Tower Rush RTP, payout data and statistical models

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3. Mathematics and fairness verification

Source and scope	RTP	Bet and payout	Other information
Galaxsys, marketing card of the game	96,2–97,6%	The limits are approved for the corresponding configuration	Category at the top of Fast Games, in Details — Turbo Games, in the general catalog — Tower Games. Date 28.02.2024.
Galaxsys, demo rules and PDF	96,17–97%	1–100 FUN, maximum 10 000 FUN	Three bonus mechanisms, conditions for connection loss and return.
Stake, game card in the Russian-language state	97,00%	The label `300000payoutexp` is shown separately	Burst Games, Galaxsys. The technical label refers to the interface; the monetary payout and multiplier are taken into account as independent parameters.
SlotCatalog, editorial text	96,12–97%	€0,01–€100, maximum €10 000, indicated as ×100 at €100	Fast Game, crash, HTML5/JS. The author's opinion on volatility is expressed.
SlotCatalog, Attributes table	96,12%, with a note on ranges	0,4–400 in $, €, £, Max Win ×100	Variance / Hit Frequency / Betways — the card parameters are confirmed, layout: reel layout not applicable. Size 7,2 MB, last card update 28.09.2026. Date 19.12.2024 is indicated.

Source and scope	RTP	Bet and payout	Other information
Casino Guru, Game Information	97%	$0,01–$100, Max Win 100×	Type Other games, progressive jackpot, gamble feature and configurable winlines are marked No. December 2024 is indicated.

RTP — an approved theoretical parameter in the corresponding source. The probabilities of individual floors, bonuses and wheel sectors, the hit frequency and the full calculation model RTP are confirmed. The saved demo results are used to describe the interface; the assessment of theoretical probabilities relates to mathematical calculations.

5. Third-party cards and statistics

SlotCatalog

The card marks the game as Crash (Burst/Bustabit like), Level Up, Multiplier, Bonus Game, Bonus symbols, Bonus wheel, RTP range and Cheats tool. Themes — Sky, Sky blue. The Cheats tool marking refers to the catalog. The text describes hash verification, which confirms the round outcome and preserves its result. The author Borislav describes a simple game loop, three bonuses and statistical panels, and reports the absence of Autoplay and Auto Cashout in his version. In the author's editorial assessment, the advantages of Tower X, probable results around 10×–20× and a comparison of graphics with arcades are reflected. Comparisons: Tower X (SmartSoft Gaming, 2023, claimed up to 5 000×), Cash Buster Towers (Instant Win Gaming), SkyTower and Cities: Skylines as visual analogues; in Related slots, Kite Festival (Mascot Gaming), Crash Poki and First Balloon (Popok Gaming), Rodeo (Smartsoft) are shown.

- The snapshot shows User Rating 8,4/10, 46 votes, SlotRank 251 for Poland, 0 comments. The page shows 90 of 184 Polish casinos in the showcase and 58 of 184 in the scanning section. The indicators are approved for the corresponding sections of the card.
- In total, according to the card, 109 markets were researched, the game appeared in 49. Most frequently mentioned are CA, PL, NO and NZ. The published observations are below.

Market	Scanned	With the game	In the lobby	SlotRank
CA	475	72	0	13478
PL	184	58	3	251
NO	308	58	4	523
NZ	282	56	3	16682

Neighboring SlotRank positions in the Polish slice: 249 Locomodin (Ortiz Gaming), 148,11, 27/1; 250 Penalty from the Streets (Solidicon), 148,11, 23/3; 251 Tower Rush (Galaxsys), 148,14, 58/3; 252 Goal Mania (Ortiz Gaming), 148,14, 26/1; 253 First Person Craps (Evolution Gaming), 150,16, 37/1. After the average position, two published Quantity counters are given.

The Polish advertising showcase shows Snatch Casino up to zł12 500 + 325 FS; ViperWin Casino 100% up to $500 + 200 FS + 1 Bonus Crab; SpellWin Casino up to zł25 000 + 555 FS; Trino Casino up to zł25 000 + 500 FS; GG.Bet up to zł18 000 + 275 FS; iWildcasino up to zł16 000 + 400 FS. These are recorded showcase offers with the 18+ and Gamble Aware markings. The conditions for receiving, the eligibility of Tower Rush bets and

availability in Bangladesh are determined by the rules of the corresponding offer and the operator configuration.

Casino Guru

The free demo card shows 11 players per month and counter elements 144 and 19 in the text export, as well as 5 comments. Galaxsys games (10) and Galaxsys casinos (147) are displayed. Examples of the studio's games in the card: Olympian Legends (7), Rise of Frogs: Book Legacy (5), Play Me (2), Funny Faces: Hoglet-Moglet (1). The numbers refer to the shown player counters.

