

Certification report	Pragmatic Play Game Audit Report – Spaceman
Report identification	PPL-CO-220616-01-GC-R3
Certification laboratory	 <p>178 Merton High Street London SW19 1AY United Kingdom Office 1, 82 London Road Leicester LE2 0QR United Kingdom 123, Melita Street Valletta VLT 1123 Malta</p> <p>Gaming Associates Europe Ltd www.gamingassociates.com</p>
Supervisor	Usman Vaseer
Signature	
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Report prepared for	Pragmatic Play Ltd Block E, Falcon House, Main Street, Sliema - SLM 1544 Malta
Client contact details	Sheriff Khamoura sheriff.khamoura@pragmaticplay.com +350 5451 4000
Tax identification number	MT 24279303
Jurisdiction	Colombia
Technical standards used for testing	Coljuegos Technical Requirements for Internet Games Operated in Colombia May 20, 2020

Gaming Associates



1 Notations

1.1 Confidentiality

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This document, its themes, and ideas are strictly confidential and may not be used in any manner other than its expressed purpose, without the written permission of the author. The documents are for the intended client named in this report, also referred to as “the client” or “client”, and the applicable gaming jurisdiction mentioned in this document.

The documents are copyright.

1.2 Disclaimer

ga has reported on what was discovered throughout the assessment period of the client's game(s) related to the technical scope of testing as per applicable jurisdictional requirements. Results are based on the client's submission of information material, access to the testing environment and applicable testing is performed within a finite period.

Inherently there are limitations in performing compliance testing within a laboratory environment and accordingly **ga** has undertaken its best endeavours to ensure a thorough assessment is performed and conclusion stated.

2 Administration

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2.2 Version

Version	Description	Date
V0.1	Initial Draft – MHAS	2022-06-10
V0.2	Reviewed & Updated – WKAS	2022-06-13
V0.3	QA – UVAS	2022-06-14
V1.0	Final report to Pragmatic Play	2022-06-16
V1.1	Revised the Final report to Pragmatic Play	2022-07-05
V1.2	Revised the Final report to Pragmatic Play – update the game version	2022-08-29

3 Executive Summary

3.1 Introduction

Pragmatic Play Ltd (Pragmatic Play) has requested Gaming Associates (ga) to test the game(s) in scope against the requirements of the jurisdiction of Colombia as regulated by Coljuegos.

This report presents the results of testing performed by ga related to the technical scope of testing as per applicable jurisdictional requirements. Hashes of the critical components of game(s) are listed in Annex A: SHA-1 Hashes.

3.2 Scope of Testing

Pragmatic Play has provided the following game(s) to be tested against the following game related requirements of “Coljuegos Technical Requirements for Internet Games Operated in Colombia May 20, 2020”:

- ♣ Chapter III. General aspects of the games operated by Internet
- ♣ Chapter IV. Game system

Game(s) to be tested:

- Spaceman

This compliance evaluation was performed against game related requirements and does not include the evaluation of technical standards specific to the Platform, Financial Reporting, and Random Number Generator (RNG) as these are outside of the scope of this assessment.

3.3 Testing methodology

The following test methods have been used for compliance evaluation of the game(s):

- ♣ functional testing;
- ♣ documentation review;
- ♣ source code review;
- ♣ emulation of game payout combinations;
- ♣ verification of theoretical return to player (RTP), and
- ♣ calculation of actual RTP using simulated game results.

No sampling has been used during games testing as this is not applicable.

3.4 Description of the system being certified

Pragmatic Play Ltd game(s) are provided in HTML format that supports both Desktop and Mobile browsers. The game(s) are not deployed on any gaming platform or gaming servers at the time of evaluation. Therefore, gaming platform related requirements are out of scope and operator will be responsible for meeting these requirements.

