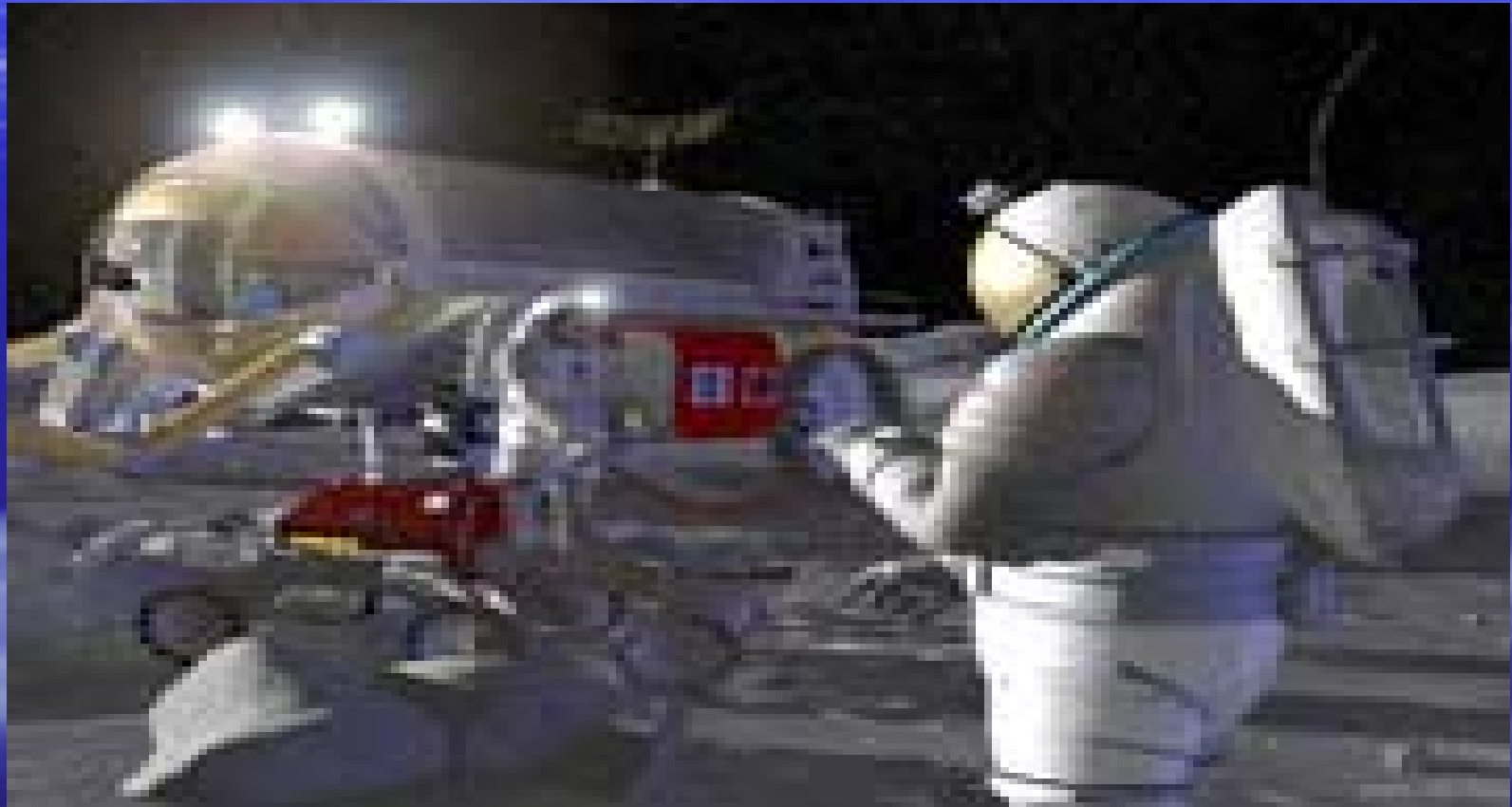


Exopolitical Implications, Commerce, Mining Operations and Creation of Preserves on the Moon and Mars in the 21st Century:

Shifting the Earth from Hydrocarbon-Dependency to Cold Fusion Efficiency



Joseph A. Resnick, Ph.D.

Abstract

Some experts predict that at the present consumption rate of fossil fuels (coal, natural gas, crude oil) by the year 2050 the price of a gallon of gasoline will reach twenty five hundred dollars and the cost to heat a home as much as eight thousand dollars. In view of the present consumption rate and in consideration of the negative effect consumption has on the Earth's environment, clearly, Man must actively pursue development of alternative energy sources which are i) clean energies; ii) plentiful; iii) and accessible. A clean need exists and a commitment must be made to advance emerging green energy sources and the technologies necessary to utilize them. Such commitment would include efforts to refine cold fusion technology with a view toward utilization of alternate green fuels, syn-fuels, bio-fuels, etc. Other sources such as Hydrogen, Deuterium, Tritium, and H₃, which are plentiful on the lunar surface could supply Mans' energy needs for millennia to come. As space commerce, lunar commercialization and environmental concerns on earth and the moon mature, Man must take steps to assure preservation of known sites where available lunar energy resources are located as well as preserving historically significant sites for future generations. These issues are discussed and proposals presented toward advancement of organized commercialization and preservation of lunar assets.

Introduction

Of two things I am certain. Number one: Earth's natural resources are finite. Number two: Man's continued consumption of those natural resources will result in exhaustion of those resources over time. I can only speculate as to the exact day and date that the last of the precious natural resources will be exhumed from the bowels of Mother Earth and be depleted. Most certainly in the case of fossil fuels that date is not too far in the offing. Some experts predict that at the present consumption rate of coal, natural gas and crude oil that by the year 2050 the price of a gallon of gasoline will reach [\[1\]](#) twenty five hundred dollars per gallon and the cost to provide coal sufficient to heat a home-based boiler will cost around eight thousand dollars. Of course these estimates are proffered by present day experts in the field of Exopolitics and are certainly suspect. On the other hand there is a degree of validity to what these experts predict if we lend any credence at all to the [\[2\]](#) Malthusian Theory which history has found to be valid, is relevant and logical.

[\[1\]](#) See: <http://www.energybulletin.net/22839.html>

[\[2\]](#) See: <http://arts-sciences.cua.edu/econ/faculty/aguirre/resenv.htm>

Discussion

In view of the present consumption rate of fossil fuels with consideration to the negative effects that consumption has in terms of impacting on the Earth's environment, clearly, Man must actively pursue a commitment to sustained development of alternative energy (technologies and) sources which are i) clean energies; ii) plentiful; iii) and accessible. The most likely of possible clean energies would include Hydrogen (which occurs in nature as H₂O and is plentiful on Earth; Hydrogen gas does not occur in nature on the earth but can be economically manufactured and utilized as a fuel source); Deuterium, Tritium (isotopes of Hydrogen) and element H₃ (see: http://en.wikipedia.org/wiki/Nuclear_fusion) all of which are known to be plentiful, readily accessible and retrievable from large deposits on the Cislunar surface.

As realistic benchmarks and milestones related to economical space commercialization continues to mature and develop on the earth and exploitation of lunar assets is eventually within capability, consideration must be given to the most likely natural extant lunar resources which could be utilized to sustain Man's existence on Earth. In my opinion nuclear or cold fusion, i.e., development of the technological capability to create a sustained, controlled cold nuclear fusion reaction (and associated instrumentation), as well as earth and lunar-based economic infrastructure and incentives to bring about the transition, promises to be the fundamental technology that must ultimately be utilized by Mankind in its shift from a hydrocarbon-

[1] See: <http://www.energybulletin.net/22839.html>

consumption based global economy to an economy based on utilization of H₃ which is plentiful and comprises approximately seventy five percent of the Moon's surface. This global transition from use of fossil fuels to synthetic or intermediary energy sources (e.g., hydrogen fuel cells, syn-fuels and bio-fuels) to nuclear fusion in order to supply Man's energy needs are consistent with Zecharia Sitchin's prediction of Mankind's elevation to a Class 1 Interplanetary Society and are possible provided concerned parties, such as world governments, energy producers, 'astro-entrepreneurs' and concerned peoples commit to collaborate toward achieving a common, collective energy-sustaining objective designed to enable the ultimate sustainability of life as we know it on the planet Earth.

As Alfred Lambremont Webre, JD, Med has stated in his book, *Exopolitics: A Decade of Contact - PART TWO*, "Universe society extends throughout the entire cosmos. Its basic unit of organization is the life-bearing planet. Universe society continuously monitors intelligent civilizations on life-bearing planets. At a certain stage of a life-bearing planet, its intelligent civilization becomes part of Universe governance. This is how Earth's early civilization originally became part of Universe society." Further, "How humanity is ultimately governed by Universal law, which operates much like other natural and governmental laws on

Earth. How politics and government do not stop at Earth's edge. How our position in interplanetary society is determined by what human society as a whole does on Earth – all politics are local, global, and then universal. How a planetary security system based on militarization and war effectively cuts us off from Universal society. How a progressive planetary society sets the stage for political reintegration into Universe society.”

It is from this perspective that I advance the proposition that Mankind must act now to take actions to protect these and other critical extraterrestrial assets. Immediate action based on a global consensus must be undertaken in view of the inadequacies of present Space Law with regard to clear definition of ownership rights of natural resources and the failure to provide for the protection and preservation of historically-significance landing sites regardless of where these may be in the Universe.

[1] See: <http://arts-sciences.cua.edu/econ/faculty/aguirre/resenv.htm>

A loophole in Space Law allows individuals and companies to hold Mineral Rights on the Moon, Mars and other celestial bodies. Growing concern from Scientists that these rights may be held hostage have been alleviated by a three man North American team; Dr. Joseph Resnick, Dr. Timothy R. O'Neill and Mr. Guy Cramer (ROC-Resnick/O'Neill/Cramer team) who have claimed acquisition of the mineral rights for 95% of the side of the moon that faces Earth (cislunar), the lunar polar regions and 50% of the land mass on the far side of the moon.

