LowLuck A&A

I order to start playing a soon as possible, just read 4. and 5.

1. What is Low Luck?

It isn't really a variant of Axis&Allies but rather another way of combat resolution: In every round you roll only one die for the attacker and one for the defender.
This way the luck by rolling the dice still exist, but it is reduced. Generally, the way of playing the game will not change, the same strategies that work in normal AA also work in Low Luck A&A.

2. Why Low Luck?

Well, if you've played A&A many times you may have noticed, that often the combat-results are strongly influenced by luck, e.g. Turn 1 Russia goes to Finland strong, but fails terribly, and loses a fighter, or Turn 1, Germany's whole Luftwaffe may get lost over the north sea shot down by only 3 allied ships.
And with such results often the whole game is lost. Not only you are annoyed to lose a game this way, you also cannot enjoy a victory achieved only by wild dice.
To avoid such heavy luck/bad luck, and such ensure that a A&A game is decided by skill of both players the Low Luck Combat Resolution was worked out.

3. How does Low Luck work?

The main ideas of Low Luck are:
1. Reduce but not eliminate the influence of the dice.
2. Dont change the game play, that means the average outcome of a specific battle stays the same.

This is realized in a very simple way to determine the combat results of one round of combat:
You add up the offense values or defense values respectively of the units, divide the result by 6, and this result determines the number of hits.
For the remainder of this division, you roll a dice, and if you throw this number or less, it is another hit.

Example:
Russia attacks FIN with 3 inf, 3 Arm, 1 Ftr:
The sum of the attack values is 15 (3 x 1 + 3 x 3 + 1 x 3). Therefore the number of hits is 2 (15 : 6 = 2 rem. 3).
Now the remainder is 3 and the attacker throw a dice, and if he throw 3 or less he'll hit one more unit of the defender.
We suppose that the Russian player throws a 2, and so he hit one more German unit. Totally 3 unit were hit.
Now it's the defender's turn:
His defense value is 12 (3 Inf = 3x2 + 1 Arm = 1x2 + 1 Ftr = 1x4). So, (12: 6 = 2) he hits 2 Russian units, and doesn't have to roll a dice, because the remainder of the division is 0.
Next Turn:
Russia (1 Inf, 3 Arm, 1 ftr) vs. Germany (1 Arm, 1 Ftr)
Offense value: 1x3 + 3x3 + 1x3 = 13 = 2 hits remainder 1
We suppose the Russian player doesn't throw a 1, so there are no more hits.
Defense value: 1x2 + 1x4 = 6 = 1 hit (without remainder).

Results:
Russia takes FIN with 3 Armor and 1 Fighter. This is also the most realistic result for this combat you´ll get from a usual combat simulator.

4. How to Play?

It´s very easy:
You don't have to add up and divide manually, because there is the LowLuck dice server, which was developed to calculate the combat results for Low Luck A&A. It works like Dicey, just enter the number of units and click submit.

5. Special Rules

a) Weapon Development
Low Luck A&A will be played without weapon development, but there are optional rules for tech. (Look at 6.)

b) Submarines
There are two ways to attack with Submarines:
Submarines can use their 1st strike as usual, then their attack values will be handled separately. Or you decide to add the value of the subs (or a part of it) to the attack value of the rest of the attacking force, and forgo their 1st strike capability.

Example: Japan attacks with 4 Sub, 1 BB, 2 Ftr vs. 2 Trn, 1 AC, 1 Ftr
The value of the subs is 4x2 = 8. So, one sub-hit is guaranteed, and Japan has to throw a 2 or less to hit one more unit.
Then the rest attacks (10 : 6 = 1 rem 4), and hits one more unit, and if Japan throws a 4 or less, one more unit is hit. But Japan can also decide, that only 3 Subs do their first shot and the 4th Sub fights with the BB and the fighter.
Then it has 1 Sub hit (3x2 : 6 rem 0) and the rest have 2 hits, because the one sub increase the offense value up to 12. (12 : 6 =2).

c) Antiaircraft shots
it's analogues to "normal" LL fights:
Example:
If 4 Airplanes attack, then the defender has to roll one dice, and if he throws a 4 or less, one fighter is lost.
If 8 Airplanes attack, then 1 fighter is lost and if the defender throws a 2 or less, one more fighter is lost.

d) Strategic bombing raid (sbr)
1) No AA present:
Defender loses 3 or 4 IPC as the average damage is 3,5 IPC.
Attacker loses nothing.

2) IC is defended by AA: The defender loses 2, 3 or 4 IPC as the average damage is 2,9..IPC
Since the average damage that the attaking player takes when he conducts a sbr on an IC that is defended by an AA is 2,5 IPC (15 IPC/6), the attacker just loses 2 or 3 IPC INSTEAD of losing the bomber. That means, you DONT lose a raiding bomber but you have to pay the average damage EVERY sbr.
The attacker has to pay this bombing fee at the end of his turn after collecting income.

Note: There is no need to save the money when purchasing your units, but it is wise to make sure you have that money to “repair” your bomber(s) at the end of your turn. In the (rare) case the attacker does not have enough money to pay that sbr fee he will lose one bomber for every lack of 2,5 IPC. (round to the disadvantage of the attacker, i.g. when you are lacking 4 IPC you will lose 2 Bombers)

6. Optional rules

Optional rules are only for free games and if both players agree to use it.

a)Alternative SBR rules

A. As LL standard rules, but the attacker has to save the sbr fee of 3 IPC per bomber before combat move. The money that had been overpayed will be added at the end of the turn.
B. As regular SBR, AA shoots at every bomber, surviving bombers make 1-6 IPC of damage.
C. As B. but defender damage will be 3-4 IPC.

b) Weapon development

A. Introduction
First it must be made clear, that LL Tech is optional, i.e. all players involved must agree that LL Tech will be used, otherwise game will be without tech.
For LL Tech the same principles as with LL were applied, i.e. reduce the influence of the dice, but leave the original rules untouched whenever possible and dont change the gameplay . For this reason the original technologies such as IT or Heavy Bombers remained unchanged, although one could imagine very meaningful innovations of the single techs.
Since weapon development is extremely luck dependent in the original game, some of big changes had to be made for rolling tech in LL Tech:
The 6 available technologies are divided in two categories:

IT research is including Super Subs, Rockets and IT*

Air Tech Research is including Jet Power, LRA* and Heavy Bombers.