3.5 Test Environment

Testing was performed remotely using the test environment provided by Pragmatic Play at <https://emul.pragmaticplay.net/cgAPIttest/v3/game/game>

3.6 Test Summary

Information summary of testing results are detailed below.



No.	Game Name	Channels (game clients)	Game version / Software build ID	Return to Player (RTP%)	Actual RTP (calculated from simulated game results)	Platform Name and version
1.	Spaceman	HTML (Desktop and Mobile)	1.60.22	95.50%	95.50%	Pragmatic Play Ltd (V1.0)

* No Jackpot is provided in this game

3.7 Conclusions and Recommendations

Subject to the scope of testing and on the basis of testing performed by **ga** for Pragmatic Play on the game(s) provided, has formed an opinion that the submitted game(s) comply with the applicable technical standards of the jurisdiction of Colombia as regulated by Coljuegos.

4 Test Results

This section summarises the results of the tests performed on the game(s) provided. The tables in the following sub-sections provide the assessment of compliance status of the game(s) against the applicable requirements of the technical standards of the jurisdiction of Colombia as regulated by Coljuegos.

The different values used in the tables below within the “Compliance Status” column are described as follows:

Compliant: The testing results comply with the requirement.

Acknowledged: The requirement is only a statement or information.

N/A: The requirement is not applicable for the current product testing.

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

4.1 Chapter III. General aspects of the games operated by Internet

Req #	Requirement Description	Compliance Status	Observations and Evidence
	CHAPTER III. GENERAL ASPECTS OF THE GAMES OPERATED BY INTERNET		
3.1	Basic Rules		
	The operator shall keep a record of active games at all times, in which indicate the game mode or variant and, where applicable, the commercial name.	Out of scope	Operator's Responsibility
	Operator displayed on the screen of the game, or in a place easily visible through a direct link containing information about the instructions and restrictions on the game, including the indication of all prizes, account balances and characteristics special.		
	Operators shall have documented and implemented in your gaming system the procedures necessary to meet the requirements of Regulation operated games online.		
3.2	RANDOM NUMBER GENERATOR - RNG	Out of scope	Refer to the RNG Report: RNG Certificate “551RN-551-PPL-18-01 RNG.pdf”
	Random Number Generator - RNG must meet at least the following requirements:		
	<ul style="list-style-type: none"> Random data generated must be statistically independent. 		
	<ul style="list-style-type: none"> Random data generated will be unpredictable and undeterminable purposes predict outcomes of future game. (Its prediction must be impossible for computer without knowing the algorithm and the seed). 		
	<ul style="list-style-type: none"> Series data generated will not be reproducible. 		
	<ul style="list-style-type: none"> Scaling methods will be linear and will not introduce any bias, pattern or Predictability. 		
	<ul style="list-style-type: none"> The translation method of the symbols or the game results will not be subjected to influence or control of a factor other than numerical values derived from the random number generator 		
	<ul style="list-style-type: none"> The random data must be uniformly distributed within the range settled down. 		
	<ul style="list-style-type: none"> Random data must remain within the range established 		
	<ul style="list-style-type: none"> Different instances of a GNA should not be synchronized with each other so that the results of some to predict the other. 		
	<ul style="list-style-type: none"> Seeded techniques / Re-Seeded should not allow making predictions on the results. 		
	<ul style="list-style-type: none"> Generation mechanisms must have successfully passed various tests statistics showing its random nature. 		

