



The Grand National: A Review of safety and welfare

November 2011



Foreword



Jamie Stier
Chair of the Review Group

The following report has been put together by a Review Group set up specifically by the British Horseracing Authority to investigate safety and welfare for jockeys and horses in the Grand National.

The Review Group's findings are based on comprehensive research, careful consideration of the evidence, and wide-ranging consultation with jockeys, trainers, welfare organisations, veterinarians and others.

We have sought to cover all potential factors that might impact on welfare and safety in the Grand National – from fence design and surface conditions to starting procedures, on-course veterinarian facilities and logistical support.

Racing is a sport with risk. As a responsible regulator for the sport the Authority is open about this risk and works hard to reduce it wherever possible. Those that we spoke to as part of this Review agreed with us that the safety and welfare of Racing's participants – both human and equine – should be central to the Grand National and the sport in general.

Our Review deals – often in great detail – with the question of what we can do to further

enhance safety and welfare in the Grand National and on the Grand National Course.

We have set out 30 recommendations that we believe will achieve this.

Many aspects of the issues considered by the Review Group, however, also relate to how Racing communicates the work that is taking place on safety and welfare within the sport to the general public and the media.

We are therefore also separately working on improving how we communicate to the media and the general public on how much has been achieved so far and how, in the future, the sport will continue to meet the challenges of reducing risk wherever possible and safeguarding the welfare of horses.

This report represents a key milestone in the continuing process of improving safety in British Racing.

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Chairman's Preface



Paul Roy
Chairman of the British
Horseracing Authority

The Grand National is one of Britain's great sporting institutions. It is a unique event watched by many tens of thousands of spectators at Aintree and tens of millions of people around the world.

A key reason for its enduring popularity is that it is the most challenging race in Great Britain and a supreme sporting test for jockeys and horses alike.

The sad events at the 2011 Grand National demonstrated the risks that this race can present, and rightly focused world attention on one of the British Horseracing Authority's core objectives: to protect the safety and welfare of Racing's human and equine participants.

The Review Group responsible for this report has considered the risks of the Grand National with great care. It has submitted recommendations that will enhance the safety and welfare of jockeys and horses participating in the Race, whilst removing none of the magic that makes the Grand National one of the most exciting, best-loved and enduring sporting events in the world.

I commend the report and look forward to seeing its recommendations implemented.

Executive Summary

Overview

The Grand National is an iconic, unique and globally-recognised Steeplechase event held at Aintree Racecourse (“Aintree”). The event has been held since 1839 and, most recently in 2011, attracted tens of millions of viewers from around the world.

Racing is open about the risks inherent in the sport and is committed to limiting these risks as far as possible. The Grand National is the most challenging race in Great Britain.

Events at the 2011 Grand National were upsetting for people directly involved in the sport and those who follow it. The deaths of two horses – Ornaïs (FR) and Dooneys Gate (IRE) – alongside other factors, focussed significant attention and public comment on the issue of safety and welfare in the Grand National.

The following report, compiled by a Review Group set up specifically by the British Horseracing Authority (“the Authority”) has considered a broad range of factors relating to jockey and equine welfare and safety on the Grand National course and in the race itself.

The Review covers issues as diverse as the condition of the racing surface, the structure and design of the Grand National course fences, race day procedures, on-course veterinary and medical services, and the eligibility of both jockeys and horses to take part in the Grand National. The effective communication of Racing’s approach to safety and welfare is also considered as part of a wider review.

Introduction

- The Review Group sought to investigate ways in which to enhance safety and welfare while retaining the unique character of the Grand National. It consulted widely with a range of

stakeholders including the Aintree Executive, animal welfare organisations, trainers, jockeys and veterinarians.

- In light of this research and consultation, certain modifications to the fences are already under way, as announced on 15th August 2011. Other recommendations will require further consultation and research.
- The Review Group has made 30 recommendations to the Authority’s Board designed to further enhance safety and welfare in the Grand National and on the Grand National course, and thereby increase confidence in the race.
- Where no change has been recommended (e.g. maximum number of runners, distance of race) reasons for retaining the status quo have been given.

Chapter One: Course Conditions

- The Review Group sought to determine whether the conditions of the racing surface and/or the Going had unduly contributed to the risk of equine fatalities in the Grand National, and whether they could be improved in the future.
- The Review Group found that the Grand National course at Aintree has many positive attributes, including its relatively low frequency of use - for only five races each year - and the expertise of its groundstaff.
- The Review Group concluded that the general condition of the racing surface was not a contributing factor to the two equine fatalities at the 2011 Grand National. Despite the drying weather, the Going description was correct, and the Going was not too firm. It is recommended that the Aintree Executive

should continue to guarantee Going no firmer than Good, and should aim to provide Going between Good and Good to Soft for the Grand National.

Chapter Two: Fences

- The unique nature of the Grand National course fences, coupled with the distance and competitiveness of the race, mean that the Grand National sees an average of 28.39% fallers.
- The Review Group studied fence construction data, survey work on the levels and drops for each fence, analysis of broadcast footage and fence-by-fence statistics on fallers. Fence 1, Becher's Brook (Fence 6) and Fence 4 – in descending order – are identified as the fences with most fallers.
- A range of recommendations announced publicly in August 2011 by the Aintree Executive in conjunction with the Authority regarding fence design are currently being actioned. The Review Group has recommended specific changes on Fences 1, 4 and 6.
- The Review Group supports the Aintree Executive's ongoing three-year Research and Development programme into new materials and central frame structure design. The Review Group also supports proposals to develop Aintree-style schooling fences at training centres. Furthermore, it is proposed that all Grand National course fences be re-measured by the Clerk of the Course before each race rather than only doing so before the three-day fixture starts.

Chapter Three: Start Process and Initial Race Speed

- The Review Group investigated how factors at the start of the Grand National might affect welfare and safety, as well as looking at whether the pace of the first part of the race plays a key role.

- Potential changes to starting and pre-race practices - such as shortening the Parade in warmer weather or where otherwise considered appropriate - were discussed with trainers, jockeys and welfare organisations. The Review Group recommended improving both pre-race logistical management as well as reviewing pre-race briefings for jockeys.
- While no clear statistical correlation between early speed and the number of early fallers was found, the Review Group nonetheless considers that initial race speed is a potential risk factor. The Review Group supports the collection of more data on race speed.
- The Review Group has considered the option of bringing the first fence closer to the start or to bring the start closer to the first fence as a potential way to reduce early speed. Whilst this proposal found little support amongst those consulted in the Review, the Review Group recommends that this option remains under close consideration beyond 2012.

Chapter Four: In-Race Procedures

- The Review Group considered a number of procedures that can be enacted during a Jump race and assessed their potential impact on welfare and safety.
- The Review Group strongly supported maintaining the practice of bypassing fences in the event of emergency or injury to a jockey or horse. This year, this procedure was used for the first time in a Grand National. This approach is backed by animal welfare organisations. The Review recommended alterations to both the equipment used to direct participants in the event of a bypass and the screening systems deployed when jockeys or horses are being treated.
- The Review Group considered that loose (i.e. riderless) horses pose a threat to themselves and to others, and recommended that the

Aintree Executive reassess working practices of its horse-catching team.

- There is no evidence to suggest that the current Remounting Rule, which requires jockeys to wait for the approval of a Racecourse Veterinarian before remounting a riderless horse and returning to the unsaddling area, has increased the number of loose horses. Accordingly, no recommendations for change were made.

Chapter Five: Veterinary and Medical Services

- Current practice at Aintree is to hold several planning meetings and role-specific rehearsals prior to the Grand National. The Review Group recommended that in future Grand Nationals, as full a rehearsal as possible should take place onsite in the lead up to the event. Participants should include veterinary and medical staff, groundstaff, the Clerk of the Course and support team, loose horse-catchers and relevant members of the Authority's staff.
- The Review Group noted that the media should be better informed by Racing of pre-race veterinary inspections. Additionally, while no issues were raised with Aintree's veterinary facilities, the media could be made more aware of Aintree's professional treatment of horses. Stableyard access should not preclude controlled media access (under the control of the Authority and in consultation with Aintree) as part of this communication process.
- The Aintree Executive exceeds the Authority's veterinary staffing requirements. However, since very dry or very wet weather can lead to heat-related problems, there must be better guidelines in place for heat-related risks to be communicated. Improvements in radio communication training and testing of

radio coverage under maximum user conditions should be made.

Chapter Six: Official Race Conditions

- The Review Group has highlighted that while the Pre-Race Parade is important to sponsors, broadcasters and spectators and to the Grand National itself, it should not occur at the expense of the horses' welfare. As such, following further consultation, the Review Group recommended the Aintree Executive should be supported in altering, shortening or eliminating the Parade if conditions (such as hot weather) warranted this.
- The Review Group proposed that the minimum age for a horse to be eligible to race in the Grand National be raised to seven years. While trainers supported the status quo of six-year old horses racing, the Review Group did not find evidence of six-year old horses greatly contributing to the success of the race.
- The Review Group recommended that future participants in the Grand National must have placed no lower than fourth in a recognised Steeplechase event of three miles or further at some point in their career. Moreover, the Group felt that the suitability of a horse should be assessed in the light of expanded criteria, including Steeplechase experience, staying ability, previous injuries or declining performance.
- It is also recommended that the current Rider eligibility criterion in the Grand National should be expanded to require at least 10 of the minimum 15 previous Chase/Hurdle career wins to have been in Steeplechases.

Introduction

Background to the Review

First run in 1839, the Grand National is the most famous Steeplechase in the world, with a global television audience. It is an iconic event within the British sporting calendar and presents a challenging and unique test over 4 1/2 miles to both jockey and horse.

The 2011 Grand National was attended by over 70,000 people and watched by tens of millions worldwide, many of whom would have had a bet, or taken part in a sweepstake. Any one of those millions of people would undoubtedly have been very saddened by accidents, seen clearly on television, which resulted in the death of two horses during the race.

Racing is a sport with risk, and the Grand National is the most challenging race in Great Britain; that is why it has captured the imagination of so many for nearly 175 years. Racing works hard to reduce the risk and is open about risk to jockeys and horses inherent in the sport, as it is to differing degrees in the life of a horse in any environment. The British Horseracing Authority (“the Authority”) publishes information about equine fatalities on its website, and works to further reduce these risks.¹

In the 2011 Grand National two separate equine incidents – Ormais (FR) and Dooneys Gate (IRE) having fatal falls - combined with:

- graphic footage of the fatally injured horses shown during the race on the BBC national TV broadcast;
- the winning jockey’s use of the whip in the final stages of the race;
- the broadcast coverage of some runners (including the winner) being misinterpreted

¹ <http://www.britishhorseracing.com/resources/equine-science-and-welfare/injuries-fatalities.asp>

due to miscommunication as suffering from extreme fatigue and/or severe heat exhaustion immediately after the race raised very significant comment and debate within the Racing and wider media and with the general public,

The issue of the use of the whip has already been the subject of a full and wide-reaching Review carried out by the Authority. That Review’s recommendations were published and reported in September 2011².

Terms of Reference

Alongside the Whip Review, at its meeting on 28th April 2011, the Authority’s Board also confirmed that a comprehensive Review into the 2011 Grand National would be undertaken by the Authority, so that all the issues raised above could be fully investigated. The Terms of Reference for the Grand National Review Group were:

“To review all participant-related safety and welfare aspects of the 2011 Grand National and seek ways in which the level of risk to horse and rider can be further reduced in all future races over the Grand National course.”

These Terms of Reference were agreed with the clear understanding that all Racing in general carries significant risk and that it is not possible to remove all risk to jockey and horse from any equestrian based event. Furthermore, whilst it is of paramount importance that inherent risk be appropriately managed, the ethos of the Review Group was to seek to retain the essence and individuality of the Grand National course and the Grand National, if possible.

² Responsible Regulation: A Review of the use of the whip in Horseracing, September 2011.

www.britishhorseracing.com/whip-review

This Review was to take place in addition to the usual annual review of the Grand National Meeting carried out by the Aintree Executive, and to which the Authority contributes with regard to any operational issues that need to be addressed. The last published regulatory review of the Grand National was carried out in 1998 after three equine fatalities.

The Review Group

The Review Group consisted of the following personnel (all Authority employees unless otherwise stated):

Chair: Jamie Stier

Director of Raceday Operations and Regulation

Fraser Garrity

Head of Racecourse

Timothy Morris

Director of Equine Science and Welfare

Richard Linley

Senior Inspector of Courses

Chris Dennis

Northern Inspector of Courses

Anthony Stirk

Senior Veterinary Adviser

Andrew Tulloch

Aintree Director of Racing and Clerk of the Course

- Jockeys and the Professional Jockeys Association (PJA);
- Racehorse Trainers and the National Trainers Federation (NTF);
- Royal Society for the Protection of Cruelty to Animals (RSPCA);
- Scottish Society for the Prevention of Cruelty to Animals (SSPCA);
- World Horse Welfare.

Consultation consisted of a combination of written responses, one-to-one discussions, verbal feedback from BHA Committees, round table meetings with participant bodies, and numerous site visits to Aintree racecourse.

Statistical/Technical Research and Analysis

The Review Group considered a large amount of statistical/technical information relating to the Grand National and the Grand National course. This included:

- the re-surveying of all fences, their construction and the profile of their surrounding areas on the Grand National course;
- fence-by-fence data on all fallers, unseated riders, brought downs and fatal injuries in the Grand National since 1990. (This date was suggested by the Aintree Executive on the basis that only minor changes to the obstacles have taken place since major amendments to Becher's Brook in 1989);
- split timings to each of the first ten fences for every Grand National since 2000;
- the Safety Factors (i.e. maximum number of runners) and fence widths at other courses staging long-distance Steeplechases;
- information on the official Going provided over the past 25 years;
- a multiple-day analysis of TV and integrity footage of all professional races run on the Grand National course since 2000 to seek to establish any common cause of every

Consultation with Key Parties and Stakeholders

The Authority has consulted a wide range of groups as part of the Review including:

- The Aintree Managing Executive and representatives from its Veterinary Team;
- BHA Committees (Veterinary and Jump Racing Sub-Committee);

fall, unseat, incident of bunching or effect of loose horses;

- an analysis of the career profiles of every horse that fell, unseated or was brought down in the Grand National since 2000 to seek to identify any common trends such as age, stamina, jumping ability or Steeplechase experience;
- a review of the latest agronomist reports on the condition of the course. These are mandatory for all racecourses to provide to the Authority on at least an annual basis and at Aintree are carried out by Professional Sportsturf Design (PSD);
- the experience profile of all jockeys in the Grand National in the context of their previous number of Steeplechase wins.

The Grand National in Numbers

- The 165th Grand National will be run in 2012.
- Total prize money in the 2011 Grand National was £950,000; with £535,135 for the winner.
- 70,291 spectators attended the 2011 Grand National. Over the three days of the Aintree festival- 153,583 spectators attended.
- A maximum of 40 runners are permitted to start the Grand National. The highest number of horses to run in the history of the race was in 1929, when a 66 strong field was led home by Gregalach.
- Footage of the Grand National is distributed to more than 140 countries- meaning the race reaches a global television audience of 600 million.

