Certification Report.	Pariplay Game Audit Report - Bloodshot Rising Spirit
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Jurisdiction	Gambling Commission United Kingdom
Technical Standard used for testing	Remote Gambling and Software Technical Standards, June 2017 Testing Strategy for Compliance with Remote Gambling and Software Technical Standards, November 2018

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1 Notations

1.1 Confidentiality

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1.2 Disclaimer

ga has reported on what it has discovered through evaluation of Pariplay's game Bloodshot Rising Spirit.

2 Administration

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2.2 Version

Version	Description	Date
V0.1	Initial draft – SALI	2020-02-13
V1.0	QA - BPHU	2020-02-20

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3 Executive Summary

3.1 Introduction

Pariplay Ltd. (Pariplay) has requested Gaming Associates (**ga**) to test their game Bloodshot Rising Spirit against the compliance requirements of the UK Gambling Commission (UKGC) Remote Gambling and Software Technical Standards, June 2017.

ga has tested the Pariplay game Bloodshot Rising Spirit against the requirements listed in "Section 3: Remote gambling and software technical standards (RTS)".

The testing has been performed according to UKGC Game testing requirements:

Game testing:

1. Verification of game design – Maths, artwork/rules as displayed to players, and theoretical RTP.
2. Software testing - This involves verifying the software implementation of the above game design, artwork, maths and theoretical RTP through testing of the game on an environment which reflects the intended live environment; verification of game rules, actual RTP using simulation, emulation and manual testing; any scaling and mapping used to convert raw RNG output to game outcomes.

This report presents the results of testing performed by **ga** for the Bloodshot Rising Spirit game. SHA-1 hashes of the game are listed in Annex A: SHA-1 Hashes.

3.2 Scope of Testing

The scope of testing included the following UKGC requirements:

- Section 3: Remote gambling and software technical standards (RTS)
  - RTS 1 – Customer account information
  - RTS 2 – Displaying transactions
  - RTS 3 – Rules, game descriptions and the likelihood of winning
  - RTS 4 – Time-critical events
  - RTS 5 – Result determination
  - RTS 6 – Result determination for play-for-free games
  - RTS 7 – Generation of random outcomes
  - RTS 8 – Auto-play functionality
  - RTS 10 – Interrupted gambling
  - RTS 12 – Financial limits
  - RTS 13 – Time requirements and reality checks
  - RTS 14 – Responsible product design

This compliance evaluation does not include evaluation of the Random Number Generator (RNG). The RNG being used has already been certified as per UK RNG testing requirements.

Verification of actual RTP has been performed using simulated game result data utilising the UK RNG testing certified RNG.

3.3 Test Summary

1. Game name: Bloodshot Rising Spirit
2. Channels (game clients):

   HTML5: Supports Desktop and Mobile browsers
3. Game ID: N/A
4. Game version: 0.0.0.1

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5. Versions of games that the game supersedes: None
6. Theoretical return to player (RTP):
    - Pay Model 1: 94.00%
    - Pay Model 2: 97.00%
7. Actual RTP (calculated from simulated game results):
    - Pay Model 1: 93.96%
    - Pay Model 2: 96.81%
8. Platform supplier: Pariplay Ltd
9. Platform name and version: *http://operator.hub.stage.pariplaygames.com/*
10. Jackpot: No

3.4 Testing Environment

The testing of the Pariplay game Bloodshot Rising Spirit has been conducted in a test environment supplied by Pariplay where the game is integrated into the "*http://operator.hub.stage.pariplaygames.com/*"platform.

3.5 Conclusions and Recommendations

Pariplay's game Bloodshot Rising Spirit complies with the requirements of the UKGC Remote Gambling and Software Technical Standards, June 2017.

ga recommends the Pariplay game - Bloodshot Rising Spirit to be approved for use in the production system.

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4 Test Results

This section summarises the results of the tests performed on the Pariplay game Bloodshot Rising Spirit. The tables in the following sub-sections provide the compliance status of the game against the UKGC's requirements listed in [1]. Different values used in the "System Compliance" column are described as follows:

Compliant: The game complies with the requirement.

Does Not Comply: The game does not comply with the requirement.

Acknowledged: The requirement is only a statement or information.

N/A: The requirement is not applicable to the game.

Out of scope: The requirement cannot be evaluated at this stage due to the current scope of testing or limitation of the test environment.

4.1 Section 3: Remote gambling and software technical standards (RTS)

UKGC Requirements	System Compliance	Comments/Anomalies
3 Remote gambling and software technical standards (RTS)		
RTS 1 – Customer account information		
All gambling – except subscription lotteries		
RTS aim 1		
To provide customers with easily accessible information about their current balances.		
RTS requirement 1A		
Where customers hold a credit or debit balance, the pages or screens used for gambling and to move money into and out of accounts must display the customer's current account balance, in the currency of their account (eg dollars, euros or pounds sterling), whenever that customer is logged in. Where it is not practical to display current balance from gambling screens then easily accessible links to this information must be provided.	Compliant	The current account balance is displayed on the gambling screens in the currency of the customer's account.
RTS implementation guidance 1A		
a. Gambling pages and screens include virtual game pages, sports betting coupons, poker and other virtual gaming 'tables'.	Compliant	The customer total account balance is displayed on the gambling screens.
b. For telephone betting this information is to be delivered at the customer's request by the customer service agent or automated response system	N/A	
RTS requirement 1B	**Out of scope**	**Pariplay supplies games and the platform to operators. It has been verified that the gaming transactions are being recorded by the platform and can be displayed by the operator on their website. The requirements in this section are the operator's responsibility.**
Customers must have easy access to at least three months account and gambling history without having to contact the licensee. A minimum of 12 months of gambling and account history must be made available on request. The ability to request this information should be made clear to customers and be provided as soon as is practicable.		
RTS implementation guidance 1B		
a. The gambling and account history should include: i. credit and debit information such as deposits, withdrawals, movement of funds between products, payments off credit accounts, entry fee deductions, and bonus information, as appropriate ii. bets placed, the results of bets, winnings paid iii. For gaming (including bingo) full or summarised gaming information should be available, for example, £10 taken into game, £100 turned over, £3 taken away from game. Where detailed historic game information may not necessarily be directly available to customers, as a minimum, customers must have easy access to details of the last game played and summarised information for previous activities		

