm total- 50 boats- 2nd  
2019-06-25- Block Island Race Week- Block Island, RI- PHRF 2 Class- 4th  
2019-07-20- Chicago-Mac Race – Chicago, IL- 333nm – ORR 7 Class – 3rd  
2019-09-02- Round the Island Race- Newport, RI- 23.0nm- PHRF 2 Class- 1st

## Testimonials

### 2019 Sailing World Boat of the Year – Best Crossover Boat

<http://jboatnews.blogspot.com/2019/12/sailing-world-boat-of-year-best.html>



### 2019 British Yachting Awards Winner – Best Racing Yacht

<http://jboatnews.blogspot.com/2019/12/j99-wins-british-yachting-awards-best.html>



### Sail Magazine Best Boats Winner – Best Performance Boat over 31'

<http://jboatnews.blogspot.com/2019/12/j99-wins-sail-magazine-awards-best.html>



### Yachting World – Cover shot and feature review.

<https://www.yachtingworld.com/boat-test/j-99-review-120522>

“I had come to test the new J/99, sailing double-handed with the British J/Boats importer J/U.K. on a chilly, blustery January morning. Within ten minutes our demure departure was all but forgotten as we came bursting out of Southampton Water, our senses assaulted from all angles by the bitter north wind and our 100m2 day-glo spinnaker. As the sun rose, everything about the day and this little powerhouse of a boat became bright, sharp and dynamic. I don’t know what the rest of the world was doing at 0800 on that January morning, but we were having a blast.”



## Seahorse Magazine – March Issue

MARKET DISRUPTER - The new J/99, built by J Composites in France, is J Boats' answer to extensive customer demand for a smaller 'adventure racer.' True to this globally successful brand's fundamental philosophy, it has an allround performance hull, rather than a boxy, hard-chined body with squat, Open-style stern sections like so many boats on the racecourse today."

<https://www.seahorsemagazine.com/141-content/march-2019/723-market-disrupter>





# J/99 USA Specifications

---

## Hull & Deck

- End grained balsa/foam composite construction using biaxial and unidirectional glass with ISO NPG gelcoat and vinyl ester resin on the outer hull layer to prevent osmotic gelcoat blisters.
- "SCRIMP" resin infusion molding process for optimum laminate strength and light weight with 65% glass content in structural skins.
- Structural engineering and construction to exceed ISO 12215 requirements for Cat A.
- White gelcoat hull finish with molded boot stripe in flag blue.
- All bulkheads are laminated or bonded to both the hull and deck.
- Main bulkhead is substantially built with composite sandwich construction & materials.
- Resin infused high-strength structural grid is at the heart of the J/99 structural layout and directly accepts all primary keel and mast base loads while connecting together and providing stiffness for the hull, deck and primary bulkheads.
- Low VCG (vertical center of gravity), high aspect ratio standard keel built with an encapsulated cast iron fin and integral lead wedge shoe and then thru-bolted and bonded to the hull with substantial backing plates. Option for all lead deep fin keel.
- Molded non-skid surfaces on the horizontal deck surfaces.
- Molded toe rails on the foredeck and outboard of primary winches.
- High-aspect, balanced spade rudder constructed from biaxial and unidirectional glass, stainless steel stock mounted in JP3 self-aligning bearings.
- Cockpit layout design optimized for short-handed sailing.

## Engine & Electrical

- VOLVO D1-20 diesel engine with freshwater cooling, sail drive, folding propeller.
- 115 amp standard engine alternator.
- Keyless Volvo engine panel in cockpit.
- 50L (13 gal.) diesel fuel tank located under port settee.
- Hi/low engine room ventilation fan.
- 100 amp AGM house battery. Option for 2<sup>nd</sup> house battery of same size.
- 70 amp AGM engine start battery with switches and double diode/circuit breaker.
- Master battery on/off switches located under nav table.
- Sound insulation for engine compartment.
- 12V DC distribution panel mounted outboard in nav station.
- Overhead LED lighting in main cabin.
- Cabin lighting in the head area & aft cabins.
- LED bow and stern navigation lights.
- Bonding system for protection from lightning.
- Electric bilge pump.

## Deck Hardware

- Primary winches: 40:1 power ratio, aluminium self-tailing configuration with 2-speeds, mounted on cockpit coamings.
- Secondary winches: 35:1 power ratio, aluminium self-tailing configuration with 2-speeds, mounted on aft end of coach roof on each side of companionway.
- Mainsheet purchase system with 6:1 coarse-tune terminating to centerline swivel cam base, and with 24:1 fine tune purchase.
- Mainsheet traveller track mounted to raised molding at cockpit floor with drainage below and with 4:1 control purchase system at each side of cockpit.
- Composite tiller with vertical articulating tiller head and universal telescoping tiller extension with handle grip. Padded steering stops are built into the tiller bearing at the deck.
- Adjustable jib lead system with floating lead blocks, 8:1 in hauler system, and cockpit controls.
- Jib sheet turning blocks attached to padeyes on the side deck outboard of the cockpit to deflect jib sheet to the primary winches.
- Turning blocks for spinnaker sheets attached to padeyes & stern rail points.
- Fairleads and rope clutch for spinnaker tack line (on starboard side of coach roof).
- Clear anodized mast collar with lead block attachments for halyards and reef lines.
- Halyard organizer blocks on each side of seahood.
- Rope clutches for cabin top halyards, reef and mast control lines.
- OSR & ISO compliant lifeline system includes: twin SS bow pulpit rails with inboard support legs, SS lifeline stanchions with inboard support where required, double lifelines of 1 x 19 SS wire w/toggle termination at bow and lashing at stern rails and twin SS stern rails with triple lifelines of 1 x 19 SS wire across transom.
- SS mooring cleats at bow and transom corners (4 total).
- Self-draining foredeck anchor locker with hinged deck cover and closing latch.
- Opening skylight hatch (500 x 500) for the head/storage/forepeak area.
- Flush opening ISO approved aft hatch located in the cockpit floor for quick access to under-deck steering system components.
- Custom SS chainplates for forestay, shrouds & backstay.
- SS handrails on coach roof.
- Sliding companionway hatch.
- Acrylic companionway washboard with integral vent and lock.
- Opening ports – one for each aft cabin. Option for additional cockpit opening ports.

- Large fixed acrylic portlights (2) for main salon area.
- Manual cockpit operated bilge pump with transom drain.
- Compass with internal light & plastic cover.
- Line organizer storage bags (2).
- Winch handle holders (2).

## Spars & Rigging

- Tapered, fractional AG+ aluminum mast with black anodized finish includes two pairs of swept spreaders attached with through-bars. The mast is a keel stepped configuration with adjustable mast step. The mast section shape was developed specifically for the J/99 and includes a unique extruded track to accommodate standard luff car sliders or bolt rope on mainsail. Other features include standard tack reef hardware, boom and boom vang gooseneck fittings, long welded mast head crane with backstay termination, internal side shroud terminations, headstay attachment hardware, halyard sheaves. A watertight dam installed inside the mast tube with a drain hole located just above deck level. Steaming light wiring exits the mast above deck and leads through deck via watertight gland. Belowdeck mast includes tie-rod.
- Black anodized AG+ aluminum boom with internal 8:1 clew outhaul system to lead to cockpit, boom vang attachment, mainsheet block termination with sheaves for two reef lines and outhaul.
- Rigid boom vang with double ended 18:1 purchase to cam cleats on aft corners of coachroof.
- Dyform standing rigging with soft backstay.
- 48:1 cascade purchase system for backstay control.
- Fixed carbon fiber bowsprit painted black, with tack line padeye & underside bobstay attachment.
- Standard running rigging package to include 1 jib halyard, 1 main halyard, & 1 spinnaker halyard with snap shackle. Sheets included are 2 jib sheets, 2 spinnaker sheets, and coarse & fine sheets for mainsail. Control lines: traveller, cunningham, tack line, 2 reef lines and backstay.
- Standard deck hardware arranged to allow adjustment of cunningham, outhaul and vang from the cockpit.

## Interior

- Bulkheads and furniture finished in white with wood trim & moldings in white gelcoat, for a clean appearance & low maintenance easy to clean surfaces.
- Wood effect durable laminate finish on cabin sole boards.
- Painted finish on interior hull surface with outboard storage bags in the main cabin.

## FOREPEAK

- Natural light and ventilation from overhead hatch (500 x 500).
- Molded head module: Marine head connected to holding tank with flush through manual pump, storage bin to starboard.

- Open sail storage area forward.
- Access door to main cabin.

## MAIN CABIN

- Spacious cabin with standing headroom and natural light from 2 fixed acrylic deck ports.
- Main cabin table with fold down sides.
- Matching settee berths to port and starboard with cushions and backrests.
- 100L (26 gal.) flexible freshwater tank under aft starboard quarterberth.
- Storage compartment areas behind back rests and below settee platform.
- Galley with "L" shape configuration including top opening insulated icebox, single-burner stove with gimbal, polished SS sink with overboard drain, pressurized freshwater system & faucet, dry goods storage outboard and storage & trash locker below the sink & under the stove.
- Sit-down, forward-facing navigation chart table with lifting table lid, chart storage, instrument storage & mounting panel outboard, and nav gear storage shelves under the table. Additional storage opportunities located outboard and under the seat.
- 2 Overhead stainless grab rails.

## AFT AREA

- Twin double private quarter berth cabins, each equipped with cushion, reading light and storage vanity. Additional storage below berth.
- Access door to main cabin.
- Companionway with curved, molded treads. Hinge-up panel for access to the front of engine.

## Options (partial list)

- Two Tone Deck.
- Opening Ports (4) in aft face of cabin house and cockpit.
- 110 VAC Shore Power system with battery charger,
- DC Refrigeration.
- Hinge-up Pilot Berths (2) in main cabin.
- Twin Rudder system
- Water Ballast system.
- Wheel package (in lieu of tiller).

NOTICE: Specifications are subject to change prior to delivery due to deletions, additions or revisions in quantity, brand or design at the sole discretion of J Boats, Inc.

**BOAT**  
Name **AGENT 99**  
Sail Nr **6**

**GPH**  
**624.9**

**HULL**  
Length Overall **9.950m**  
Maximum Beam **3.480m**  
Displacement **4,077kg**  
Draft **1.993m**  
IMS Reg. Division **Cruiser/Racer**  
Dynamic Allowance **0.183%**  
Fwd Accommodation  
Hull Construction **Cored**  
Carbon Rudder **No**  
Crew Arm Extension  
IMSL **9.193m** VCGD **-0.076m** Sink **16.73kg/mm**  
RL **8.594m** VCGM **-0.073m** WS **21.70m<sup>2</sup>**  
LSMO **8.855m** Displacement/Length ratio **5.8719**



**GENERAL**  
Class **J99**  
Designer **Al Johnstone**  
Builder **J Composites**  
Series **12/2018, CIN 6**  
Age **05/2019**  
Age Allowance **0.033%**  
Offset File **j99-1-1.OFF - 6/7/2019 11:41:45 AM**  
Measurement by **Baittinger - 09/05/2019**

**Rating Office**  
US Sailing  
1 Roger Williams  
University Wa  
Bristol, RI 02909  
usa

**SCORING OPTIONS**

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>607.3</b>			<b>681.3</b>		
Time on Time	<b>0.9880</b>			<b>0.9908</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>712.6</b>	<b>554.3</b>	<b>496.3</b>	<b>921.9</b>	<b>683.4</b>	<b>601.1</b>
Time on Time	<b>0.9473</b>	<b>1.2177</b>	<b>1.3600</b>	<b>0.7322</b>	<b>0.9877</b>	<b>1.1229</b>

**TIME ALLOWANCES**

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1078.8</b>	<b>888.7</b>	<b>778.2</b>	<b>720.3</b>	<b>700.9</b>	<b>693.5</b>	<b>684.3</b>
52°	<b>702.6</b>	<b>591.7</b>	<b>535.1</b>	<b>511.4</b>	<b>501.3</b>	<b>497.2</b>	<b>493.7</b>
60°	<b>662.9</b>	<b>564.5</b>	<b>520.7</b>	<b>499.9</b>	<b>488.0</b>	<b>482.4</b>	<b>479.1</b>
75°	<b>635.6</b>	<b>545.9</b>	<b>509.8</b>	<b>489.2</b>	<b>472.5</b>	<b>459.3</b>	<b>448.0</b>
90°	<b>620.2</b>	<b>526.0</b>	<b>494.2</b>	<b>482.1</b>	<b>468.1</b>	<b>449.6</b>	<b>421.9</b>
110°	<b>609.9</b>	<b>518.0</b>	<b>482.9</b>	<b>455.8</b>	<b>437.0</b>	<b>425.0</b>	<b>403.4</b>
120°	<b>626.8</b>	<b>526.2</b>	<b>487.9</b>	<b>457.7</b>	<b>429.2</b>	<b>405.7</b>	<b>379.4</b>
135°	<b>701.0</b>	<b>567.8</b>	<b>508.2</b>	<b>477.8</b>	<b>448.2</b>	<b>419.9</b>	<b>360.5</b>
150°	<b>828.3</b>	<b>661.3</b>	<b>562.7</b>	<b>514.4</b>	<b>490.5</b>	<b>470.0</b>	<b>418.3</b>
Run VMG	<b>956.4</b>	<b>763.5</b>	<b>649.7</b>	<b>593.6</b>	<b>559.9</b>	<b>517.6</b>	<b>470.0</b>

**Certificate**  
Number **US6428**  
ORC Ref **US00000289**  
Issued On **6/11/2019**  
VPP Ver. **2019 1.01**  
Valid until **12/31/2019**

**Selected Courses**

Windward / Leeward	<b>1017.6</b>	<b>826.1</b>	<b>714.0</b>	<b>656.9</b>	<b>630.4</b>	<b>605.5</b>	<b>577.2</b>
Circular Random	<b>857.0</b>	<b>693.3</b>	<b>606.4</b>	<b>556.5</b>	<b>525.8</b>	<b>505.3</b>	<b>477.2</b>
Coastal / Long Distance	<b>1011.5</b>	<b>774.8</b>	<b>645.2</b>	<b>574.1</b>	<b>537.8</b>	<b>506.0</b>	<b>456.3</b>
Non Spinnaker	<b>940.6</b>	<b>751.0</b>	<b>647.6</b>	<b>586.6</b>	<b>548.9</b>	<b>524.2</b>	<b>493.1</b>

**Crew Weight**  
Default 579kg  
Maximum **579kg**  
Minimum\* **434kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **668.8 0.8971**  
Non Spin OSN **646.3 0.9284**

**Velocity Prediction in Knots for True Wind Speeds**

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>42.9°</b>	<b>41.4°</b>	<b>40.6°</b>	<b>38.6°</b>	<b>38.1°</b>	<b>37.9°</b>	<b>37.6°</b>
Beat VMG	<b>3.34</b>	<b>4.05</b>	<b>4.63</b>	<b>5.00</b>	<b>5.14</b>	<b>5.19</b>	<b>5.26</b>
52°	<b>5.12</b>	<b>6.08</b>	<b>6.73</b>	<b>7.04</b>	<b>7.18</b>	<b>7.24</b>	<b>7.29</b>
60°	<b>5.43</b>	<b>6.38</b>	<b>6.91</b>	<b>7.20</b>	<b>7.38</b>	<b>7.46</b>	<b>7.51</b>
75°	<b>5.66</b>	<b>6.60</b>	<b>7.06</b>	<b>7.36</b>	<b>7.62</b>	<b>7.84</b>	<b>8.04</b>
90°	<b>5.80</b>	<b>6.84</b>	<b>7.29</b>	<b>7.47</b>	<b>7.69</b>	<b>8.01</b>	<b>8.53</b>
110°	<b>5.90</b>	<b>6.95</b>	<b>7.45</b>	<b>7.90</b>	<b>8.24</b>	<b>8.47</b>	<b>8.92</b>
120°	<b>5.74</b>	<b>6.84</b>	<b>7.38</b>	<b>7.87</b>	<b>8.39</b>	<b>8.87</b>	<b>9.49</b>
135°	<b>5.14</b>	<b>6.34</b>	<b>7.08</b>	<b>7.53</b>	<b>8.03</b>	<b>8.57</b>	<b>9.99</b>
150°	<b>4.35</b>	<b>5.44</b>	<b>6.40</b>	<b>7.00</b>	<b>7.34</b>	<b>7.66</b>	<b>8.61</b>
Run VMG	<b>3.76</b>	<b>4.71</b>	<b>5.54</b>	<b>6.06</b>	<b>6.43</b>	<b>6.96</b>	<b>7.66</b>
Gybe Angles	<b>144.1°</b>	<b>147.7°</b>	<b>148.5°</b>	<b>150.4°</b>	<b>174.1°</b>	<b>177.0°</b>	<b>177.3°</b>

**Sails Limitations**  
Headsails **5** | Spinnakers **3**

**Class Division Length**  
CDL = **8.894**

**Storm Sails Areas**  
Heavy Weather Jib **23.77**  
Storm Jib (JL=8.63) **8.81**  
Storm Trysail **9.76**

**Owner**  
Jeffrey Johnstone  
210 Hargraves Dr  
Portsmouth, RI 02871

I certify that I understand my responsibilities under ORC Rules and Regulations  
Signature

<b>BOAT</b>	
Name <b>AGENT 99</b>	Sail Nr <b>6</b>
File <b>US6428</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>09/05/2019</b>		SG <b>1.0190</b>	
FFM <b>1.188</b>	FF <b>1.194</b>	SFFP <b>0.700</b>	
FAM <b>0.834</b>	FA <b>0.837</b>	SAFP <b>9.778</b>	
W1 <b>62.4</b>	PD1 <b>565.3</b>	WD <b>11.960</b>	
W2 <b>62.4</b>	PD2 <b>565.3</b>	GSA <b>1.0</b>	
W3 <b>62.4</b>	PD3 <b>565.3</b>	RSA <b>1.0</b>	
W4 <b>62.4</b>	PD4 <b>565.3</b>	PLM <b>9000.0</b>	
LCF from stem on CL / on sheer		<b>5.525 / 5.775</b>	
Maximum beam station from stem		<b>6.082</b>	
RM Measured		<b>104.0kg·m</b>	
RM Default		<b>92.6kg·m</b>	
Limit of positive stability / Stab.Index		<b>118.6° / 115.8</b>	
Freeboard at mast at 3.930		<b>1.044</b>	



Offshore Racing Congress  
World leader in rating technology

**2019**  
IMS Measurement  
Certificate

<b>RIG</b>			
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>		
Inner Stay <b>None Fitted</b>	Runners <b>0</b>		
Carbon Mast	Jumper Struts <b>None</b>		
Taper Hollows <b>No</b>	Jib Furler		
Fiber Rigging	Main Furler		
Lenticular Rigging <b>No</b>	Without Backstay		
Articulated Bowsprit			
P <b>12.768</b>	E <b>4.365</b>	MDT1 <b>0.146</b>	MW <b>0.198</b>
IG <b>13.153</b>	J <b>3.840</b>	MDL1 <b>0.208</b>	GO <b>0.231</b>
ISP <b>14.429</b>	SFJ <b>0.090</b>	MDT2 <b>0.108</b>	BD <b>0.161</b>
BAS <b>1.503</b>	SPL	MDL2 <b>0.112</b>	MWT <b>111.58</b>
FSP <b>0.000</b>	TPS <b>5.100</b>	TL <b>1.000</b>	MCG <b>4.995</b>

<b>MIZZEN RIG AND SAILS</b>	
N/A	

<b>PROPELLER</b>			
Installation <b>Strut</b>	PRD <b>0.375</b>		
Type <b>Folding 2 blades</b>	PBW <b>0.095</b>		
Twin Screw <b>No</b>	PIPA <b>0.0037</b>		
ST1 <b>0.064</b>	ST3 <b>0.184</b>	ST5 <b>0.302</b>	
ST2 <b>0.177</b>	ST4 <b>0.112</b>	EDL <b>1.825</b>	

**Certificate**

Number **US6428**  
ORC Ref **US00000289**  
Issued On **6/11/2019**  
VPP Ver. **2019 1.01**  
Valid until **12/31/2019**



<b>COMMENTS</b>

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.200	0.94	1.63	2.73	3.61	32.77	33.35	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	15.80	13.10	14.45	8.44	8.20	101.05	AS · (SFL + 4·SHW) / 6		

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.11	0.64	1.18	2.14	3.06	3.95	13.05	27.27	Y				

