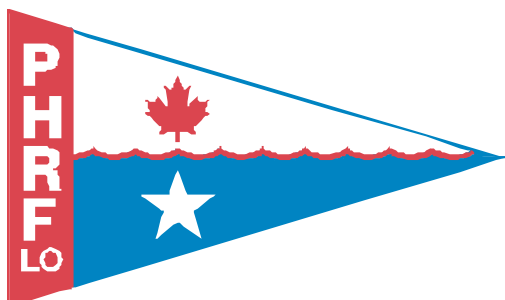




PHRF - Lake Ontario

P.O. Box 61524, Fennel RPO
Hamilton, On, L8T 5A1

Phone/Fax: 1-800-488-9885
Hamilton: 289-756-0918

Email: admin@phrf-lo.org
Web: <http://www.phrf-lo.org>

To our valued Clubs and Handicappers,

As we approach the 2014 racing season, many of you may be experiencing anxiety at the volume of work that will be required with all the new/different sail measurements that we will be asking for.

Rest assured, you will not be left out there to fend for yourself.

We have created a complete set of suggestions and/or guidelines for Clubs, Handicappers and especially owners to help lighten the burden.

Of course, as always, your individual Club and/or handicappers can decide how you want to handle the influx of certificate changes but we are enclosing some documentation that can be printed and supplied to owners at your club when questions arise.

What are all the changes & requirements?

- Grandfather Credit
- Headsail Half Width (HHW)
- Spinnaker Area Changes
- Mainsails
- Other Adjustments

WHAT QUESTIONS ARE BEING ANSWERED?

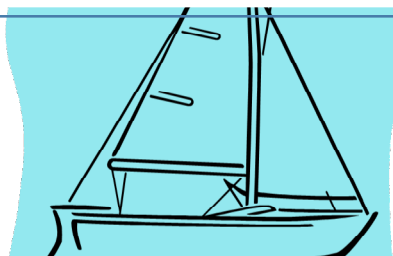
When do we need to report these?

How will these changes affect ratings?

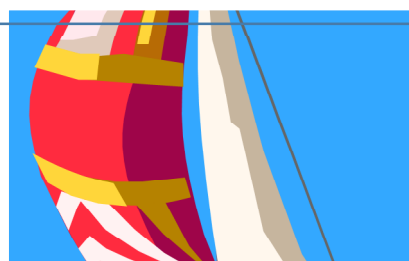
Who is responsible for measuring?

What has to be submitted to the PHRF-LO office and by whom?

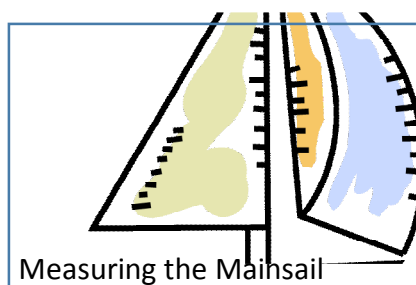
What Instructions Have we included!



Measuring the Headsail Half Width (HHW) of the Jib



Measuring the Symmetrical Foot



Measuring the Mainsail

NOTE: ALL NEW SAILS REQUIRE THAT A SAILMAKER'S CERTIFICATE ACCOMPANY THE PHRF-LO CERTIFICATE APPLICATION FORM!

Hint !

If you have older sails

re-measure !!

Sails can shrink over time and you may gain back your 3 sec/nm.

Effective for the
2014 racing
season.

Discontinuation of the Grandfather credit

The 3 sec/nm credit that was applied to sails built prior to 2006, will be discontinued.

The PHRF-LO administration office will automatically remove this credit from all certificates for the 2014 season, so no reporting will be necessary.

Check your certificate to see if it shows the following line:

Asym Adj: AML=0.00, MaxSPL=0.00		0	0
Main Spec's: Backstay - Conventional Backstay			
Adj: RSAM=133.1, STD=133.1, MA%=100	5	0	0
Full Length Battens * NO *			
Propulsion Rating: 'Standard. Retracted When Racg'	m	0	0
WPL Spec's: WPL%=98.36			
Adj: MaxWPL=12.2'		0	0
Misc Adjustment: "Grandfathered" Spinnaker - Discontinued in 2014	g	+3	0
Total Rating Adjustments	(R)	0	0

Handicappers !

A complete list of all certificate holders with the Grandfather Credit is available on-line at:

http://www.phrf-lo.org/images/Documents/CertificateInfo_Grandfathering.xls

Select: "News", "Current Items", "Grandfathering Spinnakers" from our Main Menu.