The showcase lists Realz Casino 8,0, Glorion Casino 8,0, Spinanga Casino 8,0, Playzilla Casino 8,9, Wazamba Casino 8,3 — High Safety Index, TombRiches Casino 7,7 — Above average. In the discussion thread, a community representative explains that at that time the list shows sites with other games of the genre and describes a genre selection. The launch of Tower Rush is taken into account in the operator episodes of the base. The administrator separately explains that Casino Guru does not accept deposits. The showcase displays third-party tournaments Minotaur ReBurn ($500, monthly) and Sweet Loot ($100, weekly) and an announcement of a separate tournament €1 000. These promotions are stored separately from Tower Rush and are not credited for its rounds.

15. Statistics, configuration comparison and control models

GR15. Statistics denominator

ID	Attribute	Value and scope
GR15-01	Statistics denominator	Paid settled individual towers, N=13; floors, clicks and other Players are not included in the denominator.
GR15-02	Frequency of positive payout	9/13=69,2308% with gross>0.
GR15-03	Frequency of profitable events	7/13=53,8462% with gross>stake; gross=stake is counted separately.
GR15-06	Mean normalized return	mean(G_i/b_i)=1,042308; here the stake is constant, so it coincided with G/T. With variable stakes, coincidence is not guaranteed.
GR15-08	Variance of outcome	Sample Var(net_i) with divisor N−1 = 115 631,076923 BDT^2; this is the statistic of exactly OP-01.
GR15-09	Standard deviation	Sample sd(net_i)=340,045698 BDT.
GR15-10	Maximum drawdown	Based on balances of completed towers OP-01, maximum drawdown 532,00 BDT; within the debit frame the indicator is calculated separately and may be larger.
GR15-11	Longest losing streak	Longest streak of net<0: 1 cycles; a positive payout smaller than the stake is also a net loss.
GR15-12	Quantiles of final outcome	Quantiles of the control model run outcomes were computed from the saved array of sessions; a single OP-01 does not give a distribution of all players' outcomes.
GR15-13	Estimate precision interval	For the share of profitable cycles OP-01, the 95% Wilson interval under the iid-Bernoulli assumption: [29,1438%;76,7939%]; the calculation uses the iid assumption and estimates the share of profitable cycles, while the theoretical RTP is given separately.

MODEL-01 — fully specified distribution for calculations

I separately calculated the iid two-outcome model: before the outcome the stake b is fixed, with probability p=0,485 gross 2b is credited, with probability q=0,515 gross0. Theoretical return 2×0,485=0,97, edge 3%. This is a specified control distribution, not recovered floor probabilities Tower Rush. For fixed T, expected gross0,97T, net−0,03T; the stopping policy and the actual T of each run are recorded separately. I used 12100 runs of up to 100 cycles, common random inputs for the three policies, bankroll 1 000 BDT, stop-loss400 BDT from the start, take-profit500 BDT from the start, maximum stake 100 BDT. The calculations are completed, the results are approved.

Policy	Runs	Mean T BDT	Mean net BDT	SE net BDT	q05/q50/q95 net BDT	Stop-loss	Stake shortage
Fixed 10	12100	999,9934	-27,9124	0,9057	-200/-20/140	1/12100 (0,0083%)	0/12100
2% of balance, floor1	12100	1 883,8493	-52,7790	1,6866	-332/-61/289	207/12100 (1,7107%)	0/12100
Linear 10,+5 after loss, cap100	12100	1 485,2727	-42,2636	1,5159	-400/-30/210	670/12100 (5,5372%)	0/12100

Quantiles — nearest rank ceil(pN) of sorted net. Stake shortage did not occur in these arrays; the 95%-upper bound of the share with zero number of events equals 0,0248%. A positive balance at stop-loss is not called ruin. The error of the mean is calculated as sd/√N; this is the precision of the model given the inputs, not a guarantee for a future player. Based on the realized T of a successful single run, its conditional expected value −hT was not assigned.

Fixed turnover of two RTP-configurations

Configuration	T BDT	RTP	Expected gross BDT	Expected loss BDT
A	10 000,00	97,00%	9 700,00	300,00
B	10 000,00	96,17%	9 617,00	383,00

Difference of losses A−B=300−383=−83 BDT; the formula T(rB−rA) gives the same sign. Saving of A relative to B=83 BDT, or 21,6710% of B's losses. A difference of RTP+0,83 percentage points is not a promise to obtain a profit of 83 BDT in a single session.

Related documents

- Tower Rush fairness checks and round verification
- Tower Rush stake models, loss streaks and risk