



PREDICTED NAVIGATION EVENT RULES

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Preface

The following rules for the conduct of Predicted Navigation Events have been compiled from the rules of a number of clubs and organisations with a view to establishing a common set for use by boating clubs.

It is recommended that all persons competing in and organising these events study this information so that greater enjoyment and satisfaction can be had by all.

What Is A Predicted Navigation Event?

A predicted navigation event is a boating activity available to any owner of a power boat or motor sailor, whose boat is registered and seaworthy. A "Predicted Navigation Event" can be likened to a car rally on water, with the major difference being that each navigation event competitor nominates their own speed OVER THE GROUND to suite the performance criteria of their vessel. It will help improve navigational knowledge, boat handling skills and also assist to gain a deeper understanding of a vessel's navigation and handling characteristics, its systems and nautical surrounds of Moreton Bay.

The event involves travelling over a set course at a nominated speed over the ground, and hence tidal and weather conditions have to be reckoned with to maintain this speed and to reach the finish at the correct time. Furthermore, there are a number of check point gates at locations, unknown to competitors, where times are recorded and vessels scored.

Penalty points are imposed for every second early or late. Points are also applied for breaches of a number of rules. After all penalty points are added for each vessel, the competitor with the lowest score is the winner.

Prior to the event it is necessary to plot the course by hand on an appropriate chart, electronically via chart plotting software or online tools like Navionics or Google Earth, as a series of legs and turn points and identify possible timing points (transits) along the legs then calculate the correct times to arrive at these points, based on the Start time and nominated speed over the ground. Course lengths can vary from 8 to 15 nautical miles.

The variation introduced by weather, wind, waves and current, cause constantly changing conditions and accordingly, a perfect score is associated with a high degree of difficulty.

The identification of these influences, the estimation of the effect on the performance of the vessel, and the subsequent adjustments in throttle and heading to compensate, helps to hone a skipper and crew's knowledge of navigation and boat handling.

Members of the Cruising and Navigation Committee along with fellow competitors are available to advise newcomers on course plotting, the preparation of run-sheets and set up the GPS. The Committee or event organisers can be contacted through RQYS Reception.

Navigation training sessions are also conducted by the Cruising and Navigation Committee from time to time with sessions advised in the RQYS online newsletter "In The Wind". The Cruising and Navigation Committee can also assist interested participants to accompany other competitors in an event, as guests to experience the challenge of a Navigation Event. Experienced crew can also be placed aboard a new participant's vessel to assist with an introduction to the event.

The camaraderie enjoyed with other competitors, particularly from other clubs both inter and intrastate is a wonderful way to enjoy power boating.

Good luck and good boating!

Spirit of the Event

Navigation Rally competitions are conducted to promote fellowship between club members and clubs, to test and enhance the ability of the skipper, navigator and crew, as well as competitiveness of their vessel and to develop knowledge of local waterways.

A vessel and her crew, when participating in a predicted navigation event, shall comply with the Rules and Course Instructions to achieve a result based solely on the ability of the skipper, navigator and crew.

It is essential that the rules and ethics of participating in a Navigation event be upheld at all times. Failure to do so may result in disqualification.

General Rules

1. Fundamental Rule

- 1.1. The International Regulations for the Prevention of Collisions at Sea supersedes all rules and instructions of this event. Where necessary, deviations in course and/or speed should be made to comply with the safety aspects of the regulations stipulated above.
- 1.2. Penalties will not be given for actions against the event rules that are made to comply with these regulations.

2. Code of Event

- 2.1. The conduct and management of all events shall be at the direction of the Committee as appointed by the "Cruising and Navigation" Committee.

3. Who is Bound

- 3.1. The Committee and all participants shall be bound by these Rules and the Course Instructions.
- 3.2. By entering an event the skipper of a vessel acknowledges that they and their crew agree to abide by the rules and instructions applicable to the event.

4. Whether to Participate

- 4.1. It shall be the sole responsibility of the skipper to ensure the safety of his vessel and crew at all times. Further it shall be the sole responsibility of each skipper and crew to decide whether or not to start or continue in the event.
- 4.2. Participation in the event is acceptance of these responsibilities.

5. Acceptance of Risk and Operational Warnings

- 5.1. All those taking part in the event do so at their own risk and responsibility as per the Fundamental Rule. The RQYS, in accepting an entry, shall not be responsible for the operation or seaworthiness of a vessel or the sufficiency or adequacy of her equipment or crew.
- 5.2. The skipper, owner and crew in entering the event, acknowledge that they will indemnify RQYS, its officers, committees, servants and sponsors against any claim for damages to their vessel, property or personal injuries they may sustain, suffer or inflict on others.
- 5.3. The International Regulations for Preventing Collisions at Sea 1972 – Section II and Queensland Department of Transport Regulations must be complied with at all times during the event and supersedes all rules and instructions contained within the Predicted Navigation Event Rules.
- 5.4. The course may cover areas used by both recreational, fishing vessels and commercial vessels with ferries crossing the course. Vessels are provided with a start time, based on their nominated speed, this should reduce the potential of participating vessels passing during the event.
- 5.5. Consult latest Notice to Mariners before the event, as navigation marks may have been relocated. Also, be aware banks may have shifted or grown particularly in the southern part of the course, as such due attention should be given to your draught and available water. An echo sounder with set depth alarm should be in use when competing.

6. Emergencies, Issues and Withdrawal

- 6.1. VHF Channel 16 (and supplementary 67) is the marine VHF radio frequency designated as an international distress frequency. It is the primarily channel for distress and emergency.
- 6.2. In other circumstances including mechanical breakdowns, groundings, abandonment withdrawal and delays contact the Officer of the Day by phone or VHF Chs 16 or 67, or RQYS Reception on Ph: 07 3396 8666. Be prepared for the Officer of the Day to direct a radio call to a working frequency to clear the emergency channels.
- 6.3. Vessels failing to give notice of the withdrawal may be held liable for costs associated with the search and rescue activity.

7. Acceptance of Entries

- 7.1. The RQYS and/or The Committee are under no obligation to accept any entry for any event. The Committee and/or RQYS shall be entitled to reject an entrant even after accepting the entry at any time up to the preparatory time and where possible, should provide a reason for doing so.
- 7.2. The Committee will endeavour, to notify an entrant if their entry is rejected.

