Miracle Insurance

Cover and premium for:

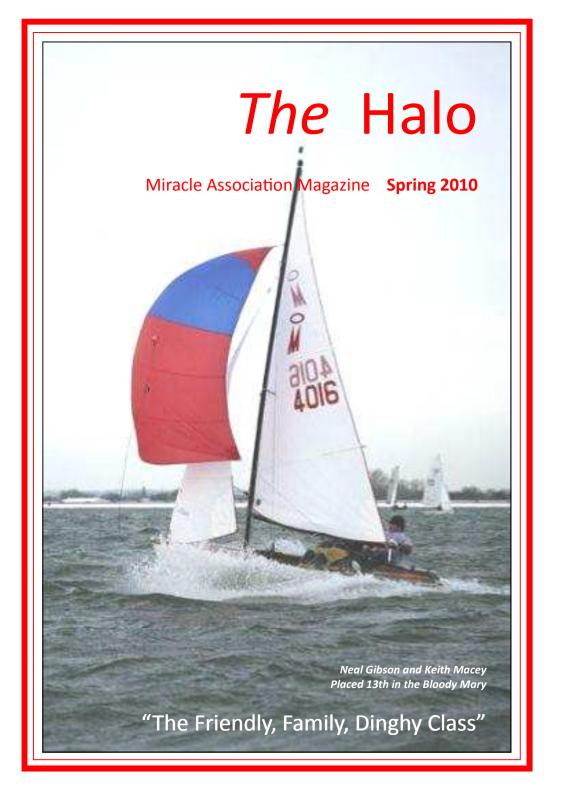
Sum insured	£3m Third Party only	£3m Third Party + Fully Comprehensive	Including				
n/a	£24.00	n/a	Racing				
£200	a/a	£28.00	12 months use				
£500	a/a	£33.00	Fire				
£800	a/a	£36.00	Theft				
£1,000	a/a	£38.00	Collision				
£1,500	a/a	£40.00	Transit Damage				
£2,000	a/a	£43.00	Launching				
£2,500	a/a	£46.00	U.K. + C.I.				
£3,000	a/a	£49.00	Trips to E.U.				
£3,500	a/a	£56.00					
£4,000	a/a	£61.00					
£4,500	a/a	£66.00					
£5,000	a/a	£71.00					
FOR FULL DETAILS, PROPOSAL AND COVER							

Telephone 01702 710 041

or visit www.newtoncrum.com

Newton Crum Insurance, 839 London Road, Westcliffe, Essex, SSO 9TE Authorised and regulated by the Financial Services Authority

For over 45 years insuring Britain's sailors, better.



The Halo. Miracle Association Magazine

Spring 2010

Contents

Your Editors	2
Chairman's Chunter	3
Race Officer's Report	4
Going to an Open Meeting	6
Towing	9
Curved thwart	10
Quick sailing in light airs	12
Committee members	15
Racing Report	
Bloody Mary	17
Nautical Saying	17
Travellers Trophy	19

Contacts Dave & Jean Reed

Chairman & Secretary jeananddaveupton@ntlworld.com

Paul Baxendale, Webmaster elterware@ntlworld.com

Gillan & Kenneth Gibson

Magazine Editors and advertising kengillian2@yahoo.co.uk

Miracle Association website:

http://www.miracledinghy.org/

Halo deadline

Items for the Summer 2010 issue should be with the editors by 1st June 2010.

Disclaimer: Much of the information within this publication is gathered from individuals, clubs, etc. The Miracle Class Association and its Officers and Committee accept no responsibility for the correctness of such information and opinion. Members are always advised to check with clubs before travelling to events.

Your Editors

Oops!!! - the observant amongst you, especially those with an interest in spinnakers and the Draycote results, will have noticed the gremlins got into the spring magazine so parts of the articles were repeated and others were just not printed at all! Sorry, but to try and make up you will find a separate sheet in this magazine with the correct pages so you can put it in with the spring *Halo* if you wish.

On a more positive note plans are well ahead for the Nationals at Beaumaris in August and you will find the programme for this season's Open Meetings in this issue. We've already marked our calendar with the ones we can get to. If so far you've only thought about going to an open meeting, but have not done so yet, why not give it a go. There's an article to give a bit of an idea what to expect, but there's always people around to help. A look at the results of the Travellers Trophy shows boats of all ages join in—so why don't you?