It is important to make clear that the type of statistical analysis used in the Review is simple descriptive statistics, with outputs such as averages and percentages. Given the relatively small numbers of runners over the Grand National fences, it is not possible to use the complex epidemiological tools that the Authority uses to understand risk in Jump racing as a whole. This caution refers specifically to the materials used in the Statistical Annex, where implications from the relatively very much lower numbers of runners in longer races may be over- or understated.

Expert review and interpretation of races, in the context of these descriptive statistics, was then used to make informed judgements on risks and possible improvements.

Next Step

Drawing on the above consultation process and research/analysis, the Review Group has produced this report, including recommendations for action, or, as applicable, clear reasons for retaining the status quo in certain key areas. (For instance, keeping the maximum field size of 40, and maintaining the race distance at 4 ½ miles.) The recommendations were submitted to the Authority's Board on 17th October 2011 for approval, which was granted.

To enable a pragmatic, practical and timely approach to further enhanced safety at Aintree Racecourse ("Aintree"), a number of the Review Group's recommendation items are already in the process of being implemented by the Aintree Executive in conjunction with the Authority's Course Inspectorate. These items revolve around some of the fences on the Grand National course and in particular their height, construction and/or the degree of "drop" (i.e. when measuring the height difference between the take-off area and the (lower) landing side of the obstacle). Details of these modifications - which are already under way - were announced to the Media by the Aintree Executive, supported by the Authority, on 15th August 2011. The Authority's Board was aware of these agreed alterations and the necessity for them to be underway prior to the publication of this Report so as to ensure the fence/groundworks had the correct time to bed in prior to next being jumped in the Becher Chase in December 2011.

More detail on the modifications is available on the Aintree Racecourse website³ as well as Chapter Two of the Report.

³ www.aintree.co.uk/newsarchive

Chapter One

Course Conditions

Introduction

- 1.1 Raceday course conditions are known contributory factors for safe racing. The Review Group wished to establish whether the condition of the racing surface and/or Going provided on Grand National day:
- was in any way an undue contributing factor to the deaths of Dooneys Gate (thoraco-lumbar fracture) or Ornaïs (cervical fracture), - albeit it was recognised that both horses died as a result of fence falls at the 6th (Becher's Brook) and 4th obstacles respectively; or
 - could be further improved in future.

The Condition of the Grand National Course's Surface – Level of Use

- 1.2 The Grand National course is a circuit of just under 2 1/4 miles and is only used from November/December to March/April for five races per year. This includes one race on each of the three days of Aintree's Grand National Meeting in Spring (i.e. during a period of good grass cover and growth). Clearly, in terms of intensity of use, this is significantly less than all other British licensed Jump racecourses. The Review Group recognised that this low degree of use can have nothing but a beneficial impact as far as general wear and tear is concerned.

Background to Aintree's Groundstaff Team and Equipment

- 1.3 The Review Group was informed that, in line with or exceeding other racecourses staging high-profile Grade I races, there are currently nine permanent groundstaff employed at Aintree, supplemented by varying numbers of casual raceday staff as necessary.
- 1.4 The combined experience of Aintree's permanent groundstaff team is 128 years at the time of publication. Under the Authority's regulatory standards for racecourses within British Horseracing Authority General Instruction (BHAGI) 3.2 Section 8⁴, at least two members of every racecourse's groundstaff have to be formally qualified in turf management to specific industry standards. At Aintree, six members of the current groundstaff team have qualifications to those standards. Furthermore, on two recent occasions (2005 and 2008) the racecourse has won awards at the Neil Wyatt groundstaff awards – the Racing industry's annual awards in recognition of turf management expertise and best practice.
- 1.5 In line with the requirements of BHAGI 3.2 Sections 9 and 10, applicable to all licensed racecourses, an annual agronomy audit had been carried out at Aintree prior to the running of the 2011 Grand National. The audit had been carried out during January/February 2011 by

⁴ www.britishhorseracing.com/resources/media/publications_and_reports

Professional Sportsturf Design (NW) Ltd (PSD) a major Sportsturf consultancy. The audit report was considered by Review Group members and they were reassured by the audit's conclusions, including that:

“an appropriate range of machinery/equipment continues to be available for routine maintenance and renovation works, although this is continually reviewed and replacements and/or additions made as necessary”,

and that

“an effective maintenance programme [had been] implemented during 2010.”⁵

- I.6 In terms of raceday management of the Grand National course racing surface, the Aintree Executive also utilise a team of 50 casual staff to “tread” or smooth the surface back in immediately (i.e. starting as soon as the last runner has passed by them) after each race on the course during the three-day Grand National meeting. This helps ensure that the surface remains level by the time the Grand National itself is run on the final day of the meeting.

Visits by the Authority's Course Inspector

- I.7 All racecourses are required to be licensed by the Authority, with a licence being valid for twelve months from 1st January. The Authority employs four Inspectors of Courses (all ex-jockeys with further training and experience in ground management) to visit all racecourses, submit reports and ensure each venue continues to meet or exceed the prescribed standards laid down in the BHAGIs. Meeting these prescribed standards is the key requirement to racecourses continuing to be licensed by the Authority.
- I.8 The Northern Inspector of Courses visited Aintree on three occasions in the immediate run-up to the 2011 Grand National Meeting, and his reports identified no problems whatsoever with the condition of the racing surface. The report of 4th April 2011 stated that “as usual the course is looking in great condition”.
- Feedback during the 2011 Grand National Meeting**
- I.9 Two Authority Inspectors of Courses, the Authority's Director of Raceday Operations and Head of Racecourse were in attendance throughout the 2011 Meeting, and walked all tracks regularly during the course of the three days. The Chairman of the Raceday Stewards' Panel also walked the track each day accompanied by the racecourse's Clerk of the Course.
- I.10 At no stage during the Meeting was negative feedback received from any party on the condition of the Grand National course's racing surface. This includes the RSPCA's Equine Consultant who, as usual, walked the course before the Meeting. The Northern Course Inspector's Meeting Debrief report also states that “*The ground was near perfect jumping ground for the entire Meeting*”. In addition, at the subsequent consultation meetings held during this Review with NTF/trainers and PJA/jockeys there were no adverse comments on the condition of the course.
- I.11 Consequently, in light of all of the above, the Review Group is wholly satisfied that the general condition of the racing surface was not at all a contributing factor to the

⁵ 1. MK Harbridge 2011 PSD (NW) Ltd

two equine fatalities that occurred in the 2011 Grand National.

The Official Going - Background

1.12 BHAGI 3.2 Para 21 highlights the official terminology to be used by Clerks of the Course when describing the prevailing Going – or degree of penetration or “softness” – of the course. These are Hard; Firm; Good to Firm; Good; Good to Soft; Soft; Heavy. Hard Going (i.e. impenetrable ground) is not permitted in Jump racing and is only very rarely seen in Flat racing. For Jump racing fixtures, racecourses are required by the Authority to aim to produce Good Going. This is because there is a clear link in Jump racing between increased equine injuries and racing on a surface at the firmer end of the Going range. (See Annex A).

Aintree’s Irrigation System

1.13 In terms of watering the Grand National course to ensure that conditions at the firmer end of the Going scale are avoided, the scope of Aintree’s current irrigation system was considered by the Review Group. The ring main flow rate, pumps and bore holes abstraction rate, coupled with the use of irrigation booms, jet rain gun and pop up sprinklers to apply the water, make for an overall system able to guarantee Good Going on the Grand National course even in warm weather conditions. A new boom and pop up sprinklers for the home straight were also purchased for 2010/11.

1.14 Feedback from the Inspector of Courses, Clerk of the Course and the latest PSD agronomy audit indicated that the course’s system is very much in line with best sportsturf management practice, and fully able to consistently apply the amounts of water stipulated in BHAGI 3.2 Para 11b.

The Official Going Description for the 2011 Grand National

1.15 The official Going description for the Grand National course before the running of the 2011 Grand National was given as “Good, Good to Soft in Places” by the Clerk of the Course. On the previous two days the description had been “Soft (Good to Soft in places)” and “Good (Good to Soft in places)” respectively.

1.16 On racedays all racecourses also provide GoingStick readings⁶ to complement their official description of the Going. The GoingStick is a turf management tool, which objectively measures the Going. The reading (on a scale of 0-15, with 15 being the firmest extreme) for Grand National day was 7.3. These readings are course-specific and this figure on Aintree’s Grand National course reflects historical data for Going no firmer than Good.

1.17 2011 Grand National day was a drying day with temperatures rising to 19°C at 4pm (just before the Grand National was run) and a windspeed of 7kph. There was no feedback or comment from participants, Stewards or other Officials on the day suggesting that the Going description was incorrect and should be changed. The overall winning time of the race – 9 minutes 1.00 secs – was subsequently calculated by the Racing Post’s speed formula as 12.8 seconds faster than the race “Standard”. Indeed, it was the third fastest time ever recorded for the race. This is likely to be in part due to the bypassing of two fences during the 2011 race for the first time ever (see Chapter Four) as well as the fact that horses are often likely to run faster on optimum ground conditions as they can properly

⁶ www.britishhorseracing.com/resources/racecourse/goings/tick.asp

stride out without feeling any undue track firmness.

- I.18 The Review Group ultimately feels that whilst the drying weather inevitably meant that the Going would have quickened since the final official description was published on Grand National day, it did not do so to the extent that the description should have been altered to, for instance, Good (Good to Firm places) by the start time of the Grand National itself. The Group believes the Going description was correct, and that the Going was not too firm.

The Policy of Producing Good Going for the Grand National

- I.19 Satisfied that essentially Good Going was again provided by Aintree this year, the Review Group has also considered whether aiming to provide even softer Going than Good is more appropriate for a unique race like the Grand National, and would help minimise equine injuries.
- I.20 As mentioned above, the data set is essentially small from a statistical perspective, and should therefore be treated with a degree of caution. However, the Group did note that over the past 25 years Aintree had a commendable record in avoiding firmer Going and had successfully produced Good or softer Going on 24 occasions, the exception being 1990 (Firm ground-when the course did not possess a watering system). Of those 24 races, thirteen were run on fundamentally Good Going and seven were staged on Good to Soft. Noticeably, the equine fatality rate in the races run on Good was 2.25% (11 from 489 runners), and 0.71% (2 from 280 runners) in those run on Good to Soft. (See Annex B).
- I.21 Clearly, there are a wide range of factors – including very many totally unrelated to the racecourse – that can result or combine to result in an equine fatality during a race. Most of the incidents mentioned in I.20 above were as a result of falls at fences. The Review Group discussed the Going provided at the 2011 Grand National at the trainers and jockeys consultation meetings. Both were complimentary and the latter in particular were adamant that the Good Going was not at all a factor in either of the two equine fatalities.
- I.22 Furthermore, members of the trainers' delegation were quick to point out that an unintended consequence of deliberately producing Going a lot softer than Good in the Grand National could easily result in creating more stamina sapping conditions. The effort needed to jump out of this sort of Going would effectively increase the height of the obstacles and exacerbate the onset of fatigue. This would lead to more jumping mistakes in the later stages of the race. The Review Group acknowledged that very fast conditions should always be avoided, as should deliberately watering to produce very soft Going.
- I.23 Mindful of the fatal injury data pattern over the past 25 years and yet conscious that, at 4 1/2 miles long, the Grand National is already a challenging race requiring stamina and endurance, the Review Group believes that the Aintree Executive should continue with its existing policy of guaranteeing Going no firmer than Good. But in doing so it should also aim to provide Going on the slightly softer (i.e. slower) side of that for future Grand Nationals. This typically means Going between Good and Good to Soft by the time the race starts.

- 1.24 The Review Group does not consider this to be a major step change but nevertheless believes it can have a worthwhile effect in delaying any quickening of the ground in drying raceday conditions. It is important to remember, however, that softer Going cannot guarantee fewer equine injuries on a race by race basis. The last formal review of the Grand National was carried out in 1998 after three fatal equine injuries. That year the race was run on Heavy Going. However, the five runnings of the 1990+ Grand Nationals staged on Good to Soft going have resulted in a lower than average number of fallers/unseated riders (11.6 horses per race) when compared to all the other Going descriptions the race has been staged on. The average for Good Going is 15.25 fallers/unseats per race. (See Annex C).

Recommendation 1:

- 1.25 The Aintree Executive should aim to provide Going between Good and Good to Soft for the Grand National, whilst continuing to guarantee Going no firmer than Good.
- 1.26 In light of additional faller and unseated rider data that is referenced in the next two Chapters of this Report, a further Going and irrigation-related Recommendation is also made in Chapter Three with regard to the initial speed of the Grand National (see Chapter 3.21).



Chapter Two

Fences



Figure 1: The Aintree Grand National Course

The Unique Nature of the Grand National Course Fences

- 2.1 The sixteen individual Grand National course fences at Aintree are unique in Racing. They present a challenge to every horse and jockey and a total of 30 fences have to be jumped for the partnership to complete the course.
- 2.2 Coupled with the distance and competitiveness of the race, it is perhaps not surprising that the horse faller percentage for the Grand National is higher than elsewhere. Since 2000, it averages 28.39% fallers, compared to 21.48% for the other four races staged on the Grand National circuit. (See Annex D).

Fence Height and Materials

- 2.3 Traditional Steeplechase fences on all other British licensed racecourses (including on Aintree's Mildmay course) are a minimum of 4ft 6ins in height with the horse jumping over birch that has been set into a lower frame and rounded off at the top. On the take-off side they ordinarily include a take-off board at ground level to facilitate sight lines, as well as a padded "guard rail" approximately half way up the fence height. This ensures that the apron of birch or spruce is kept in place. (See BHAGI 3.5 Paras 4-5).
- 2.4 The Grand National fences are measured before the three-day Spring meeting and

vary in height from Foinavon at 4ft 6ins high to The Chair at 5ft 2ins. The construction of the fences consists of a continuous centre of clustered rounded timber posts (on average 3ft 6ins high) driven into the ground to form an internal “frame”, and covered with rubber padding material for protection. The core heights vary depending on the overall height of each fence. All of this is then dressed manually with fresh spruce up to the finished height. This soft spruce is displaced quite easily by the runners as they jump the fences, so fence attendants are on hand to replace the fallen material prior to the obstacle being jumped again.

- 2.5 Uniquely, when compared to birch-filled fences, supplies of fresh spruce are added by hand to all the fences ahead of each successive day of the Grand National Meeting. This ensures the fences are presented in excellent condition on each day. The fence heights are not remeasured after this application of fresh spruce and the Review Group believes that this should be carried out as a final check between races.

Take-Off Boards

- 2.6 The orange-painted take-off boards on the Grand National course obstacles are not dissimilar in construction to those at all other licensed racecourses. However, following site visits since the 2011 Grand National, the Authority’s Course Inspectorate and Aintree’s Clerk of the Course agree that the height of the take-off boards should be raised to fourteen inches (from nine-ten inches) to provide a clearly visible ground line to assist the runners in determining the base of the fence.