8. Program of Events Entry Form & Course Instruction

- 8.1. "Program of Events" "Entry Form" and "Course Instructions" will be issued separately for each event.
- 8.2. The current "RQYS Predicted Navigation Event Rules" will be available on the RQYS Cruising / Navigation website or RQYS club reception can be contacted for a copy. If required, specific rules may be altered in the Course Instructions by reference to that Rule.
- 8.3. A Program of Events will be issued prior to an event and include:
 - Event will be conducted under the Predicted Navigation Event Rules of the RQYS.
 - Date and Place of the Event and the general Starting Time.
 - Division or Divisions for which the event will be conducted.
 - Any variation to the Rules.
 - Date on which entries close.
 - Details of trophies, if known.
 - Time and Place, or method of receiving Course Instructions.
 - Time and Place to collect the TackTracker Logger.
- 8.4. Entry Forms will include the following information:
 - Name of vessel
 - Election of Division or Divisions
 - Hull length and colour
 - Vessels maximum speed in competition trim
 - Nominated speed for the event in competition trim
 - Heavy weather speed if applicable
 - Skipper's name, phone numbers and Email address
 - Number of crew anticipated for the event
 - Closing Date for entries
 - Entry fee
 - Late fee

- A signed disclaimer by the RQYS in relation to seaworthiness of competing vessels and a general indemnity from competing vessels relating to the competitors entering at their own risk
 - Warning to competitors regarding any hazards or speed restrictions applicable to the course area
 - Event conducted pursuant to the rules of the RQYS including RQYS Predicted Navigation Event Rules
 - Any special instructions which may add to or vary the Rules and any special signals
- 8.5. Course Instructions will include the following: information shall be included in the Course Instructions:-
- Division or divisions (i.e. Traditional, GPS, Combined)
 - Course description
 - Course distance
 - Charts and their dates published if applicable
 - Course signals if appropriate
 - Event Start and Finish Times
 - Names and phone numbers of the club and event officials
 - Navigation equipment inclusions and exclusions per rules

9. Official Course

- 9.1. The Official Course will be designed and checked by persons nominated by The Committee
- 9.2. The Official Course is that approved by The Committee.

10. Start Times

- 10.1. Vessel start times are approved by The Committee.
- 10.2. Start times are calculated and may be issued the day after the close of entries for an Event, but not less than 5 days before the event. Upon acceptance, additional start times will be issued for late entries.
- 10.3. All competitors start times will be in chronological order based on vessels speeds to ensure vessels under normal circumstances, should not overtake.
- 10.4. Special requests to start at a specific or preferred time will not be accepted in the “Spirit of the Event”.
- 10.5. Start Times and Nominated Speeds of competitors will not be published until after the event.

11. Course Measurement

- 11.1. The Official Course distance is calculated by the straight-line distance from Latitude /Longitude to the next Latitude /Longitude referenced mathematically to TackTracker software’s spherical model.

12. Registration of Vessels

- 12.1. All vessels MUST be registered with the appropriate state government body and MUST comply with ALL requirements and regulations of that body, particularly relating to navigation and safety equipment.
- 12.2. For RQYS events, to be a valid entry the vessel must be on the RQYS vessel register and the owner a financial full member.

- 12.3. Vessels from other clubs competing in RQYS events by invitation must be on the register of the club under which they have entered.
- 12.4. Every vessel shall have on board a member of the club under which the vessel has entered to be in charge of the vessel as the owner or the owner's representative.
- 12.5. Every vessel shall fly the burgee or pennant of the club under which she has entered at all times during the event.

13. Safety Equipment

- 13.1. As a minimum, all vessels shall carry and have in working condition all safety equipment specified by Queensland Transport for the particular vessel. The Committee reserves the right to spot inspect any competing vessel for safety and sea worthiness.

14. Steadying Sails

- 14.1. Steadying sails may be used.

15. Heavy Weather

- 15.1. In the event of heavy weather, the course may be changed, shortened, postponed or abandoned.
- 15.2. Competitors will be advised by phone and email if the event is to be abandoned within 24 hours of the official start time or by VHF radio at the start of the event – Refer 22 Radio Watch.

16. Event Type and Allowable Equipment

16.1. Traditional Events

- (a) The use of electronic equipment during the Event or within 2.0nm of the start line that can identify the vessels speed and direction over the ground, position on the course and navigation calculation are prohibited..
- (b) The following navigation and other equipment are prohibited:
 - GNSS, DGPS, GPS satellite navigation, Automatic pilot, Radar, Range finders, any device displaying Speed Over the Ground (SOG), Course Over the Ground (COG), Navigation software and computers, and GPS enabled computers, phones, watches, tablets and or similar devices or any combination of these devices.
 - Speed through the water devices, electronic fluxgate compass are permitted provided all speed, direction and positioning interfaces are disabled or otherwise rendered unusable during the Event to the prior satisfaction of The Committee.
- (c) The committee reserves the right to spot check any competing vessel.

16.2. GPS Events

- (a) Any commercially available handheld or mounted GPS device or electronic equipment including computers with a GPS antenna attached, is allowed for the purpose of identifying the vessels speed and direction over the ground, position on the course, and making associated navigation calculations only.
- (b) The following navigation and other equipment are prohibited
 - Vessel handling electronic equipment, principally auto pilots and automatic speed control throttles.
 - Any device that continuously and progressively displays a vessel's desired position (as opposed to a GPS device that displays a vessel's actual position).

- (c) The committee reserves the right to spot check any competing vessel.

17. Nominated Speed

- 17.1. All vessels must enter at a Nominated Speed that is roughly 2/3rds of the vessels maximum sustainable speed in normal competition trim or higher.
- 17.2. The Committee or the owner of the boat may seek a speed check, with observers, to determine the eligibility and suitability or otherwise of the Nominated Speed.
- 17.3. In all instances, The Committee shall be the final arbitrator as to the Nominated Speed of a particular vessel
- 17.4. Vessels will not be required to nominate in excess of 25 knots but may do so if they choose.
- 17.5. Only planning vessels may enter a second slower Nominated Rough Weather Speed for use in the event of heavy weather via the Entry Form. This lower speed must be approved by the Committee. Competitors that utilise a heavy weather nominated speed for the event must advise the person scoring the event when the TackTracker is collected. Permission will be assessed on a case by case basis with consideration of the conditions, vessel size and abilities. Use of the heavy weather Nominated Speed by a vessel is at the discretion of the Officer of the Day and may be scrutinised by the "Organising Committee" as the final arbitrator having appraised the conditions.

18. Division of Vessels

- 18.1. Competitors choose whether to compete in Traditional or GPS as per the Rule 16 Event Type and Allowable Equipment
- 18.2. Division 1 and 2 which previously specified vessel's competition speed, has been merged with displacement and planning vessels in the same division.

19. Variation of Speed During Event

- 19.1. No variation of speed or course is permitted except to counter the effects of current, tide, wind, depth of water, interference from other vessels, the intrusion of banks or drying land into the course, compliance with navigation and right of way rules, or other factors beyond a vessel's control that affect her nominated speed.