Article is also available from our "Home Page"

Hint !

This does not apply to triangular Jibs.

If you have recently had a new Headsail built or were measured for IRC, you may already have this measurement on the sail maker's certificate or your IRC certificate.

Must be
submitted for the
2014 racing
season

NEW

NOTE: Any sail that is less than 115% should be reviewed and the HHW submitted or risk protest

Jib

Headsail Half Width (HHW)

Non triangular jibs!

In an attempt to address today's new designs in Headsails, PHRF-LO has found a relatively simple way to account for "unmeasured sail area" in the roach of a jib.

A widely used measurement of the "Headsail Half Width".

Owners with boats that have Jibs that are sheeting in front of the spreaders and have at least one full length batten, will be required to submit the HHW (headsail half width) of their headsail.

Handicap adjustments will be based on a corrected LP calculated as:

$$LP=2*HHW.$$

Owners !

If you have a "Non-triangular Headsail", it is your responsibility to report the HHW to your club handicapper. You can submit a sail maker's certificate or self-measure.

Or risk protest!

Handicappers !

A new field will be added to the Application form and the Handicappers worksheet for the start of the 2014 season.

You can submit the new measurement via email or on one of the above forms and it does not count as a change to the certificate.

A copy of the proposal made by Adam Farkas is available on-line at:

http://www.phrf-lo.org/images/projects/headsail_rating_change_proposal.pdf.

Select: " Projects – New", "Central Council", "Headsail Rating Project - 2014" from our Main Menu.

Hint !

A spinnaker foot measurement of less than Max Girth, could result in a handicap increase.

Older sails may shrink over time, so it could benefit your handicap if you re-measure.

Measure your sail NOW so you can assess if it would benefit you to get new sails for 2014 racing season.

To be implemented for the 2014 racing season

Owners !

Your Symmetrical Spinnaker foot has been defaulted to equal the Max Girth, it is up to you if you report the correct measurement to your club handicapper.

You can submit a sail maker's certificate or self-measure.

This will have varying effects on handicaps

Spinnaker Area Changes

PHASE I – collecting Symmetrical Foot measurements

In order to move to PHASE II, we needed to start collecting the foot measurement for all Symmetrical Sails.

For 2013, we defaulted the Symmetrical foot to equal the Max Girth for existing certificates, so there is no requirement to measure.

PHASE II – using Sail Area

A new formula for calculating the size and adjustments for ALL spinnakers will be implemented.

The new formula compares the Standard Sail Area:

$$SA_{std} = 1.8 * .79 * JSP * (ISP^2 + JSP^2)^{.5}$$

To the Symmetrical Measured Sail Area:

$$SA_{sym} = .83 * MLL * (Foot + 4 * SG) / 5$$

IF SPL is greater than JSP

SG = greater of MG or $1.8 * SPL$

To the Asymmetrical Measured Sail Area:

$$SA_{asym} = .83 * AML * (Foot + 4 * AG) / 5$$

$$AML = (A \text{ Luff} + A \text{ Leach}) / 2$$

For Centerline BSL greater than JSP on non-centerline class – only!
(no spinnaker pole or Articulating Bowsprit shall be on board)

BSLadj = BSL- greater of $(.15 * J)$ or 1 foot)

AG = Greater of AMG or $1.8 \times BSLadj$

For all articulating pole lengths (SPL or BSL)

If SPL or BSL greater than JSP

AG = greater of AMG or $1.8 \times SPL$ or $1.8 \times BSL$

Handicappers !

Owner are not “required” to submit any spinnaker measurements unless they acquire a new sail.

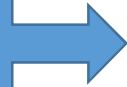
A copy of the sail maker's certificate can be submitted to the PHRF-LO Admin office in place of an application or Handicappers worksheet for any new sails.

Details of the changes are available on-line - Select:” Projects – New”, “Central Council”, “Spinnaker Area Project – 2013 & 2014” from our Main Menu.

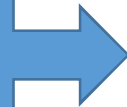
Hint !

Older sails may shrink over time, so it could benefit your handicap if you re-measure.

Effective for
the 2013
racing season



To be
implemented
for the 2014
racing season



Revised Mainsail
formulas/adjustments
may be in effect as early
as 2015

Mainsails

Square Top Mains – Mainsail Measurements must be reported! It was recognized that our current Headboard limit was over penalizing these types of sails.

So as an interim solution, until a new formula can be researched, we have instituted a:

Square Top Main penalty correction of +3 sec/nm for qualifying mainsails.

