

British Firework Championships

*Plymouth - Wednesday 17th August and
Thursday 18th August 2022*



Rules and Guidance

The Event Services Association (TESA)

British Firework Championships

Plymouth – 17th and 18th August 2022

Guidance

Background

The British Firework Championships is an annual competition, first established in 1997, in which six professional firework display companies perform a 10-minute firework display in front of a panel of judges to win the title of “British Champions” together with a trophy and prize money. The competition is fired from the Mountbatten Breakwater and viewed from the Plymouth Hoe area by an audience of up to 100,000 people. The Championships are owned and organised by The Event Services Association (TESA) and run by TESA in partnership with Plymouth City Council.

Entry Requirements

The competition is open to any professional firework display company that has been trading within the UK display sector for at least two years or which can demonstrate to the Organisers that they have sufficient experience, knowledge and ability to take part.

Competitors must provide evidence of full insurance for their activities. All competitors must have public liability insurance of at least £5 million.

Entry Procedure

Eligible firework display companies may enter the competition by completing and signing a copy of the ‘Competitors Agreement’, which must be forwarded to TESA. A draw for firing order will be undertaken independently by a leading member of Plymouth City Council, or an independent person nominated either by TESA or Plymouth City Council who will make a signed declaration as to the result of the draw. The draw for positions will be undertaken at the same time but the results will not be announced until closer to the date of the event.

Satisfactory initial risk assessments must be provided after the draw is announced but prior to the positions being provided. Competitors should, therefore, base risk assessments on the assumption of being nearest the buildings and crowd-line on the firing site. Risk assessments must be sufficient to assure both the Adjudicators and Plymouth City Council that each competitor has fully assessed and addressed all risks.

Payment to Competitors

Each competitor will receive a contribution of £11,047.36 + VAT towards the cost of materials and accommodation expenses. Payments are made by Plymouth City Council. Full details of how to invoice will be provided.

Should a competitor fail to fire their show due to faulty equipment or other circumstances within their control, such as a faulty firing system, 50% of the contribution will be withheld. If such a failure is due to circumstances outside their control, such as damage caused by another display, the full contribution will be paid.

Champion of Champions Event

A Champion of Champions competition will be organised in every sixth year when the winners from the six previous years (including the previous winner of the Champion of Champions event) will return to take part in a Grand Champions competition.

In agreeing to take part in the competition, competitors must undertake that, should they win, they will return to compete in the next Champion of Champions event.

Judging

The panel of judges will be made up of a mix of professional and lay judges. Examples of guidelines for judges and score sheets will be available to view before the event.

Professional Judges: Three professional judges will be appointed, each of which will be a senior professional from within the firework display industry or will have extensive experience of organising events involving professional firework displays. It is intended, if possible, that this panel of judges should remain in place for the six-year sequence of competitions leading up to and including the Champion of Champions event in the sixth year.

One of the professional judges will be nominated as chair of the judges by the Organisers.

Lay Judges: A panel of up to 6 lay judges will be appointed, drawn from local dignitaries and members of the public. Three of these judges will be local dignitaries appointed by Plymouth City Council and three may be members of the public chosen either by Plymouth City Council, by poll or competition.

Every judge will be required to declare any financial or other interest with the competitors that could influence their judging. They are also required to declare any contact they receive from competitors in advance or during the competition.

Scoring

Professional Judges:

The professional judges will be asked to score each display on the basis of their technical merit and creative impact, taking into account:

The quality of the show design	10 marks
The quality of the show performance	10 marks
Symmetry, patterns and timing	10 marks
The overall artistic impression	10 marks

When submitting firing plans, teams must provide a simple document for the professional judges to establish that the planned display is what is actually fired. This will also give the judges a chance to look out for any special sequence or effect that you would like to highlight. This document will be destroyed after the competition and will not be shared with anyone except the professional judges. In addition to the above, the professional judges may deduct points for unprofessionalism such as: failure to comply with the rules, failure to keep to the times allowed for displays (see Competition Rules) or if anything is seen to be unprofessional or illegal on site. Penalties may be deducted at the discretion of the professional judges and any deductions will be made after the display points have been totalled.

The professional judges may visit the firing site at any time during set-up. They will have the opportunity to discuss any matters of consequence with the Adjudicator and Technical Advisor.