20. Handling of Vessels and Penalty Points

- | | |
|---|-------------------|
| 20.1. Every second early or late at any check point with due regard to the scoring factor. | 1 penalty point |
| 20.2. Passing any gate, course mark, buoy, navigation turning point or beacon specified as a mark of the course by a distance exceeding 250 metres either side of the course | 75 penalty points |
| 20.3. After the Official Start Time of an event, each vessel must stay out of the Start Area until that vessel's Preparatory Time. However, a vessel may pass through the Start Area (once only) in the opposite direction to the first leg of the course for the purpose of arriving behind the Start Area, but only if avoiding the Start Area would jeopardise safe navigation | 10 penalty points |
| 20.4. Steer any course other than a direct straight-line course with the intension of interfering with another competitor from each mark, buoy, beacon or check point except as permitted in Rule "Variation of Speed During Event" | 10 penalty points |
| 20.5. An entered vessel that has not started or has finished shall not cause interference to a vessel which is competing | 15 penalty points |

20.6. Make significantly and noticeably abrupt changes of speed	20 penalty points
20.7. Use reverse gear or other means to directly affect forward motion	30 penalty points
20.8. Subject to Rule Variation of Speed During Event, transmit or receive radio, navigation message or other information concerning matters affecting the event	30 penalty points
20.9. When two or more vessels are approaching a mark, beacon, buoy or navigation turning point and are overlapped, the inside vessel(s) should be given sufficient sea room to complete the turn when a course change is required	20 Penalty Points
20.10. An overtaking vessel shall not change course until clearly ahead of the overtaken vessel	20 Penalty Points
20.11. Any observed breach of the rules following analysis of a competitors run sheet and TackTracker data (refer appendix)	200 penalty points
20.12. In the event of a vessel being missed at a Checkpoint due to no fault on that vessel's part, The Committee may allocate average points for that check point	Average penalty points
20.13. Penalties shall not apply when a vessel is fulfilling her obligations under the relevant Rules for the Prevention of Collisions at Sea or giving Right of Way to a vessel. The onus of proof that such a manoeuvre was necessary, shall rest on the vessel in question. Data from TackTrackers may be provided as part of vessels evidence.	Nil penalty points

21. Vessel Materially Prejudiced

- 21.1. A vessel is materially prejudiced when, through no fault of her own, her course, speed or finishing time is affected by:
- (a) An act or omission of The Committee.
 - (b) Rendering assistance to a vessel or person in peril or distress (but excluding her own crew) or
 - (c) Being disabled by another vessel where that vessel is required to keep clear.
- 21.2. A vessel, which is materially prejudiced whilst competing, may seek redress in accordance with the Protest procedures.
- 21.3. The Committee may of its own initiative, institute a consideration of redress.
- 21.4. When The Committee is satisfied after a hearing that a vessel has been materially prejudiced, it shall grant such redress as is equitable, which may include giving or taking time, modifying a penalty or points, or granting average competition points for the event.

22. Radio Watch

- 22.1. All vessels MUST maintain a radio watch on VHF 67 during the event, inclusive of the period after the start of the event until a competitor's Start Time, and after a competitor finishes and the close of the event for the day.
- 22.2. Vessels MUST maintain radio silence from the Event Start until the Event Finish except for communication with the Officer of the Day.
- 22.3. Vessels shall maintain radio silence on all navigation matters concerning the Event.

- 22.4. Safety and event information will be broadcast on these channels, as will search and rescue co-ordination. Skippers must assist in any search and rescue operation. (Refer 21 Vessel Materially Prejudiced) To allay fears all competing vessels shall monitor marine VHF 67 or as directed by the officer of the day during the event.
- 22.5. Should a vessel for any possible reason regarding safety at sea, identify a vessel in distress they should call the Officer of the Day for investigation and follow up.
- 22.6. Official vessels will maintain a radio watch on these frequencies, and scan others.

23. Official Time

- 23.1. Official time is Eastern Standard Time EST [Coordinated Universal Time (UTC) +10:00].
- 23.2. UTC or EST time is readily available, but it is the competitor's responsibility to validate the source used. Some internet time services may be affected by internet and computer speeds.

24. Scoring System

- 24.1. Since 2008, TackTracker has been the official scoring program used by RQYS to determine the results of a predicted navigation event. TackTracker Loggers record GPS position every second to three decimal places and the data is uploaded to TackTracker software for analysis.
- 24.2. A RQYS owned TackTracker Logger is issued to each vessel to determine the competitor's score and any penalties. If a TackTracker Logger is lost or damaged, the replacement cost will be borne by the offending party.
- 24.3. The nominated Scorer of the Day or Officer of the Day is to ensure the TackTracker program's settings, modified within Settings / Nav Rally have been set with the following criteria:
- | | |
|---|-----------------|
| (a) Default gate offset from waypoints | 200m |
| (b) Default gate length
(i.e. 250m either side of the course line) | 500m |
| (c) Missed Start Gate, Missed Other Gate and Max Gate Score | 75 points |
| (d) Scoring tolerance | 0.55 |
| (e) Penalties per second early or late at any check | 1 penalty point |
- 24.4. The points allocated under rule "Scoring System", shall be totalled and if the event is being run as a handicapped event multiplied by one-tenth of the vessels nominated speed. To this total, any penalties incurred shall be added.
- 24.5. The vessel obtaining the lowest number of points shall be declared the winner of the event.
- 24.6. In the event that two or more vessels are tied on the same number of points, the tie shall be broken by examining the Precision Scores contained on the Excel report for each gate and calculate to three decimal places the Precise Precision Score. Total all gates and the vessel with the lowest combined Precise Precision Score is the winner.
- 24.7. A print out of the results is generally provided after each event presentation. In the case of a known protest, the results shall be announced as provisional until the protest can be heard and will subsequently be uploaded to TackTracker Cloud for viewing.
- 24.8. All places and penalty points are provisional until the expiry of the protest time limit or the hearing and decision of a protest, whichever is the latter.

24.9. Official results will be posted on the RQYS Website

25. Disqualification

25.1. A vessel may be disqualified for any of the following reasons:

- (a) Undue recklessness
- (b) Disregard for safety
- (c) Compete in an unregistered vessel
- (d) Competing while not being a member of RQYS or a recognised yacht club
- (e) For the purpose of these event rules, a "Vessel" encompasses but is not limited to the skipper, navigator, throttle person or crew and also includes portable GPS equipment. The above listed personnel and equipment shall only compete on one vessel, failure to adhere to this rule will result in immediate disqualification
- (f) If a radio or any other signalling device is used to assist during the event. (This does not include time checks or legitimate requests)
- (g) Failure to observe and comply with Rule 13 Safety Equipment
- (h) Practicing or pre-running all or any part of the published course
- (i) The creation by competitors of artificial landmarks along event courses or on adjacent surrounds for use as a navigation aid during an event is not allowed
- (j) Investigation of the waterways associated with an event is allowed up to two weeks prior to each advertised event date but only to confirm the location of beacons, landmarks and channel water depths. No anchored marks can be deployed.
- (k) A competitor cannot be on any part of the course line for the purpose of taking photos, bearing references or noting navigational reference marks.

25.2. For an infringement of any rules where in the opinion of The Committee, the infringement was a gross or flagrant disregard of a rule or the "Spirit of the Event". The Officer of the Day shall advise details of any infringement at the event presentation area after the event or if the skipper is not present, email the owner/skipper of the vessel within two working days of the finish of the event.

