

PHRF REGULATIONS

PART 1: DEFINITION OF TERMS

HULL

| | |
|------------------|--|
| LOA | LENGTH OVERALL OF THE HULL |
| LWL | LOAD WATERLINE LENGTH |
| BEAM | MAXIMUM WIDTH OF THE YACHT |
| DISPL | DISPLACEMENT OF THE YACHT IN POUNDS |
| BALLAST | WEIGHT OF THE KEEL IN POUNDS |
| INTERNAL BALLAST | WEIGHT OF ANY INTERNAL BALLAST (EXCLUDING WATER, FUEL, ETC.) |

RIG DIMENSIONS

| | |
|-----|---|
| I | HEIGHT OF THE FORETRIANGLE MEASURED FROM DECK SHEERLINE TO HIGHEST POINT OF JIB ATTACHMENT |
| ISP | HEIGHT OF SPINNAKER ATTACHMENT MEASURED FROM DECK SHEERLINE |
| J | PERPENDICULAR DISTANCE FROM THE FORESIDE OF THE MAST TO THE POINT OF INTERCEPTION OF THE FORESTAY AND DECK |
| JC | J DIMENSION CORRECTED TO ACCOUNT FOR SPRITS OR SPINNAKER POLES EXTENDING BEYOND THE FORWARD LIMIT OF J |
| JS | FOR PRODUCTION BOATS, STANDARD J DIMENSION TAKEN FROM BASE BOAT RATING LIST. EQUAL TO MEASURED J FOR ONE OF A KIND BOATS. |
| P | FULLY STRETCHED OR BANDED LUFF LIMIT OF MAINSAIL |
| E | FULLY STRETCHED OR BANDED FOOT LIMIT OF MAINSAIL |
| PY | FULLY STRETCHED OR BANDED LUFF LIMIT OF MIZZENSAIL |
| EY | FULLY STRETCHED OR BANDED FOOT LIMIT OF MIZZENSAIL |

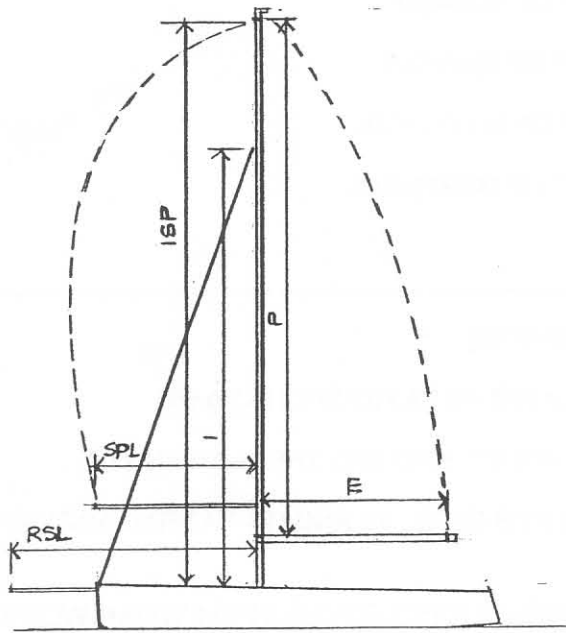
CALCULATED FACTORS

| | |
|------|---|
| SA | RATED SAIL AREA CALCULATED AS $0.5 * [(I * J) + (P * E)]$ |
| SA/D | SAIL AREA / DISPLACEMENT RATIO CALCULATED AS $SA / (DISPL / 64)^{0.667}$ |
| C | THE ABSOLUTE DIFFERENCE BETWEEN A YACHT'S SA/D AND THE NUMBER 21.0 |
| JAD | THE DIFFERENCE IN AREA BETWEEN A YACHT'S BASE JIB AND ITS RATED (LARGEST) JIB. |
| D/L | DISPLACEMENT / LENGTH RATIO CALCULATED AS $(DISPL / 2240) / 0.01 * (0.5 * (LOA + LWL))^3$ |
| B/L | BEAM / LENGTH RATION CALCULATED AS $BEAM / LWL$ |
| JCF | JIB CORRECTION FACTOR CALCULATED AS $0.1 * (JAD / DISPL / 64)^{0.667} * D/L * B/L$ |