TO LET in Beaumaris

Gillan and Kenneth Gibson 3670

Holiday house Sleeps up to 11 people Prices from £750 to £1,000 per week

Tel: 0151 353 1661 Mob: 07747 033 600 E-mail: info@beaumaris-selfcatering.co.uk Website: www.beaumaris-selfcatering.co.uk

Chairman's Chunter



Nationals—I have tried to delay writing this chunter until the last possible moment, not because I didn't want to say anything, but to see how many National entries came in before the deadline at the end of March. At the time of writing in the middle of March we have twenty entries. By the time you read this we will either have had such an influx we will have had to impose a maximum entry limit and pleaded for "no more please", or we have had only the minimum entries and I am about to throw myself off Beaumaris pier and wonder what went wrong! I suspect you are all hanging onto your money a little longer and I will be pleasantly surprised.

Dinghy show—Once again our stand at the Dinghy Show proved to be very successful with a busy two days. Many thanks to all the volunteers who manned the stand and to Dave Butler for providing the two boats. We enjoyed meeting lots of our members and indeed lots of people who are not members but who still retain an affection for the Miracle having owned or sailed one in the past. (The earliest number still owned and sailed

is number 3!)

I am pleased to report that Dave sold two boats, one FRP and one wood, which means that if you want to take advantage of the special offer on the FRP Miracle then act sooner rather than later! and talk to Dave Butler.

Open meetings —You will by now have seen the sailing venues for the new season, organised by your Race Officer Wayne. Just remember you are not expected to go to every one, but if you decide to go to only one more than

you did last year then the turnout would be great. Most venues have camping facilities at the club and are great fun and very sociable. There are two new venues: Winsford, nice to see this venue back after an absence of a number of years; and Clywedog in mid Wales, a brand new venue for the Welsh Areas in a beautiful part of the country.

Second hand Miracles—And now for another of my favourite subjects second hand Miracles, for sail or wanted. We get many enquiries via the website for people wanting second hand Miracles ranging from basic boats to full racing spec. There must be a number of Miracles at clubs that have not been on the water for some time, for various reasons. It would be nice to get these boats back sailing, possibly racing and hopefully into the Association. So take a look round your own clubs and if there are any that the owner may wish to sell, then either put it on the website or let me know the details by e-mail and I will see what I can do.

That's it for now-see you on the circuit.

David Reed

Race Officer's Report



Hello all. The start of another sailing season is upon us! We hope those of you who choose to sail during the winter enjoyed it

and that everybody is ready to hit the circuit in April - we have a full calendar with a few new venues for you to try - see the website for details!

The entry forms for the 2010 Nationals at Beaumaris have been sent out and hopefully we can beat the total number of boats that we had last year. Don't forget that you will need to get your accomodation booked as soon as possible as Beaumaris is a popular holiday venue.

Hope to see you all at North Lincs over the Easter weekend for the first event of the vear! Wavne Atherton Miracle 3383

Calendar 2010

North Lincs North East Areas www.nlsail.co.uk

keith.lown@btinternet.com

Hornsea 17th April www.hornseasailingclub.org.uk/

Dave Berger

commodore@hornseasailingclub.org.uk

Winsford Flash (CW7 4EE)

(DN18 5RB)

1st & 2nd May

3rd & 4th April

winsfordflash.co.uk

Bill Webber

bill.webber173@btinternet.com

Delph

15th & 16th May

Northern Areas

(BL7 9TS)

Girton

22nd & 23rd May

Puddleduck

www.girtonsc.com/

Tony Bleasdale

Paul Morris

Craig Hellon

www.k-s-a.info/

tonybleasdale@hotmail.com www.clywedogsailing.org.uk

www.burtonsailingclub.co.uk/

craig.hellon@ntlworld.com

sue wayne2713@yahoo.co.uk

delphsailingclub.co.uk/

Wavne Atherton

Clywedog

29th to 31st May

Welsh Area Championships

Burton 12th & 13th June

Midland Areas (DE65 6EG)

Killington (LA5 9DY)

