

Weather Guide for Race Officers 2022 - 2023

Weather Conditions for Racing at SBSC

Overview

A Trigger point is a quantifiable measure. Authorities use weather based Trigger Points to create community alerts such as the Total Fire Ban, Strong Wind Warning and Severe Weather Warning.

The Race Officer should use these Trigger Points to decide whether the race should commence, be postponed or abandoned. The table below outlines the relevant Trigger Points and by using this as a basis for decision making the RO knows their decision will be backed by SBSC as it has been approved by the following committees:

1. SBSC Risk Management Committee
2. SBSC Sailing Committee
3. SBSC Executive Committee

Additionally, this process will provide more consistency during the season, and in some situations will allow decisions to be made in a timelier manner.

Race Officers should review the BOM forecast first thing in the morning to get an idea of what the conditions are likely to be. Be aware that the BOM puts out a forecast at 05:10 each morning with a scheduled next forecast at 16:40 in the afternoon for Port Phillip. They often put an update out at about 10:00. If the first Warning signal is prior to 11:00 then the RO should work on the 05:10 forecast. If the first Warning is later then the RO can potentially wait to see if there is a mid-morning forecast.

Remember that in issuing a forecast, the BOM is covering the majority of the bay. It may be that an adverse forecast really only covers the top of the bay. If the conditions at Safety Beach look reasonable then a call to the Duty Forecaster on 03 9669 4981 should clarify the situation.

The intent is to conduct our club sailing events in conditions that are considered suitable for the types of boats and the skill level of our fleet. It is a fine line between allowing racing in challenging conditions, which will allow skill development and conditions that have too great an inherent risk for participants and boats. This is a major dilemma and responsibility for the Race Officer. There is also the consideration of safety of volunteers on Race Management vessels and their proficiency to provide support for the boats racing. Using this table will enable the responsibility for decision making to be shared across the relevant committees of the club. It will also mean that all races in a series will be conducted in suitable racing conditions, making results more meaningful.

It is advised that in marginal conditions it is easier not to start a race than to start it and have to abandon it later.

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Condition	OTB	Div 2 (Keelboats/TY)	Div 1 Keelboats
Gale Warning (34-47 knots)	If the BoM 05:10 forecast has a Gale Warning and Racing is before 10:00 abandon. If racing is after 10:00 issue a warning and confirm after any 10:00 update. If the Gale Warning is still in place after any 10:00 update then abandon. Give it a few minutes after 10:00 before making the call.		
Strong Wind Warning (26-33 knots)	<p>Postpone</p> <p>Observe conditions.</p> <p>Class wind limits in the Wind Limit Guide from AS, attached, should be consulted.</p>	<p>Cat 5 boats only</p> <p>Abandon if winds above 22 knots (10 minute average) or gusts over 26 knots</p> <p>Raise Code flag Y</p> <p>Monitor local weather Observations</p> <p>Check with BOM</p>	<p>Cat 5 boats only</p> <p>Abandon if winds above 25 knots (10 minute average) or gusts over 30 knots</p> <p>Raise Code flag Y</p> <p>Monitor local weather Observations</p> <p>Check with BOM</p>
Condition	OTB	Div 2 (Keelboats/TY)	Div 1 Keelboats
<p>NO Strong Wind Warning or Gale Warning</p> <p>Pre- start (30 mins prior) and start</p>	<p>Winds should ideally be between 4-22 knots (10 minute average), with all readings above 2 knots and less than 22 knots.</p> <p>If not then: Monitor local weather Observations Check with BOM</p> <p>Options – 1.Postpone with fleet on water 2.postpone return fleet to beach 3.Abandon race</p> <p>Class wind limits in the Wind Limit Guide from AS, attached, should be consulted.</p>	<p>Winds must be between 4-22 knots (10 minute average), with all readings above 2 knots and less than 25 knots.</p> <p>If not then: Monitor local weather Observations Check with BOM</p> <p>Options – 1.Postpone with fleet on water 2. Postpone, instruct boats to return to marina 3.Abandon race</p>	<p>Winds must be between 4-26 knots (10 minute average), with all readings above 2 knots and less than 30 knots</p> <p>If not then: Monitor local weather Observations Check with BOM</p> <p>Options – 1.Postpone with fleet on water 2. Postpone, instruct boats to return to marina 3.Abandon race</p>