25.3. The owner/skipper shall have two working days in which to deliver a written reply to The Committee, otherwise any appeal will lapse.

25.4. The Committee shall advise its final decision within ten working days of the finish of the event to the owner/skipper of an infringing vessel, otherwise the infringement lapses.

25.5. If a vessel is disqualified in any event, her skipper and crew shall not be eligible to participate in any re-run of the event.

26. Protests

26.1. Protests will be heard by a protest committee

- (a) When the protest is against The Committee, a Protest Committee shall be appointed by the Senior Flag Officer of RQYS present at the time, or if not present as soon as practical thereafter.
- (b) When the protest is not against The Committee, a Protest Committee shall be appointed by The Committee.

26.2. The Protest Committee should comprise three people who have not competed in the event division under protest;

- (a) An author to these rules or subsequent authorised revisor as listed in Rule 29 Revisions
- (b) An active participant in Navigation Events for greater than 5 years and have experience in conducting and judging predicted navigation events, and who has a track record of participating in navigation events in the category which is being protested; and
- (c) A third independent person.

26.3. A vessel may protest against The Committee or against another boat.

26.4. Protests must meet the following requirements: -

- (a) Must be lodged with The Officer of the Day or a member of The Committee within 60 minutes of displaying the results, initially verbally is acceptable.
- (b) If verbal notification is received, subsequent notification with all details by email and signed by the skipper or his representative and his navigator within two days of announcing the results or the protest shall lapse.
- (c) Must be accompanied by the prescribed Protest Fee, if any.
- (d) At the time of delivery of the protest, the protestor must be accompanied by the senior member of his club present, if the event is an interclub event. The senior member may advise the protestor as to whether the protest should be lodged or not, however he shall not prevent the protest being lodged if the protestor wishes to do so after receiving that advice.
- (e) Where applicable or necessary for clarity, diagrams must accompany the protest.
- (f) The protest shall set out the grounds on which it is made and any other information considered pertinent to the protest.
- (g) When a protest is against another vessel, all reasonable efforts shall be made by the protesting vessel to inform the skipper or crew of the other vessel that a protest is being lodged and one member from both vessels shall be entitled to be present during the hearing.
- (h) The Protest Committee may allow the Protestor to remedy at a later time (ie at the hearing) any details as required by the rule of "Protest".
- (i) Should the Protest Committee decide that the protest does not conform to the requirements of the rule of "Protest", then it shall inform the Protestor that the protest will not be heard and the reasons for such decision.
- (j) When the Protest Committee decides a protest conforms with all the requirements of the rule of "Protest", it shall call a hearing as soon as practicable and advise all interested parties of the time allowed for the preparation of a defence.
- (k) The parties to the protest, or a representative of each, shall have the right to be present at the hearing, but all others, except one witness at a time while testifying, shall be excluded.
- (l) The Protest Committee may instigate a protest of its own should evidence obtained during a protest hearing indicate that another vessel may have breached the rules.
- (m) Failure on the part of any interested parties, or a representative, to attend the protest hearing may justify the Protest Committee, in its discretion, determining the protest as it thinks fit.

- (n) The Protest Committee shall make its decision promptly after the hearing. It shall be communicated to the parties involved and shall, where practicable and in the opinion of the Protest Committee appropriate, state fully the facts found and the grounds upon which the decision was made.
- (o) The decision of the Protest Committee shall be final and no appeals shall be lodged against the decision.
- (p) The parties to the protest may request a written copy of the decision provided such a request is in writing and is received within seven days of the announcement of the decision.

27. Interclub Scoring

27.1. The committee reserves the right to alter the number of places counted in each division dependent on factors such as numbers of entries. The committee will make all possible efforts to notify competitors of how many places in each division will count towards the championship. Unless otherwise agreed, general practice is to count the top three vessels from each club in each division.

27.2. Scoring for interclub championships similar to “Four Corners” runs as follows:

- (a) The top three vessels from each club in Traditional and GPS divisions will be counted.
- (b) Vessels are given a finishing order score in their division, first place is awarded a one, second place is awarded a two, third place is awarded a three and so on in consecutive order. For example, if a club’s top three vessels are 2nd, 4th and 6th in GPS division, then the combined score is 12.
- (c) Both divisions are then combined, the club with the lowest aggregate score is the winner.

27.3. Goodwill Cup Inter Club Scoring

- (a) The top five vessels from each club in Traditional and GPS divisions will be counted.
- (b) Vessels are given a finishing order score in their division, first place is awarded a one, second place is awarded a two, third place is awarded a three and so on in consecutive order. For example, if a club’s top five vessels are 2nd, 4th, 6th, 7th and 8th in Traditional division, then the combined score is 27.
- (c) Both divisions are then combined, the club with the lowest aggregate score is the winner.
- (d) The reason why a scoring order has been implemented is to give equal weighting between Traditional and GPS divisions when combining the score. In the past it became apparent with low scores in GPS the results of Traditional competitors had a significant influence over the results.
- (e) In the event that a club is not able to field five competitors in one or both divisions, (Traditional and GPS) then the Maximum Allowable Score will be counted as the contributing score for the missing competitor/s. For example if there were 20 entrants missing entries would be scored as 21, 22 and so forth.

27.4. Method for resolving an Inter Club tied event

- (a) In the event that both clubs score the same amount of points, method 1 will be utilized firstly to resolve the tie and determine the winning club. If after following method 1, a tie remains, method 2 then method 3 will be utilized to determine the winning club:

- (b) Method 1 – The 5th or lowest vessel from each club's Traditional and GPS finishing order score shall be removed. The finishing order score from the top 4 vessels shall then be added together and the club with the lowest score is the winner.
- (c) Method 2 – The 4th or second lowest vessel from each club's Traditional and GPS finishing order score shall be removed. The finishing order score from the top 3 vessels shall then be added together and the club with the lowest score is the winner.
- (d) Method 3 - In the unlikely event that a tie occurs following method 2, one decimal place precision scores shall be used to break the tie.

28. Season Championships

28.1. There are currently three events that count towards the RQYS season championships.

- Goodwill Cup 1st weekend in November
- Myora Cup 1st weekend in March
- Past Commodores Cup May or June

28.2. Points for the championships are allocated as follows:

- 1st Place 10 Points
- 2nd Place 8 Points
- 3rd Place 6 Points
- All competitors who start and finish an event 4 points
- A vessel which does not finish but passes the first checkpoint gate 4 points
- A vessel which finishes the event, but did not have the TackTracker Logger activated during the event 4 points
- A vessel disqualified 0 points

28.3. If there are multiple competitors with the same aggregate season's points, the competitor's event scores from "Goodwill Cup, Commodores Cup and Myora will be tallied. The competitor with the lowest event score, will be declared the season champion. However, if the sum of the competitor's event scores are the same, they will both be declared season champion.

28.4. With regard to season points, if a vessel having scored the points is no longer available or is temporarily disabled (only one event allowed per season). A replacement vessel may be used providing it is of a similar type, the skipper and a majority of the crew are aboard the replacement vessel and The Committee agrees to the transfer prior to the replacement vessel competing.

