Mars

Introduction

Mars (Sol IV) is the fourth planet out from Sol. It has surface area the size of Asia and roughly half of its current population. Once called the Red Planet, it has since lost its red hue, replacing it with a mix of red and green, sometimes brown. Ships approaching Mars can see a lights in orbit around it, as receives relatively large volumes of space traffic. Looking from the surface, dusty night skies of Mars are covered by near endless number of moving lights, both from satellites, stations and passing space ships, even debris.

Mars is split into a number of large and small city-states, as well as territories belonging to minor parties such as corporations and nomadic populations. Although independant on paper, Sol Alliance keeps a close eye on their activities to prevent any wars or territory disputes.
The average Martian citizen doesn't leave the mega arcologies and pressurized cities more than a few times in their lives, but still, low pressure survival and suit usage is a mandatory part of education. Due to the costs of maintaining a pressurized, healthy environment, most of the population lives in cramped spaces and tiny apartments. The cities themselves are more often than not, a maze of overbuild interconnected buildings, roadways and tunnels so complex that most inhabitants can’t even grasp and can hardly be navigated without help of computer or a GPS. With low police coverage and ease of evasion, many criminal organizations have sprung up and remained for centuries. Because of this, Mars boasts one of the largest and most enigmatic criminal underworlds in Sol space, often having strong ties with the city-states they occupy.

History

Despite the Red Planet’s inhospitality, desperate living conditions on Earth and its close proximity to it has caused it to be one of the first planets colonized. As both nations and corporations attempted to set up a foothold on it first, it received massive number of colonists during the first waves, after which it was passed over for more suitable, distant worlds for a long period. The byproduct of this is that many issues, national and cultural, that plagued humanity at those times, were brought over to the Red Planet, causing tensions between its inhabitants. The colonies were more often than not supported by nations of earth as legal colonies and were putting constant pressure on each other. Wars between the colonies, although rare, were not unheard of. The ones that survived have long since grown into large, independant city-states, which are for the most part friendly competitors under the watchful eye of Sol Alliance.

However, the tensions combined with the planet’s wildly different features, have over centuries produced cultures and traditions unseen on other planets, which were much less involved in Earth politics. Some of many culture groups on Mars still keep to old traditions that have all but

disappeared on Earth. Denizens of Mars or at least those who are in position to care about such things, speak of their roots and traditions with pride.

Mars has suffered two catastrophes while colonized: the abrupt failure of its terraforming infrastructure and widespread damage as a result of the Sol Alliance Civil War. The combination of both has set Mars back in development by at least a century, creating buried cities and colonies all across its surface. These are often targeted by both scavengers and archeologists, today. Regardless, the determination of its inhabitants and the trade volume the planet receives has made it recover within two centuries following them.

Environment

Cold, arid and extremely inhospitable, with average temperature of -10°C (14°F), moving between a minimum of -80°C (-112°F) and a maximum of 60°C (140°F). A Martian day is only slightly longer than a standard day at 25 standard hours, but the Martian year is 687 standard days long. It has a 37% gravity of Earth's, which is too low for appropriate development of humans. Average atmospheric pressure is around 0.5 of Earth's, but with less oxygen and larger composition of carbon dioxide and various toxic organic gasses. It has its own 'Water' cycle, composed of both water and carbon dioxide, with the former usually falling as snow during summer, and the latter forming snow in the winter. Rain followed by formation of lakes is not unseen, but these often don't last more than a day, forming flats of frozen quicksand in their wake.

Outside of few terraformed areas, complex life is rare, with only bioengineered pine trees and grasses growing in there. Usually located inside craters, these areas have higher air pressure and can function as a open air cities, but interior still have to be properly pressurized. However, single cell organisms have become plentiful since the planet was partially terraformed. They were most likely introduced as unwilling passengers onboard ships various worlds with similar conditions.

Terraforming

Terraforming process started during the middle of the 22nd century, as massive terraformers designed to turn Mars' natural minerals into gasses were put into action. The idea was to replicate the Global Warming process humans have inadvertently done on Earth, but in a more controlled environment with goals of increasing both air pressure and temperature. However, it worked better than expected. Within fifty years, the polar dry ice reserves started to melt rapidly. The sudden raise in air density and greenhouse gasses caused a spike in the temperature to over 100°C (212°F). Afterwards, massive storms ravaged the planet for decades. Thankfully, the dust increased the planet's albedo enough to allow the temperatures to stabilize within hundred years. The cost to human life was large, as was the damage to both the economy and cities themselves.