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Condition	OTB	Div 2 (Keelboats/TY)	Div 1 Keelboats
During the race	<p>Winds should ideally be in the range 4-22 knots (30 minute average) and gusts not exceeding 25 knots</p> <p>Monitor local weather Observations Check with BOM For light winds and wind average (20-22 knots) or gusts 22-25 knots consider shortening course.</p> <p>For winds above 22 knots (30 minute average) or gusts over 25 knots abandon race</p> <p>Class wind limits in the Wind Limit Guide from AS, attached, should be consulted.</p>	<p>Winds must be 4-22 knots (30 minute average) and gusts not exceeding 27 knots</p> <p>Monitor local weather Observations Check with BOM For light winds and wind average (20-22 knots) or gusts 22-25 knots consider shortening course.</p> <p>For winds above 22 knots (30 minute average) or gusts over 27 knots abandon race</p>	<p>Winds must be 4-25 knots (30 minute average) and gusts not exceeding 30 knots</p> <p>Monitor local weather Observations Check with BOM For light winds and wind average (20-26 knots) or gusts up to 30 knots consider shortening course.</p> <p>For winds above 25 knots (30 minute average) or gusts over 30 knots abandon race</p>

Note: Wind averages as mentioned in table should be taken from the race course area (or as close as possible) and be averaged from as many readings as is practicable.

Other Considerations

In the following situations the RO should exercise further caution and consider abandonment or shorter courses:

1. Challenging conditions and insufficient safety vessels
2. Sea conditions that are not suitable for safety vessels
3. Sea state may not be obvious from the tower where the wind direction has any West or North in it in marginal conditions.
4. Forecast thunderstorms/squalls – for anytime during on water activity (ie pre start, racing, returning after the race)
5. Distance racing (Keelboat fleet)/Interclub (OTB fleet) and inclement weather
6. Extreme temperatures (Winter/Summer) – if unsuitable for participants &/or safety vessel crew. Consider wind chill factor for winter racing
7. Challenging conditions with offshore wind – especially if wind is building and fleet may have difficulty getting back to club/marina
8. Limited visibility due to heavy rain, hail, fog or bush fire smoke

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Wind Strengths

This is a general guide to what the BoM is talking about when they issue a Strong Wind, Gale or Storm warning with a bay forecast. Gusts can be up to 40% more than the forecast or observed average.

Description	Average Wind Strength (Knots)
Strong Winds	26kts to 33kts
Gale	34kts to 47kts
Storm	48kts to 63kts
Hurricane	64kts +

Useful Weather Sites

There are numerous weather sites that can be used to evaluate what is currently happening and what may happen. In no particular order some of these are as follows:

- BoM Marine - <http://www.bom.gov.au/marine/index.shtml>
- BoM Radar - <http://www.bom.gov.au/products/IDR023.shtml>
- Bay Winds - www.baywx.com
- Vic Ports - <https://www.vicports.vic.gov.au/community-and-bay-users/Pages/Waves-wind-weather.aspx>
- Predict Wind - <https://www.predictwind.com/>
- Willy Weather - <https://www.willyweather.com.au/>

Contacts

One or more of the following contacts should be used as a reference and sounding board if in doubt.