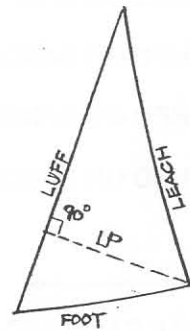
SAILS

| | |
|-------------|---|
| LP | PERPENDICULAR MEASUREMENT OF THE JIB FROM LUFF TO CLEW. |
| G | MAXIMUM GIRTH OF SYMMETRICAL SPINNAKERS MEASURED LUFF TO LUFF. |
| MSL | LENGTH OF SYMMETRICAL SPINNAKER LUFF. WHEN MEASURED SAIL IS TO BE STRETCHED FLAT WITH ONLY ENOUGH TENSION TO REMOVE WRINKLES. |
| SLIM | MAXIMUM SPINNAKER LUFF LIMIT WITHOUT PENALTY, CALCULATED AS 95% OF THEORETICAL FORESTAY LENGTH ($0.95\sqrt{I^2 + J^2}$) |
| ALU | ASYMMETRICAL SPINNAKER LUFF MEASURED FROM HEAD TO TACK. |
| ALE | ASYMMETRICAL SPINNAKER LEACH MEASURED FROM HEAD TO CLEW. |
| AMG | ASYMMETRICAL SPINNAKER MAXIMUM GIRTH MEASURED FROM MID-POINT OF LUFF TO MID-POINT OF LEACH. |
| ASF | ASYMMETRICAL SPINNAKER FOOT MEASURED FROM TACK TO CLEW. |
| SPL | SPINNAKER POLE LENGTH MEASURED FROM CENTERLINE OF MAST TO OUTBOARD END OF POLE WHEN SET IN A HORIZONTAL POSITION ATHWARTSHIP. |
| RSL | RETRACTABLE SPRIT LENGTH MEASURED FROM SPINNAKER ATTACHMENT POINT ON SPRIT TO FORWARD FACE OF MAST. |
| WPL | MAXIMUM LENGTH OF WHISKER POLE; MEASURED SIMILARLY TO SPL. |

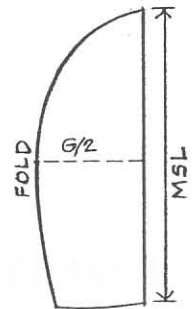
MEASUREMENT DIAGRAMS



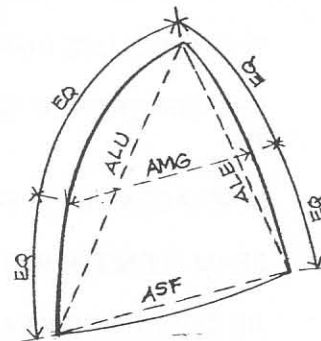
RIG



JIBS



SYM. SPINNAKERS



ASYM. SPINNAKERS

ASYMMETRICAL

LIMITING DIMENSIONS WITHOUT PENALTY ARE AS FOLLOWS; $.5(ALU + ALE) \leq$ SLIM, $ASF \leq 1.8 JS$, $AMG \leq 1.75 JS$ AND $AMG \Rightarrow .75 ASF$. MEASUREMENTS THAT EXCEED THESE LIMITS WILL BE CONVERTED TO ADDITIONAL GIRTH IN A MANNER SIMILAR TO THAT USED FOR SYMMETRICAL SAILS. EXCESS GIRTH IS PENALIZED ACCORDING TO TABLE 3.

ASYMMETRICAL SPINNAKERS FLOWN FROM THE JIB TACK FITTING, BOW PULPIT OR A TACK PENNANT (LENGTH NOT TO EXCEED TWO FEET) QUALIFY FOR A CREDIT OF +9 SEC/MI. ASYMMETRICAL SPINNAKERS FLOWN FROM SPINNAKER POLES OR SPRITS DO NOT QUALIFY FOR THIS CREDIT. A YACHT MAY CARRY BOTH SYMMETRICAL AND ASYMMETRICAL SPINNAKERS BUT BY DOING SO WILL FORFEIT THE ASYMMETRICAL SPINNAKER CREDIT REGARDLESS OF THE MANNER IN WHICH THE SAIL IS SET.

NON - SPINNAKER RATING ADJUSTMENTS

RATING ADJUSTMENT IS BASED ON THE RATIO OF A YACHT'S RATED SAIL AREA AFT OF THE FOREMAST TO THE RATED AREA OF ITS SPINNAKER MODIFIED BY THE YACHT'S SAIL AREA / DISPLACEMENT RATIO. THESE RATIOS ARE EXPRESSED BY THE TERM M/G WHICH IS DERIVED FROM THE FORMULA $M/G = P \times E + (.6 PY \times EY)/(ISP \times JC) + (SA/D + C - 21) / 45$. M/G RATING ADJUSTMENTS ARE SHOWN IN TABLE 4.