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UKGC Requirements	System Compliance	Comments/Anomalies
iv. where customers are able to move funds between gambling products, account information and statements should clearly display movement of funds into and out of products v. an option for customers to use their own defined time period or to select from a range of time periods a summary total for the period selected eg win/loss.		
b. For telephone betting and restricted display devices, where customers demonstrate that they also have access to websites – by registering online or using other online products – it is acceptable to provide access to statements via these websites, otherwise customers should be sent a regular copy of their statement via email, fax or post unless they elect not to receive this information. Customers should be sent a statement on request, even if they have opted out of receiving regular statements.		
RTS requirement 1C – Customers must be able to access information about their net deposits.	**Out of scope**	**Pariplay supplies games and the platform to operators. The requirements in this section are the operator's responsibility.**
RTS implementation guidance 1C		
Net deposits are defined as the running total of all deposits minus the sum of all withdrawals for the lifetime of the account. This should be displayed at an account level so the figure represents the net position of all payment methods. Where full account lifetime history isn't possible then, as a minimum, the net deposits should be displayed from 1 April 2018, or the account opening date if after 1 April 2018. Information which explains the net deposit figure, including the timeframe it covers, should be provided.		
RTS 2 – Displaying transactions		
All gambling		
RTS aim 2		
To enable the customer to understand the value and content of their transactions.		
RTS requirement 2A		
The remote gambling system must be designed to make available clear information about the amount of money being gambled by the customer, including any conversions from one form of currency to another, or from currency to credits, chips or other tokens etc, at the point of conversion.	Compliant	
RTS implementation guidance 2A		
a. The financial commitment for each gamble should be displayed somewhere on the screen either in the currency of the customer's account or in the currency of the product. The use of credits, chips or other tokens with no face value should only be used when the corresponding currency amount is clearly visible, or where the customer is not staking additional money such as a poker tournament.	Compliant	The bet amount is displayed in the currency of the customer's account.
b. Any conversion from one currency to another should be clearly presented to the customer and any conversion rules are also to be presented. Where currency is converted into tokens, chips or credits, etc., the conversion should be clearly displayed.	Compliant	
c. Information about the value of the gamble should be displayed including, as appropriate:		
i. unit stake and total stake, whether currency, credit, tokens, chips, or any other form of payment	Compliant	The total stake amount is displayed in currency.
ii. entry fees, for example, payment for entry to poker tournaments	N/A	
iii. the price of lottery tickets and the number of draws entered.	N/A	
d. For telephone gambling, this information is to be delivered by the customer service agent or automated response system.	N/A	
e. For subscription lotteries, sending a confirmation by email or post and/or displaying the stake and the number of draws entered when the customer subscribes is sufficient.	N/A	
RTS requirement 2B		
The gambling system must be designed to display sufficient relevant information about the customer's gamble so that the content of the gamble is clear. This information must be made available before the customer commits to the gamble including, for example, in the artwork and textual information	Compliant	

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UKGC Requirements	System Compliance	Comments/Anomalies
displayed during gaming, or on an electronic equivalent of a betting slip or lottery ticket.		
RTS implementation guidance 2B		
a. The following items provide guidelines about the type of information that may be relevant:		
i. selections – the items the customer has chosen to gamble on;	Compliant	All selections made by the customer are clearly displayed on the bet screen.
ii. the bet type	Compliant	
iii. the accepted odds, for example current odds, starting price, first show, etc.	N/A	
iv. the odds format that will take precedence in settling bets must be set out in the rules.	N/A	
These items, where relevant, are required on applications designed for use on restricted display devices.	Acknowledged	
b. For telephone gambling the content of the customer's bet should be read back to them before the bet is confirmed.	N/A	
c. Where the customer is able to choose, through the use of a third party user-interface, to override the display of this information, this must not be the default option. That is, the customer must make an active choice not to have the information available or to install a user-interface that does not contain the information. The remote gambling system should continue to make available or send the information to the customer; it should not assume that the information is not required.	N/A	
d. For subscription lotteries, sending a confirmation by email or post and/or displaying the first draw and the number of draws for which the customer will be entered is sufficient.	N/A	
RTS requirement 2C	**N/A**	No price fluctuations in the game.
The gambling system must be designed to enable customers to choose whether to accept price fluctuations (in either direction) that occur after their bet is requested.		
RTS implementation guidance 2C		
a. Players should be presented with options to control whether a price change should be accepted or not.		
b. These options must be presented on a per bet basis, except in circumstances where a customer has requested a default account setting to disable price change alerts prior to bet acceptance. Where the functionality is offered at an account level the default option should not be set to accept all fluctuations. Where a customer chooses not to accept price changes automatically any bet where the price changes must be reoffered before it is accepted.		
c. Information sufficient to explain the options to the customers should be provided.		
d. An optimum solution would enable consumers to choose to automatically accept price movements within a particular margin range. Account level options offered to consumer could include accepting all bets with higher price, accepting all bets with shorter price or accepting all bets regardless of price movements.		
e. This requirement does not intend to capture currency fluctuations		
RTS requirement 2D	**N/A**	
Customer who choose to use third party user interfaces must be informed that applications may not display full information about their gambles.		
RTS implementation guidance 2D		
Information should be included in terms and conditions, rules or other general information about the gambling product that is made available to and/or sent out to customers.		
RTS 3 – Rules, game descriptions and the likelihood of winning		
Gaming (including bingo), lotteries and betting on virtual events		
RTS aim 3		
To enable customers to make informed decisions about whether to gamble based on their chances of winning, the way the game, lottery or event works, the prizes or payouts on offer and the current state of multi-state games or events.		

UKGC Requirements	System Compliance	Comments/Anomalies
RTS requirement 3A		
An explanation of the applicable rules must be easily available to the customer before they commit to gamble. The content including artwork and text must be accurate, and sufficient to explain all of the applicable rules and how to participate. All reasonable steps must be taken to ensure that the content is understandable.	Compliant	
RTS implementation guidance 3A		
a. Explanatory content includes information in artwork and text displayed within the virtual event, in 'help' or 'how to play' pages, or other supporting material.	Compliant	The game help page with instructions on how to play is available to customers.
b. Links to the information should be prominently placed, for example on home pages for gaming sections, game selection pages or menus, or within individual games, so that customers can easily locate them.	Compliant	The link to the online pay tables and game rules is located on the bet screen and customers can access this information at any time.
c. As a minimum, restricted display devices should provide explanatory content via a menu item or other link.	Compliant	
d. The following items provide guidelines on the type of explanatory content that may be relevant and should be considered for inclusion:		
i. the name of the game, lottery or virtual event	Compliant	The name of the game is displayed on the bet screen.
ii. the applicable rules, including clear descriptions of what constitutes a winning outcome	Compliant	The link to the online pay tables and game rules is located on the bet screen and customers can access this information at any time.
iii. restrictions on play or betting, such as any play duration limits, maximum wins, etc	Compliant	All restrictions on play or betting are explained in the game rules.
iv. the number of decks or frequency of shuffles in virtual card games	N/A	
v. whether there are contributions to jackpots (progressives) and the way in which the jackpot operates, for example, whether the jackpot is won by achieving a particular outcome	N/A	
vi. instructions on how to interact with the game	Compliant	
vii. rules pertaining to metamorphosis of games, for example, the number and type of tokens that need to be collected in order to qualify for a feature or bonus round and the rules and behaviour of the bonus round	N/A	
viii. the rules for entering a single lottery draw or a series of lottery draws and the frequency of the draws.	N/A	
RTS requirement 3B		
Where relevant, as the game or event progresses, information that may reasonably be expected to enable the customer to understand the current state must be displayed.	Compliant	
RTS implementation guidance 3B		
The following items provide guidelines on the type of information that may be relevant.		
a. Where a game builds up a collection of tokens (symbols etc.), the current number collected.	N/A	This is not a metamorphic game.
b. An indication of which rules are currently relevant, such as displaying 'bonus round' or other feature labels.	Compliant	
c. This requirement does not apply to lotteries.	Acknowledged	
RTS requirement 3C		
For each virtual event, game (including bingo), or lottery, information that may reasonably be expected to enable the customer to make an informed decision about his or her chances of winning must be easily available before the customer commits to gamble. Information must include: i. a description of the way the game works and the way in which winners are determined and prizes allocated ii. house edge (or margin) iii. the return to player (RTP) percentage iv. the probability (likelihood) of winning events occurring.	Compliant	
RTS implementation guidance 3C		
a. The following items provide further guidance on acceptable types of information about the likelihood of winning:		
i. for types of peer-to-peer games where the likelihood of winning may depend on skill and/or the actions of other participants, a description of	N/A	