<b>MEASUREMENT INVENTORY</b>			
Measurer <b>BAITINGER</b>			
Date <b>09/05/2019</b>			
Comment			
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>
	Anecher		
	Chain		
	Teels		
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>
	Engine		Volvo D1-20
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>	
	Deck-Gear		
	Fwd-Items		

<b>MEASUREMENT INVENTORY</b>							
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>
1	Tank	FUEL	FUEL	43.0	5.05	0.00	43.0
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>			
	Ballast						
	Battery						
	Misc						
<b>Water Ballast Tanks</b>							
<i>Id</i>	<i>Volume</i>	<i>Distance</i>	<i>VCG</i>	<i>TCG Description</i>			

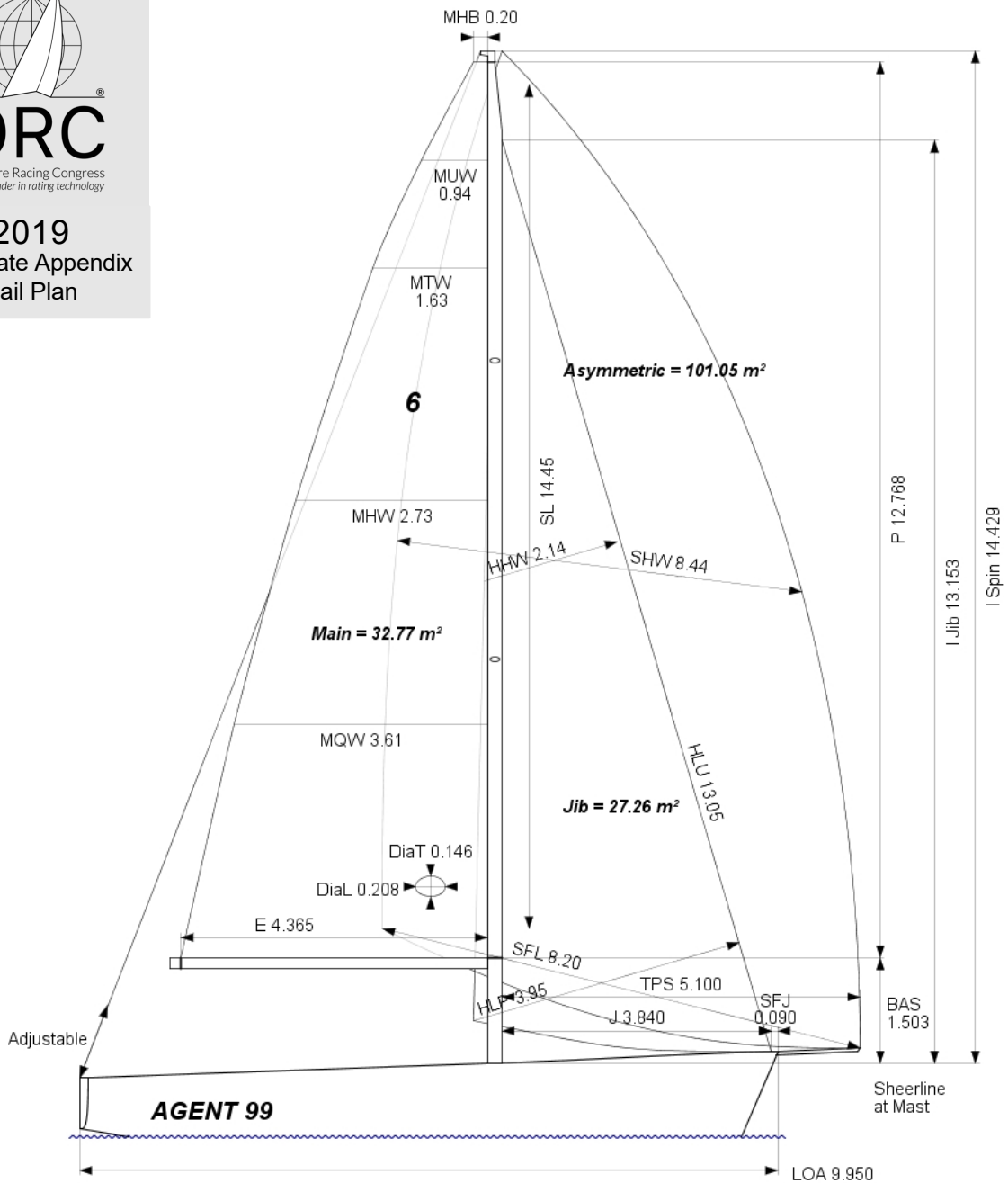




**ORC**

Offshore Racing Congress  
World leader in rating technology

**2019**  
Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
OUS13278-	0.20	0.94	1.63	2.73	3.61	32.77					

**HEADSAILS (1)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
OUS132	0.11	0.64	1.18	2.14	3.06	3.95	13.05	103%	27.27	Y						

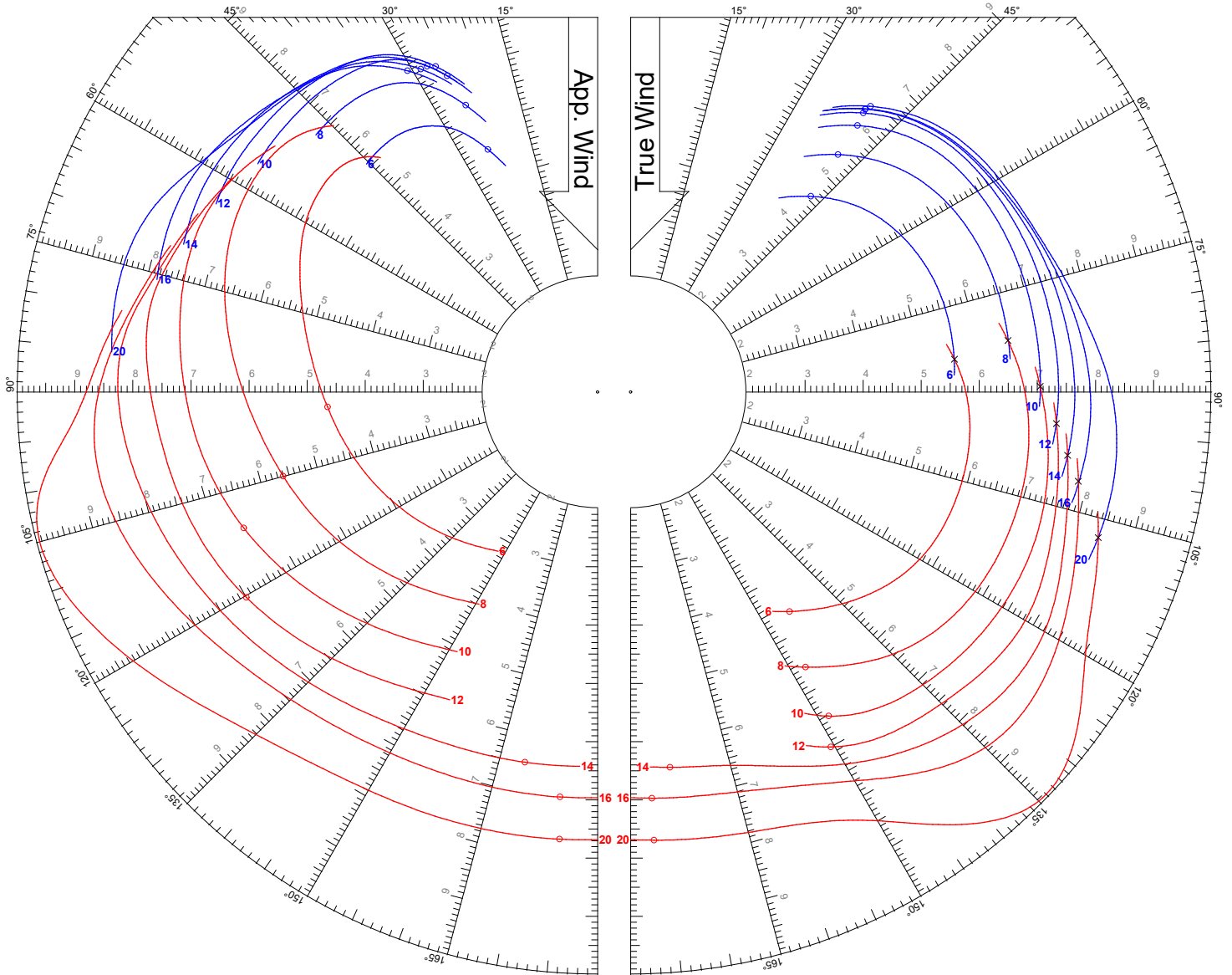
**SYMMETRIC SPINNAKERS (0)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
----	-----	-----	----	-----	-----	------	----------	-----------	-------------	----------	---------

**ASYMMETRIC SPINNAKERS (1)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
OUS13278-	15.80	13.10	14.45	8.44	8.20	101.06	asym	NORTH SRI	08/03/2019			

# Speed Guide



**Polar Plot for Boat**

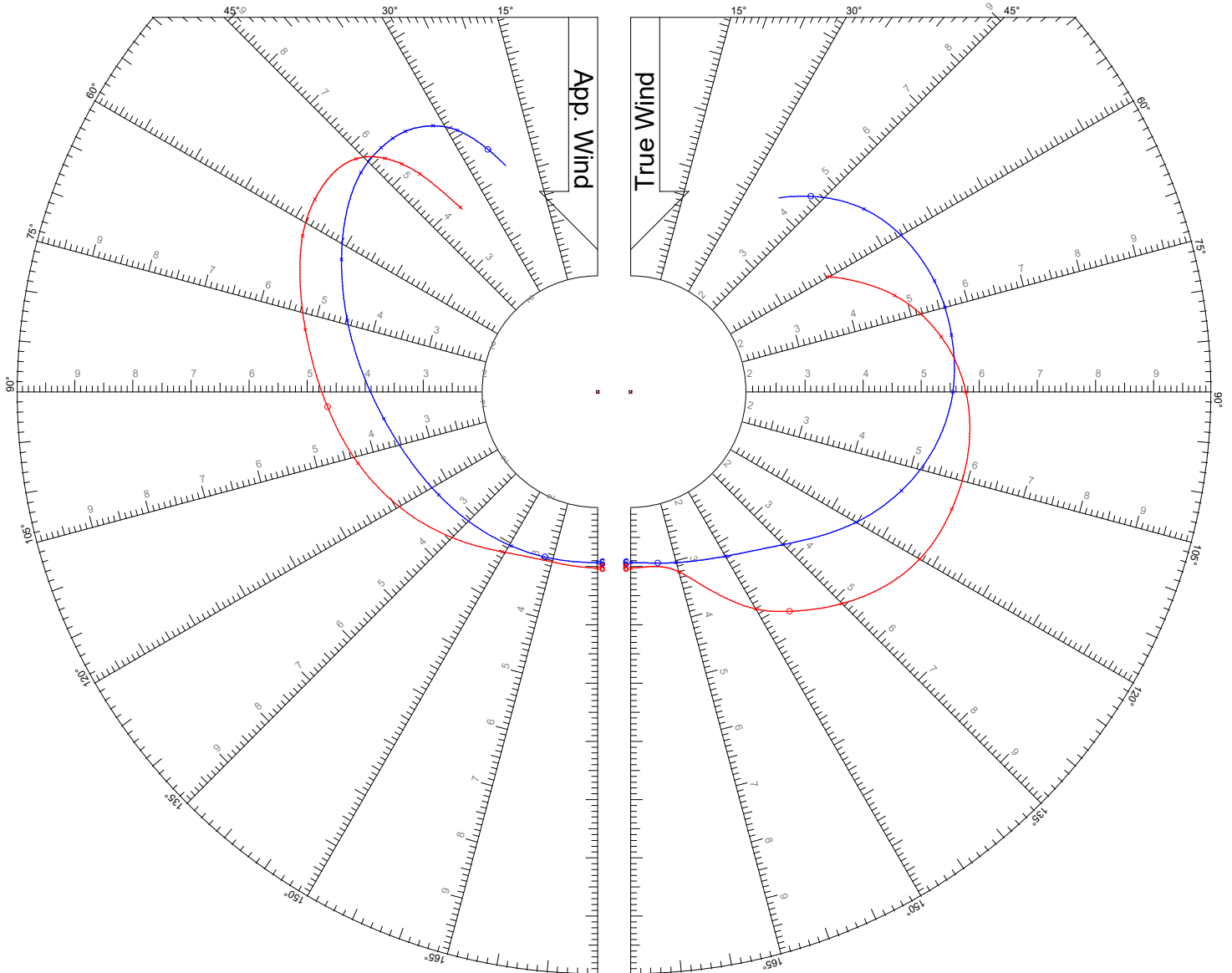
Name **J/99 Standard Keel**  
 Sail Number  
 Class **J/99 Std A-Sail**  
 Designer **R. Alan Johnstone**  
 Builder **J Composites**  
 Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 6, 8, 10, 12, 14, 16, 20 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

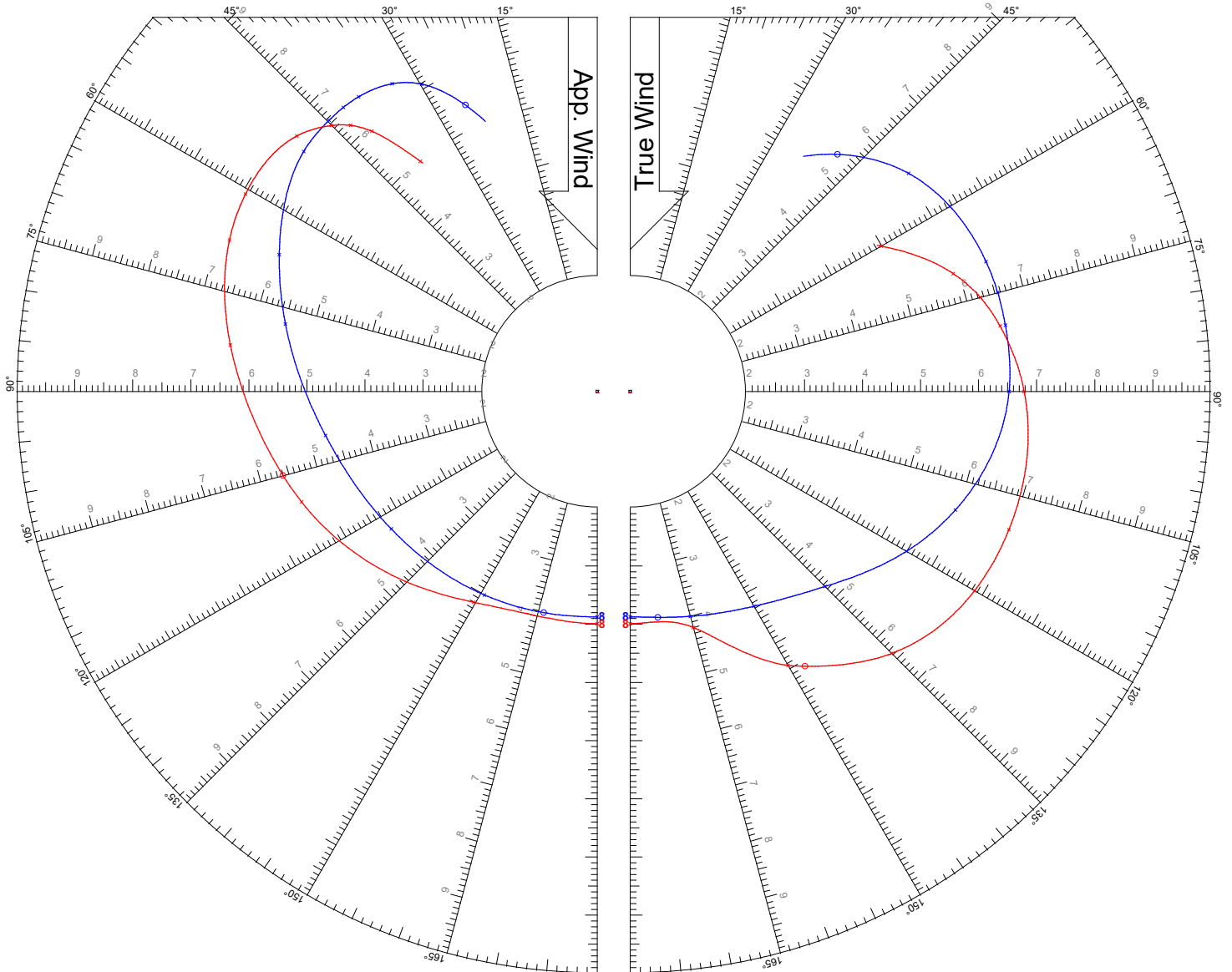
Name **J/99 Standard Keel**  
Sail Number  
Class **J/99 Std A-Sail**  
Designer **R. Alan Johnstone**  
Builder **J Composites**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 6 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

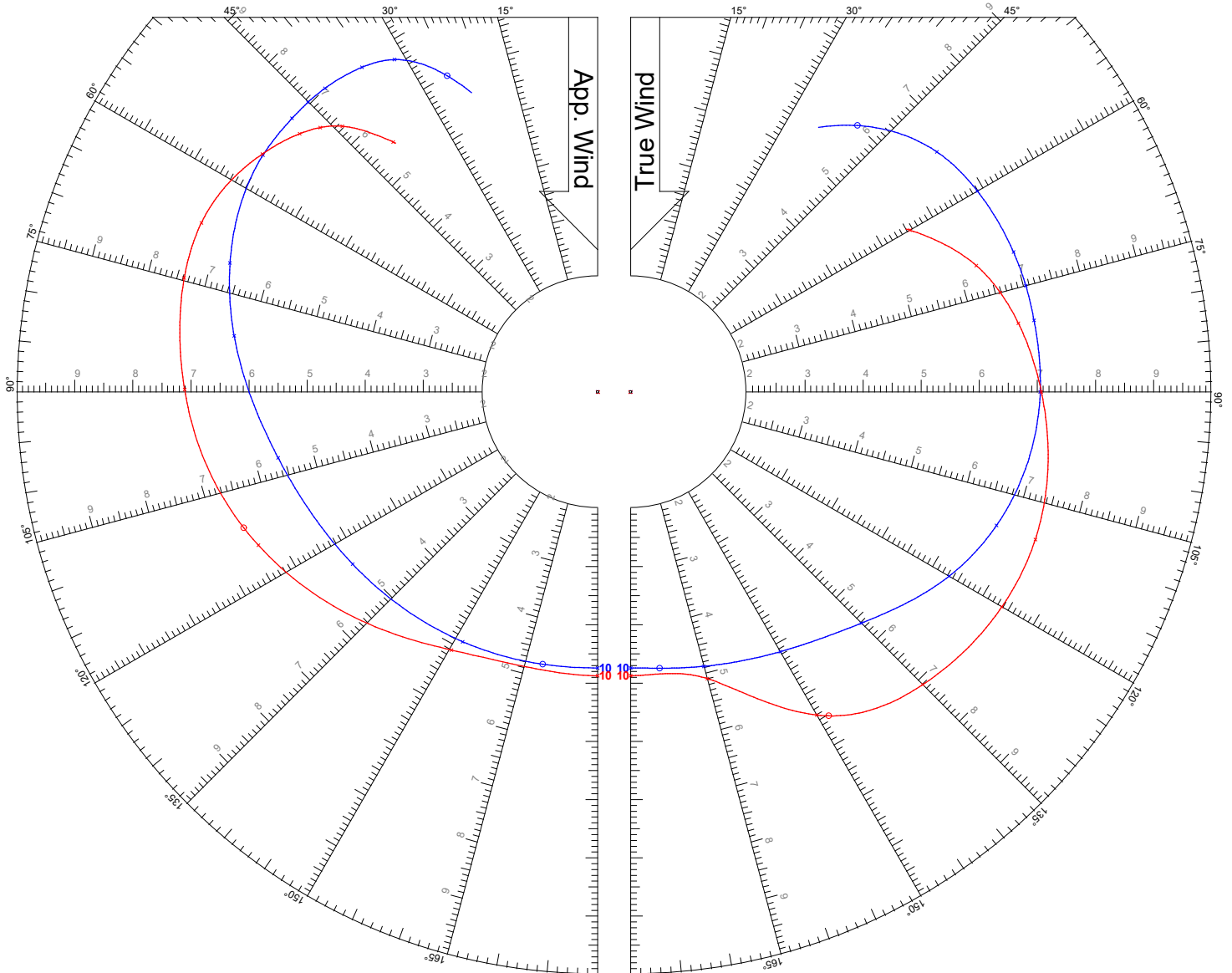
Name **J/99 Standard Keel**  
Sail Number  
Class **J/99 Std A-Sail**  
Designer **R. Alan Johnstone**  
Builder **J Composites**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 8 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