Req #	Requirement Description	Compliance Status	Observations and Evidence
	Technical Gaming System may require several GNA, in which case all must meet the above requirements; it can also happen that share one or GNA instance of the same for one or more games, this applies if the behaviour does not affect random system.		
	The operator shall implement a monitoring system that allows you GNA detect its faults and define the methods and criteria for evaluation of the ruling that allow the mechanisms established to make the decision whether to or not to disable the play when a fault in the GNA that impact on the development of the game takes place.		
3.3	APPLICATION OF RANDOM NUMBER GAMES	Out of scope	Refer to the RNG Report: RNG Certificate "551RN-551-PPL-18-01 RNG.pdf"
	<ul style="list-style-type: none"> The range of values of the GNA must be precise and not distort the percentage of return to the player. 		
	<ul style="list-style-type: none"> The game should not handle random events, or manually, or automatically, or to maintain a minimum percentage return to the player. 		
	<ul style="list-style-type: none"> The translation method of the symbols or the game results should not be under the influence or controlled by another factor than the values numerical derivatives of the GNA. 		
	<ul style="list-style-type: none"> Random events should be governed exclusively by the GNA and should not there is no correlation between a few plays and others. 		
	<ul style="list-style-type: none"> The game should not rule out any random event, except in cases this circumstance is contemplated in the rules of the game. 		
	<ul style="list-style-type: none"> When the rules of the game require the drawing of a sequence of events random (for example, cards in a deck), random events will not be sequenced during the course of the game, except in those cases where this circumstance is contemplated in the rules of the game. 		
3.4	DESIGN OF THE GAME		
	<ul style="list-style-type: none"> The design of the game to ensure fairness and transparency of the game. 	Compliant	Online Game rules are available. Refer to document: "PPL-CO-220616-01-GC-R1 Technical Requirement Spaceman.pdf"
	<ul style="list-style-type: none"> The name of the game must be clearly visible on all screens and associated apparent to the player. 	Compliant	Game name is displayed on the bet screen.
	<ul style="list-style-type: none"> The graphical interface should include all information necessary for the development of the game. 	Compliant	Buttons are clearly indicated on the bet screen and all buttons information's are available in the game rules. Refer to document: "PPL-CO-220616-01-GC-R1 Technical Requirement Spaceman.pdf"
	<ul style="list-style-type: none"> The function of all action buttons represented on the screen should be clear. 	Compliant	All buttons are clearly visible and working.
	<ul style="list-style-type: none"> The result of each play will be displayed, if technically possible so instantly to the player and maintained for a reasonable period. 	Compliant	Game results is displayed on time. Refer to document: "PPL-CO-220616-01-GC-R1 Technical Requirement Spaceman.pdf"
3.5	LOGIC GAME		
	All the logic of the game must be independent of the terminal of the player. This means all functions and logic that are critical to the implementation of the rules of the game and determination of the result they must be generated by the game server, independent of the device	Compliant	