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UKGC Requirements	System Compliance	Comments/Anomalies
the way the game works and how winners are determined will be sufficient;		
ii. for bingo, and some types of lottery or other games where it is not possible to determine the likelihood of winning because it depends on the eventual number of participants, a description of the way in which prizes are allocated will be sufficient.	N/A	
iii. the average theoretical return to player percentage. Where an event (other than peer-to-peer) involves an element of skill, return to player percentage should be calculated using either the auto-play strategy or a standard/published strategy;	N/A	
iv. the house edge, margin or over-round, for example for a virtual race;	N/A	
v. the probability of each winning event occurring, or such information as may reasonably be expected to allow the customer to calculate the probability that the event will occur. The nature of some games may mean that the game itself provides sufficient information, for example, the likelihood of rolling a six on a six-sided die would not require further explanation.	Compliant	
vi. The odds displayed in virtual event betting should reflect the probability of each event occurring as closely as possible.	N/A	
b. Information may be included in artwork and text displayed within the virtual game or event, in 'help' or 'how to play' pages, or other supporting material.	Compliant	The game rules and pay tables provide a description of how the game works and winning prizes are determined.
c. Information should be easily accessible, for example by placing links on home pages for gaming or virtual event sections, game selection pages or menus, or within individual games.	Compliant	The link to game rules and pay tables is located on the bet screen and customers can access this page at any time.
RTS requirement 3D		
For each virtual event, game (including bingo), or lottery, content describing the potential prizes and payouts or the means by which these are calculated or determined must be easily available before the customer commits to gamble.	Compliant	
RTS implementation guidance 3D		
a. Information should be made available about the amounts that customers may potentially win, for example in the form of pay tables, or by showing the odds paid for particular outcomes.	Compliant	
b. For peer-to-peer games where the prize is determined based on the actions of the participants, a description of the way the game works and the rake or commission taken will be sufficient.	N/A	The game is not a peer-to-peer game.
c. For lotteries and other types of events where the potential amount or prize paid out may not be known before the customer commits to gamble, describing the way in which the prize amount is determined will be sufficient.	N/A	
d. Information may be included in artwork and text displayed within the virtual event, in 'help' or 'how to play' pages, or other supporting material.	Compliant	A pay table including all payouts is always available through a link located on the bet screen.
e. Information should be easily accessible, for example by placing links on home pages for gaming sections, game selection pages or menus, or within individual games.	Compliant	
f. Displays of jackpot amounts that change over time ('progressives') should be updated as frequently as practicable, particularly after the amount has been reset following a win.	N/A	
RTS 4 – Time-critical events		
Gaming (including bingo), and betting on virtual events		
RTS aim 4		
To reduce the risk that customers are unfairly disadvantaged by technical factors that may affect speed of response, and to ensure customers are made aware of the risk	N/A	Game outcomes are not affected by technical factors.
RTS requirement 4A		
Where speed of interaction has a significant effect on the customer's chance of winning, operators must assess the level of risk and demonstrate to the Commission that they are taking reasonable steps to reduce the risk to customers.	N/A	The speed of interaction does not affect the customer's chance of winning.
RTS implementation guidance 4A		
Examples of possible approaches include:		

UKGC Requirements	System Compliance	Comments/Anomalies
a. estimating the degree of network latency (delay) a customer is experiencing and displaying regularly updated information to the customer about any disadvantage that they may be operating under (e.g. high, medium, low)		
b. applying a handicapping system based on estimated performance and/or system latency		
c. treating winning responses that arrive within a period of time as simultaneous and implementing a policy on how simultaneous wins are to be dealt with.		
RTS requirement 4B		
For time-critical events, the customer should be informed that they might be at a disadvantage because of technical issues such as slower network speeds, or slower end user device performance.	N/A	Slower network speeds or slower end user device performance do not affect the game outcomes.
RTS implementation guidance 4B		
a. Information should be included in game descriptions, rules, 'help' or 'how to play' pages.		
RTS 5 – Result determination		
All gambling		
RTS aim 5		
To ensure that the gambling system implements the operator's rules, game rules and betting rules as they are described to the customer.		
RTS requirement 5A		
All reasonable steps should be taken to ensure that gambles are accepted, processed and settled in accordance with the operator's published terms and rules, and the rules of the specific game, event, or bet. Where unexpected system flaws, faults, or errors that affect the customer occur, steps are to be taken as soon as practicable to remedy the problem and ensure that the customer is treated fairly according to the circumstances.	Compliant	
RTS implementation guidance 5A		
a. Under normal operation, in the absence of technical faults, the system should act in accordance with the rules.	Compliant	The game operates and interacts with the customer in accordance with the published game rules.
b. Reasonable steps include testing of systems and new products against the published rules and monitoring the ongoing performance of those products in the live environment. Refer to our testing strategy for more detailed requirements in this area.	Out of scope	This requirement is related to operational procedures and hence it is the operator's responsibility.
c. Customers should be notified when errors that affect them, for example, incorrectly settled bets, have occurred as soon as practicable after the event occurs. Steps should be taken to rectify the error, for example, by manually adjusting the customer's account.	Out of scope	This requirement is related to operational procedures and hence it is the operator's responsibility.
RTS 6 – Result determination for play-for-free games		
Gaming (including bingo), lotteries, and betting on virtual events		
RTS aim 6		
To minimise the risk that customers are misled about the likelihood of winning due to the behaviour of play-for-free games.		
RTS requirement 6A		
Play-for-free games must implement the same game rules as the corresponding play-for-money games offered on the same facilities (ie the same website). Operators must take all reasonable steps to ensure that play-for-free games accurately represent the likelihood of winning and prize distribution in the play-for-money game. For the purpose of this requirement playing a game includes participating in a lottery and/or betting on a virtual event.	N/A	Only the play-for-money game has been tested.
RTS implementation guidance 6A		
a. The play-for-free game should use the same RNG as the corresponding play-for-money games, another RNG that fulfils the requirements set out in RTS requirement 7A, or a publicly available RNG, (such as those available as standard within operating systems) that may reasonably be expected to produce no systematic bias.	N/A	

