Short Guide Addendum for Offworld Trading Company

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1   Introduction

This is an addendum to my first guide, Short Guide to Offworld Trading Company. The current game version is 0.1.5062. over the course of time while writing this the game version has changed to 0.3.7185, Beta version 4.

Counting all multiplayer games my win rate is currently 70.0%, this by now includes a small portion of 1v1s but still mostly Free For Alls with on average 6 players.

This addendum is particularly geared toward 1v1 on small maps and default settings.

2   More Tactics

The following are some more lean and mean tactics:

Mutinying the Early Bird

When someone founds 1st, they have to wait until 2:00 to get access to the black market. Whoever starts after them can usually access the black market first and use EMPs, Power Surges and so on, on early birds without worrying about Goonsquads, doing this however also ensures that they can do the same as soon as they get to their black market action moments later (this is especially relevant for 1v1). This tactic is particularly good against expansive and robotics players who tend to clump their buildings together and are very dependent on steel

Mutiny + Mutiny

Double mutinies are good, save up 1 in case you need to counter mutiny. When the black market becomes available again, mutiny something and buy another mutiny and wait for your target to counter mutiny (if they do) and use your 2nd mutiny right away again. Naturally, use only against high value targets. In 1v1 the first 2 mutinies cost 10k and the 2 successive counter mutinies will cost about 25k.

Timing Black Market Actions

Keep an eye on the price of free claims (and other black market items) on the black market and on where sabotage is going on on the map. Try to imagine what the black market timers are for everyone else too. If you have sabotage actions saved up (and mutiny in particular) a company can gain large advantages by activating their mutiny right after another company buys something on the black market. It is a way of ensuring you get at least 60 seconds of mutiny against another company, especially in 1v1 and against non-scavengers.

Investing Spare Cash

This tactic is particularly good for 1v1 and small games. When you have spare cash lying around, invest it in something that your opponent isn't producing that goes up in price continually due to consumption by the colony, HQs and deficits in primary resources. Electronics is good when you're not robotic and your opponent is, food if the roles are reversed or fuel if he/she isn't in fuel and is shipping lots and lots of goods. Whatever you're producing or at least not consuming, that is not stockpiled or being produced by anyone else is a good parking spot for your money. You can manipulate the prices of the market quite a bit with spare cash and trick your opponent into investing in industries that appear lucrative just

because you've invested a wad of cash in a resource somewhere that you can crash as soon as the other person's buildings finish construction.

This can also be done at the start of the game when you see an expansive or robotic player accumulating enough cash to upgrade. If they haven't invested in steel, you can go ahead and invest in it because they'll need to buy some. It'll raise in price when they do and you make some profit (al be it only a small amount). If at the level 2 or 3 stage you see no claims for glass production from your opponent, park your money in glass, you can almost not go wrong as long as you sell it off when you need the money.

If you see that your opponent's production is slanted in one or the other direction, punish them by making the in-demand resource more expensive. The more players are in the game the harder this kind of manipulation is. Combine with black market sabotage for greater effect.

Dynamite Plus

I've mentioned in my first guide that dynamite can destroy resources, now I want to explain why this is a particularly fiendish tactic against remote factories. Glass factories will stockpile up to 59 units of a resource before sending a shipment of glass (or less if the player sends the shipment early). Additionally it is common for glass factories to have 30-40 units of oxygen, which regularly goes for 50-100$. Added all together it is easily possible to destroy 10 to 30k worth of resources just by dynamiting the glass factory at 58/60 glass stockpiles and cause the additional loss of profit from having to repair the building, loss of adjacency bonuses and lost production from the building itself. Glass Factories, Electrolysis Reactors, Electronics factories and Chemical Factories are all great targets for dynamite as long as they're not connected to an HQ and aren't using teleportation.

Driving up the Price of Goonsquads

Your opponent has a pesky offworld and your scavenger tricks can't get to it because Goonsquads are cheap? Buy some yourself to drive up the price and watch your opponent run out of motivation to buy them. Try to do this in advance. Having a cluster of goonsquad can really help when a resource becomes expensive and you have the dire need to produce it in peace and quiet, this gives you a valid excuse (as scavenger) to drive up the price of goonsquads. Expensive goonsquads make for fewer tiles that can backfire on you when you need to sabotage them.