**Polar Plot for Boat**

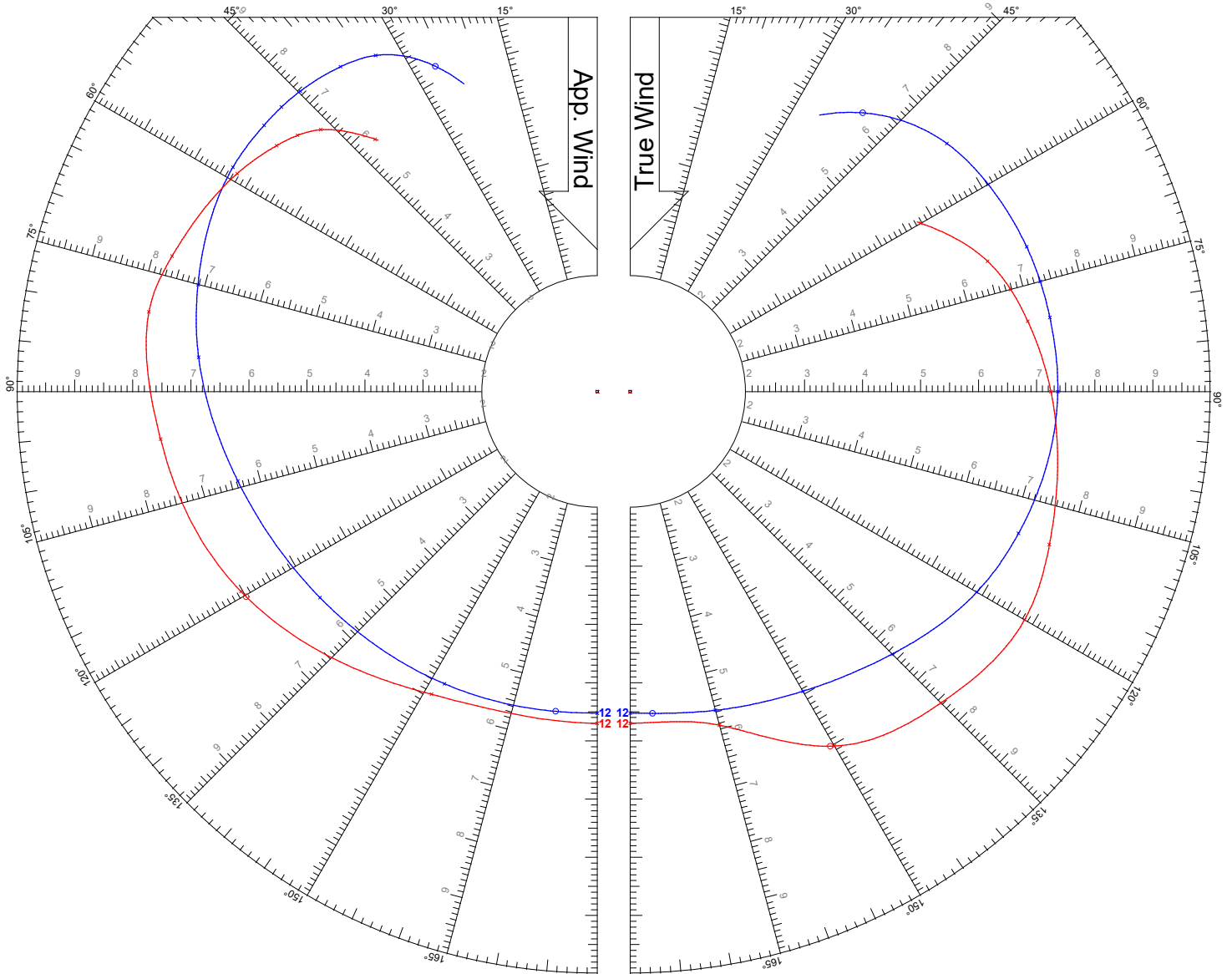
Name **J/99 Standard Keel**  
 Sail Number  
 Class **J/99 Std A-Sail**  
 Designer **R. Alan Johnstone**  
 Builder **J Composites**  
 Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 10 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

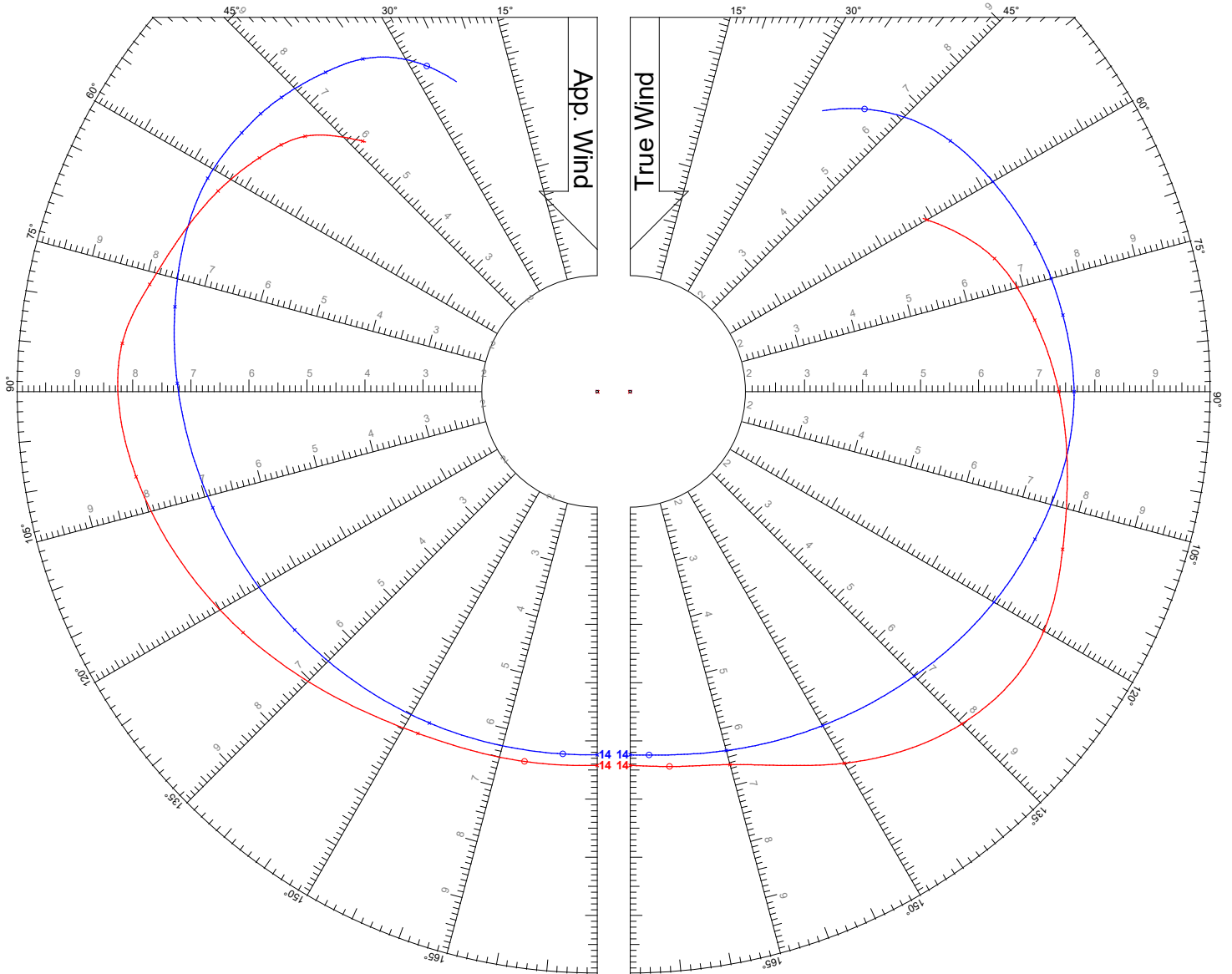
Name **J/99 Standard Keel**  
Sail Number  
Class **J/99 Std A-Sail**  
Designer **R. Alan Johnstone**  
Builder **J Composites**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 12 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



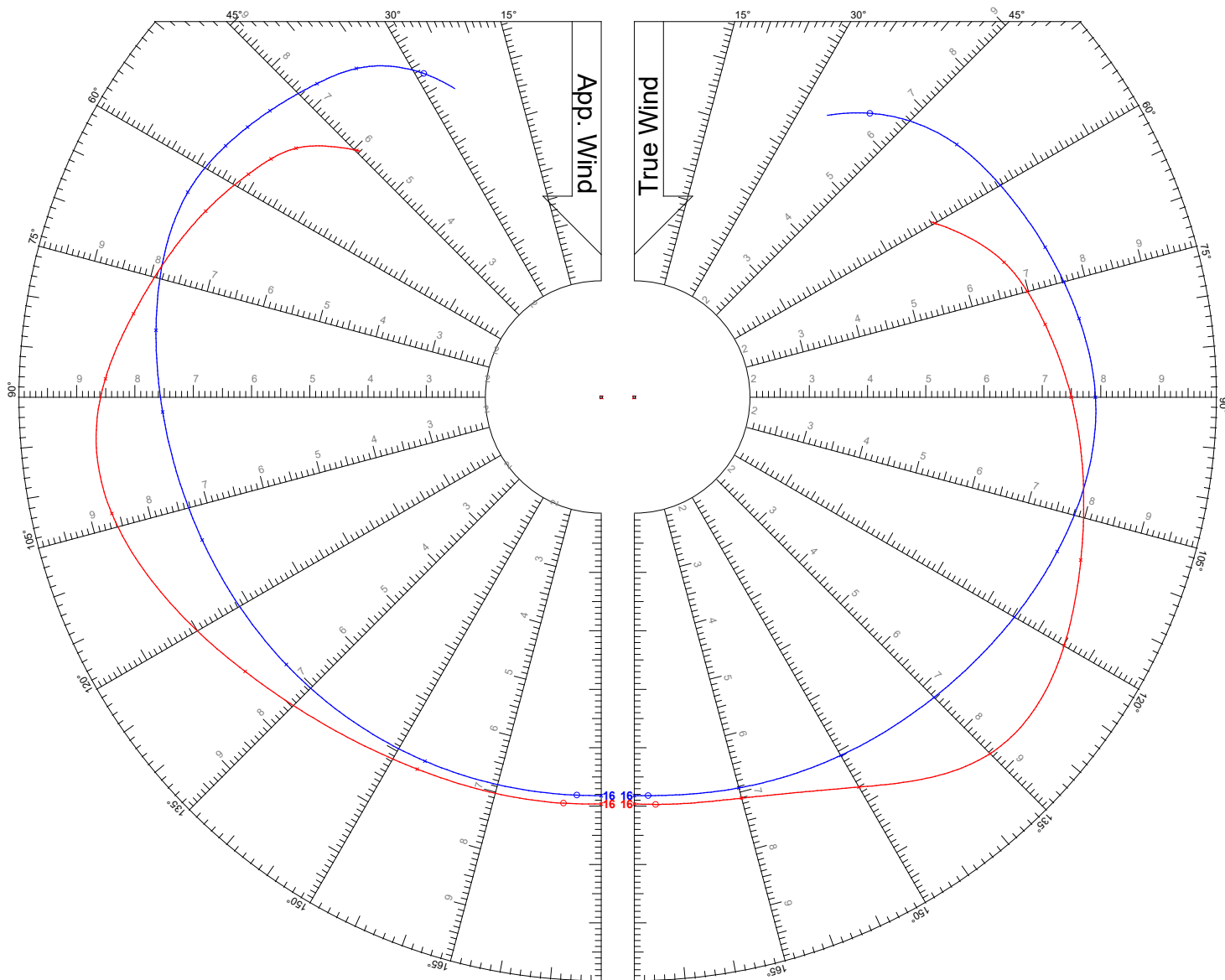
Polar Plot for Boat	
Name	J/99 Standard Keel
Sail Number	
Class	J/99 Std A-Sail
Designer	R. Alan Johnstone
Builder	J Composites
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 14 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

Name **J/99 Standard Keel**  
Sail Number  
Class **J/99 Std A-Sail**  
Designer **R. Alan Johnstone**  
Builder **J Composites**  
Issued On **1/13/2020 - VPP 2020 1.00**

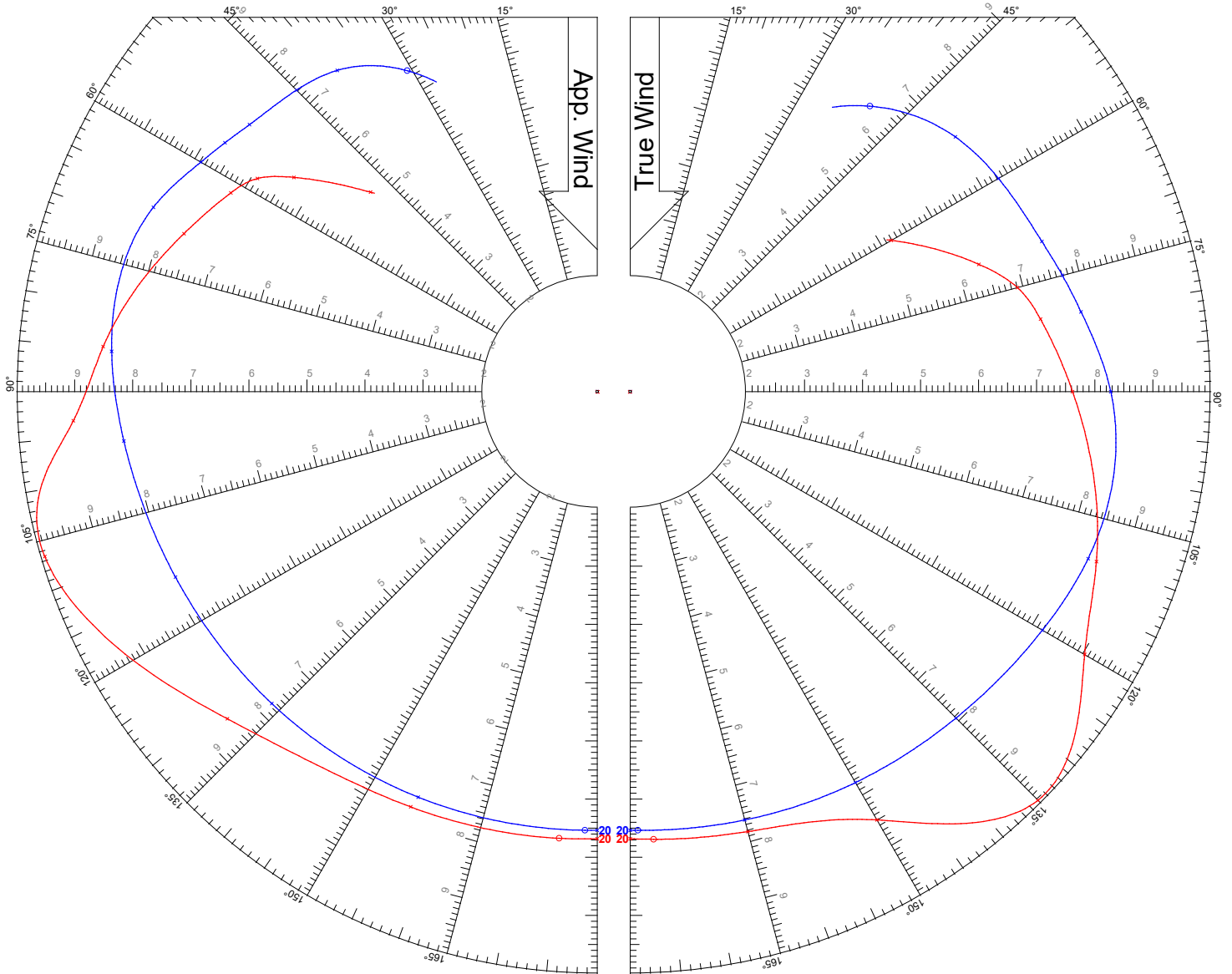
**TWS: 16 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**



# Speed Guide



Polar Plot for Boat	
Name	J/99 Standard Keel
Sail Number	
Class	J/99 Std A-Sail
Designer	R. Alan Johnstone
Builder	J Composites
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 20 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**



Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

### Polar Tables

Boat Name: **J/99 Standard Keel**

Sail No:

Sail: **Best Performance**

Issued On: **1/13/2020 - VPP 2020 1.00**

### TWS = 6 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.8° (b)	4.57	3.36	9.86	24.4°	7.1°	1.00	1.00
52°	5.10	3.14	9.98	28.3°	7.3°	1.00	1.00
60°	5.37	2.69	9.85	31.8°	7.0°	1.00	1.00
70°	5.56	1.90	9.47	36.5°	6.2°	1.00	1.00
75°	5.60	1.45	9.21	39.0°	5.7°	1.00	1.00
80°	5.61	0.97	8.89	41.6°	5.0°	1.00	1.00
90°	5.77	0.00	8.32	46.1°	11.8°	1.00	0.96
110°	5.88	2.01	6.82	55.8°	8.1°	1.00	1.00
120°	5.74	2.87	5.88	62.2°	5.4°	1.00	1.00
135°	5.14	3.64	4.34	78.0°	1.3°	1.00	1.00
150°	4.30	3.73	3.13	106.6°	0.3°	1.00	1.00
165°	3.20	3.09	3.02	149.1°	2.7°	1.00	1.00
180°	3.03	3.03	2.97	180.0°	2.4°	1.00	1.00
144.0° (r)	4.66	3.77	3.53	93.2°	-0.1°	1.00	1.00

### TWS = 8 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
41.3° (b)	5.42	4.07	12.59	24.8°	13.7°	1.00	1.00
52°	6.08	3.75	12.69	29.8°	13.9°	1.00	1.00
60°	6.36	3.18	12.46	33.8°	13.1°	1.00	1.00
70°	6.52	2.23	11.92	39.1°	11.6°	1.00	1.00
75°	6.55	1.70	11.58	41.9°	10.6°	1.00	1.00
80°	6.56	1.14	11.19	44.8°	9.5°	1.00	1.00
90°	6.78	0.00	10.49	49.7°	21.6°	1.00	0.95
110°	6.94	2.37	8.61	60.8°	15.4°	1.00	1.00
120°	6.85	3.42	7.49	67.7°	10.4°	1.00	1.00
135°	6.37	4.50	5.70	82.8°	3.5°	1.00	1.00
150°	5.43	4.71	4.27	110.5°	1.0°	1.00	1.00
165°	4.20	4.06	4.09	149.6°	2.9°	1.00	1.00
180°	3.99	3.99	4.01	180.0°	2.4°	1.00	1.00
147.5° (r)	5.60	4.72	4.45	104.9°	0.0°	1.00	1.00

### TWS = 10 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	6.01	4.57	15.08	25.5°	20.6°	1.00	0.96
52°	6.69	4.12	15.07	31.5°	21.3°	1.00	0.99
60°	6.89	3.45	14.71	36.1°	20.0°	1.00	1.00
70°	7.01	2.40	14.04	42.0°	17.3°	1.00	1.00
75°	7.04	1.82	13.64	45.1°	15.8°	1.00	1.00
80°	7.05	1.22	13.20	48.3°	14.2°	1.00	1.00
90°	7.07	0.00	12.25	54.7°	22.3°	0.94	0.85
110°	7.41	2.53	10.21	67.0°	21.5°	1.00	0.97
120°	7.38	3.69	8.98	74.6°	15.1°	1.00	1.00
135°	7.11	5.03	7.07	89.7°	5.8°	1.00	1.00
150°	6.41	5.55	5.48	114.3°	2.0°	1.00	1.00
165°	5.10	4.92	5.25	150.4°	3.2°	1.00	1.00
180°	4.87	4.87	5.13	180.0°	2.5°	1.00	1.00
148.5° (r)	6.52	5.56	5.60	111.0°	1.3°	1.00	1.00