UKGC Requirements	System Compliance	Comments/Anomalies
b. Where 6a is not reasonably possible, it should be demonstrated that the method of producing outcomes does not introduce a systematic bias, for example:	N/A	
i. if tables of random numbers are used, they should be sufficiently long to support a large number of games without repeating		
ii. The method should represent game probabilities accurately, ie it should not produce a higher than expected proportion of winning outcomes.		
c. The prize distribution should accurately represent the play-for-money game. For example, where play-for-free games use virtual cash, the virtual cash payouts should be the same as the corresponding play-for-money game, and where tokens are used, the allocation of tokens as prizes should be proportionate to the stakes and prizes in the play-for-money game.	N/A	
d. Where videos are used to advertise a game's features it should be made clear to consumers where footage has been edited or sped-up for promotional purposes. Similarly, where a non-consumer (eg supplier's) website is demonstrating a game with higher than normal returns (ie on a website that is different to the real money gambling facility websites) it should be made clear that it is a demonstration game specifically designed to demonstrate the bonus features.	N/A	No demonstration video available
RTS 7 – Generation of random outcomes		
Gaming (including bingo), lotteries, and betting on virtual events		
RTS aim 7		
To ensure that games and other virtual events operate fairly.		
RTS requirement 7A	**Compliant**	**Pariplay RNG has been certified by GLI. Refer to "246RN-400-PAY-19-02-246 - PariPlay CSRNG, Version 1.0.pdf", issue date May 15, 2019.**
Random number generation and game results must be 'acceptably random'. Acceptably random here means that it is possible to demonstrate to a high degree of confidence that the output of the RNG, game, lottery and virtual event outcomes are random, though, for example, statistical analysis using generally accepted tests and methods of analysis. Adaptive behaviour (i.e. a compensated game) is not permitted.		
Where lotteries use the outcome of other events external to the lottery, to determine the result of the lottery (for example, using numbers from the National Lottery) the outcome must be unpredictable and externally verifiable.		
RTS implementation guidance 7A		
a. RNG's should be capable of demonstrating the following qualities:		
i. the output from the RNG is uniformly distributed over the entire output range and game, lottery, or virtual event outcomes are distributed in accordance with the expected/theoretical probabilities		
ii. the output of the RNG, game, lottery, and virtual event outcomes should be unpredictable, for example, for a software RNG it should be computationally infeasible to predict what the next number will be without complete knowledge of the algorithm and seed value		
iii. random number generation does not reproduce the same output stream (cycle), and that two instances of a RNG do not produce the same stream as each other (synchronise)		
iv. any forms of seeding and re-seeding used do not introduce predictability		
v. any scaling applied to the output of the random number generator maintains the qualities above.		
b. For lotteries using external events - where it is not practical to demonstrate 7A the events outcomes should be:		
i. unpredictable, that is, events should be selected only where they may reasonably be assumed to be random events		
ii. unable to be influenced by the lottery operator (or external lottery manager)		
iii. Publicly available and externally verifiable, for example, events that are published in local or national press would be acceptable.		
c. For games or virtual events that use the laws of physics to generate the outcome of the game (mechanical RNGs), the mechanical RNG used should		

UKGC Requirements	System Compliance	Comments/Anomalies
be capable of meeting the requirements in a. where applicable and in addition:		
i. the mechanical pieces should be constructed of materials to prevent decomposition of any component over time (e.g. a ball shall not disintegrate)		
ii. the properties of physical items used to choose the selection should not be altered		
iii. Players should not have the ability to interact with, come into physical contact with, or manipulate the mechanics of the game.		
d. Restricting adaptive behaviour prohibits automatic or manual interventions that change the probabilities of game outcomes occurring during play. Restricting adaptive behaviour is not intended to prevent games from offering bonus or special features that implement a different set of rules, if they are based on the occurrence of random events.		
RTS requirement 7B		
As far as is reasonably possible, games and events must be implemented fairly and in accordance with the rules and prevailing payouts, where applicable, as they are described to the customer.	Compliant	
RTS implementation guidance 7B		
a. Games should implement the rules as described in the rules available to the customer before play commenced.	Compliant	
b. The mapping of the random inputs to game outcomes should be in accordance with prevailing probabilities, pay tables, etc.	Compliant	
c. When random numbers, scaled or otherwise, are received, e.g. following a game requesting a sequence of random numbers, they are to be used in the order in which they are received. For example, they may not be discarded due to adaptive behaviour.	Compliant	The random numbers are used in the order they are received from the RNG. No random numbers are discarded by the game.
d. Numbers or sequences of numbers are not to be discarded, unless they fall outside the expected range of numbers required by the virtual event – such an occurrence should result in an error being logged and investigated.	Compliant	The RNG provides scaled random numbers according to the range required by the game. The scaled numbers do not fall outside the expected range required by the game. No random numbers are discarded by the game.
RTS requirement 7C		
Game designs or features that may reasonably be expected to mislead the customer about the likelihood of particular results occurring are not permitted, including substituting losing events with near-miss losing events and simulations of real devices that do not simulate the real probabilities of the device.	N/A	
RTS implementation guidance 7C		
a. Where a virtual event simulates a physical device, the theoretical game probabilities should match the probabilities of the real device (for example, the probability of a coin landing heads must be 0.5 every time the coin is tossed).	N/A	
b. Where multiple physical devices are simulated the probabilities of each outcome should be independent of the other simulated devices.	N/A	
c. Games may not falsely display near-miss results, that is, the event may not substitute one losing outcome with a different losing outcome.	Compliant	The game does not display near-miss results.
d. Where the event requires a pre-determined layout (for example, hidden prizes on a map), the locations of the winning spots should not change during play, except as provided for in the rules of the game.	N/A	There is no pre-determined layout of the game results.
e. Where games involve an element of skill, every outcome described in the virtual event rules or artwork should be possible, that is, the customer should have some chance of achieving an advertised outcome regardless of skill.	N/A	The game does not involve any element of skill or judgment.
f. Where a customer contributes to a jackpot pool, that customer should be eligible to win the jackpot whilst they are playing that game, in accordance with the game and jackpot rules.	N/A	
RTS requirement 7D		
The rules, payouts and outcome probabilities of a virtual event or game may not be changed while it is available for gambling, except as provided for in the rules of the game, lottery or virtual event. Such changes must be brought to customer's attention.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of game management / operational procedures and controls is out of scope.
RTS implementation guidance 7D		