Req #	Requirement Description	Compliance Status	Observations and Evidence
	used by the player.		
3.6	CONTROLS LOGIC GAME		
	The game should be designed to minimize the risk of manipulation. They take the technical, administrative, and procedural measures to prevent behaviours that involving deviations from the rules of the game. The operator shall have a procedure documented that describes the measures applied on your system to ensure that:		
	<ul style="list-style-type: none"> • The game is played according to the rules of the game. 	Compliant	Game is deployed accordance with game rules.
	<ul style="list-style-type: none"> • Game data are recorded correctly in the system. 	Compliant	Game data is recorded correctly
	<ul style="list-style-type: none"> • Guards or identification documents of a bet or participation protect against possible manipulation. 	Compliant	
	<ul style="list-style-type: none"> • The system monitors the time to market bets or participation. The when the market is closed should be one that is set to the rules governing the game in any case be before the end of the event triggers the outcome of the game. 	N/A	
	<ul style="list-style-type: none"> • The system controls the prize fund constituted. 	N/A	
	<ul style="list-style-type: none"> • The procedure for determining winners will not allow that to introduce winners do not qualify to be rewarded or not give those winners yes, they comply. 	N/A	
	<ul style="list-style-type: none"> • The system will award the prizes to the players on the list of winners an effective form. 	N/A	
	Any modification, alteration or deletion of data must stop audit trail, especially when there is manual intervention.	N/A	
3.7	GAME INTERFACE		
	<ul style="list-style-type: none"> • The screens should display the current balance of the player credit for participation and bets placed. 	Compliant	Player balance is displayed on the bet screen Refer to document: "PPL-CO-220616-01-GC-R1 Technical Requirement Spaceman.pdf"
	<ul style="list-style-type: none"> • The interface should show awards as credits. 	Compliant	Total balance and current bet are displayed.
	<ul style="list-style-type: none"> • Should not be toggled different representations that can confuse the player. 	Compliant	All information's are clearly visible. Refer to document: "PPL-CO-220616-01-GC-R1 Technical Requirement Spaceman.pdf"
	<ul style="list-style-type: none"> • Any event resizing or overlapping Player Interface It must be mapped to exactly reflect the modified screen and points tap / click. one 	Compliant	
3.8	RETURN TO PLAYER	Out of Scope	Operator's Responsibility
	The operator shall implement a procedure to ensure compliance return theoretical games offered, so that the rate of return obtained by players for each game, modalities or variants, corresponds to the value or expected ranges in the regulations.		
	The operator shall keep the record of changes in the percentage return to the player for those games where the percentage may depend on configurable parameters in technical gaming system.		
	The percentage return to the player may not be changed during the course of the game, except in those cases where this fact is provided for in the particular rules and player is properly informed.		
3.9	PLAN OF PRIZES		
	<ul style="list-style-type: none"> • The plan awards in those games there will be public and accessible to players and will include all possible winning combinations and a Description of the corresponding prize to each combination. 	Compliant	All winnings' determinations are clearly explained in the online game rules. Refer to document: "PPL-CO-220616-01-GC-R1

Req #	Requirement Description	Compliance Status	Observations and Evidence
			Technical Requirement Spaceman.pdf
	<ul style="list-style-type: none"> Information plan awards should clearly indicate the value in credits the possible bets. 	Compliant	
	<ul style="list-style-type: none"> The player must know the maximum monetary value that can be obtained from the bet or play that you are performing. 	Compliant	Player can play the maximum bet amount.
	<ul style="list-style-type: none"> When there are boats or jackpots or prizes multipliers to be displayed in screens must be specified if the pot or multiplier affects the program awards or not. 	N/A	Game is not linked to the jackpot.
	<ul style="list-style-type: none"> The award scheme cannot be changed during the game, except in Where this fact is specified in the particular rules. 	Compliant	
	<ul style="list-style-type: none"> The award scheme should reflect any change in the value of the prize, for which, it is sufficient that the operator has a box and show prominently in the graphical interface of the game in which the aforementioned changes to appear in the value of the awards. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> The operator shall keep record of the plan awards for each game, so that these changes can be audited. 	Out of Scope	Operator's Responsibility
3.10	BOATS OR JACKPOTS AND ADDITIONAL PRIZES	N/A	This game is not linked with Jackpot
	<ul style="list-style-type: none"> The platform will inform the player clearly when providing funds to boats and how a player can choose to them. 		
	<ul style="list-style-type: none"> All players contributing to the jackpots or boats have the option of winning along the development of the game. The description of the terms of the jackpot or jackpot and requirements to earn it must be communicated to the player. 		
	<ul style="list-style-type: none"> A jackpot or boat is considered active from the moment players choose or they can contribute to it, until it is closed, usually by sharing all awards associates or, where appropriate, by re-routing to another jackpot or pot. 		
	<ul style="list-style-type: none"> The conditions of the boat must consider any conclusion or interruption, scheduled or unforeseen, of the game and technical interruptions in the system. 		
	The operator must provide a process which allows control of the boat, ensuring that:		
	<ul style="list-style-type: none"> The jackpot or jackpot is created, managed, and is awarded a manner consistent with the rules particulars of the game. 		
	<ul style="list-style-type: none"> Once constituted, open the can, the conditions do not change until it has It has been won by one or more players and made cash value. 		
	<ul style="list-style-type: none"> The procedure should not be allowed to introduce winners who do not meet the conditions to be rewarded, nor winners not take for those who do comply. 		
	<ul style="list-style-type: none"> The system gives prizes to the players on the list of winners. 		
	<ul style="list-style-type: none"> If they exist, special attention will be given to the redirection systems on the boat that part of the jackpot is redirected to another fund, where it can be won later. The system redirection pot cannot be used for the purpose to postpone indefinitely the delivery of a prize. 		
	<ul style="list-style-type: none"> The procedures involved in determining winners must leave traces to allow further review of the whole process of decisions made. 		
	<ul style="list-style-type: none"> The amount of the pot should appear updated on all the devices Players who participate in it. 		
	<ul style="list-style-type: none"> The inoperability of the boat must be communicated to the players by display on your device similar messages as "closed pot" or. 		
	<ul style="list-style-type: none"> It will not be possible to win a jackpot that is previously closed. 		
	The operator will monitor boats account where you collect information corresponding to amounts played by players incorporated into cans gaming machines, additional prizes		