### TWS = 12 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.9° (b)	6.24	4.79	17.26	26.5°	25.4°	1.00	0.88
52°	6.92	4.26	17.15	33.5°	26.7°	1.00	0.93
60°	7.12	3.56	16.74	38.4°	25.5°	1.00	0.95
70°	7.27	2.48	16.01	44.8°	23.0°	1.00	0.98
75°	7.31	1.89	15.58	48.0°	21.7°	1.00	1.00
80°	7.34	1.27	15.11	51.4°	19.4°	1.00	1.00
90°	7.36	0.00	14.08	58.5°	14.6°	1.00	1.00
110°	7.68	2.63	11.83	72.4°	22.1°	0.94	0.94
120°	7.84	3.92	10.55	80.0°	20.5°	1.00	1.00
135°	7.57	5.35	8.54	96.2°	8.0°	1.00	1.00
150°	7.03	6.09	6.88	119.3°	4.7°	1.00	1.00
165°	5.93	5.73	6.45	151.2°	3.6°	1.00	1.00
180°	5.70	5.70	6.30	180.0°	2.5°	1.00	1.00
150.5° (r)	7.00	6.09	6.84	120.2°	3.8°	1.00	1.00

### TWS = 14 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.8° (b)	6.31	4.85	19.28	27.7°	26.3°	1.00	0.75
52°	7.00	4.31	19.12	35.2°	28.0°	1.00	0.81
60°	7.21	3.61	18.68	40.5°	28.9°	1.00	0.87
70°	7.43	2.54	17.95	47.1°	28.0°	1.00	0.94
75°	7.51	1.94	17.51	50.5°	26.5°	1.00	0.96
80°	7.57	1.31	17.03	54.0°	24.4°	1.00	0.98
90°	7.64	0.00	15.95	61.4°	19.1°	1.00	1.00
110°	7.93	2.71	13.52	76.6°	22.2°	0.88	0.93
120°	8.22	4.11	12.19	84.2°	22.1°	0.98	0.95
135°	8.07	5.71	10.07	100.4°	10.9°	1.00	1.00
150°	7.37	6.38	8.46	124.2°	4.0°	1.00	1.00
165°	6.63	6.41	7.78	152.3°	4.3°	1.00	1.00
180°	6.42	6.42	7.58	180.0°	2.6°	1.00	1.00
174.0° (r)	6.48	6.44	7.59	168.9°	1.5°	1.00	1.00

### TWS = 16 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.8° (b)	6.32	4.86	21.25	28.8°	26.4°	1.00	0.64
52°	7.02	4.32	21.06	36.8°	28.5°	1.00	0.69
60°	7.25	3.63	20.61	42.3°	29.6°	1.00	0.75
70°	7.50	2.57	19.86	49.2°	30.0°	1.00	0.84
75°	7.63	1.97	19.43	52.7°	30.6°	1.00	0.91
80°	7.75	1.35	18.95	56.3°	28.7°	1.00	0.94
90°	7.91	0.00	17.85	63.7°	24.2°	1.00	1.00
110°	8.15	2.79	15.27	79.9°	22.2°	0.82	0.93
120°	8.51	4.26	13.87	87.9°	22.2°	0.92	0.94
135°	8.63	6.10	11.63	103.3°	14.4°	1.00	1.00
150°	7.71	6.67	10.09	127.5°	3.8°	1.00	1.00
165°	7.11	6.86	9.32	153.6°	4.6°	1.00	1.00
180°	6.96	6.96	9.04	180.0°	2.7°	1.00	1.00
177.0° (r)	6.98	6.97	9.04	174.7°	1.4°	1.00	1.00

### TWS = 20 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.1° (b)	6.41	4.90	25.24	30.7°	25.6°	0.48	0.62
52°	7.10	4.37	25.01	39.1°	26.8°	0.50	0.62
60°	7.32	3.66	24.50	45.0°	25.0°	0.53	0.62
70°	7.54	2.58	23.67	52.6°	26.2°	0.85	0.62
75°	7.71	1.99	23.22	56.3°	31.6°	1.00	0.71
80°	7.88	1.37	22.74	60.0°	31.7°	1.00	0.77
90°	8.28	0.00	21.64	67.5°	31.6°	1.00	0.93
110°	8.54	2.92	18.87	84.8°	22.2°	0.72	0.93
120°	9.04	4.52	17.35	93.2°	22.2°	0.81	0.94
135°	9.93	7.02	14.76	106.6°	22.0°	1.00	0.98
150°	8.50	7.36	13.34	131.4°	7.7°	1.00	1.00
165°	7.83	7.56	12.60	155.8°	5.9°	1.00	1.00
180°	7.68	7.68	12.32	180.0°	3.0°	1.00	1.00
177.0° (r)	7.70	7.69	12.32	175.1°	2.1°	1.00	1.00



Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

### Polar Tables

Boat Name: **J/99 Standard Keel**

Sail No:

Sail: **Jib**

Issued On: **1/13/2020 - VPP 2020 1.00**

### TWS = 6 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.8° (b)	4.57	3.36	9.58	23.7°	7.1°	1.00	1.00
52°	5.10	3.14	9.71	27.4°	7.3°	1.00	1.00
60°	5.37	2.69	9.59	30.8°	7.0°	1.00	1.00
70°	5.56	1.90	9.22	35.4°	6.2°	1.00	1.00
75°	5.60	1.45	8.97	37.8°	5.7°	1.00	1.00
80°	5.61	0.97	8.66	40.4°	5.0°	1.00	1.00
90°	5.55	0.00	7.96	45.8°	3.7°	1.00	1.00
110°	4.96	1.70	6.17	60.9°	0.7°	1.00	1.00
120°	4.48	2.24	5.23	72.1°	0.0°	1.00	1.00
135°	3.71	2.62	4.09	95.2°	0.0°	1.00	1.00
150°	3.26	2.82	3.35	121.0°	2.9°	1.00	1.00
165°	3.04	2.93	2.91	149.3°	2.6°	1.00	1.00
180°	2.93	2.93	2.80	180.0°	2.4°	1.00	1.00
171.0° (r)	2.98	2.94	2.83	161.5°	0.7°	1.00	1.00

### TWS = 8 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
41.3° (b)	5.42	4.07	12.16	23.6°	13.7°	1.00	1.00
52°	6.08	3.75	12.24	28.4°	13.9°	1.00	1.00
60°	6.36	3.18	12.02	32.3°	13.1°	1.00	1.00
70°	6.52	2.23	11.51	37.5°	11.6°	1.00	1.00
75°	6.55	1.70	11.18	40.3°	10.6°	1.00	1.00
80°	6.56	1.14	10.81	43.2°	9.5°	1.00	1.00
90°	6.52	0.00	9.99	49.2°	7.3°	1.00	1.00
110°	5.96	2.04	7.92	65.0°	2.5°	1.00	1.00
120°	5.49	2.75	6.84	76.0°	0.7°	1.00	1.00
135°	4.74	3.35	5.48	97.3°	-0.1°	1.00	1.00
150°	4.26	3.69	4.51	121.9°	3.4°	1.00	1.00
165°	4.00	3.87	3.91	149.7°	2.9°	1.00	1.00
180°	3.87	3.87	3.76	180.0°	2.5°	1.00	1.00
173.0° (r)	3.91	3.88	3.78	165.8°	0.7°	1.00	1.00

### TWS = 10 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	6.01	4.57	14.40	23.5°	20.6°	1.00	0.96
52°	6.69	4.12	14.31	29.0°	21.3°	1.00	0.99
60°	6.89	3.45	13.95	33.5°	20.0°	1.00	1.00
70°	7.01	2.40	13.33	39.7°	17.3°	1.00	1.00
75°	7.04	1.82	12.97	42.9°	15.8°	1.00	1.00
80°	7.05	1.22	12.57	46.2°	14.2°	1.00	1.00
90°	7.05	0.00	11.71	53.0°	10.8°	1.00	1.00
110°	6.70	2.29	9.60	69.1°	4.4°	1.00	1.00
120°	6.33	3.16	8.44	79.5°	2.1°	1.00	1.00
135°	5.62	3.97	6.90	99.9°	0.4°	1.00	1.00
150°	5.15	4.46	5.72	123.4°	4.0°	1.00	1.00
165°	4.88	4.71	5.00	150.4°	3.2°	1.00	1.00
180°	4.74	4.74	4.81	180.0°	2.5°	1.00	1.00
174.0° (r)	4.77	4.74	4.83	168.1°	0.9°	1.00	1.00

### TWS = 12 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.9° (b)	6.24	4.79	16.27	23.7°	25.4°	1.00	0.88
52°	6.92	4.26	15.98	29.8°	26.7°	1.00	0.93
60°	7.12	3.56	15.53	34.7°	25.5°	1.00	0.95
70°	7.27	2.48	14.84	41.4°	23.0°	1.00	0.98
75°	7.31	1.89	14.45	44.8°	21.7°	1.00	1.00
80°	7.34	1.27	14.08	48.6°	19.4°	1.00	1.00
90°	7.36	0.00	13.28	56.3°	14.6°	1.00	1.00
110°	7.12	2.43	11.19	73.4°	6.5°	1.00	1.00
120°	6.89	3.45	10.02	83.5°	3.7°	1.00	1.00
135°	6.38	4.51	8.35	102.3°	1.5°	1.00	1.00
150°	5.94	5.15	6.99	125.0°	4.8°	1.00	1.00
165°	5.67	5.47	6.16	151.3°	3.6°	1.00	1.00
180°	5.52	5.52	5.93	180.0°	2.7°	1.00	1.00
176.0° (r)	5.54	5.53	5.94	172.3°	1.0°	1.00	1.00

### TWS = 14 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.8° (b)	6.31	4.85	18.03	24.6°	26.3°	1.00	0.75
52°	7.00	4.31	17.61	31.2°	28.0°	1.00	0.81
60°	7.21	3.61	16.98	35.8°	28.9°	1.00	0.87
70°	7.43	2.54	16.16	42.5°	28.0°	1.00	0.94
75°	7.51	1.94	15.78	46.2°	26.5°	1.00	0.96
80°	7.57	1.31	15.42	50.2°	24.4°	1.00	0.98
90°	7.64	0.00	14.70	58.7°	19.1°	1.00	1.00
110°	7.42	2.54	12.76	77.2°	8.9°	1.00	1.00
120°	7.23	3.62	11.59	87.5°	5.7°	1.00	1.00
135°	6.92	4.89	9.83	105.3°	4.5°	1.00	1.00
150°	6.63	5.74	8.32	126.8°	5.9°	1.00	1.00
165°	6.39	6.17	7.38	152.1°	4.2°	1.00	1.00
180°	6.24	6.24	7.12	180.0°	2.8°	1.00	1.00
177.0° (r)	6.25	6.24	7.13	174.4°	1.1°	1.00	1.00

### TWS = 16 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.8° (b)	6.32	4.86	19.75	25.7°	26.4°	1.00	0.64
52°	7.02	4.32	19.23	32.5°	28.5°	1.00	0.69
60°	7.25	3.63	18.52	37.4°	29.6°	1.00	0.75
70°	7.50	2.57	17.53	44.0°	30.0°	1.00	0.84
75°	7.63	1.97	16.95	47.3°	30.6°	1.00	0.91
80°	7.75	1.35	16.60	51.4°	28.7°	1.00	0.94
90°	7.91	0.00	15.91	60.2°	24.2°	1.00	1.00
110°	7.72	2.64	14.30	80.0°	11.8°	1.00	1.00
120°	7.53	3.76	13.17	90.7°	8.0°	1.00	1.00
135°	7.27	5.14	11.41	108.4°	4.6°	1.00	1.00
150°	7.08	6.13	9.79	129.1°	6.9°	1.00	1.00
165°	6.92	6.69	8.76	153.3°	4.9°	1.00	1.00
180°	6.82	6.82	8.45	180.0°	3.0°	1.00	1.00
178.0° (r)	6.83	6.82	8.45	176.4°	1.2°	1.00	1.00

### TWS = 20 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.1° (b)	6.41	4.90	23.01	27.5°	25.6°	0.48	0.62
52°	7.10	4.37	22.47	35.0°	26.8°	0.50	0.62
60°	7.32	3.66	21.94	41.1°	25.0°	0.53	0.62
70°	7.54	2.58	20.94	48.4°	26.2°	0.85	0.62
75°	7.71	1.99	19.78	50.7°	31.6°	1.00	0.71
80°	7.88	1.37	19.18	54.6°	31.7°	1.00	0.77
90°	8.28	0.00	17.98	62.6°	31.6°	1.00	0.93
110°	8.39	2.87	17.04	83.7°	19.1°	1.00	1.00
120°	8.20	4.10	16.16	94.9°	14.0°	1.00	1.00
135°	7.93	5.61	14.51	112.8°	9.4°	1.00	1.00
150°	7.76	6.72	12.95	132.9°	7.0°	1.00	1.00
165°	7.62	7.36	11.87	155.6°	6.6°	1.00	1.00
180°	7.54	7.54	11.55	180.0°	3.5°	1.00	1.00
179.0° (r)	7.54	7.54	11.55	178.3°	1.7°	1.00	1.00



Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

### Polar Tables

Boat Name: **J/99 Standard Keel**

Sail No:

Sail: **Asymmetric Spinnaker on CL**

Issued On: **1/13/2020 - VPP 2020 1.00**

### TWS = 6 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	3.96	1.98	8.53	36.2°	7.6°	1.00	0.95
70°	4.84	1.65	8.72	38.4°	10.2°	1.00	0.95
75°	5.17	1.34	8.69	39.7°	11.2°	1.00	0.95
80°	5.43	0.94	8.56	41.2°	12.0°	1.00	0.96
90°	5.77	0.00	8.13	44.8°	11.8°	1.00	0.96
110°	5.88	2.01	6.69	54.6°	8.1°	1.00	1.00
120°	5.74	2.87	5.79	61.1°	5.4°	1.00	1.00
135°	5.14	3.64	4.29	77.1°	1.3°	1.00	1.00
150°	4.30	3.73	3.06	105.4°	0.3°	1.00	1.00
165°	3.20	3.09	2.90	148.5°	2.7°	1.00	1.00
180°	3.03	3.03	2.84	180.0°	2.4°	1.00	1.00
144.0° (r)	4.66	3.77	3.48	92.1°	-0.1°	1.00	1.00

### TWS = 8 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	4.99	2.50	11.00	36.1°	16.0°	1.00	0.94
70°	5.92	2.02	10.96	38.5°	20.9°	1.00	0.94
75°	6.24	1.62	10.78	40.1°	22.1°	1.00	0.93
80°	6.47	1.12	10.54	42.1°	22.4°	1.00	0.93
90°	6.78	0.00	9.91	46.8°	21.6°	1.00	0.95
110°	6.94	2.37	8.26	58.8°	15.4°	1.00	1.00
120°	6.85	3.42	7.28	66.2°	10.4°	1.00	1.00
135°	6.37	4.50	5.60	81.6°	3.5°	1.00	1.00
150°	5.43	4.71	4.17	109.4°	1.0°	1.00	1.00
165°	4.20	4.06	3.93	149.0°	2.9°	1.00	1.00
180°	3.99	3.99	3.83	180.0°	2.4°	1.00	1.00
147.5° (r)	5.60	4.72	4.36	103.9°	0.0°	1.00	1.00

### TWS = 10 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.55	2.77	12.93	36.7°	22.3°	0.94	0.93
70°	6.33	2.17	12.73	40.9°	22.5°	0.91	0.85
75°	6.59	1.70	12.48	43.4°	22.5°	0.91	0.84
80°	6.78	1.18	12.16	46.0°	22.4°	0.91	0.84
90°	7.07	0.00	11.38	51.6°	22.3°	0.94	0.85
110°	7.41	2.53	9.42	64.3°	21.5°	1.00	0.97
120°	7.38	3.69	8.53	72.9°	15.1°	1.00	1.00
135°	7.11	5.03	6.88	88.4°	5.8°	1.00	1.00
150°	6.41	5.55	5.34	113.2°	2.0°	1.00	1.00
165°	5.10	4.92	5.04	149.9°	3.2°	1.00	1.00
180°	4.87	4.87	4.90	180.0°	2.5°	1.00	1.00
148.5° (r)	6.52	5.56	5.45	109.8°	1.3°	1.00	1.00

### TWS = 12 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.78	2.89	14.68	38.5°	22.5°	0.82	0.92
70°	6.55	2.24	14.39	43.4°	22.6°	0.82	0.84
75°	6.78	1.76	14.09	46.3°	22.5°	0.82	0.84
80°	6.95	1.21	13.71	49.3°	22.4°	0.83	0.83
90°	7.24	0.00	12.84	55.7°	22.4°	0.85	0.84
110°	7.68	2.63	10.75	69.7°	22.1°	0.94	0.94
120°	7.84	3.92	9.67	78.0°	20.5°	1.00	1.00
135°	7.57	5.35	8.24	95.1°	8.0°	1.00	1.00
150°	7.03	6.09	6.63	118.1°	4.7°	1.00	1.00
165°	5.93	5.73	6.16	150.6°	3.6°	1.00	1.00
180°	5.70	5.70	5.99	180.0°	2.5°	1.00	1.00
150.5° (r)	7.00	6.09	6.59	119.1°	3.8°	1.00	1.00

### TWS = 14 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.90	2.95	16.35	40.2°	22.6°	0.74	0.90
70°	6.67	2.28	16.01	45.7°	22.5°	0.75	0.83
75°	6.90	1.79	15.66	48.8°	22.5°	0.75	0.83
80°	7.07	1.23	15.24	52.1°	22.5°	0.76	0.83
90°	7.38	0.00	14.32	59.0°	22.3°	0.78	0.84
110°	7.93	2.71	12.14	74.0°	22.2°	0.88	0.93
120°	8.22	4.11	10.98	82.4°	22.1°	0.98	0.95
135°	8.07	5.71	9.62	99.5°	10.9°	1.00	1.00
150°	7.37	6.38	8.16	123.2°	4.0°	1.00	1.00
165°	6.63	6.41	7.44	151.7°	4.3°	1.00	1.00
180°	6.42	6.42	7.21	180.0°	2.6°	1.00	1.00
174.0° (r)	6.48	6.44	7.23	168.6°	1.5°	1.00	1.00

### TWS = 16 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.95	2.98	17.98	41.7°	22.6°	0.69	0.87
70°	6.75	2.31	17.59	47.6°	22.5°	0.69	0.83
75°	6.98	1.81	17.21	50.9°	22.5°	0.69	0.84
80°	7.16	1.24	16.77	54.4°	22.4°	0.69	0.84
90°	7.50	0.00	15.80	61.7°	22.3°	0.72	0.85
110°	8.15	2.79	13.57	77.5°	22.2°	0.82	0.93
120°	8.51	4.26	12.38	86.2°	22.2°	0.92	0.94
135°	8.63	6.10	10.95	102.7°	14.4°	1.00	1.00
150°	7.71	6.67	9.73	126.8°	3.8°	1.00	1.00
165°	7.11	6.86	8.92	153.2°	4.6°	1.00	1.00
180°	6.96	6.96	8.61	180.0°	2.7°	1.00	1.00
177.0° (r)	6.98	6.97	8.62	174.6°	1.4°	1.00	1.00

### TWS = 20 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
60°	5.19	2.60	21.20	46.7°	17.7°	0.66	0.52
70°	6.39	2.19	20.97	52.4°	18.8°	0.66	0.52
75°	6.90	1.79	20.50	55.1°	21.1°	0.66	0.58
80°	7.17	1.25	19.85	58.4°	23.0°	0.66	0.65
90°	7.62	0.00	18.81	66.1°	22.7°	0.66	0.73
110°	8.54	2.92	16.49	82.6°	22.2°	0.72	0.93
120°	9.04	4.52	15.26	91.8°	22.2°	0.81	0.94
135°	9.93	7.02	13.27	106.6°	22.0°	1.00	0.98
150°	8.50	7.36	12.80	131.0°	7.7°	1.00	1.00
165°	7.83	7.56	12.09	155.5°	5.9°	1.00	1.00
180°	7.68	7.68	11.79	180.0°	3.0°	1.00	1.00
177.0° (r)	7.70	7.69	11.79	175.0°	2.1°	1.00	1.00



## J/105 - Mixed Keelboat Offshore

The **J/105** (34.6', 10.5m) was introduced in 1991 as the first modern day keelboat with a bowsprit and asymmetric spinnaker. The J/105 ignited the spritboat revolution and now most modern performance boats carry a bowsprit and asymmetric spinnaker. The J/105 was built by J/Composites in France and TPI Composites in the USA through 2015. It's no longer in production. <https://www.jboats.com/j105>

The J/105 is the most prolific one-design keelboat class over 30' in North America and has 665 boats sailing worldwide. The largest J/105 fleets are in the USA, Canada, and Chile (35+ boats) and there are 100+ boats across Europe. The class association is owner governed and professionally managed by the same admin team that looks after the J/22, J/24, J/70 and J/111 classes. <http://j105.org/>

In Europe for many years, the J/105 was the double-handed boat of choice for offshore sailors and has won the RORC Yacht of the Year and scored notable double-handed wins in the 2007 Rolex Fastnet Race and the 2007 Rolex Middle Sea Race.