194,068 square Kilometers have been secured on the far side of the lunar surface for a future Moon base for observatories, (Picture and coordinates at end of article) and strategic landing bases. Located at the exact middle of the opposite side of the moon the base may one day become home to the most powerful telescopic, radio, gamma ray... observatories in human history. The name of the site is called the Icarus Lunar Observatory Base (ILOB) there is a crater within the protected region called Icarus. This is the farthest solid point away from Earth in our moon-planet combination.

Jeffrey G. Taylor, a University of Hawaii geophysicist states "The moon is good place to do space-based astronomy, as it moves rather slowly

compared to the whipping around like current space telescopes. The moon also has a more stable surface than the Earth and no atmospheric interference. "That means you can spread out a baseline of optical telescopes for interferometry," Taylor says. "It would be really big. At Mauna Kea (Hawaii) they are hooking up the two Keck telescopes with a 100-meter baseline. On the moon, they could have a 10 kilometer (6 mile) baseline."

The moon also is big enough to enable placement and construction of huge steerable radio telescopes, significantly larger than the steerable dishes at the Very Large Array in New Mexico and at Poker Flats in Alaska.

The reason the far side of the moon is often referred to as the dark side has nothing to do with lack of sunlight as the far side gets the same amount of sunlight that the nearside does within a lunar month. However as the nearside of the moon always faces earth when spacecraft go behind the moon it is unable to communicate with earth-based radios.

Consequently the spacecraft goes into communications blackout as

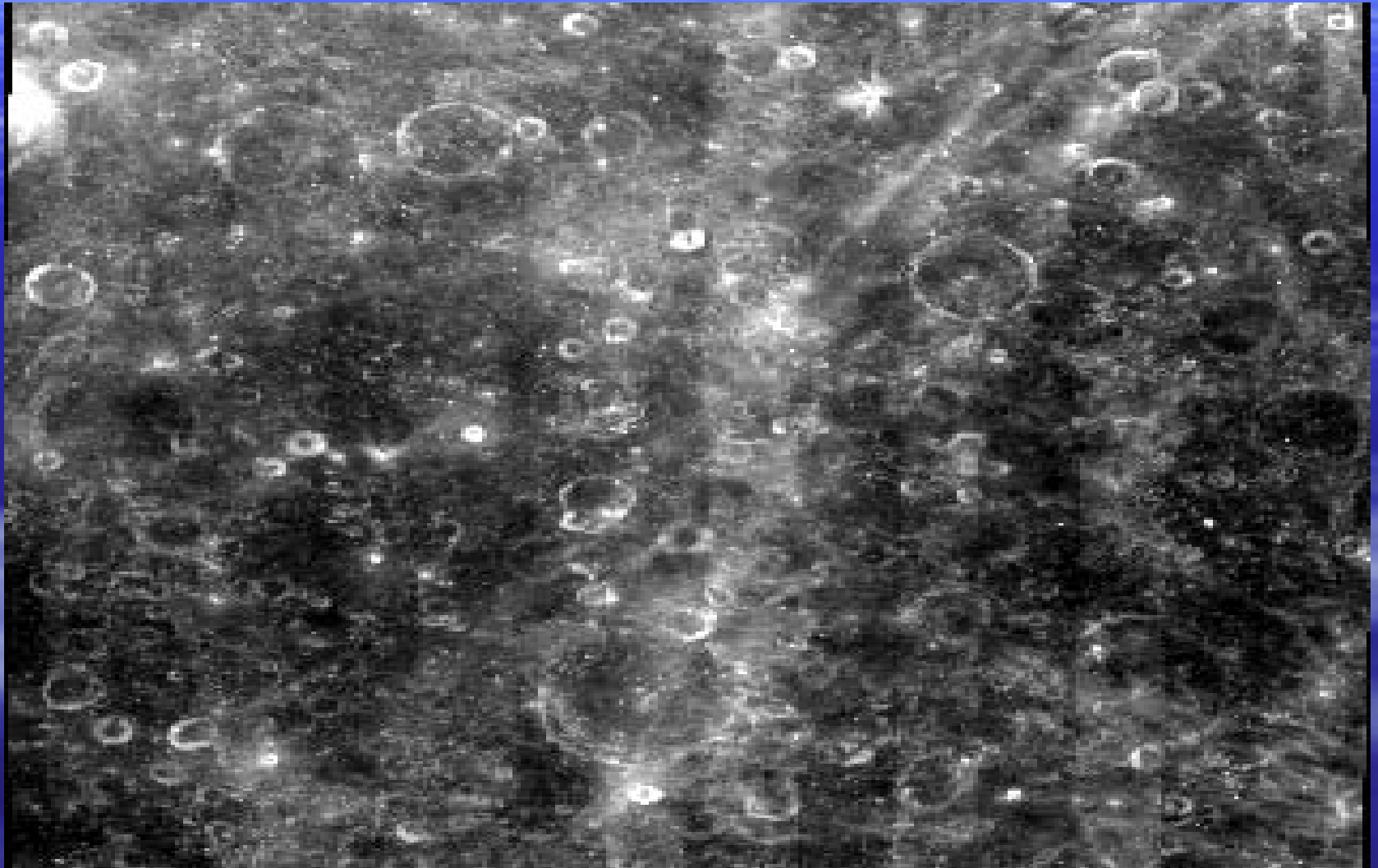
there is no capability for direct line of sight transmission. Thus the far side of the moon is referred to as 'dark' due to the lack of ability to receive radio signals from earth. This is why the exact middle of the far side was selected for the observatory site as it is the quietist area for this type of listening device such as a radio telescope. There is also the benefit within the visual spectrum as when the moon is full from earth perspective the far side of the moon is in almost complete darkness as the shine from the earth and sun are on the opposite side, this lack of reflection and direct or indirect sunlight will make for favorable conditions unlike any on earth or in earths orbit.

After setting aside 8.9 million acres around Apollo 11 Lunar landing site in 2004, ROC Team designated the area as a "World Heritage Site". The ROC team announced that it was holding more than 75% of the Lunar Mineral rights to allow for the extraction of Helium-3 and other minerals for the advancement of Space Exploration, Earth and Space Sciences and safer more efficient energy production. See [Moon can be mined for abundant Helium-3 to be used in Fusion Reactors on Earth and Space.](#)

Moon - Protected Icarus Region (Dark Side Observatory Park)

170.0°E - 190.0°E

10.0°N - 10.0°S



On January 14, 2004 U.S. President Bush announced a new vision for NASA that incorporated a human return to the Moon by 2020, follow-on exploration of Mars and other destinations.



Astronaut Harrison Schmitt in Lunar Roving Vehicle during Apollo 17 mission to the moon December, 1972

A recent meeting of some 200 scientists from 17 countries expects "lunar landers cooperating into an international lunar robotic village before 2014", evolving technologies for human-tended missions that prepare the ground for an "effective, affordable human lunar exploration and permanent presence by 2024."

Nuclear fusion holds the promise of producing massive amounts of energy without the radioactive byproducts of fission-powered plants.

Dr. Larry Taylor director of UT's Planetary Geosciences Institute in Knoxville says, "The moon is an orbiting space station. All the things you might need for planetary travel are there—hydrogen, oxygen, carbon, and other essentials. You can find ways to process or mine the moon and its soil, but there's a lot of stuff up there we could use down here too. The abundance of helium on the moon represents "the Persian Gulf of energy in the 21st century." Helium, with an atomic mass of 3, could have huge importance for generating energy on earth. In 1999 Taylor wrote, "There is more than 100 times more energy in the helium-3 on the moon than in all the economically recoverable coal, oil, and natural gas on earth."

Scientists estimate there is at least 1 million tons of helium 3 on the moon, enough to power the world for thousands of years. The He3 is mainly imbedded in an ore called Ilmenite.

A space vehicle with a payload bay the size of a space shuttle could bring back enough helium-3 to generate the electricity to satisfy the United States' needs for a full year.

Particles of hydrogen and helium in the solar wind that strikes the moon become embedded in the rocks and soil. This doesn't happen on the earth because our atmosphere and our magnetic field shield our planet from these solar particles.

It has been estimated that helium 3 would have a cash value of \$5.7 billion a ton in terms of its current energy equivalent to oil at <\$40 per barrel oil.

At \$40,000 to \$60,000 per kilo for transporting materials from Earth to the Moon, it is not cost effective to go to the Moon even for pure gold (Au), at today's price of <\$15,500 per kilogram. He3 equivalent energy value in today's dollars is \$5.7 Million per kilogram making this venture for the He3 fusion reactant worth the effort and cost.

While the vehicles for retrieving resources from the moon are being designed and built, Taylor thinks the nation—and the world—can speed research and development of fusion reactors that could process helium trapped in lunar material.

A deficiency in International Space Law (Treaty) forbids any party to the Treaty from owning or exploiting any natural resources from any celestial body by signatories to the Treaty. This deficiency enables individuals not a signatory to that Treaty to make certain claims with regard to the physical real estate and minerals found on celestial bodies. Consequently, individuals and companies have asserted claims to ownership of both tracts of land and the minerals contained within those areas known as Mineral Rights. These claims have been asserted, and uncontested with regard to sizeable land masses and underlying mineral rights on the Moon, Mars and other celestial bodies. Growing concern from Scientists that these rights may be held hostage have been alleviated by a three man North American team; Dr. Joseph Resnick, Dr. Timothy R. O'Neill and Guy Cramer (ROC-Resnick/O'Neill/Cramer team) who have acquired the mineral rights for 95% of the cislunar areas (side of the moon that faces Earth), the polar regions and 50% of the far side of the moon that may be strategically (and militarily) useful for defending the Earth from possible global extinction episodes, asteroids or threats from EBE's.

After setting aside 8.9 million acres of land in and around the Apollo 11 Lunar landing site and designated as a "World Heritage Site", the ROC team announced that it was holding more than 75% of the Lunar Mineral rights to allow for the extraction of Helium-3 and other minerals for the advancement of Space Exploration, Earth and Space Sciences, Space Commerce, preservation of lunar and martian infrastructure with a view toward safer more efficient energy production.

With the mineral rights secured, the ROC team is determined to oversee the extraction process for He3 and other minerals for any robotic or human ventures to obtain these materials to ensure the Moon doesn't become a series of scared surface mines visible from Earth or future lunar orbiting space stations. Visual Mitigation of mining sites will be a priority so that the expected large scale strip mining doesn't turn the moon into a celestial eyesore.

