



STATE OF WASHINGTON
GAMBLING COMMISSION

"Protect the Public by Ensuring that Gambling is Legal and Honest"

June 22, 2020

Jacqueline Hunter
Scientific Games
6601 S. Bermuda Rd.
Las Vegas, NV 89119

Dear Ms. Hunter,

Due to COVID-19 and at the manufacturer's request, the following games can be dealt face-up until further notice:

Caribbean Stud Poker	Crazy 4 Poker
Crazy 4 Poker Progressive	Four Card Poker
Four Card Poker Bad Beat Bonus	Four Card Poker Progressive
Let it Ride	Let it Ride Bonus
Let it Ride Progressive	Mississippi Stud
Mississippi Stud Progressive	Mississippi Stud with 3 Card Bonus
Three Card Poker	Three Card Poker, 6 Card Bonus
Three Card Poker Bonus	Three Card Poker Face Up
Three Card Poker Progressive	Ultimate Texas Hold'em
Ultimate Texas Hold'em Bad Beat Bonus	Ultimate Texas Hold'em Progressive
Ultimate Texas Hold'em Ultimate Pairs Bonus	

No other modifications to the dealing procedures, game rules, or payouts are authorized.

Prior to implementing face-up dealing, licensees should

- Review "*Scientific Games – Table Game Operations Impact of Dealing Games Face Up*", which is attached;
- Consider how play in this manner could affect the odds, play on the game, and be conducted in compliance with any state or county imposed COVID-19 public health requirements; and
- Submit their internal controls and receive approval from the Commission.

Ms. Hunter
June 22, 2020
Page 2 of 2

If you have any questions on commercial implementation, please contact Brian Lane at (509) 387-7095. If you have any questions on Tribal implementation, please contact Kelly Main at (206) 423-4260.

Sincerely,

A handwritten signature in black ink, appearing to read "Tina Griffin", with a long horizontal flourish extending to the right.

Tina Griffin
Assistant Director
Licensing, Regulation, and Enforcement

Attachment – *“Scientific Games – Table Game Operations Impact of Dealing Games Face Up”*

Scientific Games – Table Game Operations

Impact of Dealing Games Face Up

The purpose of this report is to analyze the approximate impact of dealing several Scientific Games proprietary table games ‘face up’. It is assumed that no more than THREE Players will be playing at the same time and that all cards normally dealt to the Player will be dealt face up.

Introduction:

It is a given that providing the Player with any additional information about the cards that have already been dealt can only allow the Player to enhance his strategy and reduce the house edge and potentially turn it into a Player edge. In this particular case, the additional information is knowledge about the other Players’ cards which would normally be kept hidden from the other Players. Knowledge about these cards can inform the Player both about his potential draws (if any exist) and about the Dealer’s potential hand.

This is a little like Blackjack card counting with one very important distinction. In Blackjack, knowledge about the cards remaining in the shoe can be used to determine how much the Player should wager on the next hand. This is what provides the biggest advantage to the Player. In Blackjack, the Player may get an advantage in only 10% of the hands and by just 0.25%. If a Player could not alter his wager size with this knowledge, the Player would not have an overall advantage. But, if he can increase his wager 50x on these hands, the overall payback over time would show a Player advantage.

In single deck games, this is not possible. The Player has no opportunity to change his initial wager size. Instead, he is only able to alter his strategy in-game and in some cases, his in-game wager size. This greatly reduces the Player’s ability to take advantage of ‘player advantage’ situations.

The goal of this analysis is to get a rough idea of the impact of the Player being able to see the hands of two additional Players. This is not intended as a comprehensive analysis as that would likely take weeks per game to do properly. Instead, the main purpose is to ascertain if playing the game face up poses a significant risk to the casino. Because of this, parts of the analysis relied on work done and published by another analyst – Stephen Howe. In each case where I leverage his work, I have included the URL of the column that I utilized.

Three Card Poker

Three Card Poker has a single strategy point – when to Play vs. Fold. Thus, knowing what the additional six cards are, can guide the Player by changing the distribution of potential Dealer hands. Mostly, it can tell the Player how often the Dealer will not qualify which can change the strategy for Jack or less hands. If 4 out of the 6 cards are Q/K/A, the hand becomes a marginal Play. With 5 or 6, much more strongly, but it is rather rare for 5 of the 6 to be Q/K/A. In similar fashion, if all 6 cards are low cards, there are some Q-6, Q-7 hands that should be Folded because there is a greater likelihood that the Dealer will qualify and doing so means he will likely beat the Player. While it is much more common for all 6 cards to be low, the impact is to a limited number of Player hands and the impact is not great as these hands are only marginal plays. If the Player has above a Q-8 or Q-9, the strategy is still to always Play.

Based on simulations using the strategy changes, the impact to payback would appear to be only about 0.1% – 0.2% at most with 6 additional cards displayed.

Let It Ride

As Let It Ride is a payable game, the impact is only on the Player's hand. The Player may see cards that he needs to complete his hand that have been burnt, which can reduce the potential value of his hand. Or, conversely, he may see that his needed cards are still available out of the remaining deck, with a slightly increased probability of being dealt to him.

That said, however, Let It Ride's relatively high house edge is unlikely to be able to be overcome as a result of seeing 6 additional face up cards. Given the mandatory '\$' wager with a payback of only 62.7%, the '1' and '2' wagers would need to get a significant advantage out of those 6 cards. But, the vast majority of hands wagered are guaranteed winners. That said, there are a few strategy changes that would occur as a result of seeing the extra 6 cards.

