

**INTERNATIONAL ONE METRE
INTERNATIONAL CLASS ASSOCIATION**

Event Management Manual

Radio Sailing and the IOM Class

Version 4.3

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This manual is based upon the ISAF Race Management Manual,
with content amended to suit Radio Sailing.

1. INTRODUCTION

Satisfaction to all competitors is perhaps the most difficult objective to achieve in an event. It is in this area that considerable judgment and experience is required. The vagaries of wind and weather will usually cause difficulties for the Race Officer, and frustrate competitors. However, the effect of these can be reduced with foresight and by following the detailed planning and procedures advocated in this Manual.

It may be worth mentioning here that the IOM ICA expects the organising authority to establish and maintain a Web site prior to the event.

2. KEY CONCEPTS

Radio sailing differs from full-size in many respects, and RRS Appendix E provides the relevant rule changes. In this manual, sections particularly applicable to radio sailing are **highlighted**, for the assistance of experienced Race Officers who might just want to know “what’s different”. The following are the most important changes.

2.1. Fleet racing

It is not feasible to have more than about 20 boats on the water in one radio sailing race. Accordingly, one or other method of dividing a large race into smaller heats is required. In this case, all references to “race” in the RRS become references to “heat” for radio sailing.

At national and international events, HMS (Heat Management System) is commonly used. Under HMS 2002, the first race of the event is the “seeding” race, where the competitors are allocated to a heat, and the top finishers in each heat go into the “A” heat for Race 2, the next go into the “B” heat for Race 2, and so on. Thereafter, from Race 2 and onwards, the heats are sailed in reverse order, with the top four finishers in a heat being promoted to, and scheduled to sail in, the next higher heat. When all heats, have sailed in a race, the boats are allocated points in order of their finishing positions within the heats taken in order from highest to lowest. The fleet is then re-divided into heats for the next race with the bottom four boats in each heat being demoted to the next lower heat.

A guide to HMS 2002 is available for download from the IOMICA Web site, <http://www.iomclass.org/>

2.2. Signals

All signals are sound signals. There are no flag signals.

2.3. The zone

The zone is a four-boat-length zone for radio sailing.

3. COMMITTEES AND KEY PERSONNEL

3.1. Event Organizing Committee

The Organizing Authority (RRS 87, or 88 in RRS 2005-2008) is charged with the whole organization of the event, on and off the water. It will appoint an Event Organising Committee, which will probably consist of six to twelve members. This Committee derives its authority from the MNA-affiliated club or MNA-affiliated NCA that set it up, and to that organization it is ultimately responsible for the whole conduct of the event.

Once the event is under way, the Event Organizing Committee takes all decisions relating to the event, except those delegated to the Race Committee.

It needs a competent, experienced Event Chairman who is ready to answer for whatever occurs in the name of the Event Organizing Committee. Sometimes the Race Officer is Chairman of the Event Organizing Committee, but usually an Organizing Authority sees advantages in having an independent Event Chairman.

The Event Organizing Committee's principle pre-event functions are:

- a) to prepare the Notice of Race (RRS 87.2, or 88.2 in RRS 2005-2008, and J1) and to ensure that it is issued to all potential competitors and relevant associations, clubs, and national authorities. For international radio sailing events, this is generally 12 months before the event.

- b) The NOR shall include an entry form and a closing date (see RRS J1.2). The closing date should be as close to the event as possible but also should allow sufficient time for the organizing committee to properly plan for the number of entries received. For international radio sailing events, this is generally 3 months before the start of the event.
- c) to appoint sub-committees or personnel for the following (see RRS 87.2 or 88.2 in RRS 2005-2008):
 - event measurement;
 - Race Committee;
 - Jury, protest committee, and umpires, when appropriate;
- d) to ensure that all the equipment and facilities required for the event are available and functioning;
- e) to approach local authorities and any other organizations, cooperation with whom will lead to a more successful event.
- f) to set up and maintain an event Web site. Prior to the event, this site should have downloadable event documents such as the notice of race, and event links such as information on travel, accommodation, and the venue. During the event, the site should have a full set of results available as of the end of each day. At the end of the event and for a reasonable period thereafter, the site should show the final results.

3.2. Race Office

The ideal Race Office would have a view of the launching areas and also the race course areas. It should be large enough to accommodate all the personnel and equipment required. It should also be well ventilated and as soundproof as possible.

The services provided by this Office can be distinguished as:

- receipt of entries
- reception and information
- registration
- results and information
- results dissemination to media and the Internet
- printing and photo copy support
- meteorology and weather reports

As the Event Headquarters the Race Office is going to be a busy place with its own rush hours. Contact with competitors, press, and the general public should be concentrated in one area. Access to other Race Office areas should be limited exclusively to official personnel.

Limited access within that section (e.g., during results processing, the Results room is off limits to everyone except Results staff and scorers) will also enhance efficiency, giving everybody the chance to do their job well.

Reception and Information

The Reception and Information team deals with:

- Issuing measurement instructions;
- giving information regarding accommodation and social arrangements; best done prior to the event
- providing general event information, etc.

Entries and Registration

Prior to the event, the work involves:

- receiving completed entry forms and entry fees and collating a list of entrants

At the start of the event,

- receiving measurement forms signed off by the Measurer;
- receiving copies of advertising licenses, measurement certificates, insurance documents, etc.;
- distributing Sailing Instructions and other documentation, mementos, etc. (The issuing of promotional material, mementos, etc., may also be handed over to the Reception and Information team.) Again, the number of staff required depends on the number of classes and competitors.

Results and Information

Before the event starts this team records all the data collected by the Entries and Registration desks, and on the basis of that it produces registration lists, individual dossier cards per competitor, lists of payments made, etc.

After measurement the information derived at each measurement level or station should be immediately transferred to the Results and Information Team so as to benefit the competitors by providing immediate result information at the completion of the measuring process. Statistics on equipment tends to be greatly appreciated by competitors.

After each race this team, (with the assistance of the Jury Secretary, if applicable), is responsible for producing all the documents connected with race results including:

- Posting of provisional and final results on the event notice board at the earliest possible time.
- Receiving any protests and liaising with the jury
- Posting protest results and advising scorers of any changes
- After the last race the team's final report should include all the collected event statistics for officials, competitors and support personnel.

To enhance accuracy and efficiency, the Results Room is usually labelled as a limited access area.

Personnel

The Race Management Team should be made up of experienced personnel who have a good knowledge of radio sailing race management and of the event, and therefore have the confidence and trust of the Race Officer. They should also know the extent of their authority to make decisions before involving the RO.

3.3. The Race Committee

The Race Committee is appointed by the Organizing Authority (see RRS 87.2 or 88.2 in RRS 2005-2008). The Race Committee is responsible for what does or does not take place on the water.

The Race Committee shall publish written Sailing instruction that conform to RRS J2 and conduct and score the race or event as required (see RRS 88 or 89 in RRS 2005-2008).

The Chairman of the Race Committee may be the Race Officer. If not, he liases closely with the Race Officer who is the “on-the-water manager”. He supports and directs him or her off the

water and, in consultation with the Chairman of the Jury, authorizes changes to the Sailing Instructions.

Race Officer

Ideally, the Race Officer is an on-the-water manager, who lets his team get on with the job without interfering, although he or she should take the decisions regarding boats on the course side of the starting line, course changes, etc.

The RO shall at all times keep an overview of what goes on around the entire race course. The Race Officer and the Assistant Race Officer should record all their actions on tape recorders for later reference. The tape recorders should be left on during all start, recall and finishing procedures. As the responsible person, the RO will usually represent the Race Committee at protest hearings.

Before the first race the RO will brief the Race Committee on their jobs, making certain that all tasks are covered. The RO also ensures (whether or not through delegation) that all the necessary equipment is available and functioning.

While it is common in full-size racing to appoint an Assistant Race Officer to take the pin end of the starting line to help identify boats on the course side of the starting line, this is likely to cause difficulty at a radio sailing event. The RO is obliged to hail and recall boats OCS at the start and having two voices at different positions will confuse. The ARO, if appointed, should note OCS hails.

Signals Officer

The Signals Officer will be responsible for ensuring that whatever signal material, or means of displaying such material, is required (RRS E1.2, starting sequence, etc.) is available and functioning and that any personnel handling it are adequately briefed. The Signals Officer takes responsibility for ensuring that the starting procedure as outlined in the RRS E3.5 and the Sailing Instructions is correctly conveyed to the competitors. He or she remains closely tuned to the Timekeeper and the orders of the Race Officer.