Req #	Requirement Description	Compliance Status	Observations and Evidence
	bingo, gambling funds not spread no winners in a category in the pari-mutuel, and generally all game funds had been provided or incorporated in a game or game and they are to be distributed or used in a game or different game.		

4.2 Chapter IV. Game system

Req #	Requirement Description	Compliance Status	Observations and Evidence
	CHAPTER IV. GAME SYSTEM		
4.1	Verification and authentication	Out of Scope	Operator's Responsibility
4.2	CHANNEL INTERACTIVE	Out of Scope	Operator's Responsibility
4.3	CONTINUITY PLAN SERVICE	Out of Scope	Operator's Responsibility
4.4	IDENTIFICATION DEVICES	Out of Scope	Operator's Responsibility
4.5	FUNCTIONALITY OF THE DEVICE	Out of Scope	Operator's Responsibility
4.6	MINIMUM CONNECTION AND RESOURCES		
	<ul style="list-style-type: none"> The operator is obliged to introduce into their technical systems all means possible to try to reduce the risk that certain players are at a disadvantage compared to other technical factors that can affect the speed of the connection. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> The player must be informed in those cases where the response time You may have a significant impact on the probability of winning. 	Compliant	A slow connection will not affect the game outcome/results
	<ul style="list-style-type: none"> The system will inform the player about the unavailability of communication with the game system as soon as detected. 	Compliant	Disconnection message is displayed when the internet connection is not available
	<ul style="list-style-type: none"> The software game should not be affected by the malfunction players end devices, except for the operationalization the procedures for end items or incomplete games. 	Compliant	Incomplete games are made available to the player on reconnection and show the result in the online game history.
4.7	INCOMPLETE GAME		
	<ul style="list-style-type: none"> An incomplete game is one whose result has not yet occurred or, if it has produced, the player has not been informed of this fact. Before a game incomplete, the rules of the game will determine the performance of the platform, you can expect the participation of a player, override the game or follow in it until it is completed. After recovering a game Incomplete, Technical Gaming System must keep a record of the event, its onset, duration, and services affected for later review. 	Compliant	
	<ul style="list-style-type: none"> If the game is incomplete due to a lost connection of the device player, when the player reconnects, the platform will show at least results and status of the bet as long as you have generated the result thereof. 	Compliant	
	<ul style="list-style-type: none"> The platform will keep track of the causes of disconnection or inactivity sessions of the player, with details of the start and end of the session, as the authentication mechanism used by the player to reactivate its session. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> The operator must have a documented procedure for managing incidents of unavailability of one, several or all components, including associated technical measures for recovery. Components must perform self-diagnosis, check for critical files and check communications between the various components. 	Out of Scope	Operator's Responsibility
4.8	REDUCED BY OTHER TERMINALS FUNCTIONALITY		
	<ul style="list-style-type: none"> Devices that have a GUI limited by size, as by such as mobile devices, compared with personal computers, should provide content to visually complement the games as seen in the other devices. 	Compliant	