'1' Wager

- Do not wager any 3-Card SFL or Royal if any of the out cards for the SFL/Roy have been burned
- Wager all 3-Card Inside SFLs if none of the 6 other cards are of the same suit.
- Wager a Low Pair, IF none of the 6 cards are of the same rank as either of the Player's rank

'2' Wager

- If you have a 4-Card Flush and all 6 of the other cards are of same suit, don't make wager
- If you have a 4-Card Flush with 0 High Cards and 5 of the other cards are of same suit, don't make wager
- If you have a 4-Card Straight with 0 High Cards, and 2 of your (Straight) outs are burned, don't make the wager
- If you have a 4-Card Straight with 1 High Card and 3 of your (Straight) outs are burned, don't make the wager
- If you have a 4-Card Straight with 2 High Cards and 4 of your (Straight) outs are burned, don't make the wager
- If you have a 4-Card Straight with 3 High Cards and 5 of your (Straight) out are burned, don't make the Wager

The biggest strategy impact is the wagering of a Low Pair in the '1' wager. This increase the payback by roughly 0.2%. The other changes occur infrequently and likely do not add more than another 0.1%. The overall impact should be at most 0.3% to the house advantage.

Ultimate Texas Hold'em

UTH is one of the more likely games to be impacted by the Player's cards being dealt face up. With a small theoretical house advantage, it does not take much movement of the payback to potentially give the Player an advantage over the house.

That said, there are several features of UTH that work against this from happening. The first is that there are only TWO cards per Player dealt. So, the Player only gets to see four additional cards. For the Player to take advantage of the situation, the information must be actionable. If a Player has an AK and one of the 4 face up cards is also an Ace, this will reduce the Player's expected value of the hand, but not by enough to change how he should wager – he should still Wager 4x.

The impact of any strategy change to the overall payback is controlled by 2 factors. How often the situation occurs and how much it increases the expected value of that situation. From running a variety of scenarios, the number of situations in which the Player changes his strategy is rather small. Thus, the overall impact to the payback is also very small. The fact that the remaining cards are community cards shared between Player and Dealer also means that cards that are burnt that might hurt the Player can also likely hurt the Dealer as well.

Lastly, the strategy of UTH is already extremely complex. The theoretical payback can only be achieved by a tiny fraction of Players. The ability to go further and take into account the face up cards would reduce this population even further.

For my conclusion, regarding UTH, I am also relying on a more exhaustive analysis performed by Stephen Howe that can be found here: <https://discountgambling.net/2010/01/15/practical-collusion-for-ultimate-texas-holdem/>

In the end, I don't believe any human could possibly achieve a Player advantage with only two additional Player's cards turned Face up on a live game.

Caribbean Stud Poker

For Caribbean Stud Poker, I mostly relied on work already done by Stephen Howe. His column can be found here:

<https://discountgambling.net/category/caribbean-stud/>

There are actually 2 columns at the site. They both use a method that might be considered 'cheating' when the cards are dealt face down but would become unnecessary with cards dealt Face Up. The method mostly deals with counting cards that match the Dealer's Face up card and counting the number of Aces and Kings.

Per Mr. Howe's column the house edge of 5.32% (as a percent of the Ante) can be turned into a 1.1% Player advantage using his methods when there are 7 Players at the table. Per his second column, with only 6 Players, it can be turned into a 0.4% House edge using a computer and a more realistic 1.32% house edge using a simplified strategy.

Because Caribbean Stud has 5 cards per Player, dealing potentially 25-30 additional cards face up, can be very advantageous to the Player. With only an additional 10 cards being show on a 3 Player table, the number of times the Player will alter from basic strategy will be greatly reduced.

There is nothing in his column that talks about the impact of less Players at the table. However, if going from 7 Players to 6 Players reduced the impact by as much as 1.5% (of the Ante), I feel it is safe to assume that no Player will be able to come close to a Player advantage playing at a 3-Player table. Undoubtedly, a few Players will be able to shave a little off the house edge, but it is doubtful that it would be more than 0.25% of total wager.

Mississippi Stud Poker

For Mississippi Stud Poker, I again relied on work already done by Stephen Howe. His column can be found here:

<https://discountgambling.net/mississippi-stud-ev-barona/>

I don't know if Barona still does, but apparently it did offer MS Stud face up with up to 6 players. Per Mr. Howe's analysis, when the Player can see all 12 cards belonging to the Players, he can turn the 4.91% house edge into a roughly 1.5% Player edge. It should be noted that the numbers that he references are a % of the initial Ante and not total wager. When the average wager size is taken into account, this correlates to a house edge of 1.37% of the total wager. The 1.5% Player edge is really a Player edge of about 0.42% of total wager.

Thus, the total swing is about 1.8%. If the impact of seeing each additional Player's cards were linear, this would mean each Player's cards that could be seen would be worth about 0.36% of total wager. My experience in doing these analyses would indicate that the impact is not linear but more exponential. Thus seeing 2 Player's cards is worth far LESS than 40% of the total. The true impact is likely to be less than a payback of 99.4% and probably closer to about 99%.

It should also be noted that the strategy for Mississippi Stud is moderately complex and utilizing the face up cards to modify the strategy will require a Player to calculate outs on the fly. There will not be many Players who will be able to do this. Some very skilled Players might be able to lower the house edge, but it is unlikely that any will be able to gain a Player advantage.

