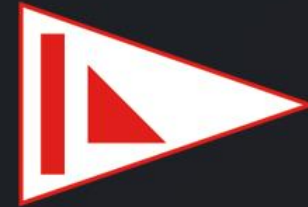




2025 Annapolis to Newport Race

Austin Powers



ANNAPOLIS - NEWPORT 2025

Presenter



Austin Powers
austin.powers@northsails.com

- One-design and Offshore sails Salesman
- Two-Time Class winner of A2N

All Photo Credits to Will Keyworth

Agenda



- Sail Requirements (All Classes)
- Class options/Sail Restrictions
 - ORC
 - PHRF
- Upwind sail check
- Off-Wind Sail check
- Sail Repair kit
- Lessons learned from 2023 A2N

Sail Requirements



- A boat shall have a mainsail reefing capable of reducing the luff length by at least 10%.

Reefing





Sail Requirements

- A boat shall carry a trysail, with the boat's sail number displayed on both sides, which can be set independently of the main boom, has an area less than 17.5% of $E \times P$, and which is capable of being attached to the mast. Storm sails manufactured after 01/01/2014 shall be constructed from a highly visible material. **A mainsail with a reef of at least 50% of P is an acceptable substitute for a trysail.**

Sail Requirements



- A boat shall carry a heavy-weather jib (or heavy-weather sail in a yacht with no forestay) of area greater than 10% of the yacht's I dimension squared but not greater than 13.5% height of the foretriangle squared.

Sail Requirements



- A boat shall carry a storm jib not exceeding 5% of the yacht's I dimension squared, an equipped with an alternative means of attachment to the headstay in the event of a failure of the head foil. Storm sails manufactured after 01/01/2014 shall be constructed from a highly visible material.

Class Options

- ORC Open
- ORC Doublehanded
- ORC Performance Cruiser
- PHRF

ORC open and ORC Doublehanded

- (a) Entries shall have a current ORC International or Club certificate with a APH rating of 600 or lower.
- (b) RRS 51, Movable Ballast, will apply except for boats rated with movable/variable ballast.
- (c) RRS 52, Manual Power, will apply except for boats rated for their equipment to augment power
 - Make Sure you stay within the sail limits declared on your certificate

ORC Performance Cruiser

1) Yacht must be classified as an IMS Cruiser/Racer on its valid ORC certificate

2) Headsails: One (1) Luffed Headsail with an area greater than 90% of the foretriangle may be carried onboard and flown. There are no restrictions on the number and use of Luffed Headsails which are smaller than 90% of the foretriangle area. No more than one headsail may be flown at a time. Spinnaker staysails are not permitted.

ORC Performance Cruiser Part 2

3) Spinnakers:

One (1) spinnaker may be carried onboard and flown. Maximum girth must be greater than 85% of the length of the foot of the sail.



ORC Performance Cruiser Part 3

4) Additional Permitted Sail: Each boat will be permitted to carry onboard and fly one (1) additional sail from one of the three following descriptions:

a) Headsail Set Flying with a maximum girth less than 75% of the length of the foot of the sail.

b) Code 0 with a maximum girth of 75% or greater, but less than 85% of the length of the foot of the sail.

c) Spinnaker with a maximum girth greater than 85% of the length of the foot of the sail.



Club
Certificate
2022

Boat
NEPTUNUS GAELLE
BRA0126

ABVO - www.abvo.org.br
Associação Brasileira
de Vela Oceânica
CBVELA - ISAF World Sailing



