The Newbie Advanced Strategy Guide to Playing like An Experienced Player -by Arjun S. a.k.a. Çárñágè (Epsilon)

I'd like to thank the present and former members of the Epsilon server and all my friends where I began this game 3 years ago as a newbie for their invaluable advice and experience for which I have gained playing with and against them. Special thanks to Doom and the former members of my first guild and all my friends in $[\cdot V \cdot]$ Villain that helped start it all. Special thanks to Salsashark a.k.a. Glenn for the Base Development Simulator Excel Spreadsheet.

A few points to highlight:

- 1) It is assumed that the player reading this has read the basic guides by other authors and the developers on starting the game and has an idea about how the mechanics of the game works.
- 2) Assumes the player is upgraded or intends to upgrade to take full advantage of the account development potential. There are other development guides for players who do not intend to upgrade but this is more of a strategy and tactics guide than a basic how to guide.
 - a. Here is my first piece of tactical advice fundamental to becoming an advanced level player. Without an upgrade you are not able to achieve a competitive level.
 - b. That being said, not all upgrades necessarily need to be done throughout the year but can also be done for few months at a time to take advantage of upgrade features such as advanced structure development and new bases. If you achieve the goals highlighted in this guide you will not have to upgrade further as the time taken for construction or research of technology can go well beyond a reasonable amount of time that the construction started (not qued) will continue to develop even after your upgrade expires. So if you need to build an advanced structure that takes 6 months to complete then you can group a few of these together upgrade for a month and start them. Even if the upgrade runs out at the end of the month, the construction will still continue. Cancel it though and you cannot restart it if you are not upgraded.
- 3) There is no hard and fast rule about the end game structures built and you can follow what you believe is best. In this case however it would be better to employ some kind of base development simulator to test your ideas of base models.
- 4) The structures suggested to build in this guide are based on efficient cost per unit of construction or production capacities. This however does not make it necessarily cheaper as area is the costliest structure and if you need to build a non-efficient anti-matter plant versus another level of multi-level platform, it would work out cheaper to build the anti-matter plant. However if 3 or more structures are needed and the MLP has to be built anyway then the cost of the extra anti-matter plant per unit in the end becomes a wasted resource until balanced by the need for more energy and adding energy structures.

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Introduction:-

To begin there are 3 types of players in this game.

- 1. The smart player who actively asks questions and discusses strategies heeding the advisement of more experienced players,
- 2. The player who despite the advice believes he knows everything and can attempt to do something that no one else has attempted before and have different positive consequences before the fail becomes clearly apparent. Listening to advisement but comprehending by experience.
- 3. The third kind of player who doesn't follow or hear any advice because they believe that they are smarter than everyone else since they are 40 years+ or that they were told they have a high IQ. Since most player fall between the 15 years to 40 years range the person feels by right of age, military experience or whatever else that they can out think an experienced 18 year old. The player also maybe stubborn and usually ends up kicked out of the guild for rude behavior, bad hits and overall non co-op play style that maybe detrimental to the guild.

This game is and will always be a game of experience. The longer you have actively played it the better you become. Experience points within the game tell very little about the true game experience of a person. There is no true substitution for actual play experience and though I try to bridge the gap between a relative newbie and an experienced player, this is hardly a substitution.

Over the years I have found that two playing styles predominate that is,

- 1) The Simmer style and
- 2) The Proactive Attack Style.

The former style of play is less respected and is a little slow if not boring and it has over the years been labeled as a farm style of play (because active players occupy their bases for the extra income especially if activity is an issue) whereas the latter is more pro-active and is designated as the farmer style of play. In my experience both styles can be used, the hybrid of which is extremely effective late game. The farm is extremely defensive and his play depends on quietly using his self-generated economy to build his empire. He doesn't usually attack other and feels that since he leave them alone and doesn't rock the boat he will be left alone as well. This is however not true as the pro-active player is competitively trying to grow his account in the shortest fastest way possible and rather than wait for economy he actively hunts and seeks out targets. His own economy is of little concern as most of his income is based of fleet debris gained from attacks. As such he tries to max out his production, fleet and if smart research as well.

Understand that Astro Empires is a strategy game based on some very well thought out formulas tweaked over the years. These formulas have led to the development of strategies and counter strategies which have been tried and tested and like the laws of physics in nature are absolute

until the formulas are tweaked again. Though the basics have been extensively discussed in length in other guides I will cover some of them with you again as we go along explaining them further.

Choosing the Best Astro for Current and Long term Success:

This game is based on three very important basic variables Economy, Fleet and Technology. Why do I refer to them as basic is because to ignore any one would be detrimental to your game. With this in mind I personally prefer the Asteroid/Rocky combination and though others would argue for Rocky exclusively, the fact is if you plan on long term end game playing the Asteroid/Rocky combination is the better of the two as compared to Rocky alone.

Now what do I mean by end game. This is a basic term you'll come across in various discussions to denote a point at which construction or researching time to complete exceeds anywhere from months to years. Cost is less of a limitation than time. This of course takes into account the fact that you have already efficiently maxed all structures and tech concerned with further development almost being equal to banking credits unless your still around to see the construction or research finish. To other experienced players it also refers to a return on **investment** i.e. a maximum credit return generated by structures in an astro versus cost spent to developed the astros within a realistic time frame (variable). The latter though considered is not always factored in by all experienced players as many like me believe that since the majority of your economy will be generated from enemy fleet as a simming economy is not adequate enough to run construction, research and production at the same time. The added economy generated does help but is not an active player's main source of income. Your only goal is to build the best account possible to support your imperialistic designs of server domination. The faster you develop the faster you are able to realize your goal. To this effect someone else will pay for your growth. Another way to think about it is if you spend 2 years developing your fleet, do you want to spend another two years again rebuilding once you lose it? So developing capacities never stops until time taken for next level is too long to wait or real life forces you to end your game.

Bases in astros are based around three important variables which are **Area, Energy and Population**. The asteroid for all intents and purposes is the smallest area wise and is also limited in fertility. To the inexperienced player starting out rushing to compete, a lack of this fact can be detrimental and hence is always advisable at start, by choosing an astro that takes the least amount of work to develop. **Rocky type astros** are such that they require the least amount of investment and so would give you the maximum developmental advantage initially. They offer the high solar energy comparable to other astro types while offering the second highest fertility at 5-6 of any astro in game. Most important is that they are metal-3 which is the important base unit in determining construction and production capacities. Higher this values faster the base development. In the game, speed of development is extremely important as putting it simply bigger fleet and capacities is always better.

