

## **THE HB MAP SCRIPT REPLACES ALL OTHER PREVIOUS MAPS!**

### **HB Map Script: Current Version 8.1:** (19th Nov 2019 )

Please read the change log on Page 2!

**Author Contact:** [hellblazernq@gmail.com](mailto:hellblazernq@gmail.com)

### **Table Of Contents:**

- I. [What is the HB Map Script](#)
- II. [Previous Changelog](#)

### **What is the HB Map Script:**

The HB Map script is an enhanced map script for generating better civilization maps of varying types, currently you can choose Pangaea, Continents and Oval map shapes.

### **Installation Instructions:**

The Hellblazers map script can be downloaded from [here](#).

**READ THE INSTALL INSTRUCTIONS ON THAT PAGE TO AVOID ERRORS.**

## **HB Map Script v8.1. Changelog**

Fixed a bug that was causing players to spawn too close together. There was a line of test code that was not removed previously.

Reduced the food bonuses in capital locations by 1 to prevent crazy granary starts.

Fixed bug that was causing many city states to get the same luxury. This was caused when code was copied in to the map when adding the new luxuries.

a

## **HB Map Script v8. Changelog**

The 'All Civs Have A Chance' setting for coastal spawns was bugged and did not work and has now been fixed.

When a Civ spawns inland they will spawn at least 3 tiles from the coast.

Perfume will now only spawn in plains regions, it can still spawn on grass tiles but only in a region classed as a plains region.

City states now get 5 luxes assigned to them to pick from (up from 4) and have an increased likelihood to get, perfume, dyes, spices and incense.

All capital starting locations now have unique secondary luxes (this is the single copy lux a capital starts with) from any other non city state civ.

There is a new setting called Coastal Luxes, which can either be set to 'Guaranteed' or 'Random (80% Chance)'. With Guaranteed all coastal civ will be guaranteed a coastal regional lux providing there is 4 or less coastal starts in the game (this limit is because there are only 4 coastal luxes in total). When set to Random (80% Chance) there is a 20% chance a coastal start can get a land based regional luxury in there cap.

Slightly modified the fish spawns to stop large clumping of fish in close proximity to each other and a more consistent spawn around the mainland and islands.

Changed starting location bonus resources distribution so that the more granary bonuses that are placed the less likely the next one will be granary based and vice versa.

Cows can now spawn on plains tiles, this also allows for more diverse tiles in capitals as a bonus resource.

## HB Map Script v7. Changelog

### The Map Script now works for non LekMod users again.

I decided to re-write the way Pangea maps were generated, all previous versions used the base game code and just kept re-running the generation code until a landmass was generated that contained 100% of all land tiles. This is why some games seem to take forever to start, with the new method maps will generate much faster as a lot of code that checked for choke points was also no longer needed.

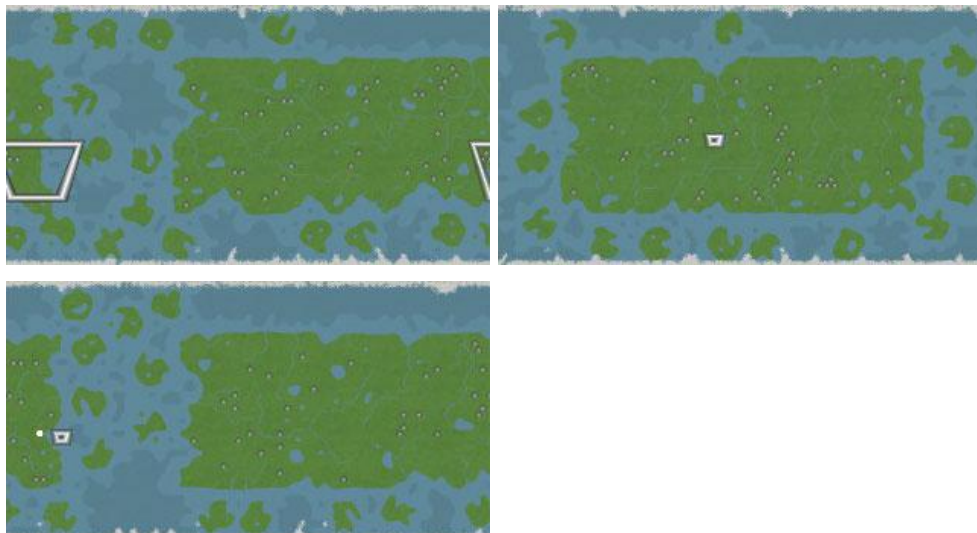
Pangea maps are now generated by filling every tile on the map with land, then a border of water (based on sea level) is added North, South East & West, leaving a rectangular Pangea in the centre of the map.