New Mainsails – All New Mainsail Measurements must be reported regardless of the backstay. Penalties may apply.

New Formula – New formula

A new formula for calculating the Main Girth Middle and Main Girth Upper limits will be put into place.

$$\text{MGML} = (.65 * E)$$

$$\text{MGUL} = (.38 * E)$$

Compared to the old formula this results in smaller allowable mains.

Additional new formulas are available but not for a headboard maximum, but rather a 7/8th measurement which we do not currently collect. Further research will be needed.

Owners !

If you have an unreported "Square top main" you are required to report ALL mainsail measurement to your club handicapper.

If you get a NEW Mainsail, you must report the measurements and appropriate penalties will apply regardless of the backstay.

You can submit a sail maker's certificate or self-measure.

Or risk protest!

Handicappers !

Owner are required to submit mainsail measurements (regardless of the backstay configuration) for any "Square Top Main"

A copy of the sail maker's certificate or an email with the measurements can be submitted to the PHRF-LO Admin office in place of an application or Handicappers worksheet and does not count as a change if this is a "correction" to a certificate.

Hint !

Check your certificates to make sure you are getting all the credits available.

Effective for the
2013 racing
season

Owners !

It is up to you to apply for these credits or penalties.

Contact your club handicapper and he/she will notify the PHRF-LO administration office.

Handicappers !

You can send an email to the PHRF-LO admin office to have these credits/penalties applied to a certificate, you do not need to submit an application form or Handicappers worksheet.

This does not count as a change if this is a "correction" to a certificate.

Other Adjustments

Masts

Aluminum masts are considered standard for all PHRF-LO boat classes, except where the class specifies "CF" in the name:

Eg: C&C 115 CF

An adjustment is applicable to any boat that has a non-standard mast.

Carbon Fibre Mast – not Standard -6

Aluminum Mast – not Standard +6

Roller Furling Main

An adjustment of +6 sec/nm is available for In Mast "Vertical" Roller Furling Mains on any boat where this is not standard. This does not apply to "In Boom" Furling systems or classes where this is standard as specified by "RFM" in the name.

In Mast "Vertical" Roller Furling Main +6

Centerline Tacked Flying Sails

An adjustment of +6 sec/nm is available for any Symmetrical or Asymmetrical Spinnaker that is tacked to the centerline.

This is not available to boats with an Articulating Bowsprit or Spinnaker Pole.

Centreline Tacked FS +6

Full Length Battens * NO *
Propulsion Rating: 'Folding/Feathering'
WPL Spec's: WPL%=n/a
Adj: 'MaxWPL=13.5'
Misc Adjustment: 'Aluminum Mast - not Standard'
Misc Adjustment: 'In Mast "Vertical" Roller Furling Main'
Misc Adjustment: 'Centerline Tacked FS'

5	0	0
	0	0
1	+6	+6
r	+6	+6
c	+6	0

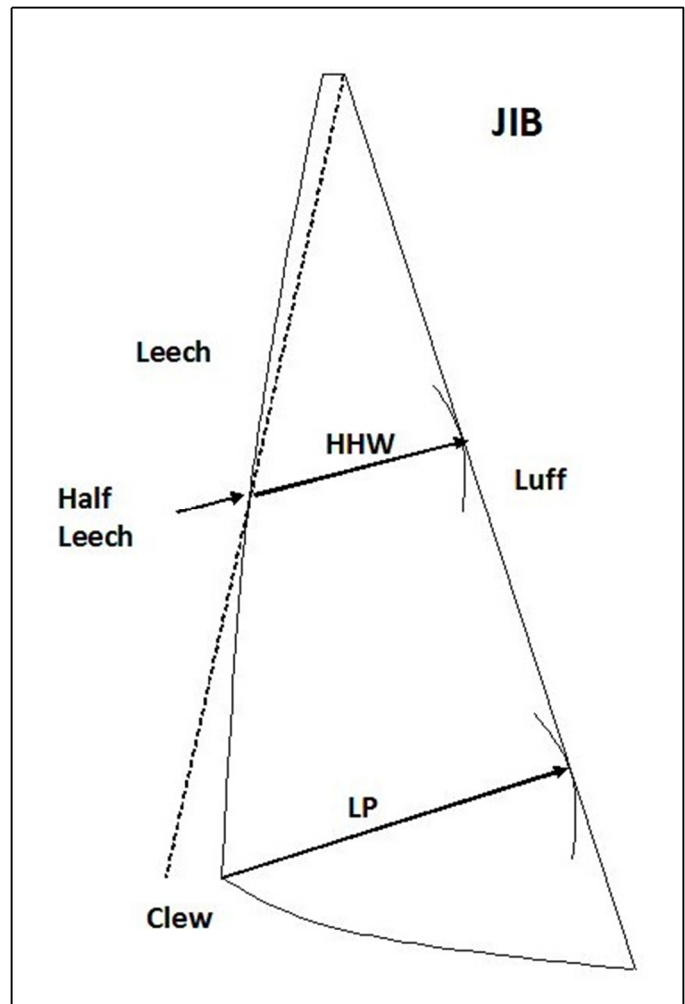
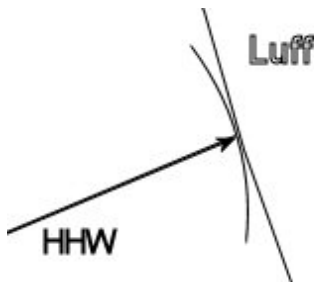
Measuring Guidelines