Req #	Requirement Description	Compliance Status	Observations and Evidence
	<ul style="list-style-type: none"> The platform can offer, for purely technical reasons arising from characteristics of the device, different functionality in different types of devices as long as they identify and document these differences. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> The player must be informed of the limitations of information or functionality of the device and client application using, and so to accept express. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> Operator mitigate the risks arising from lack of information or functionality on a given device by providing the same information other media. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> Unless duly justified technical impediments, all information should appear at the interface of the game must also be displayed in all devices. When it is not possible to include all information or links on the game interface, will be offered from a link from a menu or another application of the same device. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> The platform will not process sets the device if you do not have all minimum technical and connectivity resources to enable smooth play technicians without disadvantages. 	Out of Scope	Operator's Responsibility
4.9	FAIRNESS IN THE GAME		
	The games should not be designed to give the player a false expectation of better likely representing fictitiously any game event. They're not here games allowed "almost won" type designed to give the player's perception He was about to win the prize, in order to induce the player to continue betting.	Compliant	Games do not give false expectations to the players.
4.10	SESSION PLAYER		
	<ul style="list-style-type: none"> Where technically possible, the platform will keep recording meetings game, with details of the start and end of session, of the mechanism authentication used by the player, and the cause of disconnection or inactivity. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> Where technically possible operator must ensure that the time Inactivity disconnect the player is at most twenty (20) minutes; After this time, the platform should disconnect the player. 	Out of Scope	Operator's Responsibility
	<ul style="list-style-type: none"> When the operator perform communications basically unidirectional character where the expected behavior of the player is passive, such as the broadcast of a live sporting event, it will be understood that the player still active, but take no action. If technically possible, inform the player that the session has ended. 	Out of Scope	Operator's Responsibility
4.11	DISABLING A GAME PLAYING O SESSION	Out of Scope	Operator's Responsibility
4.12	AUTOMATIC GAMES		
	<ul style="list-style-type: none"> If the system offers advice on automatic gaming strategy or functionalities, such recommendations or functionalities must be truthful and ensure that the return rate is reached. 	Compliant	Autoplay functionality is available in this game. Refer to document: "PPL-CO-220616-01-GC-R1 Technical Requirement Spaceman.pdf"
	<ul style="list-style-type: none"> The player will be ensured to maintain control of the game when automatic game functionality is provided. 	Compliant	The maximum bet can be played during the autoplay feature.
	<ul style="list-style-type: none"> The player will be able to control the maximum value of the automatic game or the maximum bet and the number of automatic bets. 	Compliant	The player can stop the autoplay feature at any time.
	<ul style="list-style-type: none"> It will be possible for the player to disable the automatic gaming functionality at any time. 	Compliant	During the autoplay feature the same characteristics as when the game is not automatic.
	<ul style="list-style-type: none"> When using the automatic game functionality, the information displayed on the device (duration, graphic elements or others) will be the same and will have the same characteristics as when the game is not automatic. The interface will additionally show the number of automatic plays that have elapsed or remain. 	Compliant	Autoplay feature history is available and not misleading.
	<ul style="list-style-type: none"> The automatic replay functionality cannot disadvantage a player, and neither the sequence of the automatic games 	N/A	This is not a multiplayer game.

