Revised version

Corellian Spike Sabacc, suitable for real money casino play

I've spent the last ~~six weeks~~ 3 months analyzing Corellian Spike Sabacc to shape a rule set that's consistent, strategic, and—crucially—real-world, casino-suitable. I even went so far as to write a simulator and let it play millions of games (≈200M). The simulator does not include betting, it is made to get complete statistics of hand probabilities, not of betting strategies. My goal wasn't to rewrite our beloved game, but to tighten it so skilled play matters, probabilities line up with rankings, and the table experience feels fair and exciting over many hands

Below is the reasoning behind the choices, with supporting stats and how they map into the rules.

1) Philosophy: rarity → rank, and "higher key" should win

Ranking by rarity. In poker, the rarer hand ranks higher; Sabacc should follow the same logic. My simulations and combinatorics show that when we look across *families* of ranked hands (e.g., all Rhylet variants together, all Straights together, see ranked hands below), rarer families are placed higher than more common ones. This keeps incentives and expectations aligned: hard things are rewarded accordingly.

Higher key beats lower key inside the same rank. Some argue "lower integer" should win because "the goal is to be closer to zero anyway." But that overlooks risk. (I call the "integer" the key, because "integer" can be ambiguous)
Example: drawing from *[+2,+2,-2]* vs *[+9,+9,-9] to try to get a Squadron*: It's not that the probability to get a Squadron with 2s is higher than with 9s. These are the same. It's that misses with the high-key chase push you much farther from zero on average, and misses are **much** more common. If you *do* land the higher key, you have succeeded despite greater expected downside along the way. Ranking the higher key higher correctly rewards that risk.

I ran a simulation with 2 players and sent them Squadron hunting for one million games. I dealt one of them a fixed [+2,+2] and the other [+6,+6] at the start of each game for the whole simulation run and gave them their target. The droids are intelligent enough to change strategy and just aim for zero if the Squadron is mathematically no longer achievable. I used Galaxy's Edge rules and ranked hands for that simulation to avoid confusion. The results speak for themselves:

Outcome

Player 1 (('hunter', 'Squadron')): Win 56.66 % (566593), Start [2, 2] (sum 4)
Player 2 (('hunter', 'Squadron')): Win 43.34 % (433407), Start [6, 6] (sum 12)

So why did player one win more often? Let's have a look at the details:

Player Statistics

Player 1:
 Win %: 56.66 (566593)
 Start: [2, 2] (4)
 Mode: ('hunter', 'Squadron')
 Avg distance from zero after game: 6.38
 Exact zero %: 15.11 (151085)
 Total named hands %: 8.90 (88954)
 Named totals: Yee-Haa: 5101, Squadron: 5073, Gee Whiz!: 1, Straight Khyron: 1908, Banthas Wild: 1014, Rule of Two: 4129, Pair: 71728

Player 2:
 Win %: 43.34 (433407)
 Start: [6, 6] (12)
 Mode: ('hunter', 'Squadron')
 Avg distance from zero after game: 7.85
 Exact zero %: 9.78 (97770)
 Total named hands %: 3.43 (34329)
 Named totals: Fleet: 1, Yee-Haa: 6155, Squadron: 5258, Gee Whiz!: 2, Straight Khyron: 1918, Banthas Wild: 67, Rule of Two: 3857, Pair: 1707

It is not the frequency they hit a Squadron; that small difference is negligible. Player 2 even hit it slightly more often:

Player 1: Squadron: 5073
Player 2: Squadron: 5258

The interesting numbers are these:

Player 1: Avg distance from zero after game: 6.38, Exact zero %: 15.11 (151085)
Player 2: Avg distance from zero after game: 7.85, Exact zero %: 9.78 (97770)

So for player 2 to even have a chance against player 1 in the long run they would have to ditch the high-value cards immediately, because sticking with high values is more risky. (The hunter mode made both stick to their cards as long as Squadron was still theoretically (mathematically) achievable)

2) Universal, short, and consistent tiebreakers

It keeps one compact tiebreaker chain for **all** outcomes—Nulrhek and Sabacc, ranked and unranked. If multiple at zero, ranked-hand beats unranked, higher rank wins, then higher key, then general tiebreakers; for equal-distance Nulrhek, positive beats negative, then general tiebreakers.