29. Revisions

29.1. These rules were original written by John Cuneo, and revised by Charles Kirby and Pete Tyquin up till 2014.

29.2. In 2014, Cruising and Navigation Committee member Cpt Christopher Land, took on the role of amending the rules as Navigation Eventing evolved

29.3. This 2019 revision was amended by Cpt Christopher Land, Glen Battershill and Philippa Fenwick , including the below updates:

- (a) Traditional Event Run Sheets – Traditional competitors have highlighted the accuracy of some participant's tracks and requested increased vigilance. Traditional entrants must provide a paper copy of their actual Run Sheet, detailing calculated time of arrival at each navigation mark and noting what time they believe it was passed. It is envisaged other pertinent information, like heading marks, stern marks and set / leeway would be

included on a traditional run sheet. If applicable, run sheets will be compared with the tracker information during calculation of the results. Each Traditional competitor must generate their own unique run-sheet.

- (b) Previous rules and information contained within “Program of Events” “Entry Form” and “Course Instructions” have been removed from these documents and included with these Rules. Examples of the new form have been added as an Appendix.
- (c) All competitors start times will be in chronological order based on vessels speeds to ensure vessels do not overtake. Special requests to start at a specific or preferred time, will not be accepted in the “Spirit of the Event”. To allow other times introduces variables of weather and tide than may unduly favour or hinder a competitor.
- (d) Appendixes to these rules include information that can be extracted from TackTracker including Speed variation around the nominated speed and Cross Track Distance, Time and Distance deviation from the Gates and Waypoints and Screen shot from the TackTracker Program showing a vessel’s track and Traditional course line. The Event Scorer and or Officer of the Day may review vessels tracks in relation to the set course, against fleet trends for anomalies
- (e) TackTracker will be set up with a gate width of 500m for both GPS and Traditional events. Screen shots of “TackTracker” set up have been added as an appendix
- (f) Amendments to rules and process around protests.

30. Definitions

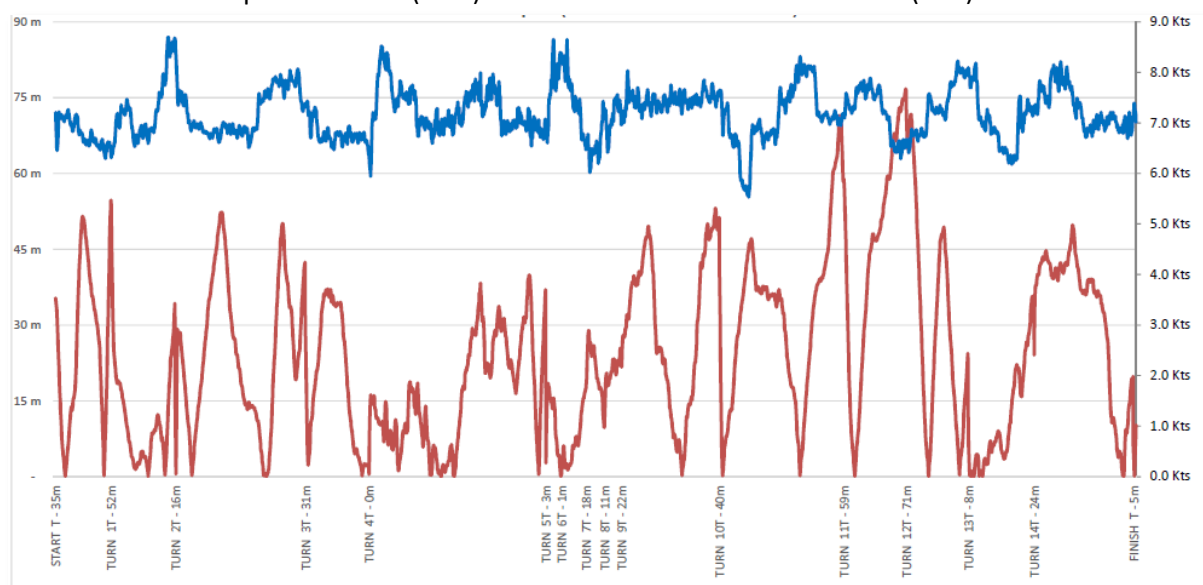
Abandonment	An abandoned event is one which The Committee declares void at any time after the starting time and which can be re-run if required.
Cancellation	A cancelled event is one which The Committee decides will not be run thereafter.
Competing	A vessel is competing from her preparatory time until she has either finished the Course specified and cleared the Finishing Line, retired or until the event has been postponed, abandoned or cancelled.
Course Instructions	Shall mean the instructions published by The Committee for any particular Predicted Navigation Event.
Event Scorer	The person nominated to score the event using the TackTracker program. The person may be the OOD, the person who designed the course, or another nominated person.
Finish	The Finish is a point described in the course instructions.
Finish Line	The Finish Line is an imaginary line extending a prescribed distance either side of the Finish at 90 degrees to the direction of the last leg.
Finish Area	The Finish Area is the area 200m immediately after the Finish Line. All vessels must immediately vacate the Finish Area to avoid hindering other competitors.
Finishing	A competitor is deemed to have finished the event when the onboard TackTracker first crosses the finish line gate in the direction of the course from the last waypoint.

Gate	A TackTracker Gate is an imaginary line projecting a prescribed distance perpendicular to each side of the course. RQYS staff will notify the nominated Officer of the Day, via email, of the gate positions after the event has started. Gates may be placed at any point on the course, except 200m before or after the turn waypoint. Vessels shall cross the gate at a predetermined time calculated from her nominated speed and Start Time for the event and the distance along the course of the gate. A vessel shall be timed at each gate in the direction of the course from the previous mark or gate. Times will be recorded by a GPS tracking device. GPS recorded times will be determined when the recorder's (fixed) position on the vessel crosses the gate line.
GPS Tracking Device - TackTracker Logger	Vessel performance will be accessed via the use of a GPS tracking device. A TackTracker Logger is a GPS enabled device that records the position of the vessel at regular intervals. A TackTracker Logger should be placed so that it has the best possible view of the sky. If issued with instructions these should be followed carefully to ensure the device is properly enabled to record your position. It is incumbent on the competitor to return the device to a race official immediately after an event so the data contained in the device can be downloaded in order to process results. The TackTracker Logger should be switched on, no less than 10 minutes before the vessel's start time and in a position before any part of the vessel has crossed the start line and proceeded on the first leg. Failure to return the Tracker in a prompt manor may result in a DNS result.
Interference	An entrant vessel shall not cause interference to a vessel which is competing.
Maximum Allowable Score.	Is a score made up of 75 points per check point, per category, per competitor. It is used to allocate a score for a team in any category that does not have the required number of competitors needed to form up a team score for that category.
Organising Committee	The Organising Committee of the RQYS, referred to as "The Committee", shall consist of not less than three members of the "Cruising and Navigation Committee" who conduct all Predicted Navigation Events.
Officer of the Day	The Committee will appoint an officer of the day referred to as the "OOD" to conduct and control the event on the day of the event. The OOD's name and mobile telephone number will be notified in the event instructions.
Official Start Time	The Official Start Time of an event is the time specified as such in the Course Instructions.
Practice	Running the course at any time prior to the event date and time is strictly prohibited and will result in disqualification and is not in "The Spirit of The Event".
Predicted Navigation Event	A Predicted Navigation Event is a test to navigate around the nominated course in such a manner as to achieve a "speed over the bottom" equal to a vessel's Nominated Speed and to arrive at each check point at a time consistent with the distance travelled at the Nominated Speed.
Preparatory Time	Is a period starting five (5) minutes before a competing vessel's nominated Start Time.