Once the water is added more code is then run with some heavy RNG factors but within bounds to 'rough' up the edges of the land by adding bays.

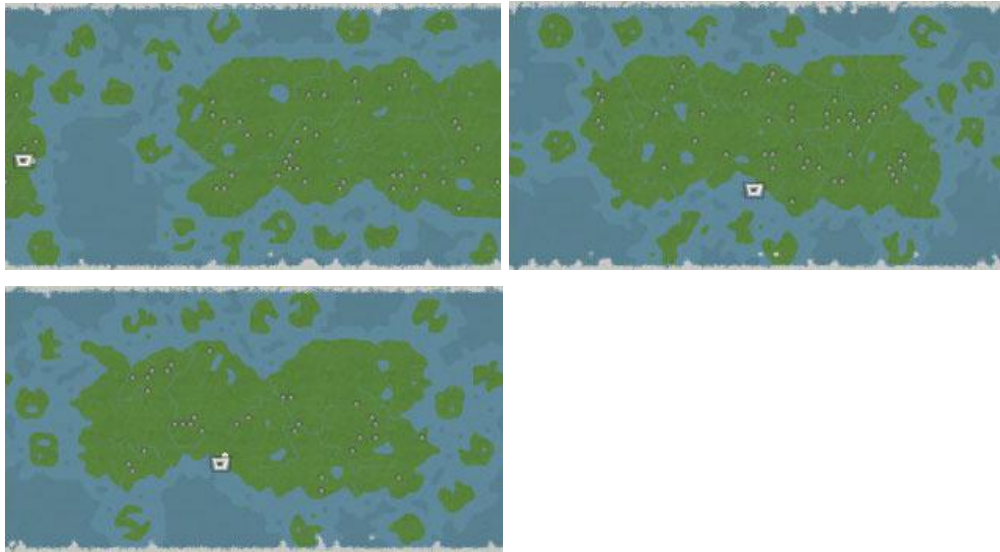
There is a new map setting which will only affect the Pangea map shape that allows users some control over the bays. The setting is called Pangea Bays. The 3 settings are,

- Minimal
- Standard
- Harsh

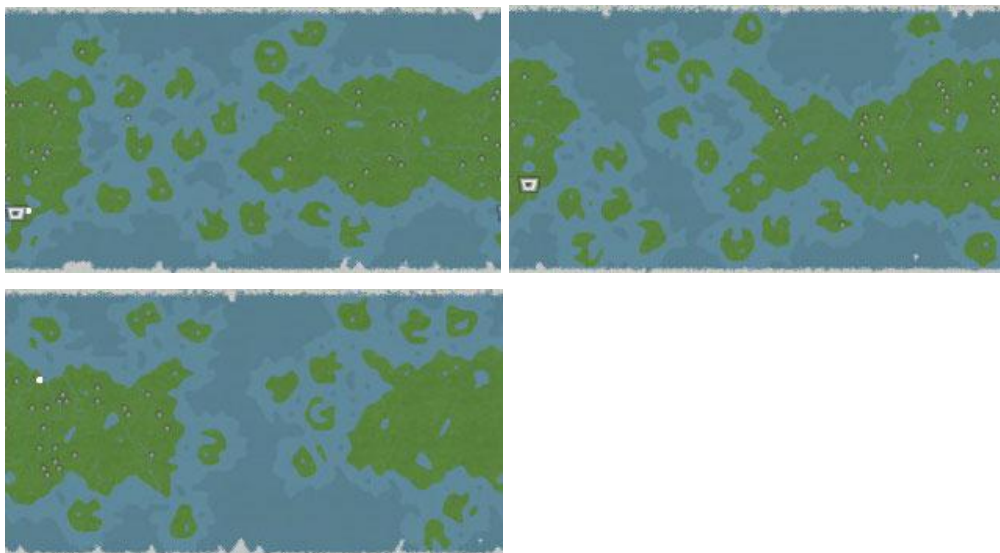
On minimal you get a very rectangular shaped Pangea , see images below,



On Standard, as expected, the rectangle is less obvious, see images below,



Finally, on Harsh the bays are quite intrusive, see images below,



This all results in a much more uniform game to game map shape while still adding the needed RNG so as not to make the maps become stale.

Another new setting called Coastal Spawns has also been added to the map set up, this dictates which civs can have coastal spawns. The 2 settings are,

- All Civs Have Chance
- Coastal Civs Only

All Civs Have Chance means any civ could be coastal, coastal civs will still be guaranteed coastal. Coastal Civs Only means non coastal bias civs will not spawn on the coast.

To try and prevent the rare case that a start location would not get a secondary lux within 2 tiles of their original starting location and second pass is done including the 3rd ring.

Small adjustments have been made to the starting plot evaluation code to allow more spots to become viable and more emphasis has been put on starting near rivers and freshwater locations.