Rated boat velocities in knots							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	44.2°	42.9°	43.0°	41.8°	41.1°	40.6°	40.5°
Beat VMG	3.16	3.83	4.37	4.75	4.90	4.97	5.10
52°	4.87	5.82	6.59	6.97	7.11	7.17	7.28
60°	5.19	6.17	6.84	7.17	7.32	7.40	7.48
75°	5.48	6.44	7.02	7.34	7.57	7.73	7.87
90°	5.53	6.68	7.21	7.39	7.67	7.95	8.33
110°	5.65	6.81	7.39	7.77	8.02	8.23	8.55
120°	5.51	6.68	7.31	7.75	8.17	8.50	8.90
135°	5.01	6.17	7.01	7.47	7.90	8.35	9.23
150°	4.28	5.37	6.35	7.06	7.48	7.88	8.71
Run VMG	3.71	4.65	5.50	6.23	6.82	7.29	8.04
Gybe Angles	145.1°	149.8°	151.4°	157.4°	170.0°	177.2°	177.2°

APH: **569.2** CDL: **8.597**

GPH: **640.4** CertNo: **012601**

BOAT

Class **CAL 40**
Designer **LAPWORTH**
Builder **CAL**
Age date **01/1968**
Series date **01/1963**
Offset file **CAL40.off**
Data file **BRA0126**

HULL

Length Overall **11.912 m**
Maximum Beam **3.322 m**
Draft **1.775 m**
Displacement **6,688 kg**
DLR **8.3054**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.249%**
Age Allowance **0.487%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.480m**

CREW

Maximum weight **600 kg**
Minimum weight **450 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	47.37	48.81
Headsail Luffed	33.83	33.83
Headsail Flying		
Symmetric	113.97	113.97
Asymmetric		

STORM SAIL AREAS (m²)

Trysail **13.87**
Storm Jib **9.83**
Heavy Weather Jib **26.54**

SAIL LIMITS

Headsails **5**
Spinnakers **4**

STABILITY

Righting Moment **178.5 kg-m**
Stability Index **128.7**

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.

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Dynamic Allowance **0.249%**
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PROPELLER

Installation **Strut**
Type **Folding 2 blades**

PHRF

- (a) Entries shall have current PHRF of the Chesapeake (www.phrfchesbay.org) certificate with a handicap of between 50 and 126.
- (b) RRS 51, Movable Ballast, will apply except for boats rated with movable/variable ballast.
- (c) RRS 52, Manual Power, will apply except for boats rated for their equipment to augment power.
 - Make Sure you stay within the sail limits declared on your certificate

Upwind Sail Checks



- Bring Upwind sails in for pre-race service
- Check luff tapes
- Check Corner webbings
- Fresh Spreader patches
- Check for any surface chafe
- ORC sails need a measurement sticker
- Make sure all bags and sails are labeled correctly
- Don't let the week before the race be the first time you hoist a new sail!!

Upwind Sails



Overlapping Genoas (Tend to have more surface damage from tacking and hitting the rig)



Non-Overlapping Jibs (Make sure that they all have the appropriate battens and are in the sail before the race if they are horizontal)





Off-Wind Sail Checks

- Have all downwind/reaching sails serviced prior to the race
- Check for holes/condition of the fabric
- Make sure all sail handling systems are functioning (Zippers, Velcro, continuous line Furlers)
- Make sure all sails have measurement sticker and appear on certificate if applicable
- Flake kites that are less likely to be used to save space down below



Outboard Leads

- Make sure that you have the ability sails outboard
- Walk the crew through where the additional hardware is for this in the cabin
- Practice going between upwind and outboard leads before the race
- Make sure there is hardware for any Staysail or Inner-headsail that might be flown as well
- Carry additional Spinnaker and Jib sheets for the race

Sail Repair Kit

- What to have?
- Have a designated person on the crew for repairs (Preferably with some practice doing so)
- Talk to your sailmaker to get specific materials for your sails



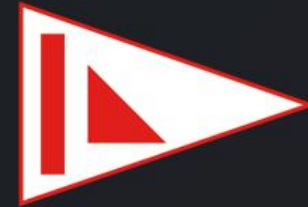
Questions?



Lessons Learned 2023



- Eliminate potential race stoppers (When small problems become big)
 - Boat water proofing (Check Hatches and extendable bow sprits)
 - Check your Steering
 - Replace any equipment that even remotely looks damaged



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