While the ROC team could become the DeBeers of lunar He3 and Martian Gold they have decided that the isotope should not be run like a commodity to profit from - given the important nature of He3 and costs in travel, mining, acquiring, refining and transporting it back to Earth. However, future mineral extraction will require a small lease to cover the costs of planning for visual mitigation and environmental oversight by the ROC team. "The Lunar surface will look the same after the mining is done as it was prior to the mining.

The environmental and visual preservation of all extraterrestrial bodies must be factored into any planning of future lunar mining operations", the Team said.

While efficient He3 reactors are still being tested and refined, many advances have been made in the past few years. Only a few pounds of helium 3 are known to exist on Earth mostly the by-product of nuclear-weapon production efforts.

Reactors that exploit the fusion of deuterium and tritium release 80 percent of their energy in the form of radioactive neutrons, which exponentially increase production and safety costs, states Gerald Kulcinski, Director of the Fusion Technology Institute (FTI) at the University of Wisconsin at Madison.

In contrast, helium 3 fusion would produce little residual radioactivity. Helium 3, an isotope of the familiar helium used to inflate balloons and blimps, has a nucleus with two protons and one neutron. A nuclear reactor based on the fusion of helium 3 and deuterium, which has a single nuclear proton and neutron, would produce very few neutrons -- about 1 percent of the number generated by the deuterium-tritium reaction. "You could safely build a helium 3 plant in the middle of a big city," Kulcinski said.

Helium 3 fusion is also ideal for powering spacecraft and interstellar travel. While offering the high performance power of fusion -- "a classic Buck Rogers propulsion system" -- helium 3 rockets would require less radioactive shielding, lightening the load, said Robert Frisbee, an advanced propulsion engineer at NASA's Jet Propulsion Laboratory in Pasadena California.

Wisconsin researchers have produced protons from a steady-state deuterium-helium 3 plasma at a rate of 2.6 million reactions per second in a chamber, which is roughly the size of a basketball. "It's proof of principle, but a long way from producing electricity or making a power source out of it," Kulcinski said. The next generation of helium 3 fusion reactors are expected to be completely void of radiation.

While it's true that to produce roughly 70 tons of helium 3, for example, a million tons of lunar soil would need to be heated to 1,470 degrees Fahrenheit (800 degrees Celsius) to liberate the gas. "There's enough in the Mare Tranquillitatis alone to last for several hundred years," according to Apollo 17 astronaut and FTI researcher Harrison Schmitt. "Besides the helium, a mining process would produce water and oxygen as by-products," he says.

70 Tons of helium-3 would have a cash value of \$400 Billion in terms of its current energy equivalent in oil.

Following an idea put forward by two European scientists of conserving distinct regions on Mars, the ROC team acquired the mineral rights to Seven hundred million acres of Mars and designated these 8 regions as the first “Extraterrestrial Nature Preserves”. The team has agreed to set them aside as preserve regions, prior to the public and corporate ability to obtain those rights.

Dr. Resnick (NASA Scholar, scientist and consultant to NASA) states "Space law does not allow countries to have land ownership on planets and moons in the solar system but it does allow for the Mineral Rights to be obtained by individuals and companies. The countries party to the Space Treaty Act have agreed that none of them has either jurisdiction nor ownership of any extraterrestrial body, nor samples."

Dr. Resnick found the loophole in Space Law more than 25 years ago that he recognized allowed him to claim ownership of all planetary bodies outside the "Third Planet from the Sun". In a letter submitted to the World Court at the Hague, and to the United Nations in New York City, the claim has never been challenged in more than 25+ years.

Dr. Resnick was structuring the Universal Mineral Leases Registry (UMLR.us) when his partner, Guy Cramer, had read the article on the Mars parks proposal and discussed the ability with Dr. Resnick and Dr. O'Neill to implement the preserve idea into reality through the UMLR. The ROC team agreed and decided to obtain the mineral rights to these regions, to set them aside as protected areas, prior to the public launch of the UMLR.

This loophole in Space law has been a growing concern to Scientists, however, most were unaware that Dr. Resnick had foreseen some of these issues long ago when he asserted claims of ownership to all extraterrestrial bodies by letter notification sent to both the World Court at the Hague in the Netherlands, and to the United Nations, Space Directorate, in New York City. The claims were asserted more than twenty five years ago to these respective governing bodies. But since member-countries of both the World Court and the United Nations agreed as signatories to the International Space Treaty that no signatory had jurisdiction over any extraterrestrial assets, Dr. Resnick's claim has stood unchallenged for more than a quarter of a century. Under the Doctrine of Estoppel, Dr. Resnick's claim to rightful ownership remains unchallenged to this day. Perhaps the reason for this is that every legal jurisdiction to the Space Treaty agreed that none of the signatories has any jurisdiction. Therefore, under terms of the Treaty no country or individual is able to challenge the claim because there is no court on the planet Earth that has jurisdiction. Consequently, Dr. Resnick's claim is held to be incontestable.

Each of the Mars designated areas contain representative features on Mars including the solar systems largest Volcano, Mon Olympus, three times the altitude of Mount Everest and is as wide as the entire chain of Hawaiian Islands as well as the deepest Trench in the Solar System, Valles Marineris which is a giant canyon system that runs about 3000 miles (4800 kilometers) long, meaning on Earth it would stretch all the way from New York City to Los Angeles! The widest point is about 600 kilometers across, and at its deepest point Valles Marineris is about 10 kilometers from top to bottom. This is 6 times deeper than the Grand Canyon in Arizona. The designated historical park holds the landing sites of the Viking 1 and Mars Pathfinder spacecraft. Five other regions have also been allocated for preservation: see photos and locations here <http://www.yfiles.com/marsparks.htm>

The North American team issued this statement "We support the effort to protect these Martian areas and by virtue of 'ownership' via the Universal Mineral Leases Registry (UMLR), we are designating the areas as "preserves". This effort constitutes the first-of-a-kind "Extraterrestrial Nature Preserve" established by human beings and sanctioned by the owners of the mineral rights located in the Mars regions. Furthermore we have obtained the mineral rights for a large Lunar area surrounding the Apollo 11 landing site and designated this area as a "World Heritage Site" which will allow our future space fairing decedents the opportunity to see this site as it remains on the timeless lunar soil of our first astronauts landing on another celestial body".

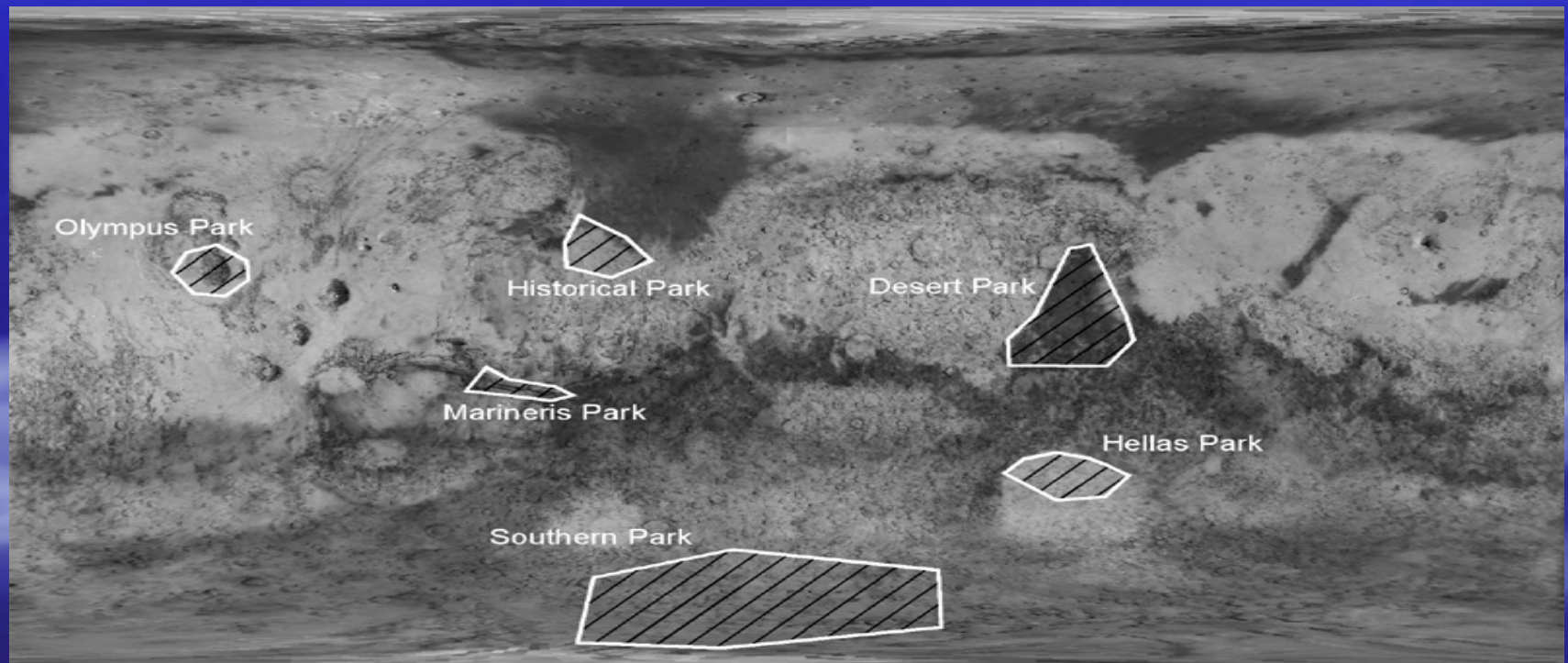
This UMLR.us subscription membership is filed with the U.S. Patent and Trademark Office and updated semi-annually.

The ROC Team has acquired a few other sites of interest on Mars and the Moon through the UMLR.us that are of scientific interest, but they have not designated those areas for protection from mineral acquisition or mining. Consideration will be given by the team to allowing countries open access to most of those areas for selections of landing sites to optimize the scientific aspect of space commerce and to return and benefit future exploration.