The Signals Officer may also assist with surveillance of the start, noting the OCS hails of the RO.

Timekeeper

This is an important position. The tasks of Signals Officer and Timekeeper may be combined if the person appointed as such is competent and confident enough to fulfil them both.

Recorder

The Recorder, usually the ARO, is responsible for the paper work on the water. The Recorder will note the competitors reporting at the start, and at the least will count the number of boats to confirm the presence of promoted boats. He or she is then responsible for writing down all the boats identified by the Race Officer or his delegate being on the course side of the starting line at (or during the minute before) the starting signal. If RRS 30 applies and there are boats 'on the course side', he or she has to record e.g. if boats complied with RRS 30.1 (I-flag) after being recalled, if they shall be given a 20% scoring penalty (RRS 30.2; Z-flag) or if they will be disqualified (RRS 30.3; Black flag). The Recorder should ensure that there is a back-up person to record these boats.

Finish line team

The finish line team is responsible for recording the finishing order of boats. There should be two or three members of this team. Tape recorders should be used to record finishing positions as they are called while actually crossing the finishing line. This is very handy for sorting out

any confusion later on particularly where a lot of boats have finished in a close group, very common in the IOM class.

Course-setter

The Course-setter needs to be able to set an accurate course following the Race Officer's directions. The Course-setter must have the confidence to take up and shift marks to the right position as soon as the Race Officer says "Go".

Ideally he or she should have enough information, nautical skills and the necessary equipment to operate on his own and to be independent of detailed orders from the RO. His judgment concerning mark placement can have a decisive influence on the success of the race.

Rescue Officer

The Event Organizing Committee should appoint a capable Rescue Officer, who will be responsible for rescue operations of disabled boats (may be the same person as the course setter). He or she must be familiar with the event venue, with the characteristics of the class competing and any applicable governmental or similar rules.

Bank Master

The responsibilities of this officer can be as varied and as onerous as he or she likes to make them, but his or her contribution to the success of an event can be considerable. The Bank Master may combine responsibilities with those of Rescue Officer.

Tasks include ensuring the orderly and systematic launching of boats, lending a hand when it is reasonable to do so, retrieving boats when it is reasonable to do so, ensuring that space is fairly available to all boats, advising on where assistance might be obtained for repairs and replacing equipment, perhaps even having a few tools and showing a willingness to produce them.

3.4. Fleet board administration

The major control mechanism for a radio sailing fleet event is usually the fleet control board. This provides two major functions:

- the heat composition, ie the list of boats in each heat, for the currently scheduled race
- the frequency allocation of each boat

The fleet control board requires continuous updating as the results from a heat arrives, so the promoted boats can be identified and placed into the next higher heat.

The fleet control board also requires continuous maintenance with regard to the frequency allocations of each boat. Frequencies are limited at national events (less so at international events, where dispensation is usually obtained for otherwise illegal frequencies to be used at low power for a limited time), and it is usual for boats to share the same radio control frequency. Should such boats be scheduled to sail in a particular heat, one or other will be unable to sail due to control problems, and the RO and/or the ARO must always scan the heat composition of the next heat to catch and correct frequency clashes before they are discovered during the starting sequence.

Managing the fleet control board is a demanding and non-trivial role, and usually requires the attention of the most experienced officer, after the RO, available to the Event Organising Committee.

Observers

At international radio sailing events, Umpires are usually used instead of Observers. At other major events there may be permanent Observers, otherwise temporary Observers are appointed to call and record boat and mark contacts and to note protest hails and penalty turns and if any boats failed to sail the correct course.

Observer Marshall

The Race Committee usually appoints an Observer Marshall, who has the responsibilities of:

- Preparing notebooks and pens/pencils for the use of the Observers during the event
- Arranging the appointment of temporary Observers from the skippers not sailing
- Issuing each Observer with a notebook
- Briefing any Observer not familiar with their role
- Ensuring the Observers are on duty from the Warning signal
- Receiving the notebooks from the Observers going off duty, and enquiring if there are any incidents not resolved on the water
- Advising the Race Officer of any unresolved incidents

The Observer Marshall should have an “observation system” which is communicated to the Observers as they come on duty. The following system is recommended.

Observation system

There should be one Observer per four boats in the heat, plus a “roving” or “senior” Observer if the Observer Marshall does not himself take on this role.

Each Observer is given a numbered notebook, which identifies the section of the fleet to which he or she is expected to pay primary attention. Ideally, the notebook has diagrams which illustrates this.

During the pre-start, the start, and on the first beat:

- Section 1 comprises the starboard end of the starting line, thereafter the starboard side of the course.
- Section 2 comprises the mid-part of the starting line, thereafter the mid part of the course.
- Section 3 comprises the port end of the starting line, thereafter the port side of the course.
- Section 4 comprises the area to starboard and windward of the starboard mark, the Section where the “bargers” congregate, thereafter the starboard side of the course and to leeward of the boats in front.
- Section 5 comprises the area behind the starting line, the Section where the slow starters congregate, thereafter the port side of the course and to leeward of the boats in front.

As the boats prepare to round the windward mark, and for the remainder of the heat:

- Section 1 comprises the first four or five boats.
- Section 2 comprises the boats in fifth to eighth or ninth place.
- Section 3 comprises the boats in ninth to 12th or 13th place.
- Section 4 comprises the boats in 12th to 16th or 17th place.
- Section 5 comprises the boats in 16th to 20th place.

The overlap implied between the sections is deliberate.

The roving or senior Observer does not have a Section, but instead provides back-up for any Section where contacts look likely or contacts have been called.

Observers

While on duty, an Observer is a member of the Race Committee.

An Observer is required to hail, and only hail:

- boat contacts
- mark contacts

An Observer is required to make a note of:

- protest hails (it is not the job of an observer to note whether the hail was correctly made)
- the situation prior to a contact or protest hail
- the situation at the time of the contact or protest hail
- responses to a protest hail
- penalty turns and whether the turn was incomplete
- if any boat failed to sail the correct course

A good Observer anticipates incidents. This means that s/he needs to continuously track the boats under observation, and to always know their current situation:

- Are they on starboard or port?
- Are they overlapped, or is one boat clear ahead or clear astern?
- If overlapped, which boat is windward and which leeward?
- Was the overlap obtained from clear astern and within two boat lengths?
- Have they entered the four boat length zone?
- Are they tacking?
- Have they passed head to wind?
- Have they assumed a close-hauled course?

An Observer will not always be certain of what s/he sees. For example, it can be difficult to say whether an overlap was established in time outside the zone, or whether a boat had in fact passed head to wind.

A good Observer applies the principle of the "last known certain situation".

An observer must go back in time to the point when the facts were certain, and report that. For example, if unsure whether an overlap was indeed established outside the zone, the last known certain situation was surely of no overlap, and so an observer determines, notes, and reports that the overlap was not in fact established outside the zone.

Be careful: the issue here is NOT one of deciding whether or not a boat has infringed a rule, either probably or beyond reasonable doubt, but of deciding whether a fact can be said to be certain.

The observer's duty is limited to noting the facts. The only call to make is a call of "Contact!". The observer must NOT, either at the time of an incident or afterwards, determine guilt, identify or advise on the relevant points of the RRS involved, call "You've not sailed the correct course" or "Your turn is incomplete", or suggest any action or remedy that the skippers should have taken or should now take.

Umpires

International IOM events use umpires to have all Part 2 protests and RRS 2, 31, and 42 incidents decided on the water at the time of the incident. Umpires will be independent and qualified witnesses for any other rule breaches which are brought to the attention of the protest committee.

The intention of the umpiring system should be to retain the basic principle of racing, where competitors take responsibility for breaching any rule, and to discourage evasion or avoidance of this responsibility on the part of the competitors.

Umpiring issues

Seasoned competitors know they are playing a game and will push the system to its limits. If many incidents pass without umpire attention, competitors may begin to feel that, unless an umpire imposed a penalty, there was nothing which required their action.

A distinction is sometimes made between “reactive” and “proactive” umpiring. “Reactive” umpiring reacts to the protest hails of competitors, and otherwise does not initiate penalties. “Proactive” umpiring, on the other hand, does not necessarily wait for a competitor hail. Penalties may be called directly any contact is seen and no boat hails an acknowledgement of infringement or obviously start to take a penalty. In practice, there is a range of “proactiveness” which an umpire might adopt, and the issue will almost certainly need an entry in the Sailing Instructions, agreement amongst the umpires and Race Committee, and clear and open communication with the competitors.