The number of luxes reserved for city states have been increased from 3 to 4 and city state spawn distance from each other has been increased by 1 tile, this should help prevent city states stealing luxes from each other.

I have fixed a couple of bugs, one being that most regions were being defined as hill regions due to a previous change, thus meaning most regional luxuries where mining luxuries. The second bug was coral was missing from being a regional lux.

As a final note, I will reiterate all testing has been done on a standard 6 player set up as this is the primary use for the map, I give no guarantees of any other settings working, although many will.

## HB Map Script v6. Changelog

Added support for new luxes in LekMod v17, new luxes are:

- Coffee
- Tea
- Tobacco
- Amber
- Jade
- Olives
- Perfume
- Coral (Coastal)
- Lapis

Desert Incense will no longer be a thing, any deserts incense will now always be on a plains tile. Some other luxes can now spawn in new terrain locations, such as hill salt and hill forest sugar.

Removed Map Option for land size. Land size option has been replaced by 2 new options, Land Size X and Land Size Y. The default for these settings are 64 and 40 respectively. When changing the settings try to aim for roughly 2500 total tile, for example  $64 \times 40 = 2560$  for a 6 player game.

Luxury placement has been updated extensively and should yield a more balanced disbursement of luxuries. Luxuries used in a particular game are now based on the land size used when setting up the map, so a 6 player game on the largest map size of  $124 \times 76$  will use the maximum amount of available luxuries, without having to change the Map Size setting.

Fixed GBR, can no longer get a resource spawn under its 2nd tile.

## HB Map Script v5. Changelog

I have reverted back to a rectangular shaped map as it just works better than a square shaped map.

### Fixes:

- Fixed bug where City States were spawning right on top of a major civs starting location.
- Although not an actual BUG (this happens in vanilla maps), City States will no longer spawn 1 tile from the coast.
- On the continents map shape, City States will now spawn on all continents in the game, not just the largest one.
- The land size setting now has a more gentle effect on the land size, each change in setting up or down now has a ~200 tile difference, was previously ~400 tile difference.

### Added:

- Start locations and resources setting now separated, allowing the user to control the resource density of the map separately from starting locations. Possible settings are, Sparse, Mediocre, Standard (default), Plenty, Abundant.
- Add new option to land size setting called Brawl, using this setting will disable natural wonders and city states.

## HB Map Script v4. Changelog

Sea level in map options defaults to medium now instead of low.

The amount of uranium nodes reduced. Also uranium can no longer spawn on an oasis tile.

Map size (on standard - 6 players) changed from 58 x 58 to 62 x 54. The number of tiles is 16 less than before which is negligible to say the least, however this produces a more rectangular map shape.

City state spawning adjusted so they now spawn correctly and do not get dropped from the game.

More diversity between inland and coastal spawns for city states based on RNG now. Previously (and in the base game) if there was a coastal location for a city state to spawn it would have been given this over any inland location. There is a 58% preference for coastal spawn over inland (providing there are any coastal locations available).

City state luxes will always spawn on a tile next to the city itself, this prevents 2 closely spawning city states from stealing a lux from one and other.

## **HB Map Script v3. Changelog**

Updated the land size setting introduced in v2. There are now 5 options to choose from.

All sizes listed below are for small 6 player maps:

Tiny: - 50 x 50 hex

Small: - 54 x 54 hex

Standard: - 58 x 58 hex - previous setting was 60 x 60 hex

Large: - 62 x 62 hex

Huge: - 66 x 66 hex

2 new sea levels have been added, giving more control over the amount of sea versus land.

Sea levels are now:

Very Low - 50% Water

Low - 54% Water

Normal - 58% Water - old setting for normal was 57%

High - 62% Water

Very High - 66% Water

Please bear in mind, if your are still not happy with the land amount, simply chose the one closest to your desired amount and then use the sea level to make further adjustments.

Marble should no longer spawn in capitals as a regional OR as the secondary lux.

Some minor tweaks to bonus resource distribution.

## **HB Map Script v2. Changelog**

Add a new setting during setup called Land Size, this setting will change the actual hex size of the map. Unlike the sea level setting which just creates more or less water and thus less or more land, this setting will either reduce the amount land AND water or increase the amount of land AND water.

For small settings the hex size is 56 x 56, for Average setting the hex size is 60 x 60 and for large setting the hex size is 64 x 64.

The v1 was using a 64 x 64, v2 defaults to 60 x 60 now.

## **HB Map Script v1. Changelog**

All previous changes to the seperate maps are still active in the map script, however, all map types are now under one script.

When setting up the map, there are now an additional 7 options.



The first new option is Land Type, this is where you can choose the type of map you want to play on, the current settings for Land Type are, Pangaea (default), Continents and Oval.