Headsail Half Width

Only for Jibs with full length batten at the top where the sail is built with a small roach that can be "sheeted in front of the spreaders".

HHW: Shall be the shortest distance from the half height point on the leach to the luff in a direction 90 degrees to the luff.

The shortest distance can be found by making an ARC with the measuring tape.



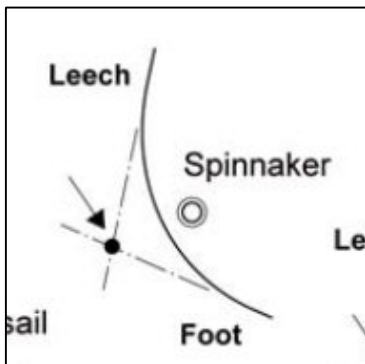
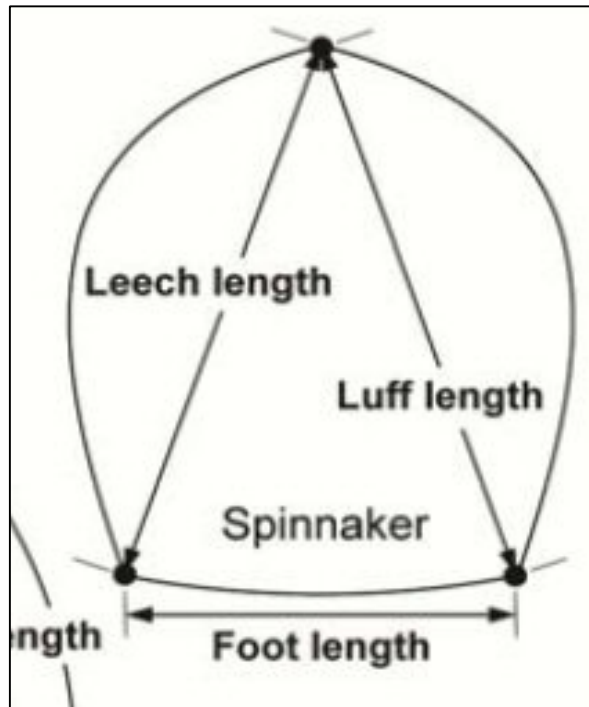
Jan 2014

Corrected JIB picture to show roach.

Measuring Guidelines

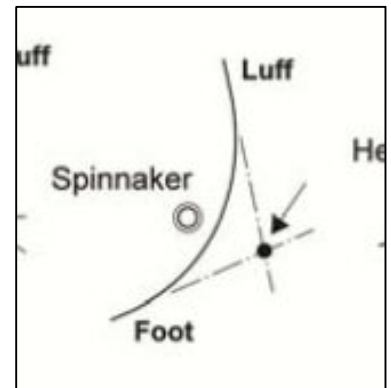
The Symmetrical Foot

REF: RRS 2013-2016



Clew Point: The intersection of the foot and the leech, each extended as necessary.

Foot: Shall be the Distance from the tack to the clew measured in the shortest path on the surface of the sail.