Four Card Poker

Four Card Poker follows a structure similar to Three Card Poker with a couple of key differences. The majority of the impact of face up cards in Three Card Poker is the impact they have on the Dealer qualifying. There is no Dealer qualifying in Four Card Poker, so this is no longer an impact. In Four Card Poker, the Dealer has one card turned face up. Thus, the Player can look for at the other face up cards for rank matches to the Dealer's upcard. This will impact the Dealer's ability to draw Pairs+. The Player may also be able to take into account cards of higher rank than his own Pair and/or Aces when he is playing a non-Pair hand.

Like Three Card Poker, there will be a handful of changes, but they will not add up to much. In Stephen Howe's column on collusion for Four Card Poker, found here: (<https://discountgambling.net/category/four-card-poker/>), he states that with 6 Players at the table the house edge can be cut in half. As we are talking about a situation of only 3 Players, the impact will be far less and again is likely to be no more than 0.25% of total wager.

Crazy 4 Poker

Crazy 4 Poker is more similar to Three Card Poker than is Four Card Poker. There is no Dealer card dealt Face up, but there is qualifying. So, like Three Card Poker, most of the impact surrounds the frequency that the Dealer qualifies. While the ability to wager 3x might be a factor as well, it can only be done with a Pair of Aces or better, mostly removing it from the equation. Like Three Card Poker, the impact to being able to see additional cards will be minimal and most Players will not be able to take advantage.

Conclusion

None of my own research nor anything I could find elsewhere would indicate that any of the games mentioned in this report can be 'beaten' by dealing a total of 3 hands face up. The extent by which a Player can reduce the house edge will depend on the specifics of each game. In all cases, it would take a very well-trained Player to do so.

Some likely indications that a Player might be attempting to fully use the information available would be one that is playing relatively slowly. As many of the strategy changes require counting 'outs', a Player utilizing these strategies will have to study far more cards than normal.

Generally speaking, any Player who considers himself to be an 'Advantage' Player, believing himself to have an advantage over the house will unlikely play any of the side-bets, which generally have lower paybacks and do not have any opportunities to reduce the house edge as a result of the additional information.

Game	Maximum Spots Recommended
Caribbean Stud Poker	5
DJ Wild Stud Poker	4
I Luv Suits	5
Mississippi Stud	4
Crazy 4 Poker	Not Beatable
Face Up Pai Gow Poker	Not Beatable
Fortune Pai Gow Poker	Not Beatable
Four Card Poker	Not Beatable
Let it Ride	Not Beatable
Three Card Poker	Not Beatable
Ultimat Texas Hold'em	Not Beatable



STATE OF WASHINGTON
GAMBLING COMMISSION

"Protect the Public by Ensuring that Gambling is Legal and Honest"

June 27, 2018

Bo Zarach
Bally Technologies
6601 S Bermuda Rd.
Las Vegas, NV 89119

RE: SG Multi-Game Submission, Adding Multi-Link Paytables

Dear Ms. Zarach,

We have reviewed the changes made to the below listed games. You added two multi-level progressive jackpot paytables to the multi-link game rule section for each of the listed games. Based on our review of the documentation we received from Bally Technologies, the Washington State Gambling Commission will approve the changes made to your game under the conditions listed below:

- Caribbean Stud
- Crazy 4 Poker
- DJ Wild Stud Poker
- Four Card Poker
- Flushes Gone Wild
- Let It Ride
- Mississippi Stud
- Texas Hold'em Bonus
- Three Card Poker
- Ultimate Texas Hold'em

Commercial Card Rooms

- The game shall be played and operated under the terms and conditions set forth under the "Rules of Play", you provided and are enclosed.
- Commercial card room operators seeking to operate this game must first submit their internal controls and receive approval from the Commission prior to implementing.
- Manufacturers and distributors of graphic layouts and/or any other equipment associated with the game must be licensed by the state prior to the sale of the equipment.



Tribal Casinos

- Each Tribal Gaming Operation must request and obtain approval from their respective Tribal Gaming Agencies (TGA).
- Before TGA allows your game(s) to operate, they will seek concurrence from our agency as well.
- In addition to your approved rules, the Tribal submission to us must include all supplemental information required by Tribal-State Compact Appendix A, Section 18.
- Manufacturers and distributors of graphic layouts and/or any other equipment associated with the game must be certified by the state and licensed by the Tribe prior to the sale of the equipment.

Any modifications to this game may affect this approval. Contact the Commission should you contemplate modifications. If you have any questions on commercial implementation, please contact Brian Lane at (509) 886-6231. If you have any questions on Tribal implementation, please contact Kelly Main at (206) 423-4260.

Thank you for your cooperation and willingness to comply with the gambling laws of Washington State.

Sincerely,



Tina Griffin
Assistant Director
Licensing, Regulation and Enforcement Division

Enclosure

cc: Jim Nicks, Special Agent in Charge, Regulation Unit
Cathy Harvey, Special Agent in Charge, Tribal Gaming Unit
Brian Lane, Special Agent, Regulation Unit
Kelly Main, Special Agent Supervisor, Tribal Gaming Unit
File



- *Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.*
- *Players are limited to wagering on a maximum of four games. Card room operators are required to post on the layout or on a placard at the table that players are limited to wagering on a maximum of four games.*
- *If the below game is to be hand dealt, dealers will shuffle according to house procedures. The dealer then follows the house dealing procedures. If any automatic shuffle machine is used in conjunction with this game, it must be a WSGC approved model, manufactured by a WSGC licensed manufacturer.*

RULES OF PLAY:

Caribbean Stud is a five card stud poker game where each player plays against the dealer for the best five card poker hand. The dealer must qualify with an Ace-King or better. This game also features an optional progressive bet.