UKGC Requirements	System Compliance	Comments/Anomalies
a. Changes to game or event rules, paytables or other parameters that change the way in which a game, lottery, or event works, the winnings paid, or likelihood of winning (except as described in 7Dc.), should be conducted with the game or event taken offline or suspended.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of game management / operational procedures and controls is out of scope.
b. Altered games, lotteries, and events should display a notice that informs customers that the game or event has been changed, for example, 'rules changed', 'new odds', or 'different payouts'. The notice should be displayed on game selection screens and on the events themselves if it is possible for the customer to go straight to the event without using a selection screen.	Out of scope	The scope of evaluation is limited to the game design, game play, and fairness. Evaluation of game management / operational procedures and controls is out of scope.
c. This requirement is not intended to prevent games and virtual events where specified changes occur legitimately, in accordance with the game or event rules, for example:		
i. virtual events, such as virtual racing products where the odds differ from event to event depending on the virtual runners	N/A	
ii. virtual games, such as bingo where the odds of winning are dependent on the number of entrants	N/A	
iii. games with progressive jackpots, where the amount that can be won changes over time	N/A	
iv. games with bonus rounds where different rules apply, so long as these rounds are properly described to the customer	Compliant	
v. unspecified changes to rules, paytables or other parameters that change the way in which a game, lottery or event works are not permitted, for example, rules that state 'game rules may be changed at any time' would not be acceptable.	Compliant	The game rules do not have any such provision.
RTS requirement 7E		
Except in the case of subscription lotteries, the system must be designed to clearly and accurately display the result of the game or event and the customer's gamble. The result must be displayed for a length of time that may reasonably be expected to be sufficient for the customer to understand the result of the game or event in the context of their gamble.	Compliant	
RTS implementation guidance 7E		
The game artwork and text should be sufficient to provide the customer with all of the information required to determine whether they have lost or won, and the value of any winnings.	Compliant	The game results are displayed for a reasonable length of time for the customer to see and understand the results.
RTS 8 – Auto-play functionality		
Gaming		
RTS aim 8		
To ensure that the customer is still in control of the gambling where auto-play functionality is provided and to minimise the risk that the functionality disadvantages a customer or that auto-play or other strategy advice is misleading.		
RTS requirement 8A		
The gambling system must provide easily accessible facilities that:		
(a) make available the following three controls, each of which stops auto-play functionality when it is triggered- (i) 'loss limit', ie where the player selects an option to not lose more than X from their starting balance, where X is an amount that can be selected by the player. A 'loss' in this context equates to accumulated auto-play bets minus accumulated auto-play wins. (ii) 'single win limit' ie single win greater than Y where Y is an amount that can be selected by the player and (iii) 'Jackpot win' (where applicable).	Compliant	If balance decreases by and Single win limit controls are available, each of which stops auto-play functionality when the limit is reached.
(b) Require auto-play to be implemented in such a way that each time a customer chooses to use auto-play they must select the stake, the number of auto-play gambles and at least the first of the above three controls.	Compliant	Each time a customer chooses to use auto-play they must select the number of auto-play gambles and the Loss limit Customers can change their stake value in the game during idle mode.
The number of auto-play gambles must not exceed 100 in one batch. During auto-play the customer must be able to stop the auto-play regardless of how many auto-play gambles they initially chose or how many remain.	Compliant	

UKGC Requirements	System Compliance	Comments/Anomalies
RTS implementation guidance 8A		
a. Auto-play should not override any of the display requirements (for example, the result of each gamble must be displayed for a reasonable length of time before the next gamble commences, as set out in RTS 7E)	Compliant	During auto-play the game results are displayed for a reasonable length of time for the customer to see and understand the results.
RTS requirement 8B		
In relation to skill and chance games, strategy advice and auto-play functionality must be fair, not misleading and must not represent a poor choice.	N/A	
RTS implementation guidance 8B		
In implementing this control, the following should be considered, where appropriate:		
i. if there is a standard strategy, for example, for well-known games like blackjack, the standard strategy should be used	N/A	
ii. Strategies or auto-play should (theoretically) produce at least the average Return to Player (RTP) for the game over time.	Compliant	
RTS 10 – Interrupted gambling		
Peer-to-peer betting and gaming (including bingo)		
RTS aim 10		
To ensure that customers are treated fairly in the event of interrupted play or betting and that they are aware of how they will be treated if interruptions occur.		
RTS requirement 10A		
Operators must take all reasonable steps to ensure that their policies for instigating or dealing with service interruptions are fair and do not systematically disadvantage customers.	Compliant	
RTS implementation guidance 10A		
a. For gaming the following policies should be applied:		
i. where an interruption occurs after the operator receives notification of the customer's gamble and where the customer can have no further influence on the outcome of the event or gamble the results of the gamble should stand	Compliant	
ii. where an interruption to a single-participant single stage event occurs before an outcome has been generated the customer should have any deducted stake returned to their balance	Compliant	
iii. for stateful games (games where there are multiple stages or decision points), all reasonable steps should be taken to restore the game to its last known state to enable the customer to complete the game	Compliant	The incomplete game is provided.
iv. games with multiple participants (equal chance or otherwise) should be dealt with fairly on a case-by-case basis	N/A	
v. progressive jackpot values should be restored to their pre-failure state.	N/A	
b. For peer-to-peer betting the following policies should be applied:	N/A	
i. where a service interruption is caused by failures in the gambling system, operators should suspend betting on all betting markets that have been affected by a significant event before service is restored	N/A	
ii. other failures should be dealt with fairly on a case-by-case basis.	N/A	
RTS requirement 10B	**Out of scope**	**This section relates to functionality of the backend and is, therefore, out of scope.**
Systems must be capable of recovering from failures that cause interruptions to gambling, including where appropriate, the capability to void gambles (with or without manual intervention), the capability to suspend betting markets, and taking all reasonable steps to retain sufficient information to be able to restore events to their pre-failure state.		
RTS implementation guidance 10B		
a. For gaming the system should:		