Take-Off/Landing Areas

- 2.7 Another unique aspect of the Grand National course fences is that virtually all of the obstacles have a “drop” to some degree when measuring the height difference between the ground level at the take-off area and the ground level on the (lower) landing side of the obstacle. The professional survey work carried out since this year’s race shows that fourteen of the sixteen fences have an average drop of over four inches, when measured at five metre intervals across the width of the landing area, with the biggest being at Becher’s Brook (thirteen inches).
- 2.8 All landing side measurements were taken at five metre intervals from the inner to the outer of the fence on the other side of the course. It is possible that a fence with a significant drop on the landing side can increase the likelihood of jockey and horse parting company due to the steeper trajectory at which the horse may land having negotiated the obstacle. The Review Group wanted to establish to what extent, if any, this might apply to the Grand National fences.

Ground Levels on Fence Landing Sides

- 2.9 As well as considering the data on landing side drops, the Review Group also received feedback from the Authority’s Course Inspectorate and Aintree Racecourse on the consistency of the levels (or “flatness”) of the fence landings.
- 2.10 Whilst generally consistent across the used width of each fence (i.e. parts of the outside width of the fence are only rarely jumped as runners stick to the inside/middle of the racing circuit), there was consensus that enhancements could be made in places to Fence I (i.e. the first

fence jumped in the Grand National) to ensure a consistently level landing area.

Review of TV Footage of all Faller/ Unseated Riders/ Brought Downs

2.11 In conjunction with the data generated by the surveying of all the Grand National course fences, and information provided by the Authority's Inspectorate after their site meetings with the Aintree Executive, members of the Review Group analysed national broadcast and integrity footage of all professional races run on the course since 2000 (at least four integrity cameras are in place for every race at every British racecourse and provide different angles for the raceday Stewards and Authority personnel to review).

2.12 The purpose of this exercise was principally to establish whether any incidents or method of fall were consistent with any particular fence or area on the course. However, the exercise also proved to be extremely worthwhile in terms of looking at the pace of previous Grand Nationals (see Chapter Three) as well as analysing whether the "Safety Factor" should be decreased in the Official Race Conditions (see Chapter Six).

2.13 It was apparent from the footage that there was a recurring type of fall at two

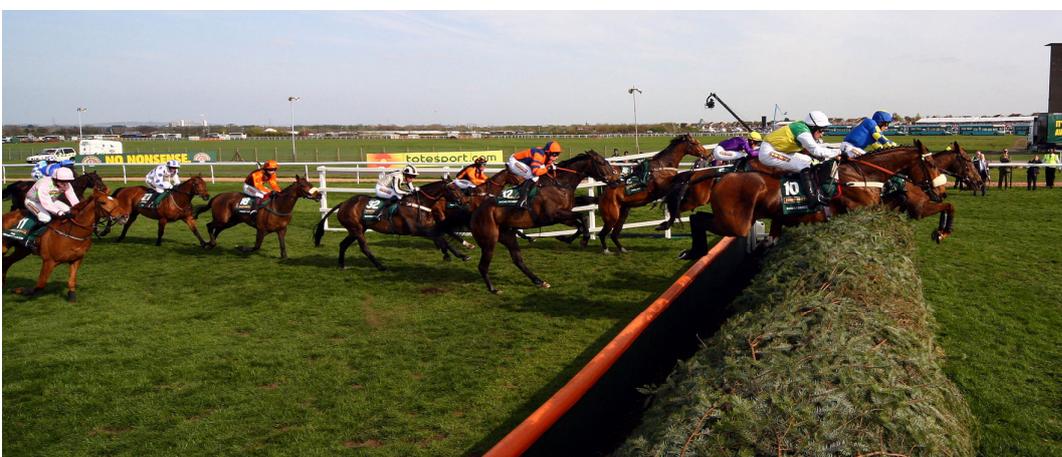
particular fences. At Fence 1, where in very recent times there have actually been few Grand National fallers (three in the past five years), those horses that fell had a tendency to overjump the obstacle and crumple on landing some distance further away from where horses would usually be expected to land. The same manner of landing was not apparent when the runners jumped the fence on the second circuit, as the seventeenth fence of the race. (This is evaluated in more detail in Chapter Three).

2.14 At Becher's Brook (i.e. Fence 6 and 22) - the obstacle with the biggest drop on the landing side - the clear reason for most jockeys and horses parting company involved the horse being angled by the rider from a position opposite the middle of the fence towards the inner at take-off and either:

- making a mistake and taking a very steep or rotational landing trajectory with the jockey often landing feet first, or;
- jumping the fence well but nodding on landing and falling or unseating the jockey whilst sliding to a halt along the ground.

Fallers Data by Fence

2.15 Alongside the consideration of the detailed fence construction data, the survey work on the levels and drops, and the analysis of broadcast footage, the Review Group looked at the fence by fence faller/ unseated/brought down statistics since 1990, provided by Aintree, to identify any potential hotspots where horse and jockey



parted company in the Grand National. (See Annex E).

- 2.16 The three fences with the most fallers since 1990 were Fence 1, Becher's Brook (Fence 6) and Fence 4 with respectively 21.6%, 21.1% and 12.6% of the 190 falls across the 21 runnings during that time. Cumulatively, this is well over half of all falls in the race during that period. The Canal Turn, Valentines and the Chair accounted for only sixteen of the 190 falls (albeit the latter is only jumped once). Furthermore, in the case of Fence 4, the first "full height" (i.e. 5ft) plain fence encountered in the Grand National, there have been four fatal injuries out of the 32 combined falls/unseats/brought downs at that obstacle since 1990 – a much higher ratio than any other fence.

Clustering of Falls

- 2.17 The fence-by-fence Grand National faller data since 1990 also highlighted that one particular phase of the race, the first 1 minute 35 secs up to and including jumping Becher's Brook (Fence 6), accounts for over 53% of all falls in the race and 28% of unseated riders.
- 2.18 Furthermore, Fence 1 appears to exhibit a particular trait inasmuch as when it is jumped as the very first fence in the race its rates of 21.6% of all falls and 8.1% of all unseats compare with 0% for both categories when it is jumped on the second circuit (Fence 17). Clearly, a significant number of runners will not set out on the second circuit having already fallen or pulled up but the Review Group believes it is still a striking comparison and feels that it can at least in part be explained by the fact that most of the runners will never have seen an obstacle like a Grand National fence before. On that basis, it supports a proposal made by

the Aintree Executive that they seek to construct an Aintree-style fence at each of the major training centres and encourage trainers to school their runners over it. This approach was previously adopted after the last major regulatory review of the Grand National in 1998. But there is a need to re-invigorate this practice.

- 2.19 Reinforcing the possibility of a "first fence jumped" trend is the fact that the 1990 – 2011 Topham races (run on day two of the three-day Grand National Meeting over a distance of 2 miles 5 1/2 furlongs) has produced eighteen fallers at the first in the Topham (i.e. Fence 13 of the Grand National course) out of 112 in total and yet Fence 13 is not at all a higher risk fence when jumped in the Grand National. Similarly, Fence 1 on the Grand National course – which is jumped as the fifth fence in the Topham – has had no falls or unseated riders whatsoever in the Topham since 1990. The specific higher risk implications associated with "jumping the first" are assessed in greater detail in Chapter Three.
- 2.20 Of further interest to the Review Group when looking at the Topham faller/unseated data is that the Grand National Fence 4 and Becher's (in particular) again demonstrate faller and unseat percentages that are higher than all but the first in The Topham, i.e. Fence 13 in the Grand National. This is despite the fact that they are jumped as the 8th and 10th Fences respectively in the Topham.

Feedback on Fences from Welfare Organisations

- 2.21 Fence construction and their take-offs and landings are clearly important factors in managing risk on any course and the equine welfare organisations provided

Aintree-specific feedback to the Review Group in these areas.

- 2.22 There was acknowledgement that much had been done to seek to improve the presentation of the fences to the horses and jockeys to make the fences more “inviting” without altering the ethos of the race. However, the obstacles remained as challenging as before and it was felt that any notion that the obstacles had become “too easy” over time was wrong. In terms of fence construction, one of the organisations suggested that the rubber padded timber cores of each obstacle be reviewed as part of a programme of future changes. The Aintree Executive is already further researching this aspect of the fence design. (See 2.30).
- 2.23 In relation to fence landings with more pronounced drops, the organisations were also generally of the view that if the faller/injury rates at fences such as Becher’s Brook or Valentine’s are shown to be higher than the other fences then modifications to reduce the drops there should occur.

Feedback on Fences from Jockeys and Trainers

- 2.24 Jockey feedback from the consultation sessions essentially stated that all the Grand National fences looked and rode well, and that very little, if anything, needed to be changed. When presented by Review Group members with a) the faller statistics for Fences 1, 4 and Becher’s (Fence 6) and b) options for change, the jockeys acknowledged the logic of exploring a possible reduction in the effective drop of these obstacles as they were clearly amongst the fences with the highest faller rates.

- 2.25 Jockeys believed that if the landing side of Becher’s Brook was to be raised, it should be carried out in such a way that the current lateral profile – which slopes towards the inside rail – should still be retained. They stated that this ensured runners stayed off the very inside line and therefore had a better running line towards the next fence (Foinavon). The jockeys were also of the view that most horses running in the Grand National would never have schooled over an Aintree-style fence.

- 2.26 Most of the trainers consulted also supported a reduction in the effective drop of those fences with the greatest drops and highest faller rates. Some of the trainers believed that if the landing side of Becher’s Brook was to be raised, the landing side should also be consistently level across the whole width of fence.

- 2.27 Both participant groups supported the levelling of two slight hollows on the landing side of Fence 1 when this was mentioned to them. They also agreed that the “core to spruce” height ratio at every obstacle should remain consistent around the course.

Recommendations

- 2.28 On the basis of:

- multiple site meetings between the Aintree Executive and the Authority’s Inspectorate;
- statistical and TV analysis of fallers; and
- participant and welfare organisation feedback

the Review Group approved the following Grand National course fence-related recommendations. The vast majority of these were explained to the Media in mid-August by the Aintree Executive in

conjunction with the Authority and are currently being actioned to optimise recovery of the groundworks ahead of racing on the course in December.

Recommendation 2:

2.29 Groundworks are needed on the landing side of Fence 1 (also the seventeenth) to provide a level surface.

Recommendation 3:

2.30 Fence 4 (also the 20th) to be reduced in height by 2ins to 4ft 10ins so that it is more in keeping with the plain fences already jumped and will ensure that a consistent “core to spruce” height ratio will be maintained. The faller/injury ratio to continue to be closely monitored post-change.

Recommendation 4:

2.31 The landing side of Fence 6 (Becher’s Brook, also the 22nd) to be re-profiled to reduce the drop by 4-5ins across the width of the fence. This will reduce the drop to 10ins approx on the inner line and 6ins approx on the outer.

2.32 The Review Group and Aintree Executive did consider a more widespread reduction to the drops on the fence landings on the Grand National course. However, in keeping with the ethos of retaining the uniqueness of the Grand National course if there is no clear reason to change it, they decided that the most balanced approach was to address the fences with the greatest drops and high faller rates. Virtually all the fences will therefore still retain their historical degree of drop, as their faller statistics do not indicate a need to reduce them further.

Recommendation 5:

2.33 The height of the take-off boards on all Grand National course fences to be raised to 14ins high (from 9-10 inches), to ensure a clear ground line of sight as the obstacle is approached.

Recommendation 6:

2.34 In view of the unique way in which the fences have to be “(re)dressed” with new spruce – and whilst acknowledging that a good post-race refurbishment process is in place – all Grand National course fences to be remeasured by the Clerk of the Course before each race in which they are to be jumped, rather than only doing so before the three-day fixture starts.

Recommendation 7:

2.35 Further support should be provided to the Aintree Executive’s proactive and ongoing three-year Research and Development programme into the possibility of:

- utilising materials other than the existing timber and protective rubber padding that make up the central frame of each obstacle; and
- reshaping the central frame structure design.

The Authority’s Course Inspectorate should be kept apprised of this work.

Recommendation 8:

2.36 In view of the unique fence design of the Grand National fences, the Aintree Executive shall again liaise with all major Jump training centres to develop the construction and encourage the use of a well maintained Aintree-style schooling fence for trainers to use at each centre.

Chapter Three

Start Process and Initial Race Speed

Introduction

3.1 The Review Group wanted to consider:

- what aspects, if any, of the procedures at the start of the Grand National should be improved to enhance safety and welfare; and
- whether the pace of the first part of the race was too fast and, if so, how it could be reduced to improve participant safety.

Starting the Grand National

3.2 The Grand National is started by one of the Authority's Starters. The Starter is to remain on the rostrum during the proceedings. He is supported by three other Authority Starters who manage the organisation of the participants on the ground and check girths. The process is complemented by an additional dedicated integrity camera at the start in the event that any potential incidents of jockeys not complying with the Starter or start-related Rules (e.g. "charging" the starting tape) can be recorded and raised with the raceday Stewards.⁷ Three Advance Flag Operators are supplied by the racecourse and wear/carry specific equipment to alert the runners in the event of a false start. Markers and a white line are set up to indicate a "no-go" zone so that horses do not get their heads on the starting tape.

3.3 All riders in the Grand National receive a text message from the Authority during

⁷ www.britishhorseracing.com/resources/media/rules.asp

the three-day Spring meeting, and a briefing session for them is held by Aintree and the Authority in the changing room before the race itself. Riders are reminded that the Grand National is a worldwide event and their responsibilities under the Rules of Racing are reiterated. In the run up to the Meeting, overseas jockeys are reminded of the Authority's Jump racing start procedures (Manual (B) Schedule 5 of the Rules of Racing) through their Turf Authority and representative body.

Participant Feedback on the Start

3.4 At the Review Group's consultation meeting with the jockeys, they reported that the methodology for starting the Grand National was good and they did not believe there was any need to change it. However, they all agreed that the horses should be on course at the start for as short a time as possible after the official Parade had taken place (see also Chapter Six regarding the Official Race Conditions).

3.5 The jockeys also felt that no change was needed to the current arrangements for staging the pre-race briefing. Neither did they believe it was necessary for first-time jockeys in the Grand National to receive a special briefing, when that suggestion was put to them. They believed that any such jockey would actively seek the views of experienced jockeys.

3.6 Feedback from the trainers consulted suggested there were no issues with the procedures for horses once at the start.

However, they were keen to point out that other pre-race procedures could feasibly impact on some of the horses in warm weather. The period of time during which the horses were saddled could be over one hour (sometimes with blinkers or tongue ties fitted). The trainers suggested that the Pre-Race Parade might be shortened in warmer conditions by letting the horses hack down to the Chair in any order, rather than walk in front of the stands in racecard order. (See also Chapter Six).

- 3.7 The trainers were also of the opinion that the racecourse needed to improve Parade Ring control prior to the horses walking out onto the track before the start of the Grand National. Whilst the Parade Ring meets the Authority's "minimum distance per horse" safety criterion in BHAGI 8.4 for the 40 runners in the Grand National, trainers felt it was currently difficult for the horses to be walked around the Parade Ring without regular stop/starting due to people crossing the walkway. Furthermore, they believed the actual mounting process took too long and is not desirable in horses that may be in an excited state prior to a race, especially if temperatures are relatively warm.

Location of the Start

- 3.8 The Grand National start position was firstly considered by the Review Group in relation to its general appropriateness to accommodate the maximum field size of 40 runners. There was no suggestion from any of the participants consulted that the physical size of the start area negatively impacted on fairness or the welfare of the runners. It was noted, however, that the proximity and nature of the grandstands at Aintree contributed to high crowd noise levels as the runners approached the starting tape or if there was any perceived delay. By extension, the position of the start was also considered in relation to whether the initial pace of the race was a contributing factor to falls or injuries.