Suggested arrangements

Umpires should not be allocated a mark to watch. While the first incident at that mark is picked up, the succeeding incidents are not. It is recommended that the umpiring system involves an umpire monitoring four or five boats in proximity as they race around the course.

There should be at least one umpire for every four boats racing.

Umpires should remain in the control area while umpiring, and all umpires’ calls should be made from the control area. This retains consistency with E3.1, and is fairer on the competitors. Similarly, there should be no augmentation aids such as binoculars used by umpires, even if the reason is simply to identify sail numbers.

It is not uncommon for two separate umpires to notice an incident, follow its development, and then almost simultaneously hail two different decisions. Allocating an umpire a specific part of the heat helps prevent this, but it may still be necessary for some further arrangement to be put in place.

Suggested Umpiring Instructions for international events are available for download from the IOMICA Web site, <http://www.iomclass.org/>.

3.5. Judging and the Protest Committee

The term “judging” is used to include a wide range of services to competitors, including the hearing of protests and requests for redress, deciding questions of eligibility and boat measurement compliance, and being present in the control area watching for rule infringements (more usually known as umpiring).

The term “Protest Committee” is used to describe the body which conducts the hearings, whether it be a committee appointed by the Race Committee, the Race Committee itself conducting a hearing, an independent committee (Jury) or an International Jury (see RRS 90 and N).

The degree to which an organizer should provide a full range of judging services to competitors very much depends on the type of the event being conducted.

Protest Committee

A Protest Committee may be appointed by the Race Committee to hear protests and requests for redress when neither an independent Jury nor an International Jury has been appointed by the Organizing Authority. The Race Committee may itself act as Protest Committee, but when its own conduct is in question, it must arrange for an independent Jury to be appointed. A Race Committee acting as a Protest Committee is only suitable for club level racing.

Independent Protest Committee (Jury)

At an “open” event to which sailors come from other clubs, it is desirable for the Organizing Authority to appoint an independent Protest Committee (known as a “jury” in RRS, but the distinction is abolished in RRS 2005-2008); independent, that is, of the Race Committee, and, if possible, made up of people from different clubs.

The independent Protest Committee's job is to ensure that competition and judging is fair. Many National Authorities have a National Judging scheme and appoint National Judges and some require that at national events, the membership of an independent Protest Committee includes a majority of National Judges.

If there is no appointed Jury, the Race Committee should establish the Regional and National (and even International) Judges participating at the event, and ensure their involvement as members of the Protest Committee.

Interaction between Protest Committee and Event Organizing Committee

Many Event Organizing Committees send draft Sailing Instructions to the RO and the Jury members, inviting comments. This avoids lengthy debates at the initial Jury meeting on location and long lists of “Amendments to the Sailing Instructions”.

It is important to schedule a meeting between the Jury and the RO prior to the first competitor meeting, if there is an appointed independent Jury.

The use of the standard RSD draft sailing instructions avoids many problems and helps minimise subsequent debate and discussion.

Protest Committee duties

When the Protest Committee has been formed, they should:

- nominate the chairman;
- delegate areas of responsibility to members (acting as scribe, and ensuring due process, are the two major roles);

Notices issued by the Protest Committee, correctly numbered and signed by its Chairman (and, if appropriate, also by the Event Chairman or RO) go to the Protest Committee Secretary, who distributes copies to the Notice Board, the Race Officer and the Race Office. The original is to remain with the Secretary.

It may be convenient to arrange for a preliminary meeting between the Event Chairman, the Race Officers, the head of the Race Office, the Jury Secretary and any other key personnel to discuss:

- on-the-water procedures (course changes, limitations on racing, etc.);
- the procedure for processing the protests;
- (changes to) Sailing Instructions, if any;
- any reports of the Race Committee to the Protest Committee;
- Jury/Race Committee relations;

- radio (walkie-talkie, mobile phone) procedures;
- Jury equipment.

These days most Protest Committee members familiarize themselves with the course and the types of boats sailed, and to observe the weather conditions in which the races are conducted. Depending on their policy they may want to actively monitor rule infringements (RRS 14, 31, 42, etc.). For further details on recommended Protest Committee procedures, see the ISAF Judges Manual.

3.6. Measurement Committee

The Organizing Authority of a major event may appoint a Measurement Committee or an official Measurer to measure boats. The official Measurer is likely to be a member of the event committee and the chairman of the Measurement Committee if any.

It might be thought usual for a Protest Committee to consider the official Measurer to be the “responsible authority” to which it would refer a measurement question (RRS 64.3(b)) if it was unsure. However, it would be common for a measurement protest against a boat to be initiated in fact by the official Measurer (per RRS 78.3), and in this case it is obviously undesirable that the official Measurer also be the “responsible authority” to whom the protest committee would refer in case it required authoritative advice.

The Sailing Instructions will need to identify the “responsible authority” for the purposes of RRS 64.3(b), and it is likely that this would be the Chief Measurer for the class or his or her delegate at the event, for the reasons explained above.

While the Chief Measurer for the class should be consulted by the Measurement Committee or the official Measurer on matters of preparation or procedure for the event, he or she should not be a member of the Measurement Committee nor undertake any executive or operational measurement roles at the event. The official Measurer will require a sufficient number of competent personnel to handle all registration and event measurements. Often a jig is required for rapid, efficient assessment of design compliance. In order to have sufficient assistants, equipment and suitable space for efficient measurement at the start of the event, communications between the official Measurer and the Event Committee at an early stage are essential.

3.7. Social Committee

Social activities

Competitors will first and foremost want good racing conditions. Nevertheless they will expect and appreciate opportunities to mix socially and to enjoy themselves off the water.

The programme for barbecues, receptions, formal dinners, the prize giving and any other functions should be the responsibility of a Social Committee. An attractive social programme will help to make a event memorable for all competitors, even those who are not among the prize winners. Always remember, however, that the social activities are complementary to the sport activities, and should be adjusted accordingly if necessary.

The Social Committee should prepare and present their proposals for approval to the Event Organizing Committee.

Opening ceremony

The first formal element of the event may set the tone for the entire event, so planning the opening ceremony is worth careful consideration.

Class association meeting

It is likely that, amongst the social events planned, one will involve an open meeting of the class association.

Closing ceremony

The closing ceremony is when everybody leaves behind the tension of the competition and honours those who have won. It is also a good moment to thank all those who have worked together to make the event a success. Be careful not to make this part of the ceremony too lengthy, as it quickly becomes boring.

4. FACILITIES

4.1. Race Office requirements

Official Notice Boards

Provide an official Notice Board with the following sections:

- Race Committee;
- Protest Committee;
- Measurement Committee;
- Results.

The board(s) must be adequately lit and located close to the Race Office. Its handling should be limited exclusively to Race Office personnel and the Secretary to the Protest Committee.

A second information board, preferably separate from the official Notice Board, will serve to post:

- meteorological information
- social programme
- map of the facilities
- town map indicating services as well as locations of the social events, etc.
- “For sale” notices

A designated section of this board may also be used by competitors to put up their advertisements. This will preclude the posting of numerous “for sale” messages in undesired areas.

Public address system

The system should be able to reach all areas, such as the boat park, measuring area, locker rooms, etc. Use of the public address system should be kept to a minimum and limited to reasonable hours. Too many unimportant messages may make listeners less attentive. Early-morning or late-night messages may cause complaints from people living close to the site. Except for urgent matters, use of the public address system should be made only between heats, and not while any heat is in progress.

4.2. Boat facilities

The Bank Master or his delegate will be responsible for equipment. He should do a pre-event check. He will also be responsible for security and day and night guards.

Battery charging

Electrical outlets, one per visiting boat, are suggested for multi-day events. If competitors are likely from foreign countries, consideration should be given to the provision of socket adaptors, voltage adaptors, and 12V power.

Repair

Proper lighting and a minimum set of engineering tools (vice, drill press, file) are suggested within a workshop environment.

Boat storage/park

If there is a large number of competitors, it is advisable to assign properly labelled spaces per boat. The storage facility should ideally have:

- running water, i.e. a hose of adequate length;
- lockers for equipment and clothing;
- garbage containers.

4.3. Car parking**Parking for cars and vans**

In order to provide adequate parking facilities, an estimate should be made of the number of cars and camper vans expected. To collect this information at an early stage, a space could be provided on the entry form sent to National Authorities and/or Class Associations asking for the number of cars, campers, vans and/or tents that will be brought to the event venue.