UKGC Requirements	System Compliance	Comments/Anomalies
i. be capable of voiding gambles and restoring the amount gambled to the customer automatically, or in conjunction with manual operational controls; and		
ii. implement all reasonable measures to maintain sufficient information to be capable of automatically restoring an event to its pre-failure state so that it may be completed by the customer. The following information should be restored, as appropriate: • the state of a deck of cards, and any hands that have been dealt • number of tokens collected • any other predetermined information, such as maps or prize layouts • the value of any progressive jackpots • the state of any gambles, e.g. who has staked what on what outcome • bets placed or offered.		
b. For peer-to-peer betting, it should be possible to suspend betting markets manually or automatically.		
RTS requirement 10C.	**Out of scope**	**The scope of evaluation is limited to the game design, game play, and fairness. This requirement is related to operational procedures and hence it is the operator's responsibility.**
Operators must make available information about their policies regarding service interruptions in various different circumstances.		
RTS implementation guidance 10C		
Operators should make information available to customers about how they will be treated in various common scenarios. However, this does not mean that operators have to detail all possible scenarios or responses to service interruptions		
RTS 12 – Financial limits	**Out of scope**	**Pariplay supplies games and the platform to operators. This requirement is the operator's responsibility.**
All gambling - except subscription lotteries		
RTS aim 12		
To provide customers with facilities that may assist them in sticking to their personal budgets for gambling with the operator. Customers must be also be given the option to set financial limits at an account level.		
RTS requirement 12A		
The gambling system must provide easily accessible facilities that make it possible for customers to impose their own financial limits. Customers must be given the opportunity to set a limit as part of the registration process (or at the point at which the customer makes the first deposit or payment).		
RTS implementation guidance 12A		
a. For telephone gambling (except lotteries), customers should be asked if they would like to set a deposit or spend limit when they register. Customers should be able to request a limit at any point after registration. The limit should be implemented as soon as practicable after the customer's request. The customer should be informed when the limit will come into force.		
b. For other access media (including internet, interactive TV and mobile), customers should be offered the opportunity to select a deposit/spend limit from a list which may contain a 'no limit' option or to enter a limit of their choice as part of the registration or first deposit process. The 'no limit' option should not be the default option.		
c. Limits could be in the form of: i. deposit limits: where the amount a customer deposits into their account is limited over a particular duration ii. spend limits: where the amount a customer spends on gambling (or specific gambling products) is restricted for a given period – this type of limit may be appropriate where the customer does not hold a deposit account with the operator iii. loss limits: where the amount lost (ie winnings subtracted from the amount spent) is restricted (for instance when a customer makes a £10 bet and wins £8, the loss is £2).		
d. The period/duration of the limits on offer should include: i. 24 hours.		

UKGC Requirements	System Compliance	Comments/Anomalies
ii. 7 days; and iii. one month		
e. In addition: i. limits may be implemented per customer, per account, or other means ii. limits could also be implemented across all products or channels or for individual products or channels. Where limits are also set across separate products it should be clear to customers using the facility that a limit will need to be set for each individuals product. For example, where a limit has been set for a specific game a customer should not be misled into assuming that the limit automatically applies to other products. iii. financial limit facilities should be provided via a link on the home page iv. facilities should be available on deposit pages/screens or via a link on these pages/screens. v. where a customer sets simultaneous time frames, for example a daily deposit limit and a weekly limit, the lowest limit should always apply. Therefore if a daily deposit limit of £10 and a weekly limit of £100 are both set then the maximum the system should allow to be deposited is £10 per day and £70 per week.		
RTS requirement 12B		
All reasonable steps must be taken to ensure that customer-led limits are only increased at the customer's request, only after a cooling-off period of 24 hours has elapsed and only once the customer has taken positive action at the end of the cooling off period to confirm their request.		
RTS implementation guidance 12B		
Where possible (for instance, unless systems/technical failures prevent it) limit reductions are to be implemented within 24 hours of the request being received. In addition, at the point at which the customer requests a decrease in their limit, they should be informed when the limit reduction will take effect.		
RTS 13 – Time requirements and reality checks		
In respect of requirement RTS 13A – All remote gambling except telephone gambling **In respect of RTS 13B – Remote gaming (including bingo but excluding peer to peer gaming), remote instant win lotteries and high frequency lotteries.**		
RTS aim 13		
To provide customers with facilities to assist them to keep track of the time they spend gambling.		
RTS requirement 13A		
Where the gambling system uses full screen client applications that obscure the clock on the customer's device the client application itself must display the time of day or the elapsed time since the application was started, wherever practicable.	Compliant	The elapsed time since the application was started is always visible.
RTS implementation guidance 13A		
a. Time of day should either be taken from the customer's own device or 'server time' and should be displayed in hours and minutes.	Compliant	The customer device built-in clock is displayed in hours and minutes and always visible.
b. Operators will not be expected to detect whether or not customers have hidden their clocks.	Compliant	
c. Elapsed time should be displayed in minutes and hours.	Complaint	
d. For restricted display devices, time of day or elapsed time should be displayed where the device supports it.	N/A	
e. In addition, customers may be offered the ability to set a session or game-play duration reminder.	N/A	
RTS requirement 13B		
The gambling system must provide easily accessible facilities that make it possible for customers to set a frequency at which they will receive and see on the screen a reality check within a gaming session. A 'reality check' means a display of the time elapsed since the session began. The customer must acknowledge the reality check for it to be removed from the screen.	Compliant	The reality check message is displayed on the screen during game play. The customer must acknowledge the reality check for it to be removed from the screen.

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UKGC Requirements	System Compliance	Comments/Anomalies
		Testing has been performed on a test environment. The operators are responsible for providing facilities for customers to set a frequency at which they will receive and see the reality check message
RTS implementation guidance 13B		
a. The customer should be offered the opportunity to set or amend a reality check via easily accessible means at all times. Customers should be able to select a frequency at which the reality check will appear on the screen. Customers can be presented with a pre-set list time periods but these must have a reasonable and appropriate range from which to select and where a default time period is offered it must be set at the minimum	Out of scope	Testing has been performed on a test environment. The operators are responsible for providing facilities for customers to set a frequency at which they will receive and see the reality check message
b. The reality check should continue to appear at the selected time intervals until the customer's gaming session ends (see definition of terms) or the customer exits their account (this will depend on solutions i ii iii below). If a customer is participating in multiple gaming sessions at once (eg playing bingo as well as participating in slots games in between draws) the gaming session began when the player commenced with the first product. The reality check facility could be implemented via one of the following ways: i. **Player account level implementation**. There are two potential solutions for account level implementation. The optimum approach would enable customers to set a reality check reminder for their account, which would commence at the start of the first gaming session and roll over to subsequent sessions. An alternative solution would be for the reality check to commence before a customer accesses a gaming session (eg at account log in stage). The second solution would meet the requirement although it would not take into account natural breaks in play, such as when customers are in the casino lobby. ii. **Product level implementation**. This approach will enable a customer to set a reality check for each individual gaming session, for example the player commences playing roulette and then later starts playing blackjack and has two reality checks running concurrently but covering different time periods. iii. **Hybrid solution**. Some games are subject one reality check and others are subject to another for example all slot games are subject to a single reality check and live dealer products are subject to a separate reality check.	Out of scope	The reality check continues to appear at the selected time intervals until the customer chooses to exit the game. The operators are responsible for providing facilities for customers to set a frequency at which they will receive and see the reality check message base on player account or gaming sessions.
c. The reality check should offer the customer the facility to exit the gaming session or log out of their account (depending on which of the above solutions is adopted).	Compliant	A link to exit the game is provided on the reality check message.
d. The reality check should provide a link to the customer's account history.	Compliant	A link to account history is provided on the reality check message.
e. The reality check can be presented at the end of a game but a player cannot be permitted to commit further funds to a new game until they have acknowledged the reality check, unless it occurs mid-way through a multi-state game such as blackjack where a player would need to commit additional funds if they wanted to split or double down.	N/A	
f. The reality check must prevent a new game within an auto-play sequence from commencing until the player has acknowledged the reality check.	N/A	
RTS 14 – Responsible product design		
All gambling		
RTS aim 14		
To ensure that products are designed responsibly and to minimise the likelihood that they exploit or encourage problem gambling behaviour.		
RTS requirement 14A		
Gambling products must not actively encourage customers to chase their losses, increase their stake or increase the amount they have decided to gamble, or continue to gamble after they have indicated that they wish to stop.	Compliant	
RTS implementation guidance 14A		