The ROC team hopes to work with NASA's Moon-Mars and Beyond Initiative and International Space Agencies to set aside specific regions of interest for potential landing, launch, habitat, exploration, environmental, communication, experimentation, industrialization and commercialization sites.

With key areas now obtained and protected by the ROC team, the public now has access of the www.UMLR.US for acquisition of mineral rights to other areas on the Moon, Mars and any celestial body

In November 2004 an article in "Nature Magazine" discussed seven large regions on Mars being proposed as Conservation parks by Charles Cockell, a microbiologist for the British Antarctic Survey in Cambridge, and Gerda Horneck, an astrobiologist from the German Aerospace Centre in Cologne, Germany. Each of the proposed areas contains representative features on Mars including the largest Volcano, Mount Olympus, and the deepest Trench, Marineris, in the Solar System. The historical park contains the landing sites and space craft artifacts of the USA's Viking 1 and Mars Pathfinder probes.



This map of Mars (© Charles Cockell) highlights six of the proposed conservation sites – the Polar Park is not shown

In December, 2004, a North American team of scientists; Dr. Joseph Resnick, Dr. Timothy R. O'Neill and Guy Cramer (ROC-Resnick/O'Neill/Cramer team) following the idea as put forth by the two European scientists took steps to assure that these regions would be preserved and eventually turned into nature preserves. This was accomplished by obtaining the mineral rights to these regions to protect them from the commercialization expected to one day encroach on these Martian lands.

The 1979 Moon Agreement specifically seeks to regulate the exploration and exploitation of natural resources found on the Moon and other celestial bodies; the U.S., Russia, China and many other countries have not ratified this agreement.

In December, 2004 the North American team issued this statement: "We support the effort to protect these Martian areas and by virtue of 'ownership' via the Universal Mineral Leases Registry (UMLR) we are designating the areas as "preserves". This effort constitutes the first-of-a-kind "Extraterrestrial Nature Preserve" established by human beings and sanctioned by the owners of the mineral rights located in the Mars regions. Furthermore we have obtained the mineral rights for a large

Lunar area surrounding the Apollo 11 landing site and designated this area as a "World Heritage Site" which will allow our future space fairing decedents the opportunity to see this site as it remains on the timeless lunar soil of our first astronauts landing on another celestial body".

This Registry WWW.UMLR.US is filed with the U.S. Patent and Trademark Office and updated semi-annually.

The North American team actually obtained areas on Mars larger (shown below) than those proposed by the two Europeans and included both the Martian North and South Polar regions;

ROC has secured the mineral rights to the following sites on Mars; the first 8 regions are designated parks.

Olympus Park

141.1°W - 124.9°W

26.5°N-10.5°N

Olympus Mons rises 23 km (~75,000 ft) above the surrounding plains and is the highest known peak in the Solar System. The altitude of Olympus Mons is three times the altitude of the largest peak on Earth, Mt. Everest, and is as wide as the entire chain of Hawaiian Islands. The distance from one end of where the mountain starts rising to the other side is over 372 miles (600 kilometers). This is farther than the distance from Chicago, Illinois to Minneapolis, Minnesota. So if you think of Olympus Mons as taking up more space than the state of Wisconsin, you will have a good idea of just how much of the surface of Mars this giant mountain covers.

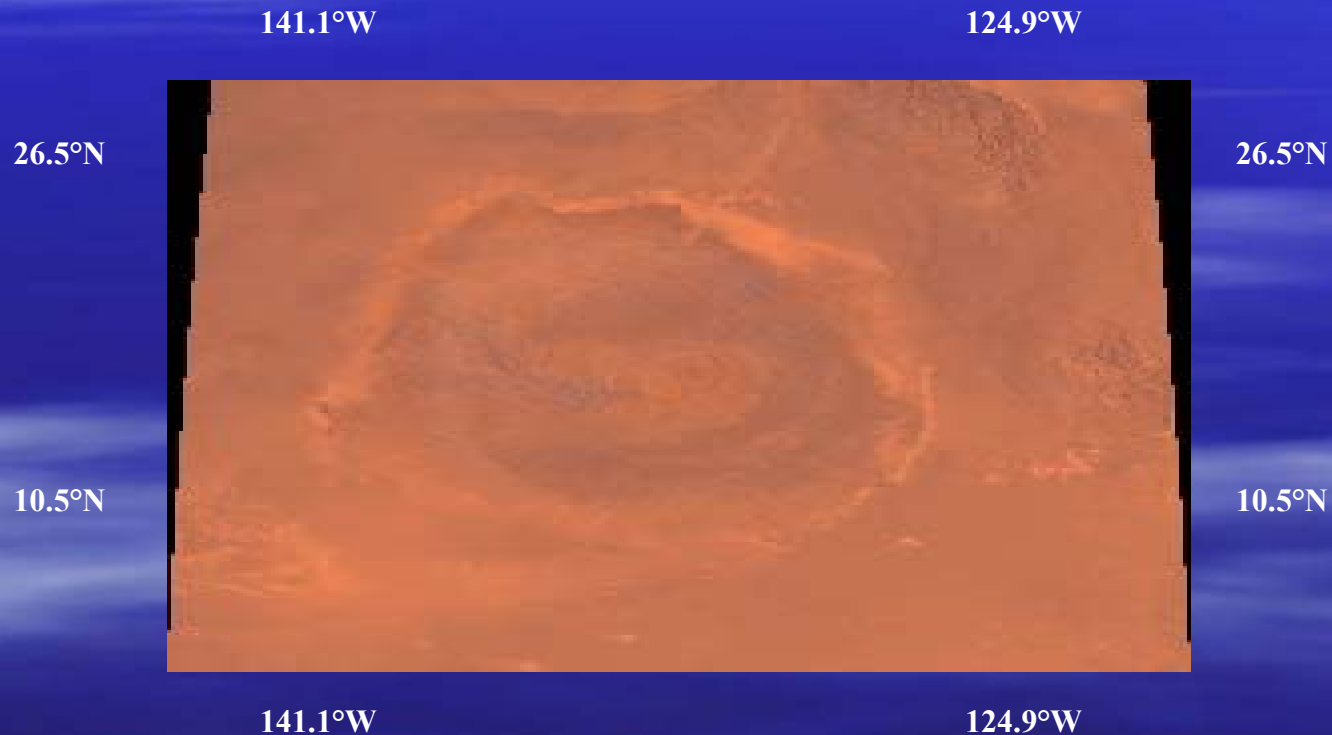


Image Statistics:

141.1°W - 124.9°W

26.5°N-10.5°N

Marineris Park
101.5°W - 19.5°W
4.0°N-28.0°S

Valles Marineris is a giant canyon system that runs about 3000 miles (4800 kilometers) long, meaning on Earth it would stretch all the way from New York City to Los Angeles! The widest point is about 600 kilometers across, and at its deepest point Valles Marineris is about 10 kilometers from top to bottom. This is 6 times deeper than the Grand Canyon in Arizona.



Image Statistics:

Image size = 256 rows by 656 columns.

Resolution = 8.0000 pixels per degree (true at the equator).

Scale = 7.4033 kilometers per pixel (true at the equator).

Historical Park
58.0°W - 33.0°W
30.0°N-10.0°N

The historical park holds the the landing sites of the Viking 1 and Mars Pathfinder spacecraft. Outflow channels have many internal features that indicate they were formed by vast floods of water long ago in the Martian past. The end of the outflow channel Ares Valles was the landing site for the 1997 Pathfinder rover.

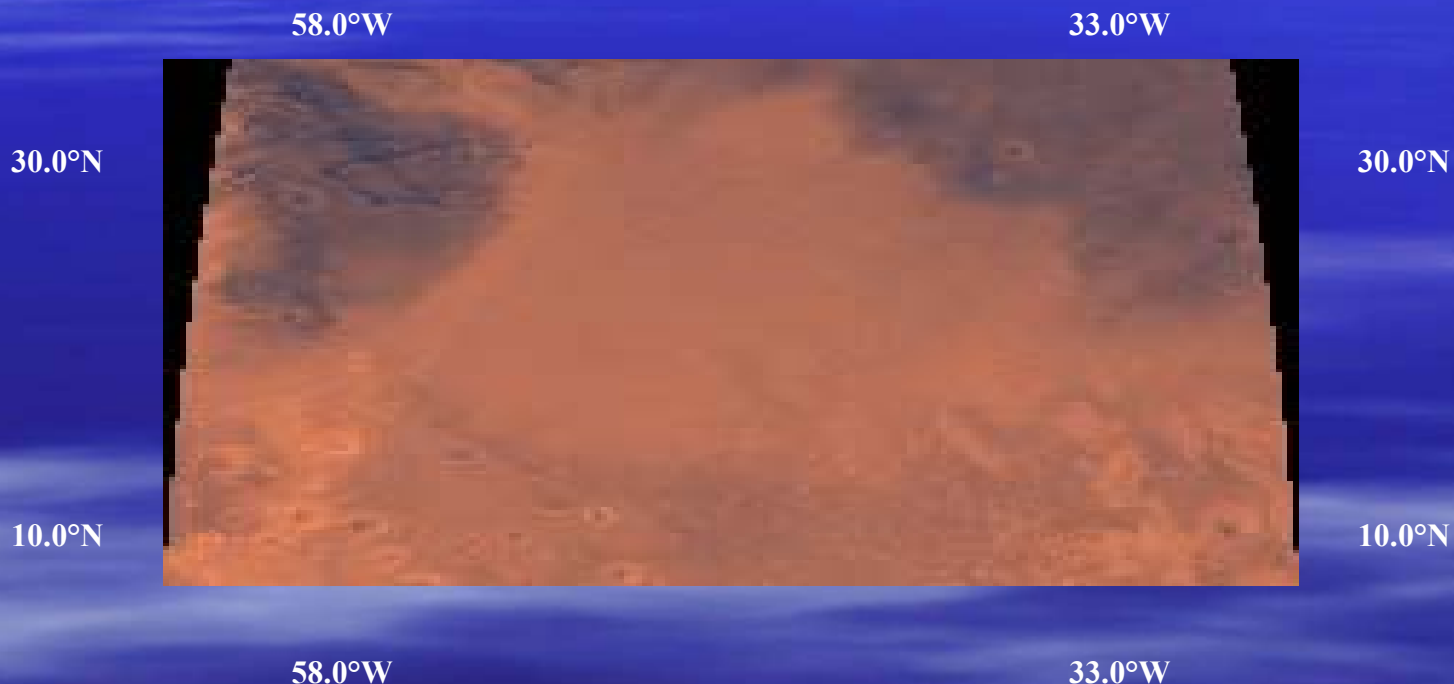


Image Statistics:

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Scale = 7.4033 kilometers per pixel (true at the equator).