Now of the two types of available rocky astros, the planet should be your first choice followed by moons in the beginning. In fact first 1 or 2 astros should preferably be planets and the next 11 astros should be moons. Also the acceptable positions for an ideal astro base location are the very 1st & 2nd position (i.e. vertical rows) in a system. A 4th or 5th position Rocky can be considered as well where energy will be derived from gas-3. You cannot always get to choose what you would like to have ideally and in the mad rush may end up having to settle for the next best options which are 1st and 2nd position metallic or crater astros, or a 4th or 5th position rocky astro instead. A final option to consider would be a first or second position asteroid though as stated development initially will be slow, you can take advantage of the crystal mines to generate more credits.

Astro Type	Position	Energy	Population	Area	Starting P-Ring Cost	Final Goal Base Development Cost
Rocky Moon	1	4	5	75	25,000	21,669,851
Rocky Planet	1	4	5	85	50,000	21,768,676
Rocky Planet	2	3	6	85	50,000	22,600,434
Rocky Planet	4 & 5	3	5	85	50,000	22,862,024
Metallic/ Crater Planet	2	3	5	85	50,000	22,651,059
Metallic, Crater Planet	1	4	4	85	50,000	22,466,859
Asteroid	1	4	4	65	12,500	22,680,858
Asteroid	2	3	5	65	12,500	23,800,284

Table 1: Final development includes structures listed in Table 2. Energy Tech.: 40
(Note: Crystal mines cost not included in asteroid to show a fair comparison versus other astros.)
All values shown unless stated is Without Commander Influence

Above is a list of astros with comparative cost of final end game development after 2-4 years. It is not unreasonable to expect people to play as long as currently the game is running in its 5th year. As you noticed above contrary to popular belief to construct the same structures on an Asteroid versus a Rocky end game shows a negligible difference in price. The asteroid is the better choice in this case to develop as tech improves. We are all about having options and the asteroid gives you a choice of either further pursing development of construction and production structures or economic structures. However understand that this advantage is not present in the

beginning with technology at zero and hence a well-rounded astro (Rocky planet) presenting with the most amounts of resources would be the best option at start.

So for the best gain initially **start with 1 rocky planet** to give you that initial fast development boost without worrying about area and resources. These can later be converted into a high jump gate logistics base. Again the limitation would be cost of defense but if you have 1 to maximum two planets this will pose no problem to develop. Some people prefer fortresses on asteroids due to the low cost of defense but if you plan on having a strong economy this can really hinder crystal mine development and so I would prefer a moon as a first choice to build on. The next 11 astros can be developed on rocky moons. The planet area will be useful as the first astro usually needs to develop everything from construction, research to economy. The next 11 being moons will be less costly to develop compared to the planet. Structures such as biosphere modification and defense (P. Rings and P. Shields) will be less expensive as well. This is especially helpful when initially gaining credits will be a tedious process involving simming, attacking and gaining occupations for credits. One of the crucial steps in game is speed of development and sadly the asteroid though long term is good can become expensive and difficult to develop in the beginning. If however you are already part of a guild with a large group of friends trying to create a stronghold galaxy then perhaps you can attempt developing asteroids while at the same time developing crystal mines at the earliest which can help give a much needed boost to economy; the downside being presenting an attractive target for opponents looking for early profit. Remember others will be competing along with their friends so slow development can also burden your friends/guild as well. The last 9 bases should be developed on asteroids. Once the initial 12 astros are built you will now be in a comfortable position to start developing long term. Also since the initial 12 astros are rocky you will be able to develop your 12 linked research bases on them as they will not be hindered as much by lack of area. The 10 asteroids should be able to present you with further options. End game Linking 16 bases is a viable option and as such 4 asteroids can be used to setup research bases with a few crystal mines cost allowing. All the above astro development costs have been shown with 33 research labs each. So the difference between the asteroid and rocky is not enough to warrant not having asteroids in your build as end game you will be having a fleet that easily surpasses a 100 million and would be generating about 100 million or over in profit. That makes a difference of 1-2 million negligible. If you have a choice between a position 1 or 2 astro always choose position 1 as cost associated with energy (Antimatter, Fusion plant) which is the second most costliest base structure end game after area (Multi-level platforms and Terraforms) will make it cheaper especially if you don't intend to take energy as high as level 40.

Make sure you read the other guides on how to survive the initial scramble or find your-self an experienced set of friends and join them. Bigger the guild, better are the chances of survival. Below is what I have listed as final development of 21 bases essential structures.

Advancing on the 30/26/20/15, 26/10 Rule:-

This is what you should generally be aiming for on all your bases construction and production structures. The efficient goal is what most guides and guilds aim for and long term leave the rest to you. Since this is a guide for advancing your strategy we can take it further to achieve end game tech. The limiting factors beyond this point will be time and cost. The below build will maximize capacity construction at 740 and production at 1027 without commander influence on metal-3 astros.

With the above build you should be able to achieve 20,540 production capacities total on a minimum of 20 bases with cybernetics at 21. This is assuming all your bases are built on metal 3 astros with good energy as discussed earlier. If you however have built on some metal 2 capacity astros then the base production capacity attained will be at 968 maximum with the below build. The minimum number of metal 2 astros you can have in your empire is 9 and metal 3 astros is 11 to get to the 20,000 capacity goal without commanders.

Note: On metal 2 astros as efficiency on metal 2 is reached at metal refinery level 32 and not 33 as is in metal 3 astros, to take it past the 20,000 capacity mark build instead an extra android factory to level 18. A point to note is on metal 2 the Tundra and Arid moon is the cheapest to develop due to more space with reduced cost of biosphere and defense.

Here are a few points to remember:

1) No matter how much you advance and try production through constructing advanced structures and research etc., if the basic unit metal is '2' you are going to invariably fall behind in production and construction compared to metal-3 of base comparable Ι cost. mentioned that time is a

STRUCTURES	MID Game GOAL	FINAL GOAL PER BASE				
Metal Refineries	30	33*				
Robotics	26	28				
Nanites	20	23				
Androids	15	17*				
Shipyards	26	28				
Orbital Shipyards	10	12				
Spaceport	25	30				
Economy	17	20				
Jump Gate	3	3				
Research Labs	28	33				
Planetary Shield	10	25				
Planetary Ring	20	45				
Table 2: Mid and End Game Base goals						

Table 2: Mid and End Game Base goals
(Efficient = Minimum cost per unit)

*-On metal 2 astros stop at metal 32 and advance 1 level of Android to level 18

hindrance, it will be more so for the metal-2 base long term.

- 2) The idea of not building robotic factories is as ludicrous an idea as trying to fighter swarm a heavy cruiser fleet that is half the swarm size. At level 28 the construction/production gained is 56. Add the fact that this is boosted by cybernetics level 21 and it becomes 115. Taking into consideration that this structure is built efficiently i.e. factoring area and cost per unit of production and it becomes more inefficient per unit cost to push other structures levels up to make up for this loss and further base development of prods will be hindered by cost end game. To state it simply **you will always be inferior in production/construction levels as compared to an account with robotic factories**.
- 3) The greatest limiting factor in this game structure wise is area. This is where asteroids development is hindered by cost of next terraform or multi-platform structure. Though it can achieve the same production levels as a rocky, the addition of crystal mines would make it so much more costly. Let's look at it in more detail.