UKGC Requirements	System Compliance	Comments/Anomalies
a. By actively encourage, we mean the inclusion of specific features, functions or information that could reasonably be expected to encourage a greater likelihood of the behaviours described occurring. For example:		
i. the amount of funds taken into a product should not be topped up without the customer choosing to do so on each occasion, e.g. when a customer buys-in at a poker table they should have to choose to purchase more chips to play at the table - automatic re-buys should not be provided	Out of scope	PariPlay is supplying games and the platform to operators. This requirement is the operator's responsibility.
ii. written or graphical information should not encourage customers to try to win back their losses	Compliant	
iii. customers who have chosen to exit a game should not be encouraged to continue playing by, for example, being offered a free game.	Compliant	
b. This requirement is not intended to prevent operators from offering special features or well-known games such as blackjack that allow customers to increase their stake on the occurrence of specific events (e.g. split).	Acknowledged	

4.2 Game Rules

The following game rules have been verified through functional testing:

GAME RULES

Bloodshot: Rising Spirit - Game Help

version 0.0.0.1

Ready for some pulse pounding action? Bloodshot is a former soldier with remarkable abilities and regeneration powers, thanks to nanites that were injected into his blood. Now is your opportunity to partner with Bloodshot to reveal the truth, seek vengeance and take down big wins!

Bloodshot Rising Spirit is a 3-row, 5-reel slot based on the legendary Valiant Comics character, Bloodshot. This heart-stopping, adrenalin pumping slot is pure action from the very first spin. The red Killshot can appear randomly and if it lands on Bloodshot himself, he expands over the entire reel to become an expanded WILD for some killer payouts. Choose from three lucrative Free Spins missions, including Rising Spirit, Desert Storm or Valley of Death for impressive rewards and non-stop thrills!

Grab your tactical gear, Bloodshot is counting on you!

General information table:

Game Type	Video Slot
Number of Paylines	20 lines
Game Features	• Expanding Walking Wild - When the red Killshot marker appears on top of Bloodshot, he expands over the full reel and he becomes an expanded Wild. He then moves one position to the left, with each spin thereafter, until he exits the screen. • "Free Spins - When 3 or more scatter symbols land on any reels, it awards a choice of 3 different Free Spins missions: Rising Spirit, Desert Storm or Valley of Death. Each Free Spins option awards 12 free rounds initially."

Pay Model 1:

Return to Player	94%
Hit Rate	27.54%

Pay Model 2:

Return to Player	97%
Hit Rate	26.77%

Game Features

Expanding Walking Wild

The red Killshot marker moves across the reels on every spin.

If the red Killshot marker lands on Bloodshot, he expands over the full reel and becomes an expanded Wild.

The expanded Wild Bloodshot reel then moves one position to the left, with each spin thereafter, until it exits the screen.

The feature must be played at the same bet amount that initiated the round. Changing the bet during the feature will cancel the Walking Wild. Returning to the intial bet amount will bring back the Walking Wild.

Free Spins

When 3 or more scatter symbols land on any reels, it awards a choice of one of three different Free Spins games: Rising Spirit, Desert Storm or Valley of Death.

Each Free Spins option awards 12 free rounds initially.

Collecting Wild symbols can award 5 extra Free Spins, once per Free Spins session.

Rising Spirit Free Spins

In Rising Spirit Free Spins there is a multiplier meter and whenever a Wild symbol lands anywhere on the reels, the multiplier increases by 1 and 1 additional Free Spin is awarded.

The multiplier meter starts at x1.

The multiplier meter goes up after the initial win evaluation. The multiplier is applied to the next winning spin.

When the multiplier meter fills up and reaches x16, 5 additional Free Spins are awarded. Any extra wilds that may have landed during that round are not added to the meter.

The extra Wild symbols that land anywhere on the reels after the meter is full, will award 1 additional Free Spin but the multiplier does not increase.

Desert Storm Free Spins

All wins in Desert Storm Free Spins are multiplied by 2.

Wild symbols become Walking Wilds and then moves one position to the left for each spin thereafter until they exit the screen.

During Desert Storm Free Spins, when one or more Wild symbols appear on each of the reels, it awards 5 extra Free Spins.

Valley of Death Free Spins

Wild symbols become Sticky Wild symbols during Valley of Death Free Spins.

Whenever 2 Wild symbols of the same kind land on the same reel, they turn into Double Multiplier Wild symbols.

Whenever 3 Wild symbols of the same kind land on the same reel, they turn into Triple Multiplier Wild symbols.

The transformation of Wild symbols into Double Multiplier or Triple Multiplier Wild symbols takes place before any wins are calculated.

If a winning line has several multiplier Wild symbols, the multipliers are added together.

During Valley of Death Free Spins, when one or more Sticky Wild symbols appear on every reel, it awards 5 extra Free Spins.

Playing the Game

Betting

To play a round, configure your bet using the + / - buttons on either side of the **Spin** button and/or the **Coin Value + / -** buttons. Then, press the **Spin** button or the **Spacebar** to submit the bet and initiate the round.

Rounds can also be initiated by using the **Autospin** feature.

The **Total bet**, **Balance & Win** amounts can be displayed in coins or cash values. Switching between them can be done by clicking on the bottom UI bar.

Spin Options

Once the round is started, the player can fast-forward to the round result or skip the animations by pressing the **Skip/Stop** button that replaces the **Spin** button while the round is in progress.