If appropriate, reserve a few parking spaces close to the Race Office for key personnel. Ideally, the parking area should be supervised to restrict access only to authorized vehicles. It should be well lit and equipped with loudspeakers, and a 24-hour guard should be present if cars and/or equipment are to be left at the venue overnight.

The local police should also be informed of the event and the amount of traffic expected.

4.4. Further shore facilities**Club facilities**

During the competition an unusual number of people will be using the club facilities, i.e., bar, restaurant, dressing rooms, rest rooms, etc. Take this into account when planning the number of personnel, volunteers, etc.

Food

The Race Office should have an assistant responsible for collecting food and drinks for the office and officials.

Medical facilities

Provision must be made to have access to full medical assistance such as the services of a local hospital, the Red Cross, a private doctor, ambulance, etc.

Transportation and Security

Transportation

Arrangements must be made for transportation of goods and people to and from the site before, during and after the event. Transportation may be needed in the following areas:

- goods (office equipment, course equipment, food + drink, etc.);
- competitors' boats, Race Committee RIBs, RIB trailers;
- competitors and personnel (Race Committee, Measurement Team, Protest Committee).

Security

Depending on the location, it may be important to arrange security measures that will guarantee the security of competitors, personnel, and materials.

5. VESSELS & EQUIPMENT

For the management of a race the Race Committee has to arrange for (rescue) boats that are suitable for the race area and adequately equipped for the tasks they are meant to perform. The type of marks and buoys used and the quality of associated devices like lines and weights can have a major influence on competitor's satisfaction, stress on the course-setting personnel and the success of each racing day. For radio sailing, a course board is required, and the starting sequence is usually provided by a tape recording or CD played through a public address system.

Course board

RRS E3.2 requires the course board to be clearly visible to competitors while they are racing. This may be quite an onerous requirement, and considerable planning may be required to achieve it.

Note that the course board must show the control and launching area(s) as well as the course.

Fleet control board

The equipment which provides current heat composition, and current frequency allocations.

Starting sequence

RRS E3.5 prescribes the starting sequence from the Warning Signal to the starting signal. This is usually pre-recorded to either tape or CD-ROM. The advantage of a CD-ROM is that, if the starting sequence is recorded as a single track, the CD player stops immediately at the end of the sequence, and the Signals Officer does not have to remember to dash back and stop or pause the recording.

Course-setting vessel

If possible, the Course-setting vessel should be a fast power boat. The Race Officer may want to wait as long as possible before finalizing the course, and then wait as little as possible while this is being done. It is rarely necessary to have more than one course-setting vessel. One well-manned vessel can do all that is required.

Rescue boat

If possible, the Rescue Boat and the Course-setting Vessel should not be the same boat, since both might be needed at the same time. The Rescue boat should be of adequate capability to

assist boats in distress under adverse conditions. The craft should be manned by at least two competent persons.

Marks

Marks and buoys should be highly visible against sea or land (bright yellow or rescue orange) and easily towed and handled by the Course-setting vessel.

Because of factors involving the physiology of the human eye, red marks are not recommended.

Marks used for a change of course (i.e. rounding marks) should be of a different shape or colour or have some distinguishing mark such as a coloured (or black) band or sleeve from marks identifying the start, the finish, or under-water obstacles.

Cylindrical marks need a relatively heavy counter-weight to keep them upright, and all marks need a counter-weight fixed to the anchor line about 1 metre below the surface to keep the line down and away from close rounding boats. A 0.5 to 1 kg metal weight is best. Metal is more effective than concrete, because in water it weighs some 85% to 90% of its weight in air, whereas concrete in water only weighs 55% of its weight in air.

The line should be long enough to prevent the mark dragging in heavy weather but not so long that the mark shifts with variations in wind. Preferably some chain should be used at the anchor end to prevent chafing and improve holding.

In deep water, marks can be secured with disposable ground tackle consisting of reject or damaged concrete blocks and non-synthetic (bio-degradable) twine which can simply be cut.

It is common to number the marks for easy identification. When the number used is of the same dimensions as the sail number for the class being sailed, it immediately becomes obvious when any mark has been set too far away – its number cannot be reliably read. This is important, because it also means that a sail number will not be reliably read, leading to increased frustration by sailors wishing to protest, and increased rule flouting by sailors exploiting the poor visibility.

Line-setting wind vane

Both the Course setter, and the Race Officer, should have a line-setting wind vane. This has a wire “cross” which allows angles of 85 degrees to the prevailing wind to be accurately measured, and 45 degrees to be reasonably estimated. Line bias of 5 degrees (ie 85 degrees to prevailing wind) is usually set. A line bias of 5 degrees is equivalent to one boat length in 10.

Stop watch(es)

Required by the Timekeeper to time the length of the heat, and determine the subsequent time-out duration. Have one stop watch to time the heat, and another, preferably a countdown timer, for counting the time-out. An audible end of time on the countdown timer prevents discussion and allows the line to be watched without looking at the equipment.

6. RACE DOCUMENTS

The Notice of Race can be seen as a formal offer to a potential competitor. It has to be drafted with great accuracy as it specifies the conditions for entry, the classes and the rules to govern the event. The standard IOM Notice of Race for international events is available for download from the IOMICA Web site, <http://www.iomclass.org/>.

The Sailing Instructions are most important to the success of a event, as they provide additional information to the competitors and may change some Racing Rules that shall apply to the event.

Ensuring that clear, unambiguous and comprehensive Sailing Instructions are written must be considered a major responsibility of the Organizing Authority, although this task would normally be delegated to the Race Committee.

6.1. The Sailing Instructions

The Sailing Instructions are extremely important and must be prepared with great care. The effective operation of the event, the responsibility and authority of the officials and the all-important link to the Racing Rules and, if appropriate, the Appeal Authority, are governed by these instructions. It is equally important that the Race Officer and all the officials associated with the actual conduct of the event be thoroughly conversant with them.

Compiling the Sailing Instructions should not be looked upon as an opportunity for displaying originality or creative ingenuity.

The standard class Instructions should be used unless there is good reason for deviating from them. The standard IOM Sailing Instructions for international events are available for download from the IOMICA Web site, <http://www.iomclass.org/>. Local by-laws may have to be considered or special launching and retrieving requirements. Class Rules may prescribe some aspects of the event.

The introduction to the Sailing Instructions Guide of the RRS lists the principles on which all Sailing Instructions should be based. One is that they should be concerned only with racing. It follows that any other instructions should be described in a separate section or appendix.

If the Sailing Instructions proper are labelled Part A, and the non-racing inscriptions Part B, the Race Committee can still protest competitors who infringe Part B rules (or report them to the Jury), but it can prevent competitors protesting each other under this section by adding: "Instructions of this Part B shall not be grounds for a protest by a boat." Instructions that go into this section may concern:

- safety;
- insurance;
- sail numbers (e.g. what to do if the number in the sail is not that of the certificate);
- sail or equipment stamping;
- boat storage;
- prohibited areas (e.g. other Race Courses) etc.

In addition, there may be matters which, although they do concern racing and therefore belong in the Sailing Instructions, competitors should not be able to protest each other for. Examples are: advertising on hulls required by the Organizing Authority, launching and retrieving restrictions, etc.

These matters can be taken care of in a subsection of the Sailing Instruction that deals with Protests: "Infringements of Sailing Instruction .., .., .. and .. shall not be grounds for a protest from one boat against another, but may result in action by the Protest Committee (in alteration of RRS 60)."

In fairness to competitors the Sailing Instructions should be available in time for them to be studied before racing begins. It is common practice to have them available as part of the registration packet. That is fine, provided there is a time interval of some hours, preferably twenty-four or more, before the first race.

A previous edition of this manual suggested that, for major and international events, it may also assist competitors to publish the sailing instructions on the host Web site well before the event. This advice is currently under review, and instead it is suggested that the sailing instructions are

in fact distributed to competitors upon registration at the event. Experience has shown that the SIs are changed up to the day of the event. If this is the planned action, the Notice of Race should advise that the SIs shall be made available at registration.

While the Competitors' Briefing is not the appropriate time to give out the Sailing Instructions, it is certainly the time to draw the attention of competitors to any significant features. This may appropriately be done by the Chairman of the Jury offering some comments at that time.

Finally, the Sailing Instructions must identify the control area(s) and the launching area(s) if possible. If they are variable during the event then this should be noted and the procedure for advising them to competitors should be stated.

Some possible SIs for radio sailing events

The Event Organising Committee and the Race Committee might wish to see some further SIs which are used in radio sailing, and a RO needs to be aware of them and the reasons for their incorporation. These are some possibilities.