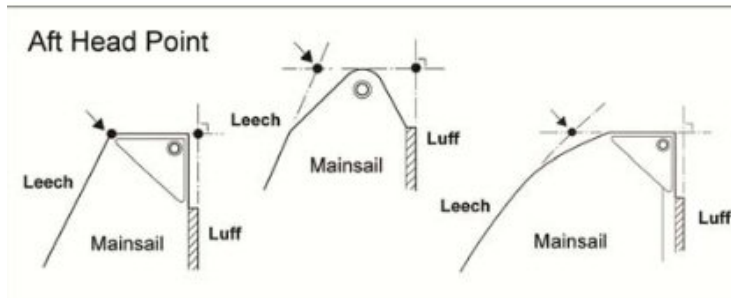


Tack Point: The intersection of the foot and the luff, each extended as necessary

Measuring Guidelines

The Mainsail

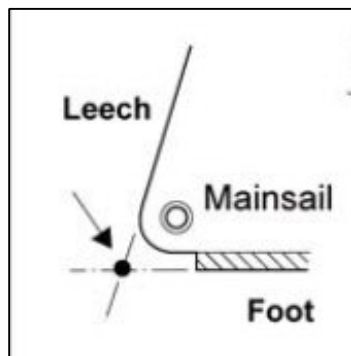
Headboard (HB) is defined as maximum width of the headboard.



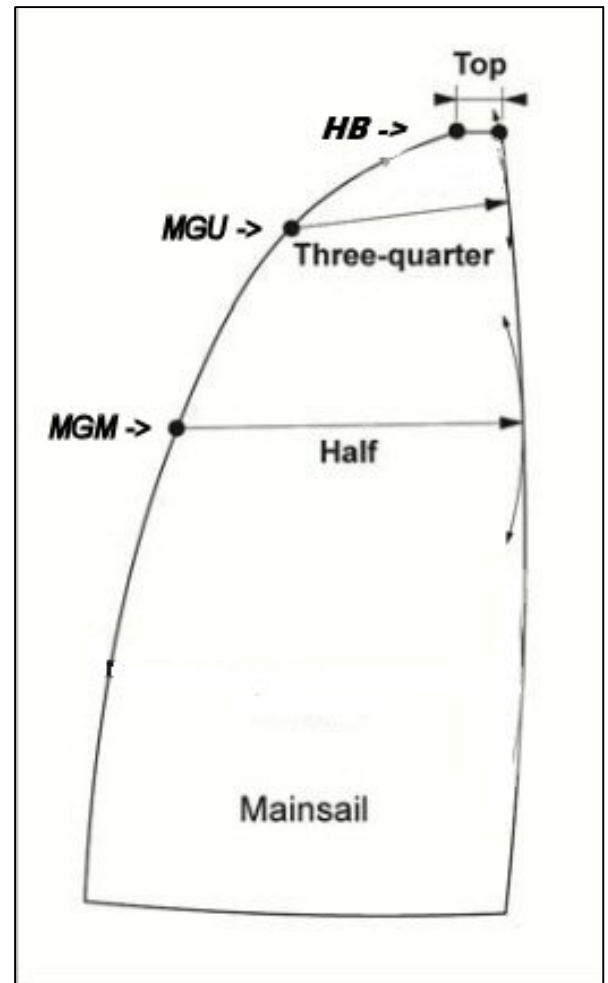
REF: RRS 2013-2016

Main Girth Upper (MGU) shall be the length of the girth of the mainsail taken at the $\frac{3}{4}$ point of the leech from the clew.

Main Girth Middle (MGM) shall be the length of the girth of the mainsail taken at the midpoint of the leech from the clew.



Clew Point: The intersection of the foot and the leech, each extended as necessary.



REF: RRS 2013-2016

2013 Sample Certificate

YACHT DATA	RIG				HULL		JIB		SPINNAKERS	
	J:	E:	P:	WPL	LH:	LWL:	LP:	MAIN	Asymm	Symm
	JSP:	11.75	10.00		DISP:	5500	17.95	HB:	16.00	20.00
	I:	37.00			BEAM:	9.17		MGU:	38.00	36.00
	ISP:	37.00			DRFT:	4.50		MGM:	35.00	
	SPL:	11.75	BSL:	0.00					Foot:	21.00 20.00
Handicapping Spec's										
<i>Description / Notes</i>										
Jib Spec's: LP%(LP/J*100)=152.8										
Upwind Adj:										
Downwind Adj:										
FS (Symm) Spec's: G%=170.2										
Symm Adj: MaxLL=36.88, MaxSPL=11.75										
FS (Asymm) Spec's: AMG(UnAdj'd)=16. G%=136.2										
Asym Adj: AML=36.80, MaxSPL=11.75										
Main Spec's: Backstay - No Backstay										
Adj: RSAM=126.7, STD=130.5. MA%=97.1										
Full Length Battens * NO *										
Propulsion Rating: 'Folding/Feathering'										
WPL Spec's: WPL%=n/a										
Adj: 'MaxWPL=14.36'										
Use of Asymmetrical Sail										
Total Rating Adjustments										
Class Standard Speed Potential										
ADJUSTED SPEED POTENTIAL										