Postponement	A postponed event is one which has not started at its scheduled time and which can be re-run, if required, at a future time.
Rules	Shall mean, wherever it appears, these rules as amended from time to time by the Committee or the Course Instructions.
RQYS	Shall mean the Royal Queensland Yacht Squadron Limited
Run-sheet.	Traditional entrants must provide a paper copy of their run-sheet detailing calculated time of arrival at each navigation mark and noting what time they believe it was passed. It is envisaged other pertinent information, like heading marks, stern marks and set / leeway would be included on a Traditional run sheet. If applicable, run sheets will be compared with the tracker information during calculation of the results. Each Traditional competitor must generate their own unique run-sheet.
Starting	A competitor is deemed to have started the event, after observing the Rules and Course Instructions, the onboard TackTracker first crosses the start line gate in the direction of the course to the first mark of the course.
Start	The Starting point is a point, described in the course Instructions
Start Area	The Start Area is the area 200m immediately before the Start Line. The Start Area does not extend beyond the Starting Point in the direction of the Course. Vessels must not enter the Start Area outside its Preparatory time except if it is not practically avoidable to arrive at the Event and may not hinder vessels preparing to Start in the Start Area.
Start Line	The Start Line is an imaginary line extending 250m for GPS and traditional entrants, either side of the Start at 90 degrees to the direction of the first leg.
Start Time	A vessel's start time will be advised by the Organising Committee. All competitors start times will be in chronological order based on vessels speeds to ensure vessels should not overtake. Special requests to start at a specific or preferred time, will not be accepted in the "Spirit of the Event".
Waypoint	A position specified by Latitude and Longitude which determines start, turn point or finish location.

Appendix 1 TackTracker Analysis

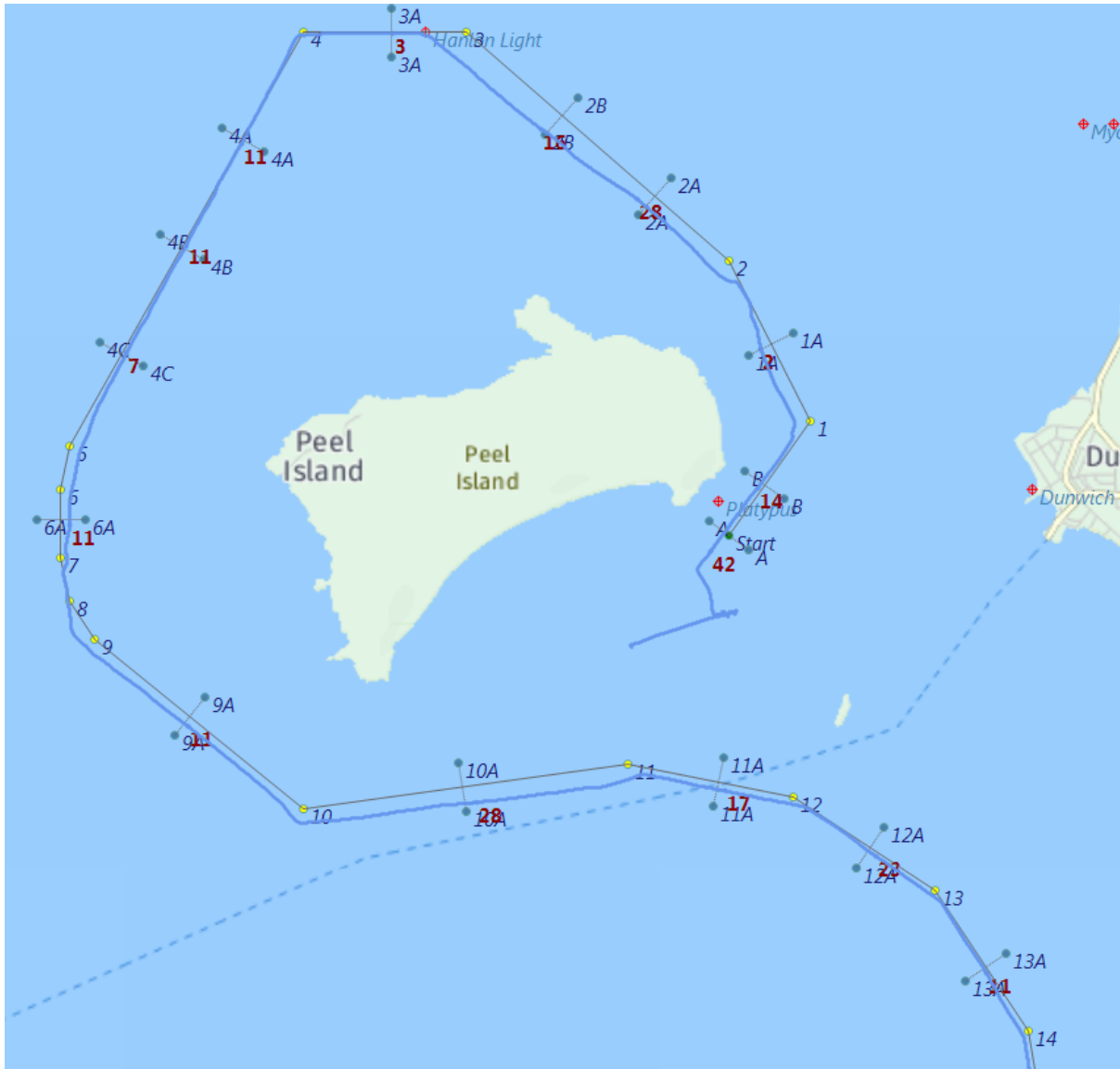
Speed in knots (Blue) and Cross Track Distance in meters (Red)



