The calculation for the success probability in your **`_calculateSuccessProbability`** method is based on a combination of the strength ratio and the adjusted firepower. Here's a detailed explanation of the equation and the algorithm behind it:

Equation for Success Probability

The equation used in the **`_calculateSuccessProbability`** method is:

$$P_{\text{success}} = \frac{\text{strengthRatio} \times \text{adjustedFirepower}}{\text{strengthRatio} + \text{adjustedFirepower}}$$

Where:

- $\text{strengthRatio} = \frac{\text{myStrength}}{\text{enemyStrength} + 1}$
- $\text{adjustedFirepower} = \frac{\text{firepower}}{1000}$

This formula is designed to provide a balance between the strength of your units and their firepower, giving a higher probability when both are relatively higher compared to the enemy's strength.

Algorithm Explanation

1. **Calculate Strength Ratio**:
    - The strength ratio is calculated as the ratio of the total strength of your units to the enemy's strength plus one. The addition of one to the enemy's strength ensures that the denominator is never zero, avoiding division by zero errors.
2. **Adjust Firepower**:
    - The firepower is scaled down by dividing it by 1000. This scaling ensures that the firepower does not disproportionately affect the probability calculation.
3. **Compute Probability**:
    - The success probability is calculated using the formula that combines the strength ratio and adjusted firepower. The formula is a type of harmonic mean, which balances the two factors in a way that neither dominates unless it's significantly higher than the other.