Freezing Adjacent Opponents

Are you switching out your structures, and are the tiles on which you're building them right next to your opponent? Use the power surge while your structures are reconstructing, they will not be affected unless they're already built. You may even consider scrapping and rebuilding cheap structures just so that you can sabotage something that is adjacent to your tiles.

Probing Competitors' Resources

It is possible to roughly see what resources someone else is invested in by buying or selling 100-200 units and looking at the change In resource value of your opponent. If his resource value jumps up and down as you quickly buy / sell 100 units, you know he's invested in it and also to which degree. This is particularly easy when your opponent is within 50% of buying you out because you'll instantly see the

shift in his wealth. Auctions are a good time for resource probing because auctions pause the game for their duration.

Scrapping Remote Glass Factories

Non-connected Glass factories usually contain around 40 unit stock of oxygen, which often is worth 4-8k per factory. Scrapping them releases the oxygen and sends it back to your HQ. Scrapping glass furnaces means you can frequently eke out another 4-12k from your glass furnaces, even without nanotech refunds.

Emergency Repair

Someone dynamited your very remote structure somewhere? Don't send a repair droid, just scrap the building and send a new one, it'll get there twice as fast. It costs more resources, but the lost production may be more valuable than the extra repair cost.

9k Auctions

If you bid auctions up to 9k in 1v1, you will be the one to bid 20k if it gets that far, and your opponent will always have to take the plunge into 24k if he wants it from there. This is a psychological barrier that will give you an advantage because people are not usually inclined to take the jump to 24k. The disadvantage is that your opponent may happen to bid up to 32k, which is a lucky number in matches dedicated to Cubit32.

Mutiny + Goonsquad

It is possible to goonsquad a tile straight after mutinying it. If you expect a counter mutiny/sabotage, this is the thing to do.

Reverse Psychology

Do you know your opponent to always ignore your superprofitable geothermals just because you've raised the price of goonsquads, because almost everyone always goonsquads their geothermals when they do? This time don't use it on the geo, just hold on to it and mutiny something valuable of his later on, and throw a goonsquad under it straight away so you'll catch their counter sabotage. Reverse psychology is best used on opponents you know very very well.

Hiding Wealth

Have Nanotech? Just build a lot of something like solar panels, wind mills (determined by which resource your opponent doesn't have) or even off-worlds and use nanotech to get back the resources when you have enough to buy someone out. Alternatively build offworlds and keep canceling them before they are finished. This isn't as good a tactic if you cant keep track of them. Every time you cancel an offworld your wealth will spike.

Off-worlds are particularly nice to use for this even without nanotech because you can keep them from ever getting finished by repeatedly canceling their construction at 55/60 or so and starting all over.

3   A Couple More Factoids

- 10k of debt makes it about 8k less expensive to purchase all 10 of a companies' unowned stock. This means that if a part of your strategy depends on you buying yourself out, it doesn't matter very much how badly you go into debt until people start having enough money to buy a lot of stock.
- 10k of debt makes it about 20k less expensive to buy a company that owns all of its stock.
- Robotic, Scientific, Expansive and Scavenger HQs have 0, 1, 2 and 3 units of population per HQ level respectively.
- It would seem that the total amount of pleasure dome revenue is (before being divided) $(5+x)*population*y$ where x is the number of active pleasure domes on the map and y 1.3 to 1.5 depending on the domes distance to the colony.
- First founders can upgrade instantly using ctrl shift down + upgrade when founding with 60 extra of anything (except water) as scavenger or 80 as expansive/scientific/robotic. This must be done very rapidly or with more resources than are suggested here because you may end up with less cash than you need to place even a single quarry or mine which can lock you out of the game. It is safer to sell non-required resources manually. The obvious payoff is fast extra claims for the best tiles
- As a general rule, colonies consume about 0.30/s power per unit of population plus 0.6/s base consumption, and 0.2 per unit of population of almost everything except steel/glass/aluminium. (roughly speaking) 1.5/s of steel/glass/aluminium is consumed while these 3 goods are below about 60$.
- Colony buildings cost 20 of each resource plus 20 extra aluminium for Offices, 20 Steel for leisure and 20 extra glass for Laboratories.
- If as non-scavenger you want to goonsquad 2 new tiles before sun up, you need to purchase the first one before 19:00. (ie. when you want to put up Solar Panels and power is >100$).
- Shortages and surpluses (natural and artificial) take effect over 20 seconds; scavengers receive a warning 10 seconds or so in advance. The effect is equivalent to approximately 200 units of the resource being bought or sold over those 20 seconds.
- Back to back hacker shortages are equivalent to roughly 4 unit per second consumption of the affected resource.