Initial Race Speed

- 3.9 The Review Group considered the early speed of the Grand National in some detail in view of the fact that the faller statistics from 1990 onwards mentioned previously in 2.14 showed that the majority of falls occurred by the time that Becher's Brook (Fence 6) had been negotiated on the first circuit.

- 3.10 Furthermore, the uniquely long run of 420 yards to the first fence – coupled with its higher than normal percentage of fallers (albeit less in recent years), many of which fell by over-jumping the obstacle – appears to indicate that speed is a risk factor in the early stages of the Grand National.

Split Timing Analysis

- 3.11 2000 – 2011 split timings data to each of the first ten fences was compiled for the Review Group (See Annex F) with a view to establishing whether there was any clear correlation between the Going,



early pace of the race and the number of early fallers/injuries. However no such clear correlation appears to exist across the relatively small sample size of twelve races.

- 3.12 For instance, the fastest run to the first fence in the data set was 27.44secs in 2000 on Good Going. This resulted in five fallers. Yet the third slowest run to the first (in 2002: 29.00secs, also on Good Going) resulted in eight fallers and one unseated rider. Similarly, the 2000 Grand National was the fastest (of the twelve assessed) to Becher's Brook and by the time that obstacle had been jumped there had been ten fallers; the 2002 running remained the third slowest to Becher's but it too had seen ten fallers and two unseats after that fence. Of the twelve races, the 2011 race holds a middling position of being the fifth slowest to the first and the fifth fastest to Becher's Brook. In the 2000-2011 period the two renewals (2003 and 2005) with the least fallers/unseats up to and including Becher's Brook were, respectively, the seventh and fourth fastest to reach the fence. Clear correlations between early speed and the Going and/or fallers are therefore not apparent.
- 3.13 However, the Review Group supports the Aintree Executive's plan to investigate the introduction of even more irrigation capability along the section of the Grand National course from the Melling Road to Becher's Brook. The flexibility of being able to apply extra targeted irrigation to soften or slow down the ground, can only be a positive measure.
- 3.14 Notwithstanding the lack of clear statistical correlation between early speed and number of early fallers, the Review Group is still of the opinion – having reviewed the TV footage of all Grand

Nationals from 2000 and listened to participant feedback – that the pace over the initial fences in the race is certainly faster than in any routine long-distance Steeplechase over traditional birch fences. This pace appeared to be maintained up to and including the jumping of Becher's Brook (Fence 6).

- 3.15 The Review Group and Aintree Executive concluded that more specific sectional timing research would be helpful in this area to fully understand the effects of early speed on the number of finishers in the race. The Group supports Aintree's plan to investigate the possible use of speed and positioning technology (i.e. sectional timing equipment carried in the number cloth of every runner) to track the speed of all runners in future. This would improve statistical analysis of the pace of the race so that any correlations can be drawn from the data.
- 3.16 Currently, the Group can only make a subjective judgement on the basis of a) fairly basic split time data and b) TV footage – that the over-jumping falls at the first fence and high faller rate up to and including Becher's Brook are due solely to the faster early pace of the Grand National in general when compared to more "routine" staying Steeplechases on other British licensed racecourses.

Options for Managing Initial Race Speed

- 3.17 In the meantime, the Review Group still wished to consider whether there were options that could be implemented now to materially reduce the initial speed. These were discussed with the sport's participants.

Reducing the Run to the current First Fence

- 3.18 The possibility of reducing the run to the existing first fence by bringing forward the start position found no support whatsoever from the jockeys consulted. They believed that to have any effect the start would need to be approximately 110yds from the first fence and this would result in less time for all the runners to find room before the obstacle. They felt that this could have the unintended consequence of increasing the number of incidents at the first fence. Some of the jockeys also felt that the pace would just rise soon after jumping the first if the run to it were reduced. They also pointed out that few runners are ever being vigorously ridden or pushed along “off the bridle”⁸ as they approach the first fence.
- 3.19 The majority of trainers consulted believed the start position should remain unchanged. However, there was some support for reducing the distance to the first fence on the basis that this approach was adopted in the Topham Chase from 2005 when the run to the first fence from its then two miles six furlongs start was reduced by half a furlong. There have been four fallers and just one unseated rider at the first fence in the subsequent seven renewals of the Topham Chase from the new start. Albeit it is probably too early to conclude statistically that this improvement is purely due to the new start position. The trainers also believed that the jockeys had a responsibility to ride the Grand National sensibly at a maintainable gallop and that this should be emphasised at their pre-race briefing.
- 3.20 The members of the Authority’s Course Inspectorate within the Review Group have reservations as to where a substantively shortened start position could be suitably located. Therefore, they did not support a reduced run to the first fence from 2012. Similarly, they do not believe there is real scope to significantly and safely bring forward Fence 1 towards the current start location, due mainly to the position of the Melling Road. Neither of the participant groups had supported that option when consulted.
- 3.21 The concept of an additional, smaller (but still Aintree-style) fence between the current start position and first fence was also discussed with the participant groups and within the Review Group. This was considered on the basis that it could help to decrease initial speed and then be removed ahead of the runners returning on the second circuit. The idea of a “sighter” fence was not supported, however, with most consultees believing it would simply increase the fundamental level of risk by effectively creating a 31st fence to negotiate, as well as provide less time for the jockeys to find racing room. Course topography also ruled out this option.
- 3.22 The Review Group was not able to conclude whether the relatively “normal” (by 2000–2011 standards) early pace down to Becher’s Brook of this year’s Grand National contributed specifically to the fatal falls of Ornaïs (FR) and Dooneys Gate (IRE). The former was in rear on the outer when falling at Fence 4; the latter held a relatively prominent position when essentially failing to take off at Becher’s Brook (Fence 6), ran into the obstacle and had a rotational fall. Neither of the two horses was unsighted or crowded when jumping the fences in question.

⁸<http://www.lovetheaces.com/new-to-racing-/jargon-buster>

3.23 Initial race pace is an important factor and the Authority shall support Aintree's proposed investigation into the use of speed and positioning technology (i.e. sectional timing equipment carried in the number cloth of every runner) to track the speed of all runners in future.

Recommendation 10:

3.24 Whilst the possibility of bringing the current first fence closer to the current start position (or vice versa) found little support amongst the participant groups and brings with it practical challenges and potentially unintended consequences, both options should remain under close consideration beyond 2012. The impact of the new changes to Fences 1, 4 and 6 (Becher's Brook) in Chapter Two should dictate whether the start/first fence dynamic still needs to be altered in future.

Recommendation 11:

3.25 The Aintree Executive should investigate the feasibility of introducing additional irrigation capability to the section of the Grand National course running from the start along to Becher's Brook. As long as irrigation is applied judiciously, with a view to providing Going just on the softer side of Good, there is no downside to seeking to implement an even more flexible watering capability along the part of the track where the majority of falls occur.

Recommendation 12:

3.26 Pre-race logistical management of the Parade Ring should be improved by Aintree to ensure the horses remain as relaxed as possible with no undue delay to the mounting process and entrance onto the course.

Recommendation 13:

3.27 The pre-race joint Aintree/Authority briefing for jockeys in the Grand National

should be reviewed before the 2012 race to ensure attendance and awareness of responsibilities, particularly their critical role in setting the initial pace of the race. As part of that review, staging the briefing before racing starts, and away from the weighing room complex, is recommended by the Group.



Chapter Four

In-Race Procedures

Introduction

4.1 The Review Group considered a number of the key procedures that can be enacted during a Jumps race and assessed their safety/welfare impact when implemented on the Grand National course, and in particular during the Grand National.

Fence Bypassing – Background

4.2 Prior to the introduction of bypassing in Great Britain, the runners were directed by cones, fence attendants and fence markers to a specific portion of the fence as far away as possible from the incident. In other words, the fence still had to be jumped. There were no dedicated run-through routes and the risk of further fallers or horses landing very close to a “patient” undergoing treatment was much increased.

4.3 The process for the bypassing of a fence (or indeed a hurdle) in the event of an emergency or injury is explained in BHAGI 3.7. Bypassing was made mandatory in 1995/96 after a successful trial in Point to Point races. The fundamental point of bypassing is safety-driven in that it enables Emergency Services to treat human or equine injuries in a safer “exclusion zone” – normally the landing side of a fence or hurdle – whilst the runners coming around on subsequent circuit(s) are directed to a run-through area to the side of the obstacle.

Situation at Aintree

4.4 Until 2010 the Grand National course at Aintree was the only course that had a

dispensation not to use the bypassing protocol and instead retained the sort of patient-avoidance approach outlined in Para 4.2 above. The regulator had historically provided this dispensation on the basis that the Grand National fences extended across the full width of the racing surface. They were deemed to be of sufficient width to be jumped even if treatment was taking place on the other side of the obstacle.

4.5 However, from 2010, the Aintree Executive made alterations to the Grand National course fences so that every obstacle now has a dedicated run through to be used in the event of any major incident or case of ongoing Medical/Veterinary treatment.

4.6 The bypassing procedures were not needed during the running of the 2010 Grand National but in view of the injuries to Ornais (FR) and Dooneys Gate (IRE) Fences 4 and 6 (Becher’s Brook) were bypassed in this year’s Grand National. The bypass process itself worked extremely well. It involved a radio order from the Clerk of the Course to trained fence attendants, groundstaff and an Authority Course Inspector; all supplied with colour-coded flags and other equipment to ensure the jockeys knew that the obstacles were not to be jumped. No jockey was in any doubt and every horse/jockey partnership galloped seamlessly through the run-throughs. One loose horse did in fact jump Fence 4 (i.e. the twentieth fence, that was to be

bypassed on the second circuit). Consequently the Review Group believes the standard equipment used on all racecourses for bypassing needs to be tailored to the unique Aintree fences, or augmented.

Reaction to Bypassing Procedures in 2011 Grand National

4.7 The Review Group was aware that after the events at Aintree this year some quarters of the racing industry felt that fence bypassing should not have been introduced on the Grand National course and that the old procedures should have been retained. Consequently, the Group explored this with the participants and welfare organisations.

Participants' View on Aintree Bypassing

4.8 Several of the trainers consulted believed that injured humans or horses should be withdrawn from the racing surface wherever possible in the requisite emergency vehicles, so that the fences could be jumped as usual rather than use the bypassing procedure. This concept was supported by a number of jockeys at their consultation session. Failing that, one of the jockeys also suggested that a dual avoidance system should operate at Aintree i.e. different signals to indicate either a bypass or the jumping of a portion of the fence, depending on where on the course any injuries were being treated. However, this was not supported by his colleagues or the Review Group.

4.9 The reasoning behind this apparent reluctance amongst some of the participants to support the bypassing procedures – introduced to enhance jockey and horse welfare – seemed to be based on the knock-on televisual effect that was created in 2011 as the runners passed Fences 4 and 6 on the second

circuit with the two equine fatalities evident from the BBC broadcast camera coverage. This had been particularly evident at Fence 4 where the screens (erected at every racecourse as standard to shield injured jockeys or horses in line with BHAGI 12.2) were dismantled prematurely at the request of one of the Racecourse's Veterinary Surgeons, properly concerned at the time about staff safety, contrary to the plans of the Aintree Executive.

Welfare Organisations' Response

4.10 The welfare organisations' response to the introduction of standard fence bypassing on the Grand National course was an extremely positive one and they applauded the initiative. The on-course Veterinary Surgeons have time for diagnostic decisions and can work in a more secure environment. The bypassing run-throughs were also seen as having the added benefit of providing "run-out" routes for loose horses that might otherwise continue riderless and jump the fences, endangering themselves or other participants in the process.

Review Group's View

4.11 Having received feedback from the participant groups and welfare organisations and seen broadcast footage of the procedures in operation, the Review Group was firmly of the opinion that the bypassing of fence procedures must remain in place at Aintree.

Recommendation 14:

4.12 The standard equipment used in the bypassing procedure should be altered to cater for the particular needs of the Grand National Course, such that:

- the placing of direction markers in the unique Grand National fences needs to be

improved, or another object needs to be deployed on the take-off side, directly opposite any patient on the landing side to minimise the risk of a loose horse jumping the marker;

- the screening systems when jockey or horse are being treated at a fence and require greater privacy as the runners return on the next circuit need to be further improved.

Catching of Loose Horses – Background

4.13 There is no doubt that loose horses can be a major danger to themselves, other participants or even Emergency Service personnel or spectators at any race meeting. Since 1990, three horses (16% of the total) have died during or very shortly after the Grand National from injuries sustained whilst riderless. Furthermore, it is impossible to plan exactly for what a loose horse might do next. Consequently, it was important for the Review Group to clearly understand how riderless horses are managed by the Aintree Executive during the Grand National – particularly in the context of such a large footprint of flat land.

Arrangements for the Grand National

4.14 The Aintree Executive informed the Review Group that on Grand National day a team of around 30 local horsemen are allocated sectors of the course, which they patrol to catch loose horses during and after the race. The horsemen have a briefing/training session before the Meeting and most return to perform the role year on year. They have access to radio communication with the Clerk of the Course and Aintree’s groundstaff. This team of assistants (complemented by the 35 Fence Attendants on duty each day during the Grand National Meeting) supports members of the permanent Aintree groundstaff team, as well as other

racecourses’ groundstaff and the Authority’s Course Inspectors, who patrol the course in vehicles during and after the race.

4.15 In tandem with the above on-course contingent, the bypassing run-throughs (see Para 4.5 above) can now help reduce the possibility of riderless horses jumping fences and injuring themselves, or refusing at an obstacle and potentially starting to double back in the direction of the oncoming runners on their final circuit.

4.16 Additionally, a “catching pen”, created in 2009 and located beyond the Canal Turn fence, has also proven to be successful in corralling loose horses running on the Grand National course.

Consultee Feedback

4.17 Both participant delegations emphasised the importance of course personnel trying to catch loose horses as soon as possible. The principal welfare organisation message was that they supported any initiative (personnel-based or otherwise), that ensures loose horses are caught as soon as possible.

Review Group Consideration

4.18 The Review Group fully appreciates the difficulties of controlling a unique site like Aintree and trying to catch all the loose horses in a timely manner. Since 2000, on average eighteen horses part company with their jockey during the race. Many will stop immediately and be caught straight away by the jockey, fence attendant, or horse-catcher. However, some do not, and it is important that the Aintree Executive does everything it can in this vital area.

Recommendation 15:

4.19 The Aintree Executive should reassess the working practices, communication systems and deployment of its horse-catcher team to ensure an appropriate, targeted service continues to be provided.

Remounting

4.20 Closely allied to the topic of loose horses is the issue of remounting once horse and jockey have parted company. The Review Group explored concerns raised by some that the current Rule on Remounting could be having the unintended consequence of contributing to more loose horses.

Revised Rule on Remounting

4.21 In 2009/10, the Authority introduced Rule (B)46 on safety and welfare grounds banning the practice of a horse being remounted in-running to continue competitively in a race. This practice only occurred extremely rarely in Jump racing (usually in races with very few runners and where there was still the prospect of finishing placed). The Rule also ultimately prevented the jockey from simply getting back into the saddle and walking the horse back to the unsaddling area unless a Racecourse Veterinary Surgeon had inspected the horse first. (The jockey, under existing Rules, would have to see the Racecourse Medical Officer upon returning to the Weighing Room).