Astro Type	Position	Economy without/with Trades	Area Used	Population Needed	Energy Used	End-Game Costs	Disband Rebate
Rocky Moon	1	313 / 663	313	311	876	21,669,851	10,834,926
Rocky Planet	1	313 / 663	313	311	876	21,768,676	10,884,338
Asteroid	1	313 / 663	314	311	876	22,680,858	11,340,429
Asteroid with 30 Crystal Mine	1	373 / 758	350	348	954	34,582,031	17,291,016
Rocky Moon	2	313 / 663	318	316	868	21,767,945	10,883,973
Rocky Planet	2	313 / 663	315	313	852	22,600,434	11,300,217
Asterioid	2	313 / 663	316	313	852	23,800,284	11,900,142
Asteroid with 30 Crystal Mine	2	373 / 758	354	353	954	37,372,792	18,686,396

Table 3a: Cost of Developing an Astro

- Cost also includes 10 command centers
- 33 Research Labs
- Economy with trades assumes trades at a conservative estimate of average 55 credit per trade route for asteroid with 373 economy and for the rest at 50 credit average trade at 313 base econ. at 4000 distance.

Asteroid vs. Rocky and Base Development:

An age old argument with players is for or against the asteroid as a worthy substitute to the rocky astro. Short term without question Rocky is the better choice. It provides adequate space and a fast needed development pace for the active player.

The table above shows the cost of development. Note the asteroid and rocky have the same structures listed (Table 4a) with additional adjustments for more area and population.

STRUCTURES	Efficient GOAL	FINAL GOAL PER BASE
Metal Refineries	30	33*
Robotics	26	28
Nanites	20	23
Androids	15	17*
Shipyards	26	28
Orbital Shipyards	10	12
Spaceport	30	30
Economy	17	20
Jump Gate	3	3
Research Labs	28	33
Capital	10	12

Table 4a: Structures common to all bases.

The cost can be analyzed in the subsequent table showing how the bases resources are adjusted to accommodate the construction goals. Unsurprisingly most of the credits are spent on area and

Astro Type	Position	Construction/Production @Cybernetics 21 (without Commanders)	Area Cost	Population Cost	Energy Cost	Pay Back in Years
Rocky Moon	1	740 / 1027	5,069,324	296,143	506,377	3.73
Rocky Planet	1	740 / 1027	3,771,860	296,143	506,377	3.74
Asteroid	1	740 / 1027	6,565,689	398,088	617,219	3.9
Asteroid with 30 Crystal Mine	1	740 / 1027	17,156,844	537,245	1,021,079	5.9
Rocky Moon	2	740 / 1027	5,069,324	245,518	655,096	3.7
Rocky Planet	2	740 / 1027	4,370,406	245,518	790,214	3.9
Asteroid	2	740 / 1027	7,614,065	296,143	790,214	4.1
Asteroid with 30 Crystal Mine	2	740 / 1027	19,176,938	460,736	1,718,619	6.4

Table 3b: Cost Development Breakdown

- Cost includes 10 command centers not necessary to build them if trying to lower cost.
- At Artificial Intelligence 21 and labs 33, research capacity per base is at 406

^{*-}On metal-2 astros stop at Metal Refineries level 32 and advance 1 level of Android to level 18

the discounts offered by biosphere modification and defensive p-rings and p-shields in smaller asteroids do little to help especially as cost of area almost doubles and triples past level '13' multi-level platform. For the most part costs are relatively similar when comparing an asteroid to a rocky moon. The difference is seen when building extra crystal mines with the intention of boosting economy further.

So in the end whatever you decide to build, whether it's all exclusive Rocky moons, planets exclusive asteroids or a hybrid of both here is a table of going about it efficiently building the final structures. Crystal mines can be replaced by production structures as they produce the same number of credits (approx.) with additional function and will not significantly affect your already existing trades. The earlier you build mines the earlier you can take advantage of added credit

STRUCTURES	Final Rocky Moon Pos. 1	Final Rocky Planet Pos. 1	Final Rocky Moon Pos. 2	Final Rocky Planet Pos. 2	Final Asteroid Pos. 1	Final Asteroid Pos. 2	Final Asteroid with Crystals Pos. 1	Final Asteroid with Crystals Pos. 2
Urban Structure	26	26	26	26	25	26	26	25
Orbital Base	8	8	8	8	9	8	9	8
Biosphere Mod.	4	4	3	3	5	4	6	6
Solar/Gas	26	26	27	26	26	26	27	29
Fusion	19	19	21	21	21	21	20	23
Antimatter	11	11	11	12	11	12	13	14
Research Labs	33	33	33	33	33	33	33	33
Terraform	22	22	22	23	24	23	25	26
Multi-Level Platform	13	12	13	12	13	14	16	16
Crystal Mine	N/A	N/A	N/A	N/A	0	0	30	30
Command Centre (CC)	10	10	10	10	10	10	10	10
Planetary Shield	25	25	25	25	25	25	25	25
Planetary Ring	40	40	40	40	40	40	45	45

Table 4b

- CC. can be alternated with Economy centers to save on costs.
- Rocky Moon or asteroid with less crystal mines recommended for Capitals due to lower cost of defenses compared to planet.
- Economic centers and Crystal mines have not been balanced for efficiency per unit credit generated. It is just adjusted for equal output costs at 60 credit each.

Crystal mines Ivl. 28 = Economic centers Ivl. 20 per unit of credit.

boost to economy. Late game trying to keep mines is costly.

You may wonder at why there are so many planetary shields and rings? If you are in a dominant guild on the server then the home territory is where your members are the safest and any guild would be foolish to attempt invading it. Minimal defense such as 5 p. shields to 20 p. rings can be employed. I've seen 10 shields to 10 rings at times on 450+ economy base located in a guild stronghold.

However if like most of us you are outside the guild stronghold or located in enemy territory chances are you're going to get hit and the faster you free yourself the quicker you can develop. On average base economies can range from 275 to 312 on a rocky and 310 to 375 on an asteroid. For crystal bases their economies can easily reach 400+ end game. So a good defense is never a bad thing especially when you do not know which guild you're going to end up being in 1-2 years from now..

Spontaneous adaptability is the key to a warrior's survival. -- Suro Mike Inay

No matter how comfortable you are in a guild and how close your friends are, there can be only 1 top guild. The choice is ally with the top and be a part of its family or derb your way to the top. Beginning game guilds only 1 or 2 survive to the end game. Many merge and re-merge which I call evolving to what it becomes eventually. Those who cannot handle change or are resistant to it invariably die out. Those who are flexible survive to see its end.

Remember profit is profit and if your base gives half a days' worth of total economy in pillage you can expect people to hit it.

