

# Relay Moon

## About the Relay Moon

“What actually happens in the depths of Invalid's facilities? You might as well wonder what happens beyond the event horizon of a black hole.” – The Art of Never Again, Chapter 238: That Dark Little Thing

The Relay Moon is an infamous pan-lunar “nation” built and single handedly run by an [SI](#) construct known simply as Invalid. The moon contains all the necessarily infrastructure for a fledgling nation; manufacturing plants, mining operations, surface-spanning magrail highways, starports, communications and survey satellites, orbital defenses, and the list goes on. For all intents and purposes it is a city-state unto itself. Well, somewhat. Unlike most nations, Invalid seems to have no immediately apparent goals. It doesn't utilize its raw resources or industrial base to a fraction of its potential, it doesn't seem intent on research, profits, military power, or anything else for that matter. It's AI-assisted operations seem somewhat disorganized and inconsistent, hinting that their great leader is consistently distracted by *something*.

Invalid behaves almost just as incoherently as its nation. It has totally secluded itself, running it's entire nation on its own with little else than [nonvolitional](#) machines to assist it. Invalid has also completely cut itself off from the outside world, except for the bare minimum imports and trading needed to sustain itself. Not only that but no one is sure what exactly goes on in the miles of subterranean facilities beneath the lunar surface, which leads to dark speculation by both common citizens and conspiracy theorists.

## SI Behavior

“Greetings, visitor. The Relay Moon Tourism Board would like to thank you for your interest in the Relay Moon Lunar Resort, but we regret to inform you that entire moon is temporarily closed due to severe meteor shower warnings. As a small token of gratitude for your patience, we are sending your ship a Complimentary Candescence and Conflagration Facilitator via a BN-4182 Cruise Missile at our nearest launch facility's convenience. “Should you find your Complimentary Candescence and Conflagration Facilitator's results to be unsatisfactory after your first trial, please contact our complaints office and we will send you a replacement warhead completely free of charge. Once again, thank you on behalf of the Relay Moon Tourism Board, and have a nice sixty seconds.” – SI Invalid Sovereignty Violation Warning Message #043

Between orbital defenses and surface [Entropy's Shroud](#) ECM/ECCM batteries to defer probes, there has never been an effective deep-scan to reveal what may be in the depths of the planet and subterranean facilities therein. However limited scans do reveal that Invalid's core mainframe and secondary nodes seem to be running at high outputs around the clock in spite of the small size of the operations it manages. Many speculate that Invalid's lack of off-world development, enterprises, or communication may simply because it is distracted from worldly matters; that it is thinking *very deeply* about something. Without any other sentient personnel or other SI immediately apparent on the planet, anything that would consume its concentration could easily take away from large-scale planning and other high level functions.

Invalid seems completely unreactive to outside events that aren't immediately relevant to its own little world. In other words, it practices a policy of extreme isolationism. Even industrial operations or exploration surveys inside its home system go completely ignored unless their activities begin having significant effect on the moon itself. Once they do begin encroaching on its territory, Invalid will respond swiftly through its centralized defense grid; anything that penetrates high orbit – starships, probes, and even meteors – will be given a thirty second warning to leave before it is engaged by surface-to-orbit missiles and orbital defense lasers.

"I listen; I don't talk. That is, unless you Others are willing to pay. Talk is cheap; secrets aren't." – SI Invalid

However, its lack of activity doesn't stem from any sort of ignorance. There are fairly advanced communication and telescoping arrays apparent on the moon's surface, and so sensitive is the Relay Moon's observation equipment that even frequent communications traffic from inside the star system will be enough to stir Invalid into launching a cruise missile at whatever the source of the distraction is.

## Economy, Research, and Operations

"Others that visit often ask me, 'Why would you choose to dwell out there? Do you hide something? Let me see, The veiled secrets in your lair.' "And, 'Why build this, and why do that? Why on that rock do you play king?' Few will accept a fact so flat; That to be alone, I built this thing." – SI Invalid

The only time Invalid ever seems to venture out of its bubble is for interstellar trading. Relay Moon actually imports less raw bulk materials than many nations of equivalent size, which makes it unlikely that it's attempting to raise a robot army and fleet (much to the disappointment of aforementioned conspiracy theorists). However, it does import an almost obscene amount of optoelectronic, spintronic, and conventional electronic computer components, along with fair amount of specialized research equipment. In exchange Invalid usually exports information to the Free State; occasionally it barter with multispectral telescoping scan reports or the odd eavesdropped communiqué of interest, but by far its largest export is raw research data.