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|-----------------------|--------------------|--------------|
| • Rear Commodore | Andrew Martin | 0430 474 735 |
| • Commodore | Tony Christmas | 0400 789 616 |
| • KB Fleet Captain | John Wemyss | 0409 410 866 |
| • OTB Fleet Captain | Peter Chipperfield | 0402 231 782 |
| • Sailing Committee | Tim Bardon | 0426 581 747 |
| • Senior Race Officer | Geoff Eldridge | 0419 004 905 |

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Australian Sailing State/National Seminar Guidelines on Wind Strength

Wind Strength

The two critical factors here are the lower and upper wind strengths. Many classes have very specific race management guidelines on this topic. These should be used by the Race Officer as guidelines only. The ultimate decision to race or not to race is that of the Race Officer.

The Race Officer shall follow wind range guidelines. If the published minimum wind speed is 4 knots, the race shall start in these conditions even if the wind speed increase is expected later in the day. On the otherhand the race shall not start in conditions outside published guidelines.

The lower wind speed for most dinghy classes in major championships is around 4 knots. Below this wind speed it is not advisable to start a race. Remember that the fleet have to sail the whole course, therefore the wind has to 'fill in' over the whole course area, not just in the immediate vicinity of the start line.

Upper wind strengths are much harder to determine and vary tremendously depending on boat design and sea conditions. The important factors that should be considered are;

- Is it safe? Can the Safety vessels extract people from the water safely.
- Is it a race or a survival course? There comes a point in higher winds where the fleet are not racing against each other but just managing to 'get round the course'.

It is easier not to start a race under these conditions than to start the race and then have to Abandon it later.

This aspect of a Race Officer's duty is one that always leads to controversy. Some will say the race should be sailed, others will agree that it should not be started. This is dealt with in detail later in this manual.

Policies for major dinghy events are as follows:

- a) Lower wind speed limit - the races should not be started in less than 4 knots of wind (6 knots for boards) established over the entire course area. This lower limit may actually be higher if there is strong current in the racing area.
- b) Upper wind speed limit - the races should not be started in excess of 25 knots. Once a race has been started and winds exceed 25 knots the race should be allowed to continue unless there is a danger to life. For multihulls and high performance dinghies these limits should be set around 5 knots less. For most of keel boats the upper limit may be 2-5 knots less in heavy seas or with gusty winds.

These limits may also vary depending upon sea conditions, current or rapid changes in velocity.

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	ONSHORE			OFFSHORE			INLAND		
	KN	MPH	KPH	KN	MPH	KPH	KN	MPH	KPH
	A Class	22	25	40	22	25	40	22	25
Arafura Cadet	18	20	32	18	20	32	18	20	32
Arrow	26	30	48	26	30	48	26	30	48
Bonito	*	*	*	*	*	*	*	*	*
Boomerang 20-Day	*	*	*	*	*	*	*	*	*
Boomerang -Night	30	35	56	30	35	56	30	35	56
Cadet (Int)	*	*	*	*	*	*	*	*	*
Castle 550/650	*	*	*	*	*	*	*	*	*
Cherub	22	25	40	26	30	48	26	30	48
Clifton	30	35	56	30	35	56	35	40	64
Cobra	22	25	40	22	25	40	26	30	48
Contender	22	25	40	22	25	40	26	30	48
Corsair	26	30	48	26	30	48	26	30	48
Diamond	25	29	46	30	35	56			
Dragon	26	30	48	26	30	48	26	30	48
Dolphin	26	30	48	26	30	48	26	30	48
National E	22	25	40	22	25	40	26	30	48
Elwood Junior	18	20	32	18	20	32	26	20	32
Etchell	22	25	40	22	25	40	22	25	40
Explorer 16	22	25	40	22	25	40	22	25	40
Fairy Penguin	22	25	40	22	25	40	26	30	48
Farr (All)	*	*	*	*	*	*	*	*	*
Int. Finn	26	30	48	26	30	48	26	30	48
Fireball	26	30	48	26	30	48	26	30	48
FJ	22	25	40	22	25	40	22	25	40
Flying Ant	22	25	40	26	30	48	26	30	48
Flying Dutchman	26	30	48	26	30	48	26	30	48
Flying Fifteen	22	25	40	26	30	48	26	30	48
Gwen 12	26	30	48	26	30	48	26	30	48
Hartley TS 16	22	25	40	22	25	40	22	25	40
Hartley TS 18/21	22	25	40	22	25	40	22	25	40
Heron	22	25	40	22	25	40	26	30	48
Hobie 14/16/21	26	30	48	26	30	48	26	30	48
Hydra	26	30	48	26	30	48	26	30	48
Impulse	22	25	40	22	25	40	22	25	40
Javelin	26	30	48	22	25	40	26	30	48
Laser II	22	25	40	22	25	40	26	30	48
Maricat	26	30	48	26	30	48	26	30	48
Matilda	*	*	*	*	*	*	*	*	*
Mini Quest	22	25	40	22	25	40	22	25	40
Minnow	22	25	40	18	20	32	22	25	40
Miracle	22	25	40	22	25	40	22	25	40
Mirror	22	25	40	18	20	32	22	25	40