You may decide freely which category of research you want your money spend for.
This has the big advantage that you will never gain Rockets while aiming at LRA.
Additionally, the money will never be totally lost, even in case of a setback. On the other hand, it's also not possible to gain a very good technology like IT or Heavy Bombers with only 5 or 10 IPC spend, because now you have to invest a lot more.
You pay your research money as usual at the start of the round. New is, that you dont roll inmediately, but save the research capital over some rounds. If you investeded a minimum amount of money, you may try a break-through. The chances for a breaktrhough can be seen in the two tables further down bellow. Generally said: The more money saved, the bigger the probability to get a good Tech.
The good news is, all the rules are already implemented into the LL diceserver, so that you actually dont need to read all the details. Nevertheless they are presented down below, and a view on the tables could be useful before play.

B. Low Luck Tech Rules
At the start of the round the desired amount of money is deposited into one of the two categories of research. You have to invest at least the minimum expenditure to keep the project running otherwise all previous investments are lost.
When certain amounts are accumulated, a technological break-through may be attempted by rolling a die and resolving it with the tables below.

If you roll and get a tech you already have you get the (next) better tech. If you also have this tech, you will get the best tech of this category."

Example 1 : If you have LRA and roll a 4 with 36 IPC saved, you get HB.
Example 2: You have JetPower and LRA and roll a 2 with 36 IPC saved: Since you already have the tech you rolled AND the better tech as well you get the best one which is HB in this case.

Everything else can be read at the two categories of research.

Industrial Technologie category:

Minimum Research expenditure per round: 4 IPC
Maximum Research expenditure per round: 12 IPC
Results with break-through attempt:

Diceroll/spent money	24 IPC	36 IPC	48 IPC
1	Super Subs	Rockets	Rockets
2	Super Subs	Rockets	IT*
3	Super Subs	Rockets	IT*
4	Rockets	Rockets	IT*
5	Rockets	IT*	IT*
6	IT*	IT*	IT*

* Abbreviation for Industrial Technolgy

With each break-through attempt, 16 IPC of the saved research money will be substracted. If you gain IT*, the project has ended and all research money is used up.

Air Tech category of research:

Minimum Research expenditure per round 6 IPC
Maximum Research expenditure per round 18 IPC

Results with break-through attempt:
Diceroll/spent money

Diceroll/spent money	36 IPC	54 IPC	48 IPC
1	Jet Power	LRA*	LRA*
2	Jet Power	LRA*	Heavy Bombers
3	Jet Power	LRA*	Heavy Bombers
4	LRA*	LRA*	Heavy Bombers
5	LRA*	Heavy Bombers	Heavy Bombers
6	Heavy Bombers	Heavy Bombers	Heavy Bombers

* Abbreviation for Long Range Aircaraft

With each break-through attempt, 24 IPC of the saved research money will be substracted. If you gain Heavy Bombers, the project has ended and all research money is used up.

C. Examples

a) German player wants IT
He chooses the IT branch of research
Round 1: He invests 12 IPC, no break-through possible.
Round 2: He invests 4 IPC, he has save a total of 20 IPC, no break-through possible yet.
Round 3: He invests 4 IPC, and has 24 IPC now. A break-through is possible!! But he decides to wait to getter better chances.
Round 4: He invests 12 IPC, and has 36 IPC now. A break-through with better odds is possible now.
The German players decides to give it a try and rolls.....
a 5!! This way he has IT!!
Now the project has ended, the money is used up. Germany can decide to either focuss on the Air The Branche of Research, or give the IT Branche of Research another try, to gain Super Subs, or Rockets (of course, he also can decide not to tech anymore :-).

b) US player wants Heavy Bombers He chooses the Air Tech branch of research
Round 1: He invests the maximum of 18 IPC, no break-through possible yet.
Round 2: He invests another 18 IPC, has saved a total of 36 IPC. A break-through is possible.He wants to be succesfull as quickly as possible and tries to get a break-through. Rollin'...
a 3!! Only Jet Power, but better than nothing at all.24 IPC will be substracted for this break-through. 12 IC are left to give research another try in the next turns.
Round 3: He invests another 18 IPC and has saved a total of 30 IPC. No break-through possible yet.
Round 4: He invests 6 IPC and has 36 IPC again. A new break-through is possible again. He decides to try the break-through en rolls....
a 1!! That would mean Jet Power again. But because the US already has JP, she will get the better tech, LRA.
24 IPC are substracted. 12 IPC are left.
Round 5: He invests another 18 IPC and has saved 30 IPC now. No break-through possible yet.
Round 6: He invests 6 IPC and has saved 36 IPC again. Break-through is possible again!! He has nothing to loose anymore. No matter what he rolls, he will get his Heavy Bombers. The project has ended now, the invested money is used up.
The US player has invested 84 IPC and 6 turns to get Heavy Bombers. If he would have been more patient in the first rounds, he probably would have reached his goal after 4 turns, with only 72 IPC spend.

Have fun with Low Luck A&A and the LL dice server!