Req #	Requirement Description	Compliance Status	Observations and Evidence
	nor any strategy that is recommended to the player should be misleading.		
	<ul style="list-style-type: none"> In the case of games involving more than one player simultaneously, all players must be informed and accept a player who has established the automatic game functionality. 	Compliant	
4.13	METAMORPHIC GAMES	N/A	This is not metamorphic game.
	Metamorphic or evolution games must:		
	<ul style="list-style-type: none"> Inform about the rules applicable at each game moment or stage. 		
	<ul style="list-style-type: none"> Show the player enough information to indicate the proximity of the next metamorphosis. For example, if the player is collecting elements, the interface should show the number of elements that the player has collected, those that are necessary for the metamorphosis or those that are missing to achieve it. 		
	<ul style="list-style-type: none"> The probability of a metamorphosis should not be varied depending on the prizes obtained by the player in previous games. Any exception must be previously authorized by Coljuegos. 		
	<ul style="list-style-type: none"> The information and the game must not be misleading or ambiguous. 		
4.14	VIRTUAL PLAYERS	N/A	Not applicable on slot games
	<ul style="list-style-type: none"> The operator can use artificial intelligence to provide the participation of players virtual, also called robots, in those games intervene simultaneously more than one player. 		
	<ul style="list-style-type: none"> The virtual player should have no technical advantage over the players, not You have access to information not to the extent of these. 		
	<ul style="list-style-type: none"> All players must be informed at the time of entering the game the presence of a virtual player, in order to define their participation. 		
	<ul style="list-style-type: none"> Virtual players must be clearly identified on the interface. 		
4.15	ABSENTEE PARTICIPATION	N/A	Not applicable on slot games.
	During a game that involved more than one player simultaneously, excluding the poker tournament mode and black Jack multiplayer, the platform can enable the player establish a state of "absent" or "pause" that can be used if the player you need to stop playing for a short period may never exceed twenty (20) minutes.		
	State "absent" the player does not perform new plays. If any play is done your state will no longer be "absent" automatically. If the shares do not affect the game (p. eg. consultation of aid) will remain state of "absent".		
4.16	Replays		
	The platform will provide the player the option to replay, showing it as a graphical reconstruction or intelligible description should play all sets of the game that may have an impact on their development.	Compliant	
	Repeat option must provide all information necessary to rebuild the last ten games of the session.	Compliant	
4.17	MANAGEMENT CHANGES	Out of Scope	Operator's Responsibility
4.18	MANAGEMENT SERVICE AVAILABILITY	Out of Scope	Operator's Responsibility
4.19	PREVENTION PLAN FOR LOSS OF INFORMATION	Out of Scope	Operator's Responsibility

4.3 Return to Player

No.	Game Name	Simulation of games run	Return to Player (RTP%)	Actual RTP (calculated from simulated game results)
1.	Spaceman	5 billion	95.50%	95.50%



5 Testing site, dates, equipment and team

Testing Site:

Testing was carried out at the following Gaming Associates (ga) laboratory premises:
Suite 1, 82 London Road, Leicester, LE2 0QR, United Kingdom.

Testing Period:

Testing was executed during the time period from 30 May 2022 to 09 June 2022.

Testing Equipment:

Testing was carried out using standard laptop computers. The test team involved in game testing is:

- Supervisor
Usman Vaseer
- Testers
Alina Ather



6 References

1. *Coljuegos Technical Requirements for Internet Games Operated in Colombia May 20, 2020*
2. *RNG Certificate “551RN-551-PPL-18-01 RNG.pdf”, version V2.0, date April 16, 2019.*
3. *Maths’s spreadsheet “Spaceman_math.xls”, no version, no date.*
4. *Game Description “Spaceman Game Design”, no version, no date.*



Annex A : SHA-1 Hashes

Game Name	Critical Component	SHA-1 Hashes
Spaceman	SpaceManRNGObject.class	d060b63b5707666ce67386eb89e95c311bfa2ebf
	SpacemanSecondLevelRngConfiguration	868735fd0446e6f561c41aaa9328d1cfcc8bf23d
	SpacemanFirstLevelRngConfiguration	8db017e2163384ef1a8aefceaccb72f4af5f8bc3
	ResultCodeVO.class	77ff44c528a4c6f22a90e936cc299c497045d6b3
	BetCodeVO.class	1e0c535c5357f06538b84b936aa34670d86bb931

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