4   One versus One

One versus one is an extremely competitive environment that I believe will become more and more popular with competitive players. Everything you do in 1v1 should make your competitive edge better or your opponents situation worse while building up the cash required to buy all the opponents stock. Unlike Free For Alls you should never rely on your opponent doing anything that helps you unless you have intentionally coerced your opponent into doing something you needed them to do.

Founding locations are the most important, just like they are in free for alls. Like in all situations, building materials are the most important at HQ levels 1 and 2 and nothing should be built that doesn't produce building materials in a balanced quantity. A balanced quantity is generally 2 units of steel for 1 unit of aluminium or 3 or 4 units of carbon per 2 units of aluminium. As in all OTC matches, it depends on the map and circumstances. Expansives need less steel because of their trait but not a lot because their HQ still needs normal amounts of steel.

Claiming a high/medium water/silicon tile is important for all companies at HQ2 or 3. Robotic may also eventually need carbon for electronics. If a company does obtain a monopoly of any particular primary resource they can drive up the prices of all resources that require it. The games random auctions do frequently provide land auctions that grant additional resources that are currently unavailable from unclaimed tiles.

To get the best claims, try to found when possible on top of iron/carbon and aluminium and if possible as close as possible to both resources so that claims on these resources are guaranteed. Founding on top of resources gives you extra of these resources. Iron, Aluminium and Carbon are the best resources to found your HQ on because the extra instant influx of material frequently allows you to instantly upgrade to level 2 and lay down another 3 to 4 claims unchallenged, get started on steel and/or glass and prepare to quickly transition to HQ3 & 4 and snowball to victory from there.

Instant Throw Downs

The start of the game should consist of you scanning and getting a feel for the layout of the map and its resources. Usually the map will have okay spots, but not always. Founding your HQ is so important and fantastically important in 1v1, I recommend that you practice it against the AI. Getting a good found is absolutely vital. A found doesn't have to be good, but it must be competitive with your opponent and preferably a lot better. As a general rule, scan onto wide open spaces near the middle of the map, into patches of undiscovered resources and always on the edge of your scan range unless patches of resources are in between.

You may come across resource plots that are were intended by the gods of RNG to be used by particular companies: these types of plots are in my opinion "Instant Throw Down" spots for your HQ. When you come across these starts, you probably should not deliberate, but make an instant throw down decision because your opponent will if you don't:

Scientific: This start is insanely good; the three resources for upgrades are easily connectable meaning that none of them are going to be pirated and are going to be available instantly. The only concern is water. The actual HQ should be placed a tile east to be directly adjacent to a potential steel diamond. This spot is also good for robotic/expansive because of the triangle of aluminum and iron. This start looks good for offworld rushing because most of the resources are directly adjacent.

Robotic/Expansive: This start is particularly good for robotic and expansive. (the 2nd robotic HQ blueprint is actually mine, I'm about to try to destroy this insane start). Any triangle of tiles that allow for 4/s or more production of iron and aluminium are in my opinion great instant throw down spots.

Scavenger: The colors don't make it easy to see but the southwest corner has a triangle with 1 medium carbon. A high and a medium carbon would make it a good instant throw down because water and silicon are also close to the headquarters. It is best to found next to your construction resources when this leaves you plenty of space to make other buildings adjacent to your HQ. It is also better to found on top of some expendable aluminium / carbon when possible.