P-Rings and P-Shields:

People often times underestimate the value of p-shields building it at level 1 (5 units) and concentrating more on p-rings at level 4 (20 units). P-shield though not an attack unit allows for the damage given by an attacker to be distributed, absorbing a part of it and in effect protecting P-rings. If the fighter swarm did not exist in this game the role of a p-shield would be minor. A well teched fighter swarm can hit a base for very good ratios meaning minimal loss at 10,000 to 100,000 credits and thus many players ignore the p-ring and p-shield past 20 units as they feel building more of the unit is tactically pointless as the defense offered is not much and in the case of the p-ring is an energy hog.

The presence of p-shields however necessitates a higher number of fighters in a swarm to be present in order to take the base in 1 wave. For every wave it takes to break the defense, the lower the profit margin due to loss of attack fleet. So we try to make our base unattractive by setting the bar for a minimum number of fighters in a swarm to attack in one wave higher. In late game scenarios it can be easily assumed that non-swarm fleet will carry a set ratio of fighters to main fleet and the sizes can reach around 4 to 5 million fighters.

Against most ships rings do a lot of damage which includes cruisers as well especially when coupled with p-shields. However against a well teched fighter swarm (most profitable unit in the game per credit spent) they are almost useless. So the best solution for this is building the minimal amount of defense which ensures that the base pillage based on base economy gives a loss to the attacker. However you cannot ever build enough defenses to protect the bonus pillage which is based on credits available. So the best thing to do is to bank them away in construction and research as much as possible.

Base Pillage =
$$0.54 \text{ X (base economy)}^2$$

The other bonus is from trades. If you have built the structures as listed in the tables above then you will have 7 trades at each base, and assuming it is between 4000 to 5000 distance per trade, this can yield around 30,000 credits which again goes towards the attackers' profit margin. Again it would be impractical to try to build enough defenses to make even these unprofitable to the attacker as the end game costs will be over whelming as it is.

Trades and free credits are changeable variables and as such do not require a permanent structure like planetary rings or shields to protect them when they can be easily cancelled and replaced. For the most part however a base economy is fixed and so concentrating on making the pillage obtained from the income value of the base unprofitable is an easier goal. An active person will have a 50% chance of detecting an incoming fleet because it won't happen very often and will thus be able to cancel and remove free credits.

Base Economy	Pillage	P-Shields / P-Rings					
200	21,600	30/30					
225	27,338	30/30					
250	33,750	30/35					
275	40,838	30/35					
300	48,600	25/40					
325	57,038	25/40					
350	66,150	25/55					
375	75,938	25/60					
Table 5							
Based on assumed attacker tech laser 35, Armor 35, andSwarm size around 4.5 million fighters							

Defenders trades cancelled and no credits on hand

Though I have not matched the 60 p-rings to the crystal asteroid in Table 4b ideally as shown above to limit costs, it would cost an extra 4 million credits to construct on the asteroid based crystal bringing the total cost to 38 million. A solution to work around this is like I mentioned earlier, is to avoid building command centers (CC) and when attacked or going to be attacked remove economy centers and replace them with CC. Why remove economy centers? This is because they yield 3 credits versus the 2 obtained from crystal mines and would thus deny the attacker more pillage. If the occupation is going to be long then the best tactic would be to

remove all economy centers and replace with CC instead of just 10. The saved credits to space and area resources would also help in being able to build 50 to 60 p-ring units. Beyond this point improved tech in armor, photon and shielding should improve p-rings and p-shields defense capability a little more.

Always keep only 1 dreadnought over your base. Anything more is just profit. Any other fleet type or ship type is profit. Keep anything lower than a dreadnought and chances are you might find a small corvette or swarm fleet pirating trades. Remember it is not necessary to break prings or p-shields to pirate trades.

Note: Hold out on building more than 10/20 or 10/30 p-shield/p-rings till you reach end game. Structures on base take priority. Defending base becomes secondary after establishing the standard 10/20 since economy in mid-game surpasses 300 only when you build crystal mines to enhance economy. Rocky planets do not pass 300 econ without economy structures to assist and even then only after most of end game construction is almost achieved.

Technologies:

I'll probably go into this in detail in another guide in addition to this one time allowing. I however did want to make a mention of a few important points for new players to note.

- 1. Technologies help save credits (E.g.: Increasing energy tech. decreases amount of energy structures needed and helps save area), gain credits through better ratios versus fleet and decrease production times thus allowing for much larger fleet sizes.
 - To put things in perspective if I had 21 bases all rocky moons (which is the lowest to develop), and my energy tech was at level 30. I would need 2,699,542 credits per base to support the energy and accompanying area development costs along with population. 2,699,542 x 21 = 56,690,382 credits **versus** 43,462,330 to achieve Energy level 40 technology. With a level 18 research commander it can be achieved for as little as 35,639,111. So basically you're saving a minimum of about 20 million credits if your bases consist of 21 rocky moons. The value of savings gets much higher for asteroids and planets.
- 2. If nothing else when you get zero fleeted your technology shows your account level. But never abandon technology for fleet alone, you will regret it in the long run and base production and construction will be severely hindered.

3. Here's a little piece of information I cannot for the life of me remember who gave it to me during my newbie days. But suffice it to say it's proved useful.

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Top 5 total cheapest ways of acquiring a 4000+ tech base:
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Cost is only from 3000+, but follow one of these to eventually get 4000+ research cap. 16.9 mill. = Tachyon Communications 12, Artificial Intelligence 17, 28 labs on 13 bases 17.4 mill. = Tachyon Communications 12, Artificial Intelligence 18, 27 labs on 13 bases 17.7 mill. = Tachyon Communications 12, Artificial Intelligence 16, 29 labs on 13 bases 18.5 mill. = Tachyon Communications 13, Artificial Intelligence 16, 27 labs on 14 bases 18.8 mill. = Tachyon Communications 13, Artificial Intelligence 17, 26 labs on 14 bases

Base is occupied what do I do?

Many guides have given sound tactical advice so I'll quickly breeze over them adding extras if any.

- 1) You see the enemy coming and he is still a little way out, send a message to his inbox and tell him it's going to be a loss for him to attack. This serves 2 purposes which is to tell him you're online and that you have emptied the credits on hand, and that should he continue, you will cancel trades and make it truly unprofitable. This threat also helps solve the problem without having to resolve to more drastic measures such as actually cancelling or downgrading anything.
- 2) Send your defense fleet away. Denying the attacker debris from the dreadnought is more of a loss to him. A dread is meant to stop piracy and is in no way effective against any large fleet. Remember to cancel trades before sending the dread away as he could just pirate them anyway without attacking the base.
- 3) Never ever be rude. Be courteous when messaging your attacker. You already know that he is capable of hitting your base, don't make it personal for him by threatening him. If he swarms your base remember that he will loose on 1 wave a maximum of 30,000 to 90,000 in credits. You would have lost much more by trying to deny him credits and pillage not to mention lowered base econ that would take a 2-3 weeks to recover back to its original economy.
- 4) Replace economy centers with command centers (5% bonus to attack per level).
- 5) Remove and send away all commanders on base. Losing a commander can be costly at level 13+ which is why most are built on experience gained from combat.
- 6) Try to keep one defense and one attack commander ready on hand in case of potential threat. Do not level them up beyond level 10 and do not use experience to level them up. Save those for more important Production, Construction, Research and sometimes logic commanders. Before the attack place a defense commander. During occupation use attack commander for additional attack bonus. Because you did not use experience and the commander level is not very high, the chance of losing them to pillage will not be a big loss and the added attack bonus will irritate your occupier further.