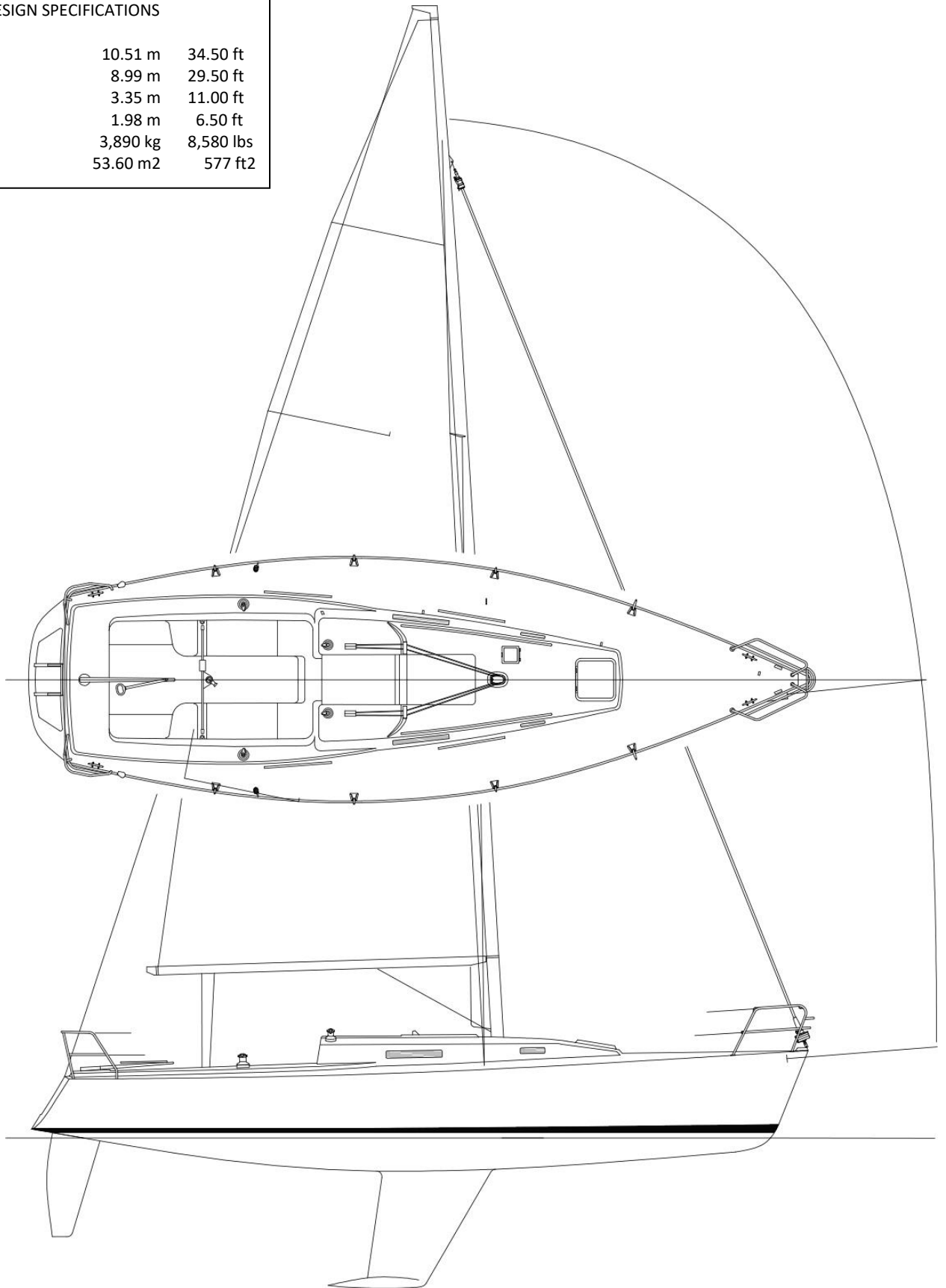
With 20+ boat fleets located in Long Island Sound, NY; Annapolis, MD; Chicago, IL; San Francisco, CA, San Diego, CA; Toronto, CAN; and Santiago, Chile; the J/105 class is uniquely qualified to support regional qualifier events leading up to the 2024 Olympics, particularly in North and South America. Given the class strength, the ready supply of used boats in the US \$60-100k range, and the J/105's stellar offshore double-handed record, we recommend it as suitable equipment for qualification events leading up to the 2024 Olympics.





J/105 ONE-DESIGN SPECIFICATIONS

LOA	10.51 m	34.50 ft
LWL	8.99 m	29.50 ft
Beam	3.35 m	11.00 ft
Draft	1.98 m	6.50 ft
Displacement	3,890 kg	8,580 lbs
100% SA	53.60 m <sup>2</sup>	577 ft <sup>2</sup>













## Race Results

2015-08-20- Fastnet Race- Cowes, England- 635.0nm- IRC DH Class- 1st/ IRC Overall 4th  
<https://jboatnews.blogspot.com/2015/09/the-triumphant-j105-jester.html>

2017-03-11- St Maarten Heineken Regatta- Phillipsburg, St Maarten- CSA 5 Class- 3rd  
2017-03-17- Chesapeake Bay Offshore Series- Annapolis, MD- J/105 Class- 28 boats  
2017-04-01- St Thomas International Regatta- St Thomas, USVI- CSA 2 Racing Class- 3rd  
2017-04-16- Les Voiles de St Barth- Gustavia, St Barthelemy- CSA 4 Racing Class- 3rd  
2017-04-28- Charleston Race Week- Charleston, SC- J/105 Class- 7 boats  
2017-05-07- American YC Spring Series- Rye, NY- J/105 Class- 11 boats  
2017-05-15- Edlu Distance Race- Larchmont, NY- 35.0nm- PHRF 2 Class- 1st and 1st Overall  
2017-06-01- COLORS Regatta- Chicago, IL- J/105 Class- 8 boats  
2017-06-01- Cedar Point One-Design Regatta- Cedar Point, CT- J/105 Class- 11 boats  
2017-06-15- Chicago NOOD Regatta- Chicago, IL- J/105 Class- 9 boats  
2017-07-08- Round Island Race- Cowes, UK- 60.0nm- IRC 2B Class- 2nd, 4th, 5th, 8th  
2017-07-14- Stratford Shoal Race- Riverside, CT- PHRF Doublehanded Class- 1st, 2nd  
2017-07-14- Stratford Shoal Race- Riverside, CT- PHRF 4 Class- 4th  
2017-07-22- Chicago Mackinac Race- Chicago, IL- 289.0nm- J/105 Class- 16 boats  
2017-08-09- Ugotta Regatta- Harbor Springs, MI- J/105 Class- 7 boats  
2017-08-22- Verve Cup Offshore Regatta- Chicago, IL- J/105 Class- 10 boats  
2017-09-05- Vineyard Seaflower Reef Race- Stamford, CT- 150.0nm- PHRF 4 Class- 1st  
2017-09-05- Stamford Vineyard Race- Stamford, CT- 238.0nm- PHRF 7 Class- 2nd  
2017-09-05- Chicago Bi-State Race- Chicago, IL- 55.0nm- J/105 Class- 8 boats  
2017-09-05- Round the Island Race- Newport, RI- 23.0nm- PHRF G Class- 1st  
2017-09-25- Rolex Big Boat Series- San Francisco, CA- J/105 Class- 24 boats  
2017-10-12- American YC Fall Series- Rye, NY- J/105 Class- 10 boats  
2017-10-14- J/105 Canadian Championship- Toronto, ONT, Canada- 16 boats  
2017-11-05- J/105 North American Championship- Houston, TX- 22 boats  
2018-03-10- St Maarten Heineken Regatta- Simpson Bay, St Maarten- CSA 4 Class- 2nd, 3rd  
2018-04-20- Charleston Race Week- Charleston, SC- J/105 Class- 6 boats  
2018-04-20- Voiles de St Barth- Gustavia, St Barthelemy- CSA 3 Class- 3rd  
2018-05-05- American YC Spring Series- Rye, NY- J/105 Class- 13 boats  
2018-05-15- Annapolis NOOD Regatta- Annapolis, MD- J/105 Class- 18 boats  
2018-05-15- American YC Spring Series- Rye, NY\_ J/105 Class- 13 boats  
2018-05-18- Oregon Offshore Race- Astoria, OR- 193.0nm- PHRF A2 Class- 1st  
2018-05-18- RORC Cervantes Race- Cowes, England- 130.0nm- IRC Two-handed Class- 3rd  
2018-06-02- Spinnaker Cup Race- San Francisco, CA- 88.0nm- PHRF F Class- 3rd, 4th  
2018-06-18- Chicago NOOD Regatta- Chicago, IL- J/105 Class- 8 boats  
2018-07-16- Round the Island Race- Cowes, England- 60.0nm- IRC 2B Class- 1st, 4th, 6th, & 7th  
2018-07-20- Bayview Mackinac Race- Port Huron, MI- 270.0nm- ORC E Class- 2nd  
2018-07-25- Chicago Mackinac Race- Chicago, IL- 289.0nm- J/105 Class- 14 boats  
2018-07-25- Whidbey Island Race Week- Whidbey Island, WA- J/105 Class- 10 boats  
2018-08-15- J/105 North American Championship- Harbor Springs, MI- 18 boats  
2018-08-10- New England PHRF Champs- South Dartmouth, MA- PHRF B Class- 1st, 4th, 5th  
2018-08-18- J/105 Great Lakes Championship- Chicago, IL- 9 boats  
2018-08-22- Cowes Race Week- Cowes, England- IRC Doublehanded Class- 2nd & 3rd  
2018-08-26- Chester Race Week- Halifax, Nova Scotia- J/105 Class- 7 boats

2018-09-24- Rolex Big Boat Series- San Francisco, CA- J/105 Class- 28 boats  
2018-09-26- Long Island Sound Championship- Riverside, CT- J/105 Class- 8 boats  
2018-09-26- J/105 Canadian Nationals- Toronto, ONT, Canada- 17 boats  
2018-10-12- American YC Fall Series- Rye, NY- J/105 Class- 18 boats  
2018-11-10- Harvest Moon Race- Houston, TX- 75.0nm- ORC B Class- 1st, 4th  
2019-02-22- St. Petersburg NOOD Regatta- St. Petersburg, FL- PHRF 2 Class- 2nd  
2019-03-09- St Maarten Heineken Regatta- Simpson Bay, St. Maarten- CSA 4 Class- 1st, 2nd  
2019-03-15- J/105 Midwinter Championship- Fort Worth, TX- 11 boats  
2019-03-22- San Diego NOOD Regatta- San Diego, CA- J/105 Class- 9 boats  
2019-04-05- Doublehanded Farallones Race- 58.0nm- PHRF 5 Class- 2nd  
2019-04-22- Charleston Race Week- Charleston, SC- ORC D Class- 1st  
2019-04-22- Charleston Race Week- Charleston, SC- J/105 Class- 7 boats  
2019-05-05- Newport to Ensenada Race- Newport Beach, CA- 125.0nm- PHRF ULDB D Class- 1st  
2019-05-05- American YC Spring Series- Rye, NY- J/105 Class- 8 boats  
2019-05-05- Race to the Straits- Seattle, WA- J/105 Class- 7 boats  
2019-05-05- Singlehanded Farallones Race- 58.0nm- PHRF 5 Class- 2nd  
2019-05-05- Yachting Cup Regatta- San Diego, CA- J/105 Class- 9 boats  
2019-05-15- Oregon Offshore Race- Astoria, OR- 193.0nm- PHRF A2 Class- 1st, 2nd, 3rd  
2019-05-15- Edlu Distance Race- Larchmont, NY- 35.0nm- PHRF 2 Class- 1st  
2019-06-01- STC Block Island Race- Stamford, CT- 186.0nm- PHRF 3 Class- 1st, 2nd  
2019-06-01- FIGAWI Race- Nantucket, MA- 25.0nm- PHRF S2 Class- 1st, 2nd  
2019-06-01- Swiftsure/ Cape Flattery Race- Victoria, BC- 101.9nm- PHRF L3 Class- 1st, 2nd, 3rd/  
1st & 2nd PHRF Overall  
2019-06-01- Spinnaker Cup Race- San Francisco, CA- 100.0nm- PHRF E Class- 2nd  
2019-06-05- Cedar Point One-Design Regatta- Cedar Point, CT- J/105 Class- 8 boats  
2019-06-05- Skyway COLORS Regatta- Chicago, IL- J/88 Class- 6 boats  
2019-06-11- Chicago NOOD Regatta- Chicago, IL- J/105 Class- 6 boats  
2019-06-08- Waukegan Race- Chicago, IL- 35.0nm- J/105 Class- 9 boats  
2019-07-09- Stratford Shoal Race- Riverside, CT- 65.0nm- PHRF 3 Doublehanded Class- 3rd  
2019-07-09- Stratford Shoal Race- Riverside, CT- 65.0nm- PHRF 4 Class- 1st & 5th  
2019-06-25- Block Island Race Week- RI- 15-35.0nm races- 7 total- J/105 Class- 14 boats  
2019-07-22- Chicago Mackinac Race- Chicago, IL- 289.0nm- J/105 Class- 17 boats  
2019-07-27- Bayview Mackinac Race- Port Huron, MI- 260.0nm- ORC I Class- 2nd, 5th  
2019-08-01- Whidbey Island Race Week- Whidbey Island, WA- J/105 Class- 7 boats  
2019-08-03- Santa Barbara to King Harbor Race- CA- 81.0nm- PHRF C Class- 2nd, 3rd, 4th  
2019-08-22- Chester Race Week- Halifax, Nova Scotia- J/105 Class- 7 boats  
2019-08-30- Ted Hood Regatta- Marblehead, MA- J/105 Class- 17 boats  
2019-09-06- Vineyard Seaflower Reef Race- Stamford, CT- 65.0nm- PHRF 5 Class- 2nd  
2019-09-23- Rolex Big Boat Series- San Francisco -15-30.0nm races- 7 total- J/105 class- 23  
boats  
2019-10-05- Annapolis Doublehanded Offshore Race- 100.0nm race- J/105 Class- 8 boats

# J/105 Specifications

---

## Hull & Deck

- Lloyd's approved aircraft grade AL600 epoxy coated C 57 (6 lbs./cu.ft.) Baltek end grained balsa laminate construction using polyester resin and biaxial glass fabrics. A vinyl ester resin barrier coat allows a ten year hull warranty against blisters.
- White (other colors optional) gel coat hull with single (1.50 to 3.00 ) tapered bootstripe.
- Large sit in cockpit with 6.5 seats with backrests suitable for cockpit cushions.
- One lazarette storage locker and two cockpit seat storage lockers w/flush spring loaded latches.
- Swimming and boarding platform sculptured into aft face of full height transom with integral ladder.
- Cockpit coamings 2.5 high over sidedecks to channel water aft.
- Molded companionway slide in seahood w/dodger boss/instrument pod.
- ORC size molded in foredeck toe rails.
- Stainless steel handrails on cabin trunk.
- GRP molded main structural bulkhead bonded fore aft on hull and deck as support for shroud chainplates with single opening to forepeak.
- Fore aft and transverse keel support beams vacuum bagged to hull.
- Fabricated aluminum mast step with transverse beams fastened to main bulkhead.
- Faired lead antimony fixed 6.5 draft fin keel with bulb bolted to a deep molded stub. (5.5' shoal draft option)
- Aluminum mast collar.
- 4 mast mounted turning blocks
- Two Spinlock double rope clutches aft on the cabin top. Port is main halyard and jib halyard. Starboard is for cunningham/reef and spinnaker halyard.
- Two Harken 1997 jib sheet cars on a 3 foot 32mm clear anodized T track (P/S) with aft end stops.
- One Harken camcleat for headsail furler.
- One Spinlock side mounted rope clutch for spinnaker tack line.
- Harken mid sized traveler track recessed in cockpit seat with Harken 4:1 adjustment system.
- 6:1 Harken racing mainsheet system led to a center mounted heavy duty swivel base with single ratchet and camcleat aft of traveler and a 24:1 fine tune system cleated to a swivel base with camcleat on front side of traveler.
- Custom double rail stainless bow pulpit and dual corner stern rails with transom gate.
- Harken #11 low profile furler mounted on stemhead with control line aft to port side of cabin trunk where tail can be used on primary winch.
- Tapered lifeline stanchions with heavy duty deck plates.
- Four 4 bolt mooring cleats.
- Single Harken 1963 foot blocks to lead spinnaker sheets to the cockpit or cabin house.
- Harken cams for lazy spin sheets mounted aft of primary winches.
- Two heavy duty bolts aft for two 1959 spinnaker sheet blocks.

## Mechanical & Steering

- Yanmar 3 M20 20 hp 3 cylinder diesel engine with 80 amp alternator and two blade 15" Martec folding prop with 2 Martec hub.
- Yanmar engine instrument panel in cockpit with acrylic cover.
- Vetus engine throttle control with neutral safety switch.
- 12 gallon alloy fuel tank with baffles and inspection/clean out port.
- Balanced spade rudder constructed using E glass and large diameter shaft mounted in P I rudder bearings.
- Composite tiller with Spinlock hiking handle.
- Lewmar 20x20 articulated foredeck hatch.
- Lewmar 10x10 vent hatch in head.
- Lewmar opening ports in sides of cabin trunk.
- Light weight cored low profile companionway sliding hatch and acrylic offshore dropboard with inside/outside opening hasp.
- Cockpit operated bilge pump.
- Three 12 x 20 polypropylene mesh line bags.
- Custom SS chainplates stemhead and backstay tang.
- Main Cunningham/Reef 57mm block on reef hook for single line reefing system.

## Deck Hardware

- Two Harken 46.2 two speed primary winches with 44:1 power ratio.
- Two Harken 35.2 two speed secondary winches on cabin trunk.
- Double sheave deck organizers (P/S) recessed in dodger spray shield molding.
- Two lock in winch handles (10 ).
- Two PVC winch handle holders

## Electrical

- One 90 amp deep cycle battery.
- Guest On/Off battery switch.
- Electrical panel w/circuit breakers.
- LED Navigation lights.
- All chainplates with lightning grounds.
- Five swiveling halogen reading lights.
- One fluorescent light in head.
- Seahood pre wired for instruments with 6 wire 22 gauge cable to nav station

- Automatic bilge pump w/check valve panel switch for manual operation

### Spars & Rigging

- Sparcraft One Design tapered aluminum fractional rig mast with double airfoil spreaders plus boom in anodized finish (powder coat white optional)
- Nitronic 50 rod rigging and Ronstan calibrated turnbuckles.
- Custom 4.25 diameter clear coated carbon fiber retractable /Sprit with 1:2 under deck Harken launching system.
- Running rigging package w/Aracom T Main 1/2 Halyards LS 1/2 main spin sheets spin halyard. Also includes reef line cunningham pole control tack line traveler control lines and main fine tune. Rigging options include Euplite main halyard and outhaul shackles.
- Sailtech 10 integral hydraulic backstay adjuster with 9.5 throw for 6 rod backstay.
- Rigid boomvang with integral cleating.
- Main boom with 1 reef stopper to port and 2 reef sheave on starboard side to double as Cunningham.
- 12:1 internal mainsail outhaul on boom.

### Interior

- Off white Formica low maintenance bulkheads and lightweight bin panels with vinyl trim cold molded teak cap moldings.
- Teak and holly style synthetic high wear cabin sole with epoxy sealed end grain.
- Storage bins outboard of settee berths.
- Nav station with flip up lid to access charter storage and outboard shelf and nav panel to house instruments.
- Galley unit with polished stainless galley sink with fresh water foot pump and 5 gallon portable water tank with thru hull drain.
- Forward of the main bulkhead is a changing area hanging locker and Raritan PH 2 marine head with 12 gal polyethylene holding tank or valve for direct offshore discharge.
- Holding tank overboard discharge manual pump.
- Forward of the head area is a lightweight bulkhead with V berth and below berth storage.

- Choice of Sunbrella acrylic fabrics for main cabin settee cushions. Optional V berth cushions as well as cockpit cushions that double as settee backrests below.
- Vinyl liner on cabin overhead and hull ceilings.
- 12x18 mirror in head.
- Rugged 54 qt. top opening portable cooler under companionway ladder.

### J/105 Options

#### Graphic Options:

- Two Tone Deck.
- 1/2 Cove Stripe with Insignia.