To begin, each player must make an ante wager by placing the wager in the designated “ante” wagering area in front of the player’s position. Each player may also place the optional progressive wager.

The dealer deals 5 cards to each player and to the dealer. Starting with the player in the first position to the left of the dealer, continuing clockwise, and the dealer receives their cards last. The fifth card dealt to the dealer only, which shall be the bottom card of the group, shall be dealt or turned face up and exposed to the table. Remaining cards will be put in the discard rack.

The player now picks up their cards and must decide to either fold (surrender ante) or to bet (bet equals two times ante). If the player:

- a) Folds, the ante wager is lost. In any player order, the dealer collects the ante wager and then the cards from each player who has folded. As the cards are collected, the dealer shall spread the cards, count the cards, and then place the

cards in the discard rack. If a player folds, they are not eligible for a progressive payout; or

- b) Plays the hand, the player must make an additional wager, equal to exactly twice the amount of the ante, by placing the wager in the “bet” area, behind the ante, in front of the player’s position.

Once all the players have made a decision to fold or stay in the game, the dealer exposes his cards and arranges them to make the best possible poker hand. The dealer must have an Ace and a King or better to qualify.

- a) If the dealer does not have a qualifying hand, the dealer shall announce “no hand” and immediately pay all the Ante wagers at the rate of 1 to 1 (even money) and pushes all the Bet wagers. If the player has a qualifying progressive hand, the cards shall be left on the table face up and a games supervisor shall verify the hands. Please see below for further instructions on the progressive wager payouts.
- b) If the dealer does have a qualifying hand, the dealer shall compare his hand to the hand of each player that has made both the “ante” and “bet” wagers. The higher poker hand between each player and the dealer wins.
 - Tied hands result in a push and no action;
 - The antes of winning hands are paid at the rate of 1 to 1 (even money);
 - The bets of winning player’s hands are paid according to the following payment schedule, which shall be displayed by table signage or on the table layout:

Hand	Pays*
Royal Flush	100 to 1
Straight Flush	50 to 1
4 of a Kind	20 to 1
Full House	7 to 1
Flush	5 to 1
Straight	4 to 1
3 of a Kind	3 to 1
Two pair	2 to 1
One pair or less	1 to 1 (even money)



This game will use the approved SHFL entertainment owned progressive system containing the following components and their compatible software versions: Game Manager v6.6 Build 520 or higher, Aquarius Controller v6.5.6SP, Coin Spot v6.0 and the progressive displays can be either CHAM2+ v1.66P\$ or ViPS v1.2.0 or higher

Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.

RULES OF PLAY:

1. Caribbean Stud Poker offers an optional progressive wager
2. The bet considers the best hand possible among all the player's cards.
3. Sample paytables are listed separately
4. The meter will be reseeded when the 100% award hits. The cost of the reseed has been factored in to the casino's mathematical advantage.
5. To begin each round, players must make their regular game's wager. They may optionally place any bonus wagers and the progressive wager. Players must place the progressive wagers on the sensor in front of their betting position. The sensor will light up.
6. Once all players place their bets, the dealer will press "COIN IN" on the keypad. The sensors will then light up, indicating a progressive wager. The dealer will then remove all progressive bets from the table.
7. The dealer then follows house procedures for dealing the regular game.
8. The dealer reconciles the standard wager, any bonus wagers, and progressive wagers at the same time. It's at the sole discretion of the casino to allow, or not to allow for folded hands to qualify for progressive payouts. Follow the procedure in the next section for reconciling percentage pays from the progressive meter.

9. Progressive winners:

- a. The percentage pays are paid from the progressive jackpot shown on the progressive meter.
- b. Other hands are paid from the tray; they do not come off the meter.
- c. In the event more than one progressive meter pay hits during the same round, the dealer will first pay the player farthest on the right and then move counter-clockwise to pay other players. As regulatory procedures permit, this policy can be replaced by casino internal controls.
- d. When a player has a progressive winner, the dealer shall press the appropriate hand button on the keypad. (If the hand button is pressed by accident, pressing it again will turn it off.)
- e. The dealer shall then contact a supervisor.
- f. Once the casino verifies the progressive win, the supervisor shall insert the key and rotate it to "JPH" and then press "J-pot" button. This records the win onto the Game Manager. House procedures are then followed for paying the prize. (Reviewing the monitor connected to the Game Manager will show the prize amount to be paid, and pressing the "money bag" icon will print a win page, which can be used to help record the payout for accounting.)
- g. Returning the supervisor key to the "Run" position will restore normal operation of the table, and adjust the meter appropriately for the prize won.
- h. When the dealer reconciles all action, he presses "Game Over." This resets the system to begin the next hand.
- i. Once the "J-pot" button is pressed, the prize is logged into Game Manager. If the progressive pay needs to be backed out at this point, the award will need to be manually backed out using the Game Manager manual adjustment feature.

