BSA Sanctioned Jib Club Experiment at Card Sound Sailing Club, Key Largo, FL 3/25/2023

Reason for the experiment and background

Request by CSSC to have in the NOR and SI of the next Nationals hosted at CSSC that use of jib wishbone jib clubs be optional. This was rejected by the Exec Committee for the change not having been first sent to the Tech Comm with Experiment and also not fitting for our "one-design class."

We received OK from Tech Comm for this Experiment with requested format. We had representatives from CSSC, BYC, FIYC, and WHYC for these tests.

The alternate to using the club is currently used by most of the fleet at CSSC and WHYC. It is what we call "direct trimming" or DT which does not meet the BSA rules but has been approved by our fleets for local racing by popular demand. These two fleets totaling over 40 boats seem happy to give skippers the option to choose their jib rigs and both rigs sail together.

Description of Direct Trimming (DT)

The center of the jib sheet is knotted into the jib clew (or two separate shorter sheets knotted). The sheet is led directly through a turning block located on the cuddy top then led to the cam cleats in the traditional locations. In some cases, that turning block is the same one that has been used with the club to lead sheet to the jamcleats. In other cases, the turning block is on a track on the cuddy top. In that case, we find the top skippers rarely move the jib-block on the track that questions the need for a track.

To seek the difference in performance between both rigs, we used two methods: (1) a short series of three windward races involving both clubs and DT in same races, and (2) a series of "line-ups." The races had our expert skippers on all boats, four with clubs and four with DT. The start line was set as square as possible, no chutes, finish at the windward mark - all these exceptions were made to focus on the effects of the jib rigs.

We added line-ups in the "standard way," as advised, to test sails in pairs, or threes, starting upwind evenly matched with several boatlengths apart for clear air. Racers sailed evenly until one boat pulled head or dropped back – we noted the "winner," and then boats got even again and repeated, then we followed them on opposite tack, etc. This reduced the variables of fleet racing.

Photos below show details of DT rig





Results of the two performance measures:

Fleet Participants with Club	<ul><li>701 Gary Sayia</li><li>708 Chris Streit (scratched)</li><li>776 Windsor Coffin</li><li>920 Sim Wooten</li></ul>
Fleet Participants With DT	699 Bill Reynolds 801 Neil Sullivan 810 Joan Tiffany 939 Jim Lampman

Comments by upwind guest Judge and Observer, Dooie Isdale, (former Cmd NYYC and 12 meter trial Am Cup crew), "Although focus was the comparison of the jib shapes effecting boat speed, I noted a much wider variation in mainsail trim and shapes which may have effected the results even more than the jibs."



## **Results Tables**

		Club (C) or Direct Trim				Race 1		
SAIL #	YACHT	(DT)	SKIPPER	R1	R2	R3	PTS	PL
699	Bull	DT	Reynolds	4	2	1	7	2
701	Wahini	С	Sayia	6	6	6	18	7
776	Caic Tarbh	С	Coffin	3	3	7**	13	4
801	Cheers	DT	Sullivan	1	7*	2	10	3
810	Taurus	DT	Tiffany	7	5	5	17	6
920	Taurus Oculus	С	Wooten	5	4	4	13	5
939	Reefer	DT	Lampman	2	1	3	6	1

\* Did a 360 penalty circle

\*\* "fouled badly twice"

LINE UP RESULTS

701	Wahini	С	Sayia	
699	Bull	DT	Reynolds	Faster

776	Caic Tarbh	С	Coffin	Faster
801	Cheers	DT	Sullivan	

920	Taurus Oculus	С	Wooten	
939	Reefer	DT	Lampman	Fastest
810	Taurus	DT	Tiffany	

Comments of Race results by PRO George Lucas, "The biggest surprise in the racing results was Gary Sayia, a usual winner, in my 701 rigged with club, showing last place and Joan Tiffany, a known guest winner, in Gary's boat with DT being second to last. Bewildering. But true to form, the next day, in our 15 boat regular CSSC Series, Gary won in 810 and Joan, in my 701 rigged DT, finished a close 2nd place. The Experiment places for them were an anomaly. Comments by participating skippers in the Experiment

Gary Sayia (CSSC), "Bullseyes are rigged differently in many areas already. Certain fleets use genoas, others do not use chutes. Choices including DT should be able to be part of the Sailing Instructions.

In the case of CSSC, the vast majority of our members are coming to the class from others boats on which DT is the norm."

Joan Tiffany (BYC), "We sailed both days without a club and saw no appreciable difference club or no club. The experiment seemed to point toward personal preference including ease in setting a spinnaker without the club or conversely ease in going to windward with a club."

Requested by Tech Comm, a prescription going forward, for the good of the Class, we suggest two simple additions to the current rules:

B7 Spars, page 4 Tech Specs7.5 Jib Boom/ClubAdd as a second paragraph - Use of the jib club may be madeoptional vs direct sheeting, if that choice by the host fleet of this ruleexception is clearly printed in the NOR and SI.

B9 Running Rigging9..7 Mandatory Running Rigging page 6

Add this sentence to start (d) Unless the option to also use direct sheeting is chosen by the host fleet and printed in the NOR and SI.

Some Experiment Conclusions by George Lucas #701

As anticipated, the boats rigged with direct sheeting showed somewhat faster upwind, when all skippers were first class. But we know from years of experience with our fleet and that reported from WHYC where local races have had a mix of some boats using the club and some without club, that the club jibs still do very well in a larger fleet when well-sailed. Both top skippers and others complained of catching and sometimes tearing the spinnaker on the club when used in previous races. When not using shutes, or sailing alone, the wishbone jib club is a very clever and preferable rig.

Using the club is better than a poorly direct trimmed jib by a novice crew.

Directly trimming the jib, with-out club, has been the preference by the fastest skippers looking for every edge, even if the advantages are very minor. Because the best finishers prefer direct sheeting, most of the others choose to skip the club to follow the leaders.

To have the biggest fleets and most happy owners, why not allow the local fleets to manage this jib club issue?

As to those that resist change based on the term "one-design class," all successful one-design classes have evolved with minor changes to the hardware and sail handing. When looking at the 500 photos taken for this experiment, it was most often hard to tell which had clubs without checking the sail numbers. Our Judge Dooie Isdale who was very near the boats, pointed this same likeness out. The mainsail trimming now has evolved with different travelers and sheeting from the aft deck, the headknockers, and the block on floor or pedestal. All creating slightly different sail shapes, and all favorites of different skippers. Use of the jib club could be part of that same evolution and the Bullseye would still be One-Design.

A good final note to the report is a quote from a participant Ed Tiffany (BYC), "I think Friday showed that the better sailor going the right way won respective of the rig."

Respectfully submitted by, George Lucas (CSSC, former President of BSA) Bill Reynolds (CSSC, Commodore) Windsor Coffin (CSSC, former President of BSA)