The next new option, is called the Grass Moisture, this option affects the amount Plains versus Grassland on the map. The 3 settings for Grass Moisture are Wet (more grassland), Normal (default) and Dry (more plains).

The next new option is called Rivers, this affects the amount of rivers that can spawn, The 3 settings for Rivers are, Sparse, Average (default), Plentiful.

The next new option is called Lakes, this affects the amount of Lakes that can spawn, The 3 settings for Lakes are, Sparse, Average (default), Plentiful.

The next new option is called Tundra, this affects the amount of Tundra that can spawn on the mainland, The 3 settings for Tundra are, Sparse, Average (default), Plentiful.

The next new option is called Islands, this affects the amount of Island that can spawn, The 3 settings for Islands are, Sparse, Average (default), Plentiful.

There is a new setting under resource called Legendary - Strat Balance + Uranium, which is currently the default. Using this setting will spawn 2 uranium tiles within 4 to 6 hex of each players starting location, however, these uranium tiles only provide a single uranium each.

All other uranium tiles on the map, the naturally appearing ones are now all 2 uranium each, 4 yield uranium tiles have been removed.

The map size for the default 6 player, small map is now 64 x 64 (the size can be revisited should this result in maps being too big).

City states will no longer spawn on islands.

Islands have been reworked, so that they spawn slightly closer to the mainland and are now useful even for players not using exploration.

Regional luxury count has been increased for legendary starts (this should have been done previously but it was missing)

There will no longer be lock ups (AKA factory screen bug) due to the code not being able to place a secondary lux in a capital.

The river and lakes generation code was replaced with a more advanced version using much of the code from the Civ VI map generation code as this allows more control over their generation.

When using the new lakes and rivers setting above, putting them both on plentiful will result in less lakes that having rivers on a lower setting as lakes are not permitted to spawn on tiles that have a river running down them.

The lakes that spawn now will spawn more 2 - 4 tile lakes than before but not an excessive amount, any lake 4 tiles or more is classed as a large lake. On Sparse large lakes is set to 0, on Average setting it is set to is 3 and on Plentiful is it set to 6.

The amount of grassland on the Average setting for Grass Moisture is slightly lower than the previous default amount.

## **OLD MAP SCRIPT CHANGES:**

### **Version: 22**

Using data from v20, the map mainland has now an average number of tiles compared with v20.

Spawn distances were counted many, many, many, many, many, many times with the average being around 12.5 to 13.5 tiles to your nearest neighbour as it was in v20.

CS distance to each other increase by 1 tile and CS can no longer get natural wonders.

Sea level settings adjusted, previously low sea level would produce 5% more land now it produces 7% more land, similarly, high sea level used to produce 5% less land, now it produces 7% less land. So should you have any issues with the amount of land you can now use this setting to chance that fact.

Sea oil has been increased slightly for balance.

Slight increase to amount of uranium tiles (helped by fixing the rare case where a uranium tile could spawn as a 7 yield tile).

## **Previous Changelog:**

### **Version 21.2**

Land shape and size adjusted to create a more balance spawn distribution!

### **Version 21.1**

Increased map size to 64x64, this means the main pangaea is now slightly larger as it was too small in v20.

Adjusted spawn distance of city states to capital up by 1 more tile.

Adjust island creation code to generate less broken and slightly smaller islands.

Increased luxes available on islands as in v20 most were without luxes.

Increased the coast expanding so islands were more accessible.

### **Version 20:**

The extra pearl that was added in version 18 has now been removed as the NQ Mod has improved the yield of pearls themselves. So civs that get pearls as their regional will by default now get 3 rather than 4. However, in locations considered as low fertility a 4th can be added by the code, this is just the same for any other lux.

Civilization that do not have a coastal bias now have a much lower chance to spawn on the coast, although I must express it is not impossible and the chance is increased by default in game with less coastal civilizations!

Civilization spawning on the coast will always get a coastal luxury, providing there is one still available. Obviously games with more than 3 civilization on the coast will mean only 3 will get a coastal luxury.

The map size has been changed from 62x50 to 62x62 hexs! The landmass of the main pangaea is still the same size. The amount of water at the north and south of the map was increased so that islands will now spawn north and south of the main pangaea. This means the islands are now more uniform around the whole map, meaning exploration is more viable for those civilization that spawn north and south rather than just those that spawn east and west.

### Version 19.1

OK, so after some 'moaning' about people spawning too close, I have again changed the start bias settings.

It still stands that a civ with a bias other than coastal is given priority over a particular region.

All civs 'can' now spawn on the coast.

This means if someone like Celts are in the game they will get the region with the highest forest count but may also spawn coastal in that region.

I have also made it so Sri Pada and Mt. Fuji no longer have the 'AvoidBiggestLandmass' setting, thus they can and will spawn on the main Pangaea now.