4.22 The Review Group considered the possibility - raised during the consultation process - that two consequences of the new Rule, and the need to find a Racecourse Veterinary Surgeon even before a rider could get back on the horse and walk it back to unsaddle, were that jockeys a) had no incentive to catch the horse or b) could be at more risk if they

led it back on foot whilst the runners came past again in close proximity.

Participant Feedback

4.23 The trainers were very supportive of any change to the existing Rule (B)46 to enable jockeys to remount and hack/walk a horse back to the unsaddling area without having to wait for a Racecourse Veterinary Surgeon. They believed this gave the jockey more ownership and incentive to catch/stay with the horse and did not impact upon the jockey's safety.

4.24 However, at the jockeys' consultation session, the attendees strongly refuted any suggestion that they would deliberately give up control of a riderless horse just because they were unable to remount the horse and hack it back unless a Racecourse Veterinary Surgeon had firstly checked it over. The jockeys also clarified that they had little or no preference as to whether they walked the horse back on foot or mounted.

Welfare Organisation Feedback

4.25 There was no reference or suggestion at all from the welfare organisations that Rule (B)46 had created an unintended consequence of causing more loose horses. Each organisation took the opportunity to reiterate that the ban on remounting to continue competitively in a race was correct.

4.26 Consequently, the Review Group concluded that there was no evidence to suggest that the current Remounting Rule contributed in any way to the number of loose horses in the Grand National, or any other Jump race, and therefore made no recommendation for change on remounting.

Chapter Five

Veterinary and Medical Services

Introduction

- 5.1 Making sure that the correct standard of Emergency Services and related facilities are provided is fundamental to any licensed racecourse staging a raceday. The level of provision, equipment and on-course rooms/treatment areas that must be provided are laid down in the Authority's BHA General Instructions 11 (Medical) and 12 (Veterinary). All these standards are inspected frequently by Authority personnel and racecourses are fined if there are deficiencies.
- 5.2 In line with its Terms of Reference the Review Group needed to understand Aintree's current Veterinary/Medical provisions and procedures, and identify whether further enhancements could be made – either in the specific context of the 2011 Grand National or in a wider sense, to the extensive arrangements already in place.

Veterinary

- 5.3 As well as feedback from participants and Welfare organisations, the Review Group has considered the detailed discussions that have taken place between the Aintree Executive and the Authority, assisted by a number of Veterinary Surgeons with expertise in attending Racing and other equestrian events.

Before the race – Operations Planning

- 5.4 In the weeks prior to the running of the Grand National, onsite planning meetings, chaired by Aintree's Clerk of the Course, are held with representatives of the

racecourse Veterinary team, the Authority's Veterinary Officers and Groundstaff. These meetings review issues arising from the previous year's running of the Grand National and implement incremental improvements to raceday Veterinary operations and other equine related matters. A number of separate role-specific onsite rehearsal sessions subsequently take place in the run up to the 3 day Fixture. The Review Group believes this process should culminate in a complete Emergency Services rehearsal day to refine procedures and replicate Grand National conditions as much as possible.

Recommendation 16:

- 5.5 Given the scale and complexity of – and interest in – the Grand National, as well as the changes that will result from this Review, the current onsite planning meetings and rehearsal event should be expanded for as many of the raceday Medical, Veterinary, groundstaff, Clerk of the Course and their support team, loose horse catchers and appropriate members of the Authority's staff as reasonably possible, before the 2012 Grand National. This should be repeated in future years.

Before the Race – Veterinary Input into Runner Suitability

- 5.6 As detailed in Chapter 6 Para 35, the Authority's Senior Veterinary Adviser should become a member of the Grand National Review Panel from 2011/12 and so contribute to ensuring that suitable

horses are entered for races on the Grand National Course.

On Raceday – Pre-race Inspection

5.7 Unlike on other racedays (other than the Cheltenham Festival) runners are subject to pre-race inspection on the day of their races at all three days of the Grand National meeting. This applies to specific horses running over Aintree's Mildmay course (as well as all runners in the three races over the Grand National Course – see 5.8 below). The categories currently inspected in Mildmay Course races are:

- Horses which have not run for a period of more than 250 days;
- Horses which are known to have sustained an injury on the occasion of their last run;
- Horses which have failed to complete the course on three of their last four runs;
- Horses which have run within the last four days;
- Horses which have fallen within the last seven days; and
- Other horses which the Authority's veterinary team select after consideration of the veterinary history and racing records of the declared runners.

5.8 In addition, all runners over the Grand National fences at the Spring meeting are inspected. This is included in the Official Race Conditions and Notices to trainers are published in the Racing Calendar in the weeks before the three day Meeting. The inspections consist of a brief physical examination and a trot up (in hand) and will be assessed in accordance with the Authority's Protocol.

5.9 The Review Group has not identified any reason to change the criteria for these inspections. However, whilst there has already been some limited and ad hoc media coverage of the pre-race inspections in previous years, the Review Group believes more positive and raised media awareness could be achieved in this area.

Recommendation 17:

5.10 The Authority and Aintree Executive should ensure that the existence and purpose of pre-race inspections is known to the broadcast and wider media. More information could be provided. (See also Chapter 6 paras 6.42-6.44).

Stableyard Access, Facilities and Security

5.11 A secure official stableyard is vital for the integrity of Racing. Access is controlled by the Authority's staff to manage the risk of interference with horses and to allow participants to prepare in a tranquil environment. Given the interest in the race, unlike other meetings, access control continues after the end of racing on Grand National day.

5.12 Under BHAGI 12 all racecourses must provide specific Veterinary treatment facilities. These facilities at Aintree are located within the stableyard and were rebuilt in 2006. They exceed the requirements of the BHAGIs and allow, for example, radiographic assessment of injuries on course. These established enhancements are important as road access to the referral unit for equine casualties – the University of Liverpool Veterinary School – could potentially be affected on racedays, especially Grand National day. Dedicated washdown facilities are also provided in the Stableyard.

- 5.13 The participant group delegations and Welfare organisations consulted all acknowledged the enhanced Veterinary facilities at Aintree racecourse. However, in line with the ethos of Recommendation 17 above, the Group believes there is scope to raise media awareness of the professional way in which horses are looked after and treated after arrival at Aintree racecourse.

Recommendation 18:

- 5.14 Stableyard access should not preclude controlled, targeted media access as part of communicating equine care at Aintree. Such access would be under the control of the Authority, in consultation with Aintree.

Provision of Veterinary and Other Staff for Equine Care

- 5.15 The Aintree Executive exceeds the Veterinary staffing requirements of BHAGI 12 in relation the running of the Grand National meeting. These additional resources provided by the Aintree Executive clearly take account of the challenging profile, geography/access, logistics and risks of the Grand National Course. There are 7 Racecourse Veterinary Surgeons (3 are normally required at other Jump racing fixtures) including 2 (0) permanently based in the stableyard's Veterinary facilities, assisted by a Veterinary Nurse. The Authority provides 2 (1) Veterinary Officers and 4 (2) Veterinary Technicians. There are also 3 (1) horse ambulances available. In addition, there is the team of 30 (0) loose horse catchers, 35 fence attendants and 50 casual staff all co-ordinated by a Clerk of the Course aided by 2 (0) experienced deputies (who are also fully qualified Clerks of the Course themselves).

Planning for the Weather Conditions

- 5.16 Extremes of weather can impact on the horses competing in the Grand National. For example both very warm weather and very wet weather (when the going becomes more tiring) can increase the risk of heat related problems at the end of a long race.
- 5.17 The Review Group noted that the temperature on the day of the 2011 Grand National was 19°C. This is higher than expected, but not unprecedented, for the time of year. Racing has a good understanding of the effects of such conditions on horses, and in 2009/10 the Authority and the Racecourse Association (RCA) worked together to issue updated RCA guidance documentation to all racecourses on prevention and management of equine heat related problems.⁹
- 5.18 These guidance measures were carried out after the 2011 Grand National e.g.:
- Ensuring a ready and accessible supply of water;
 - Jockeys dismounting;
 - Deliberately ensuring a warm horse did not return immediately to the winners' enclosure.
- 5.19 The Review Group noted that, despite media speculation, there were no actual heat related incidents after the 2011 Grand National; the preventative measures seen by the public were effective. However, the communication of the

⁹This advice includes information from veterinary research, measures in place for other equine competitive disciplines, as well as the experience from racing in Great Britain. Research into this matter continues with cooperation between the Authority and the University of Liverpool Veterinary School.

measures to other racing participants and the media was either ad hoc or absent.

- 5.20 The heat related impact of the time between saddling up and the race starting was raised by some participants during the Review consultation and this has been explored in more detail in Chapter 6. As well as considering travel durations and arrival times for horses, the management of this risk requires consideration of a wider range of issues relating to ‘equine traffic control’ including: travel durations and arrival times for horses; measures to keep horses cool before racing; control of the movements of horses from stables, through the Pre-Parade and Parade Rings, the public Parade and at the start.
- 5.21 Consequently, the Review Group believes that a specific risk management plan particular to the 3 day Spring Meeting should be produced by the Aintree Executive to mitigate any potentially higher heat-related impact on the horses caused by the prevailing weather.

Recommendation 19:

- 5.22 A process should be put in place for full communication to trainers, their staff, jockeys and officials, as well as the Media, of any prevailing heat related risks to the horses and the measures in place to manage this risk. Such risk management should include improved equine traffic flow, less congestion between and within parade rings and a clear chain of operational command to ensure implementation on the three racedays.

During the Race

- 5.23 As noted, the Grand National is the most challenging race in Great Britain and a supreme sporting test for jockeys and horses alike. Operationally, access is restricted by the geography, crowds and

roads. Communication over a very large course, with many people using a crowded radio spectrum, presents challenges. The Review Group noted the on-going review of Veterinary operations during races that are taking place.

Bypassing Fences

- 5.24 The management of bypassing has been considered in Chapter 4 with proposals for improvements. Rehearsals and clear pre-race planning, for all those involved (see Recommendation 16) should further aid casualty management in these situations.

Remounting

- 5.25 The issue of remounting is also addressed in Chapter 4, where it is clear jockeys are committed to assisting with loose horses where they can. But management of loose horses is wider than just the question of remounting. Aintree is unique in proactively providing a dedicated loose horse catching team. In essence, the catching of loose horses requires having enough people with the right skills, in the right places, and good command/ control and communications. Whilst the Review Group is realistic about the challenges and dangers of dealing with loose horses, it recognised that skills, training and communications could be enhanced to further improve Aintree’s horse catching team, thereby managing the return of horses to enable the running of the next race, and ensure connections are kept informed and assured that their horse is being looked after. (See Chapter 4, Recommendation 15).

Media Intrusion

- 5.26 An area of concern highlighted to the Review Group through Veterinary feedback was the degree of media intrusiveness when dealing with incidents.

This involved photographers at the site of casualties as well as the broadcast media. It was recognised by the veterinary team that there is an element of public interest and that such problems were uncommon, but their opinion still emphasised the need to be able to make clinical decisions without distraction and that casualties, whether people or horses, should be afforded respect.

Recommendation 20:

5.27 The Aintree Executive should re-emphasise the clear working framework for all media (TV, photographers, print) to ensure that Veterinary Surgeons can perform their duties without distraction and that casualties, whether people or horses, should be afforded respect. This applies during and after the Grand National.

Veterinary Command and Control

5.28 In principle, command and control is straightforward and exercised by the Clerk of the Course, communicating by radio with the course's Senior Veterinary Surgeon. Clearly there are considerable greater challenges at the Grand National, with distance, geography, numbers of people involved and a crowded radio spectrum all contributing to a complex dynamic.

5.29 Currently the Clerk of the Course is assisted by senior colleagues (including out on the course in local command of 'sectional' teams) the horse catcher team, and also by the Authority's Director of Equine Science and Welfare as a backup for equine issues. The Review Group recognised that as the complexity of event management has developed over the years, this has placed greater burdens on

the infrastructure, and the ability to manage multiple teams across the site. The Review Group noted the ongoing review of Veterinary operations during races that are taking place.

Recommendation 21:

5.30 Command/ control and communications should be further improved through:

- Improvements in radio training and pressure-testing of radio coverage and maximum use;
- A written protocol for command and control in all areas (especially including bypassing), and rehearsals for all involved (see Recommendation 16).

After the race

5.31 The immediate aftermath of the Grand National creates future veterinary care challenges; horses returning after a long race; loose horses requiring checking and collection; injuries to be attended to; connections requiring information; all in the view of the public and media.

5.32 The two main Veterinary related issues identified by the Review Group were to ensure an effective system of cooling horses within what has been a small and crowded area, and the overall command/control and communication during this period. These improvements should have the added benefit of being perceived as professional and measured post-race management, and also benefit connections, particularly the staff who are responsible for individual horses.

5.33 The Review Group is clear from internal and participant feedback that significant physical changes to the geography of unsaddling area need to be made, command and control enhanced, media

access reviewed, and improved cooling techniques introduced.

Recommendation 22:

5.34 The layout and control at the pull-up area needs careful review and change before the 2012 Grand National to ensure:

- Good trainer/stable staff access to their horses;
- Safety and space within the pull-up;
- Optimum cooling;
- Appropriate media access and control;
- Proper observation and transfer of placed horses, to the Winners' Enclosure if appropriate, in a way that balances the need to enhance the race, and rapidly resolve any Veterinary issue.

Medical Provision

5.35 The medical provision at Aintree exceeds the mandatory standards laid down in the Authority's General instruction 11. The racecourses' team of six Medical Officers (i.e. GP's or Accident and Emergency specialists who meet specific additional training/qualification criteria relevant to horse racing and the sort of injuries they are likely to encounter) is complemented by two nurses, the Mersey Regional Ambulance Service which provides six ambulances, Paramedics and an ambulance operations centre. The St John Ambulance Service also provides a team of first aiders, at least two of which are posted at every fence. Most of the medical provision is based out on the racecourse to ensure the Authority's stipulated response time of 60 seconds to any incident is always met. Two North West Ambulance Service officials are also based in the "side on" Viewing Box to control and monitor ambulance movements. A Doctor is present in each of the ambulances that follow the runners during the race.

Medical Facilities

5.36 The dedicated Jockey's Hospital at Aintree forms part of the new Weighing Room complex that was built in 2006 and as such is also fully compliant with the Authority's General Instructions and its Racecourse Manual (which lays down the ideal specifications for new build facilities.)¹⁰

Medical Inspections

5.37 Under the Authority's regulatory power, full Inspections of racecourses' Medical provision, procedures and facilities take place on a periodic basis. These visits are unannounced and Aintree is no different from any other racecourse in being inspected by the Authority's Medical Inspection Team.