#### Custom Wheel Package:

- Edson Racing Series 48 Black Aluminum Wheel with Natural Leather Grip Ritchie 5 Binnacle Compass with Light Custom GRP Molded Pedestal with SS Guard Aluminum Emergency Tiller.

#### Comfort Group Package:

- Dual Purpose Sunbrella 3 Cockpit/Settee Backrest Cushions to match below cushion color combination (4) Custom Acrylic Covered AC Hose Lifeline Covers for Helmsman to Match Dodger Color Mainsail Cover to Match Dodger with J/105 Logo.

#### Systems Group Package:

- Sink in Vanity Counter of Forward Head with Foot Pump plumbed and led to the galley sink discharge 1" Thru hull with inline check valve, Fresh Water Tank under Starboard Berth with Deck Fill 2 Burner stove.

### Other Options

- Additional 90 Amp Battery
- Shoal Bulb keel with 5.5 Draft.
- V berth Cushions
- Ports on Aft Face of Cabin House (2).
- Stainless Grab Rails in Main Cabin
- Thurston Dodger with Side Curtains

NOTICE: Specifications are effective on hull 685 and subject to change prior to delivery due to deletions additions or revisions in quantities brand or design at the sole discretion of J/Boats Inc. Newport RI.

# MUSTO IRC

## Copy Certificate

Issued by the RORC Rating Office. Email: info@rorcrating.com website: www.rorcrating.com

<b>Boat</b>		<b>Stability</b>	
Name:	JEOPARDY	SSS Base Value:	25
Sail Number:	GBR6605R	Adjustment Value:	0
Cert No.:	GBR 17482	SSS Numeral:	25
<b>TCC:</b>	<b>1.017 2008</b>	ISO STIX:	33
<b>ENDORSED</b>		AVS:	122
		ISO Category:	A

<b>General Details</b>					
Design:	J 105	Series date:	1991	Hull factor:	9.3
Type:	Bermudian Sloop	Age Date:	2008	Rig factor:	1.03
		Crew No.:	8	Overhang factor:	1.010
Issue:	Amended: Bowsprit only & spreader angle				
Notes:	Seahorse weighed; Overhangs & Rig RORC measured				
Notes:	Saildata from sailmaker				

<b>Hull</b>	<b>Overhangs</b>	<b>Rig / Main</b>	<b>Headsail</b>	<b>Mizzen</b>	<b>Spinnaker</b>						
LOA:	10.50	BO:	0.57	P:	12.64	LLmax:	12.15	PY:	0.00	SPA:	93.89
LWP:	9.42	x:	0.05	E:	4.45	LL:	12.15	EY:	0.00	STL:	5.83
Beam:	3.35	h:	0.05	J:	4.13	LP:	4.14	LLY:	0.00		
Weight (empty):	3978	SO:	0.51	FL:	13.05	HHW:	2.09	LPY:	0.00		
IRC Disp:	4629	y:	0.09	MUW:	0.95	HTW:	1.14				
DLR:	154			MTW:	1.67	HHB:	0.10				
Draft:	1.98			MHW:	2.81	HSA:	25.56				

<b>Detail</b>	
Low vcg lead single keel	No Spinnaker TCC: 0.994
No wing keel	Multiple headsails permitted
Inboard engine : Weight 114kg	Max number of spinnakers carried: 3
2 blade folding/feathering propeller	Bowsprit only
Internal ballast: 0 kg	2 Spreader (sets) 0 Jumper (sets)
Weight includes batteries/cushions	0 Runner (sets) 0 Checkstay (sets)
ISAF OSR compliant guardrails fitted	Aluminium Mast Rod standing rigging
Manual power only for running rigging	HSA=0.125*LL*(2*LP +3*HHW + 2*HTW)
No variable/moveable ballast carried	SPA=((SLU+SLE)/2)*((SF+(4*SHW))/5)*0.83

Certificate issued by the RORC Rating Office and VALID from 15 May 2008

Expires 31 Dec 2008 unless superseded or invalidated by IRC Rules and Regulations

I accept the dimensions shown on this certificate and agree to report all subsequent changes and any errors found at a later date to the issuing Authority

Signed: \_\_\_\_\_ (Owner)

Richard Watney

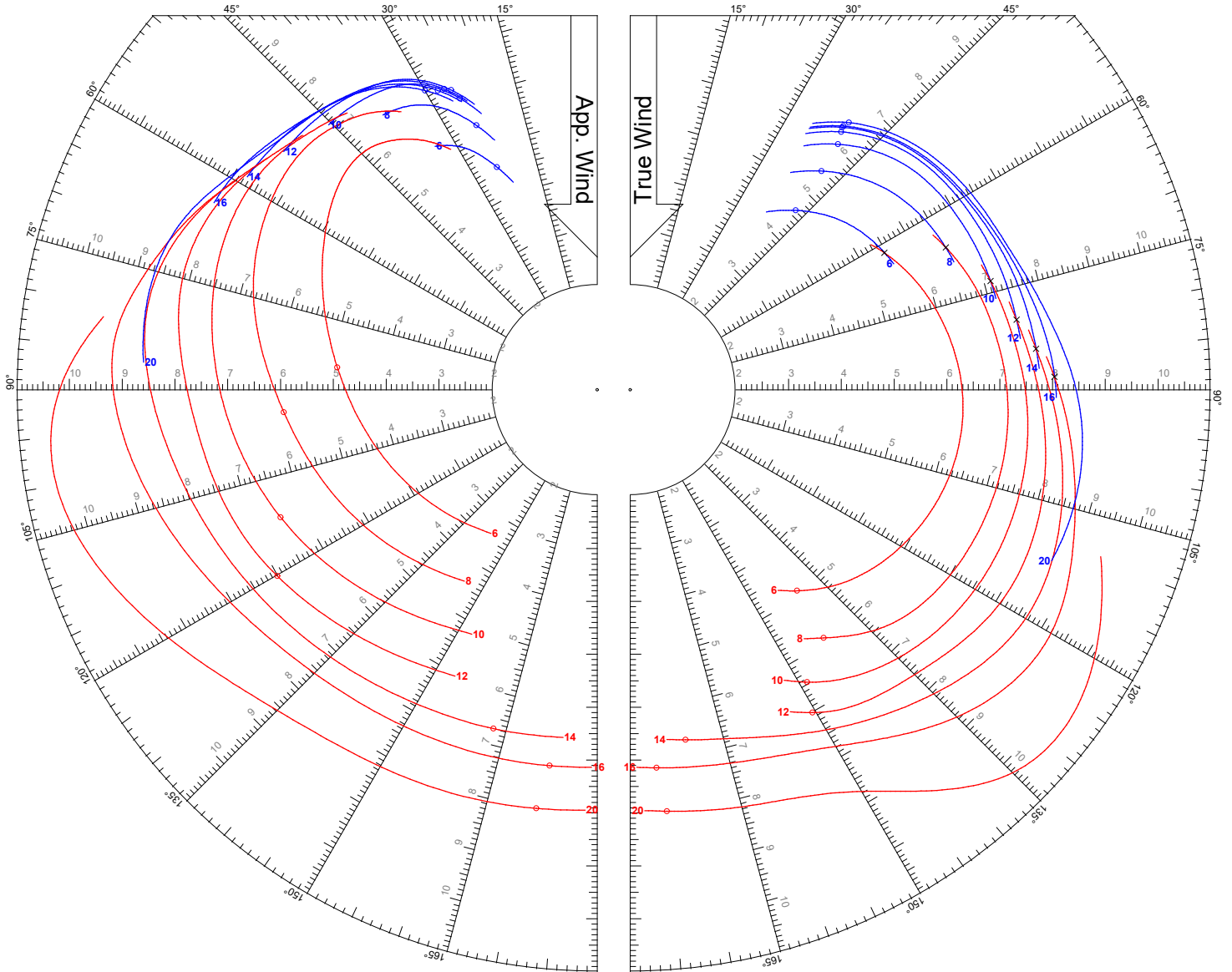
A copy of this certificate shall be kept aboard the boat when racing

# COPY CERTIFICATE

(C) RORC/UNCL 2008



# Speed Guide



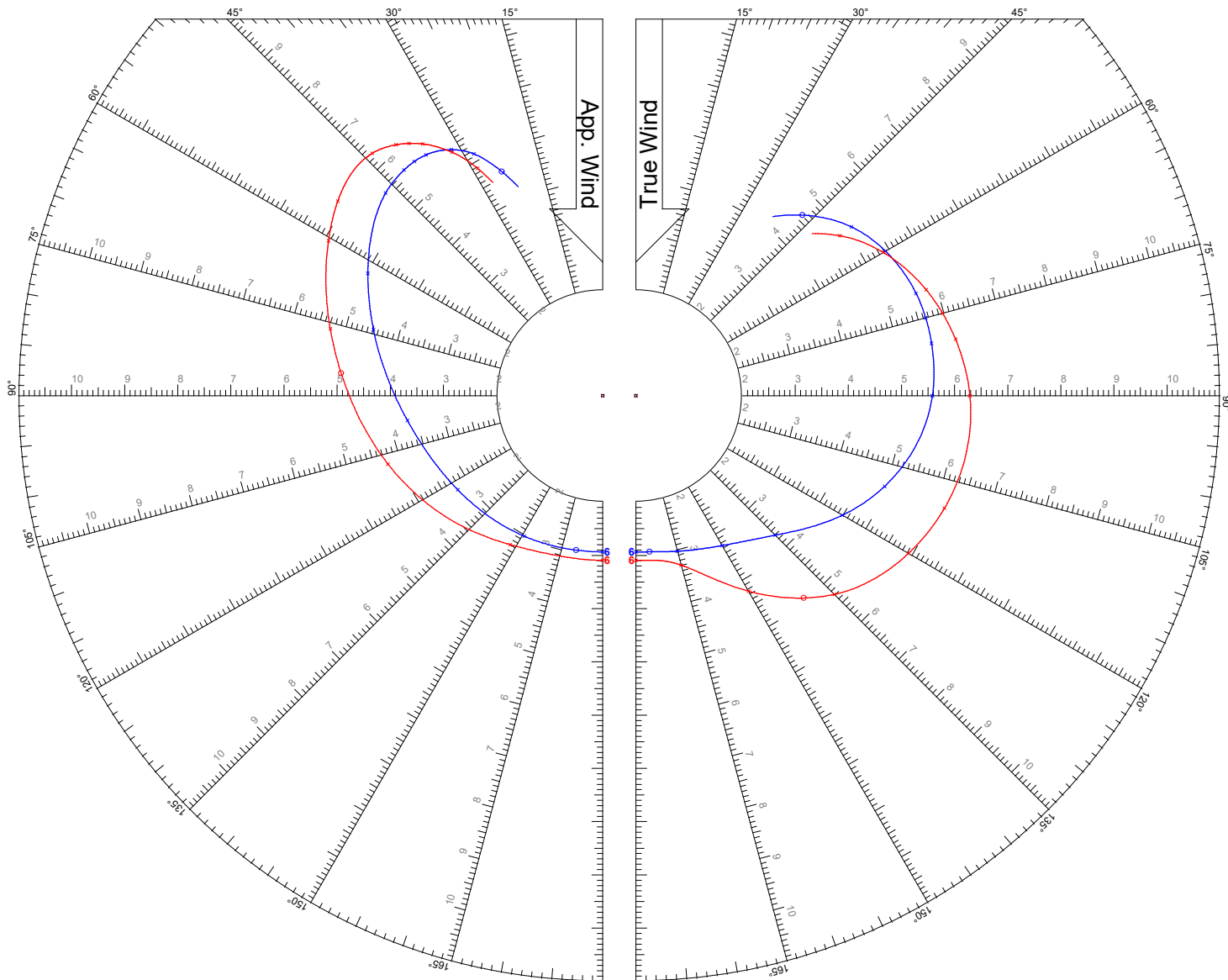
Polar Plot for Boat	
Name	J/105
Sail Number	
Class	OD Config
Designer	Rodney Johnstone
Builder	J Boats, Inc.
Issued On	1/13/2020 - VPP 2020 1.00

TWS: 6, 8, 10, 12, 14, 16, 20 kts

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



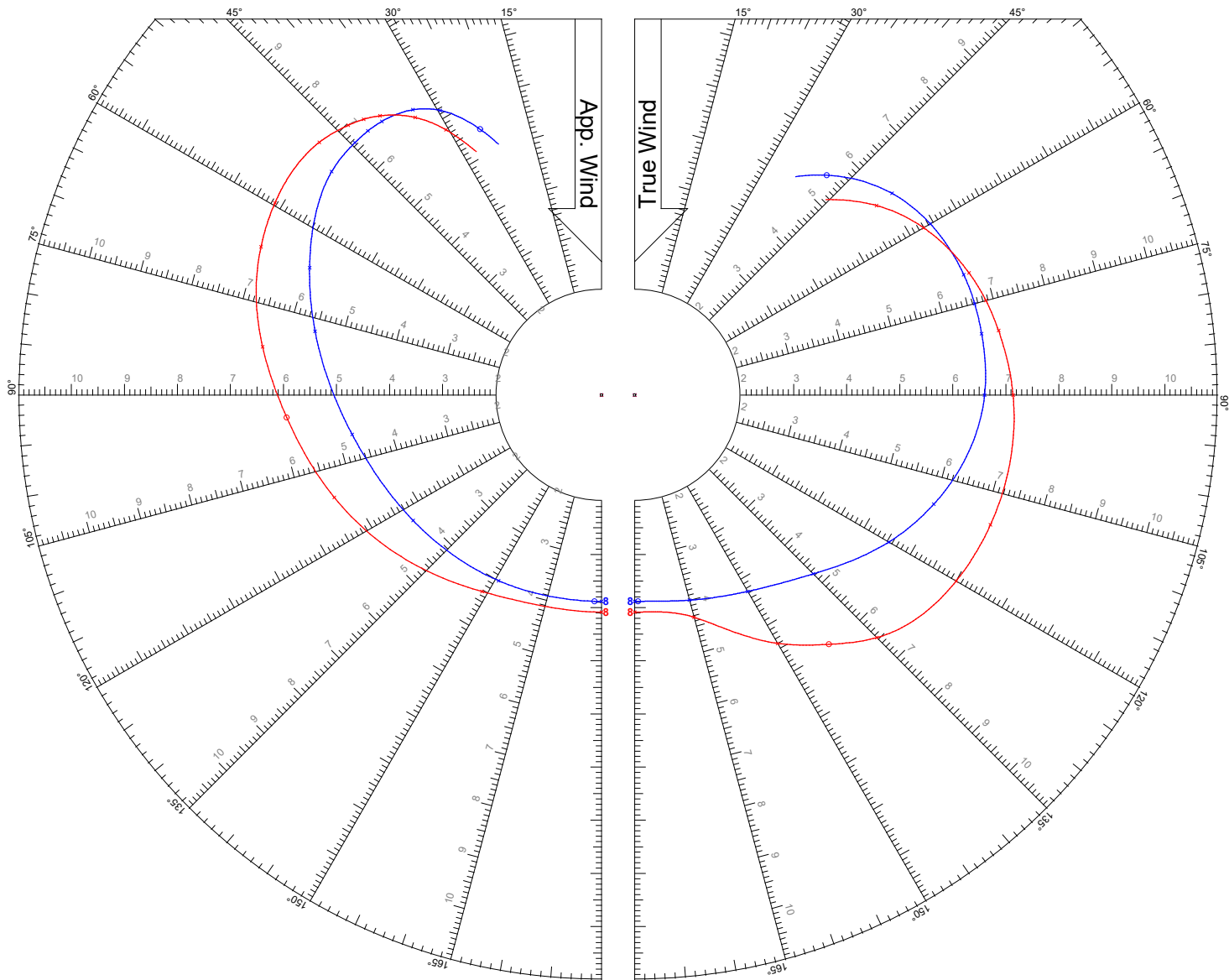
Polar Plot for Boat	
Name	J/105
Sail Number	
Class	OD Config
Designer	Rodney Johnstone
Builder	J Boats, Inc.
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 6 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



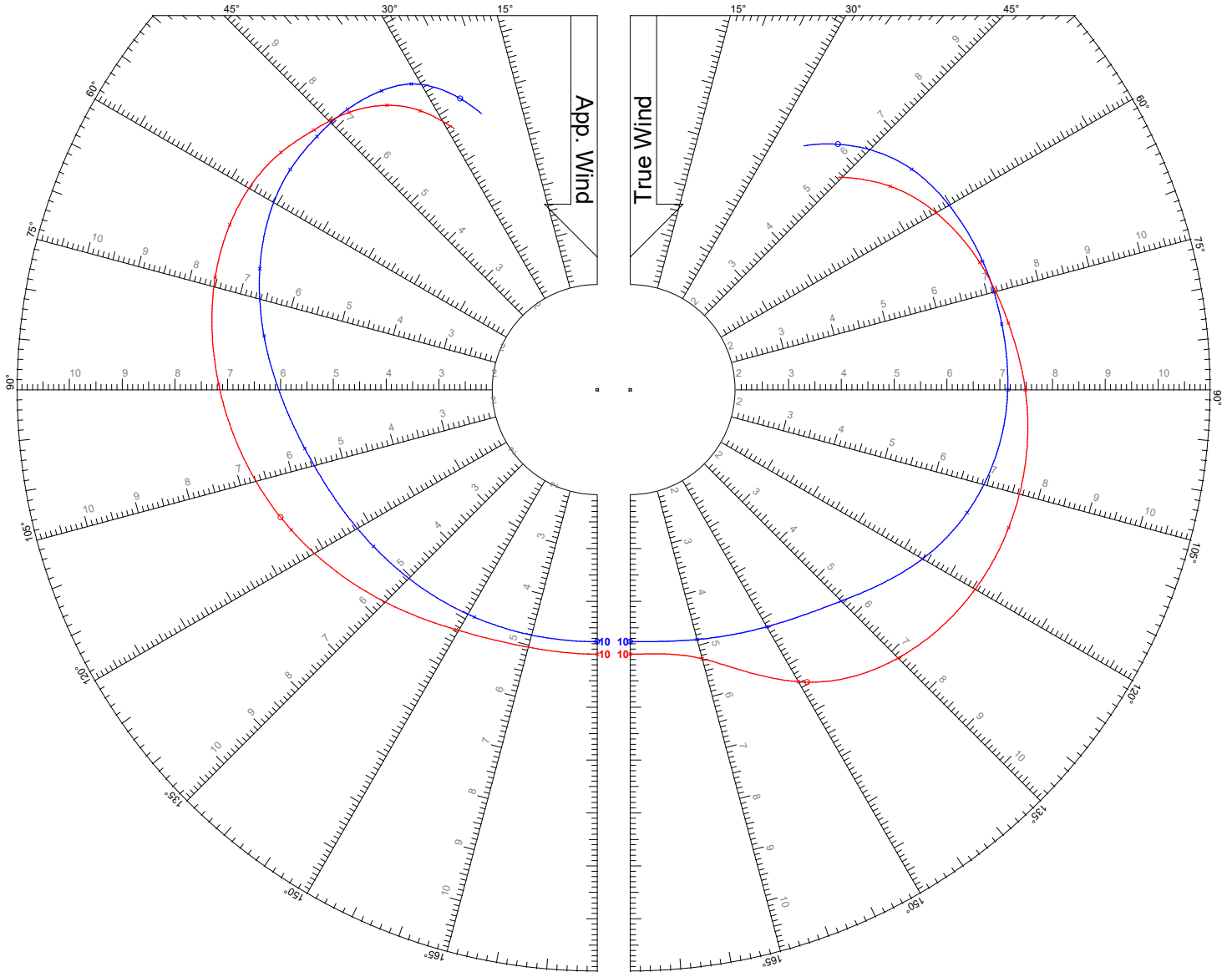
Polar Plot for Boat	
Name	J/105
Sail Number	
Class	OD Config
Designer	Rodney Johnstone
Builder	J Boats, Inc.
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 8 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