Lay Judges:

The lay judges will be asked to score each display on the basis of their Wow factor but taking account of factors such as

Variety of fireworks and sequences	10 marks
Rhythm of the display	10 marks
Use of colour	10 marks
The overall impression (Wow factor)	10 marks

Judges Scoring Guide

The following guide may be used to assist judges when scoring each element:

Outstanding:	9-10 marks
Very Good:	7-8 marks
Good:	5-6 marks
Below Average:	3-4 marks
Poor:	1-2 marks

Judges may score anywhere from 1 to 10 marks for each category.

No fractions of marks should be used, (i.e. whole marks only).

Video of First Night

To ensure fairness, a video will be made of the first night displays which will be replayed to all the judges prior to the second night displays. The purpose of this will be to remind the judges of the previous displays so that they can more easily compare them to those on the second night.

Judging Process

Each judge will be provided with a written brief of how to score the event and a representative from TESA will go through this with the judges on each night.

Each night, after viewing the displays, judges will be encouraged to make notes about the displays they have seen but will not be asked to give scores until the completion of the displays on both nights. At the end of the competition each judge will be asked to score each of the displays and to write a short comment on each explaining why they have scored them in the way they have.

Scoring Totals

A representative from TESA will collate the scores from both the professional and lay judges to decide the results. This process will be monitored by an independent representative from the industry and/or a representative from Plymouth City Council.

To achieve the overall results, the scores from each judging panel - both professional and lay - will be added together and any penalties subtracted from this total. The display with the highest score will be declared the winner.

In the case of a tie, the chair of the professional panel will have the casting vote.

Results

A prize fund will be awarded as follows:

Overall 1st - £4,000

Overall 2nd - £2,250

Overall 3rd - £1,750

Adjudication

Adjudication will be undertaken by an independent expert in event health and safety appointed by the Organisers. A Technical Advisor will also assist this process. The British Pyrotechnists Association (BPA), or another independent firework industry representative, may also be invited to send a monitor to oversee the competition.

The roles of the Adjudicator and Technical Advisor are to ensure compliance with the rules and to assist in ensuring a safe event. In the event of a breach of rules or unsafe practice being discovered, the Adjudicator and Technical Advisor will firstly request that the matter be rectified, and if considered appropriate, report this verbally to the professional judging panel at the end of each night who will each determine whether the breach merits affecting the competitor's score. The professional judging panel, in consultation with the Adjudicator, Technical Advisor and TESA representative may disqualify or deduct points from a competitor they consider has seriously breached the competition rules. Where points are lost for breaches of the rules this will be noted on score sheets under the comments section and published with the results.

The adjudicator and Technical Advisor will award points based on the following criteria:

- Timely submission of documentation
- Sportsmanship onsite
- Technical competence
- Adherence to the rules
- Compliance with legal transportation laws

Competitors must submit to the Adjudicator in advance their risk assessment and other compliance paperwork, together with the firing plans for their show. This material must be received by the Adjudicator by the dates given in the Competitor Checklist. Failure to meet deadlines may result in a deduction of £500 in the competitor fee.

Once received the Adjudicator will review all the material submitted and may seek clarification or ask for amendments to be made. The role of the Adjudicator and Technical Advisor is to ensure that the submissions and arrangements are appropriate for the venue and competition.

A Competitor Checklist of the relevant dates for required information will be provided, please refer to this for deadlines.

The Adjudicator and Technical Advisor will remain at Mountbatten until the completion of the event each evening. The Adjudicator, Technical Advisor and TESA representative are responsible for making all on-site decisions concerning the safety of the event and to ensure that the rules of the competition are observed by all those taking part. The Adjudicator and Technical Advisor will also monitor the materials brought onto site to ensure that the weight allowances, firing angle rules etc. are adhered to.

Should a dispute arise over the interpretation of the rules, the Adjudicator and Technical Advisor will consult with TESA and, if necessary, the professional panel of judges will be asked to adjudicate. All decisions by the panel will be by majority.

Publication of Scores

Scores and judges' comments will be made public no later than 5 working days after the event. The scores will include a breakdown of scores from each judge together with summary comments, with judges' names removed. The Organisers will publish this same information on the British Firework Championships website and notify competitors when it is published.

2022 Competition Rules

The reputation of the Event, the Organisers and the hosts, Plymouth City Council, will be uppermost. All competitors must act in a safe manner. Any breaches of the rules putting operators, fellow competitors, members of the judging panel, Adjudicator, Technical Advisor, members of the media or the general public at unnecessary risk, or any action likely to bring the reputation of the competition into disrepute will lead to summary disqualification from the competition. The decision to fire all materials is ALWAYS made by the competitors.