Although a catastrophe, the terraforming project of Mars was not a complete failure. The air is still toxic, but it effectively raised Mars' near zero pressure to slightly tolerable 0.5 range, along with the average temperature. Furthermore, the vast amounts of polarized iron dust now flowing around the planet's lower orbit has created for a makeshift electromagnetic shield, reducing harmful radiation by a large degree. Efforts are being made to maintain it through crushing and polarizing of asteroids, despite the ever increasing volume of orbital traffic. This difference meant that a space suit was no longer needed to traverse its surface, instead, pressure suits or thick clothing, along with eye, mouth and ear protection were enough to stop the worst effects of low pressure environment. Single-cellular life has prospered as well, due to a atmosphere now rich with organic particles. Due to this, Mars has lost its famous red colour and is entering the first phase of the Kessler syndrome, making approaches to the planet with insufficient shielding prohibited.

Population

Due to the planet's low gravity, the first colonists were handpicked among those who had the strongest bone density and later, cheap stable gene mods were introduced as part of the general medicine to increase the survival rate. As a consequence of population mixing and the gene mods being inherited, multiple generations have made the average Martian have increased bone density and height. As technology developed, artificial gravity generators were introduced under the cities to rectify the health issue. However, those born and living outside them usually do not have such a luxury, resulting in them being stuck on world permanently. Regardless of where they live or their financial status, fitness culture is deeply ingrained in the psyche of a native Martians.

Despite spending all of their time in pressurized, sealed environments under relatively horrible habitation conditions, average martian is in not poor by other Sol Alliance's standards, however, the sheer cost of acquiring needed resources, clean air and drinkable water raises living costs significantly. Thankfully, most governments on Mars invest greatly into care, so most extremely poor inhabitants get their needs met. The largest focus is on Healthcare, because an outbreak would be extremely devastating in such conditions, as well as their effect on the human body. It's worthy of note that conditions vary wildly from state to state, city to city, and sometimes even building to building.

The vast majority resides in hundreds of megacities, sprawling overbuilt megalopolises sometimes with multiple layers of buildings, up to one and a half kilometer tall. They are are sometimes referred to as 'Hives' or 'Fēngcháo', a term coined up in 20th century science fiction. The largest among them contain half a billion people. Largest buildings in them are usually massive arcologies, that can provide jobs, shops, services and living space by themselves for numbers up to several million people. Most of the inhabitants in them reside in tiny room-sized apartments that often do not even contain all the needed installations such as toilets and

showers, or cooking appliances just to conserve space and lower maintenance costs. As a rule, higher you go in martian buildings, the larger and more expensive apartments become. The arcologies are usually complete with a large biodome on the top. They often contain a small city by itself, with skyscrapers, parks and public buildings. Only the very rich can afford to live there. They often contain their own gravity generators and power plants. Due to their self-reliant nature, some of them possess governments of their own and function as lawful cities.

While the planet has a diverse population, the cities themselves often do not, sometimes corresponding with the population makeup of their parent nations on Earth. For example, former chinese colony of Shì chǐlún, often referred to as , now a megacity and city-state, has disproportionately large amount of ethnic-chinese inhabitants, population density and poverty. This is a consequence of various earth events. As the Pacific Ocean started to eat at China's mainland, almost billion people got displaced over time. As such, many went to join their kinsman in space. American and European colonies have greater ethnic diversity, while other nation specific colonies have far less.

One of the notable groups that live outside the megacities are Djor Abdussalam, a group of nomadic islamic descendants mostly of european origin, that subscribe to their own sect of islam. They claimed large areas of land deserts and poles as their own, declaring it the Djor Province. Although Martian City-states have outright denied those claims, the nomad people have established their own settlements on it and traverse it uncaringly. Ascetic values and intelligent thinking have allowed them prosper, through trade, research and salvaging. They boast their own bio-domed settlements that are usually done in highly impractical, antique, yet beautiful settlements of neo-african and middle eastern style. This expansive lifestyle that the cream of their society enjoys is supported by research foundations and several notable banks they own. The entire society, from poorest to richest, respects and adheres to traditional behavior, as much as survival would allow.

Aliens are not unseen of on Mars, but very small numbers of them maintain a permanent residence there. They are most often tourists, part of ambassadorial delegations or short-term corporate workers. Any further alien settlement is unlikely due to stricter laws being imposed as part of the Sol Alliance's new immigration policies.