TABLE 4

| M/G | RATING ADJ. | M/G | RATING ADJ. | M/G | RATING ADJ. |
|-------------|-------------|-------------|-------------|------------------|-------------|
| 0.30 - 0.39 | + 26 | 1.20 - 1.29 | + 17 | 2.20 - 2.39 | + 8 |
| 0.40 - 0.49 | + 25 | 1.30 - 1.39 | + 16 | 2.40 - 2.59 | + 7 |
| 0.50 - 0.59 | + 24 | 1.40 - 1.49 | + 15 | 2.60 - 2.99 | + 6 |
| 0.60 - 0.69 | + 23 | 1.50 - 1.59 | + 14 | 3.00 - 3.39 | + 5 |
| 0.70 - 0.79 | + 22 | 1.60 - 1.69 | + 13 | 3.40 - 3.99 | + 4 |
| 0.80 - 0.89 | + 21 | 1.70 - 1.79 | + 12 | 4.00 - 4.99 | + 3 |
| 0.90 - 0.99 | + 20 | 1.80 - 1.89 | + 11 | 5.00 - 5.99 | + 2 |
| 1.00 - 1.09 | + 19 | 1.90 - 1.99 | + 9 | 6.00 - 6.99 | + 1 |
| 1.10 - 1.19 | + 18 | 2.00 - 2.19 | + 8 | 7.00 and greater | 0 |

MAXIMUM WHISKER POLE LENGTH (WPL) WITHOUT PENALTY; FOR JIBS WHERE $LP < 1.25 J$, $WPL = JS$; FOR JIBS WHERE $LP > 1.25 J$, $WPL = (LP) \times 0.8$.

RIG

PROPELLER ADJUSTMENTS

FOR MASTHEAD RIGS ONLY;
EXCESS OR DEFICIENT MAST HEIGHT
IS MEASURED BY RATIO: I_{actual} / I_{std}

RATIO RATING ADJ.

| | |
|---------------------|----------|
| UP TO 0.91 | + 15 |
| 0.911 - 0.93 | + 12 |
| 0.931 - 0.95 | + 9 |
| 0.951 - 0.97 | + 6 |
| 0.971 - 0.99 | + 3 |
| 0.991 - 1.01 | 0 |
| 1.011 - 1.03 | - 3 |
| 1.031 - 1.05 | - 6 |
| 1.051 - 1.07 | - 9 |
| 1.071 - 1.09 | - 12 |
| 1.091 - 1.11 | - 15 |

ABOVE 1.11 ADJ. PROPORTIONALLY

INBOARD ENGINE

RATING ADJ.

| | |
|----------------------------------|----------|
| NO ENGINE | - 12 |
| ENGINE UNDERSIZED | - 6 |
| FOLD OR FEATHERING PROP | 0 |
| SOLID 2 BLADE IN APERTURE | 0 |
| SOLID 2 BLADE, EXPOSED SHAFT | + 6 |
| SOLID 3 BLADE IN APERTURE | + 6 |
| SOLID 3 BLADE, EXPOSED SHAFT | + 12 |

OUTBOARD ENGINE

| | |
|-----------------------------------|----------|
| NO ENGINE | - 12 |
| ENGINE UNDERSIZED | - 3 |
| PROP RETRACTED WHEN RACING | 0 |
| PROP IMMERSED, 2 BLADE | + 6 |
| PROP IMMERSED, 3 BLADE | + 12 |

PHRF REGULATIONS
PART II : HANDICAP ADJUSTMENTS

HEADSAILS

RATING ADJUSTMENT FOR JIB SIZE IS BASED UPON A YACHT'S JIB ADJUSTMENT FACTOR (JAF) AND TABLE I BELOW. DEPENDING UPON ACTUAL JIB SIZE VERSUS STANDARD JIB SIZE, JAF MAY BE EITHER A POSITIVE OR NEGATIVE NUMBER. IF POSITIVE, ADJUSTMENT IS ADDED TO BASE BOAT RATING. IF NEGATIVE IT IS SUBTRACTED FROM BASE BOAT RATING.