19th June

Ian Downs

thedowns@22hillst.co.uk

Wigan (WN3 5HJ) 20th June

http://wigansailingclub.webs.com/

Joe Hitchen

lowbankjoe@gmail.com

South Shields 26th & 27th June

Mono-hull Regatta (NE33 1LH)

Deben

27th June

www.debenvachtclub.co.uk

Kevin Connolly

kevinconnollv48@hotmail.com

www.soshields-sailing.co.uk/

Margate

Southern Areas

(CT9 1HD)

(IP12 4BB)

10th & 11th July

www.margatevachtclub.org/ Gave Lamb

gaye.lamb@eastcoastkent.nhs.uk

NATIONAL CHAMPIONSHIPS

Beaumaris (LL58 8BY)

(HG4 4BQ)

7th to 13th August

www.royalangleseyyc.org.uk/

Jean and David Reed

jeananddaveupton@yahoo.co.uk

Thornton Steward

4th & 5th Sept

www.thornton-steward-sailingclub.co.uk/

Kenneth and Gillan Gibson kengillian2@yahoo.co.uk

Draycote 11th & 12th Sept

Inland Championships

(CV23 8AB)

www.draycotewater.co.uk/

Ally Jones

allviones@tiscali.co.uk



Alverbank Sails is a Midlands based sail loft serving the whole of the UK.

We specialise in the manufacture of custom made racing sails.

We have had a long history with Miracle Class dating from when the Class first opened up to other Sailmakers and have had, over the years, many open meeting wins and championship successes:

2nd at Nationals: 1st at Margate: 2nd at Burton

We also offer:

A sail repair service to get you back on the water quickly

 Boat tuning and set up advice Limited chandlery /rigging

available



Contact Kevan or Stuart at the sail loft to discuss your requirements

Tel: 01332 342586 or e-mail kev-

an@alverbanksails.co.uk

Going to an open meeting - Give it a go

You've enjoyed racing at your club and now fancy going along to an open meeting. How do you go about it?

It may be your club is one of the ones having an open, or perhaps there are Miracle sailors in your club who are on the circuit who can show you the ropes. In this case you can join in and others will help you along.

If you don't know anyone yet have a look at the calendar on pages 4-5 and see which event you would find it easiest to attend. Having picked an event consider:

- Trailer—Do you have, or can you borrow, a suitable trailer with good wheels and tyres.
- Boat—Is your boat sound and does everything work. A boat doesn't need to be "racing fit" to give pleasure racing, but you don't want to have any breakages.
- Entries—If the event is the National Championship you will need to register in advance (See page 7)
- At events other than the Nationals you register on the morning of racing, this usually costs £8-£20 depending on the number of days and venue
- Accommodation—Do you need accommodation? Many events are Saturday and Sunday and competitors stay the Saturday night and sometimes the Friday night. Do you want a hotel, B & B or to camp? Many sailors camp or have motor

homes and the contact and/or website for the hosting club can advise what facilities there are available

- Weather—In the run up to the event check the weather forecast to assist making the final decision about whether to go.
- **E vent still on?** Contact the club representative to confirm.

Having decided to go what next?

- Towing—Pack the boat for towing, taking great care to ensure everything is securely tied. Does the trailer board work correctly. When you set off drive for a little while and then find a safe place to stop and check nothing has loosened off. Don't forget to pick up obvious items such as sails, rudder, etc.—all things that have been left by someone at some time (someone has even managed to drive off without their boat and had to go back!!!).
- Arriving—Some people travel on the Friday and drop their boat off at the club, others arrive on the day of the competition. Someone is usually around to show you where cars and boats go and where the camping and other facilities are, but if your going on the Friday check beforehand.
- **Entries** On the day of the competition find out where entries

Miracle National Championships Beaumaris, Anglesey

Saturday 7th to Friday 13th August 2010

Contact Jean Reed: jeananddaveupton@yahoo.co.uk



Butler Boats

Quality Miracles for leisure and racing Boat repairs

FRP * Composite * Wood New FRP Miracle - Special deals

The Boat House Brough Haven, Brough East Yorks. HU15 1ED

Tel 01482 669848 Email dave@butlerboats.biz Web www.butlerboats.biz



Going to an open meeting - Give it a go (cont.)

are being taken and enter and check the time of the first race. This may also be when you can order lunch and/or dinner. Many Miracle events are at small clubs where numbers are needed for the catering. It's possible once they've run out of something that's it, so booking ensures you've a meal!