Health and Safety (General)

Each competitor must make their own assessment of the site and prepare a suitable risk assessment, method statement, site plan and firing order, which must be submitted in accordance with the Competitor Checklist, together with any other requested documents. The Adjudicator, Technical Advisor, the Organiser or Plymouth City Council may request further information or revisions not less than 10 days prior to the display.

The following risk assessment guidelines are provided to help competitors, but this is for guidance only and should be treated as such. Each competitor is responsible for assessing the risk of their own show and preparing a suitable and sufficient risk assessment.

RISK ASSESSMENT GUIDELINES 2022

Risk Assessment Submissions

A generic risk assessment must be submitted within 4 weeks of competitors being notified of their entry acceptance. The Competitor Checklist will give dates for all other submissions.

To allow for material availability issues, competitors may alter their final risk assessments until up to two weeks prior to the event starting, provided that they can justify such changes. Changes should not substantially change the show and the final material/risk assessment submissions two weeks before the show will be the basis that displays are judged against. Maximum firing angles should not be changed from the original submission.

Risk assessments must be based on the assumption that your display will be positioned in the firing site closest to the crowd line and buildings. The crowd line at this location is approximately 222 metres away and the nearest building (where there may be residents and spectators) is 130 metres away.

Risk assessments for both firework and non-firework hazards must be provided, including hazards presented by the firing site and its location on the breakwater. These should be 'suitable and sufficient' as required by the HSAWA and the Management Regulations.

Risk assessments should include, but not be limited to, the following:

- The crowd-line
- Those watching the displays from boats outside the 200m exclusion zone
- The location of buildings with possible spectators
- The wind direction and strengths – as a minimum the most likely and worst-case scenarios
- The calibres, firing angles and types of fireworks being fired
- Fallout calculations for the above, including failure distances
- Proposed actions that would be taken given the various meteorological conditions

Each competitor is responsible for their own health and safety and compliance with the law, and the ultimate decision as to whether to fire a display or not rests with the competitor once the Adjudicator and Technical Advisor have determined that the display may proceed. Competitors are expected to follow all guidance and best practice used within the industry, and must fully comply with any local authority requirements, or requirements from the Adjudicator in relation to health and safety. In accepting the rules for the competition, each competitor takes full responsibility for the use and consequence of all their pyrotechnics and equipment.

Firing Angles

The following are the MAXIMUM firing angles (from vertical) permitted for common items. If competitors propose to use other items, then they should seek agreement of maximum firing angles from the Adjudicator and Technical Advisor. It is strongly recommended that ShellCalc (or a similar program) be used to determine possible fallout.

Competitors may not exceed these angles but may decide that smaller angles are appropriate for their own product, equipment etc. Competitors should demonstrate that regardless of firing angle no lit stars should be projected that will adversely affect adjacent competitors, nor pose significant risks to structures, the public etc.

Maximum Angles (from vertical)

Comet Roman Candles and Comet Single Shots - 65 degrees

Mines, Mine Candles and Single Shot Mines - 45 degrees

Shells and Bombettes - 75mm and below - 30 degrees

Shells - 100mm - 20 degrees

Shells - 125mm - 10 degrees

Shells - 150mm and above - should be fired vertically

The Adjudicator and Technical Advisor will check that the maximum firing angles are not exceeded.

Firing Site

Each competitor will be allocated a 35 metre x 7 metre firing area along the hand-railed section of Mountbatten Breakwater. The Adjudicator and Technical Advisor will decide the precise location in which each competitor will be placed on the day subject to weather conditions which may affect the event. A 'clearway' must be maintained to allow access for vehicles and other competitors, and to facilitate the potential evacuation of, and emergency access to, the site.

Details of any lifting equipment, plant, structures or specialist rigging together with evidence of appropriate operator training and certification, methods and risk assessment must be provided to the Adjudicator with the display risk assessment.

Access

Each competitor may bring a total crew of up to 15 individuals who will have full access to the firing-site. Any other members of staff will be treated as visitors and will only have access to the site at the published visiting times, but they must have registered for a pass at least 5 days in advance of the event. They can, however, be sited in the nearby car park to supply refreshments etc.