Caribbean Stud Progressive Paytables

Paytable Summary

Paytable for use as a standalone progressive table game or when connecting same table games

Paytable Designator	CSTUD - 01	CSTUD - 02	CSTUD - 03	CSTUD - 04
	PCSA1 (\$1 wager)	PCSA2 (\$1 wager)	PCSA3 (\$1 wager)	PCSA4 (\$1 wager)
OUTCOME	Progressive Paytable	Progressive Paytable	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	\$5,000 (from meter)	\$5,000 (from meter)	10% (from meter)
Four of a Kind	\$500 (from meter)	\$500 (from meter)	\$250 (from meter)	\$250 (from meter)
Full House	\$100 (from meter)	\$100 (from meter)	\$100 (from meter)	\$100 (from meter)
Flush	\$50 (from meter)	\$50 (from meter)	\$50 (from meter)	\$50 (from meter)
House Edge	28%	28%	28%	28%
Seed	\$10,000	\$10,000	\$10,000	\$10,000
Hit Frequency	0.37%	0.37%	0.37%	0.37%

Paytable Designator	CSTUD - 05	CSTUD - 06	CSTUD - 07	CSTUD - 08
	PCSA5 (\$1 wager)	PCSA6 (\$1 wager)	PCSA7 (\$1 wager)	PCSB1 (\$1 wager)
OUTCOME	Progressive Paytable	Progressive Paytable	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	10% (from meter)	\$5,000 (from meter)	\$5,000 (from meter)
Four of a Kind	\$100 (from meter)	1% (from meter)	\$250 (from meter)	\$500 (from meter)
Full House	\$50 (from meter)	\$50 (from meter)	\$100 (from meter)	\$100 (from meter)
Flush	\$25 (from meter)	\$25 (from meter)	\$50 (from meter)	\$50 (from meter)
Straight			\$25 (not from meter)	\$10 (not from meter)
Three of a Kind				\$3 (not from meter)
Two Pair				\$2 (not from meter)
House Edge	28%	28%	28%	11%
Seed	\$10,000	\$10,000	\$10,000	\$10,000
Hit Frequency	0.37%	0.37%	0.37%	0.77%

Caribbean Stud Progressive Paytables
Paytable Summary

Paytable Designator	CSTUD - 09 PCSC1 (\$1 wager)	CSTUD - 10 PCSB2 (\$2.50 wager)	CSTUD - 11 PCSC2 (\$2.50 wager)	CSTUD - 12 PCSB5 (\$5 wager)
OUTCOME	Progressive Paytable	Progressive Paytable	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	\$12,500 (from meter)	10% (from meter)	\$25,000 (from meter)
Four of a Kind	\$500 (from meter)	\$1,250 (from meter)	\$1,250 (from meter)	\$2,500 (from meter)
Full House	\$100 (from meter)	\$250 (from meter)	\$250 (from meter)	\$500 (from meter)
Flush	\$50 (from meter)	\$125 (from meter)	\$125 (from meter)	\$250 (from meter)
Straight	\$10 (not from meter)	\$25 (not from meter)	\$25 (not from meter)	\$50 (not from meter)
Three of a Kind	\$3 (not from meter)	\$7.50 (not from meter)	\$7.50 (not from meter)	\$15 (not from meter)
Two Pair	\$2 (not from meter)	\$5 (not from meter)	\$5 (not from meter)	\$10 (not from meter)
House Edge	11%	11%	11%	11%
Seed	\$10,000	\$15,000	\$15,000	\$50,000
Hit Frequency	0.77%	0.77%	0.77%	0.77%

Paytable Designator	CSTUD - 13 PCSC5 (\$5 wager)	CSTUD - 14 (\$1 wager)
OUTCOME	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	10% (from meter)
Four of a Kind	\$2,500 (from meter)	\$200 (not from meter)
Full House	\$500 (from meter)	\$50 (not from meter)
Flush	\$250 (from meter)	\$40 (not from meter)
Straight	\$50 (not from meter)	\$30 (not from meter)
Three of a Kind	\$15 (not from meter)	\$9 (not from meter)
Two Pair	\$10 (not from meter)	
House Edge	11%	23%
Seed	\$50,000	\$10,000
Hit Frequency	0.77%	2.87%

Caribbean Stud Progressive Paytables
Paytable Summary

Paytable Designator	CSTUD - 15		CSTUD - 16	
	Multi Game (\$1 wager)		Multi Game (\$5 wager)	
	Progressive Paytable	Envy	Progressive Paytable	Envy
OUTCOME				
Royal Flush	100% (from meter)	\$1,000	100% (from meter)	\$5,000
Straight Flush	10% (from meter)	\$300	10% (from meter)	\$1,500
Four of a Kind	\$300 (not from meter)		\$300 (not from meter)	
Full House	\$50 (not from meter)		\$50 (not from meter)	
Flush	\$40 (not from meter)		\$40 (not from meter)	
Straight	\$30 (not from meter)		\$30 (not from meter)	
Three of a Kind	\$9 (not from meter)		\$9 (not from meter)	
Two Pair				
House Edge	21%		21%	
Seed	\$10,000		\$10,000	
Hit Frequency	2.87%		2.87%	



- *These game rules and payable are for use with the approved Bally Technology owned progressive systems containing the following components and their compatible software versions: (1) Nexus Command Game Manager v1.3.0 or higher, Nexus Command Table Controller Software v2.0.0 or higher and a Progressive display or (2) Nexus Command Game Manager 2 v2.5.4 or higher, Nexus Command Table Controller 2 v2.6.0 or higher and a Progressive display. The progressive display can either be provided by Bally or the operator.*
- *The progressive display should be a table mounted monitor with no additional intelligence or functionality, including but not limited to network capability (wired or wireless). This non-intelligent monitor can either be provided by Bally or the operator so long as it does not introduce any additional functionality.*
- *Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.*
- *Players are limited to wagering on a maximum of four games. Card room operators are required to post on the layout or on a placard at the table that players are limited to wagering on a maximum of four games.*

NEXUS COMMAND

RULES OF PLAY:

1. Caribbean Stud Poker offers an optional progressive wager.
2. The bet considers the best hand possible among all the player's cards.
3. Sample paytables are listed separately.
4. The meter will be reseeded when the 100% award hits. The cost of the reseed has been factored in to the casino's mathematical advantage.