- After Rule E5.2 add: "or words to that effect which shall include the word 'protest' or its declensions and conjugations".
- After Rule 31.2 add: "31.3 When a boat is wrongfully compelled by another boat to break rule 31.1, she shall be exonerated (a) if the other boat acknowledges breaking a rule of Part 2 by taking a penalty or retiring immediately, or (b) under rule 64.1(b), after successfully protesting another boat involved in the same incident."
- For international events, it is likely that RRS E3.1 is replaced with "E3.1 Umpired Races: Races will be umpired ..." and all the details thereof.
- The "responsible authority" for the purposes of RRS 64.3(b) shall be the Chief Measurer for the class or his or her delegate, as appointed by the class association.
- Due to wind strength changes between heats, the RO may announce a 5-minute hold to allow (promoted) boats to change rigs.
- Rule E4.4 is changed to read as follows: "Throughout rule 44, instead of 'Two-Turns Penalty' read 'One-Turn Penalty', which shall include one tack and one gybe."
- Rule E5.3 is changed by deleting "within five minutes" and substituting "within one minute".

7. THE START OF THE EVENT

An event usually begins with the reception of the competitors. Regardless of where they are coming from – from overseas or the neighbouring club – they should get a warm welcome by the hosting authority or club. Measurement and inspection procedures have to be coordinated and finally, the Competitors' Briefing gives the Race Committee a very good opportunity to build up personal contact with the competitors.

7.1. Registration

Registration is a simple procedure by which a competitor makes a formal contact with the Event Organizing Committee, a kind of "report in".

First and foremost it is the moment at which such formal matters as registration of the competitor, payment of the entry fee, issuing of Sailing and Measurement Instructions, etc., are dealt with.

At the same time, it is also an opportunity for distribution of a competitor's packet, if one has been prepared. Such a packet may include sponsors' gifts, a map of the locality, public transport timetables and stations, a programme, and anything else that is relevant. It is also an opportunity to introduce visiting competitors to local people and generally to make them feel welcome.

7.2. Measurement and Inspection

The requirements will vary from a simple acceptance of a previously obtained measurement certificate or registration certificate on the one hand, to a complex series of event checks and measurements on the other.

The purpose of event measurement is to ensure fairness in class racing and to make certain that no competitor has an unfair advantage through deliberately or inadvertently infringing the Class Rules.

If there are special requirements for measurement, they should be included in the Notice of Race. The Sailing Instructions shall then, when appropriate, specify the measurement or inspection procedure (see RRS J1.2; J2.2). Usually measurement matters have been completed before the first day of racing, but under certain circumstances a boat may give its measurement certificate, if required, to the Race Committee (see RRS 78).

7.3. Competitors Briefing

Events vary greatly in the duration and content of the meeting for competitors. For many smaller events, briefings are not even considered necessary. However, a meeting can be very helpful in building up contact between the Race Officer/the Race Committee and the competitors, especially when there is no opening ceremony. **A competitor's briefing is expected at IOM events at National level and above.**

Although event waters should be as "neutral" as possible, there is often some advantage favouring local competitors. The advantage extends to knowledge of the shore facilities and even to familiarity with the officials. A meeting can be of benefit in countering some of these advantages. To this end its prime purpose could be described as countering differences in familiarity with the local scene thereby contributing to the fairness of the competition.

The briefing usually precedes the practice race or the first race and may be undertaken either by the Chairman of the Race Committee or by the Race Officer. Subjects which may be covered at the Competitors Briefing include:

- a friendly word of welcome (if there has not been a formal opening ceremony);
- an introduction to key officials;
- an identification of main shore locations (Race Office, Protest Room, etc.);
- location of the Official Notice Board;
- identification of Marks, etc.;
- hazards and prohibited areas;
- the course area;
- food arrangements;
- social arrangements;
- prize giving;
- specific rules of the Host Club;

- the Chairman of the Jury may offer some comments about the umpiring system, if in use; etc.

Because the meeting has no authority in terms of the rules and the Sailing Instructions, statements made are not protestable and there is a responsibility upon the official conducting it to exercise great caution not to mislead.

Sailing Instructions should be unambiguous and not require further explanation; nevertheless there is usually a valid point or question from someone on them. To act correctly, you should ask for such questions to be submitted in writing, but this would often look too formal. And it would not contribute to facilitate the communication between Race Officials and competitors.

Therefore you may accept oral questions as well as written ones. But to give equal opportunity to every competitor, especially to those who are not familiar with the language to be used for the answer, it is important that the Race or Protest Committee should reply to them in writing on the Official Notice Board stating both the question and their answer.

7.4. Race Officials Meeting.

The RO should have a team meeting with race officials to confirm each person's responsibilities and to answer any of their questions. This meeting should cover all aspects of the event so that each person knows who is responsible for all required duties and to ensure that they are all fully coordinated so that the event runs as smoothly as possible.

8. SETTING THE COURSE

To ensure fair competition (see RRS 2), the Race Committee must set fair starting lines, courses, and finishing lines, conscientiously observe all rules, and follow good race management practice.

8.1. Course geometry

Whatever the course configuration, convention and common sense should play a part in the course selection. Courses should be consistent and not complicated.

All mark roundings, where the rounding could be either way, should be consistently port or starboard.

Port-hand roundings are often preferred at a windward mark, because they simplify observance of the port-starboard rule. Therefore, for major events, where there are no geographical constraints, a port hand course is always used. Looping around marks should be avoided.

On a beat a fleet tends to spread out - the leading boats have clear air and less interference from other boats. On a run the leading boats may be blanketed and the fleet closes up. Because of this and because an upwind start is the fairest, a heat should start with a beat or have a beating leg as soon as possible after the start.

The course location should be selected to give as fair conditions as possible within the locality having regard for currents, vagaries of wind caused by trees and buildings, and shallows. It may be better to sail extra laps of a smaller size in order to avoid foul wind or foul ground which introduce advantages from local knowledge.

Race duration

A course should be set, and the number of laps determined, so that the racing in each heat takes around 12 to 15 minutes. (The "seeding" race, Race 1, may be longer, perhaps up to 20 minutes.)

For international events, it should be the Race Committee's objective to complete a race of 5 heats in 2 hours, and to complete at least 3 races per full day of sailing.

Location of the Race Area

It is assumed here that the race course will be purposely set for the races that are to take place, using separate marks and starting and finishing lines to be positioned depending on the wind direction. When racing is to take place around fixed features, the positions of starting and finishing lines may vary depending on the wind direction.

Position of the starboard end of the start line and windward Mark

The RO directs the Course-setter to lay the windward mark as required. The RO moves to a leeward location within the designated racing area and notes the average wind bearing. Remember that a wind vane must always be used in clear air, not where air flow is disturbed by a part of the bank or surroundings.

When the windward direction is known, the RO sets the starboard mark of the starting line and rechecks its position, so that the windward mark is, indeed, directly to windward.

8.2. *The course*

Start line length and direction

The next task is to lay the starting line, which needs to be of the required length.

Use from 1.3 to 1.5 times the sum of the lengths of the boats in the largest heat.

For light conditions, the value of 1.3 should be adequate. In heavy or variable wind, even the value of 1.5 might not be sufficient. The wind and water conditions should also be considered.

The starting line needs to be nearly (but not exactly) square to the wind. For this the Race Officer needs a wind vane with an 85 degrees sighting device. During the course of the event, it will become obvious to the RO if one end or other of the line is considered favoured by the competitors.

The Course-setter proceeds in the right direction (wind direction minus 85 degrees) from the starboard starting mark. Once the correct length of starting line has been reached, the Course-setter floats the mark that is to form the pin (port) end of the line in the water, but holds on to the weighted tackle. This is done in such a manner that the Race Officer can see the exact position of the weight. Note that the RO requires a view of the weighted tackle of the mark, not of the mark itself, which will move to wherever the weight is dropped. At a signal from the Race Officer, given when the weight is in position, the anchoring device is dropped overboard. The Race Officer may have to make some allowance for any current, and in light conditions, the dropped weight tends to bring the mark forward.

Start line bias

The starting line should be laid with approximately 5 degrees of bias favouring the port end.

The purpose of the bias is to encourage the fleet to make use of the whole line instead of just the starboard end. Too much bias may lead to congestion at the port end as boats compete with each other to take advantage of it. Too little bias or no bias at all will lead to congestion at the starboard end of the start. The Race Officer should observe how the fleet reacts to the bias on his first starting line and adjust as required for subsequent starts.