Race Times—Common times are:

- 1 day event there are usually 3 races with the first race frequently at 11.00 am.
- 2 day events there are usually 2 races on the Saturday with the first at 12.00 noon or 1.00 pm. On the Sunday the first race is usually 11.00 am with 3 races over the day. Don't forget the time is the start time and sometimes there may be quite a long sail to get to the start line so make sure you give yourselves plenty of time.
- Back to back is when races are sailed one after the other without coming ashore. Whilst the Miracle fleet prefers to come ashore between races, there are often times when "back to backs" work best, though usually no more then 2 at a time.

Rigging and launching—Find somewhere suitable to rig your boat and find out what the launching arrangements are.

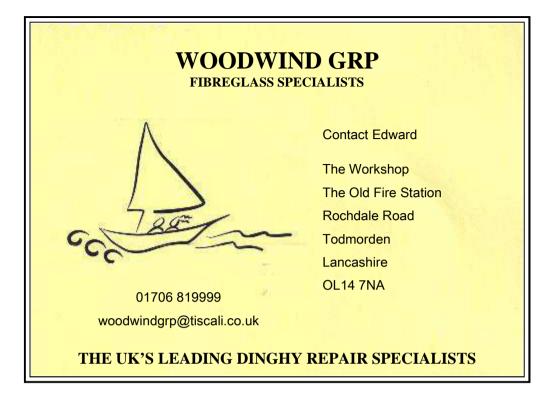
Sometimes there are long waterfront areas and you can take your part rigged boat

down ready for launching. Other times everyone has to go down narrow ramps. In this situation finding a suitable parking place for your part rigged boat so you don't get "boxed in" can be time well spent.

Briefing—The other time to find out is when and where the briefing is to be held. This is where someone, usually the Race Officer, will give an idea of the sailing area, mark numbering and anything especial it's worth knowing about, e.g. shallow areas, changes to standard sailing rules, is it 2 or 3 boat lengths at the marks, etc. The briefing is also where you will find out when and where the course will be displayed and how. It might be given at the end of the briefing, or it may be displayed on the Committee Boat once the fleet is afloat. Most sailors turn up to the briefing in sailing gear so they can go afloat straight after.

Out to the start—Remember to give yourself plenty of time. Watch the other boats, following them out is often a good plan. Also keep an eye out for the Committee Boat as that is going to be one end of the start line wherever the wind changes to. In addition it's going to fly the flags signalling the race, or its postponement (the long red and white pennant), so staying in its vicinity means you will know what is going on.

Starting—At the start line there will be a lot of boats sailing in a small area. Either your happy about that and will join in, or it all looks a bit scary. If you decide it's scary just sail to the outside of the pack where the boats are further apart and plan your start so you start once the fast pack



where the boats are further apart and plan your start so you start once the fast pack have gone. Having said that there are occasions when the fast pack get it wrong and the conservative starters are able to get away quite nicely thank you!

Your off, and have joined in your first open event. The Miracle fleet is one where boats race each other from the front of the fleet to the back, so there will

generally be someone to chase and someone to keep behind. It doesn't take many races to work out who you are usually racing against.

Hopefully you will enjoy yourselves and join the rest of us on the circuit who make it to whatever events we can, even if it is only a few a season.

Gillan Gibson

Towing—tie everything securely

When towing please take particular care that all parts of the boat are securely tied on. End of last season there was report of an incident where a mast came off a towed

dinghy and killed another road user. It may have been a freak accident, but no one wants to risk it happening to them.

One way of building a reverse curved thwart

Under permitted exceptions in the Rules it states:

- "The existing thwart may be joined together across the centrecase by a timber bridging piece."
- "A one piece thwart bridging the centre board case is permitted. This may be laminated or solid ply."