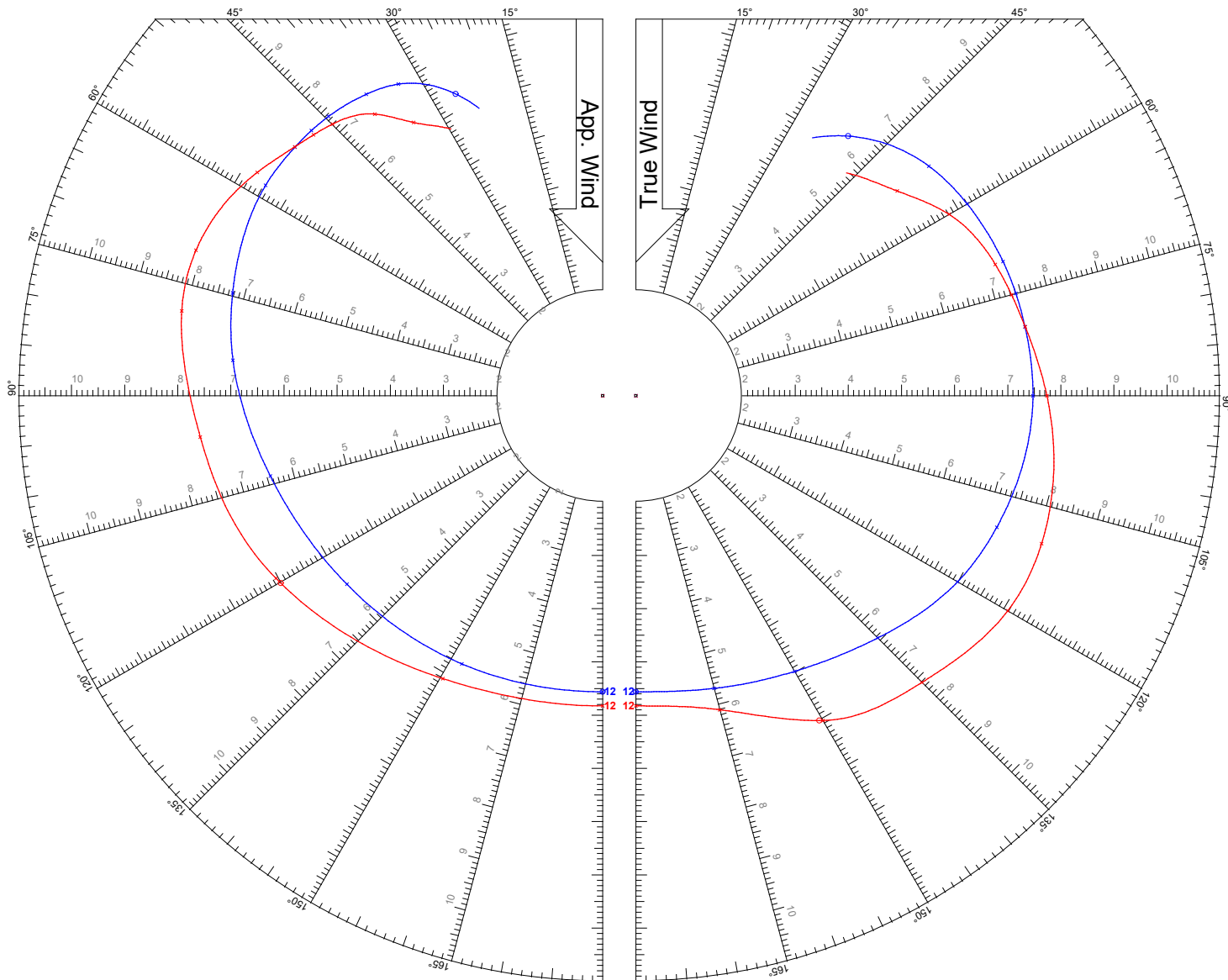
Polar Plot for Boat	
Name	J/105
Sail Number	
Class	OD Config
Designer	Rodney Johnstone
Builder	J Boats, Inc.
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 10 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



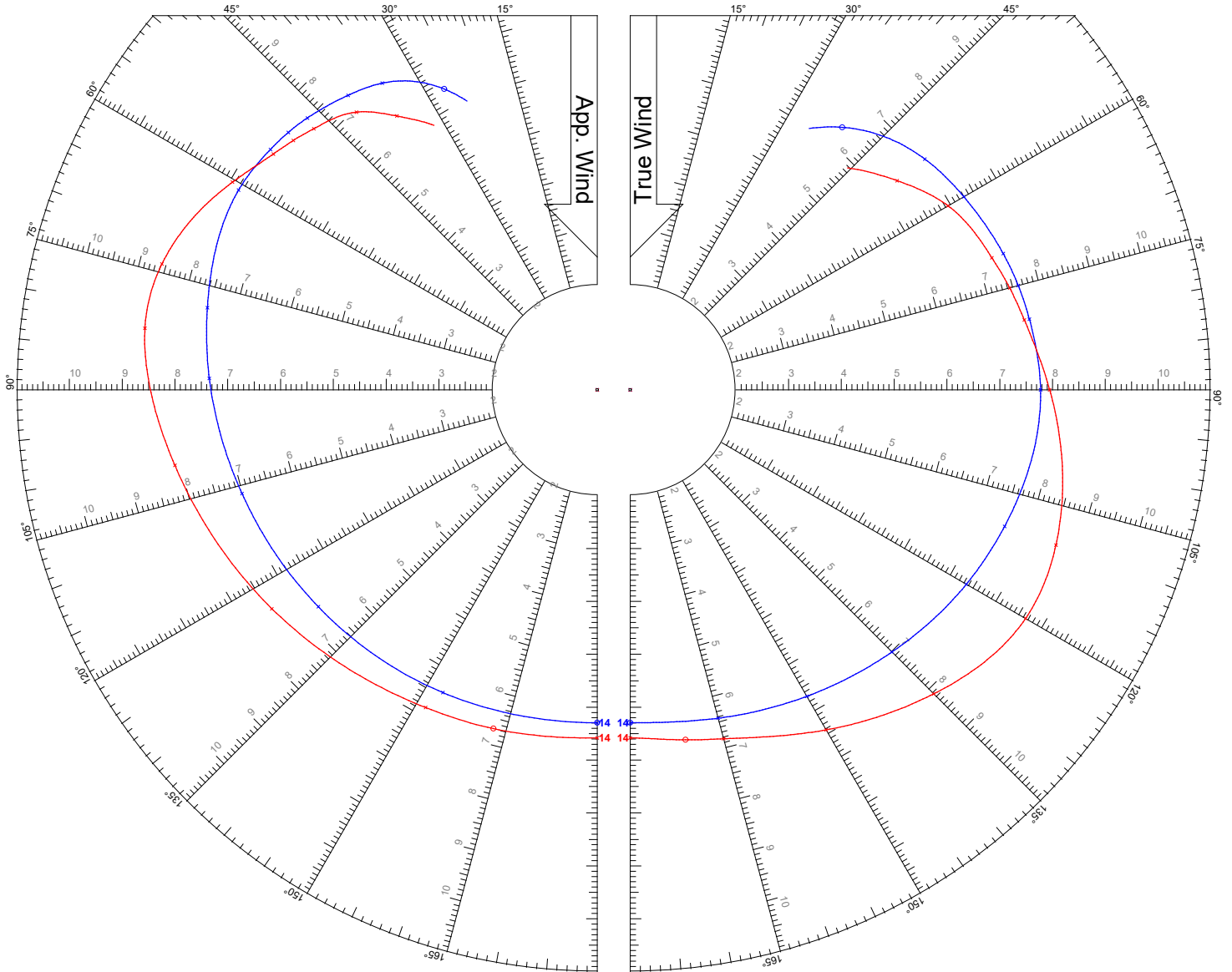
Polar Plot for Boat	
Name	J/105
Sail Number	
Class	OD Config
Designer	Rodney Johnstone
Builder	J Boats, Inc.
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 12 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



## Polar Plot for Boat

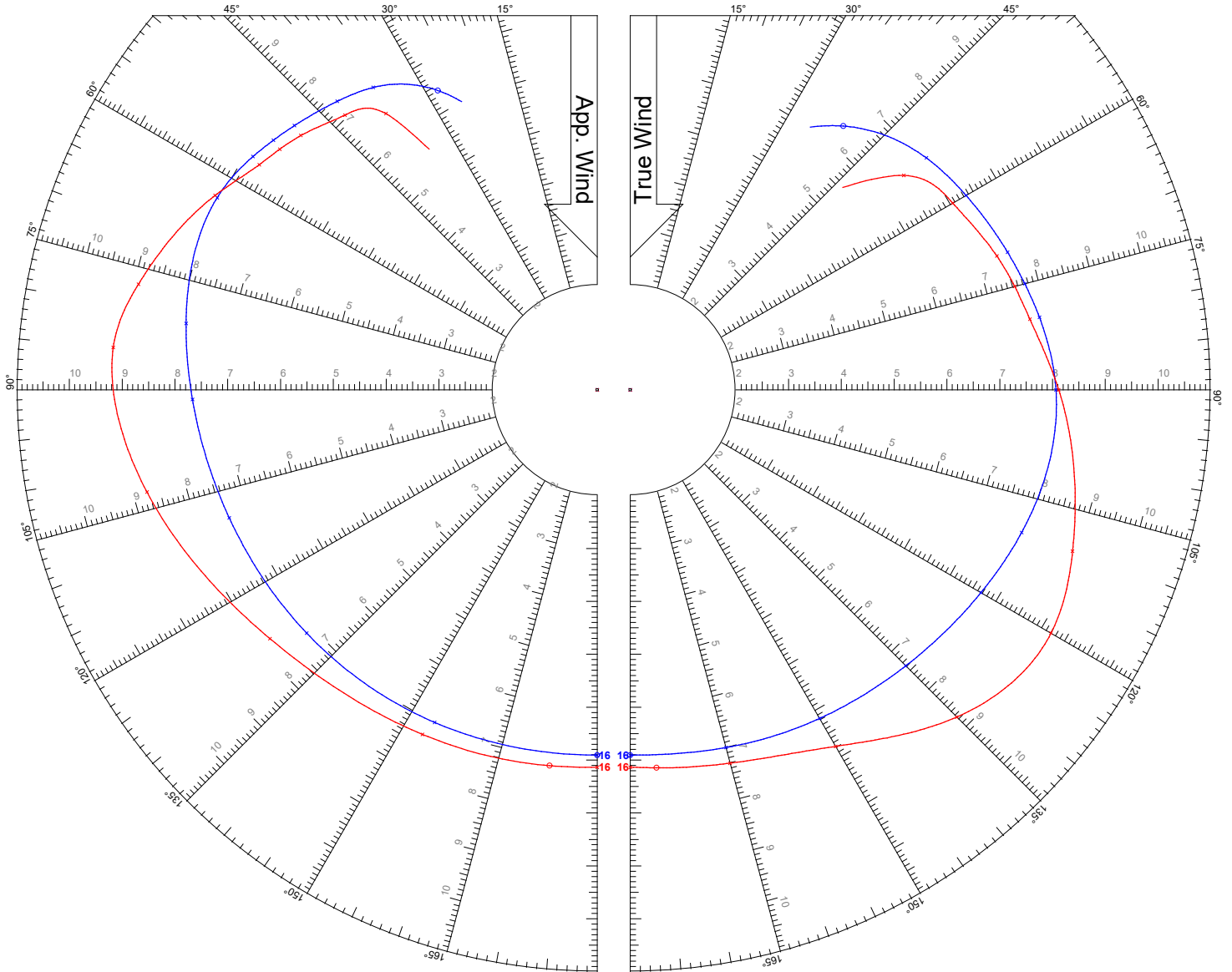
Name **J/105**  
Sail Number  
Class **OD Config**  
Designer **Rodney Johnstone**  
Builder **J Boats, Inc.**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 14 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



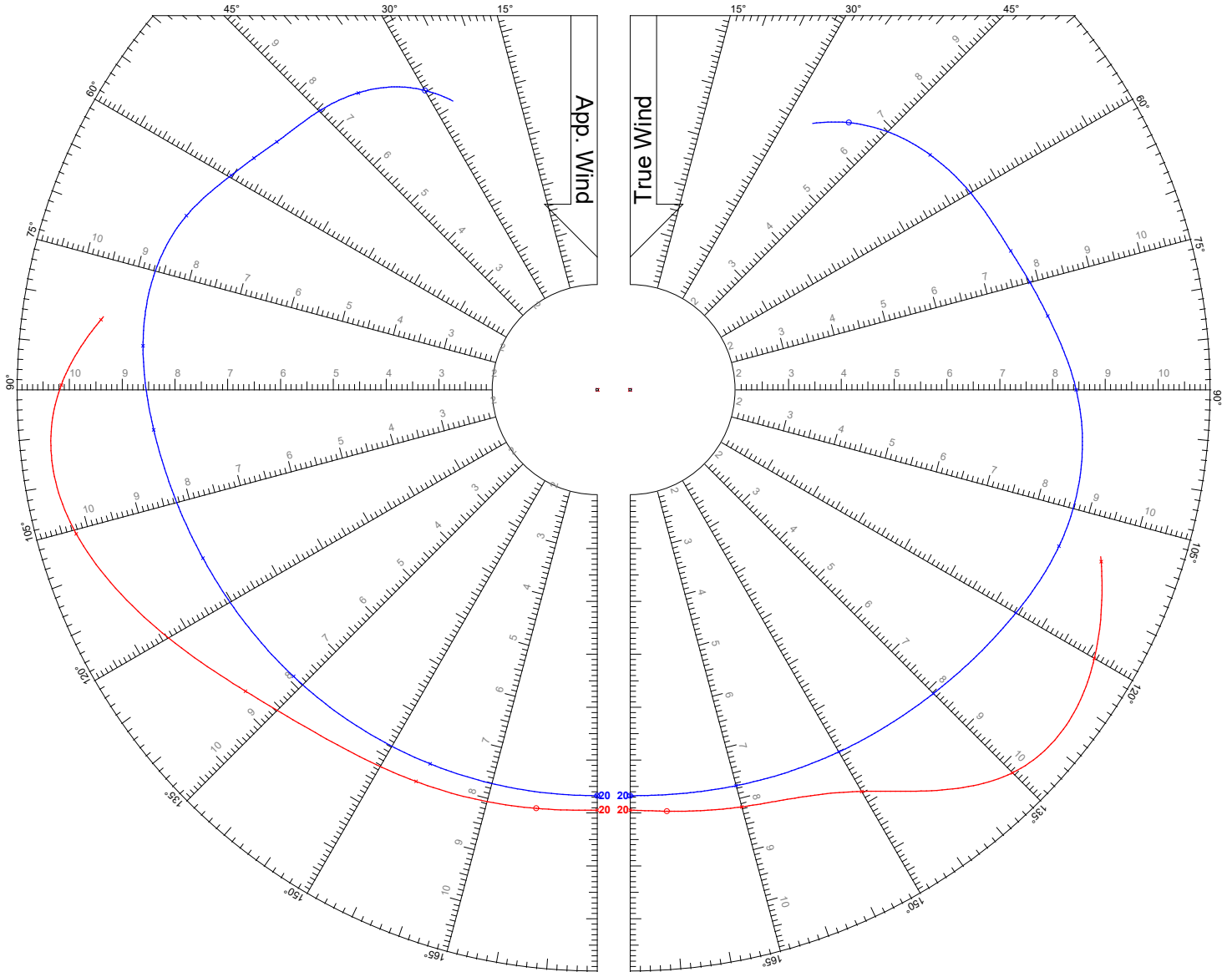
Polar Plot for Boat	
Name	J/105
Sail Number	
Class	OD Config
Designer	Rodney Johnstone
Builder	J Boats, Inc.
Issued On	1/13/2020 - VPP 2020 1.00

**TWS: 16 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**

# Speed Guide



### Polar Plot for Boat

Name **J/105**  
Sail Number  
Class **OD Config**  
Designer **Rodney Johnstone**  
Builder **J Boats, Inc.**  
Issued On **1/13/2020 - VPP 2020 1.00**

**TWS: 20 kts**

**Headsail**

**Asymmetric Spinnaker on Centerline**





Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

**Polar Tables**Boat Name: **J/105**

Sail No:

Sail: **Best Performance**Issued On: **1/13/2020 - VPP 2020 1.00****TWS = 6 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.8° (b)	4.62	3.39	9.90	24.3°	6.9°	1.00	1.00
52°	5.15	3.17	10.03	28.1°	7.1°	1.00	1.00
60°	5.43	2.71	9.90	31.7°	6.8°	1.00	1.00
70°	5.81	1.99	9.68	35.6°	13.1°	1.00	0.94
75°	5.98	1.55	9.50	37.6°	12.9°	1.00	0.94
80°	6.11	1.06	9.28	39.6°	12.4°	1.00	0.94
90°	6.29	0.00	8.69	43.6°	11.0°	1.00	0.95
110°	6.18	2.11	6.99	53.8°	6.5°	1.00	0.97
120°	5.92	2.96	5.96	60.6°	4.2°	1.00	1.00
135°	5.28	3.73	4.37	76.3°	0.8°	1.00	1.00
150°	4.24	3.67	3.15	107.7°	3.0°	1.00	1.00
165°	3.29	3.18	2.94	148.2°	2.7°	1.00	1.00
180°	3.09	3.09	2.91	180.0°	2.4°	1.00	1.00
140.3° (r)	4.94	3.80	3.85	85.1°	0.0°	1.00	1.00

**TWS = 8 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
41.3° (b)	5.50	4.13	12.66	24.6°	13.3°	1.00	1.00
52°	6.16	3.79	12.75	29.6°	13.6°	1.00	1.00
60°	6.44	3.22	12.53	33.6°	12.9°	1.00	1.00
70°	6.71	2.30	12.07	38.5°	22.5°	1.00	0.91
75°	6.86	1.78	11.81	40.9°	22.3°	1.00	0.92
80°	6.97	1.21	11.49	43.3°	21.5°	1.00	0.93
90°	7.14	0.00	10.72	48.3°	18.9°	1.00	0.94
110°	7.14	2.44	8.71	59.6°	11.8°	1.00	0.98
120°	7.00	3.50	7.55	66.6°	7.9°	1.00	1.00
135°	6.46	4.57	5.71	82.0°	2.4°	1.00	1.00
150°	5.40	4.67	4.28	111.0°	3.5°	1.00	1.00
165°	4.33	4.18	3.98	148.6°	3.0°	1.00	1.00
180°	4.08	4.08	3.92	180.0°	2.5°	1.00	1.00
142.0° (r)	5.95	4.69	4.94	94.1°	0.6°	1.00	1.00

**TWS = 10 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.3° (b)	6.08	4.64	15.16	25.3°	20.1°	1.00	0.96
52°	6.77	4.17	15.14	31.4°	20.5°	1.00	0.98
60°	6.97	3.49	14.78	35.9°	19.7°	1.00	1.00
70°	7.10	2.43	14.11	41.8°	17.0°	1.00	1.00
75°	7.17	1.86	13.73	44.7°	25.8°	1.00	0.77
80°	7.27	1.26	13.35	47.5°	25.3°	1.00	0.80
90°	7.48	0.00	12.49	53.2°	25.8°	1.00	0.91
110°	7.63	2.61	10.30	65.9°	16.6°	1.00	0.97
120°	7.54	3.77	9.03	73.6°	11.6°	1.00	1.00
135°	7.17	5.07	7.07	89.2°	3.9°	1.00	1.00
150°	6.37	5.52	5.50	114.6°	3.9°	1.00	1.00
165°	5.26	5.08	5.10	149.5°	3.5°	1.00	1.00
180°	5.00	5.00	5.00	180.0°	2.5°	1.00	1.00
148.8° (r)	6.47	5.53	5.59	111.9°	2.8°	1.00	1.00

**TWS = 12 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.4° (b)	6.30	4.87	17.34	26.0°	24.5°	1.00	0.88
52°	7.00	4.31	17.22	33.3°	25.8°	1.00	0.93
60°	7.20	3.60	16.80	38.2°	24.7°	1.00	0.95
70°	7.36	2.52	16.08	44.5°	22.5°	1.00	0.98
75°	7.41	1.92	15.65	47.8°	21.3°	1.00	1.00
80°	7.44	1.29	15.18	51.1°	27.0°	0.94	0.77
90°	7.74	0.00	14.28	57.2°	28.0°	1.00	0.78
110°	8.13	2.78	11.97	70.4°	21.9°	1.00	0.95
120°	8.08	4.04	10.60	78.7°	15.9°	1.00	1.00
135°	7.62	5.38	8.53	95.8°	5.6°	1.00	1.00
150°	7.05	6.10	6.87	119.2°	4.4°	1.00	1.00
165°	6.11	5.90	6.30	150.5°	4.0°	1.00	1.00
180°	5.83	5.83	6.17	180.0°	2.6°	1.00	1.00
150.5° (r)	7.01	6.10	6.83	120.2°	5.0°	1.00	1.00