**ONCE AGAIN I WILL REITERATE YOUR REGION IS NOT JUST THE 36 TILES IN YOUR CAP!**

### Version 19

OK, so bare with me on this one, but do please read this change, it is probably one of the biggest since the map was started and can make a big difference to the civs you choose to play.

It has taken a lot of work and a great deal of time to implement this change and I think it will be very welcome.

Over the last couple of days, I have finally put together some big changes to the way civs are placed based on their starting bias, I will first explain how it was done.

Let us assume we have 2 coastal civs (Portugal & England) in the game, 1 forest biased civ (Celts) and 1 jungle biased civ (Aztec).

The map script divides the map into 6 regions, each region is then evaluated and the count of each tile type added up, jungle, forest, desert, ocean, hills, grassland, plains, tundra, etc. After this calculations are run to give each of these regions a region type of one of the following.

1. Tundra
2. Jungle
3. Forest
4. Desert
5. Hills
6. Plains
7. Grassland

8. Hybrid (Mix of all of the above, but none over populated)

9. Wetlands

Now when the code come to place civs, there done in this order, coastal, river, single priority civs (forest, jungle, tundra, etc), then civs with multiple settings such as Egypt with their avoid, forest and jungle setting.

Now let us go back to our hypothetical situation above, let say there is 1 jungle region and 1 forest region, a problem can occur that the 2 coastal civ will be placed first and one each in the jungle and forest regions. Thus meaning Aztec & Celts end up in regions not of their desired region type.

Now on to the way I have modified this. I had to write a lot of new code to accomplish it, however, regions are much better distributed.

The code will now check the civs in the game and their starting biases, it will then check which region types are in the game and assign any civ that matches a region to that given region.

If there is a civ without a matching region or 2 civs both with a forest region bias and only 1 forest region, the code will check each region and find the region with the next highest amount of forest and assign the civ to that region.

After this all coastal civs are placed.

Now you might be thinking, won't this mean most coastal civs will be inland. Well no, I have also changed the code so ALL coastal civs will always be coastal, except in very, very rare cases and all non coastal civs will never be coastal.

This should please those that make it a point to bemoan the map script when they pick a non coastal civ but still end up coastal.

This all boils down to the fact you will now benefit more from a civs starting bias than ever before.

Please bare in mind that your 'region' is around 1/6th of the map, not just your starting tiles.

## **Version 18**

The 'factory screen bug' where the game locked up and restarting civ was required still seem to happen in some games, so I have rechecked and made more changes to the code causing this error and I restarted the map 100+ times without it occurring, maybe I got lucky but I had to stop

at some point. If you still get this bug please make a post about it on the NQ reddit and please note the civs in the lobby.

After some reports of grassland starts being far more bonus resource heavy, I looked at it and due to a previous change to the plot evaluation where marsh tiles were given a negative value which was then multiplied it was making grassland areas with 1 or more marsh tiles a vastly reduced food count. To rectify this instead of reverting it back to a freshwater marsh tile being classed as 4 food and a non fresh water food tile being classed as a 3 food tile, I simply class them now as a 2 food tile. This seems to have balanced the starting locations far better.

I have removed the original line of firaxis code that said crabs was not allowed if a region was classed as desert and had a coastal start, this reduces the risk of the so called dread desert pearls start.

As for pearls themselves, I cannot control their yield with a map mod and don't feel they really need it, so instead I made it that if pearls is your regional lux you get an extra 1 copy now.

As always if you have any problems please make a post on the NQ reddit.

### **Version 17**

Small change to fix the bug causing the game to freeze after on the factory screen. This was caused by the map being stuck in a loop trying to place the the 2nd (random) lux at a civs start location.

Minor adjustments to tile values when assessing a plot location.

### **Version 16**

I had to make a quick fix release as I made a pretty simple mistake. I hard coded an array to have only 6 entries rather than base in on the number of players in the game. Which meant any map standard size or more stopped processing code after a certain point and the maps only had luxes and resources in the starting spots.

Also another small mistake was forgetting to rename the map file to 15 (now 16) so people with map 14 wouldn't have seen the map show in red and the game would think map v14 and map v15 were the same.

### **Version 15**

So after a couple of weeks playing on version 14 of the map script, there appears to be areas of the map which were pretty bare of luxes. Version 15 addresses this issue and now the map should have a more balanced lux spread, regions should now be more balanced. I had to rewrite large portions of the code, and in testing everything seemed much better, I am sure you will let me know otherwise, but the balancing of luxes has been a rather challenging and literally a headache. It is too much for me to go into specific details of the changes but just know it should be more balanced now.