To take advantage of a recent rule change and stiffen your boat a reverse curved thwart can fairly easily be built using the following technique (especially if you are re-decking a boat)

Obtain four 1m lengths of thin (12mm) hardwood about 60mm wide

Modify the new ply seat cut outs so they have extensions for part of the thwart (see photo)



Extend the centre case ply upwards to place the new seat on shape and attach two lengths of the hardwood to form the base of the seat using epoxy glue



Cap with oversize ply, including a new centre section (it need not be "T" shaped as in the photo)



Trim off excess ply.

Add the two remaining hardwood strips as facing plates (they are shaped oversize).



Trim off excess wood.

Brian Jones

TRIDENTUK STATE THE North's Yacht & Dinghy Shop



Online Shop

Boats & Canoes
Boat & Dinghy Covers
Books, DVDs, & Videos
Lifejackets
Chandlery
Clothing - Yacht, Dinghy
Drysuits - Wetsuits
Engines - Honda
Games & Models
Paints, Glues, Maintainance
Ropes & Shockcord
Safety & Communication
Trailers & Towing

Watches & Binoculars

Manufacturers of

Sails, Covers
Trailers
Boats
Rigging
Drysuits
Waterproof Clothing

Service & Repairers (insurance approved) of

Sails - Yacht - Dinghy - Windsurfing - Kitesurfing Engines

Trailers, Trollies,

Boats - Wood & Grp

Tents - Caravan Awnings

Covers

Drysuits & Clothing



Everything to do with Boats

call in and see us in our extended showroom (mid March 07)

South Shore Rd. Gateshead. NE8 3AE - 200yds east of the Baltic Mill

+44(0)191 490 1736 Mail

Mail / Web Order Specialists

Quick sailing in light airs

Introduction

What's the difference between a back of the fleet club sailor and a front of the fleet National Championship sailor? When asked this question, you might answer with a whole list of skills including tactics, tuning, boat preparation, fitness, knowledge of winds, tides and currents etc., etc. These are all valid points, but they probably only make up the final 10% of overall performance.

Businessmen often talk about taking an 80/20 approach. The theory goes that 80% of performance comes from 20% of the effort and vice versa. In this article I suggest a key point and an additional point for sailing in light airs. As a rough estimate, I think that 55% of the difference comes from the key and another 20% comes from the additional point.

When I coach people, I often get them to write the key point for the day on the boom to remind them of its importance. Can I suggest writing each of the key point on the boom (on both tacks!), and if you can find somewhere else in the boat, to write down the additional points to remind you to practice them in between races and on the way out to the start line etc.?

The Key – Weight Forwards!

It really is that simple. The key to sailing fast in light airs is to get your weight far enough forwards. I suppose therefore that the question is how far is 'far enough'?

The easiest way to answer this is to look through your transom flaps (if you don't have any, it really is worth cutting

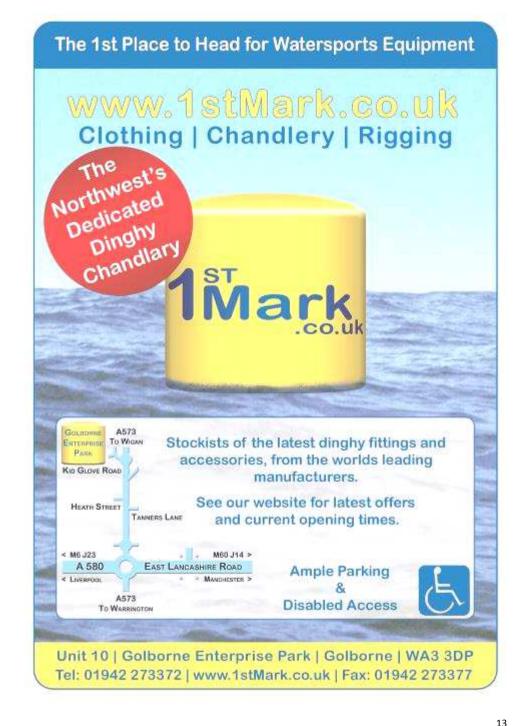
some in your transom and sticking a piece of perspex or sail window material over them). If it looks like there is turbulence coming off the back of the boat in the water, then you need to move forwards until this stops. As a guide, the thwart is far too far backwards for the crew to sit. Crouched in front of it is far better (although if this is uncomfortable, the inset crew seats do the job fine). As a helm, I would usually sit on the windward crews seat or gunwhale in the crew's compartment'.