Primary Concerns

After securing the best found you could have had, which hopefully put you up to lv 2 instantly, you can as scientific or scavenger think about taking 1 high water and/or silicon, or failing that the best water/silicon tiles on the map. The primary resources (water, silicon, iron, carbon and aluminium) are the most important and need to be secured (except for iron for scavengers and carbon for non-scavengers) in order to prevent monopolies, secure your own monopolies or just simply secure your ability to go into any secondary resource. If you have the potential to rush to offworlds (ie. You have the ability to produce >6 carbon/s or >4 steel/s plus >2 aluminium/s) then check the offworld prices and if one is above 500$, consider going for it by producing only steel/carbon, glass and aluminium without

letting any resources get too profitable to produce on world until then. It is usually worth it to start producing the resource that is going to be sent offworld because its price is going to skyrocket faster than your rockets will if you don't.

Secondary Concerns

Life support, fuel and power are your secondary concerns and should probably be addressed when the previous primary concerns are addressed. One of the several secondary options should be addressed based on how easily they can be addressed and how profitable they are to produce. If there are good geothermal spots, get 1 or 2 of those. If you have plenty of water and food/fuel is getting expensive, start producing one or the other with 2-4 structures. 1 Tile can also be dedicated to a hacker array or another HQ add-on. It is terribly important to be able to put your finger in any of the resource pies as the prices develop.

The priorities in chronological order in my opinion are:

1. Getting a good found location to guarantee you as good access as you can have to as much construction material income as possible; and if possible destroying your opponents found if it doesn't come at great cost to your own.
2. Construction Materials income (~1.5-2/s Aluminium and ~3/s steel or ~4.5/s Carbon) and enough glass purchased for the HQ3 upgrade, from aluminium/steel/carbon sales.
3. Claiming one of the best of the water locations one of the best silicon locations and a geothermal especially if they geothermal energy is scarce.
4. Producing any of the most valuable secondary resources (usually oxygen and fuel, followed by glass and then food)
5. Blocking your opponent their claims, particularly on scarce resources. Sabotaging your opponent, nuking sparse resources, sabotaging their profitable structures.
6. Accumulating cash and preventing your opponent from doing the same.
7. Evaluating the state of the game from time to time and determining if you have the time and funds to use HQ Addons such as engineering bays or hacker arrays.
8. Buying out your opponent.

Company Comparisons

The following is a table on where I think that the different companies are at

	Efficiency	Retooling	Black Market	Production	Debt	Map Independence
Robotic	**	*	*	**	*	***
Scientific	***	*	**	*	**	*
Expansive	*	***	*	***	*	***
Scavenger	*	**	***	**	***	**

More stars are better

Efficiency – Efficiency is how many tiles a company needs to produce a certain quantity of a certain resource. A scientific player for example needs only 2 tiles for 1.5/s food whereas other factions need a high water or 2 water pumps and thus 3 or 4 tiles for 1.5/s food, for example, which is less efficient.

Retooling – Expansive is better at re purposing their tiles to more profitable production types because of the steel cost reduction, scavengers are the next best because carbon is relatively easy to produce and scientific/robotic are the worst because they don't get construction bonuses and don't generally produce a lot of steel.

Black Market – Scavenger is the best because they have access more frequently, scientific has sabotage reduction, expansive and robotic are the most vulnerable. Robotic is even more vulnerable when they use their adjacency trait.

Production – Expansive are the best at production because the additional tiles compound with themselves. Scavenger are pretty good too because they don't usually need to commit as many tiles to the production of their primary construction resources as others do, and thus have more tiles to use for other things. Scientific and Robotic both get production bonuses which make them pretty good too. They just don't have as good a position to focus ALL their production on just 1 thing with a lot of adjacency bonuses.

Debt – Scavengers usually generate less debt due to the lower power requirement of carbon. Scientific usually sends bigger shipments of the things they produce so they use less fuel and they don't need to build harvesters very badly, so even less fuel is needed. Expansive and robotic use massive amounts of power and thus generate a lot of debt.

Map Independence – Scientifics are very reliant on big patches of resources of all kinds, or at least a couple triangles of several resources. Scavengers need a triangle of carbon or a high/med adjacent carbon to be really effective, which is uncommon. Robotic and expansive don't need many base resources on the map in order to be strong.