Desert Park

-46.0° (314°)W - -84.0°(276°)W

29.0°N - 9.0°S

The large, dark, "shark's fin"-like feature which dominates this face of Mars is called Syrtis Major Planitia. Syrtis Major Planum, is a low-relief volcanic shield of probable basaltic composition. This was the first feature identified on the surface of the planet by early terrestrial observers in the Seventeenth Century. It was used by Christian Huygens to measure the rotation rate of Mars - a martian day is about 24 hours and 37 minutes.

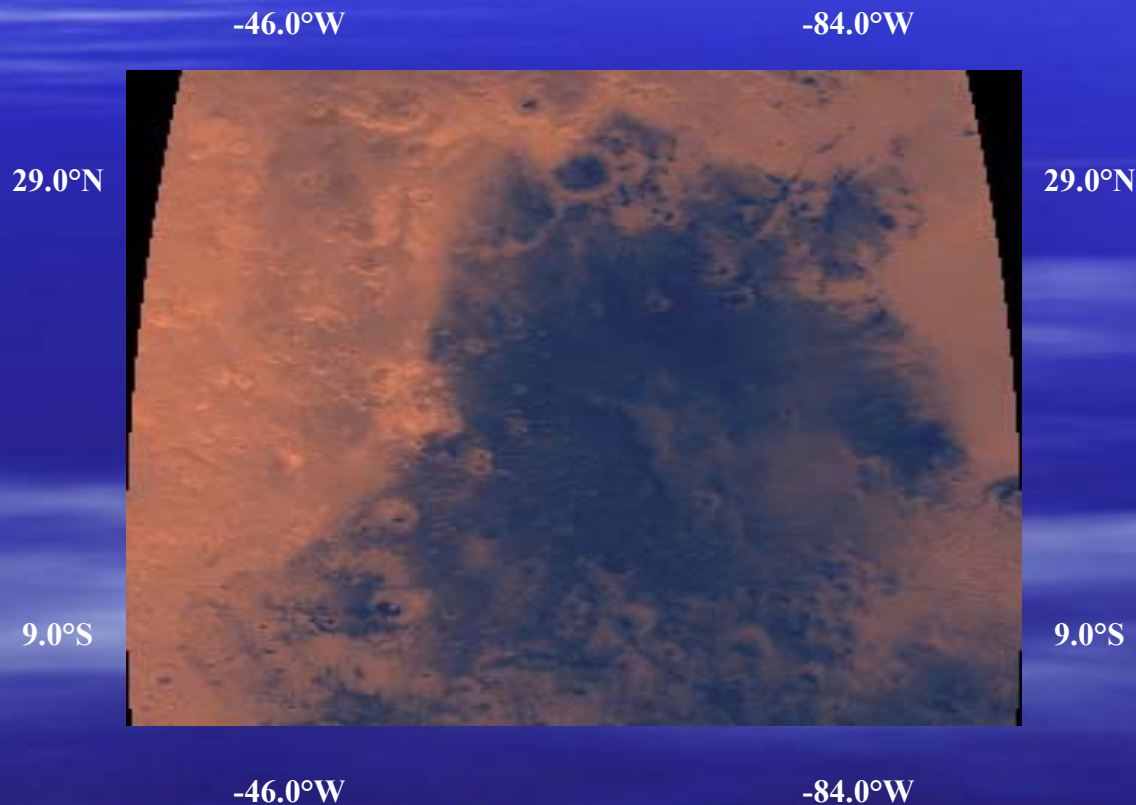


Image Statistics:

Image size = 304 rows by 304 columns.

Resolution = 8.0000 pixels per degree (true at the equator).

Scale = 7.4033 kilometers per pixel (true at the equator).

Hellas Park

-44.5° (315.5°)W - -84.5°(275.5°)W

25.5°S - 55.5°S

Hellas Planitia is the largest impact basin in the southern highlands. The Hellas basin is roughly 1430 miles (2300 kilometers) across. That is about half the size of the USA! The crater was formed by a giant impact during the Heavy Bombardment period of the early Solar System, approximately 3.9 billion years ago. Hellas Planitia also contains the lowest elevation point on Mars, reaching about 9 kilometers below the surrounding highlands.

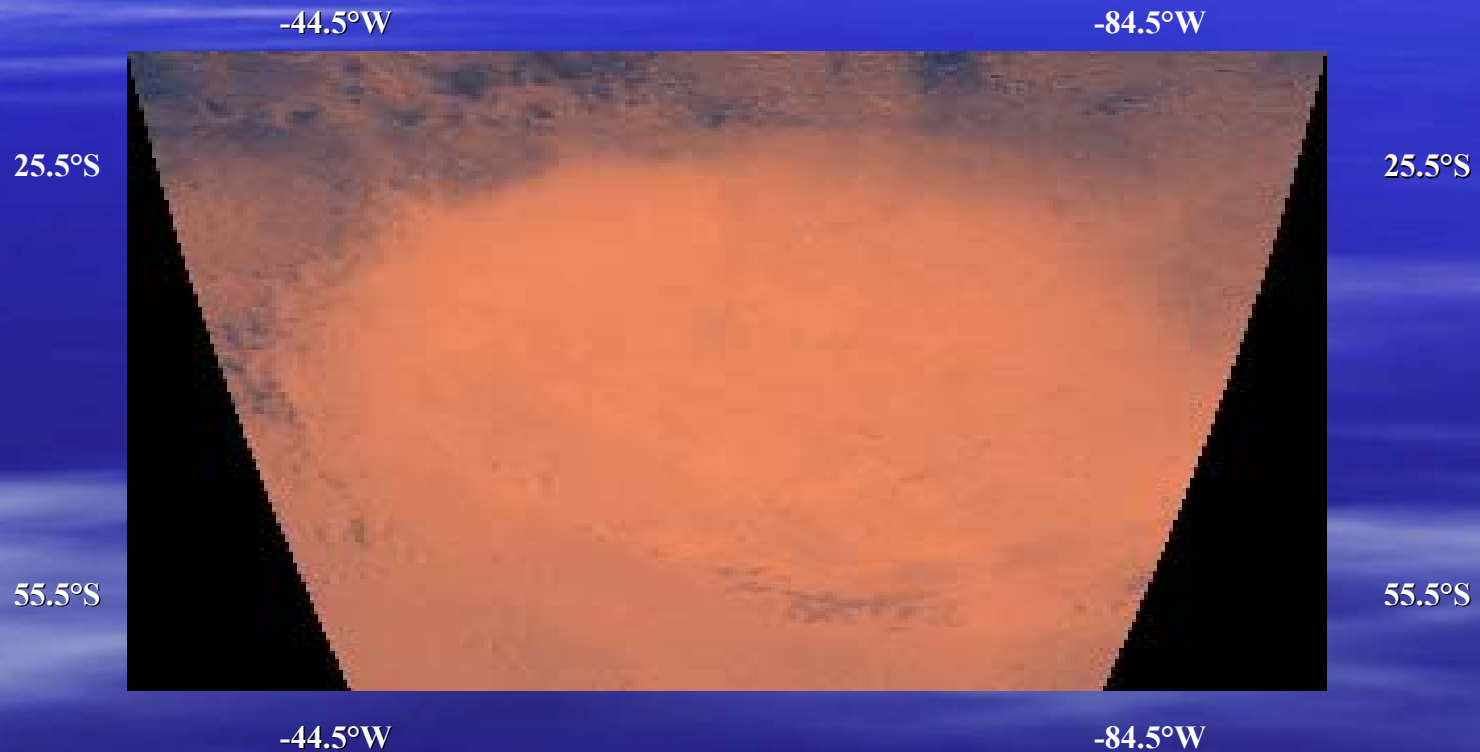


Image Statistics:

Image size = 240 rows by 289 columns.

Resolution = 8.0000 pixels per degree (true at the equator).

Scale = 7.4033 kilometers per pixel (true at the equator).

Southern Park

50.2°W - -24.2°(335.8°)W

50.5°S - 82.5°S

The Southern Highlands are mostly plateaus covered with many craters and contains most of the oldest rocks visible on Mars.