- 7) Use the right fleet to counter. For more information refer to a combat guide. But always remember to try and use non shielded units as you can kill for better ratios. Smaller the ship used to kill a bigger target more is the profit. Command centers at level 10 can boost the power of your fighter and other fleet power by 50% which enables stellar units to effectively give more damage to shielded units. Higher the command center levels and attack commander (never higher than level10) more is the damage produced.
- 8) If not in the attacker's guild dominated stronghold try and sneak recyclers in just before spawning units to attack. For the most part he might be offline, and the debris you produced by hitting his occupation fleet can be collected quickly at the tic (30 min. past the hour every hour of server time regardless of time of attack). If you hit him at 9:28, you can collect at 9:30 and be of before he realizes. The next pickup time will be at 10:30 and so on. Never try and keep recyclers in the same galaxy as the attacker might take the trouble of scouting around for where you parked your fleet.
- 9) Every good guild has a database which includes a collection of bases scouted. They can refer to this list anytime they want which means assume they know all your base locations. If you park your recyclers or attack fleet over an astro in a neighboring galaxy, they will check there first and hit you. Keep it a little farther away and sneak them in when you need to attack.
- 10) Keep them guessing as to when you will attack their occupation fleet. Don't set a predictable time of attack
- 11) Don't put language spoken in your guild page as a country flag seen on the lower right hand corner as it is a sign of a player who most likely is on that countries time zone and his activity time can be more accurately guessed. This is also a way for you to assess his location and online time.
- 12) The best occupation force is around 3000 5000 fighters and a small HC unit of 500 or 200 battleships or 1 Leviathan (It is wise to consider the level of the person you are occupying and take note of the structures built on base and accordingly add occupation fleet). The defender (you), though will be making profitable hits will never be able to hit past the fighters to get at the capital unit with smaller non-shielded units, while larger units would take time to produce which would still be harder to produce in sufficient numbers to remove the entire fleet. In such cases you have two options. The first is to sneak in a big enough fleet from your main fleet to remove the occupation force. Second option is if your production ques are empty then use all you bases to produce the required fleet and gather them at one location to make a big enough fleet unit to attack at once. Use the time method hinted below to spawn fleet at the same time regardless of differing production times.

Hint: Production on all bases can be done by **inputting normal numbers**, by time e.g. 100h or 30m or 2000s. Another way to que large amounts of fleet is **10 raised to number** of zeroes written like this 10E3 = 10,000 units to produce.

Standard tactics to avoid being hit are making your base appear unprofitable (All war is deception. - Sun Tzu). If your activity level is good and detect someone approaching, you are at least in a position to get rid of your credits and drop trades. All that's left is base economy. You

can downgrade crystal mines or economy centers to replace them with command centers. If you have developed your bases well and have around 640 construction capacity, you can have them back in very little time.

Downgrading economic centers just before the attack ensure lower pillage based on base economy and increasing the margin of loss to the attacker for breaking rings. Also if he plans to occupy your base for a long time the lowered base economy will deny him daily income of 30% of base economy and lower daily pillage (remember to always empty credits on hand to make the pillage as low as possible). Once you have freed the occupation you can quickly replace the command centers with economic centers. If you followed the tables above and have already included the command centers then downgrading economy centers can help by replacing it with even higher levels of command centers giving an even harder time to the occupier.

Scanners are your best friends in an upgraded account. Hit them to scan when you log on and just before you log off.

Fleet over Base is going to be attacked!!!

- i) Move fleet away especially if only stellar units or if directly landing on base and not neighboring base.
- ii) The Nasty Surprise: if you see recyclers incoming very close to target main fleet few seconds apart, wait for target to land and keep three screen windows open. In one go to your fleet screen and choose all stellar units to be ready to move in one click (especially recyclers) with safe far away destination coordinates already inputted. In the other screen select your shielded warp units like HC and higher to be ready to move to players neighboring landing zone. Now in third screen watch incoming fleet land and then keep your base astro open and wait with finger constantly pressing F5 after the person lands on his landing zone.

Keep pressing F5 till you see him take off to land on your base with his attack fleet. Five seconds before he lands move to your other screens and press move on both screens. Make sure that hangar spaces selected before match with fighters etc., and there is no fault with being able to move. Before he realizes what's happening, your weak units are gone while your strong units are heading towards his recyclers at less than a second since you launched from a jump gate. Kill his recyclers and support units if it's profitable and you have nearly no losses. Leave system for a long and far non jump gate flight to safety.

He has lost recyclers and will be angry. He cannot pick them up but will not leave and guard it till one of his guild friends come to pick it. Your guild members and you, can harass his friends or he with attack units and he won't be able to sleep for fear of fleet being derbed. If you have strong friends they can schedule to come and derb him or chase him away after which you can risk recalling to pick up debris. This only works and is

worth it if loss to your fleet is less than 50,000 credits. Why? Because you would like to make it unprofitable even after debris collection. If you move recyclers out early, the attacker will know you are active and online. The recyclers being there is bait.

Another strategy which is easier is to move you're stellar units at the last minute to take advantage of the command centers on base to kill attackers drop fleet with shielded units. This however requires that most or at least half your light units be carried by carriers or are stellar units to freely allow use of shielded units such as battleships, heavy cruisers etc.

Counter: If you're the attacker to counter this leave recyclers in the air until after the fleet is derbed. To test activity recall 5 seconds before landing and see if player moves.

NPC Fleet:

Just a quick mention if you did not already know

- Two NPC's, United Colonies(UC) and Drekons(Dre.)
 - UC never attacks and has a medium level technology. Basically takes over an abandoned free account with economy above 50.
 - Can be occupied with a dreadnought and at the most spawns 12 Heavy cruisers at one time. Using Leviathans allows for lower repair costs. Added economy is an advantage as long as breaking the rings and shields is profitably possible.
 - Drekons are more aggressive and have extremely high tech. Spawns numerous amounts of fleet and aggressively initiates attack over base.
 - As far as Drekons are concerned take advantage of their aggressiveness and just keep required fleet over base for maybe drops etc. This will cause the Drekons to attack first and will not cause your fleet unnecessary loss due to base defense (passive). They will send fleet in the few millions, so advisable to keep a small fleet and wait for the next wave to come in. Gives much higher pillages than UC and higher armor levels give more debris.