Economy

Mars' economy is developed and mixed, with it's largest industries being orbital construction, mining and a small but rapidly growing hydroponics industry. Mars also enjoys being the center of Sol trade, with over 90% of Sol's trade at some point passing through the planet or one of its stations, due in no small part to the Bluespace Gate near the planet.

Low gravity and favorable air drag allow for cheap and efficient landings by spaceships, allowing traffic to far surpass what just the space elevators would allow. Low gravity allows constructions of space elevators at larger longitudes Mars as compared to Earth, this, combined with amount of space trade the planet receives, has shifted center of planets economy into planetary orbit, as opposed to equator and major cities as is case with the latter. The port megacities are as such, by far the wealthiest. The richest and most developed is Lowell City, named after Percival Lawrence Lowell. Contrary to popular belief, it is not the planetary capital, just its on-planet economic center.

Recent change in Sol Senate composition, as well as a sudden need for increased military production, have started a stream of government investments. Industrial and extraction complexes that have been shut down for several decades, some for even a century, are being rapidly restored and modernized to lower Mars' unemployment, reliance on trade and boost production rapidly. This pending industrial boom and a raise in land value have caused protest among salvage companies and people that used to occupy and rely on those ruins for survival. These events were followed by a large drop of investments into the salvaging sector, one of the branches of the planet's internal economy.

Military

Although Mars boasts massive shipyards both on and off planet, due to treaties signed in the past it has no fleet of its own. However, it is by no means defenseless without the support of Sol fleets. Due to the planet's low air density, planetary gun installations have been deemed a practical solution for the lack of navy. While giant laser weapons are most often used for this role, they are not the most impressive. This title is held by Mars' massive State-of-the-Art Velites-class Railguns that can fire small, precise rounds at a fraction of the speed of light. After a failed terrorist attack, when a certain group attempted to blackmail the Sol Government with a threat of firing one at the planet's capital, all railguns and laser cannons have been implemented with extra failsafes to stop them from firing at the surface of Mars, its moons and any other planets under any condition. All in all, these installations combined with advanced sensors in space form an allegedly impenetrable net of automated fire around the planet that any would-be invader would need to deal with first. Mars also contains various military stations in orbit and its moons.

The defense grid is further supplemented with the planet aerospace forces, which primarily consists of craft capable of both planetary and space flight. Outside of combat, for which they are rarely used, they serve as traffic control and escort for ships around the gravity well and orbit. Despite the volatile era of Mars' planetary wars being long over, each city state fields their own fleet of these craft, with healthy competition as to who will field the most cutting edge ones. They can often be differentiated by different color patterns and flags on their hulls and,although they might not mean anything to incoming ships, keeping to them is a matter of military tradition. Being a pilot in the fleet is considered a very prestigious position so is either gained through favor from political bodies or through tediously long and rigorous selection process.

Martian city-states don't keep their own ground forces as a measure of preventing wars between them, but they provide a good amount of manpower, as well as training and support installations for Sol Alliance's own ground forces. The most notable of those are notorious training camps at the poles and Military Academy of Chester William Nimitz located in the city of New Washington. While the former is used to train soldiers for extremely hostile environments, while the latter is considered one of the most prestigious military and naval academies in known space, producing only the most educated and qualified officers.

Politics

Mars has almost as complex, antiquated and corrupt political system as Earth does. Many different types of governments either based on practicality or tradition are in practice, even some tiny monarchies and theocracies. Some megacities have ruling bodies consisting of representatives from various city sectors or arcologies. However, Mars has its own planetary representing body composing of representatives scaled according to population of the territorial bodies, with each having their own method of election.The Mars Senate has large power concerning decisions that affect the planet as a whole, but little to no power over internal politics of the various self-proclaimed countries. It is located in city of Olympia, within the Galle Crater Terraformed Zone, but a majority of senior administration facilities and personnel reside in orbit on New Concordia station. However, due to the major shift in political power towards Earth, Sol Alliance's own administration has been moved there.

Notes v1:

Change the chinese city name to Tiānkōng tǎ, Sky tower.
Change the civil war information.
Implement the player-made city into the lore.
Cyborg information.

http://www.igorstshirts.com/blog/conceptrobots/2012/jake_parker/jake_parker_05.jpg
www.igorstshirts.com/blog/conceptships/2012/smyk_vitaliy/smyk_vitaliy_16.jpg
http://www.kongregate.com/games/Kendja/mars-colonies

Notes v2:

Fix the cyborg date thingie from **2060** to **2260**.
-result of the **rhe** First Interstellar War
-endless number of moving lights, **both** from satellites, stations and passing space ships, even debris.
-change the arcology info to link to arcology page