This requires the bias on the start to be accurately set and known. The right-angled wind vane for line setting may be so constructed as to include a sight with this bias. Alternatively, the bias can

be estimated as having the pin end approximately 2 boat lengths to windward for every 20 boat lengths of the start line.

It must be emphasised that the RO should carefully observe competitor behaviour at the start and, regardless of what the wind vane or other indicator devices might be showing, the line bias should be re-adjusted until the competitors spread themselves relatively evenly along the start line. This establishes a fair starting line.

The windward leg

It is assumed that the course will be an Olympic course (also called “triangle and sausage”). To set the windward mark, the Course-setter runs halfway down the start line, then heads upwind and drops the windward mark as required to windward of the middle of the starting line.

The length of the windward leg is second in importance only to starting line bias. Boats must have an adequate beat to the windward mark, otherwise they will arrive in bunches of 7 or 8, rather than 3 or 4. Pile-ups at the windward mark are often an indication of a too-short windward leg.

The wing or gybe mark

The commonest triangle is the 90-degree-angled isosceles triangle (45 degrees-90 degrees-45degrees) with the 90 degree angle at the gybe mark. This puts the boats on a very broad reach or quartering run. To provide a closer reach with the apparent wind moving closer to a beam reach, the RO may prefer an equilateral triangle (60 degrees-60degrees-60degrees).

The leeward mark

To set the leeward mark, the Course-setter runs halfway down the start line, then heads downwind and drops the leeward mark as required to leeward of the middle of the starting line.

Windward-leeward courses

It is becoming increasingly common to set a windward-leeward course, and indeed this course is currently favoured by IOMICA for international IOM events. On such a course, a leeward gate should be set, the marks about 8 boat lengths apart, and a windward offset mark should be set, the offset mark approximately 8 boat lengths to port of the windward mark.

The finishing line

While the starting line is set approximately at 85 degrees to the wind, the finishing line is generally set at 90 degrees to the last leg of the course. On many occasions this will also be at 90 degrees to the wind direction but is not necessarily so. The finishing line must be in clear view from the bank by the line judge and the competitors.

The definition of “finish” can give a problem if one or more of the course marks are used as part of, or make up, the finishing line, particularly when the course might involve numerous laps. It is usually worthwhile to take some care to have separate finishing marks on the water which are not part of, and are not near, the course.

Setting the course for the seeding race

If the first race is a “seeding” race, consideration should be given to making the course somewhat longer than normal to give as much chance to all competitors to achieve a representative finishing position.

Adjusting a Course for Wind Changes

It is naturally important that the course is correctly oriented to the wind. For example, for a class that does not tack downwind, the optimum running course lies within 10° of the true wind. If the

course is true, midway down a 100 m run, the boats could be spread over a width of about 30 m. Thus a boat has room for initiative with respect to following shifts and tactical theories. If the leeward leg is at an angle of 10° to the wind, however, then theoretically all boats should remain on the same tack and sail on the same line to the leeward mark, showing no spread on the leg and having no real opportunity for tactics.

Do not try to be a perfectionist and consider carefully if a minor change of the wind direction really does require a course change. Usually, a change of course is not necessary with wind shifts of 5-15°.

Start thinking about a change of course (i.e. new positions of windward, gybe, and leeward marks) only when the wind shift turns out to be of 20° or more.

But be ready to adjust the starting line bias if the wind shifts by more than 10 degrees.

In all of this, because the competitors shall expect to have 4 races a day **at least**, there is a need to strike an appropriate balance between the time taken to revise the course and the time lost to racing. By comparison with full-size practice, less than perfect courses are tolerated somewhat more readily in radio sailing events.

8.3. Noting the course on the course board

Once set, the course must be shown on the course board. It is the course board which serves to inform the competitors of the course, and so should be prepared with care.

Experience has shown that the course should not be “explained” by the Race Officer. The course board should, indeed must, speak for itself. If competitors remain puzzled or confused after consulting the course board, it needs to be improved or corrected.

Experience has also shown that the course to be sailed should not be “illustrated” on the course board with drawings or line connecting marks or showing the rhumb lines. Instead, the board should simply state the course as a list of lines and marks, for each mark whether they should be passed on port or starboard, and whether they are “rounding” marks. Note that two courses must always be listed: the normal course, and a shortened course.

The course board must be positioned so that it is visible to competitors while they are racing. This can be an onerous requirement, and considerable care might need to be given to satisfying it.

9. STARTING PROCEDURE

Starting system

RRS Appendix E sets out the starting system. However, the Sailing Instructions may change this by specifying another starting system.

The usual starting system involves an auditory Warning signal with 2 minutes to go to the start, and a Preparatory signal at one minute to go. The starting sequence then counts down in increments of 10 seconds until 10 seconds to go, thereafter in increments of 1 second until the starting signal itself.

The starting procedure

The minimum personnel required are: Race Officer, Signals Officer, Timekeeper, and Recorder.

Start -3:

RACE OFFICER checks wind direction and velocity, checks the starting line and checks its bias. Checks that the team members are all on station and ready.

SIGNALS OFFICER initiates the start sequence. For international events, there is a one-minute period of music or count-down to the Warning signal.

Start -2:

Warning Signal given.

RECORDER checks the competitors in the starting area. This involves counting their number at the least, or ticking them off the list of boats scheduled to sail at best.

Start -1:

Preparatory Signal given.

RECORDER notes against a time entry any information relevant to the competitors or the conditions or the course. For international events, launching is prohibited between the Preparatory signal to the starting signal, and the Recorder must note any boat which launches in this period. Also note any boats about to infringe RRS 29.1 (OCS) or boats that infringe a Starting Penalty by carefully listening to the announcements of the RACE OFFICER.

RACE OFFICER may start his tape recorder and speak what he observes into it for subsequent consideration. Start observing the starting line, monitoring boats about to be or already “on the course side of the starting line”. Identify (tape recorder) OCS infringements, if the I Flag Rule (RRS 30.1) is in force. Identify boats within the triangle formed by the ends of the starting line and the first mark, if the Z Flag Rule or the Black Flag Rule is in force.

Start:

Start signal given.

RACE OFFICER sights the line (the course side of the starting marks, RRS E3.7) to determine whether to:

- be satisfied that there is a clear start;
- call an Individual Recall for any identified boats on the course side of the starting line (applies when no Starting Penalty or the I Flag Rule is in force); or
- order a General Recall.

This decision has to be made very rapidly.

The RO may use an old technique to sight the line in the moments before the start – hold a clipboard or similar size piece of card to one eye, close the other eye, and line the card up with the line so that the course side is left clear, and the body of boats approaching the line is obscured. This is an effective way of detecting OCS in an otherwise rather hectic few seconds.

SIGNALS OFFICER stops the starting sequence tape, if necessary, and re-positions it at the start of the next starting sequence.

RECORDER records the sail numbers of any OCS boats or of boats having infringed the Z Flag Rule or the Black Flag Rule. If boats have been identified by their hull or equipment rather than by their sail number, the Recorder must find out which sail numbers belong to each of these boats.

In case of a General Recall under the Black Flag Rule or in case the heat is abandoned, the sail numbers of any boats being disqualified due to this rule must be passed to the Race Officer and be clearly announced before the next Preparatory Signal (or the next Warning Signal) is given.

TIMEKEEPER records the starting time, and also starts a stop-watch.

RACE OFFICER, in case of an Individual Recall, will watch for the OCS boats to return and start correctly. In case of a General Recall, he will order the start of a new sequence as soon as possible from the Warning Signal.

9.1. Starting problems and solutions

Line identification

Consideration may be given to having a marker, usually a highly visible pole, on the bank to mark one or other end of the starting line, if there is difficulty in setting a good starting line using buoys. Note that in such circumstances it is unwise to invoke the “around the ends rule” RRS 30.1.

Delays

In general, starts should only be delayed if a fair course cannot be set. This takes judgement, but “light wind” is not a sufficient reason for delay.

There should not be a delay because competitors are late unless the late arrival is due to an action or omission of the Race Committee such as a postponement signal, unforeseen launching problems reported by the Bank Master, the composition of the scheduled heat depending upon the outcome of a hearing, a frequency change required due to a frequency clash with a promoted boat, etc. Lunch breaks etc shall only be taken if so advised in the Sailing Instructions.

Keep competitors informed! It is suggested that an announcement be made every 20 minutes that the start of any heat is delayed.

There may be a significant change in wind strength between heats, and competitors may wish to change sails. The start should only be delayed to allow this for the four newly-promoted boats from the previous heat. The Sailing Instructions should provide for an appropriate time limit.