Attacking Strategies and Tactics:

Invincibility lies in the defense; the possibility of victory in the Attack. -- Sun Tzu

Tools:

- 1) Battle Calculator: Personal preference KaHaR's calculator. I do not know him but his calculator has been passed around the AE community and across servers. His calculator falls under the following points for being the most successful
 - a. Easy to use
 - b. Copy and Paste enemy fleet type and tech which means very fast to use
 - c. Save multiple profiles which could be enemies or your own made up
 - d. Accurate
 - e. Comes with extra useful tools like travel calc. and debris splitter

Anyone one who says they do not need to use a calculator are just lying to themselves or acting foolish because tech. levels change, CC levels change, fleet composition changes. Here are a few simple questions to test yourselves if you think your one of them

- a) Which of the following three fleet types of equal cost can most profitably take out 10 million fighters of power and armor 5.5 / 5.5 assuming comparable tech for the following choices
 - i. 120,000 heavy cruisers
 - ii. 30,000 Battleships
 - iii. 1200 Titans
 - iv. 300 Leviathans
- b) Same question as above but now the fighters are located over the owners base and are accompanied by 15 command centers.
- c) Can 350,000 cruisers at 5.0 shielding power successfully attack the 10 million fighters without command center?
- Run the above scenarios through a battle calculator for the answer.
 Experienced players will be able to answer these without any problems if they are actively playing the game.
- 2) Alarm preferably one around your wrist or in your phone
- 3) Access to the guild database (DB) of scouted player bases

Standard and Advanced Attacking Strategies:

- 1) Never attack anything out of anger unless its profitable. This game is all about maximum profit, the more credits you get the more you grow.
- 2) Once target has been located access guild DB for the following reason
 - i. To see who the dominant guild in the area is
 - ii. Where is your nearest point of entry to target in the galaxy?
 - iii. If the point of entry has an enemy base located there or within the galaxy, is the player upgraded or allied to target guild as they can warn friends?
 - iv. Is there perhaps a safe neighboring galaxy with an astro on the border closest to the gate that you can land in unseen and slowly move towards jump gate?
- 3) Locate the dominant guild blob or other potential enemy guild blob location to know how far they are from your potential target.
- 4) If the enemy average fleet size is larger than your fleet send scouts to nearby high level jump gates to watch for potential threatening traffic. Can also be a good area to locate more targets.

5) Never send scouts directly to enemy base location or same system. High probability of being spotted and your target may run. Always send scouts to a neighboring system within the same region.

Attack Tactics and Maneuvers:

- i) Getting as close to a target as possible undetected
 - a) The best way to go about this is to find an empty friendly single base galaxy with a high level jump gate (JG) that you can land and use. This of course is rare and late game especially in an enemy stronghold galaxy is hard to find.
 - b) The more likely option is to find one or two **non-upgraded free account** enemy bases located in the same galaxy. It's hard for anyone to manually scan 21 free base areas however they might bookmark the friendly JG entry point so make sure to land on the neighboring astro to the friendly JG. There is a 50% chance of being discovered depending on how often the person checks enemy JG's.
 - c) The next best option is to land in a **neighboring region** that's completely free of bases or second best option a region with one enemy free account base. This is because since the area has no bases the enemy is going to not check it unless asked to. And since the account is free chances are he will not check every system to see if it has someone incoming since most people think that no one will try and do that. Once you land move to the friendly jump gate.
 - d) If system is heavily guarded then land in a neighboring galaxy friendly high level jump gate and then move to target galaxy friendly jump gate. The idea is to minimize flight time and consequently detection time giving less time for target to get spooked and run.
 - e) Never attack an enemy scout unless it just appeared. Scouts are just for eyes in a galaxy if the guild can't afford a base in that area. Since it was there before you decided to land in the area chances are the person will not check it twice daily every single day. However if the person is known to be extremely active or using a script to detect incoming then your options are limited but still **do not attack the scout if you're not sure you have been detected**. The minute you attack the scout there will be a nice red message in the enemy inbox alerting the player immediately who will send another scout to investigate. The sure sign of detection is when more than one player from the same guild or non-allied guilds sends scouts to view your landing party.
- ii) Now that you have landed in the galaxy where and when do you land ideally next to the enemy? The answer is in any neighboring astro in the same position i.e. 1,2,3,4 or 5 depending on the position of the enemy base. This is because the travel time from a same position astro as the enemy is on average less than a minute than compared to a neighboring position astro. This lowered time helps facilitate making faster drops and moving your fleet to and from target base for the perfect sequence of waves. You land 3 -5 minutes before the recycler pickup time (constant) that I explained earlier i.e. 30 minutes after the hour with pickup cycles being every 60 minutes from last pickup.

- Never land your recyclers next to your enemy. Keep them 5 minutes behind if you're not sure how long you're going to take to finish drops and end the attack. However if you have to do multiple drops or depend on others to assist you in taking out a target or more than one fleet located on base then it's best to move recyclers after attack is complete. This is because if the target is active and you land with recyclers he will have jump gate support and can move to your landing zone instantaneously. So he will wait for you to land and then while you move in your attack fleet over his base will suddenly send off his non-combat fleet and rush your now defenseless recyclers seconds before your landing. What was once an ideal target will now be a nasty surprise because when you land you will look to attack only to find the base empty and a red message in your inbox showing that your recyclers and non-combat fleet were derbed. So keep your recycler in the air or at the main landing zone till the target is eliminated.
- iv) Know what you can hit and what your limitations are. A battleship can hit a frigate fleet for very good profit. The question however is when? Ideally a frigates target is a battleship and below spec. fleet. This is where shielding in important to understand. Unlike armor which is resistance, shielding stops an attackers power from reaching and allows for only 1% bleed through. So when a frigate fleet has less that 30 attack power and the battleship shielding is at 22, most of the attack is absorbed and now becomes weak. The battleship will then essentially massacre the frigate fleet. A frigate fleet also depends on fighters to spread the attack damage it receives, kind of like its own version of shielding. So when there is not enough fighters to support its attack the battleship will turn the tables and massacre the frigate ship. This is why as a battleship spec its essential to drop all fighter on a larger than ideal frigate fleet size as its not needed as meat to bring down the frigate fleet to an ideal level of 1 wave or 2 wave attack. A battleship starts at a shielding of level 8 which gives it shield power of 14. So a mediocre teched frigate fleet at power 25 is more than enough when dealing with them. However late game tech level averages for players is much higher. This same principle can also be applied to cruiser and fighters and cruisers and dreadnoughts.
- v) Send a scout quickly to target to get tech information. This is achieved by initiating the attack until you come to the start attack screen which shows defenders and attackers fleet information. Copy and paste this information somewhere in a notepad or your notes section provided in game. Move your scout away immediately. The last thing you want to do is alert your target. This information then can be used to run simulations on the battle calculator to help maximize profits and prevent you from making a useless costly hit. You can then decide whether to drop and then finish would yield better results or would a naked hit (without shielding units (meat) i.e. fighter, corvettes etc that help protect loss to main fleet which can be frigs, heavy cruisers and above) by heavily shielded or capital units give better ratios and prevent taking too much losses. The idea behind this is smaller units can be replaced more quickly than larger units. Of course this does not help if the