Your boat speed will probably double if you follow this advice. The Miracle actually performs very well in light airs as it is so light. It does have quite a 'big bum' though, so if you don't get it out of the water, then you will sail very slowly.

NB – This point still holds true as it gets breezier, but the faster you go, the more the back end of the boat can be 'supported' by the boat's speed. But keep checking through your flaps – even in 30 knots!

Additional point - Practice Roll Tacking

If you can already roll tack, then practising it and perfecting it for 10 minutes on you way out to the start line or between races is a very good way of going faster in light airs without a great investment in time or money. It is a lot easier to improve when one doesn't have the pressure of a race situation (although practising with the goal of improving your racing does tend to focus the session more). If you cannot already roll tack, then it is worth investing an afternoon or so outside a race situation so that you can learn.



Quick sailing in light airs (cont.)

There are many variations on a theme when it comes to roll tacking, and as long as you get through the tack fairly swiftly and more importantly don't lose much speed (if any), then it doesn't matter which technique you employ. The steps that I follow are:

Head up into the wind slightly (keeping the boat flat) until the front of the jib starts to back.

As soon as this happens (but not before), the crew comes over to the windward side of the boat as quickly (but gently) as possible – this is the movement that actually tacks the boat, not really the rudder. Therefore highlighting the

importance of this to your crew is essential.

Once the jib is fully backed, the crew starts to pull the jib through on to the new side whilst the helm lets out an armful of mainsheet as he starts to move across to the other side of the boat.

As the helm is righting the boat, he pulls in the main and the crew pulls in the jib, both a couple of inches short of bar tight.

Once the boat is fully back up to speed, the sails are pulled in all of the way (although in light airs I would never pull in the main bar tight, and would have the jib about 10 mm short of bar tight until there is enough wind for the

1st, 2nd

1st, 2nd

1st, 2nd

on the side deck). Some final thoughts

Once you have mastered these points, I am sure that you will find an improvement in your sailing. If you are combining these practices by attending association run

crew to sit in the middle with the helm

events like open meetings then you will probably find that another 5 or 10% comes fairly easily. Once you have got to that stage, the path to the remainder of the improvement takes a little longer, but it will certainly seem like a far smaller step! Sam Mettam

Miracle Association Committee

Committee Members

David Reed. Chairman.

jeananddaveupton@yahoo.co.uk Girton SC

Brian Worrall. Treasurer

brian.worrall1@tiscali.co.uk Beaver SC

Dennis Southwell

dennis.southwell@talktalk.net Leigh & Lowton SC

Peter Cuthbert

peter.cuthbert1@ntlworld.com RYA

Tim Wareing

tim@wareing.co.uk Delph SC

Brian Jones, Measurement Sec.

briantjones@vodafone.net Taplow SC

Wavne Atherton, Race Officer

sue wayne2713@yahoo.co.uk Delph SC

John Tippett

tippett.john@tiscali.co.uk Draycote Water SC

Tracy Amos, Trophy Officer

michael.amos4@btopenworld.com Redoubt SC

Jean Reed, Hon Sec.

jeananddaveupton@yahoo.co.uk Girton SC

Co-opted Members

Ken and Gillian Gibson, Halo Editors

kengillian2@yahoo.co.uk Thornton Steward SC

Paul Baxendale. Webmaster

elterware@ntlworld.com Jumbles SC

Ian Downs, Membership Sec.

thedowns@22hillst.co.uk Killington SC

15

Lowside Bowness-on-Windermere Cumbria LA23 3DH Tel 015394 88686 Fax 015394 88683 sg@goachersails.co.uk www.goachersails.co.uk

Fast Sails - Great Service

MIRACLE RESULTS

GOACHER

Nationals 2008

Southern Areas 2008

Midland Areas 2009

Inlands 2008

SAILS -

http://www.miracledinghy.org/



UK'S LEADING DINGHY SPECIALISTS

- Mail order catalogue
- Online dinghy store
- Expert boat repairs
- Championship winning sails
- · Leading range of covers