5. To begin each round, players must make their regular game's wager. They may optionally place any bonus wager and the progressive wager. Players must place the progressive wagers on the sensor in front of their betting position. The sensor will light up.
6. Once all players place their bets, the dealer will press "START GAME" on the keypad. The sensors will then light up, indicating a progressive wager. The dealer will then remove all progressive bets from the table.
7. The dealer then follows house procedures for dealing the regular game.
8. The dealer reconciles the standard wager, bonus wager, and progressive wagers at the same time. It's at the sole discretion of the casino to allow, or not to allow for folded hands to qualify for progressive payouts. Follow the procedure in the next section for reconciling percentage pays from the progressive meter.
9. Progressive winners:
 - a. The percentage pays are paid from the progressive jackpot shown on the progressive meter.
 - b. Other hands are paid from the tray; they do not come off the meter.
 - c. In the event more than one progressive meter pay hits during the same round, the dealer will first pay the player farthest on the right and then move counter-clockwise to pay other players. As regulatory procedures permit, this policy can be replaced by casino internal controls.
 - d. When a player has a progressive winner, the dealer will select the player spot corresponding to the player with the winning progressive hand. The dealer will then press the appropriate hand button on the display. (If the hand button is pressed by accident, pressing it again will turn it off.)
 - e. The dealer shall then contact a supervisor.
 - f. Once the casino verifies the progressive win, the supervisor will press the confirm button. To complete the action, a Supervisor or Executive card (depending on jackpot level) swipe is required. This records the win onto the Game Manager computer and adjusts the meter appropriately for the prize won. House procedures are then followed for paying the prize. (Reviewing the monitor connected to the Game Manager will show the prize amount to be paid, and pressing the "money bag" icon will print a win page, which can be used to help record the payout for accounting.)
 - g. When the dealer reconciles all action, he presses "END GAME." This resets the system to begin the next hand.
 - h. Once the Supervisor or Executive card (depending on jackpot level) is swiped the prize is logged into Game Manager. If the progressive pay needs to be backed out at this point, the award will need to be manually backed out using the Game Manager manual adjustment feature.

Caribbean Stud Progressive Paytables with Game Manager

Paytable Summary

Paytable for use as a standalone progressive table game or when connecting same table games

Paytable Designator	CSTUD - 01	CSTUD - 02	CSTUD - 03	CSTUD - 04
	PCSA1 (\$1 wager)	PCSA2 (\$1 wager)	PCSA3 (\$1 wager)	PCSA4 (\$1 wager)
OUTCOME	Progressive Paytable	Progressive Paytable	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	\$5,000 (from meter)	\$5,000 (from meter)	10% (from meter)
Four of a Kind	\$500 (from meter)	\$500 (from meter)	\$250 (from meter)	\$250 (from meter)
Full House	\$100 (from meter)	\$100 (from meter)	\$100 (from meter)	\$100 (from meter)
Flush	\$50 (from meter)	\$50 (from meter)	\$50 (from meter)	\$50 (from meter)
House Edge	28%	28%	28%	28%
Seed	\$10,000	\$10,000	\$10,000	\$10,000
Hit Frequency	0.37%	0.37%	0.37%	0.37%

Paytable Designator	CSTUD - 05	CSTUD - 06	CSTUD - 07	CSTUD - 08
	PCSA5 (\$1 wager)	PCSA6 (\$1 wager)	PCSA7 (\$1 wager)	PCSB1 (\$1 wager)
OUTCOME	Progressive Paytable	Progressive Paytable	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	10% (from meter)	\$5,000 (from meter)	\$5,000 (from meter)
Four of a Kind	\$100 (from meter)	1% (from meter)	\$250 (from meter)	\$500 (from meter)
Full House	\$50 (from meter)	\$50 (from meter)	\$100 (from meter)	\$100 (from meter)
Flush	\$25 (from meter)	\$25 (from meter)	\$50 (from meter)	\$50 (from meter)
Straight			\$25 (not from meter)	\$10 (not from meter)
Three of a Kind				\$3 (not from meter)
Two Pair				\$2 (not from meter)
House Edge	28%	28%	28%	11%
Seed	\$10,000	\$10,000	\$10,000	\$10,000
Hit Frequency	0.37%	0.37%	0.37%	0.77%

Caribbean Stud Progressive Paytables with Game Manager
Paytable Summary

Paytable Designator	CSTUD - 09 PCSC1 (\$1 wager)	CSTUD - 10 PCSB2 (\$2.50 wager)	CSTUD - 11 PCSC2 (\$2.50 wager)	CSTUD - 12 PCSB5 (\$5 wager)
OUTCOME	Progressive Paytable	Progressive Paytable	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	\$12,500 (from meter)	10% (from meter)	\$25,000 (from meter)
Four of a Kind	\$500 (from meter)	\$1,250 (from meter)	\$1,250 (from meter)	\$2,500 (from meter)
Full House	\$100 (from meter)	\$250 (from meter)	\$250 (from meter)	\$500 (from meter)
Flush	\$50 (from meter)	\$125 (from meter)	\$125 (from meter)	\$250 (from meter)
Straight	\$10 (not from meter)	\$25 (not from meter)	\$25 (not from meter)	\$50 (not from meter)
Three of a Kind	\$3 (not from meter)	\$7.50 (not from meter)	\$7.50 (not from meter)	\$15 (not from meter)
Two Pair	\$2 (not from meter)	\$5 (not from meter)	\$5 (not from meter)	\$10 (not from meter)
House Edge	11%	11%	11%	11%
Seed	\$10,000	\$15,000	\$15,000	\$50,000
Hit Frequency	0.77%	0.77%	0.77%	0.77%