Time and Distance at Gates and Turns

	ETA	Actual	Time Deviation	Speed Deviation	Track Deviation		ETA	Actual *	Time Deviation	Speed Deviation	Distance
A	12:15:00	12:14:43	17.0 sec	63 m Early	35 m	START	12:15:00	12:14:43	17.0 sec	63 m Early	35 m
B	12:17:15	12:17:04	11.0 sec	41 m Early	43 m	TURN 1	12:20:07	12:20:07	0.2 sec	1 m Late	52 m
1A	12:23:16	12:23:15	0.8 sec	3 m Early	5 m	TURN 2	12:26:39	12:26:26	13.5 sec	50 m Early	16 m
2A	12:30:15	12:30:06	9.5 sec	35 m Early	40 m	TURN 3	12:39:23	12:39:10	13.4 sec	50 m Early	31 m
2B	12:34:45	12:34:49	3.5 sec	13 m Late	6 m	TURN 4	12:45:19	12:45:24	5.5 sec	20 m Late	0 m
3A	12:42:05	12:41:57	8.4 sec	31 m Early	34 m	TURN 5	13:02:39	13:02:43	3.9 sec	14 m Late	3 m
4A	12:49:49	12:49:41	7.5 sec	28 m Early	17 m	TURN 6	13:04:17	13:04:14	2.8 sec	10 m Early	1 m
4B	12:54:19	12:54:19	0.5 sec	2 m Late	12 m	TURN 7	13:06:47	13:06:39	7.9 sec	29 m Early	18 m
4C	12:58:48	12:58:41	7.5 sec	28 m Early	30 m	TURN 8	13:08:24	13:08:28	3.5 sec	13 m Late	11 m
6A	13:05:24	13:05:15	9.3 sec	34 m Early	3 m	TURN 9	13:10:02	13:10:08	5.9 sec	22 m Late	22 m
9A	13:14:32	13:14:33	0.9 sec	3 m Late	19 m	TURN 10	13:19:54	13:19:43	11.1 sec	41 m Early	40 m
10A	13:25:45	13:25:54	8.9 sec	33 m Late	33 m	TURN 11	13:31:51	13:31:53	1.9 sec	7 m Late	59 m
11A	13:35:14	13:35:07	6.6 sec	25 m Early	47 m	TURN 12	13:38:02	13:38:01	1.1 sec	4 m Early	71 m
12A	13:41:25	13:41:28	3.4 sec	13 m Late	48 m	TURN 13	13:44:13	13:44:05	8.0 sec	30 m Early	8 m
13A	13:47:36	13:47:30	5.5 sec	20 m Early	4 m	TURN 14	13:50:24	13:50:32	8.1 sec	30 m Late	24 m
14A	13:55:21	13:55:13	7.9 sec	29 m Early	37 m	FINISH	14:00:14	14:00:16	2.3 sec	8 m Late	5 m
14B	14:00:14	14:00:16	2.3 sec	8 m Late	5 m						
Total			110.5 sec	409 m	417 m	Total			105.8 sec	392 m	396 m
Average			6.5 sec	24 m	25 m	Average			6.6 sec	25 m	25 m

Screen shot from the TackTracker Program
showing a vessel's track and Traditional course line.



Appendix 2 TackTracker Setup

Gate and Penalty Setup

The screenshot shows the 'Settings' window with the 'General' tab selected. The 'Nav Rally' sub-tab is also active. The 'Gates' section includes a checked box for 'Show seconds in Schedule start column. (Check for sub-minute start interval)' and an unchecked box for 'Use Nautical Miles (NM) for Rally Distances'. Below these are input fields for 'Default Gate Offset: 200 meter' and 'Default Gate Length: 500 meter'. The 'Penalty Points' section has three input fields: 'Miss Start Gate: 75', 'Miss Other Gate: 75', and 'Max Gate Score: 75'. The 'Schedule' section has a 'Custom Columns' section with 'Email' and 'Phone' checkboxes. The 'Advanced' section includes 'Score Tolerance: 0.55' (with a note: '(Minimum seconds value for one penalty p)'), 'NM Decimal Places: 3' (with a note: '(Reporting precision for distances)'), and 'Local WGS-84 Ellipsoid Model Factors' with 'Lat Factor: 1.0000' and 'Lon Factor: 1.0000' and a 'Reset' button. A 'Close' button is at the bottom right.

Gate Setup Practice

- Traditional courses should have a Scoring gate on the start line, a maximum of one scoring gate on each leg, but most likely only one gate every second leg, and one in the vicinity of the finish line.
- GPS courses should have a Scoring gate on the start line, a minimum of two scoring gates on each leg and one in the vicinity of the finish line. Legs with a distance of 900m or less should only have one scoring gate.

Reporting with Precision

The screenshot shows the 'Reports' window with the 'Nav Rally Results' sub-tab selected. The 'Select a report and click Create:' section lists several report types: 'Rally Course', 'Rally Course No Gates', 'Rally Results', 'Rally Results Extra Precision' (which is highlighted in blue), 'Rally Schedule', 'Rally Schedule Elapsed', and 'Rally Penalties'. At the bottom, there is a dropdown menu set to 'XML Report' and a 'Create' button.

When calculating the results:
Click Reports / Rally Results Extra Precision,
Change HTML Report to XML Report and
Click Create.
(Changing to XML will generate a report in an Excel format)

Appendix 3 Program Sample



Past Commodores Cup Invitation Navigation Event

PROGRAM OF EVENTS

Saturday 18th May 2019

This event is to be conducted pursuant to the RQYS Predicted Navigation Event Rules and will be run in two divisions GPS and Traditional

Thursday 9th May 1700hrs Entries close, (Entries after this date incur a late entry fee)

Saturday 11th May Start Times to be emailed

Thursday 16th May 1700hrs Late Entries Close

Competitors to collect Tack Trackers from RQYS Reception Thursday to Saturday morning or contact Pip Fenwick – 0411 875 234 to organise collection.

Saturday 18th May

Starts from 0900hrs

Past Commodores Cup Invitation Navigation Event: The GPS and Traditional Events are using different courses

1300hrs

Tack Trackers to be returned to Boardwalk Cafe within 90 mins of finishing and prior to 1300hrs. Pip Fenwick – 0411 875 234, Traditional competitors are required to hand over a copy of their run sheet calculations.

1230 - 1500 hrs

Lunch at Royal Queensland Yacht Squadron, Competitors to make a prior booking notifying the Boardwalk Cafe of anticipated number of guests.

1330 - 1400 hrs

Presentation of Results and Prizes for the Past Commodores Cup Navigation Event

Course instructions will be available on the RQYS web site or from the RQYS receptions from Monday 6th May 2019.

Appendix 4 Entry Sample



Past Commodores Cup Invitation Navigation Event Entry Form

Vessel Name: Skipper:
RQYS Membership No: Email:
Phone (H): (M):
Hull Length: Hull Colour:
Total Horsepower: Maximum Sustainable Speed:
Nominated Speed: Heavy Weather Speed:

Please tick box as applicable for GPS Event. ☐ / Traditional Event. ☐

Signature:

By ticking either GPS or Traditional Event and signing, I declare that I will use only equipment specified in the RQYS Predicted Navigation Event Rules for those respective events..

When the Tack Tracker is collected, Traditional entrants must provide a paper copy of their run sheet as detailed in the RQYS Predicted Navigation Event Rules. . If applicable, run sheets will be compared with the tracker information during calculation of the results.