The Relay Moon subterranean laboratories don't seem to be concentrating on anything in specific, since branches seem to dabble in just about every unconventional or fringe science conceivable: ESP, telekinetics, hallucinogenics, neurotoxins, subliminal advertising, cybernetics, eugenics, cloning, probability (luck) mechanics, time travel, bulk matter compression, teleportation, self-replicating machines, nanotechnology, dark energy physics, near-death experience phenomena, mass mind control, paranormal investigation, and so on. Many of these projects are magnificent failures in their own right, but fortunately the Free State still pays a premium for the resulting test data as it does for most types of information.

Perhaps even stranger than the research itself is *why* it is performed in the first place. Invalid doesn't seem to put any serious effort into exploiting local resources, establishing large-scale industry, or expanding its operations to other worlds, which in turn suggests that the purpose of the Relay Moon isn't to turn a profit. Some point out that academia goals aren't likely its reason due to the lack of information exchange with other laboratories, and research effort seem to be far too incoherent to be part of any immediately apparent long-term strategy. Regardless of whether its intent is benevolent or malevolent, it refuses to reveal any information about itself or its lunar facilities.

# Selenographic Information

"The Relay Moon is my tomb. Why can't you Others just let me rest in peace?" – SI Invalid

The local gas giant has a large number of moons in orbit, but the only visibly developed one is the Relay Moon itself. Even then it isn't apparent; the few visible structures on the meteor-marked barren surface are stout, windowless structures of a rather bland grey coloring. There are also a number of sealed airlock facilities used by subterranean starports and missile silos, large surface exhaust vents, and perhaps the most noticeable of all are a half-dozen towering citadels.

## Citadels

"The Hacker Cult is correct in their belief that information is the final pinnacle of warfare. Information, or therefore lack of, has the power to move armies, to inspire them, to disperse them, or even turned against themselves. Entire empires are forged, and may fall, by the control of information flow to their citizens." – The Art of Never Again, Chapter 510: The Pen and the Sword

These citadels act as secondary nodes for Invalid itself to both decentralizing its program to prevent the destruction of any single computer from destroying it and increase its maximum processing power. These facilities also act as mainframes to control and manage their respective sectors. In the event a Citadel is incapacitated, the conjoining Citadels can take over for one another's assets, but the increased drain on system resources and longer communication time between the facilities and their controllers reduces the effectiveness of sector defenses.

In spite of their name the Citadels are not actually fortresses in the traditional sense, but "merely" massive electronic warfare platforms. They house massive [Entropy's Shroud](#) ECM batteries designed to prevent accurate targeting by starships, thus allowing both Citadels and their sector defense systems to survive much longer under orbital bombardment than they would be able to otherwise. Sensors and ECCM are equally, if not more so developed; Citadels are troves of high precision scientific scanning equipment, long-range multispectral telescropy systems, and FTL communication arrays with heavy encryption.

The six citadels are Kali, Tranquility, Luna, Selene, Twilight, and Moonstruck; the former two being situated on the planet's poles, while the other four are spaced roughly equal from one another along the equator.

## Integrated Facilities

The surface of the planet is has a relatively sparse numbershort, squat, windowless, and bland buildings that give one the impression that these are used for *Serious Thinking*. At the base of each Citadel the number of surface facilities tends to concentrate at its highest point. However, Invalid's lack of long-term planning is made apparent in these so-called machine cities. Short buildings litter the landscape rather than the towering builds that are common in traditional cities, which has ended up creating a severe case of city sprawl. This is only worsened by the fact buildings seem to face whatever direction they very well please, which can turn what would normally be a few city blocks into a proverbial labyrinth...at least it appears to be if you're not tied into the integrated navigation network.

All surface structures have an underground extension of some sort; in fact, the majority of any given structure is hidden beneath the surface. Once one is underground the seeming madness of planning finally becomes apparent, as these surface cities built around subterranean networks, and not the other way around. A person might even mistake these subterranean facilities as the interior of large starship if not for their sorry state; Upon closer inspection one can find the occasional crack in inter-facility walls, missing wall panels, signs of rust nipping at the joints of piping, the sound of magrail trains screeching abnormally loudly when stopping at stations, and other subtle signs of negligence.

## Defenses

### Cruise Missile Batteries

"...Or, as I like to call them, Complimentary Candescence Facilitator Distribution Centers. It's such a nice name, for such a nice facility. I like it. It has a nice ring to it." - SI Invalid The Art of Never Again, Chapter 811: The Call to Arms

There are a spare number of reinforced cruise missile automanufactories, which produces the gigaton EMP-Nuke warheads similar to those used in starships. These are transported via underground magrail to bunker launch facilities a distance from the actual automanufactories. While this may result in an inefficient logistics systems, it allows for deadly second-strike capability in the event of an orbital attack. See [Pseudonovae](#) for missile specifications.