amount of smaller units lost costs as much as the larger units, as production does not necessarily depend on unit type but rather on total cost. So to produce 7 million worth of fleet takes the same time whether its corvettes or leviathans. The idea however is that larger units can survive on their own and still make excellent hits than compared to smaller units which have a high attrition rate and whose attack depends on killing the enemy with overwhelming numbers (swarm). Think of a fighter swarm as a group of wasps and a leviathan as an elephant to give you an idea. A large enough group of wasps can take on an elephant. The other reason is on average you produce a lot more of your main fleet type and a lot less of your meat units to shield the main fleet units, so to replace the smaller meat unit's size will on average take less time.

- It's not necessary to break planetary defense shield and rings to make hitting fleet over vi) base profitable unless it's unavoidable. This is especially true over a fortress base. Use the calculator to determine how much fleet to use ideally. Breaking p-rings is never profitable enough to warrant attempting it unless unavoidable or you know person is having a large amount of credits on hand. E.g. Enemy base has corvette 100,000, heavy bombers 200,000, recycler 300,000 with p-shield 30, p-ring 60 and 25 command centers. Using a battle calculator you can make an ideal fighter drop to remove only fleet or just swarm the entire base. The difference is a 2 million profit. Both hits look good but only 1 makes you that much richer and that much ahead in the game. That the difference between a noob and a professional. No matter how good the latter is, he double checks just to be sure. The former is too lazy to be bothered and doesn't care as long as he makes a hit and looks good on the board i.e. until the good players in the guild scold him for such an awful move. The attacker cannot attack your recyclers or fleet with planetary defense. The defense is passive and works only when the base is attacked. There is nothing to be afraid of with 1 dreadnought over a base. You do not have to kill it if it means getting hit by the large p-rings. If he attacks you then the loss is insignificant at 3,000 credits and you can pirate his trades. He will not risk it though he may cancel his trades and move his dreadnought away to prevent further losses anyway if he's smart.
- vii) Though profit is profit if you're going to hit a target at a 1:1 ratio or close to it then it's not worth it. All you're doing is denying a future potential target to yourself if he moves off base and you've lost that much time replacing the fleet used to kill the target. Unless in war and a tactically viable move don't bother.
- viii) Taking over bases is a good and quick method of gaining credits. The best occupation force is anywhere between 3,000 to 5,000 fighters and a 500 heavy cruisers or 200 battleships. This ensures that the defenders small stellar units though will hit for profit cannot penetrate enough to do any significant damage to your main units. Fighters are easily replaceable. Just make sure to periodically collect debris to make it worthwhile. It's not really profitable until the debris is collected.

ix) Activity is the key to success. The most important commodity in this game is information. A guild leader who cannot form informants or have access to information is doomed to failure no matter how good his organizational skills are.

Blob Warfare:

Few things to remember

- i. The attacking guild will always be larger because defenders have the 5 second advantage and can use this before the attacker has a chance to attack.
- ii. If the attacking guild is 25% larger then it will be a complete and certain loss to the defender fleet unless they have the backing of capital stacks that can even the ratios. For large guild (100+ players), every 11th player if hes a capital stacker is a good ratio. If smaller than 50 player then every 6th player should be a capital stacker.
- iii. Capital stacks need to be fed ready credits before a crash to help them with repair costs.
- iv. Capital stacks are the cleanup crew and as such never make the first crash but follow a little later.
- v. It's up to every other spec in the guild to focus on hitting anti-capital fleets which include heavy cruisers and battleships while trying to destroy enemy stacks so they don't suicide to get a 1:1 ratio against weaker sides stacks.
- vi. Capital stacks are not as important is larger attack blobs as compared to smaller defensive blobs.
- vii. Once the defensive blob first wave has taken care of the majority of anti-capital stacks, the left over unshielded unit stacks such as frigate and cruiser stacks etc are to be left to the Capital stacks to cleanup.
- viii. To identify the inactive in a defenders blob, look for recyclers in fleet. That is a good indication of inactivity.
- ix. Spies are always present on both sides. Be sure to pass sensitive information via personal messages.
- x. Always instruct members and allies to change log in passwords to prevent account hijacks and suicides before joining the blob.
- xi. If an ally is not on the blob chances are they will not be unless things are going well
- xii. If the odds are completely stacked up against the defender then scatter to respective fortress bases. Do not try to run away as a blob or you will be caught by the bigger blob. Also by landing on fortress bases the higher number of command centers will even the odds and reduce profit ratio for attacker who will also have to scatter. Gives time to go into vacation mode as well
- xiii. Scattering will make the inactive food for the active enemy. That's why decide on the strategy early. If you cannot hold out then give early orders to scatter and let the few with high recyclers derb the inactive eat and split instead of feeding the already huge enemy.

- xiv. Large blobs are hard to control for both sides and is actually worse for the attacker. The longer the staring contest the greater the chance of inactivity. Greater inactivity means greater chances of winning for the defenders.
- xv. Just before the time of the crash attacker should launch keep a fighter behind, derb the fighter and recall to change fleet ID's.
- xvi. Make one fake attempt at a launch and recall. This is to ensure any names changed will now remain that way as they cannot be changed for seven days to try and cause confusion.
- xvii. Add targets to contact list with real names. This helps identify the player even after name changes.
- xviii. Change your name just before landing. Use special character letters in name so that using conventional browser find techniques and typing the name will yield negative search result. Eg: "Carnage" is easy to find but "Çárñágè" is difficult unless copy and pasted and that takes time. Try it. (**Note:** Chrome updated to recognize characters in browser search.)
 - To solve this open a few browser windows press ctrl+F. The browser find or search will open, copy and paste before attack initiation from contacts section that you added valid target to. Do it in number of windows and once target has been hit by you press alt+F4 to close and move to next window target.
- xix. Try and keep jumping i.e. leave the blob and recall once next target is identified, again make the hit jump out and recall back in. Once a hit is made it will be seen on ticker. People will be looking for you especially if hit is large and for excellent ratios. So if you leave they are lost searching for you until you jump back in again to hit the next victim. You can keep another browser open on the move page, the minute you're ready after attack, press F5 which will refresh move page and number of units click your bookmarked destination which should be far away and move, find target recall and repeat.
- xx. You have done all you can and anything more than this is left to lady luck to smile upon you.
- xxi. Hit good right spec targets to maximize enemy loss this is very important as a defender 1:1 ratios will not win you the war you need to make 1:2 ratios. However if you don't have a choice and need to save capitals then go for it and hit at 1:1 and leave the rest for the capitals to clean.