Also I have made some changes to the starting location plot checks, before this version marsh tiles on fresh water were counted as 4 food tiles (as eventually they can become that) but due to the time and tech needed for this to happen I think it was a little unrealistic, a location with 4 marsh tile would have a high food count which early game they are completely worthless. The same goes for fresh water tundra tiles, which were being classed as 3 food tiles.

This has the effect of adding more 'bonus' tiles at the start of these locations in the form of things such as wheat, cows, deer, etc.

#### **Version 14**

Due to some rather undesired region lux spawns I have back tracked on the disabled luxes from v13 somewhat.

Some people were getting starts that had very few, fewer than expected luxes in their regions! My guess is that when the game was disabling luxes (4 for small map) if it disabled 4 grassland luxes and you had a predominantly grassland region you would be lacking luxes.

So instead of disabling any luxes I simply lowered the count of the random luxes, the map still has around the same number of overall luxes on the map as v6.1 but now each region has 4-6 luxes and the ones with 6 some of them will be contested.

City State spawning has also been updated so a city state can no longer spawn within 7 tiles of a major civ. This is to prevent coastal civs being blocked both sides by city states. Obviously in rare situations it can still happen but is very more unlikely.

#### **Version 13**

The map has been renamed to HellBlazers Pangaea + this is so it appears in the selection list along with my other maps.

Luxes are now limited per map size, in the base game this is how it works, for instance on a small size map (6 players) 6 luxes are disabled in the base game. I originally disabled this



setting, however, I have now added it back, the table below shows how many are disabled per map size.

Map Size	Disabled Luxes
Duel	8
Tiny	6
Small	4
Standard	3
Large	1
Huge	0

The total desert % has dropped from 28% to 25%, oasis has be increased from 10% to 20% to compensate flat desert areas.

Jungle and forest have both been increased 2% each.

## Version 12

So it's been awhile since v11 was released and it seems pretty much well received so far. There have been a couple of things noticed from time to time and these were horse and oil diversity.

You could have quite a large area of land and still only have a single 4 horse tile in your cap and the same applies with the one 7 Oil tile from the cap.

So I have made some changes that place and spread out horse and oil a little better, much as I did when it was found uranium was pretty scarce on the map. After all if was not a fair fight when you had 4 horse and 7 oil and your neighbour with less land had 12 horse and 21 oil.

The horse change was pretty simple compared to the oil one, this was because there are more tiles horses can appear on in the game, grassland and plains for instance are all over the map.

Oil on the other hand, snow, tundra, marsh are its main locations, all tiles the NQ map has helped to reduced to some extent.

For this reason I made the following changes to all types of strat balance settings,

- Oil balance in the cap increased to 2 tiles, however this can be up to 4 tiles out from starting location much like the coal and alu.
- Oil that spawns in the cap can now have a fallback location of plains or grassland, this was so caps could actually handle 2 oil nodes.
- Where oil can spawn in the map the balance was adjusted from such things as coal, alu and uranium, this change was very slight.
- The Oil tiles that produce just 3 oil have been increased to 4 oil output tiles.

There is also a new strat balance setting, well, more of a changed one. The old Legendary Start has been modified to Legendary Start - Strat Balance, this means when selecting this you will get the legendary start but with guaranteed horse, iron, coal, oil and alu now.

## **Version 11**

Decreased the clumping of fish tiles in start locations.

Small adjustments to features:

- 3% increase to forest - was hindering celts starting locations.
- 5% increase to jungle - was hindering Brazil & Aztec starting locations.
- 2% increase to Atoll - Reduced fish around islands made them less desirable.

## **Version 10**

There were some games where the Uranium was more than 'rare' so I have made it so Uranium is more balanced, there will now be a minimum (and not much more at all) 4 x the number of civs in the game, so for 6 player 24 Uranium, that is total Uranium not nodes so a minimum of 6 x 4 yield Uranium tiles and I have also made it spread out more.

I believe I found and fixed the bug where CS would not get a lux and fixed it.

I have made minor adjustments to the bonus resources and lux spawns to improve balance also.

## **Version 9**

The bug where some CS could spawn without a lux has been fixed, also the bug where some CS settled 1 tile off the coast but getting a coastal lux (which they could not improve it) has been fixed.

The amount of forest and jungle has been reduced and is more spread out now.

The chance of getting a coastal regional lux if you spawn on the coast has been increased.

Also, a map change that will require a mod level update (I have passed the files onto fruitstrike to add to next version of the mod). Inland seas are now any inland water consisting of 6 tiles or more, this was previously 10. I decided to do this as inland water has been drastically reduced in the NQ Map.

## **Version 8 & 8.1**

Version 8.1. Some players have mentioned an overabundance of bonus resources, fish, sheep, horse, cattle etc. So they have been toned back a little. Also while I was doing the live stream of

map dev some people asked me to try making the maps more random, so I changed some numbers to show how doing this would cause choke points, when I released the map I forgot to change the choke test to 10 from 7. This meant every once in a while someone may have gotten a secluded start point but that is also fixed now.