5   The Math of Resource Wealth and Shortages

Units	Price	Value	Unit / Price Change	Value / Price^2	Units / Price	Shortage Multiplier	Shortage Profit
100	$1	$100		100.00	100.00		
200	$4	$340	33.333	21.25	50.00		
300	$11	$990	14.286	8.18	27.27		
400	$22	$2,590	9.091	5.35	18.18		
500	$35	$5,410	7.692	4.42	14.29	275%	$9,483
1,000	$120	$41,000	5.882	2.85	8.33	176%	$31,160
1,500	$226	$127,000	4.717	2.49	6.64	145%	$57,144
2,000	$336	$267,000	4.545	2.37	5.95	132%	$84,977
2,500	$455	$464,000	4.202	2.24	5.49	125%	$114,398
3,000	$578	$721,000	4.065	2.16	5.19	120%	$145,765
3,500	$707	$1,042,000	3.876	2.08	4.95	117%	$178,253
4,000	$844	$1,429,000	3.650	2.01	4.74	115%	$212,239
4,500	$987	$1,885,000	3.497	1.93	4.56		

A player who buys 100 units of a resource (that has been completely bottomed out) from a price point of 1$, will not raise the price. A player who buys 200 units raises the price to 4$, a player who buys 500 units raises the price to 35$, this is represented in the first 2 columns of the table. The third column shows the value of that stockpile if sold out. The fourth column shows you how many units of that particular resource need to be bought or sold in order to move the price by 1$.

The fifth column (value/price^2) shows by which number you need to multiply the square of the Price in order to calculate the maximum value of a stockpile in that resource. So for example if you have an infinite stockpile of steel, and its price is 100$, its value is approximately 100$ * 100$ * 3.00 = 30,000$. This is a small piece of mental arithmetic that can be done relatively easily as long as you approximately know what the constant is by which you need to multiply the square of the price. For price points above 100$, this constant is never higher than 3 or lower than 2.

The units/Price column shows you by which number you need to multiply the price in order to know which quantity of resources you need in order to bomb the price of the resource back to 1$. From a price point of 100$ or above, this number is always smaller than 10.

The shortage multiplier column shows you by which percentage the wealth in a particular resource is multiplied if a natural shortage hits it, provided that no other player buys or sells the resource experiencing the shortage. So for example if you have a stockpile of 5000 carbon at a price point of 35$, its value will go up to 14,877$ (5,410$*2.75). This column also shows you that there is a limit to how much you can multiply wealth with shortages. The final column shows you have much wealth can potentially be gained through a shortage on its own.
Shortages are less powerful with fewer players and artificial shortages repeated on the same resources have diminishing returns, so the profit figures in the chart are going to be considerably less in 1v1.

Knowing these kinds of things will help you infer which resources your opponents have their wealth distributed in, whether or not you can gather enough wealth from particular resources and many other facts that can be approximately inferred with a little knowledge of the game.

The table in this chapter was produced in a paused game state. Naturally, in the course of a game there will be consumption by the colony plus manual and auto-purchases by players so the figures shown are not completely accurate but they are still very accurate as of game version 0.1.5393. Any resource that is being bought more than it is sold will raise or lower in price if it is sold more than bought. If you see a resource moving 1$ per 6 seconds from a price point of 120$ you can know that there is a 1 unit per second deficit or surplus of that resource. A hacker array is usually an investment of about 5-10k in wealth, so it is better to not build it until you have at least about 10-20k in wealth to multiply (by the time a shortage is produced) because shortages start at a cost of 2,000$ (and 30 units of power) and get more expensive with use.

Slow shortages also happen simply due to player and colony consumption, ie. Over the course of 1 or 2 days the colony will consume 250 of fuel and many other resources. It is much slower of course (150-300 seconds vs 20) but it is something to keep in mind.

If a player has 60k in wealth and food is at 100$ and is about to be shorted, it is mathematically impossible for that player to have all his wealth in glass because the maximum value of a stockpile of glass is 100$ ^ 2 * 3 = 30k. Such inferences are almost always useful.

6 Conclusion

The game has a lot of intricacies that must be considered. I've tried to cover as many as I could have. The game is still about using your tiles efficiently, getting the best claims possible and using that to build up the quantity of cash you need to buy out your opponent. To achieve results you need to practice. I believe 1v1 is the best platform to improve.