Entries close Thursday 9th May 1700hrs Entries close, (Entries after this date incur a late entry fee)
Late entries close Thursday 16th May 1700hrs Late Entries Close

Item	Cost \$	Total \$
Entry Fee	45.00	45.00
Late Fee (if applicable)	30.00	
Total		

Lunch booking # Pax

Payment Details

☐ Please charge to my RQYS account. Membership Number:
☐ Please charge my MasterCard / Visa / Diners / Amex (Credit Card incurs a 1.5% surcharge)
Card Number: / / / Expiry Date: /
Card Holders Name: Amount Authorised: \$
Signature: Date:

Return Details: In person to reception or Email: reception@rqys.com.au

[illegible]

Appendix 6 Conditions of Entry Sample



Past Commodores Cup Invitation Navigation Event Conditions of Entry

Safety Declaration

In making application to enter the Past Commodores Cup, I accept and acknowledge that the natural environment and in particular the marine environment may at times be hazardous and I agree and confirm that all times when participating in the event, I will be responsible at all times for the safety of my vessel and all persons on board during the event.

I acknowledge that I and my crew participate at their own risk. I and my crew are solely responsible for deciding whether or not to start or to continue in the event.

Release and Indemnity

It is the competitor's decision to enter an event or to start and continue in any race. Competitors shall accept that their participation in an event is at their exclusive risk in every respect. See RQYS Predicted Navigation Event Rules.

The Organising Authority, host club and their officers, members, servants and agents shall not be liable for any loss of life, personal injury or loss or damage to property which may be sustained by reason of their participation or intended participation in this event.

I declare that I hold/will hold a valid and current certificate of insurance which covers me whilst eventing, including third party liability cover which has a minimum guarantee of \$5 million cover.

Acceptance of Conditions

In consideration of my application for entry being accepted, I hereby expressly agree on behalf of myself, my crew, my family and guests to be bound by and observe at all times the RQYS Predicted Navigation Event Rules, Navigation Event Course Instructions, RQYS Club Participation Rules, RQYS Code of Conduct, RQYS Safety Declaration, RQYS Release and Indemnity and other Conditions of Entry.

All care is taken in the preparation of this information, but no responsibility will be taken for errors and omissions.

Declaration – Completing and signing this Entry Form, also confirms the owner of the vessel, skipper and navigator have read the current RQYS Predicted Navigation Event Rules obtained from the RQYS website at Cruising / Navigation.

Signed: (Nominated Skipper)	Date:
Name (please print)	Contact Phone:

Appendix 7 Traditional Course Instructions Sample



Past Commodores Cup Invitation Navigation Event

COURSE INSTRUCTIONS - TRADITIONAL

Saturday 18th May 2019

N.B. GPS use is not permitted refer to RQYS Predicted Navigation Event Rules regarding allowable equipment for this event.

Event Start Time 09:00 Hrs
Event Finish Time 12:00 Hrs
Event Length 15,980.8 metres

Leg No.	Distance (m)	Traditional course		Latitude	Longitude
		Bearing (mag)	Position		
Start T				27 24.2000	153 13.0000
Leg No. 1	2045.4	354	TURN 1T	27 23.1000	153 13.1000
Leg No. 2	2372.7	028	TURN 2T A	27 22.1000	153 14.0000
Leg No. 3	506.4	045	TURN 2T B	27 21.9482	153 14.2558
Leg No. 4	506.1	068	TURN 2T C	27 21.8950	153 14.5574
Leg No. 5	506.3	090	TURN 2T D	27 21.9482	153 14.8591
Leg No. 6	506.3	113	TURN 2T E	27 22.1000	153 15.1148
Leg No. 7	506.1	135	TURN 2T F	27 22.3270	153 15.2857
Leg No. 8	506.3	158	TURN 2T G	27 22.5949	153 15.3457
Leg No. 9	2605.3	171	TURN 3T	27 24.0000	153 15.3000
Leg No. 10	4066.5	232	TURN 4T	27 25.0000	153 13.1000
Leg No. 11	1853.4	169	FINISH T	27 26.0000	153 13.1000

Competitors to collect Tack Trackers from the sailing office between Thursday and Saturday morning or contact Pip Fenwick – 0411 875 234.

Tack Trackers and Traditional RUN SHEET CALCULATIONS to be returned to Boardwalk Cafe within 90 mins of finishing and prior to 1300hrs. Pip Fenwick – 0411 875 234.

Tides at Brisbane Bar:	08:55 hrs – High 2.17 m, 15:16 hrs – Low 0.33 m
Course set by / Start Time Co-ordinator:	Christopher Land – 0418 885 447
Course checked by:	Pip Fenwick – 0411 875 234
Officer of the Day and Scorer:	Pip Fenwick – 0411 875 234

Appendix 8 GPS Course Instructions Sample



Past Commodores Cup Invitation Navigation Event

COURSE INSTRUCTIONS - GPS

Saturday 18th May 2019

N.B. GPS use is permitted refer to RQYS Predicted Navigation Event Rules regarding allowable equipment for this event

Event Start Time 09:00 Hrs
Event Finish Time 12:00 Hrs
Event Length 15,980.6 metres

GPS Course.					
Leg No.	Distance (m)	Bearing (mag)	Position	Latitude	Longitude
Start G				27 23.9000	153 12.9000
Leg No. 1	1491.8	355	TURN 1G	27 23.1000	153 13.0000
Leg No. 2	3044.5	029	TURN 2G A	27 21.8500	153 14.2000
Leg No. 3	506.4	045	TURN 2G B	27 21.6982	153 14.4558
Leg No. 4	506.2	068	TURN 2G C	27 21.6450	153 14.7574
Leg No. 5	506.2	090	TURN 2G D	27 21.6982	153 15.0590
Leg No. 6	506.3	113	TURN 2G E	27 21.8500	153 15.3147
Leg No. 7	506.1	135	TURN 2G F	27 22.0770	153 15.4856
Leg No. 8	506.3	158	TURN 2G G	27 22.3449	153 15.5456
Leg No. 9	3253.8	170	TURN 3G	27 24.1000	153 15.5000
Leg No. 10	3947.4	179	TURN 4G	27 26.2000	153 15.1000
Leg No. 11	1205.6	221	FINISH G	27 26.6000	153 14.5220

Competitors to collect Tack Trackers from the sailing office between Thursday and Saturday morning or contact Pip Fenwick – 0411 875 234.

Tack Trackers to be returned to Boardwalk Cafe within 90 mins of finishing and prior to 1300hrs. Pip Fenwick – 0411 875 234.

Tides at Brisbane Bar:
Course set by / Start Time Co-ordinator:
Course checked by:
Officer of the Day and Scorer:

08:55 hrs – High 2.17 m, 15:16 hrs – Low 0.33 m
Christopher Land – 0418 885 447
Pip Fenwick – 0411 875 234
Pip Fenwick – 0411 875 234

Appendix 9 Course Chart Sample