Version 8 address the starting spot lux spawns, with certain luxes, most notably with sugar when the code could not place a copy of the regional lux in a capital start location it was simply just placing the random lux and no regional, hence the single lux spawns.

After many, many hours I have now fixed this and all starting locations will have at a minimum 2 copies of 1 lux and a single copy of another lux. In cases where the tile values of the civ's region (fertility, but not in the sense of growth) are lower than the threshold you can get an extra copy of your regional lux and if this is not possible a 2nd copy of your random lux and again if this is not possible a 3rd lux.

The netherlands now have a fallback update, previously if there was no wetlands region to assign them to they would fallback to the next best grassland region, they now fallback to the next best wetlands region.

Landmass for ALL sea levels has been increased by 1%.

Some changes to the island code to make the islands less uniform in shape.

Minor adjustments made to resource balance.

### **Version 7.1 Changes**

Just a small update for version 7.1, this is just a change to the script for calculating the new region type Wetlands. This now means when playing as Netherlands they will have an increased chance of spawning it the region with the best marsh / flood plains area! It is not guaranteed though.

Having looked at the start bias code, I feel it may need some reworking. The way in currently work is coastal civs are placed, then river start bias civs, then all other civs. The problem this causes if there is a wetlands region, which is is also coastal then the region may be given to a coastal biased start civ before Netherlands, then the netherlands would be given the a grassland region. However, the grassland region may also be coastal so by switching them around would mean both civs have there preferred start bias location rather than just the coastal one.



## **Version 7 Changes**

The main change for version 7 has been to change the starting settlers spawn further apart from each other as some people thought settlers were too close with the original code. This has been achieved by increasing the 'impact' detection area of starting locations.

There seemed to be a number of single lux starting points appearing in v5 thru v6, so I have taken a look at this and now the code forces 2 luxes at the starting locations. Some locations will get a single copy of 2 different luxes, some medium locations (lots of plains tiles) will get a 2nd copy of the regional lux and weak positions (several plain desert / tundra tiles) will get a second copy of the regional lux and in rare occasions will get 3 copies of the regional lux.

A small tweak has been made to the food score for first and second ring tiles for low growth plots, this only affects those cities that start with things like less than 1 or less grassland tiles (2 food tiles) in the first ring and those locations in situations with lots of none freshwater plains tiles in the city range as these cities struggle for growth until fertilizer tech which is quite a late tech.

## **Version 6 Updates**

New in version 6, people with versions older than v6 cannot ready up in the lobby if the host has v6 selected as the playable map.

The sea levels (for all levels) have been dropped by 2%, increasing the Pangaea landmass by 2%.

The river coding has been modified to add more rivers to the map, it is slightly above 'vanilla' settings.

The lake coding now produces a more standardized amount of lakes, rather than the chance of anywhere from few to many.

There has been a small increase to whether mountains spawn next to each other and also a small increase to the chance of hills spawning around mountains.

The island code has been adjusted to prevent the huge 'sub continent' type islands being created.

While I have your attention, I would like to dispel a myth that has become apparent to do with the islands in relation to the Pangaea! There are a number of people 'assuming' without knowledge of the code that the Pangaea is made smaller and I quote 'because the islands take

land from the Pangaea' this simple is not true. The code generates the Pangaea before any other land mass, without even knowing about the islands. Then the island code searches out ocean tiles and changes what would have been open sea in to land tiles, this way the Pangaea is in no way affected by the amount or size of the islands.

### **Version 5.1 Updates**

Not a big change from me in v5.1, consensus was that the landmass in v5 was a little too small on medium sea level, so I have decreased the sea level by 3% which should generate the largest landmass (pangaea) with 93-94 extra land tiles.

I have also added the changes implemented to the starting plot fertility check that was done by Delna\_Ersike.

Fertility changes (affect how the map is divided into regions for each player, baseline is +3 fertility for flat/forest grasslands and +4 fertility for flat/forest plains or grassland hills):

- Mountain fertility changed to -1 (from -2)
- Snow fertility changed to -2 (from -1)
- Ice fertility changed to -1 (from +1)
- Lake and ocean fertility changed to +2 to match coast's (from 0)
- Floodplains fertility changed to +4 to match new river fertility (from +5)
- Forest Tundra fertility changed to +3 (from +2, which is flat Tundra fertility)
- Desert Hills fertility changed to +3 (from +2)
- Riverside +1 fertility boost and freshwater +1 fertility boost are mutually exclusive

Tile rater changes (affect where the players' starting locations end up being within their regions, the scoring mechanism is weird but the simplest thing to know is that more rivers, "food", and "good" are always good, and locations with 9 or more "junk" tiles within city radius are ineligible for starts):