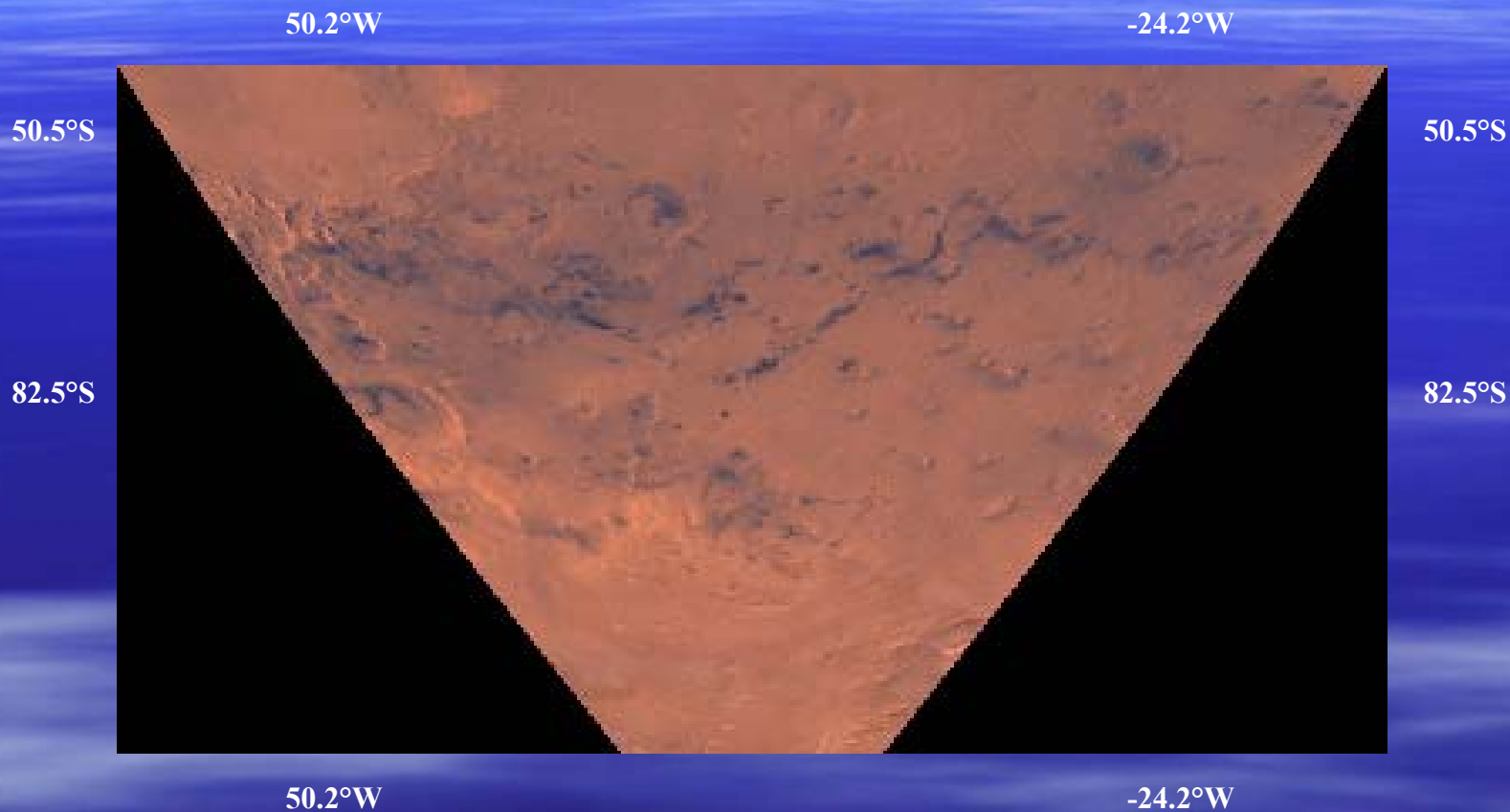


Image Statistics:

Image size = 256 rows by 378 columns.

Resolution = 8.0000 pixels per degree (true at the equator).

Scale = 7.4033 kilometers per pixel (true at the equator).

North Polar Park

50.3°W - -50.3°(309.7°)W

90°N - 83.0°N

Planum Boreum is the plain at the Martian north pole. It contains layers of both light and dark material in a spiral pattern. In the winter, this spiral material is covered by carbon dioxide ice, but during the summer much of the ice sublimates (turns from solid to gas) and exposes the plain. Much of the rest of the ice is actually water-ice, and remains as a fairly permanent ice cap even in the summertime. The north pole plain is surrounded by many active sand dunes.



Image Statistics:

Image size = 28 rows by 49 columns.

Resolution = 4.0000 pixels per degree (true at the equator).

Scale = 14.8065 kilometers per pixel (true at the equator).

South Polar Park

50.3°W - -50.3°(309.7°)W

84°S - 90.0°S

Planum Australe is the plain at the Martian south pole. Just like the Planum Boreum, it is covered by carbon dioxide ice in the winter and has a remnant ice cap during the Martian summer. It also has layers of light and dark material curved into a spiral pattern like the northern pole. However, the layers of material of the south pole are more extensive than the north pole, and Planum Australe has fewer active sand dunes.

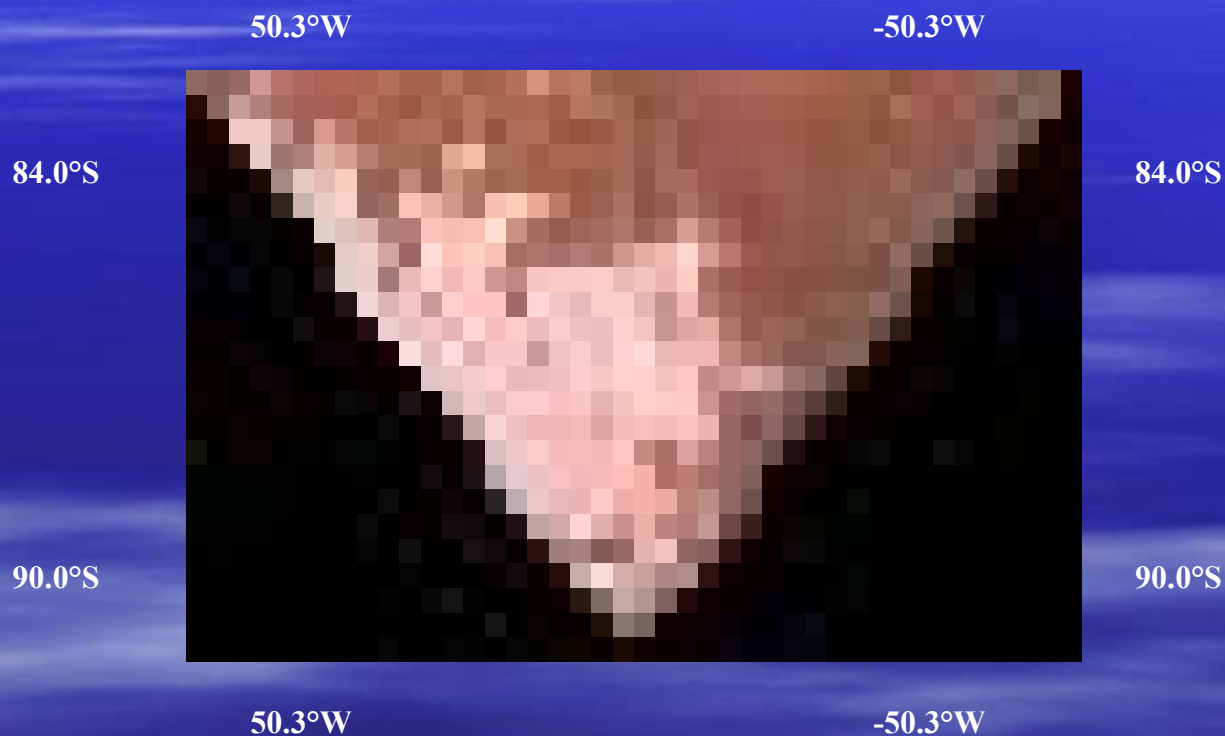


Image Statistics:

Image size = 24 rows by 42 columns.

Resolution = 4.0000 pixels per degree (true at the equator).

Scale = 14.8065 kilometers per pixel (true at the equator).

The ROC Team has acquired a few other sites of interest on Mars and the Moon through the UMLR that are of scientific interest. These regions below are not designated for protection from mineral acquisition nor mining.

Terra Meridiani Claim

8.0°W - -8.0°(352°)W

8.0°N - 8.0°S



Image Statistics:

Scale = 3.7016 kilometers per pixel (true at the equator).

Bottom Latitude = 8.0 degrees south.

Left Longitude = 8.0 degrees west.