2011 Grand National Meeting

5.38 The Authority's Deputy Chief Medical Adviser attended Aintree during the course of the 2011 Grand National meeting, including the Grand National itself. In his standard annual debrief report it was reported that:

- There was a rapid response to all injuries;
- There was good liaison between the treating Medical Officer on course and Senior Medical Officer whilst the former was dealing with a seriously injured jockey in an early race on Grand National day;
- There was good cooperation between the Medical Officers and the ambulance providers and their paramedics. This was facilitated by a very good pre-racing briefing carried out by the racecourse's Senior Medical Officer;

¹⁰ www.britishhorseracing.com/resources/racecourse/racecourse-documents.asp

Participant Feedback – 2011 Grand National

5.39 The medical provision and facilities at Aintree were not raised as an issue by the PJA or the riders consulted by the Authority. Neither of the riders who rode the two equine fatalities in the Grand National itself sustained a significant injury.

Future Changes

5.40 On the basis of all the feedback it has received, the Review Group does not believe any specific recommendations need to be made in relation to Aintree's Medical provision, procedures or facilities.



Chapter Six

Official Race Conditions

Introduction

6.1 The Official Race Conditions of any horse race are fundamental to shaping the nature of the spectacle and profile of the event. Risk levels can be impacted by these pre-set Conditions, and consequently the Review Group assessed in detail the appropriateness of all the race, horse and rider criteria that combine to define the Grand National Race Conditions.

Time of Year for Staging the Grand National

6.2 This was only briefly discussed by the Review Group as there was no suggestion from any party consulted that the Grand National should be staged at a different time of year. Chapter One of this Report indicates that the course is in excellent condition with minimal wear and tear and a very good covering of healthy, growing grass.

Distance of Race

6.3 The question of the distance over which the Grand National is currently run (4m 4f) has already been discussed in Chapter Three Para. 18 of this Report. This was in the context of potentially bringing the start forward to manage the initial speed at which the runners jump the first fence and next five fences up to and including Becher's Brook (Fence 6). This will not occur in the short term whilst the impact of the changes to Fences 1, 4 and 6 is assessed. However, it should remain an option for the future.

6.4 On a more fundamental level, none of the participant consultees believed the distance of the Grand National needed to be reduced. Feedback varied from the animal welfare organisations. One noted that few horses are bred nowadays for the specific objective of running in "ultra-long" staying Steeplechases (an issue that will be raised with the sport's Jump Racing Development Group). Another pointed out that a reduction in distance could result in a faster pace with the unintended consequences of more fallers. Whilst not having any specific concerns over the distance – provided all the horses were sufficiently qualified to run – the third welfare organisation consulted queried whether an alternative (shorter) distance should be used in the event of certain pre-agreed climatic conditions.

6.5 The Review Group is aware that the longest distance Jumps races can appear to increase the risk of equine injury (See Annex G), albeit the sample size of relevant races is very small. This apparent increase may principally be as a result of facing more "time exposure" to the inherent risks in any race than if participating in a shorter race. There is also generally a greater risk of horses becoming fatigued in longer races (See Annex H).

6.6 However, feedback from the Authority's Veterinary Team suggests that these risk factors can be successfully managed – to the extent that there is no need to

fundamentally reduce the distance of the Grand National – by:

- ensuring the appropriate profile of horse runs in the race (see later in this Chapter: Grand National Horse Review Panel); and
- refining the horses' post-race cooling facilities to ensure optimum recovery conditions (See Chapter Five).

6.7 Furthermore, the Review Group returned to the statistic (in Chapter Two Para. Seventeen) that the first six fences – jumped within the first 95 seconds or so of the race – account for 53% of all falls in the Grand National. Taking that, and all the feedback, into consideration, the Review Group does not believe that a distance reduction to the Grand National is necessary.

“Safety Factor” (Maximum Number of Runners)

6.8 The Safety Factor (or maximum number of runners) for every race run on a licensed racecourse is determined by the Authority's Inspectors of Courses having consulted in advance with each racecourse and the sport's participant group representatives. The Safety Factor is dependent on the width at the start, width of the obstacles, proximity of the start to the first bend, the experience of the horses and any other relevant factor (e.g. previous incidents).

6.9 The current Safety Factor of 40 runners for the Grand National is the highest Safety Factor for any race in Great Britain, and the Review Group sought to be reassured that it was an appropriate figure. It was noted that the Safety Factor for the Grand National was last changed in 1983/4 when it was reduced to 40 from 50.

Participant Feedback

6.10 The delegations of trainers and jockeys consulted by the Review Group unanimously supported the retention of a Safety Factor of 40.

Welfare Organisations' Views

6.11 A number of points suggesting a Safety Factor reduction to between 30-34 were made by the welfare organisations in their feedback to the effect that:

- it is logical that if the number of horses exposed to the risk factors of the race is reduced, so too will the number of injuries and the likelihood of loose horses causing incidents;
- no other Jumps race has a Safety Factor higher than 30 and yet the Grand National's is 33.33% greater than that figure.

Analysis of Data/Review of TV Coverage

6.12 It was clear to the Review Group from its analysis of all the TV footage of all the professional races staged on the Grand National course since 2000 (see Chapter Two) that three incidents of multiple fallers/unseats/brought downs/refusals have occurred during the period reviewed:

- Fence 8 (Canal Turn), 2001: Nine horses;
- Fence 1, 2002: Nine horses;
- Fence 6 (Becher's Brook), 2004: Eight horses

Incidents involving that number of runners are rare at other licensed Jumps racecourses, including Aintree's Mildmay Course, and could therefore simply be a function of the Grand National fence design. At the same time, injury rates (on the basis of five years of nationwide Jump data) do appear to show an upwards trend as the numbers of runners increase, although this has not been validated by a

statistical analysis, probably because of the small sample size. (See Annex I).

- 6.13 However, the Review Group found no recurring trend whatsoever of horses systematically failing to get a clear sight of the fences as they prepared to jump them. Virtually all the fallers reviewed during that period had a clear run to the fence where they fell or unseated their jockey.
- 6.14 Furthermore, the Review Group considered research carried out through its Inspectorate team and established that the average available “width of fence per horse” on the Grand National course was comparable to the averages for all licensed Jumps courses, including the width of fence per horse at other very high profile jumps fixtures.
- 6.15 Taking into account a) the information in 6.13–6.14 above, b) the participant feedback, and c) the many of the other recommendations being made in this Report, the Review Group is of the opinion that the Safety Factor for the Grand National should remain at 40 at present.

Maximum Weight to be Carried

- 6.16 There was no comment by any of those consulted on the maximum weight (11st 10lbs) to be carried by the top weighted declared runner in the Grand National and no change is therefore recommended by the Review Group.

Horse Qualifications – Minimum Age of Horse

- 6.17 Since a change after 1998, the current minimum age for a horse to run in the Grand National is six years old and no such horse has won the race since 1915. The trainers consulted on this issue were strongly of the opinion that overall experience, rather than purely age, was important for horses taking part in the race. Consequently, they believed the

minimum age should remain at six. Those jockeys consulted agreed that the status quo should remain unless the statistics showed a case for increasing the minimum age to seven.

Review of Statistics

- 6.18 The Authority’s Racing Department compiled statistics on the performance of six year olds in the Grand National since 1999. The data set was small. They identified that only eleven (eight of which were from the same yard) had participated during that period and none for the last three renewals of the race. Two of these eleven horses had completed the course in fifteenth place (in 2005 and 2008 out of 21 and fifteen finishers respectively). Eight of the remaining nine fell and the other six year old was brought down.
- 6.19 The performance of the 26 seven year old runners during that period is only slightly better with seventeen of the horses parting company with their jockey in the race. However, five of the runners have completed the course with three finishing in the top ten.

Recommendation 23:

- 6.20 On the basis of the data reviewed, the Review Group did not believe that six year olds have made any meaningful contribution to the race in recent years. Therefore, it is recommended that the minimum age for a horse to be eligible to run in the Grand National be increased to seven years old.

Minimum Rating/Quality of Runner

- 6.21 The Review Group was aware of the widely held view amongst those consulted that the quality of the Grand National had improved in recent years, making for a more competitive and even more prestigious race. However, the Review Group considered it important to review the available statistics before deciding whether any official rating-related

recommendation needed to be proposed for the Grand National.

6.22 Statistics were provided by the Authority's Head of Handicapping (see Annex J). These demonstrate, amongst other things, that:

- the underlying trend for the lowest rated horse running in the race since 1999 shows a steady increase from under 120 to the high 130s in recent runnings;
- the underlying "median rating" trend is also on the rise in recent years from the mid 130s to the low 140s.

6.23 The statistics do paint a picture of an improving race, and the Review Group saw no safety or welfare-related reason to recommend any change. However, the Review Group is aware of the fact that the Authority's Racing Department will nevertheless be increasing the minimum rating for qualification into the Grand National from 110 to 120 in 2012, to give a truer reflection of the current quality of horses entering the race. In only one race since 2000 has a runner rated less than 120 taken part in the Grand National.

Horses with a Doubtful Stamina or "Non-Staying" Profile

6.24 In carrying out the review of TV footage highlighted in Chapter Two, the Review Group looked at a combined total of just over 160 Grand National equine falls, unseated riders and brought downs. The career profiles of those horses were then assessed from the perspective of the sort of race distances they had ordinarily been running over until the time of their Grand National fall, unseat or brought down. The Review Group believed this was a useful exercise to establish whether there were any clear patterns of falls or unseats in relation to the distance those horses normally raced over. Any horse which had never, or only very rarely, run in a

Steeplechase at a distance of three miles or more was recorded as a "sub three mile profile" horse.

6.25 Whilst there is inevitably a small degree of subjectivity in pinpointing these horses on the basis of their career performances so far, the Review Group identified 20 such "sub three milers" from the overall pool of Grand National fallers/unseats since 2000. In line with the Grand National 1990-onwards average, thirteen of these 20 horses had parted company with their rider within the first one-and-a-half to two minutes of the race.

6.26 The Authority's Racing Department was also asked to identify the number of Grand National "sub three mile" horses since 2000 that had completed the race. Only ten such horses were identified, eight of which finished down the field. However, two of those – Celibate (sixth, 2002) and Simply Gifted (third, 2005) ran creditably.

6.27 When consulted on the value that "sub three mile" profile horses brought to the modern day Grand National (no such type of horse having won the race since Gay Trip in 1970), both those trainers and jockeys consulted felt it was unnecessary to introduce any specific distance-related performance criterion into the Grand National at this stage.

6.28 The Review Group considered carefully this participant feedback as well as the generally unconvincing performance statistics of the horses identified as "sub three milers" that had run in the Grand National since 2000. In simple terms, the Group believes that as the race is fundamentally a test of stamina, it seems reasonable that all participants be able to demonstrate a basic level of stamina. This is compounded by the fact that the race has become more competitive in recent years, as highlighted in Para. 6.22.

Recommendation 24:

6.29 All runners in the Grand National from 2012 must have won or been placed second, third or fourth in a Steeplechase under the Rules of a Recognised Turf Authority of at least three miles during their career.

Other Potential Horse Eligibility Criteria

6.30 The Review Group considered whether a number of other equine performance-related criteria should now be prescribed within the official Race Conditions of the Grand National. However, it concluded that rather than being prescriptive in trying to legislate for any number of different career profiles of horses that may be entered for the race, an expanded version of an existing process (the Grand National Review Panel) for checking the standard of Grand National entrants should be used. The trainers consulted supported this approach.

The Grand National Review Panel

6.31 The Race Conditions of all races run on the Grand National course include a clause which states that:

“The British Horseracing Authority may exercise their powers under Rule (A) 12.4.4 to refuse to allow a horse duly entered to run when they have reason to be concerned about the horse’s suitability for the race.”

6.32 The mechanism for assessing the “horse’s suitability” is the Authority’s Grand National Review Panel, set up in 1999. The Panel currently consists of the Authority’s Heads of Disciplinary and Handicapping, supported by expert advice from a prominent ex-Jump jockey.

6.33 The Panel operates to a set of general criteria (see Annex K), focussing mainly on horses’ recent performances, and particularly those which involve a failure to complete the course. After the Entry

Stage for the applicable races, the Panel reviews all the horses entered and liaises with connections of any horse about which they have concerns due to recent non-completions. This liaison has ordinarily resulted in a small number of connections (including in 2011) agreeing to have their entry expunged, with the entry fee being repaid in full. All connections previously approached have agreed to remove their horses from the entries. However, if it were to be contested, the Disciplinary Panel would be convened.

A Widening of Suitability Criteria

6.34 In view of the approach favoured in Para. 6.30 above, having reviewed the relatively narrow criteria against which the Panel currently operates, and with supportive participant groups who preferred this approach to a very prescriptive one in the Race Conditions, the Review Group makes the following recommendation to further enhance the vitally important safety/welfare role of the Grand National Review Panel:

Recommendation 25:

6.35 The Grand National Review Panel’s criteria against which it currently assesses the suitability of a horse to take part in any race over the Grand National course should be extended to include an assessment of:

- Steeplechasing experience;
- staying ability;
- any previous on-course injury, display of veterinary reported fatigue or reason for long lay-off; or
- general uncompetitiveness or natural decline in performance.

These revised “guiding principles” should be sent to the NTF well in advance of the first of Aintree’s 2011/12 races over the Grand National Course (Becher and Grand Sefton Chases, December 2011) so that all trainers are fully

aware of the sorts of horse profiles that are likely to give the Review Panel cause for concern.

Recommendation 26:

6.36 The Grand National Review Panel membership should be expanded to include a member of the Authority's Racing Department, its Senior Veterinary Adviser, and a representative from the Aintree Executive.

6.37 Trainers already have clear regulatory responsibilities under Rule (C) 22 of the Rules of Racing in terms of their duty of care to the welfare of their horses. If licensed trainers choose to enter a horse that on face value fails to meet the overall general principles of the new criteria, it will be incumbent upon them to satisfy the Grand National Review Panel that the horse should not have its entry expunged. The whole process should be administered in a timely manner that takes into account trainer (and owner) preparations.

Rider Eligibility Criteria

6.38 The current rider-related eligibility conditions for the Grand National and Topham Chase (but not the Becher and Grand Sefton Steeplechases run over the Grand National course in the Autumn/Winter) essentially require the jockey riding in a race open to professionals to have; a) ridden at least fifteen Steeplechase/Hurdle winners (combined) under Rules by the time of final declaration; or b) ridden at least ten such winners by an earlier deadline and request an "exceptional circumstances" dispensation from the Authority.

Participant Feedback

6.39 As far as the "minimum fifteen Steeplechase/Hurdle wins" element was concerned, both the trainer and jockey consultees were very comfortable with this criterion and thought fifteen wins was the right figure. They did not believe there was any need to, for instance,

specify a minimum number of Steeplechase wins to counteract the possibility that a jockey could ride in the Grand National having won only fifteen Hurdle races. They also felt that if a jockey did not have the necessary experience, he would not be offered a ride in the race over the Grand National fences in the first place.

Review Group's Considerations

6.40 The Review Group had reservations as to why the minimum wins criteria did not apply to the Becher and Grand Sefton Steeplechases in the Autumn, as well as the current eligibility criteria. The Group believed that there should be consistency and this was no longer an area in which any "special circumstances" should be considered. Consequently:

Recommendation 27

6.41 All professional races run over the Grand National course should; a) have the same rider eligibility criteria; and b) not include the current clause which allows for fewer than fifteen career Chase/Hurdle wins if a case for dispensation is made to the Authority.