1. **Most cards wins** →
2. **Highest Σ|cards|** (sum of absolute values; look at *all* numbers, ignore colors) →
3. **Highest |card|** (compare highest to lowest; look at *all* numbers, ignore colors) →
4. **Highest positive card** →
5. **Suited** (last numeric resort; Sylop doesn't break suited) →
6. **Single-card draw** (only if still tied)

This mirrors the production notes of the film rules in Solo and avoids per-rank "if/then/else/unless/otherwise" branches. It's easy to learn, fast to adjudicate, and watertight at a casino table.

Why highest Σ|cards|, and not only highest sum of all positives?

Using Σ|cards| matches the film's "numbers first" spirit and avoids ignoring half the hand too early. If two hands have the same real-value sum, comparing positives only would produce the same winner—but later we *do* return to all cards (highest |card|). Staying with Σ|cards| here keeps the chain consistent. Example: [-8, +7, +5, -4] vs [-9, +7, +5, −3] → equal Σ|cards| (24), then highest |card|: 9 beats 8. Only if still tied do we check "highest positive," and suits are truly the last resort. Without this the above hands would tie and force a single card draw immediately. But they are clearly different hands, so they should not tie. Hence the **Highest |card|.**

Why suits and why at the end? Suits are not the focus of any realistic strategy. You would never reject a card from the discard pile that gets you a Sabacc, just because it is not the right suit. Only the straights and the (2-) pairs can be suited anyway. It is only introduced as a last tiebreaker to shave off some single card draws if possible.

3) Ranked hands: families, special cases, and clear placement

I keep all the familiar named hands (Rhylet, Yee-Haa, etc.) but recognize **families** where the original Galaxy's Edge list feels incomplete or too constrained. Example: **Wild Rhylet** generalizes Full House patterns beyond matching signs; **Full Straight** fills an obvious sequence gap; **Five Card Squad** distinguishes rarer four-of-a-kind patterns at 5 cards. In the rules, all ranked hands are enumerated with examples, keys, and a single tie logic ("higher key wins; else general tiebreakers").

Three key clarifications:

- **Pure Sabacc (0,0)** is *not* top rank. It's elegant, but comparatively common in long runs, so it ranks below much rarer patterns—consistent with the rarity-first philosophy.
- **"Special cases" stay special, not dominant.** Full Sabacc is the Fleet-of-10s special case; "Rhylet" is the special version of the Rhylets with same sign triplet and pair; "Gee Whiz!" is the unique fold-over 5-card straight; "Idiots Rule" is the special version of Rule of Two with one of the pairs being the 2 Sylops. These remain in the hierarchy, with their family—but rarity still decides where they live.
- **The Sylop variants are their own family.** Sylop Straight Khyron and Sylop Rule of Two follow the example of Fleet vs Squadron, or Yee-Haa vs Pair with no additional cards that do not belong to the pattern. The others are either already 5 card hands or must contain cards not belonging to the defining pattern.

4) Spike Dice: less whiplash, more play

Classic rule: **any doubles can trigger a wipeout**. Table experience and sims suggest that frequent hard resets feel swingy and frustrating (if you play for real money at least 😉). An alternative is to treat non-Spike **doubles as a forced single discard+draw** instead of a wipeout. That keeps the "Spike Sabacc flavor," but creates *more* opportunities to improve hands and reduces resets. Only double Spikes trigger a wipeout. In practice, double Spikes appear about once in a dozen rounds—roughly once every four games—so this tweak smooths the rhythm without diluting identity (and adds another meaning to the Spike).

5) Betting belongs after Spike Dice

For real-money play, your last information update should come **before** betting. If you're going to bet a heavily modified C.E.C. YT-1300f light freighter, you should know which hand you're betting on—so betting comes after Spike Dice. The turn structure in the rules is **Cards → Spike Dice → Betting**, for three rounds. That way, your wager reflects the hand you'll actually reveal—no 1-in-6 "my hand just changed" lottery between bet and showdown. Pots use standard table-stakes logic with side pots to prevent squeeze-outs; folding is disallowed when checking is possible to prevent angle-shooting Sabacc Pot blocking.

6) Evidence: simulations and combinatorics

Here are a few datapoints from long runs (multi-million hand simulations, 4 players), plus a closed-form count across five sequential draws. These support the ranking-by-rarity stance and show, for example, why Pure Sabacc shouldn't sit at the top, and Yee-Haa is also totally overrated.