2013

The Spinnaker G% as calculated in 2013: G/JSP * 100

Symm Spin: 20.00 / 11.75 * 100 = 170.2 %

Asym Spin: 16.00 / 11.75 * 100 = 136.2 %

2014 Sample Certificate

YACHT DATA	RIG				HULL		JIB		SPINNAKERS	
	J:	E:	P:	WPL	LH:	LWL:	LP:	MAIN	Asymm	Symm
	JSP:	11.75	10.00		DISP:	5500	17.95	HB:	16.00	20.00
	I:	37.00			BEAM:	9.17		MGU:	38.00	36.00
	ISP:	37.00			DRFT:	4.50		MGM:	35.00	
	SPL:	11.75	BSL:	0.00					Foot:	21.00 18.00
Handicapping Spec's										
<i>Description / Notes</i>										
Jib Spec's: LP%(LP/J*100)=152.8										
Upwind Adj:										
Downwind Adj:										
FS (Symm) Spec's: SA%=162.5										
Symm Adj: SAstd=648.6, Sasym=585.6										
FS (Asymm) Spec's: SA%=142.9										
Asym Adj: SAstd=648.6, Saasym=515.0										
Main Spec's: Backstay - No Backstay										
Adj: RSAM=126.7, STD=130.5. MA%=97.1										
Full Length Battens * NO *										
Propulsion Rating: 'Folding/Feathering'										
Use of Asymmetrical Sail										
Total Rating Adjustments										
Class Standard Speed Potential										
ADJUSTED SPEED POTENTIAL										

2014

The Spinnaker SA% calculated in 2014: 180 * SA/SAstd
SAstd: 1.8 * .79 * 11.75 * (37.00² + 11.75²)^{0.5} = 648.6

SG = 20 AG = 16
AML = (38.00 + 35.00)/2 = 36.5

SAsym: .83 * 36.00 * (18.00 + 4 * 20) / 5 = 585.6
SA%: 180 * 597.6 / 648.6 = 162.5 %

SAasym: .83 * 36.5 * (21.00 + 4 * 16) / 5 = 515.0
SA%: 180 * 515.0 / 648.6 = 142.9%

March 2014

Formula(s) was corrected

2014 Sample Certificate

With updated Symmetrical Foot and other adjustments

YACHT DATA	RIG		HULL		JIB	SPINNAKERS	
	J:	E:	LH:	LWL:	LP:	Asymm	Symm
	JSP:	P:	DISP:	BEAM:	MAIN	Girth:	
	I:		DRFT:		HB:	Luff:	
	ISP:	WPL:			MGU:	Leach:	
	SPL:	BSL:			MGM:	Foot:	
Handicapping Spec's					Adjustments (sec/mile)		
Description / Notes					Code	FS (Spin)	NFS
Jib Spec's: LP%(LP/J*100)=152.8							
Upwind Adj:					5	0	0
Downwind Adj:						0	0
FS (Symm) Spec's: SA%=165.8							
Symm Adj: SAstd= 648.6, SAasy=597.6					5	0	0
FS (Asymm) Spec's: SA%=142.9							
Asym Adj: SAstd=648.6, SAasy=142.9						0	0
Main Spec's: Backstay - with Square Top Main							
Adj: RSAM=148, STD=131. MA%=113.5					8	-9	-9
Full Length Battens * NO *							
Propulsion Rating: 'Folding/Feathering'					5	0	0
Misc Adjustment: 'Centerline Tacked FS'					c	+6	0
Misc Adjustment: 'Carbon Fibre Mast - not Standard'					f	-6	-6
Misc Adjustment: 'In Mast "Vertical" Roller Furling Main'					r	+6	+6
Misc Adjustment: 'Square Top Main penalty correction'					t	+3	+3
Total Rating Adjustments					(R)	0	-6
Class Standard Speed Potential							
ADJUSTED SPEED POTENTIAL							

2014

SAasy: .83 * 36.00 * (18.50 + 4 * 20.00) / 5 = 597.6

SA%: 180 * 588.6 / 648.6 = 165.8 %

Other adjustments:

Centerline Tacked FS = +6 sec/nm

Carbon Fibre Mast – not standard = -6 sec/nm

In Mast “Vertical” Roller Furling Main = +6 sec/nm

Square Top Main Penalty Correction = +3 sec/nm