01922 455503

www.speedsails.co.uk

sails@speedsails.co.uk

Phone the Speed Sails team now for your free comprehensive mail order catalogue

Gibson

Sails
Sail repairs
Top covers
Under covers
Foil bags
All at competitive

prices



Based in Kent Tel 07801 815 861 www.gibsonsails.com



Results

Bloody Mary Pursuit Queen Mary Sailing Club 9th Jan 2010

Neal Gibson & Keith Macey from Redoubt Sailing Club braced the extremely cold conditions on Saturday Jan 9th to compete with the Miracle 'Just Legal' No 4016 in the Bloody Mary Pursuit Race hosted by Queen Mary Sailing Club in Middlesex. The usual turnout for this well known event in the sailing world is over, 200 but this year due to the extreme weather conditions the number was 61. Dinghies of all sizes and speeds from a Topper to an RS 600 took part with this year the Miracle being the second slowest on handicap, so being the second to start with obviously the next longest time on the water. In the event the slowest, a Topper, retired fairly early on leaving the Miracle the slowest on the water. However the strong wind conditions suited Neal and Keith and they finally finished in a creditable 13th position among a fleet of top helms and crews from all classes, even beating an Olympic sailor.



After almost 3 hours on the water with the foresail like a sheet of ice and icicles hanging from the rigging the pair were very pleased to get ashore. Mad or what!!!

Nautical saying—Shake a leg

The traditional wake up call used by armed forces was first used on board ships in port. The idea was to distinguish which hammocks were occupied by crew members and which were being used by lady guests or both. Basically everyone was told to show or 'shake' a leg. Those

that were hairy were obviously sailors the smoother variety belonged to females, who were promptly rounded up and sent back ashore. Makes you wonder how many sailors might have taken to shaving their legs to get some extra shore leave.



The Travellers Trophy 2009

The objective of this Trophy is to encourage members to attend Open Meetings and to reward the member who travels the furthest in support of Open Meetings. The formulae for this is based solely on the distance travelled between home sailing club and the venue.

All Open Meetings qualify, except National Championships and Regattas. The qualification period runs from one National Championships to the next. Presentation of the Trophy and any prizes are awarded at the National Championships.

	Name	Boat	Total Miles	Events		Name	Boat	Total Miles	Events
1st	Steve Coldicott	4007	1992	9	22nd	Louis Moulden	3835	222	1
2nd	Tracy Amos	3692	1890	6	23rd	Martin Bathe	59	214	1
3rd	Neal Gibson	4016	1560	5	24th	Paul Beckford	2462	214	1
4th	Dave Reed	3725	1486	7	25th	Nick Smith	1161	184	1
5th	Wayne Atherton	3383	1190	7	26th	Eamonn Cuthbert	1352	172	2
6th	Ally Jones	3681	1092	5	27th	Ian Coverdale	2221	170	2
		3847			28th	Carl Cripps	3824	158	1
7th	Geoff Phillips	3812	1078	4	29th	Adrian Cripps	4009	158	1
8th	Peter Cuthbert	3747	1036	7	30th	Steve Bloomfield	2018	150	1
9th	Stan Lubner	4013	842	5	31st	Phil Bailey	3825	148	1
10th	Brian Jones	662 3838	704	2	32nd	Rob Cocking	1314	142	1
11th	David Raines	3740	644	5	33rd	Steve Mason	2462	142	1
12th	Brian Worrall	3679	630	3	34th	Tim Wareing	2772	142	1
13th	Jon Aldous	3794	546	4	35th	Mike Smith	3493	142	1
14th	Colin Lown	206	490	2	36th	Carmela Burgess	4014	140	1
15th	lan Downes	4008	484	3	37th	Janie Finley	3775	130	1
16th	Martyn Lewis	3834	450	2	38th	Dave Butler	3844	114	2
17th	Gillan Gibson	3670	398	2	39th	Peter Burfield	2132	110	1
18th	Martin Huett	3796	380	2	40th	John Tippett	4020	110	1
19th	Richard Brameld	3131	376	2	41st	Martin Burgess	1204	90	1
20th	Martin Lown	2000	334	1	42nd	Ashley Southwell	3800	60	2
21st	Andrew White	1606	270	1					