Paytable Designator	CSTUD - 13 PCSC5 (\$5 wager)	CSTUD - 14 (\$1 wager)
OUTCOME	Progressive Paytable	Progressive Paytable
Royal Flush	100% (from meter)	100% (from meter)
Straight Flush	10% (from meter)	10% (from meter)
Four of a Kind	\$2,500 (from meter)	\$200 (not from meter)
Full House	\$500 (from meter)	\$50 (not from meter)
Flush	\$250 (from meter)	\$40 (not from meter)
Straight	\$50 (not from meter)	\$30 (not from meter)
Three of a Kind	\$15 (not from meter)	\$9 (not from meter)
Two Pair	\$10 (not from meter)	
House Edge	11%	23%
Seed	\$50,000	\$10,000
Hit Frequency	0.77%	2.87%

Caribbean Stud Progressive Paytables with Game Manager
Paytable Summary

Paytable Designator	CSTUD - 15		CSTUD - 16	
	Multi Game (\$1 wager)		Multi Game (\$5 wager)	
	Progressive Paytable	Envy	Progressive Paytable	Envy
OUTCOME				
Royal Flush	100% (from meter)	\$1,000	100% (from meter)	\$5,000
Straight Flush	10% (from meter)	\$300	10% (from meter)	\$1,500
Four of a Kind	\$300 (not from meter)		\$300 (not from meter)	
Full House	\$50 (not from meter)		\$50 (not from meter)	
Flush	\$40 (not from meter)		\$40 (not from meter)	
Straight	\$30 (not from meter)		\$30 (not from meter)	
Three of a Kind	\$9 (not from meter)		\$9 (not from meter)	
Two Pair				
House Edge	21%		21%	
Seed	\$10,000		\$10,000	
Hit Frequency	2.87%		2.87%	



- *These game rules and payable are for use with the approved Bally Technology owned progressive systems containing the following components and their compatible software versions: (1) Nexus Command Game Manager v1.3.0 or higher, Nexus Command Table Controller Software v2.0.0 or higher and a Progressive display or (2) Nexus Command Game Manager 2 v2.5.4 or higher, Nexus Command Table Controller 2 v2.6.0 or higher and a Progressive display. The progressive display can either be provided by Bally or the operator.*
- *The progressive display should be a table mounted monitor with no additional intelligence or functionality, including but not limited to network capability (wired or wireless). This non-intelligent monitor can either be provided by Bally or the operator so long as it does not introduce any additional functionality.*
- *Operators cannot allow wagering limits to exceed the authorized limits set out in WAC 230-15-040 and WAC 230-15-140.*
- *Players are limited to wagering on a maximum of four games. Card room operators are required to post on the layout or on a placard at the table that players are limited to wagering on a maximum of four games.*

NEXUS COMMAND MULTI GAME LINK

RULES OF PLAY:

1. Caribbean Stud Poker offers an optional progressive wager.
2. The bet considers the best hand possible among all the player's cards.
3. Sample paytables are listed separately.
4. The available paytables have been designed to work on Games with a connected jackpot in accordance with WAC 230-15-685(5) and WAC 230-15-685(6).

5. The meter will be reseeded when the 100% award hits. The cost of the reseed has been factored in to the casino's mathematical advantage.
6. To begin each round, players must make their regular game's wager. They may optionally place any bonus wagers and the progressive wager. Players must place the progressive wagers on the sensor in front of their betting position. The sensor will light up.
7. Once all players place their bets, the dealer will press "START GAME" on the keypad. The sensors will then light up, indicating a progressive wager. The dealer will then remove all progressive bets from the table.
8. The dealer then follows house procedures for dealing the regular game.
9. The dealer reconciles the standard wager, bonus wager, and progressive wagers at the same time. It's at the sole discretion of the casino to allow, or not to allow for folded hands to qualify for progressive payouts. Follow the procedure in the next section for reconciling percentage pays from the progressive meter.
10. Progressive winners:
 - a. The percentage pays are paid from the progressive jackpot shown on the progressive meter.
 - b. Other hands can be paid from the meter and/or the tray depending on payable.
 - c. In the event more than one progressive meter pay hits during the same round, the dealer will first pay the player farthest on the right and then move counter-clockwise to pay other players. As regulatory procedures permit, this policy can be replaced by casino internal controls.
 - d. When a player has a progressive winner, the dealer, using the dealer display will press the appropriate hand button that corresponds to the player with the winning progressive hand. (If the hand button is pressed by accident, pressing it again will turn it off.)
 - e. The dealer shall then contact a supervisor.
 - f. Once the casino verifies the progressive win, the supervisor will press the confirm button. To complete the action, a Supervisor or Executive card (depending on jackpot level) swipe is required. This records the win onto the Game Manager computer and adjusts the meter appropriately for the prize won. House procedures are then followed for paying the prize. (Reviewing the monitor connected to the Game Manager will show the prize amount to be paid, and pressing the "money bag" icon will print a win page, which can be used to help record the payout for accounting.)
 - g. When the dealer reconciles all action, he presses "END GAME." This resets the system to begin the next hand.
 - h. Once the Supervisor or Executive card (depending on jackpot level) is swiped the prize is logged into Game Manager. If the progressive pay needs to be backed out at this point, the award will need to be manually backed out using the Game Manager manual adjustment feature.