TABLE 1 JIB ADJUSTMENTS

| JAF | RATING ADJUSTMENT (SECONDS PER MILE) |
|------------------|---|
| 0.0000 - 1.316 | 0 |
| 1.3161 - 3.947 | 1 |
| 3.9471 - 6.579 | 2 |
| 6.5791 - 9.210 | 3 |
| 9.2101 - 11.842 | 4 |
| 11.8421 - 14.473 | 5 |
| 14.4731 - 17.105 | 6 |
| 17.1051 - 19.737 | 7 |
| 19.7371 - 22.368 | 8 |
| 22.3681 - 25.000 | 9 |
| 25.0001 - 27.631 | 10 |
| 27.6311 - 30.263 | 11 |
| 30.2631 - 32.894 | 12 |
| 32.8941 - 35.526 | 13 |
| 35.5261 - 38.157 | 14 |
| 38.1571 - 40.789 | 15 |
| ABOVE 40.8791 | 16 |

SPINNAKERS

SYMMETRICAL

RATING ADJUSTMENT IS BASED UPON THE LARGEST SPINNAKER AS MEASURED BY G/JS AND MSL/SLIM RATIOS. MAXIMUM LUFF LENGTH (SLIM) WITHOUT PENALTY IS EQUAL TO $0.95 \cdot (L^2 \cdot J^2)^{0.5}$. EXCESS LUFF LENGTH IS CONVERTED TO ADDITIONAL GIRTH BY MEANS OF THE FOLLOWING FORMULA: $G/JS \text{ rated} = (G/JS \text{ measured}) \cdot (MSL/SLIM)$. EXCESS GIRTH IS PENALIZED ACCORDING TO TABLE 2 BELOW.

MAXIMUM SPINNAKER POLE LENGTH (SPL): FOR SPINNAKERS WHERE G DOES NOT EXCEED $1.8 \cdot JS$, $SPL = JS$. FOR SPINNAKERS WHERE G EXCEEDS $1.8 \cdot JS$, $SPL = G / 1.8$.

TABLE 2

| G / JS | RATING ADJUSTMENT |
|-------------------|-----------------------|
| UP TO 1.80 | 0 |
| 1.801 - 1.85 | -1 |
| 1.851 - 1.90 | -2 |
| 1.901 - 1.95 | -3 |
| 1.951 - 2.00 | -4 |
| 2.001 - 2.05 | -5 |
| 2.051 - 2.10 | -6 |
| ABOVE 2.10 | ADJUST PROPORTIONALLY |

PHRF OF E.L.I.

THE PERFORMANCE HANDICAP RACING FLEET OF EASTERN LONG ISLAND

2009 RATING CERTIFICATE

THIS CERTIFICATE EXPIRES ON APRIL 30, 2010 OR UPON A CHANGE OF OWNERSHIP, WHICHEVER OCCURS FIRST

| | | | |
|--|----------|----------------|--------|
| YACHT NAME | MFG DATE | HULL # | SAIL # |
| MAKE / MODEL | | DESIGNER | |
| OWNER OR MASTER | | | |
| STREET ADDRESS | | | |
| CITY | | STATE | ZIP |
| HOME PHONE | | E-MAIL ADDRESS | |
| <p>I UNDERSTAND THAT IT IS MY RESPONSIBILITY TO NOTIFY THE HANDICAPPER OF CHANGES TO THIS YACHT WHICH WOULD AFFECT MEASUREMENT POINTS, HANDICAP ADJUSTMENTS, OR WOULD ALTER HER FROM A STANDARD BOAT.</p> <p>I CERTIFY THE INFORMATION CONTAINED HEREIN TO BE ACCURURATE</p> | | | |
| OWNER SIGNATURE | | | DATE |

| | | | | | | |
|----------------------------------|-----|------------|---------|------|-----------|------|
| FOR HANDICAPPER USE ONLY | | | | | | |
| CLASS | | | RATINGS | | | |
| | | | SPIN | | NON SPIN. | |
| T.C.F. | | | | | | |
| OWNER | | STND CLASS | | BASE | | |
| | | | | | | |
| <input type="checkbox"/> IF O.D. | | | | | | |
| SA/D | D/L | B/L | JC | C | M/G | G/JS |
| ADJUSTMENTS | | | FACTOR | | SEC/MILE | |
| Base LP | | | | | | |
| JAD | | | | | | |
| JCF | | | | | | |
| SPIN | | | | | | |
| NON-SPIN | | | | | | |
| ROLLER FURLING | | | | | | |
| PROP | | | | | | |
| MIN HP | | | | | | |
| MISC | | | | | | |
| SIGNATURE OF HANDICAPPER | | | | | | |