Class Wind Limits

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	ONSHORE			OFFSHORE			INLAND		
	KN	MPH	KPH	KN	MPH	KPH	KN	MPH	KPH
Mosquito Mk I & II	22	25	40	22	25	40	22	25	40
Moth	22	25	40	22	25	40	22	25	40
Nacra 5.0/5.2/5.8	26	30	48	26	30	48	30	35	56
Nacra 162m, 182m	22	25	40	22	25	40	26	30	48
Northbridge Junior	18	20	32	18	20	32	18	20	32
NS 14	22	25	40	22	25	40	26	30	48
O.K	22	25	40	22	25	40	26	30	48
Pacer	22	25	40	22	25	40	26	30	48
Paper Tiger	22	25	40	22	25	40	22	25	40
Prindle 15	22	25	40	22	25	40	22	25	40
Prindle 16	22	25	40	26	30	48	26	30	48
Prindle 18	22	25	40	26	30	48	26	30	48
Q.B.2	22	25	40	26	30	48	26	30	48
Quickcat	22	25	40	13	15	24	26	30	48
Rainbow	22	25	40	26	30	48	26	30	48
R.L 24	22	30	40	13	15	24	26	30	48
Sabot(Senior)	22	25	40	22	25	40	22	256	40
Sabot(Junior)	18	20	32	18	20	32	18	20	32
Saber	22	25	40	22	25	40	26	30	48
Sailfish	18	20	32	18	20	32	22	25	40
Seabita	30	35	56	30	35	56	35	40	64
Sharpie	26	30	48	26	30	48	26	30	48
Solo (Mono)	22	25	40	22	25	40	22	25	40
Solo 16	22	25	40	22	25	40	22	25	40
Sonato (All)	30	35	56	30	25	56	30	25	56
Spacesailer 24	*	*	*	*	*	*	26	30	48
Sparrow	22	25	40	22	25	40	22	25	40
Status 580	22	25	40	26	30	48	26	30	48
Sunmaid 20	*	*	*	*	*	*	*	*	*
Sunbird 25	*	*	*	*	*	*	*	*	*
Tasar	22	25	40	22	25	40	26	30	48
Timpenney 670	26	30	48	26	30	48	26	30	48
Tornado	22	25	40	*	*	*	22	25	40
TS-500	22	25	40	22	25	40	26	30	48
Tumlaren	26	30	48	26	30	48	*	*	*
Ultimate 16/18/23	*	*	*	*	*	*	*	*	*
Windrush 14	26	30	48	26	30	48	26	30	48
Windsurfer	22	25	40	22	25	40	26	30	48
14'Dinghy	22	25	40	26	30	48	26	30	48
125	22	25	40	22	25	40	26	30	48
145	22	25	40	22	25	40	22	25	40
420	22	25	40	22	25	40	26	30	48
470	22	25	40	22	25	40	22	25	40
505	22	25	40	22	25	40	26	30	48

Class Wind Limits

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