Right Longitude = -8.0 (352) degrees west

Cedonia A-51M Claim

12.2°W - -7.1°W

43.0°N - 39.0°N

12.2°W

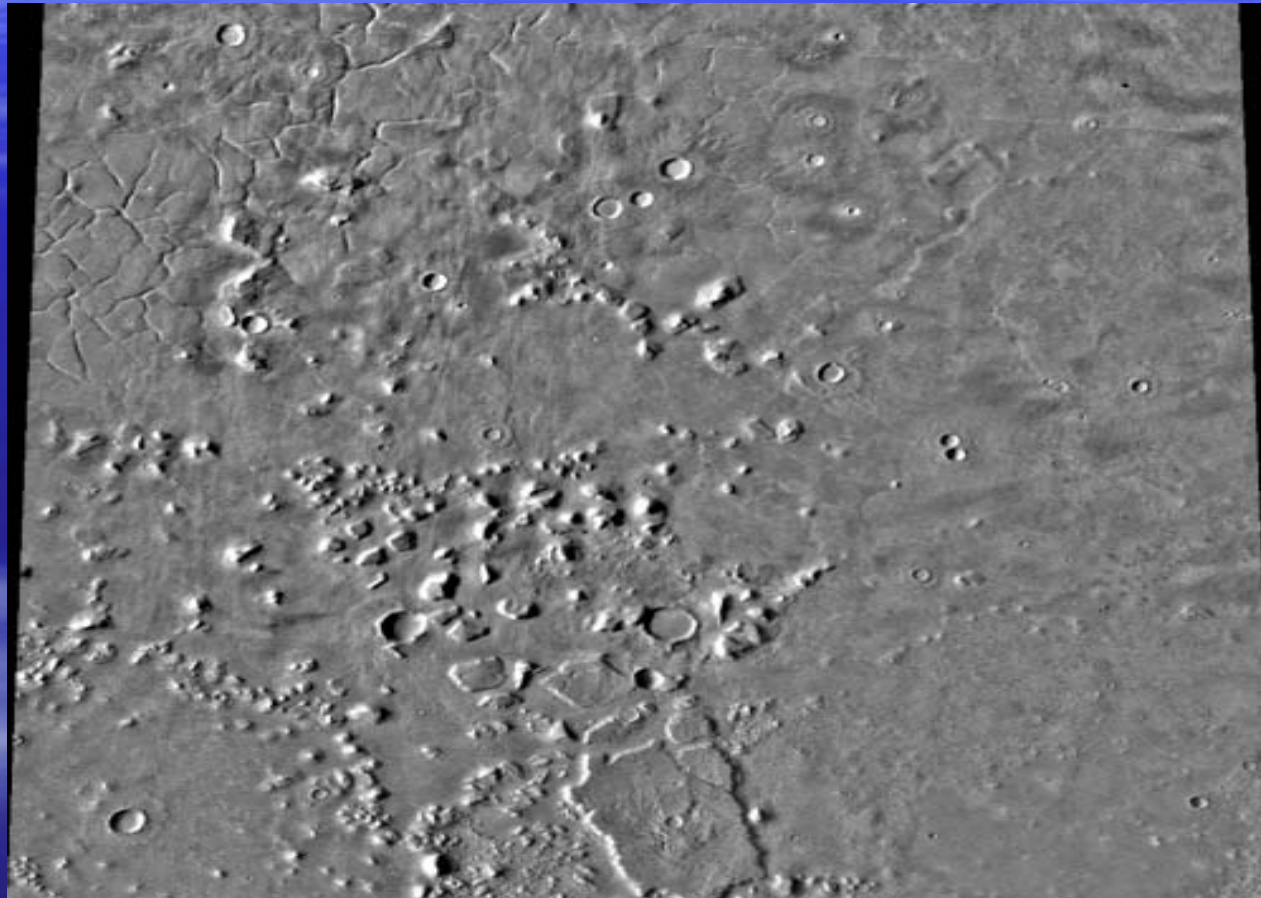
7.1°W

43.0°N

43.0°N

39.0°N

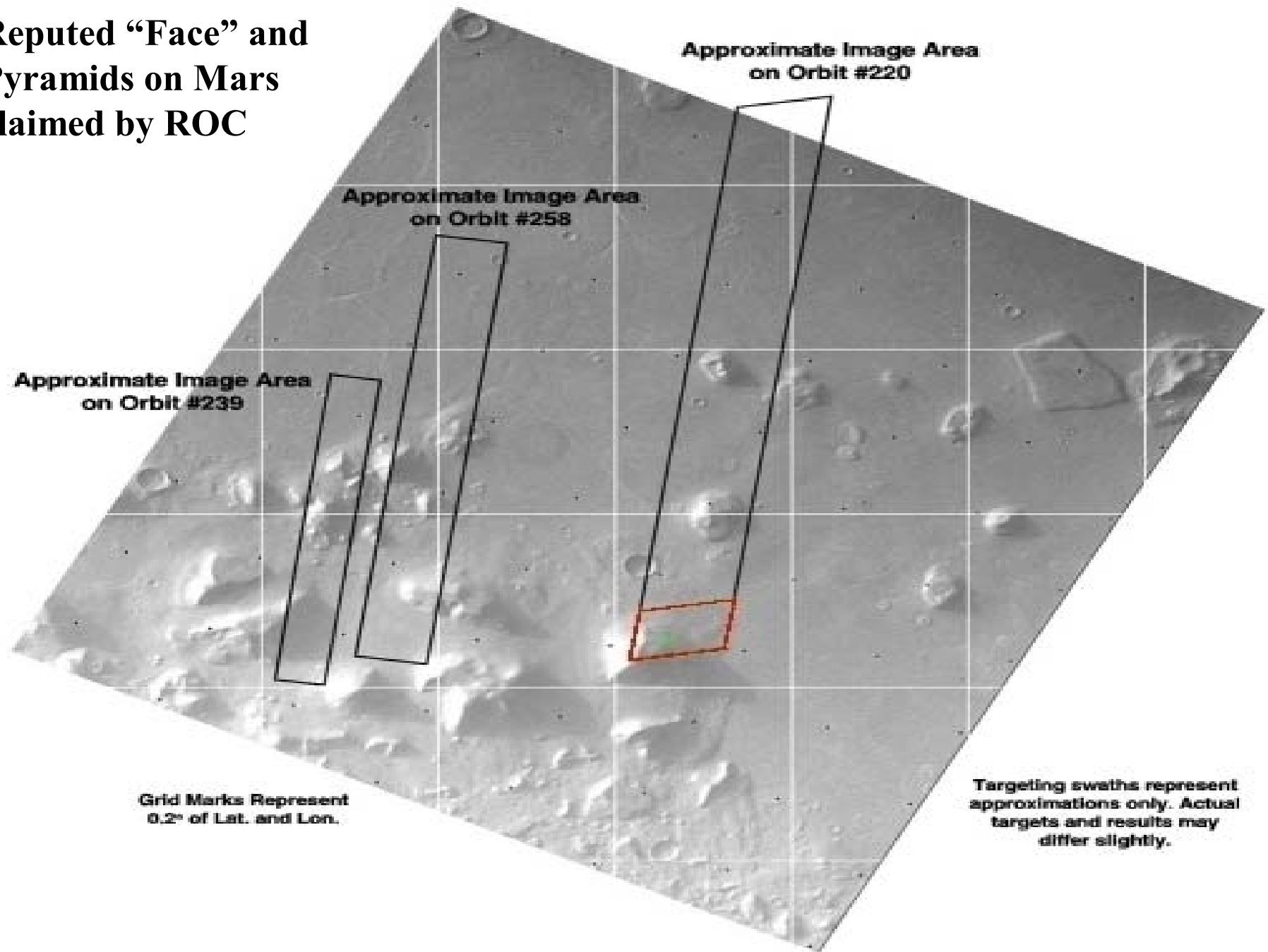
39.0°N



12.2°W

7.1°W

Reputed “Face” and Pyramids on Mars claimed by ROC



Arabia Meridani A-52M Claim

-6.2°(353.8°)W - -10.2°(349.8°)W
12.0°N - 8.0°N

12.2°W

7.1°W

43.0°N

43.0°N

39.0°N

39.0°N

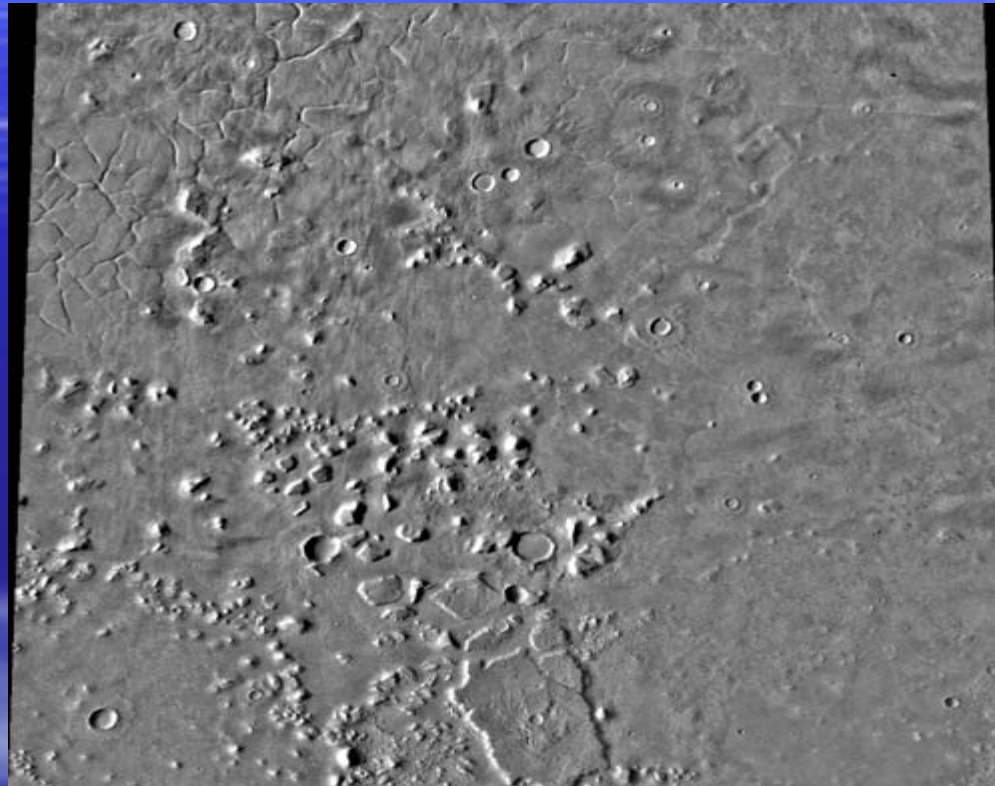


Image Statistics:

12.2°W

7.1°W

Scale = 0.2314 kilometers per pixel (true at the equator).

Top Latitude = 43.0 degrees north.

Bottom Latitude = 39.0 degrees north.

Left Longitude = 12.2 degrees west.