6.42 The Review Group also considered whether a minimum number of specifically Steeplechase wins (e.g. ten out of the fifteen Chase/Hurdle wins required) should be stipulated in the Grand National's Race Conditions. The statistical case for doing this was not compelling. The data analysis of all 140 British licensed jockeys riding in the Grand National since 2007 showed that at the time of taking part fourteen riders had won fewer than fifteen Steeplechases over the previous five years. Of these riders, five had fallen or unseated, but that was not unusual compared to the Grand National rate for all riders. However, the Review Group still queried the rationale of not specifying a minimum number of career Steeplechase wins as a rider criterion, and concluded that from 2012 the rider eligibility criteria

should logically include a requirement to have ridden a clear majority of those wins in Steeplechases, by the time of final declarations.

Recommendation 28

6.43 The current rider eligibility criterion should be expanded to require at least ten of the minimum fifteen previous Steeplechase/Hurdle career wins to have been in Steeplechases.

Raceday Operational Elements Within the Race Conditions

6.44 There were two particular raceday-related clauses within the Race Conditions of the Grand National which the Review Group wanted to focus on from an operational and welfare perspective – the raceday veterinary examination, and the Pre-Race Parade in front of the grandstands.

Raceday Veterinary Examination

6.45 The current Race Conditions for the Grand National, as well as the other two races run on the Grand National course at the three day Spring Meeting, include a mandatory inspection of all runners between 9am and 1pm on the day of the race.

6.46 The trainers consulted by the Review Group understood the need for such a protocol and confirmed that it did not affect their own preparations for the day. They supported the process.

Recommendation 29

6.47 The raceday inspection requirement is very much a worthwhile welfare-related process that should be retained. The protocol should also be included in the Race Conditions of the Becher and Grand Sefton Steeplechases. Moreover, further discussion should take place as necessary between the Aintree Executive and Authority's Equine Science and Welfare Department to establish the optimum location for staging the inspections within

the racecourse's stableyard complexes. (See Chapter Five).

Pre-Race Parade

6.48 In line with other very high profile Jumps races, there is a Parade before the running of the Grand National. The Parade at Aintree involves the horses being led past the grandstands before cantering to the start. (Another type of Parade used elsewhere sees the runners "released" at intervals in front of the stands by the Stable Staff soon after setting foot on the racing surface from the horsewalk).

Feedback

6.49 Chapter Three of this Report has already touched on the participant feedback received with regard to the Grand National Parade. There is a general feeling that the time taken to stage the current "led" Parade can have a detrimental impact on the horses and cause them to expend nervous energy, particularly during warm, humid weather conditions. Furthermore, one of the three welfare organisations consulted believed the Parade should be dropped.

Recommendation 30

6.50 The Review Group is fully aware of the value to broadcasters, racegoers, sponsors and the spectacle itself, of staging a Pre-Race Parade for what is a sporting event with worldwide interest and appeal. That said, it recommends that further consultation takes place between the Aintree Executive and the Authority's Equine Science and Welfare Department to ensure there is no material impact on the horses' welfare if they are to be retained. In warm conditions (as defined by Veterinary consensus on the day – see Chapter Five) the Review Group supports a shortened Parade, a "released parade", or no Parade at all.

Recommendations

1. The Aintree Executive should aim to provide Going between Good and Good to Soft for the Grand National, whilst continuing to guarantee Going no firmer than Good.
2. Groundworks are needed on the landing side of Fence 1 (also the seventeenth) to provide a level surface.
3. Fence 4 (also the 20th) to be reduced in height by 2ins to 4ft 10ins so that it is more in keeping with the plain fences already jumped and will ensure that a consistent “core to spruce” height ratio will be maintained. The faller/injury ratio to continue to be closely monitored post-change.
4. The landing side of Fence 6 (Becher’s Brook, also the 22nd) to be re-profiled to reduce the drop by 4-5ins across the width of the fence. This will reduce the drop to 10ins approx on the inner line and 6ins approx on the outer.
5. The height of the take-off boards on all Grand National course fences to be raised to 14ins high (from 9-10 inches), to ensure a clear ground line of sight as the obstacle is approached.
6. In view of the unique way in which the fences have to be “(re)dressed” with new spruce – and whilst acknowledging that a good post-race refurbishment process is in place – all Grand National course fences to be remeasured by the Clerk of the Course before each race in which they are to be jumped, rather than only doing so before the three-day fixture starts.
7. Further support should be provided to the Aintree Executive’s proactive and ongoing three-year Research and Development programme into the possibility of:
 - utilising materials other than the existing timber and protective rubber padding that make up the central frame of each obstacle; and
 - reshaping the central frame structure design.
 The Authority’s Course Inspectorate should be kept apprised of this work.
8. In view of the unique fence design of the Grand National fences, the Aintree Executive shall liaise with all major Jump training centres to develop the construction and encourage the use of a well maintained Aintree-style schooling fence for trainers to use at each centre.
9. Initial race pace is an important factor and the Authority shall support Aintree’s proposed investigation into the use of speed and positioning technology (i.e. sectional timing equipment carried in the number cloth of every runner) to track the speed of all runners in future.
10. Whilst the possibility of bringing the current first fence closer to the current start position (or vice versa) found little support amongst the participant groups and brings with it practical challenges and potentially unintended consequences, both options should remain under close consideration beyond 2012. The impact of the new changes to Fences 1, 4 and 6 (Becher’s Brook) in Chapter Two should dictate whether the start/first fence dynamic still needs to be altered in future.

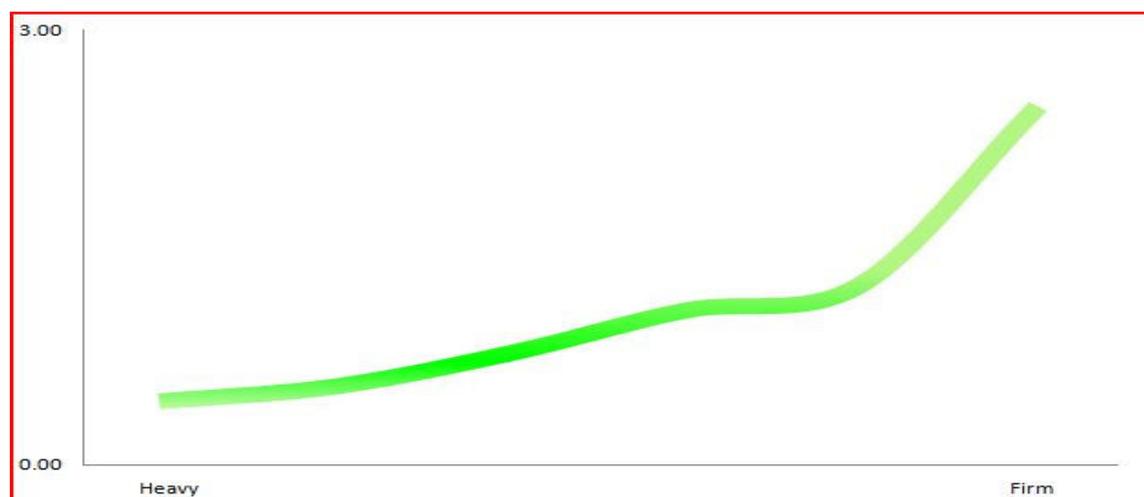
11. The Aintree Executive should investigate the feasibility of introducing additional irrigation capability to the section of the Grand National course running from the start along to Becher's Brook. As long as irrigation is applied judiciously, with a view to providing Going just on the softer side of Good, there is no downside to seeking to implement an even more flexible watering capability along the part of the track where the majority of falls occur.
12. Pre-race logistical management of the Parade Ring should be improved by Aintree to ensure the horses remain as relaxed as possible with no undue delay to the mounting process and entrance onto the course.
13. The pre-race joint Aintree/Authority briefing for jockeys in the Grand National should be reviewed before the 2012 race to ensure attendance and awareness of responsibilities, particularly their critical role in setting the initial pace of the race. As part of that review, staging the briefing before racing starts, and away from the weighing room complex, is recommended by the Group.
14. The standard equipment used in the bypassing procedure should be altered to cater for the particular needs of the Grand National course, such that;
 - the placing of direction markers in the unique Grand National fences needs to be improved, or another object needs to be deployed on the take-off side, directly opposite any patient on the landing side to minimise the risk of a loose horse jumping the marker;
 - the screening systems when jockey or horse are being treated at a fence and require greater privacy as the runners return on the next circuit need to be further improved.
15. The Aintree Executive should reassess the working practices, communication systems and deployment of its horse-catcher team to ensure an appropriate, targeted service continues to be provided.
16. Given the scale and complexity of – and interest in – the Grand National, as well as the changes that will result from this Review, the current onsite planning meetings and rehearsal event should be expanded for as many of the raceday Medical, Veterinary, groundstaff, Clerk of the Course and their support team, loose horse catchers and appropriate members of the Authority's staff as reasonably possible, before the 2012 Grand National. This should be repeated in future years.
17. The Authority and Aintree Executive should ensure that the existence and purpose of pre-race inspections is known to the broadcast and wider media. More information could be provided. (See also Chapter 6 paras 6.42-6.44).
18. Stableyard access should not preclude targeted, controlled Media access as part of communicating equine care at Aintree. Such access would be under the control of the Authority, in consultation with Aintree.
19. A process should be put in place for full communication to trainers, their staff, jockeys and officials, as well as the Media, of any prevailing heat related risks to the horses and the measures in place to manage this risk. Such risk management should include improved equine traffic flow, less congestion between and within parade rings and a clear chain of operational command to ensure implementation on the three racedays.

20. The Aintree Executive should re-emphasise the clear working framework for all media (TV, photographers, print) to ensure that Veterinary Surgeons can perform their duties without distraction and that casualties, whether people or horses, should be afforded respect. This applies during and after the Grand National.
21. Command/ control and communications should be further improved through:
- Improvements in radio training and testing of radio coverage and maximum use;
 - A written protocol for command and control in all areas (especially including bypassing), and rehearsals for all involved (see Recommendation 16).
22. The layout and control at the pull-up area needs careful review and change before the 2012 Grand National to ensure:
- Good trainer/stable staff access to their horses;
 - Safety and space within the pull-up;
 - Optimum cooling;
 - Appropriate media access and control;
 - Proper observation and transfer of placed horses in a way that enhances the race, and where incidents can be rapidly resolved
23. On the basis of the data reviewed, the Review Group did not believe that six year olds have made any meaningful contribution to the race in recent years. Therefore, it is recommended that the minimum age for a horse to be eligible to run in the Grand National be increased to seven years old.
24. All runners in the Grand National from 2012 must have won or been placed second, third or fourth in a Steeplechase under the Rules of a Recognised Turf Authority of at least three miles during their career.
25. The Grand National Review Panel's criteria against which it currently assesses the suitability of a horse to take part in any race over the Grand National course should be extended to include an assessment of:
- Steeplechasing experience;
 - staying ability;
 - any previous on-course injury, display of veterinary reported fatigue or reason for long lay-off; or
 - general uncompetitiveness or natural decline in performance.
- These revised "guiding principles" should be sent to the NTF well in advance of the first of Aintree's 2011/12 races over the Grand National Course (Becher and Grand Sefton Chases, December 2011) so that all trainers are fully aware of the sorts of horse profiles that are likely to give the Review Panel cause for concern.
26. The Grand National Review Panel membership should be expanded to include a member of the Authority's Racing Department, its Senior Veterinary Adviser, and a representative from the Aintree Executive.
27. All professional races run over the Grand National course should; a) have the same rider eligibility criteria; and b) not include the current clause which allows for fewer than fifteen career Chase/Hurdle wins if a case for dispensation is made to the Authority.
28. The current rider eligibility criterion should be expanded to require at least ten of the minimum fifteen previous Steeplechase/Hurdle career wins to have been in Steeplechases.

29. The raceday inspection requirement is very much a worthwhile welfare-related process that should be retained. The protocol should also be included in the Race Conditions of the Becher and Grand Sefton Steeplechases. Moreover, further discussion should take place as necessary between the Aintree Executive and Authority's Equine Science and Welfare Department to establish the optimum location for staging the inspections within the racecourse's stableyard complexes. (See Chapter Five).
30. The Review Group is fully aware of the value to broadcasters, racegoers, sponsors and the spectacle itself, of staging a Pre-Race Parade for what is a sporting event with worldwide interest and appeal. That said, it recommends that further consultation takes place between the Aintree Executive and the Authority's Equine Science and Welfare Department to ensure there is no material impact on the horses' welfare if they are to be retained. In warm conditions (as defined by Veterinary consensus on the day – see Chapter Five) the Review Group supports a shortened Parade, a "released parade", or no Parade at all.

Statistical Annexes

Annex A – Long Term Injury Trend (%) in All Steeplechase Races Run in Great Britain (2006 to 2011) by Going



Annex B – Non Completion Rates in the Grand National (1986 to 2011)

GRAND NATIONAL STATISTICS 1986-2011								
			Fence	Number	Non		%	% Non
Ground	Year	Runners	Fallers	pulled up	Completions	Fatalities	Pulled Up	Completions
Good	2011	40	11	5	21	2	12.50%	53%
Good	2010	40	12	7	26	0	17.50%	65%
Gd to Soft	2009	40	12	7	23	1	17.50%	58%
Good	2008	40	12	6	25	1	15.00%	63%
Good	2007	40	7	12	28	0	30.00%	70%
Gd to Soft	2006	40	11	12	31	1	30.00%	78%
Gd to Soft	2005	40	4	6	19	0	15.00%	48%
Good	2004	39	10	8	28	0	20.51%	72%
Good	2003	40	6	9	26	1	22.50%	65%
Good	2002	40	19	4	29	2	10.00%	73%
Heavy	2001	40	11	4	36	0	10.00%	90%
Good	2000	40	16	2	23	0	5.00%	58%
Good	1999	32	6	4	14	1	12.50%	44%
Heavy	1998	37	12	12	31	3	32.4%	84%
Good	1997	36	6	8	19	2	22.2%	53%
Good	1996	27	1	4	10	1	14.8%	37%
Good	1995	35	12	1	20	0	2.9%	57%
Heavy	1994	36	15	3	30	0	8.3%	83%
Gd to Soft	1992	40	3	7	18	0	17.5%	45%
Gd to Soft	1991	40	5	13	23	0	32.5%	56%
Firm	1990	38	8	6	18	2	15.8%	47%
Heavy	1989	40	10	3	21	2	7.5%	53%
Gd to Soft	1988	40	10	11	31	0	27.5%	78%
Good	1987	40	4	4	18	1	10.0%	45%
Gd to Soft	1986	40	12	5	23	0	12.5%	58%

Annex C – Average Number of Falls in the Grand National by Going (1990 to 2011)

Going	Number of Races	Number of Falls + Unseats	Average Number of Falls + Unseats
Firm	1	11	11
G/Firm			
Good	12	183	15.25
G/Soft	5	58	11.6
Soft			
Heavy	3	62	20.67

Statistical Data compiled by Aintree Racecourse

Annex D – Summary and Comparison of Non Completions In the Grand National (2000 to 2011)