Galaxy's Edge rules, 8 million games per targeted ranked hand, 4 players:

Pure Sabacc	**141,278**
Full Sabacc	**79**
Fleet	**667**
Yee-Haa	**773,297**
Rhylet	**67**
Squadron	**22,114**
Gee Whiz	**988**
Straight Khyron	**229,528**
Banthas Wild	**50,424**
Rule of Two	**704,204**
Pair	**6,308,510**

This (Casino) version, 8 million games per target hand, 4 players:

Ranked Sabacc Hand	Family	Frequency	
Full Sabacc	Sylop + 4 of a kind	**1,599**	**166**
Fleet			**1,433**
Rhylet	triplet + pair (Full House)	**2,498**	**146**
Wild Rhylet			**2,352**
Gee Whiz	5 card straights	**10,031**	**2,045**
Full Straight			**7,986**
Sylop Straight Khyron	Sylop + 4 card straight	**16,965**	**16,965**
Five Card Squad	4 of a kind	**33,079**	**703**
Squadron			**32,376**
Sylop Rule of Two	Sylop + 2 pairs	**47,018**	**47,018**
Banthas Wild	3 of a kind	**74,439**	**74,439**
Pure Sabacc	2 Sylops	**165,352**	**165,352**
Straight Khyron	4 card straight	**313,450**	**313,450**
Idiots Rule	2 pairs	**895,483**	**22,690**
Rule of Two			**872,793**
Yee-Haa	Sylop + pair	**955,445**	**955,445**
Pair	pair	**6,348,423**	**6,348,423**

- Very rare families: Full Sabacc and Fleet, Rhylet and Wild Rhylet, Gee Whiz and Full Straight, Sylop Straight Khyron.
- Rarer mid-tier: 4 of a kind , Sylop Rule of Two , Banthas Wild , Pure Sabacc.

- More common families: Straight Khyron, 2 pairs, Yee-Haa, Pair.

Algebraic draw counts (all 5 card draw Sabacc matches) (6,471,002 total possible combinations)):

Ranked Sabacc Hand	Family	Frequency	
Full Sabacc	Sylop + 4 of a kind	**180**	**18**
Fleet			**162**
Rhylet	Triplet + Pair (Full House)	**288**	**18**
Wild Rhylet			**270**
Gee Whiz	5 card straights	**1,458**	**486**
Full Straight			**972**
Sylop Straight Khyron	Sylop + 4 card straight	**2,268**	**2,268**
Five Card Squad	4 of a kind	**5,010**	**90**
Squadron			**4,920**
Sylop Rule of Two	Sylop plus 2 pairs	**7,290**	**7,290**
Banthas Wild	3 of a kind	**11,106**	**11,106**
Pure Sabacc	2 Sylops	**28,010**	**28,010**
Straight Khyron	4 card straight	**58,968**	**58,968**
Idiots Rule	2 pairs	**202,734**	**5,040**
Rule of Two			**197,694**
Yee-Haa	Sylop + pair	**242,040**	**242,040**
Pair	pair	**1,790,778**	**1,790,778**
Sabacc	non-ranked zero sum	**1,841,184**	**1,841,184**
Nulrhek	Sum ≠ 0	**2,279,688**	**2,279,688**

This method is how probabilities are usually given for Poker style games. (Contrary to my earlier version of this analysis, after closer examination and 136 million more simulations with targeted runs, it turns out The Yee-Haas are **not** rarer than Rule of Two, and still by far more common than for example Banthas Wild.) So, the combinatorics and real play match in every case. This is the only correction I had to make to the ranked hands after deeper analysis (And could have been prevented, if I would have believed the math in the first place 😊).

Takeaway: families higher in the list are notably rarer; Pure Sabacc, while iconic, is far more frequent than many upper-tier families—so it shouldn't outrank them. As Kay Vess would say *"Remember, this isn't Kessel Sabacc now!"*

(For comparison, the Galaxy's Edge rules simulation over 88 million games shows **Pure Sabacc is more frequent than Fleet, Full Sabacc, Rhylet, Gee Whiz, Squadron, and Banthas Wild combined!** — again reinforcing that "rarity → rank" keeps expectations honest.)