The names of each crew member must be supplied in advance in accordance with the Competitor Checklist. All those working on the site must be over the age of 18 and must be supervised by suitably qualified staff.

Access to the firing site will be controlled by named passes, with only crew, Adjudicator, Technical Advisor, Event Organisers or accredited visitors being granted access. Site passes must be worn at all times.

Visitors will only be permitted by prior agreement with the Adjudicator or Event Organiser. Visitors will be accompanied at all times, must follow any instructions given by the Adjudicator, and will only be permitted at the times allocated when they register for a pass.

Set-Up

The site will be open for set-up from 7am each day. Out of respect for other competitors and to avoid unnecessary vehicle movements, competitors are requested to ensure that all vehicles that need access to site arrive at site at 7am so that vehicles may enter and subsequently park on site in the firing order. All equipment and pyrotechnics must be on site prior to 3.00pm. An inspection by the Adjudicator and Technical Advisor will take place after this time. All vehicles must be removed from site by 5pm at the latest unless special permission has been granted by the Adjudicator.

A competitors briefing will be held on site by the Adjudicator and Technical Advisor at 10am each day (unless otherwise agreed) to discuss the weather forecast, tides and any special precautions to be taken by competitors. Each team should nominate a senior representative to attend this meeting. Competitors are strongly recommended to take full and proper account of all properties and boats, in the vicinity of the breakwater, to avoid the need to terminate a show early on safety grounds.

Fireworks Content

Between 400kg and 550kg Net Explosive Mass (NEM) of product must be used by each competitor. Only Fireworks or Articles Pyrotechnic may be used in the competition. The use of any other special effect is not permitted. Each competitor must submit a breakdown of their display in accordance with the Competitor Checklist.

The Adjudicator and Technical Advisor, together with a representative of TESA, will carry out an assessment of material weights each day using average weights to calculate values for each type of material being used.

The following items are NOT permitted in the displays:

- Shells over 200mm calibre
- Aquatic shells
- Rocket or shell parachute products

The use of items made substantially from plastics, and plastic whistles and plastic cups within Roman Candles are strictly prohibited.

The use of products with long duration stars (including falling leaves, jetting comets, strobes, kamuro, willow, brocade and glitter effects), other parachute items, cakes, flying saucers, flight rockets and

aquatic items (**other than shells**), ARE permitted provided that the risk presented by the products to the safety of the audience, other competitors and boats, has been assessed and written justification is supplied by the competitor for their safe use. A full safety evaluation and rigging details must be provided where competitors propose to use other aquatic materials. Competitors should be aware that any of these items may have to be withdrawn if weather conditions dictate.

Sub-Contracting

Competitors must design and prepare their own display and prepare all necessary paperwork and submissions. They must also provide an insurance document in their company name.

Competitors must have a team-leader on site at all times. It is recognized that some firers may help rig displays for a number of companies - and this is permitted provided that such firers are identified in the crew list.

Site Checks

The Adjudicator and Technical Advisor will carry out random checks on displays during set-up to ensure compliance with submitted health and safety documentation and to determine that the correct materials are being used.

Display Firing

Each display should last exactly ten minutes. The start of each display will be announced with a 'traffic light' system; a single red shell, followed by an amber shell and a green shell. The display will start with the first burst after the green shell. Each display will be timed to the last substantial burst. These shells will be provided by a sponsor.

Overall display timing will be done by TESA in view of the judges and independent monitors. The signal to start each display will be made based on a countdown by the TESA event-caller. Points deductions may be made for displays that are considerably under or over ten minutes.

Displays must be fired electrically, and display crews must not enter the firing area during the display. The firing area must be cleared of personnel no later than ten minutes prior to the firing of the first display. A minimum ten-minute delay will occur between each display to allow smoke to clear and firing systems to be checked.

In the event of burning debris from one competitor's show causing part of another competitor's show to fire, an appeal may be lodged with the Adjudicator no later than two minutes before the start of the display. The Adjudicator will report this at the end of the evening, together with their view on the matter, to the professional judges who may then deduct points or award compensatory points as they feel appropriate. In the event of a misfire from a previous competitor, personnel may access the site to check their own display upon specific authorisation from the Adjudicator.

Any incidents or injuries must be reported to the Adjudicator immediately.

Vehicles and Parking

Vehicles carrying explosives should be parked in accordance with regulations and secure overnight parking will be available at Devonport Naval Dockyard. This must be arranged directly with them. Contact details will be provided.