Unfair Course and Abandoning the Start

After the start the Race Committee is limited by the Racing Rules and the Sailing Instructions. After the starting signal, RRS 32(e) allows a Race Committee to abandon (or shorten) a heat for any reason directly affecting the safety or fairness of the competition. This could include a major wind shift on the first leg, but abandonment should only be considered as an action of last resort in extreme circumstances. The “rule of thumb” is that the (start to a) heat should be abandoned if the leading boat can lay the windward mark without any need to tack. Every effort should be made to finish the heat by using all available means. The course should be changed for the next heat.

Boats on the course side of the starting line

The problem of boats on the course side of the starting line at (or during the minute before) her starting signal and General Recalls can be reduced by a number of practices. Adjustment of the line to increase or reduce the amount of bias will help and this can be done right up to, but not after, the Preparatory signal. Individual recalls should be made promptly after the Starting Signal in order to demonstrate the Race Committee's intention to detect premature starters and provide a good, fair start.

Events with large fleets are regularly plagued by the problem of “premature starters” and General Recalls. Some Race Officers feel that a General Recall should always be signalled unless all boats on the course side can be identified. There is no rule requiring this; in fact, the contrary is true.

RRS 29.3, General Recall, states: When at the Starting Signal several unidentified boats are on the course side of the starting line or there has been an error in the starting procedure, the Race Committee may signal a General Recall...

The Race Officer must weigh up the pros and cons of allowing perhaps one or two offenders to escape against the penalty that a General Recall may impose upon a large number of competitors who made a good start. Every effort should be made to identify at least the principal offenders and to apply the Individual Recall procedure to them. By identifying most boats on the course side and using an Individual Recall signal to bring them back, a salutary lesson is conveyed to the fleet and, at the same time, those starting correctly are rewarded.

RRS 30.1

Troublesome fleets can be brought into line by applying RRS 30.1 - the I Flag Rule (also called “Round-the-Ends” Rule) - either to all starts or after the first General Recall. However, this penalty is generally not favoured by competitors and Race Committees, and has limited applicability in radio sailing.

RRS 30.3

A rather drastic penalty is the Black Flag Rule (RRS 30.3) which provides for disqualification (without a hearing) of any boat being identified within the triangle formed by the ends of the starting line and the first mark during the minute before her starting signal. If the heat is restarted, resailed or rescheduled, those boats are not entitled to compete and have to leave the racing area during that heat. And if a General Recall is signalled or the heat is abandoned after the starting signal, the Race Committee shall display the sail number of any boat disqualified under this rule.

However, this penalty should remain as 'a last resort' for a Race Officer to communicate with the fleet, and its use is only recommended after every effort to use individual recalls has been unsuccessful. The most unfavourable situation would be a series of consecutive General Recalls under the Black Flag Rule, which would turn into cutting the fleet down into a small group that is still entitled to compete in that heat.

RRS 30.2

The Z Flag Rule (RRS 30.2) can be interpreted as a mild version of the Black Flag Rule. The restrictions for boats being the same, as with the Black Flag Rule, the penalty will be only given to infringing boats if there is a General Recall signalled. And the penalty will not be disqualification but a scoring penalty of 20%, i.e. calculated as stated in RRS 44.3(c) the boat will be given a score worse than her actual finishing place by the number of places nearest to 20% of the number of boats entered. However, the boat shall not be scored worse than Did Not Finish. If the heat is restarted, resailed or rescheduled, the penalty shall still be given.

Example: An event has an average heat size of 16 boats; 20% of 16 boats is 3.2, rounded to the next whole number up results in 4. So 4 places will be the 20% scoring penalty for all heats in this event. If a boat is then identified infringing the Z Flag Rule in a heat (and there is a General Recall due to “several” unidentified other boats on the course side), and this boat actually finishes place 17, she will be given a score of $17 + 4 = 21$ in the results' list for that heat.

Note: if boats infringe the Z Flag Rule, but there is no General Recall, those boats will receive an Individual Recall and will be treated under RRS 29.1 and RRS 29.2. So boats deliberately

starting early will have no advantage except that they might interfere with other competitors heading for a good start.

10. DURING THE RACE

Monitoring the fleet is the major task of the Race Committee during the race. Official Observers are usually appointed to this task.

Course changes

The Race Officer has to ensure fair conditions for the competitors and therefore has to consider changes of the course, shortening the course, or even abandonment, when major wind shifts or velocity changes occur or the security of the competitors is in question.

In case of little wind, there may be time limits to consider.

The position of the leading competitors should be known at all times in case decisions have to be made regarding a course change or shortening the course.

No specific guidelines can be given as to when to abandon and re-sail a heat and when to continue. Any decision on this matter should be made considering the “pros and cons” for each competitor. The ability to know when to do it and when not to is one of the means by which a Race Committee can prove its skill and experience. It is up to the Race Officer to make this decision based on his experience and the information he receives from his fellow Race Committee members around the course but only as a last resort after considering all other options such as altering or shortening the course. Once a heat has started every effort should be made to achieve a finish.

In full-size racing, the Race Officer may decide to move the windward mark or adjust the course.

In RC sailing, there will usually be more races to follow and it almost always proves better to leave the course for the current heat and to set a better one for the next heat. Any course change, even merely a change of position for one mark, must be announced.

Dealing with errors on the part of the Race Committee

A time will come when the Race Committee makes an error. A common error in radio sailing with heats, for example, is to fail to schedule the correct boats in a heat.

In such circumstances, the Race Committee should NOT attempt to “fix” its error by, for example, declaring the heat or race abandoned. Instead, it should immediately seek the assistance of the protest committee or jury by initiating a request for redress for the boat(s) concerned under RRS 60.2(b), or by asking the boat(s) concerned to submit requests for redress under RRS 60.1(b).

11. THE FINISH

A finishing line should be at right angles to the direction of the course from the last mark, and it should be relatively short (12-15 boat lengths).

With the heat two-thirds completed and at the discretion of the Race Officer, the Recorder and Timekeeper move to the location of the finishing line.

There is a common misunderstanding that the finishing line is set at a 90 degree angle to the wind. The definition of the term “Finish” is: “A boat finishes when any part of her hull, or crew or equipment in normal position, crosses the finishing line in the direction of the course from the last mark either for the first time or, if she takes a penalty, after complying with rule 31.2 or rule 44.2. or under rule 28.1 after correcting an error made at the finishing line.” In other words, if for any reason it has not been possible to adjust the course, or on the last leg of the course there has been a change in the wind direction, the finishing line should be placed in accordance with the direction of the course from the last mark, that is, at 90° to the course from the last mark and not at 90° to the wind.

The finishing line should be relatively short: 12-15 boat lengths, depending on the fleet size, the type of boats competing and the weather conditions. A short finishing line may decrease the chance of massive group finishes; it significantly reduces the margin of error and therefore reduces the possible advantages that may be created by the movement of either end of the line.

The leader of the Finish Line team gets ready to call the sail numbers, sighting the course side of the finishing marks. Many finish line teams use a tape recorder as a useful back-up.

The Recorder prepares to record placings. The Timekeeper gets ready to note the finishing time. It is usually not necessary to record every finisher's time, but it is good practice to write down the time against the sail number of every fifth boat or so finishing.

The Recorder will also check the boats finishing against those that started. Any discrepancies will have to be accounted for.

The Recorders' sheets will be the data for the Results' team or the Race Office secretary back at shore base. They will be referred to when any boats want to check their finishing position, or request redress when e.g. a wrong or no finishing position is published in the Results' list.

Finishing procedure

The instant the first boat finishes, sound a clearly recognizable signal (e.g. an air-horn blast or a whistle), so that the other competitors have a time reference to the first finish. Record the hour, minute and seconds, and calculate the time-out limit for the remainder of the fleet.

Every boat must be recorded as she finishes, regardless of whether it is alleged that she may not have sailed the correct course. ISAF CASE 80 makes it clear that, without a hearing, a boat may not be penalized for failing to sail the course. It is always possible that the hearing decides the boat did indeed sail the correct course, and if her finish was not recorded then the Race Committee has made a serious error.

Record the finishing time of the last boat, on which the beginning and end of Protest time will be based.

Advising the four promoted boats

It is important that the four promoted boats in a heat are able to easily determine their status. This is usually done by updating the fleet control board, but less formally may involve a competitor being allowed to look over the shoulder of the Recorder to check their position, or more formally may involve explicit notification from the RO.