(Note: The big frequency sims shown here evaluate card formation, not behavioural betting edges—on purpose—so you can compare base combinatorics)

Resulting Probabilities (rounded to 6 digits) and Odds (Never tell me the odds!) (rounded to whole numbers):

Hand Type	Ranked Sabacc Hand	Distinct		Probability	Odds
Sylop + 4 of a kind	**Full Sabacc**	0.000513%	195122 : 1	**0.004988%**	**20,050 : 1**
	Fleet	0.004475%	22346 : 1		
Triplet + pair	**Rhylet**	0.000450%	222222 : 1	**0.007800%**	**12,821 : 1**
	Wild Rhylet	0.007350%	13605 : 1		
5 card straight	**Gee Whiz**	0.006388%	15656 : 1	**0.031338%**	**3,191 : 1**
	Full Straight	0.024950%	4008 : 1		
Sylop + 4 card straight	**Sylop Straight Khyron**	0.053013%	1886 : 1	**0.053013%**	**1,886 : 1**
4 of a kind	**Five Card Squad**	0.002188%	45714 : 1	**0.103363%**	**967 : 1**
	Squadron	0.101175%	988 : 1		
Sylop + 2 pairs	**Sylop Rule of Two**	0.146925%	681 : 1	**0.146925%**	**681 : 1**
3 of a kind	**Banthas Wild**	0.232613%	430 : 1	**0.232613%**	**430 : 1**
2 Sylops	**Pure Sabacc**	0.516725%	194 : 1	**0.516725%**	**194 : 1**
4 card straight	**Straight Khyron**	0.979525%	102 : 1	**0.979525%**	**102 : 1**
2 pairs	**Idiots Rule**	0.070900%	1410 : 1	**2.798375%**	**36 : 1**
	Rule of Two	2.727475%	37 : 1		
Sylop + pair	**Yee-Haa**	2.985763%	33 : 1	**2.985763%**	**33 : 1**
Pair	**Pair**	19.838813%	5 : 1	**19.838813%**	**5 : 1**

7) Rules snapshot (for reference)

- **Three rounds; per round:** Cards → Spike Dice → Betting.
- **Reveal & pots:** Zero (Sabacc) or closest to zero wins the Hand Pot; a Sabacc also wins the Sabacc Pot. Standard side-pot handling. No folding when checking is possible (prevents angle-shoots).
- **Very simple Winner resolution:** If multiple at zero, ranked-hand beats unranked, higher rank wins, then higher key, then general tiebreakers; for equal-distance Nulrhek, positive beats negative, then general tiebreakers.

8) Why this is "casino-ready"

- **Consistency:** One universal tiebreaker chain; no per-rank exceptions. Easy to teach, easy to enforce.
- **Skill expression:** Betting happens after all randomness that round; higher keys reward courageous, risk-aware lines; suits only break deadlocks at the very end.
- **Transparency:** Ranked families are defined once, with keys and examples.
- **Experience:** The dice tweak preserves the Spike Sabacc feel while avoiding frequent full resets.

If you love the high-variance “UNO Extreme” energy, the Galaxy’s Edge style delivers that well.
If you want deeper strategy and table stakes that make sense, the strict ranking-by-rarity, higher-key-wins, and betting-after-dice structure make this version of Corellian Spike play like a real money game.

So, there it is. I’m writing this as an invitation for peer review. I am very interested to hear what you guys think about my thoughts and calculations.

Happy to compare notes, run more sims, or refine edge cases together. If there’s interest, I can share simulator details and settings I used for the above figures.

9) Shoutouts and thanks

- Wayne Allain, for putting me on this voyage. You might not have intended this, but our short exchange had me question my own assumptions, and as obsessive as I can get, I had to get to the bottom of this 😊. The simulations and combinatorics surprised me and pushed me to refine the ranked hands and tiebreakers. Also, your contributions and tireless work to get new players onboarded and your explanations are outstanding.
- The whole Outer Rim Sabacc League. This is an awesome community. Also, all the creators of the numerous house rules. You rock!
- The Galaxy Series project for pushing consistency and enumerating ranked-hand edge cases and also focus on rarity—my rules compare outcomes and proposes a shorter, universal tie chain as an alternative. I promise, I hadn't read the Galaxy Series rules before the dice forced discard+draw idea popped into my head. Great minds think alike I suppose. 😊
- The creators of Star Wars: Outlaws for clarifying what the symbols on the dice stand for 😉, and for giving us a whole other game to play. I really love Kessel Sabacc, too!
- And, of course, the Solo: A Star Wars Story set designers and writers, who went through the process of creating a whole new game for 2 scenes. Awesome!