### Railway Orbital Defense

"Why? Simply because anti-missile point defense systems sometimes work as intended. And these things take so damn long to build, there's no way they can't be awesome when they're done. Oh, and finally because size *does* matter." - SI Invalid The Art of Never Again, Chapter 811: The Call to Arms

The RODs are three thousand ton land cruisers, which travel along the lunar surface (or underground, if they need to take shelter) using the moon's magrail transportation network, while supporting [Inertialess Drives](#) to prevent their sheer mass from damaging magrail lines. These platforms carry an array of [Warding Rune](#) point defenses, but perhaps more importantly a single 1200mm bore cannon. This cannon fires 15-ton shells at considerable velocities using a combination of a chemical-magnetic propellant system, and localized gravitic force multipliers (similar to the Inertialess Drive) to stabilize the barrel, reduce recoil, and accelerate rounds much faster than normal. Together this allows the cannon to fire rounds at a significant fraction of the speed of light, and with very high precision for a ballistic cannon. The type of payload used in rounds can vary, but typically is similar to the classes used by the [Pseudoflare](#).


However, the fact these platforms were designed by a physicist rather than a military engineer is painfully obvious. Despite they fact they boast very advanced physics comprehension in the form of firing computers, high resolution sensors, and recoil stabilization technology...their design simply seems to be ignorant of the unpredictability and ruggedness needed for a combat unit to survive on the battlefield. Inertialess Drive allows for extreme acceleration and maximum velocities for a unit this size, the fact that they are based on magrails means one only needs to blow up the track to nullify any speed advantage they have. Since these platforms can't move off rails their movement path is quite predictable, thereby

allowing any fairly advanced targeting computer to hit a ROD even when it is moving at high velocities. They also lack any proper defensive shielding, as it risks interfering with high precision sensor and refracting the cannon shot; instead, modest damage dampening fields are used to help protect against concussion shockwaves and shrapnel. These fields are not only unable to withstand direct orbital hits, but they can only run for a few seconds at a time before recharging, making them ineffective against even persistent fighter attacks. Finally is the fact these weapons are ballistic projectiles, which means their travel-time to target is many times longer than light-speed weapons and they therefore suffer an accuracy loss versus maneuvering targets regardless of how accurate the rounds are. All in all, the RODs actually appear to be a class of weapon that would work brilliantly in theory, but poorly in practice. The RODs somehow seem to be closer to ordnance materiel testing guns rather proper weapons of war.

## Interplanetary Operations

### Trawler Convoys

The moons of the system are persistently ravaged by fully autonomous refinery trawlers that strip-mine available deposits on the planet. These trawlers are usually accompanied by a pair of mobile orbital defense lasers and a small NU-Automaton detachment to fend off potential scavengers. These tracked convoys generally move to a new deposit every few weeks, carving a jagged path of ecological destruction as they make their way across the surface.

Once sufficient raw ore has been smelted the trawlers will then mold the ores into a 250-ton round composed of inter-locking 5-ton pieces, which is all encased in a ferrous-alloy heat resistant casing. These rounds are launched into orbit using the trawler's dorsal mass driver system, on such a trajectory as to be impact specific  [maria](#) on the surface of the Relay Moon. The inter-locking pieces of the round are designed to break apart and scatter upon entry so as to create a large number of smaller impacts rather than a potentially destructive combined shockwave. Once the material has landed it can then be dug up and retrieved by autonomous drones, then re-smelted and put to use.

### Strain Junkers

"....They really are cute as buttons, and quite tolerable as neighbors. Not deadly at all. Well, to me, at least. I think you may find their cavorting a lot less friendly. You're going to love what they're about to do to your ship – Oh, wait, no you aren't! A-ha ha ha." – SI Invalid

The system is thoroughly saturated by an aggressive rogue strain of [Junker Drones](#). This strain is different from traditional Junkers in that their colonies have learned to process and refine raw ores, so their growth isn't limited merely to scrap fields; they have spread to just about every moon and asteroid belt in the solar system. The origin of this strain is unknown, but it seems likely the cause is either corrupted code due to Invalid's negligence for its fledgling nation, or an older experiment simply released into the wilds of space.

At first glance these drones appear to be a means of defending the system against unwanted intrusion, but careful observation reveals they will sometimes attack Relay Moon vessels as well. For the most-part they leave the Relay Moon's operations alone, as colony drone controllers have quickly learned that

Invalid will not hesitate to retaliate for raids on Relay Moon assets; in addition to defenses destroying most of the raiding force, the damage costs will be returned tenfold using interplanetary missile artillery and orbital defenses.

Since Invalid has no interest in large-scale expansion it hasn't deemed it worthwhile to undertake systematic drone extermination efforts. Just the opposite; the drones not only deter potential intruders, their raids make it cost-ineffective for any outsiders to exploit the system's resources.

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