Starting the next heat

The next heat shall start as soon as practicable after the completion of the previous heat. This applies equally if the next heat is the start of the next race. There is normally no reason to delay the start of a heat simply because it is the start of the next race.

Note that RRS E5.3 gives a competitor time to submit a protest after the end of a heat, and in particular there is a time limit for the communication of an “intention” to protest. This should be

taken to mean that the next heat shall not start before the time limit for communication of an “intention” is reached. For smaller events, it may be desirable to reduce this time limit by an appropriate Sailing Instruction.

12. THINGS TO DO AT THE END OF EACH HEAT, RACE, AND DAY

If measurement checks are done right after finishing, the Measurer will want to know when the boats he must check will be in. Often it will be determined beforehand that whichever boat finishes 1, 3 and 5 (or any other place) will have to undergo checks.

The Race Office must know the time of the last boat to finish in order to calculate the beginning and end of Protest Time. The time of the last boat to finish must be recorded by the finishing line team.

The Chairman of the Protest Committee will appreciate some indication of the number of protests heard by the Race Committee. He can then decide at what time the first hearing should start, and begin to inform the members of his committee.

The finishing order is given to the Race Office. It will be greatly appreciated by competitors and coaches alike when a provisional finishing order, even if simply handwritten, is posted on the Notice Board at the end of the race. The fleet control board can perform this function if competently managed.

Communicating delays

If there are any delays to racing, the Race Committee should make every effort to keep the competitors informed. Typically, a venue may suffer from lack of wind in the early morning and a fair course may not be able to be set by the advertised starting time, or a lengthy protest involving a promoted boat may cause a postponement of the next heat. Not only the boats affected, but all the competitors, are due the courtesy of periodic reports on event status.

Results

The current results, as of the race most recently finished, should always be available on the official notice board. Because it is usual for several races to be run during a day of radio sailing, it is unsatisfactory if competitors are not kept up to date of their current position and are not able to check that their finishing positions have been correctly recorded. Worse is the possibility that local competitors may obtain knowledge of their positions through familiarity with the Race Committee or scoring personnel when such knowledge is not freely available to other competitors.

The result sheet will be the official source of information and, in terms of the rules, is all that is required. However, it may well be regarded as a desirable courtesy to inform any OCS boats or other disqualified competitors in person, giving them ample time to consider their rights to request redress.

Any results posted prior to the closing of Protest Time will be “provisional”. Note that the time limits for protests are set out in E5.3. If no protests are lodged within the stated time, the results will be “confirmed”. Of course, there are still circumstances under which these can be upset in terms of RRS 61.3, 64 and 66.

The results as of the last completed race of the day should be posted to the event Web site as early in the evening as possible. All IOM international events have a very strong and very

significant following around the world, and the class association strongly encourages Web publication of the event results on a day-to-day basis.

Meeting with competitors after racing

Officials should make themselves available at the end of the day to answer questions from competitors and be prepared to explain decisions. Usually, this would be the Race Officer and the Chairman of the jury. Whether the meeting is formally scheduled or informally advised, all competitors should know when and where they can access the event's senior officials after racing ends for the day.

Evaluation of performance

The answers to the question "How well did we do?" may come from the Race Committee itself or from the competitors. Both the Event Organizing Committee and the Race Committee(s) should discuss their own performance and how it might be improved.

The opinions of the competitors are well worth considering, keeping in mind, however, that those who have done well will almost certainly think that the organization was good, whereas those who are disappointed in their performance will only be too ready to find fault elsewhere, and the Race Committee is the likely target.

However, the conscientious Race Officer should appreciate that no matter how experienced he may be, his performance will often be capable of some improvement and a skipper with a lot of event experience may well have some useful comments to make.

13. THINGS TO DO AT THE END OF THE EVENT

At the end of an event the final results have to be calculated in accordance with the scoring system that shall apply. Then, careful planning is necessary to properly award the prizes during a hopefully enjoyable prize-giving ceremony which fits in with the character of the event.

13.1. The final results

The final results have to be calculated in accordance with the scoring system described in the Sailing Instructions, usually the Low Point Scoring System, as described in RRS A.

This process of producing the final points tally may simply be another computer print-out such as those that have followed each day's racing, dropping each boat's worst score and updating the tally. Without a computer it can be a somewhat laborious process, especially with a large fleet, tallying the points, identifying the worst scores, deducting the appropriate number of points, applying the procedure for tie-breaking and then allocating the final places.

Once the Race Officer has checked the tabulation and handed over the results, he and his Race Committee may consider their task completed.

13.2. Prize-giving ceremony

The prize-giving is usually associated with the major social function of the event, often a formal dinner, and the organizing of this part of the function is the responsibility of the Social Committee. The prize-giving ceremony itself, however, requires careful planning to ensure appropriate dignity and a memorable conclusion to the event.

The prizes should be set out on an appropriately decorated table and in the order in which the presentation is to occur.

There will often be a number of speakers, but the number and length of the speeches should be kept to a minimum. They might include the Commodore of the Host Club, the Race Officer or Event Chairman, who may wish to acknowledge the contribution of his team and the sportsmanship of the competitors.

The highest ranking official of the Class Association on whose behalf the event has been conducted, and a local dignitary such as the Mayor of the town, will also want to speak.

There may be further brief speeches from the principal winners (winner only or top three). It is recommended to brief speakers as to the time they have been granted.

The first awards may be expressions of appreciation to various people. Following those, as a general principle, the most commonplace awards should be presented such as the mementos that are given to all competitors. These might be followed by an intermission with some “fun” awards (furthest travelled; most capsizes; sprint prize). The overall prizes are then presented. There might be special championship prizes such as the top-placed junior, the top-placed lady or veteran, and then last of all, the overall championship winners in ascending order so that the final prize is the climax of the evening.

It is so easy to spoil an otherwise enjoyable occasion by drawing it out unnecessarily. It is just as easy to spoil it by poor organization so that the wrong prizes are given to recipients and time is spent searching names and inscriptions. The person calling the competitors forward to collect their prizes should ensure that he has their correct names, and that he knows how to pronounce them.

The top prize should end the proceedings except for the briefest of farewells and extending good wishes for a safe return home.

14. POST-EVENT TASKS

There are still a number of important matters to be attended to once the prizes have been awarded. They are in the hands of the Event Organizing Committee or their delegates, e.g. transport assistance to competitors, return of equipment and balancing the books. A final report may be required.

14.1. Logistics

Transport

If competitors, protest committee members, etc., were enthusiastically assisted on arrival, then it is not only courteous but will leave a fine impression of the venue and the event if the same assistance is available to them when they depart. Especially those who have contributed with their services free of charge, and therefore often at considerable expense to themselves, should be looked after.

Removal of signs

Most major events today have sponsorship, declared by the display of banners and signs. Once the event is over, these should be dismantled and disposed of, by returning them to the sponsors or whatever is appropriate.

Return of equipment

Most major events borrow equipment of some kind from other Clubs and associations or from individuals. It makes good sense to make up an inventory of the borrowed equipment as soon as it is collected. After the event this can then be used as a means of checking that equipment has not been lost and is ready for return to its owners in as good a condition or better than when received.

Administration**Formal report**

In the case of a major event, a formal report is usually required for the ISAF-RSD, the National Authority, the sponsors, etc. This is the responsibility of the Event Chairman, who, in compiling it, will probably work closely with the Race Officer and with the Chairman of the Protest Committee or Jury. The IOM Class Association requires a report and will wish to review the event and make recommendations for the future.

Letters of thanks

Letters of thanks will need to be written to a number of people, and they need to be written immediately after the event. In some instances they may well contain contributions to expenses or a request for people to indicate the extent of their expenses. In this latter case, some preliminary understanding should have been arrived at around budget time.

Finance

When sufficient time has elapsed for all accounts to be in, but not so much that memories have dimmed and Committee members begun to apply themselves to other matters, final accounts should be passed for payment and the books balanced. Hopefully, it will be necessary to decide what will happen to the credit balance but if the worst happens, then it may be a matter of deciding how to meet the shortfall!

Final evaluation

The Event Organizing Committee may wish to record considered views on the whole administration of the event, the areas of special success and any shortcomings that ought to be avoided on another occasion. Such records can be invaluable to the next Organizing Committee and contribute towards an improved standard. Such an evaluation should also be offered to the Class Association, which would do well to require routinely such an evaluation report for their World and Continental Championships. The Host Club, which in all probability shared responsibility as the Organizing Authority, may also seek an evaluation report, so that it is also aware of its event strengths as well as any problem areas.