| | | | | | | |
|------------------------|----------|---|-----|--|--|------------------------------------|
| YACHT MEASUREMENT DATA | | | | | | <input type="checkbox"/> IF METRIC |
| LOA | DISPL | I | ISP | | | |
| LWL | BALLAST | J | | | | |
| BEAM | MATERIAL | P | PY | | | |
| DRAFT | | E | EY | | | |

| | | | | | |
|---|--|---|--|--|--|
| JIB LARGEST JIB USED % OR LP WPL | | SYMMETRIC SPINNAKER G MSL SPL | | ASYMMETRIC SPINNAKER BSPL ALU ASF ALE AMG ASYM FLOWN FROM SPRIT OR POLE (Y/N) | |
|---|--|---|--|--|--|

| | | | |
|---|--|---|---|
| KEEL <input type="checkbox"/> FULL <input type="checkbox"/> FIN <input type="checkbox"/> WING <input type="checkbox"/> CENTERBOARD <input type="checkbox"/> OTHER | RIG TYPE <input type="checkbox"/> MASTHEAD <input type="checkbox"/> FRACTIONAL <input type="checkbox"/> OTHER <input type="checkbox"/> DACRON <input type="checkbox"/> FURLING JIB | RUDDER <input type="checkbox"/> ATTACHED <input type="checkbox"/> SKEG <input type="checkbox"/> SPADE <input type="checkbox"/> TRANSOM | MODIFICATIONS HAVE HULL, RIG OR APPENDAGES EVER BEEN MODIFIED OR INTERIOR ACCOMODATIONS REMOVED? IF SO PLEASE EXPLAIN: _____ _____ _____ |
| ENGINE <input type="checkbox"/> INBOARD <input type="checkbox"/> OUTBOARD HP <input type="checkbox"/> NONE | PROP INSTALL <input type="checkbox"/> APERTURE <input type="checkbox"/> EXP SHAFT <input type="checkbox"/> SAILDRIVE | PROP TYPE <input type="checkbox"/> FOLDI/FEATHER <input type="checkbox"/> SOLID NO. BLADES | _____ _____ _____ |

DIRECTIONS FOR OWNERS

Complete all portions of the reverse side of this Rating Certificate Application, excluding the block reserved for Handicapper use. Please fill in **all** the required information; with more information available, fewer assumptions must be made and your handicap rating will be more accurate and equitable. If you are providing measurements in metric units, please check the appropriate box on the application form. Also please note that the LP of your largest jib may be entered either as a specific dimension or as a percentage of the J dimension. Enter that dimension either, but not both, ways.

Measurement terms and procedures are defined on the accompanying sheets. If there is more than one version of your boat, please state which version you own or explain the principal differences between your version and others produced in the same line. Also be sure to list and explain any alterations or modifications from the standard model that have been made to your boat. Should you have questions regarding the required measurements, please contact one of the handicappers listed below.

Mail or deliver your completed application form along with the appropriate fee to one of the handicappers. Please make all checks payable to "ELIYA". You will receive back by mail your completed Rating Certificate showing the current handicap rating for your boat. This certificate constitutes your only evidence of a valid rating and should be retained for your records. A copy should then be attached to each individual race entry form.

Rating certificates are issued annually and automatically expire on April 30 of the following year, when replaced by a revised certificate, or when the rated yacht changes ownership, whichever event occurs first.

INDIVIDUAL CERTIFICATE FEES

| | |
|--|---------|
| Initial Application (boat not previously rated by PHRF/ELI) | \$20.00 |
| Renewal of a PHRF/ELI Certificate | 15.00 |
| Revision to a Current Certificate | 7.50 |
| Discount for ELIYA members (new and renewal certificates only) | -5.00 |

LIST OF HANDICAPPERS

Steve Bellavia
380 Lupton Point Road
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(631) 298 - 5507

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625 Eugene's Road
Cutchogue, N.Y. 11935
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Tom Stewart
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Shelter Island, N.Y. 11964
(631) 749 - 3082

Tony Dill (Chief Handicapper)
P.O. Box 82
New Suffolk, N.Y. 11956
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John Lockwood
North Drive
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