Miscellaneous

All competitors must have current public liability insurance of at least £5 million.

Any rule breaches, deviation from the declared firing scheme, incidents of poor sportsmanship or similar behaviour will be reported by the Adjudicator to the professional judges for their consideration at the end of each night, who will each determine whether the breach merits any action.

At the discretion of the professional judges, fines may be imposed on competitors if they are found to have broken the rules, unfairly compromised other competitors or acted in any other way that is felt to be sufficiently improper. This to be reported by the Adjudicator.

The taking of photographs or video of other competitors' sites is not permitted on Mountbatten Breakwater, unless specifically authorised by the competitor and Adjudicator.

All competitors, their employees and crew members must undertake not to contact the judges either before or after the event about anything in relation to the event.

Competitors are entitled to display banners or signs advertising their company provided these are safely located in relation to their firing position and do not interfere with other competitors. The Adjudicator may require any banners or signs to be removed.

Each competitor must provide TESA with a short article of up to 200 words to be used for marketing purposes, describing their company and team. Each competitor must also provide TESA with the number of sandbags they would like provided by the organisers (up to a maximum of 100). Both pieces of information to be submitted in accordance with the Competitor Checklist.

The decision of the judges is final, and judges will not enter into any correspondence or discussion over the results. Any discussion regarding the results with competitors will be solely through TESA and not the Adjudicators nor Plymouth City Council.

A member of the management team from each competitor must be present at the presentation ceremony, which will take place at a designated venue at the conclusion of the event on the second night (at approximately 10.45pm). This person must attend the Mayoral presentation and represent their company on the stage when the results are announced.

TESA and Plymouth City Council will arrange transport to and from the firing site to get representatives to the presentation.

TESA will arrange for food to be delivered to all teams taking part on each night. This will be delivered to the site between 5.00pm and 6.00pm.

Visiting Times

All visitors must be registered in advance and will be issued with a temporary pass. Only crew members, their registered visitors and officials will be permitted on the site. (NB. The only deviation from this is that accredited media will be accommodated at all times, with the agreement of team principals).

Registered visitors will only be permitted on site at the times allocated to them.

All visitors must be accompanied by a member of the Organisers or display company at all times.

All contact with online media must include @BritishFirework handle and will be monitored. All media contact with regard to potentially controversial matters must be routed through TESA.

Presentation of Documents

Competitors are required to present each element of evidence in a separate document, and all documents to have a consistent and informative file naming scheme. All documents to be supplied in an editable format so that notes may be added by the Adjudicator.

All documents must be in MS Office or a compatible format. Plans and other visual information should be as images within an editable document (eg. MS Word or compatible word processing document).

It is recommended that the company name is placed at the end of the file name so that the document's content shows first.

The file format must be:

Content, BFC date, Version, Company Name.file extension

Company Health and Safety Policy

Filename: H&SPolicy_2022_v1_ CompanyName.docx

File to include at least the Policy Statement. This will confirm that competitors are committed to complying with the requirements of the HASAW Act 1977 and the Management Regulations.

Standard Operating Procedure (SOP)

Filename: SOP_2022_v1_ CompanyName.docx

This document must include a description of how your company manages all aspects of running your firework company.

Site Plan

Filename: SitePlans_2022_v1_ CompanyName.doc

File to include at least two plans. A plan showing the layout of material on the breakwater and a ShellCalc (or similar) diagram confirming that all safety zones as specified by TESA will be observed.

Risk Assessments (generic and site/event specific)

Filename: RAGeneric_date_2022_v1_ CompanyName.doc or xlsx

Filename: RASpecific_date_2022_v1_ CompanyName.doc or xlsx

The generic Risk Assessment must address all hazards common to any event and include non-firework related hazards to ensure that your company has a safe way to carry out all work activities.

The specific Risk Assessment must address the hazards presented by virtue of being on the Mountbatten Breakwater.

Firing Angles

Filename: Angles_2022_v1._CompanyName[file extension]

NEQ

Filename: NEQ_2022_v1._CompanyName.xls

This file must state the type and calibre, number of items, NEQ of each item and total for each type. This will allow the Adjudicator to compare the numbers on the spreadsheet with the items set up for the display.

Firing order and material list

Filename: FiringOrder_2022_v1._CompanyName.xlsx