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To play rounds faster, the player can use the **Quick Spin** or **Turbo Spin** options (restrictions may apply due to regional jurisdictions)

Turbo Spin – the reels spin and stop faster with no extra animations.

Turbo Spin can be activated by:

- Holding the **Spacebar** on a desktop computer.
- Turning it on from the **Autospin** menu, and then initiating **Autospin** rounds.

Quick Spin Mode - the reels spin and stop faster however all extra animations are shown.

Quick Spin can be activated by:

- Turning it on through the **Sandwich** menu
- Turning it on from **Settings**
- Turning it on from the **Autospin** menu, and then initiating the **Autospin** rounds.

Payout Rules

- Winning combinations are paid per line in succession from the leftmost reel to the rightmost reel.
- Winning combinations and payouts are calculated according to the game's "Paytable", which can be accessed through the **Setting** button
- The prizes are calculated using the following formula:
  Bet amount, divided by 20, multiplied by the symbol payout multiplier. Only the scatter wins are multiplied by the total bet.
- Only the highest win per line is paid.
- Malfunction voids all pays.
- Simultaneous wins on different bet lines are added up.
- All wins occur on the selected (active) paylines, excluding scatter wins that pay for any position.

Payout rules in Features

- Free Spins are played at the same bet amount as the round that activated the Free Spins and with the same number of paylines.
- Free Spins wins are added to any initial wins.

- All open sessions, which are not concluded by the player, plus any future transactions for those sessions will be terminated, after a period of time, as defined by the respective regulator per jurisdiction

.COM	30 days
Italy	7 days
Spain	7 days
Denmark	90 days
Sweden	90 days
Romania	30 days
Portugal	90 days

Enables playing the game automatically for a predetermined number of rounds at the current bet configuration.

The Autospin menu is accessible through the Autospin button.

Autospin Limits

- Loss Limit - Allows you to control your combined losses by entering a numeric value that will stop the Autospin function and trigger a popup message when the loss limit is reached. Calculated as follows:
  (Sum of bets) - (Sum of wins) >= (Loss Limit amount).
- Single Win - Will stop the Autospin function and a popup message will be displayed when a single win payout is >= the 'Single Win' value entered.
- Win Limit - Allows you to control your combined wins by entering a numeric value that will stop the Autospin function and trigger a popup message when the win limit is reached. Calculated as follows:
  (Sum of wins) - (Sum of bets) >= (Win Limit amount).
- On a Win - The Autospin will stop and a popup message will appear on any win within a single round. A free spins feature is considered as one round for this limit setting and the Autospin will only stop after all the free spins are finished.
- On a Feature - The Autospin will stop and a popup message will appear when the game reaches any feature round, including but not limited to: free spins round, bonus games and mini games, with exception to random wilds features.

When the limit's conditions are met, the Autospin will stop and the relevant popup message will appear in the middle of the screen.

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PAYTABLE

EXPANDING WALKING WILD

The red Killshot marker moves across the reels with each spin during the base game. If it lands on Bloodshot himself, he expands over the entire reel to become a Walking Wild.

FREE SPINS

When 3 or more scatter symbols land on any reels, it awards a choice of one of three different Free Spins games: Rising Spirit, Desert Storm or Valley of Death. All options award 12 free rounds initially. If 5 scatter symbols land in the same spin, it awards 1000X the total bet.

RISING SPIRIT FREE SPINS

The multiplier meter increases by 1 whenever a Wild lands, plus 1 additional Free Spin is awarded. If the multiplier meter fills up to x16, an additional 5 Free Spins are awarded.

VALLEY OF DEATH FREE SPINS

Wild symbols become Sticky Wilds. If 2 or 3 Wild symbols of the same kind land on the same reel, they turn into Double or Triple Multiplier Wild symbols.

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DESERT STORM FREE SPINS
WILD
Wild symbols become Walking Wilds after landing and move left with every subsequent spin. All wins are multiplied by 2.

WILD
WILD
WILD
WILD
Substitutes for all paying symbols, except for Scatter symbols.

SYMBOL PAYOUTS
5x = 80
4x = 40
3x = 16
5x = 120
4x = 60
3x = 24
5x = 200
4x = 80
3x = 32
5x = 300
4x = 100
3x = 40

4.3 Return to Player

The test environment has been configured with two pay-model variations for testing purposes. Pariplay advised that in the production environment, Pariplay will offer an operator the choice of the two variations but only one will be enabled for players.

ga has verified return to player (RTP) for two pay-model variations. The theoretical return to player (RTP) for Pariplay's game Bloodshot Rising Spirit is:

- Pay Model 1: 94.00%
- Pay Model 2: 97.00%

A game simulator was run to play the Bloodshot Rising Spirit game and the actual RTP was calculated as follows:

Pay Model	Number of games played (Millions)	RTP%
Pay Model 1	10	93.96%
Pay Model 2	10	96.81%

which is close to the theoretical RTP.

5 References

1. *UK Gambling Commission Remote Gambling and Software Technical Standards, June 2017.*
2. *UK Gambling Commission Testing Strategy for Compliance with Remote Gambling and Software Technical Standards, November 2018.*
3. *RNG Certificate "246RN-400-PAY-19-02-246 - PariPlay CSRNG, Version 1.0.pdf", version 1.0, date15/05/2019.*
4. *Maths spread sheet "Bloodshot945.xlsx", no version, no date.*
5. *Maths spread sheet "Bloodshot970.xlsx", no version, no date.*
6. *Game Description File "Bloodshot Rising Spirit - PRD.pdf", no version, no date.*

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Annex A : SHA-1 Hashes

Game Name	Pay Model	Critical Component	SHA-1 Hashes
Bloodshot Rising Spirit	94.00%	Pariplay.GamesEngine.Slot.VS067.dll	4BDB5107B7B49B1F4C6B2C15D3514BB2CF4743AB
	97.00%	Pariplay.GamesEngine.Slot.VS055.dll	34A221C1713808763176FE3D7559B624928E896D
RNG	Pariplay.GamesEngine.Common.Analyst.dll		8C0C166E37557707DA034348A5CB1CB80FA2B71F
	Pariplay.GamesEngine.Common.Definitions.dll		EE64E660D3EAE3A7B3937C27B3904164FAE49E95
	Pariplay.GamesEngine.Common.Logic.dll		8EB3B3CFE1DFA82E59E0437BAADEC14B14BCEE22
	Pariplay.GamesEngine.Common.RandomGeneratorAlgorithm.dll		AF1591B2756C7145F5D2087C570D3EF3AACDCE53
	Pariplay.GamesEngine.Slot.Definitions.dll		E405F7CB3D7317EF8EF82E7255B2E9FEF2AB1B17
	Pariplay.GamesEngine.Slot.Logic.dll		577FF288A4683885B34B3004B300553CD08CF247

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