11. Envy Bonus:

- a. A player making the progressive wager also qualifies to win an envy payout. If another player at the table hits a hand associated with an envy pay, all other players who made the progressive wager win the envy pay. The player hitting the hand receives the normal prize pay only, but does NOT receive the envy pay.

Rule of thumb: You can't win an envy bonus pay from yourself, or the dealer. Envy Bonuses should only be paid to player's at the table where the qualifying hand occurred.

- b. If a player's hand triggers an envy payout, the dealer will leave the hand face-up on the layout; otherwise, the dealer will lock up the cards. The dealer will then move on to the next player.
- c. The dealer pays any Envy Bonuses at the end of the round. In the event that more than one player is involved in a qualifying envy pay, then all players win multiple envy payouts.

Caribbean Stud Poker

Nexus Command Multi-Game Link Progressive Paytables

Multi-Game Progressive Paytable - For use when connecting multiple 5-card poker games

Paytable 01		
Hand	Pays*	Envy**
Royal Flush	100%	\$1,000
Straight Flush	10%	\$300
Four of a Kind	300 For 1	
Full House	50 For 1	
Flush	40 For 1	
Straight	30 For 1	
Three of a Kind	9 For 1	
*Original wager is NOT returned		
**Envy payouts are multiplied by Wager Amount		

Paytable ML01		
Hand	Pays*	Envy**
Royal Flush	100% Mega	\$1,000
Straight Flush	100% Major	\$300
Four of a Kind	300 For 1	
Full House	50 For 1	
Flush	40 For 1	
Straight	30 For 1	
Three of a Kind	9 For 1	
*Original wager is NOT returned		
**Envy payouts are multiplied by Wager Amount		

Paytable ML03		
Hand	Pays*	Envy**
Royal Flush	100% Mega	\$1,000
Straight Flush	100% Major	\$300
Four of a Kind	100% Minor	
Full House	50 For 1	
Flush	40 For 1	
Straight	30 For 1	
Three of a Kind	9 For 1	
*Original wager is NOT returned		
**Envy payouts are multiplied by Wager Amount		



PROGRESSIVE SYSTEMS FLEXIBILITY and RECOMMENDATIONS:

- Progressive meter contribution
 - When using a pay table in which all payouts are deducted from the meter, we recommend utilizing the system to configure meter contribution rates anywhere between 0-100%.
 - Most pay tables with this style of math are designed to grow over time when a contribution rate of 70% or more is used. If less is contributed, the risk of the meter “running dry” increases.
 - When using a pay table in which only the progressive (percentage) pays are deducted from the meter, we recommend only reducing the pre-configured meter contribution rate if any changes are made. Adjusting the contribution rate above the pre-configured value would reduce the mathematical house advantage of the wager.

- Reserve contribution
 - We recommend contributing a small portion of each progressive wager to the reserve. This amount will be added on to any configured seed amount after a 100% award is given, and will help reduce the drop in play expected after a jackpot hits.
 - We do not recommend eliminating a seed amount entirely and using the reserve as the only seed mechanism. All games present a certain likelihood of back-to-back awards, and this method runs the risk of restarting the meter at a very low amount in that case.

- Seed amount
 - We recommend using the pre-configured seed amount in the system. This amount is specific to the pay table selected for use, and is designed to offer a reasonable starting point that works with the pay table’s math.
 - If any changes are made, we recommend the seed amount to be at least as large as the largest “fixed” award on the pay table.
 - We do not recommend configuring a \$0 seed amount.





Training Manual

Overview of the Rules

Caribbean Stud Bonus is an optional bonus wager for Caribbean Stud Poker. It considers the five card player hand. If that hand contains a pair of tens or better, the player wins. Hands are ranked as follows:

ROYAL FLUSH
STRAIGHT FLUSH
FOUR OF A KIND
FULL HOUSE
FLUSH
STRAIGHT
THREE OF A KIND
TWO PAIR
PAIR OF 10'S OR BETTER

If the player has any other hand, the Caribbean Stud Bonus wager bet loses.

Dealing Procedures

Casinos should follow standard dealing procedures for Caribbean Stud. The Caribbean Stud Bonus bet is handled in this manner.

1. Players must make the wager before seeing their cards. The bonus wager is subject to different table limits than the base game of Caribbean Stud.
2. Caribbean Stud Bonus considers the five cards the player receives.
3. The Player plays the Caribbean Stud game as usual. The Caribbean Stud Bonus bet is resolved after the call and ante wagers and before the progressive bet is resolved.
4. Caribbean Stud Bonus is resolved when all cards are revealed.
5. The dealer then resumes game play of Caribbean Stud.



BONUS PAYTABLES

Hand	CPSB-01	CPSB-02	CPSB-03
Royal flush	1,000 to 1	1,000 to 1	1,000 to 1
Straight flush	200 to 1	200 to 1	200 to 1
Four of a kind	100 to 1	100 to 1	100 to 1
Full house	50 to 1	50 to 1	50 to 1
Flush	40 to 1	40 to 1	40 to 1
Straight	25 to 1	25 to 1	20 to 1
Three of a kind	7 to 1	6 to 1	6 to 1
Two pair	3 to 1	3 to 1	3 to 1
10s or better	1 to 1	1 to 1	1 to 1
House edge:	3.1%	5.2%	7.2%
Hit frequency:	23.9%	23.9%	23.9%