- Starting tile is now also rated for "production" and "good" and whether it is riverside is included in the riverside tiles count (features are ignored though, so a forest starting plot does not count as "production" like it normally would)
- The first mountain tile found in the first ring around a starting tile is no longer counted as "junk"
- Hills count as two "production" and two "good" tiles if they are located in the starting tile

- Snow counts as two junk tiles
- Lake no longer counts as "good" tile, but it is still a "food" tile (equivalent to a jungle)
- Coast counts as "food" tile (in addition to the usual "good" on island maps)
- Jungle hills is always "production" and not "good" (instead of only jungle hills in grassland)
- Jungle only counts as "good" in jungle regions (it used to count as "good" for all non-Grassland regions)
- Naked Tundra no longer counts as "good" in tundra regions and is counted as "junk" in all other regions
- Naked Grassland counts as "food" in all regions (it did not count as "food" in some regions before, eg. Desert)
- Naked Plains counts as "food" in all regions except for Grassland and "production" in Grassland regions (it never counted as "production" before and did not count as "food" in some regions, eg. Tundra)
- 

### **Version 5 Updates**

In V5 the map has been resized to be 2 hex smaller width wise and 2 hex smaller height wise. The sea level has also been increased 5% for all sea levels.

The number of rivers has been increased a small amount (we'll have to see how this pans out).

Now for the big change to V5, there is a new option when setting up the map options called Natural Wonders. This can be set anywhere from 0-12 and has 2 other options, Random and Default.

Unfortunately the planned changes to Natural Wonder yields has been put on hold for now as it is impossible to implement them separately from Fruitstrikes NQ Mod as the 2 Mod's interfere with each other.

I have spoken with Fruitstrike and the natural wonder changes will be implemented in version 7 of his NQ Mod.

### **Version 4.1 Updates**

Small update for version 4.1 there was an overabundance of the random luxes caused by the reduction of regional lux spawns in v4 this has now been fixed. Also CS were getting more than a single lux this has also been fixed.





### **Version 4 updates**

The map size has been reduced a little as some players had noted there was too much land on low seas.

The over abundance of regional luxes has been removed, some players were getting 6+ copies of the same lux in their starting locations.

Salt has been removed as a regional lux, so now it is a random lux that will be spread out over the land rather than assigned to a particular starting region.

The chance of mountains spawning next to each other has been increased by 5%, this also means there is roughly 5% more mountains, I think we are getting close to optimal on this.

The biggest change to v4 is the island code has been completely re-written. The default pangaea plus code seemed to produce many, many 1-2 tile islands that were not of much use. Now the code produces small island anywhere from 4-30 hex in size, hence the change in name of the map from Pangaea With Tiny Islands to Pangaea With Small Islands . These islands are of much better use now.

The change in the islands originally meant a few of the CS would spawn on them, however, this has been changed so a CS won't spawn on uninhabited lands smaller the 50 hex.

### **Updates in Version 3.**

The maps sizes have been increased by 5%, however the sea level has been increased by 4%, so the landmass is still a similar size. This has had the desired effect of decreasing the number of iced in locations. To aid this, I have also pulled back the ice at the top and bottom of the map.

Bays, fjords, inland seas and larger than 1 tile lakes have been added but not the extent that small choke points have been created. This has the effect of making the maps look less 'uniform'.

Strategic balance planted coal and aluminum now get used from the global strategic resource tables so the overpopulation of coal and aluminum when selected for strategic balance is now gone.

Starting location 'fertility' has been buffed a little; fertility does not just mean growth as far as the code goes, it is all things, luxuries, growth, production etc.

## **Updates in Version 2.1.**

Firstly, the map has been re-sized back to the original defaults for Civ 5 maps. I did increase it slightly, however, I didn't realise the sizes I changed had already been increased in the Pangaea Plus map script to make them wider (probably to accommodate the extra islands), however the maps are much more in tune with what we expect now.

**Changes to fresh water**, I noticed a lack of lakes in the maps so I have made adjustments to prevent this, now you can get anywhere from a few lakes to a fair few, its still quite random, we don't want it becoming too predictable! I have also done the same with river spawns.

**Mountains**, this is one of my favorite changes, the chance for mountains to spawn right next to each other has been drastically reduced, it is also dependent on world age, higher chance in 3 billion than in 4 billion, etc. This has resulted in my desired effect of more sporadic mountain spawns, meaning instead of a large group (mountain range) spawning in just 1 or 2 locations on the map 1-3 sized mountain ranges spawn all over the map. I like this change as it means that instead of 1-2 civs having the ability to make several cities with observatories (and getting +50% science in several cities) it means the balance is fairer across the map.