**TWS = 14 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	6.38	4.96	19.38	27.0°	25.2°	1.00	0.74
52°	7.08	4.36	19.19	35.1°	26.9°	1.00	0.80
60°	7.30	3.65	18.75	40.3°	26.9°	1.00	0.85
70°	7.52	2.57	18.02	46.9°	27.1°	1.00	0.94
75°	7.61	1.97	17.58	50.3°	25.5°	1.00	0.96
80°	7.68	1.33	17.10	53.8°	23.5°	1.00	0.97
90°	7.95	0.00	16.10	60.4°	28.5°	0.94	0.77
110°	8.58	2.94	13.69	73.9°	27.7°	1.00	0.94
120°	8.65	4.32	12.24	82.3°	20.9°	1.00	1.00
135°	8.13	5.75	10.06	100.1°	8.1°	1.00	1.00
150°	7.42	6.43	8.43	123.9°	4.8°	1.00	1.00
165°	6.83	6.60	7.61	151.6°	4.7°	1.00	1.00
180°	6.58	6.58	7.42	180.0°	2.7°	1.00	1.00
171.0° (r)	6.70	6.62	7.46	162.9°	3.9°	1.00	1.00

**TWS = 16 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	6.41	4.98	21.37	28.1°	25.5°	1.00	0.64
52°	7.12	4.38	21.14	36.6°	27.3°	1.00	0.69
60°	7.35	3.67	20.68	42.1°	28.2°	1.00	0.75
70°	7.61	2.60	19.93	49.0°	28.7°	1.00	0.84
75°	7.74	2.00	19.49	52.5°	28.8°	1.00	0.89
80°	7.87	1.37	19.02	55.9°	28.2°	1.00	0.94
90°	8.12	0.00	17.94	63.1°	29.3°	0.94	0.65
110°	8.92	3.05	15.42	77.1°	30.0°	0.96	0.92
120°	9.20	4.60	13.91	85.0°	24.6°	1.00	0.97
135°	8.75	6.19	11.60	102.8°	11.0°	1.00	1.00
150°	7.78	6.74	10.04	127.2°	4.5°	1.00	1.00
165°	7.31	7.06	9.14	153.1°	5.6°	1.00	1.00
180°	7.14	7.14	8.86	180.0°	2.8°	1.00	1.00
176.0° (r)	7.16	7.15	8.87	172.8°	1.5°	1.00	1.00

**TWS = 20 Kts**

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.4° (b)	6.53	5.05	25.39	30.0°	24.6°	0.47	0.62
52°	7.21	4.44	25.09	38.9°	26.3°	0.50	0.62
60°	7.44	3.72	24.58	44.8°	24.7°	0.50	0.62
70°	7.67	2.62	23.74	52.3°	24.5°	0.77	0.62
75°	7.84	2.03	23.29	56.0°	30.1°	1.00	0.70
80°	8.03	1.39	22.81	59.7°	30.4°	1.00	0.77
90°	8.45	0.00	21.71	67.1°	30.8°	1.00	0.92
110°	9.49	3.25	18.98	82.0°	30.3°	0.90	0.82
120°	10.15	5.08	17.32	89.5°	30.5°	0.97	0.93
135°	10.24	7.24	14.67	105.4°	18.5°	1.00	1.00
150°	8.77	7.59	13.16	130.5°	7.4°	1.00	1.00
165°	8.16	7.88	12.30	155.1°	5.8°	1.00	1.00
180°	7.95	7.95	12.05	180.0°	3.1°	1.00	1.00
175.0° (r)	8.00	7.97	12.05	171.7°	2.6°	1.00	1.00



Offshore Racing Congress  
World leader in rating technology

© Offshore Racing Congress 2020

www.orc.org

### Polar Tables

Boat Name: **J/105**

Sail No:

Sail: **Jib**

Issued On: **1/13/2020 - VPP 2020 1.00**

### TWS = 6 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.8° (b)	4.62	3.39	9.59	23.6°	6.9°	1.00	1.00
52°	5.15	3.17	9.73	27.2°	7.1°	1.00	1.00
60°	5.43	2.71	9.61	30.6°	6.8°	1.00	1.00
70°	5.61	1.92	9.24	35.1°	6.0°	1.00	1.00
75°	5.65	1.46	8.98	37.5°	5.5°	1.00	1.00
80°	5.65	0.98	8.68	40.1°	4.8°	1.00	1.00
90°	5.58	0.00	7.97	45.5°	3.5°	1.00	1.00
110°	4.98	1.70	6.16	60.5°	0.6°	1.00	1.00
120°	4.49	2.24	5.21	71.8°	0.0°	1.00	1.00
135°	3.71	2.62	4.08	95.0°	0.0°	1.00	1.00
150°	3.25	2.82	3.33	120.8°	2.9°	1.00	1.00
165°	3.03	2.92	2.88	149.3°	2.7°	1.00	1.00
180°	2.93	2.93	2.76	180.0°	2.4°	1.00	1.00
175.0° (r)	2.94	2.93	2.77	169.7°	0.6°	1.00	1.00

### TWS = 8 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
41.3° (b)	5.50	4.13	12.20	23.5°	13.3°	1.00	1.00
52°	6.16	3.79	12.28	28.2°	13.6°	1.00	1.00
60°	6.44	3.22	12.06	32.0°	12.9°	1.00	1.00
70°	6.61	2.26	11.55	37.2°	11.4°	1.00	1.00
75°	6.64	1.72	11.22	39.9°	10.3°	1.00	1.00
80°	6.65	1.15	10.85	42.8°	9.3°	1.00	1.00
90°	6.60	0.00	10.01	48.8°	7.0°	1.00	1.00
110°	6.01	2.05	7.92	64.6°	2.3°	1.00	1.00
120°	5.53	2.77	6.83	75.4°	0.6°	1.00	1.00
135°	4.76	3.37	5.45	96.9°	0.0°	1.00	1.00
150°	4.27	3.69	4.47	121.6°	3.4°	1.00	1.00
165°	4.00	3.86	3.87	149.5°	2.9°	1.00	1.00
180°	3.88	3.88	3.70	180.0°	2.5°	1.00	1.00
179.0° (r)	3.88	3.88	3.70	178.0°	0.6°	1.00	1.00

### TWS = 10 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.3° (b)	6.08	4.64	14.44	23.3°	20.1°	1.00	0.96
52°	6.77	4.17	14.36	28.9°	20.5°	1.00	0.98
60°	6.97	3.49	13.99	33.3°	19.7°	1.00	1.00
70°	7.10	2.43	13.37	39.4°	17.0°	1.00	1.00
75°	7.14	1.85	13.01	42.5°	15.5°	1.00	1.00
80°	7.15	1.24	12.61	45.8°	13.9°	1.00	1.00
90°	7.15	0.00	11.74	52.5°	10.7°	1.00	1.00
110°	6.79	2.32	9.60	68.4°	4.3°	1.00	1.00
120°	6.39	3.20	8.42	78.9°	2.0°	1.00	1.00
135°	5.65	4.00	6.83	99.4°	5.0°	1.00	1.00
150°	5.17	4.48	5.67	123.0°	4.0°	1.00	1.00
165°	4.89	4.72	4.93	150.2°	3.2°	1.00	1.00
180°	4.76	4.76	4.72	180.0°	2.6°	1.00	1.00
180.0° (r)	4.76	4.76	4.72	180.0°	0.6°	1.00	1.00

### TWS = 12 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.4° (b)	6.30	4.87	16.33	23.4°	24.5°	1.00	0.88
52°	7.00	4.31	16.04	29.8°	25.8°	1.00	0.93
60°	7.20	3.60	15.58	34.6°	24.7°	1.00	0.95
70°	7.36	2.52	14.89	41.1°	22.5°	1.00	0.98
75°	7.41	1.92	14.50	44.6°	21.3°	1.00	1.00
80°	7.44	1.29	14.12	48.2°	19.1°	1.00	1.00
90°	7.47	0.00	13.30	55.8°	14.4°	1.00	1.00
110°	7.23	2.47	11.18	72.7°	6.3°	1.00	1.00
120°	6.99	3.50	9.99	82.8°	3.6°	1.00	1.00
135°	6.44	4.55	8.24	101.8°	6.2°	1.00	1.00
150°	5.98	5.18	6.92	124.6°	4.8°	1.00	1.00
165°	5.69	5.50	6.07	151.0°	3.6°	1.00	1.00
180°	5.56	5.56	5.82	180.0°	2.7°	1.00	1.00
180.0° (r)	5.56	5.56	5.82	180.0°	0.7°	1.00	1.00

### TWS = 14 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	6.38	4.96	18.11	24.2°	25.2°	1.00	0.74
52°	7.08	4.36	17.68	31.2°	26.9°	1.00	0.80
60°	7.30	3.65	17.12	36.1°	26.9°	1.00	0.85
70°	7.52	2.57	16.24	42.4°	27.1°	1.00	0.94
75°	7.61	1.97	15.87	46.1°	25.5°	1.00	0.96
80°	7.68	1.33	15.50	50.0°	23.5°	1.00	0.97
90°	7.77	0.00	14.73	58.2°	18.9°	1.00	1.00
110°	7.55	2.58	12.75	76.5°	8.8°	1.00	1.00
120°	7.35	3.68	11.56	86.7°	5.4°	1.00	1.00
135°	7.01	4.96	9.72	104.6°	6.4°	1.00	1.00
150°	6.69	5.79	8.22	126.2°	5.8°	1.00	1.00
165°	6.43	6.21	7.26	151.8°	4.2°	1.00	1.00
180°	6.30	6.30	6.98	180.0°	2.8°	1.00	1.00
180.0° (r)	6.30	6.30	6.98	180.0°	0.8°	1.00	1.00

### TWS = 16 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.0° (b)	6.41	4.98	19.85	25.2°	25.5°	1.00	0.64
52°	7.12	4.38	19.30	32.6°	27.3°	1.00	0.69
60°	7.35	3.67	18.63	37.5°	28.2°	1.00	0.75
70°	7.61	2.60	17.66	44.0°	28.7°	1.00	0.84
75°	7.74	2.00	17.14	47.4°	28.8°	1.00	0.89
80°	7.87	1.37	16.68	51.1°	28.2°	1.00	0.94
90°	8.06	0.00	15.95	59.6°	24.0°	1.00	1.00
110°	7.89	2.70	14.28	79.2°	11.7°	1.00	1.00
120°	7.67	3.84	13.12	89.9°	7.8°	1.00	1.00
135°	7.38	5.22	11.31	107.7°	5.0°	1.00	1.00
150°	7.17	6.21	9.66	128.5°	6.8°	1.00	1.00
165°	7.00	6.76	8.60	152.9°	4.8°	1.00	1.00
180°	6.91	6.91	8.26	180.0°	3.0°	1.00	1.00
180.0° (r)	6.91	6.91	8.27	180.0°	1.0°	1.00	1.00

### TWS = 20 Kts

TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.4° (b)	6.53	5.05	23.11	27.0°	24.6°	0.47	0.62
52°	7.21	4.44	22.50	34.9°	26.3°	0.50	0.62
60°	7.44	3.72	21.96	40.9°	24.7°	0.50	0.62
70°	7.67	2.62	21.08	48.5°	24.5°	0.77	0.62
75°	7.84	2.03	19.98	50.8°	30.1°	1.00	0.70
80°	8.03	1.39	19.38	54.5°	30.4°	1.00	0.77
90°	8.45	0.00	18.13	62.2°	30.8°	1.00	0.92
110°	8.65	2.96	17.00	82.7°	19.1°	1.00	1.00
120°	8.44	4.22	16.09	93.9°	13.8°	1.00	1.00
135°	8.12	5.74	14.37	112.0°	9.0°	1.00	1.00
150°	7.90	6.85	12.75	132.2°	6.6°	1.00	1.00
165°	7.75	7.48	11.64	155.2°	6.5°	1.00	1.00
180°	7.67	7.67	11.29	180.0°	3.5°	1.00	1.00
180.0° (r)	7.67	7.67	11.29	180.0°	1.5°	1.00	1.00



Offshore Racing Congress  
World leader in rating technology  
© Offshore Racing Congress 2020  
www.orc.org

Polar Tables	
Boat Name: <b>J/105</b>	
Sail No:	
Sail: <b>Asymmetric Spinnaker on CL</b>	
Issued On: <b>1/13/2020 - VPP 2020 1.00</b>	

TWS = 6 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
48.0° (b)	4.55	3.04	9.34	26.5°	10.4°	1.00	0.93
52°	4.88	3.00	9.47	27.7°	11.4°	1.00	0.94
60°	5.38	2.69	9.52	30.3°	12.7°	1.00	0.94
70°	5.81	1.99	9.33	33.8°	13.1°	1.00	0.94
75°	5.98	1.55	9.16	35.6°	12.9°	1.00	0.94
80°	6.11	1.06	8.94	37.5°	12.4°	1.00	0.94
90°	6.29	0.00	8.39	41.4°	11.0°	1.00	0.95
110°	6.18	2.11	6.77	51.1°	6.5°	1.00	0.97
120°	5.92	2.96	5.78	57.5°	4.2°	1.00	1.00
135°	5.28	3.73	4.18	71.9°	0.8°	1.00	1.00
150°	4.24	3.67	2.96	104.3°	3.0°	1.00	1.00
165°	3.29	3.18	2.62	146.1°	2.7°	1.00	1.00
180°	3.09	3.09	2.58	180.0°	2.4°	1.00	1.00
140.3° (r)	4.94	3.80	3.65	80.2°	0.0°	1.00	1.00

TWS = 8 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
45.9° (b)	5.28	3.67	11.76	26.2°	17.3°	1.00	0.85
52°	5.79	3.56	11.85	28.3°	19.4°	1.00	0.85
60°	6.29	3.15	11.75	31.2°	21.2°	1.00	0.86
70°	6.71	2.30	11.34	35.1°	22.5°	1.00	0.91
75°	6.86	1.78	11.06	37.3°	22.3°	1.00	0.92
80°	6.97	1.21	10.76	39.7°	21.5°	1.00	0.93
90°	7.14	0.00	10.06	44.8°	18.9°	1.00	0.94
110°	7.14	2.44	8.28	56.5°	11.8°	1.00	0.98
120°	7.00	3.50	7.21	63.2°	7.9°	1.00	1.00
135°	6.46	4.57	5.42	77.7°	2.4°	1.00	1.00
150°	5.40	4.67	4.01	107.9°	3.5°	1.00	1.00
165°	4.33	4.18	3.55	146.6°	3.0°	1.00	1.00
180°	4.08	4.08	3.48	180.0°	2.5°	1.00	1.00
142.0° (r)	5.95	4.69	4.62	89.5°	0.6°	1.00	1.00

TWS = 10 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
45.0° (b)	5.68	4.01	13.77	26.4°	22.9°	1.00	0.74
52°	6.25	3.85	13.80	29.3°	24.1°	1.00	0.71
60°	6.69	3.34	13.55	32.9°	24.7°	1.00	0.70
70°	7.04	2.41	12.95	37.8°	25.4°	1.00	0.74
75°	7.17	1.86	12.56	40.2°	25.8°	1.00	0.77
80°	7.27	1.26	12.17	43.0°	25.3°	1.00	0.80
90°	7.48	0.00	11.24	48.3°	25.8°	1.00	0.91
110°	7.63	2.61	9.51	62.2°	16.6°	1.00	0.97
120°	7.54	3.77	8.44	70.1°	11.6°	1.00	1.00
135°	7.17	5.07	6.63	85.3°	3.9°	1.00	1.00
150°	6.37	5.52	5.14	111.8°	3.9°	1.00	1.00
165°	5.26	5.08	4.56	147.7°	3.5°	1.00	1.00
180°	5.00	5.00	4.46	180.0°	2.5°	1.00	1.00
148.8° (r)	6.47	5.53	5.24	109.1°	2.8°	1.00	1.00

TWS = 12 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
44.1° (b)	5.80	4.17	15.59	27.1°	25.0°	0.99	0.62
52°	6.24	3.84	15.64	32.7°	17.1°	0.94	0.50
60°	6.81	3.40	15.37	36.2°	20.4°	0.94	0.56
70°	7.20	2.46	14.48	40.5°	26.4°	0.98	0.62
75°	7.32	1.89	14.00	43.3°	26.7°	0.95	0.72
80°	7.44	1.29	13.52	46.1°	27.0°	0.94	0.77
90°	7.74	0.00	12.50	51.8°	28.0°	1.00	0.78
110°	8.13	2.78	10.64	66.1°	21.9°	1.00	0.95
120°	8.08	4.04	9.65	75.1°	15.9°	1.00	1.00
135°	7.62	5.38	7.92	92.5°	5.6°	1.00	1.00
150°	7.05	6.10	6.41	116.8°	4.4°	1.00	1.00
165°	6.11	5.90	5.65	148.8°	4.0°	1.00	1.00
180°	5.83	5.83	5.52	180.0°	2.6°	1.00	1.00
150.5° (r)	7.01	6.10	6.37	117.9°	5.0°	1.00	1.00

TWS = 14 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
45.0° (b)	5.92	4.18	17.26	28.9°	24.7°	0.90	0.62
52°	6.42	3.95	17.45	34.0°	18.5°	0.94	0.43
60°	6.95	3.48	17.06	37.9°	21.7°	0.94	0.47
70°	7.29	2.49	16.21	43.6°	23.5°	0.94	0.53
75°	7.44	1.93	15.61	46.3°	25.6°	0.94	0.59
80°	7.58	1.32	14.96	48.9°	27.5°	0.94	0.65
90°	7.95	0.00	13.82	54.9°	28.5°	0.94	0.77
110°	8.58	2.94	11.54	68.9°	27.7°	1.00	0.94
120°	8.65	4.32	10.74	78.5°	20.9°	1.00	1.00
135°	8.13	5.75	9.47	98.1°	8.1°	1.00	1.00
150°	7.42	6.43	7.87	122.0°	4.8°	1.00	1.00
165°	6.83	6.60	6.84	150.1°	4.7°	1.00	1.00
180°	6.58	6.58	6.66	180.0°	2.7°	1.00	1.00
171.0° (r)	6.70	6.62	6.68	162.0°	3.9°	1.00	1.00

TWS = 16 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
47.3° (b)	5.70	3.87	18.18	30.3°	32.0°	0.90	0.62
52°	6.58	4.05	19.18	34.8°	21.3°	0.94	0.38
60°	7.06	3.53	18.60	38.9°	24.6°	0.94	0.43
70°	7.39	2.53	17.60	45.0°	26.3°	0.94	0.47
75°	7.54	1.95	16.89	47.8°	28.5°	0.94	0.53
80°	7.69	1.33	16.13	50.6°	30.5°	0.94	0.58
90°	8.12	0.00	15.17	57.6°	29.3°	0.94	0.65
110°	8.92	3.05	12.57	72.0°	30.0°	0.96	0.92
120°	9.20	4.60	11.82	81.3°	24.6°	1.00	0.97
135°	8.75	6.19	10.81	101.0°	11.0°	1.00	1.00
150°	7.78	6.74	9.40	125.7°	4.5°	1.00	1.00
165°	7.31	7.06	8.25	151.9°	5.6°	1.00	1.00
180°	7.14	7.14	7.99	180.0°	2.8°	1.00	1.00
176.0° (r)	7.16	7.15	7.99	172.4°	1.5°	1.00	1.00

TWS = 20 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
0.0° (b)	-0.01	-0.01	0.00	0.0°	0.0°	0.00	0.00
52°	-0.01	-0.01	16.12	46.3°	35.3°	0.90	0.37
60°	-0.01	-0.01	15.68	54.7°	35.3°	0.90	0.41
70°	-0.01	-0.01	15.20	66.0°	35.3°	0.90	0.45
75°	-0.01	-0.01	15.02	71.9°	35.3°	0.90	0.50
80°	-0.01	-0.01	14.89	77.8°	35.3°	0.90	0.56
90°	-0.01	-0.01	14.78	90.0°	35.3°	0.90	0.62
110°	9.49	3.25	15.14	77.6°	30.3°	0.90	0.82
120°	10.15	5.08	13.74	85.9°	30.5°	0.97	0.93
135°	10.24	7.24	13.16	104.1°	18.5°	1.00	1.00
150°	8.77	7.59	11.99	128.9°	7.4°	1.00	1.00
165°	8.16	7.88	11.18	154.2°	5.8°	1.00	1.00
180°	7.95	7.95	10.96	180.0°	3.1°	1.00	1.00
175.0° (r)	8.00	7.97	10.95	171.4°	2.6°	1.00	1.00