# Imperial Assault Statbook Guide v0.1

A Hedgepath to Victory exclusive

# Summary

• Intro: Welcome to the Statbook! What is this thing?

- Metrics shown
  - CDFs
  - Expect Value and Variance
- What's Next!

#### Welcome to the Statbook!

Weaponizing the Data

What types of attack conditions are cover?

What questions does this answer? What questions does this not answer?

- The Imperial Assault Statbook includes information about the attack results of every unit in the game! It should help you decide what units to use to achieve specific results. Cumulative Density Functions (CDFs) for each attack are shown, as well as the expected damage an attack generates and it's variance. Surges and most rerolls are taken into account.
- Regular attacks are displayed as well as focuses, hidden, focus and hidden attacks against Black and White Dice. Attacks against other dice combinations or weakened attacks are not covered.





- The Statbook answers questions like "How likely is it that my hidden Elite Weequay Pirate one shots an Elite Stormtrooper"
- It does not answer questions like "How efficient is Captain Terro as a unit"



Please use this to help guide in game decisions as well as list building choices!

## What is a CDF? Why is it important?

What is a CDF?

• CDF's are a great way to describe offensive output in imperial assault. They answer the question: "How likely am I to do X or more damage on an attack.

Example!

• A hidden, focused Gideon shoots Captain Terro with 4 life left. How likely is Gideon to kill him?



 Gideon does 4 or more damage around 70% percent of the time against black dice.

### Expected Value? Variance?

What are these?

• Expected Value is the average damage done by an attack. Variance is a measure of how consistent that attack is. For this application variance does not have a strict literal interpretation.

Example!

Variance	Expected Damage
1.133	2.17
1.576	3.86
1.567	2.89
2.493	4.33
3.169	3.25
5.323	4.36
3.169	3.25
5.323	4.36

- Black Dice Attacks in the following order: Regular,
  Focused, Hidden and Focused and Hidden
- White Dice Attacks in the following order: Regular, Focused, Hidden and Focused and Hidden

• Gideon's regular attack averages 2.17 damage against black defense dice.

#### What's Next?

Fix goofy rerolls in the calculator

Fix Surge Optimizer to account for double surges better

Make the Statbook less ugly

Include more attack types and misc. upgrades

- Elite Alliance Rangers and HK's are under estimated in this version. Each is only rerolling one attack dice in these calculations
- Hera and Wiess are calculating correctly, but only because of the how they specifically work. Explosive weaponry is not included.

It's super ugly

- Weakened Attacks, Two die defenses, etc
- Odds of an extra surge?