Course	Pulled Up %	Unseats	Unseats %	Horse Falls	Horse Falls %	Rider Falls	Rider Falls%*
Grand National	17.12%	70	14.61%	136	28.39%	219	45.72%
National Course (excluding GN)	6.94%	115	12.86%	192	21.48%	323	36.13%
GB Steeplechase	18.44%	4948	3.80%	7404	5.69%	12767	9.81%

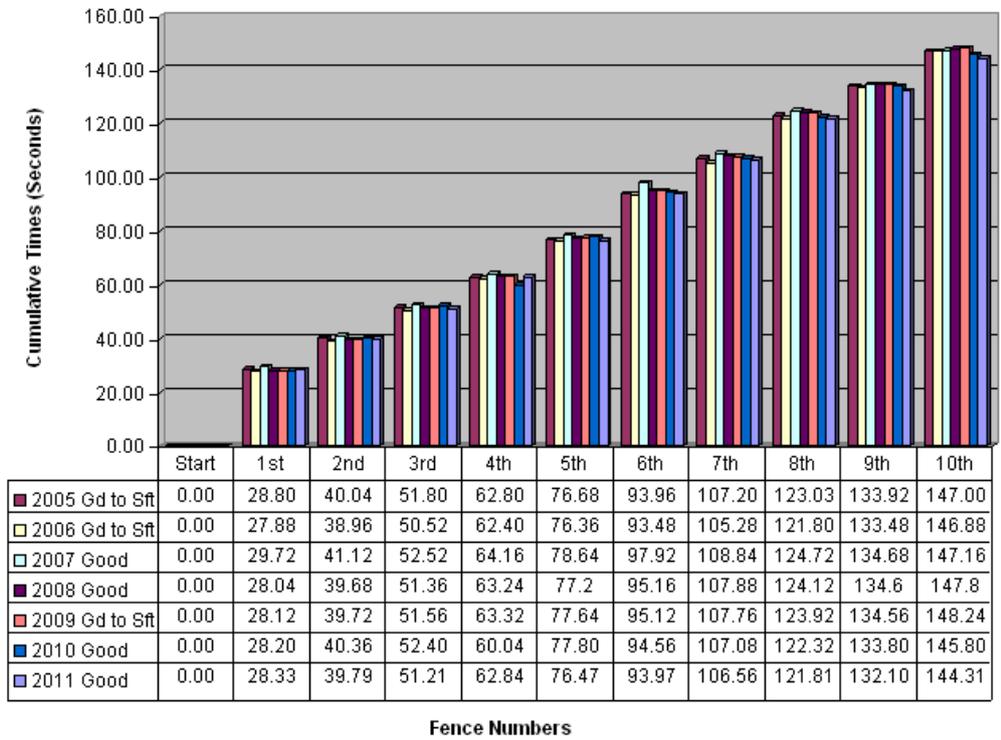
*Horse Falls, Unseated Riders, Slip Ups, Brought Downs

Annex E – Fallers by Fence in the Grand National (1990 to 2011)

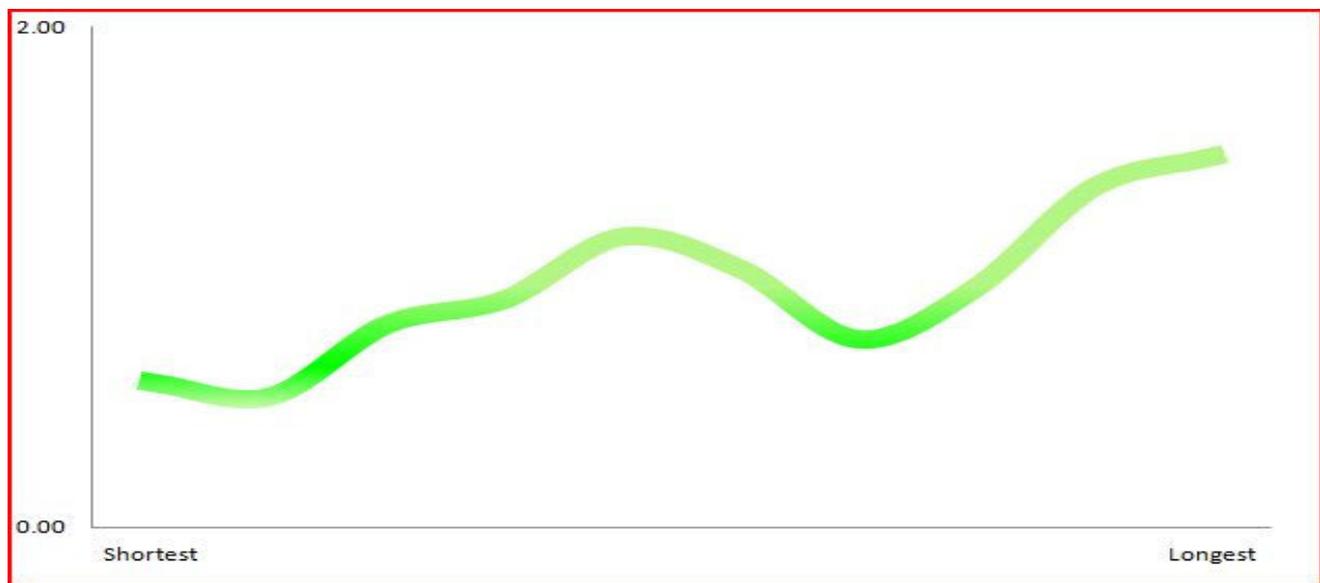
Fence No	Fence Name or Type	Fallers %	Unseats %	Brought Down %	Refused %
1	Plain	21.6	8.1	22.2	8
2	Plain	7.4	4	5.6	4
3	Ditch	6.8	16.9	5.6	20
4	Plain	12.6	6.5	0	4
5	Plain	3.7	2.4	0	0
6	Becher's	21.1	12.9	16.7	16
7	Foinavon	2.1	5.6	0	4
8	Canal Turn	4.2	8.9	33.3	12
9	Valentines	2.1	7.3	0	4
10	Plain	1.6	3.2	0	0
11	Ditch	5.3	8.1	11.1	20
12	Plain	2.1	1.6	0	0
13	Plain	4.2	0.8	5.6	0
14	Plain	2.6	4	0	4
15	Chair (Ditch)	2.1	9.7	0	4
16	Water	0.5	0	0	0

Statistical Data compiled by Aintree Racecourse

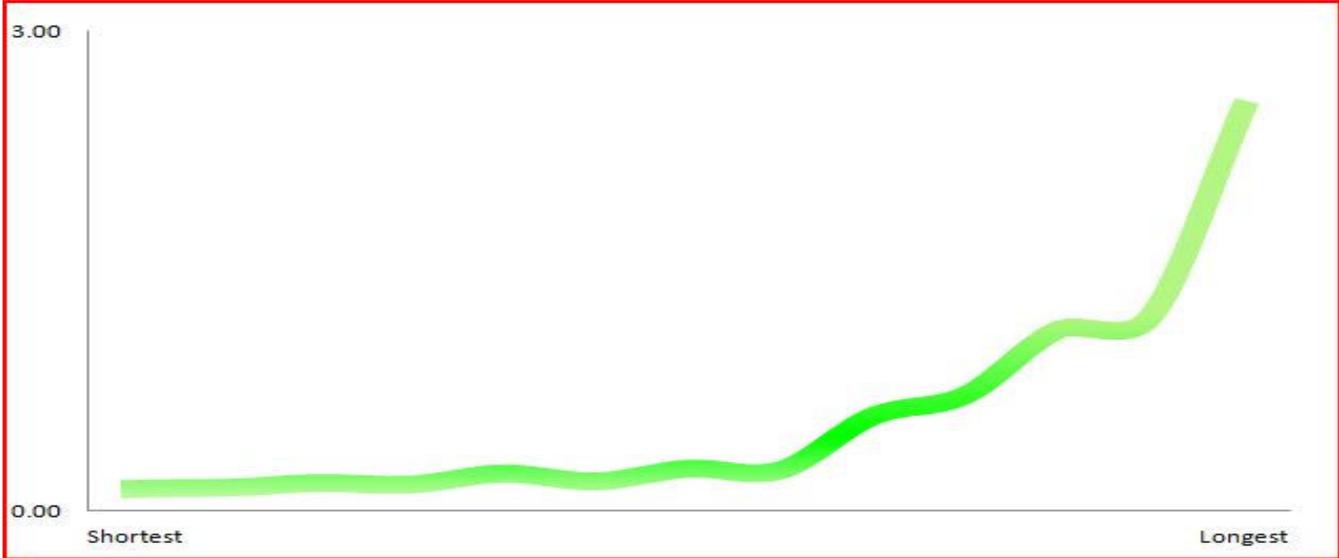
Annex F – Grand National Times Between Fences (2005 to 2011)



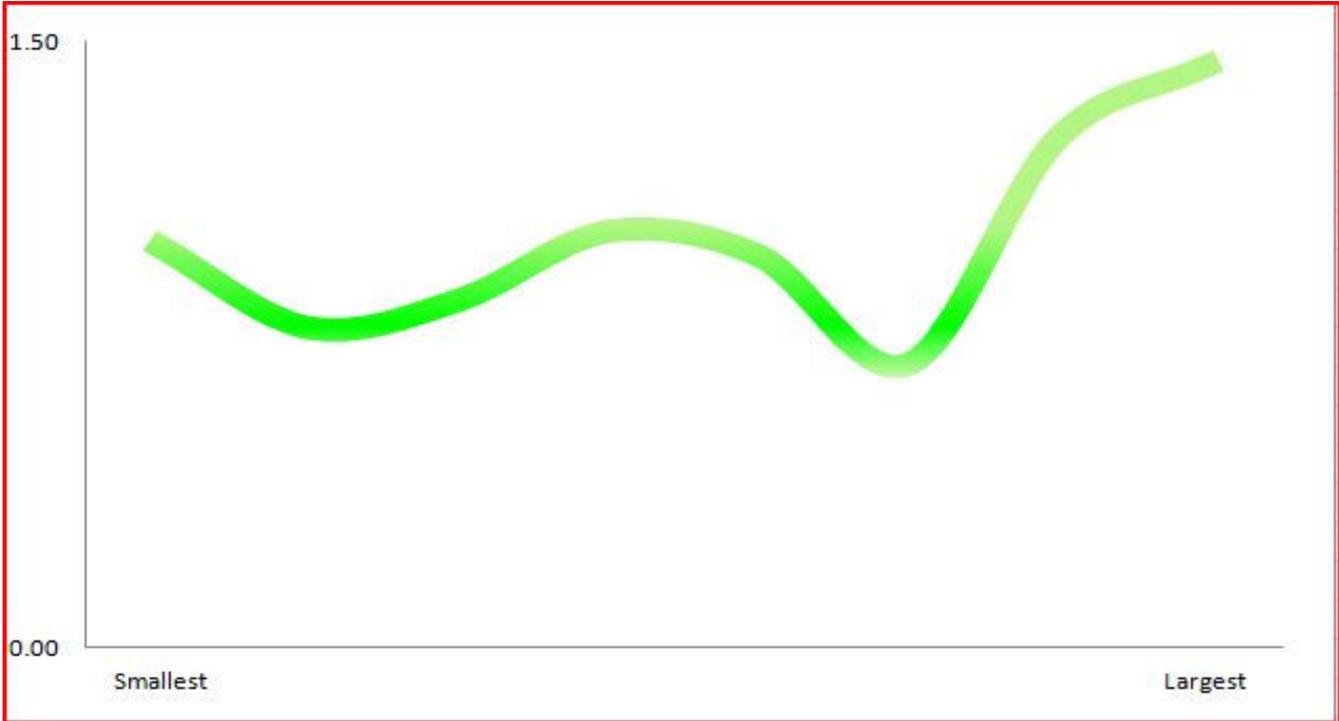
Annex G – Long Term Injury Trend (%) in All Steeplechase Races Run in Great Britain (2006 to 2011) by Distance



Annex H – Veterinary Reported Horse Fatigue Trend (%) by Distance (2000 to 2010)



Annex I – Long Term Injury Trend (%) in All Steeplechase Races Run in Great Britain (2006 to 2011) by Field Size



Annex J – Entries, Runners and Handicap Ratings for Grand National**JOHN SMITH'S GRAND NATIONAL STATISTICS 1999-2011****AT TIME OF ISSUE OF WEIGHTS**

YEAR	HORSES	11ST.+	10ST.+	IN HANDICAP	
1999	95	6	23	29	31%
2000	99	24	42	66	67%
2001	126	7	32	39	31%
2002	139	9	24	33	24%
2003	148	18	49	67	45%
2004	117	23	43	66	56%
2005	152	28	64	92	61%
2006	144	19	66	85	59%
2007	117	25	62	87	74%
2008	149	26	79	105	70%
2009	120	13	48	61	51%
2010	111	30	67	97	87%
2011	101	19	63	82	81%

JOHN SMITH'S GRAND NATIONAL STATISTICS 1999-2011**ON DAY OF RACE**

YEAR	RUNNERS	IN HANDICAP	OUT HANDICAP	OF LOWEST RATED RUNNER
1999	32	14	18	110
2000	40	33	7	120
2001	40	26	14	123
2002	40	31	9	130
2003	40	36	4	130
2004	39	34	5	116
2005	40	40	0	134
2006	40	40	0	135
2007	40	40	0	134
2008	40	40	0	137
2009	40	40	0	139
2010	40	40	0	139
2011	40	40	0	138

**JOHN SMITH'S GRAND NATIONAL STATISTICS 1999-2011
COMPARISON OF ENTRIES 2004-2011**

RATING	2004	2005	2006	2007	2008	2009	2010	2011
155+	5	5	4	5	8	16	6	11
150-4	9	10	8	12	12	16	17	8
145-9	11	16	8	9	10	15	23	14
140-4	13	13	25	20	27	22	27	27
135-9	17	28	28	26	31	27	21	26
130-4	22	29	25	26	34	12	8	11
125-9	18	21	19	6	11	7	5	4
120-4	11	9	12	5	10	5	3	0
115-9	7	12	9	5	5	0	1	0
110-4	4	9	6	3	1	0	0	0
TOTAL	117	152	144	117	149	120	111	101
MEDIAN	130	134	135	137	137	142	143	141

**JOHN SMITH'S GRAND NATIONAL STATISTICS 1999-2011
POSITION NEEDED IN WEIGHTS AT ENTRY TO GET RUN IN
RACE**

YEAR	POSITION
1999	95th
2000	81st
2001	79th
2002	68th
2003	77th
2004	95th
2005	75th
2006	76th
2007	75th
2008	71st
2009	74th
2010	79th
2011	70th

Annex K – Current Grand National Panel Criteria

The decision on whether a trainer should be approached regarding the running of his horse in the Grand National should be based upon its performance in the most recent races that it has run. The races expected to be of concern are those where the horse has failed to complete the course, normally for one of the following reasons:

- 1) Fell / unseated Rider
- 2) Refused
- 3) Ran Out
- 4) Pulled Up

And if this should have occurred on three or more occasions in its last six runs the Panel will automatically review its performance.

The Panel will also automatically review the performance of every horse which has run less than six times in Steeplechases.

If a horse has been completing the course on a regular basis its age, sex, size, experience, staying ability, having no chance of winning, being placed etc are unlikely to be of concern to the Panel. Note will be taken of previous performances over the Grand National Fences.