To attack continuously in multiple waves to bring down a larger fleet say you are a smaller heavy cruiser versus a larger fighter swarm of 10 million fighters:

Press F5 to refresh attack target list (*right click and copy name of target CTRL+C for speed from contact list*) press Ctrl+ F (browser search), Ctrl+V (paste) to search name and repeat.

When target acquired left hand on backspace button and right on mouse with pointer over start attack button (do not move mouse until attack is done)

Initiate attack- \rightarrow 1st hit, press backspace- \rightarrow 2nd hit, press backspace- \rightarrow repeat sequence till invalid target appears change window and launch out or acquire new target.

Analyze Your Guild Fleet To Know What and How Much Can Be Combated:

- 1. No blob crash should ever be done with both sides having the same amount of fleet. It's always the defenders advantage.
- 2. When you run unshielded units and you are not the top guild or your players do not have high enough production to match servers top players or guilds, then you need to be able to replace units as fast as you use them. Every-time you have production running in a small players guild that player is out of the fight till he recovers which in this case is a while. You need low attrition units. Basically means cap fleets that can dish out a lot of damage and yet not have many losses so every replacement is small and the fleet keeps growing not to mention the account. Problem is running and this is where activity is important.
- 3. Use only 1 unit more for meat when necessary apart from the standard fighters and choose wisely. The meat serves a dual purpose; it protects your fleet from its weaknesses and at the same time enhances ratios.
 - E.g. Battleships with destroyers versus leviathans: This combination is the best large stack anti-capital fleet to run as it gives heavy cruiser like ratios versus small stack levi's. At the same time it provides good protection against cruiser, heavy cruiser and frigate fleet.

It does not move you too far away from your main fleet concentration while to the enemy making other targets more desirable than compared to your fleet. Now you could add corvettes, bombers etc but all it does is spread your credit resources thin, while associated technology for these units which should be up to at least a decent level to be effective and unless production is high your main fleet concentration which is battleships may end looking weak. The improvement with added meat is marginal and does not warrant additional meat.

If nothing else understands that you need to concentrate on 1 specialization and be the best at it.

Hint: Most shielded units do extremely well with destroyer as their meat. Some large capital ship specs run cruisers as meat because of the additional hangar space they provide but destroyers still give better ratios.

- 4. Meat fleet is not the same as a second specialization. Though we would like the second specializations to help with the first (E.g.: Fighter swarm spec. building a secondary cruiser fleet) in many cases it does not help much and at times decreasing the ratio if not used appropriately (E.g.: Frigate and Battleships). Second specializations should not be attempted unless you are well above the server average for fleet and further building seems pointless when targets are not as big.
- 5. Fleet bonus additions. These include adding a leviathan to any specialization. The 5% extra bonus makes for a large incentive if they can catch up to the main fleet in time. Keep 12 to 15 of these. Expect to lose them when needed. One is usually sufficient in the first wave unless you're lucky enough to have the target offline and have time to add a second to improve ratios in the second wave. Keep too many in attack and they can mess up ratios. Run battle calculator scenarios to make the best use of them.

Commanders:

One of the most valuable fixed units in game and only units on base that can actually be killed in an attack. Here are a few points worth mentioning.

- 1) The three must have commanders are: 1 research commander for main linked research base, 3 construction commanders at 10+ level and 20 production commanders out of 21 bases. The one base will have research commander on it. If you are the only person in your guild in the galaxy then 1 logistics commander can be added.
- 2) Pay as much as possible to initially level up your commander and after level 11 you can start using your experience points. Experience points are important so spend them cautiously.
- 3) Do not build unnecessary commanders especially in the beginning. Mid to late game you can afford to train your commander i.e. attack and defense through credits to level them up. Save experience points.
- 4) Maximize your production commanders to 16, Logistics to 17, Research 18+ (there is no real limit for research) and construction commanders to 15. Priority is given to research commander always.
- 5) **Construction and Research commanders** are the only two commanders that not only **give a discount** but **decreases time of construction and research** which makes research invaluable as construction use is finite at base 21 to 23. This can be understood by the following formula:

6) Except research save experience as there will come a time when you will lose a commander and having backup experience to make a new one will prove invaluable.

Debris Split by Losses and Split by Debris Application:

The following was advice explained to us by our guild leader [RED] Salsashark and has been quoted below unaltered. All credit goes to him for the following and has been reproduced by permission.

SalsaShark Quote - Msg - Report 8 Jun 2011, 18:49:22 (*Derb=Debris*)

There are times at which a derb split by losses are applicable and times when a split by derbs created is applicable. Derb split by loss should be used when:

- 1. Two or more players are required for a hit or hits.
- 2. All targets are required to be killed, all hits are necessary.
- 3. Optimal or situational optimal ratios are obtained
- 4. Levi or other shield massacre ratios are not present.

All four of these points were met, and a split by losses is most appropriate.

A drop/finish is the simplest type of hit that would use it. The main intent of of a split by loss is to set the profit ratios of all players to the same number. The overall profit ratio is a number calculated in every derb split by loss. It is equal to total derbs created over total losses.

The quality or a hit or group of hits is measured by the profit ratio. The core point of the split by loss is that everyone did as best as they possibly could and all hits were required. Since all involved rely and depend on everyone else involved, their successes and failures are shared among the group.

Take the following situation as an example:

A gate crash is to take place. There are ten targets. One of the targets is a frigate fleet, and is active. The attackers time a launch to the gate, call targets, and plan everything out as best as possible. Upon landing the active fleet suicides into an HC fleet crippling him. The other nine targets are taken according to plan. The average derb to loss for the planned hits was 2:1. The suicide was 1.1:1. Now, anybody could have gotten screwed by the suicide. The team shared the risk. It could have happened to anyone. In fact, it had to happen to someone. When a group takes on any target they share the risk. Fortunately, the split by loss averages out the ratios to 1.9:1, and the suicide victim shares in the overall success of the op. His sacrifice was necessary, and he is as big of a factor towards success as anyone else. The other players involved agree to take less than they made to reimburse him for his sacrifice.

The situation at hand is a little different, but the underlying principle is the same. One player is required to sacrifice his own personal ratio for the overall success of the op. The player who got the better ratio agrees to reimburse him for his efforts that lead to their mutual success. Their roles are equally important, and their profit ratios are equated.

Consider this: Person 'A' drops the target. Person 'B' refuses to finish because he won't get a great ratio. 'A' moves to collect. Target comes online, suicides 'A'. The operation was a failure. Person 'B' was required to make his hits. They were close to situationally optimal. The two shared the risk, shared the responsibility, and hence share the profit ratio.

