NAME: NIVEUS GLACIES NEX

VISUAL REPRESENTATION

CLASS: M

LOCATION
The fourth planet in the Vetus Glacies system

MOONS / RINGS
3 moons (2 of which move in a parallel orbit and appear in the sky at the same time). No rings.

| MASS | 1.5 |
| DENSITY | Rock-Ice (0.5) |
| DIAMETER | 1.38 |
| GRAVITY | 0.91 G |
| DAY LENGTH | 17 hrs |
| AXIAL TILT | 27 degrees |

CLIMATE
Niveus Glacies Nex is one of the coldest and least hospitable planets in the Federation to ever play host to a human population.

The coldest natural temperature ever recorded was -89.2 °C (-128.6 °F) at Starfleet's Quadra Station, in 2384. For comparison, this is 11 °C (20 °F) colder than subliming dry ice. Niveus, as the planet in commonly known, is a frozen desert with little precipitation; receiving less than 10 cm (4 in) per year, on average. Temperatures reach a minimum of between -80 °C (-112 °F) and -90 °C (-130 °F) in the interior in winter and reach a maximum of between 5 °C (41 °F) and 15 °C (59 °F) at the marginal coastlines. Sunburn is often a health issue as the snow surface reflects almost all of the ultraviolet light falling on it. East Glacies, the largest of two continents, is colder than its western counterpart because of its higher elevation. Weather fronts rarely penetrate far into the continent, leaving the center cold and dry. Despite the lack of precipitation over the central portion of the continent, ice there lasts for extended time periods. Heavy snowfalls are not uncommon on the coastal portion of the continent, where snowfalls of up to 1.22 metres (48 in) in 48 hours have been recorded. Which is an extreme of the conditions encountered elsewhere on Niveus, where precipitation is almost non-existent.

At the continental edge, strong winds often blow at storm force. In the interior, however, wind speeds are typically moderate. During summer, more solar radiation reaches the surface during clear days at the poles than at the equator because of the 24 hours of sunlight each day at the southern pole. This is due to the planet's axial tilt.

Niveus is colder in southern reasons than in northern, for two reasons. First, much of the southern land masses are more than 3 kilometers (2 mi) higher in elevation, and temperature decreases with elevation. Second, the majority of the planet's meager surface water covers the north polar zone: the water's relative warmth is transferred through the icepack and prevents temperatures in the northern regions from reaching the extremes typical of the land surface of the south.

Given the latitude, long periods of constant darkness or constant sunlight create climates unsettling to humans, but quite normal for some species such as Andorians. The Aurora Glacies, is a glow observed in the night sky near the southern pole created by the plasma-full solar winds that pass by the planet. Another unique spectacle is diamond dust, a ground-level cloud composed of tiny ice crystals. It generally forms under otherwise clear or nearly clear skies, so people sometimes also refer to it as clear-sky precipitation. A sun dog, a frequent atmospheric optical phenomenon, is a bright "spot" beside the true sun.

Despite Niveus' low ratio of precipitation, most regions of the continent are often subjected to storms known colloquially as "whiteouts". Glacies are a weather condition in which visibility and contrast are severely reduced by snow or sand. The horizon disappears completely and there are no reference points at all, leaving the individual without any orientation. The primary center of population on Niveus, a Federation science station, is known as Quadra Station.

ATMOSPHERE

COMPOSITION: Oxygen (70%), Nitrogen (27%)
THICKNESS: Standard
TRACE COMPONENTS: Argon, Methane

HYDROSPHERE: 3.7% (frozen / ice)
TEMPERATURE: Very Cold (5 to -85 degrees, Celsius)
The geological study of Niveus Glacies Nex has been greatly hindered by the fact that nearly all of the continent is continuously covered with a thick layer of ice. However, Starfleet geological teams using military-grade sensor equipment have begun to reveal the structures beneath the ice.

Geologically, West Glacies closely resembles the Andes of South America. The main difference being that the region is dotted with long expanses of stalagmitoid ice formations extending as high as a tall building on Earth.

The southern peninsula was formed by uplift and metamorphism of sea-bed sediments. This sediment uplift was accompanied by igneous intrusions and volcanism. The most common rocks in West Glacies are andesite and rhyolite volcanics. There is also evidence of volcanic activity, even after the ice sheet had formed. The only anomalous area of West Glacies is the Suus Aurum Mountain region, where the stratigraphy is more similar to the eastern continent.

The West Glacies Rift, a major active rift valley, runs from the coastal region to the northern most section of the western continent. The rift is still active, causing a gradual continental shift, and occasionally causing minor earthquakes in the region.

East Glacies is geologically very old, with some rocks formed more than 3 billion years ago. It is composed of a metamorphic and igneous platform which is the basis of the continental shield. On top of this base are various more modern rocks, such as sandstones, limestones, coal and shales laid down to form the Prolixus Mountains. In coastal areas such as the Compes Urbs Region and Ferocitas Region some faulting has occurred.

Most known indigenous life forms on Niveus are small animals capable of surviving in the extreme conditions on the planet. There are also a few sea animals that live in rock formations near the surface of the water at the northern pole.

The only large animal of note is a carnivorous predator called a Crocus Rutilus, or simply, Crocus – a creature the size of a Terran Grizzly, and armed with elongated teeth similar to the extinct species of feline known as the Saber-toothed Tiger, as well as claws easily as dangerous as those of a Sehlat.

This animal gets it's name from it's brightly colored orange and red fur. The animal's coat has a mottled appearance that some scientists have presumed to be a form of camouflage; hinting at a period in the creature's evolution where very different climactic conditions may have persisted on Niveus.

The sparse oceans also host one or two species of predatory fish close in size to a Terran shark.

The population of Niveus is completely non-indigenous. The primary residents of the planet are Federation scientists, and military support personnel. The confluence of this population is located at the large planetside research facility known as Quadra Station. The facility is run by Starfleet, and under the command of a ranking Starfleet officer, but a large portion of the personnel there are civilians.

Other centers of life on the planet include several mining bases, and at least three other research outposts, one of which is run by Tellarites.

Niveus is a frontier planet at best, and as such civilization is something open to interpretation. Within the jurisdiction of the Federation, law and order is maintained by Starfleet. But, despite the fact that Niveus is a Federation protectorate the world has not been officially annexed by the Federation, or any other government.

This results in a level of lawlessness that has a way of drawing people to Niveus for the promise of adventure. Not only is the surface of the planet dotted with mining camps, but there are also outposts on the planet known to play host to pirates, smugglers, and roguish privateers.

These regions of Niveus function as a frozen over Tortuga for spacefaring buccaneers.

The main mineral resource known on the main continent is Magnesite. It was first recorded near the Barba Magis Glacier in 2301, and now low-grade Magnesite is known across many parts of the Prolixus Mountains. The Tutela Mountains contain significant deposits of Pergium.

The most valuable resource of Niveus is, of course, several large deposits of Dilithium, and there are easily as many Dilithium miners making their living on Niveus as there are scientists and Starfleet personnel. Dilithium was first discovered on Niveus in 2347, and a conflict between three mining colonies is what provoked Federation involvement in enforcing law on the planet in 2350.

Niveus is also the site of a rare deposit of Gallicite.
NAME: VETUS GLACIES

SYSTEM TYPE: Trinary (Vetus Primoris; Type-A7 III, Migris I & Migris II; both Type-F9 VI)

ORBITAL SEPARATION: 20 AU (Primoris – Migris I / II), 12 AU (Migris I – Migris II)

AFFILIATION
United Federation of Planets (protectorate) / Neutral

LOCATION
Alpha Quadrant (Federation space, near Romulan border) – sector 02-94-014-42

PLANETS

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<tr>
<th>NAME</th>
<th>CLASS</th>
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<tr>
<td>Niveus Amplus (Niveus Prime)</td>
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<tr>
<td>Niveus Argentum (Niveus II)</td>
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<td>Niveus Atrum (Niveus III)</td>
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<tr>
<td>Niveus Glacies Nex (Niveus IV)</td>
<td>M</td>
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INHABITED PLANETS
Niveus Glacies Nex, or Niveus IV, is the only inhabited planet in the system, and it is barely habitable. A class-M planet with an inhospitable climate of constant, severe cold and winter storm conditions.

Niveus Glacies Nex is not only the home to several large-scale mining operations, harvesting Gallimite, Pergium, and Dilithium from far beneath the planet's icy crust and deep into it's rocky surface; but Niveus Glacies is also the location of a Starfleet research center known as Quadra Station.

Due to its harsh environment, Niveus Glacies has also become a haven to pirates and privateers. The hazardous conditions on the planet pose several difficulties for any authorities attempting to track pirates on the planet.

UNINHABITED PLANETS
Niveus Prime (Niveus Amplus) is a large class-G planet that, despite having an unbreathable atmosphere is rumored to play host to at least one outlaw hideout.

Both Niveus II and Niveus III (called Niveus Argentum and Niveus Artum respectively) are massive gas-giants.

BELTS

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<th>TYPE</th>
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OTHER STELLAR OBJECTS
Just at the outer edge of the system, and stretching approximately 3 cubic light years out from Vetus Glacies is a Class-C “Mutara Type” Nebula.

ARTIFICIAL OBJECTS
The only artificial objects located in the Vetus Glacies system are two deserted mining bases. One is located in orbit Niveus Prime, but has been deserted for over a decade.

The other is an old gas-mining plant in orbit around Niveus III. This installation has been rumored to be a pirate outpost, but this has not been proven as yet.