Right Longitude = 7.1 degrees west

Arabia Meridiani A-52M Claim

-6.2°(353.8°)W - -10.2°(349.8°)W
12.0°N - 8.0°N

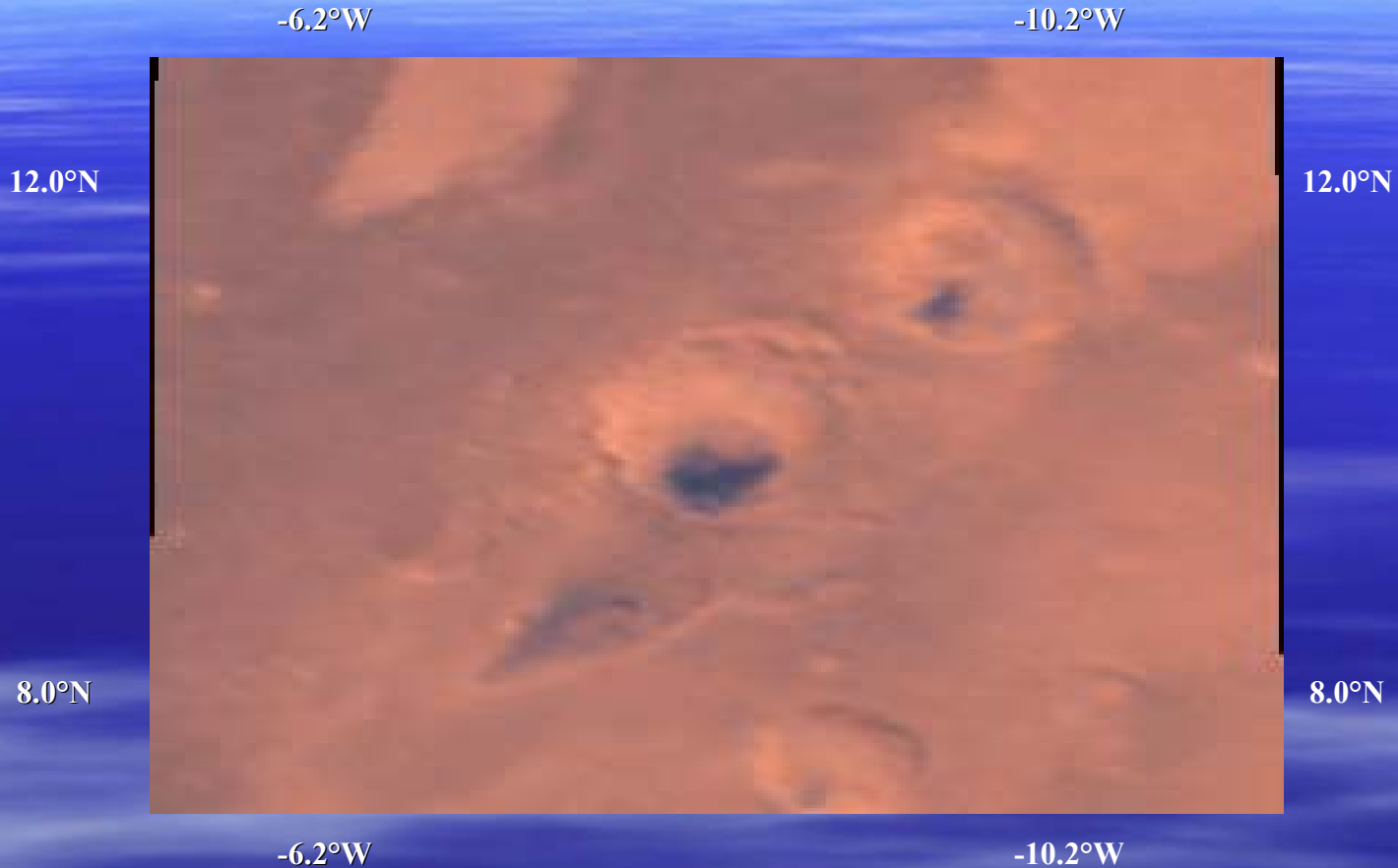


Image Statistics:

Scale = 0.9254 kilometers per pixel (true at the equator).

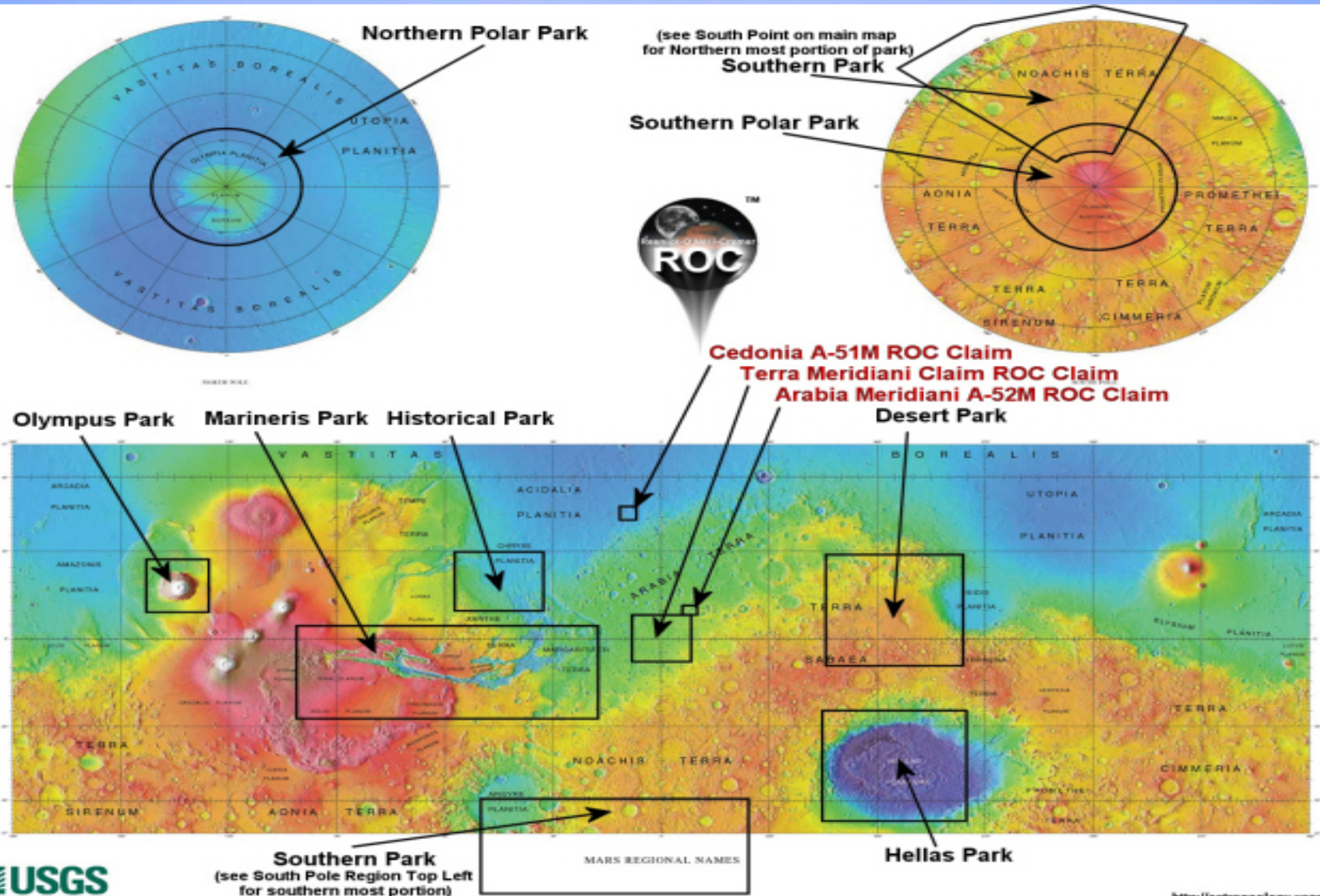
Top Latitude = 12.0 degrees north.

Bottom Latitude = 8.0 degrees north.

Left Longitude = -6.2 (353.8) degrees west.

Right Longitude = -10.2 (349.8) degrees west

The following shows all Eight Mars Park Regions and the three Mars ROC claims (not under park status)



The ROC Team has acquired a few other sites of interest on Mars and the Moon through the UMLR that are of scientific interest, but they have not designated those areas for protection from mineral acquisition or mining. Consideration will be given by the team to allowing countries open access to most of those areas for selections of landing sites to optimize the science return and benefit for exploration.

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<http://www.adlerplanetarium.org/learn/planets/mars/olympusmons.ssi>

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http://www.adlerplanetarium.org/learn/planets/mars/highlands_lowlands.ssi

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www.universalmineralleasesregistry.com



Moon (Lunar) Park
Mare Tranquillitatis - Sea of Tranquility
Apollo 11 Landing Site Preserve
World Heritage Site

-21.1°E - 25.8°E

2.7°N - 1.3°S

21.1°E

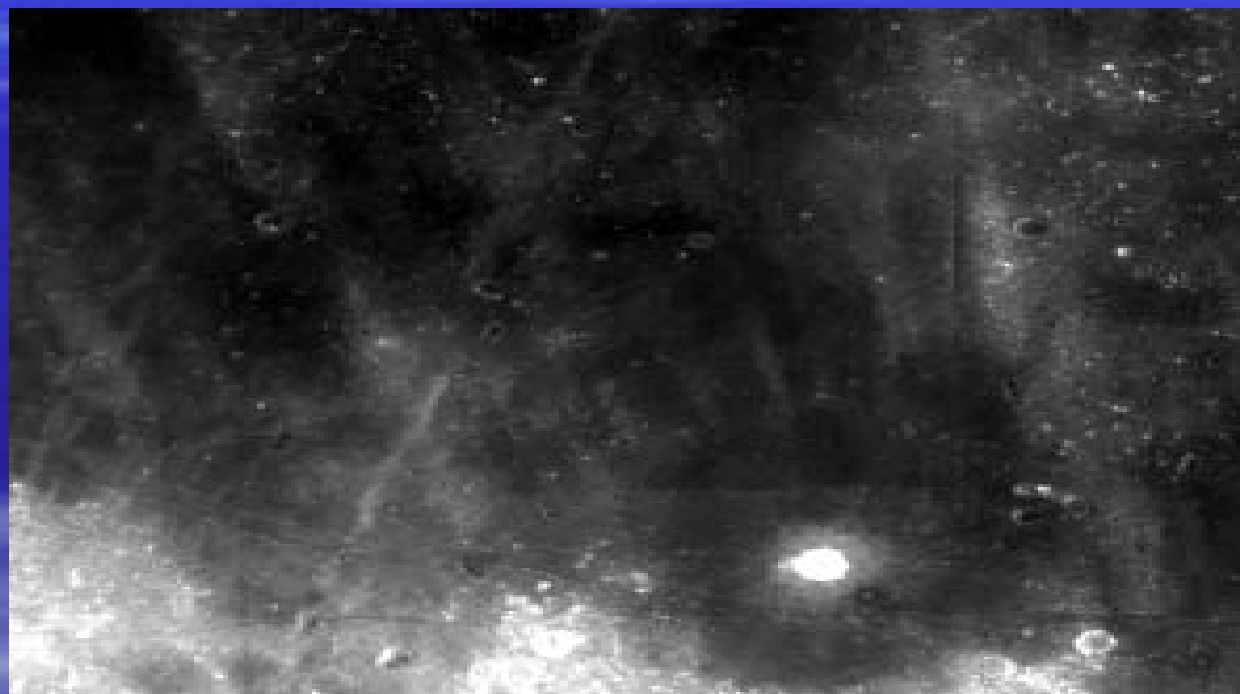
25.8°E

2.7°N

2.7°N

1.3°S

1.3°S



21.1°E

25.8°E

Image Statistics:

Image size = 256 rows by 297 columns.

Resolution = 64.0000 pixels per degree (true at the equator).

Scale = 0.4738 kilometers per pixel (true at the equator).

Near Side (Helium-3 / Exploration) Region

260.0°E - 100.0°E

86.4°N - 85.9°S

260.0°E

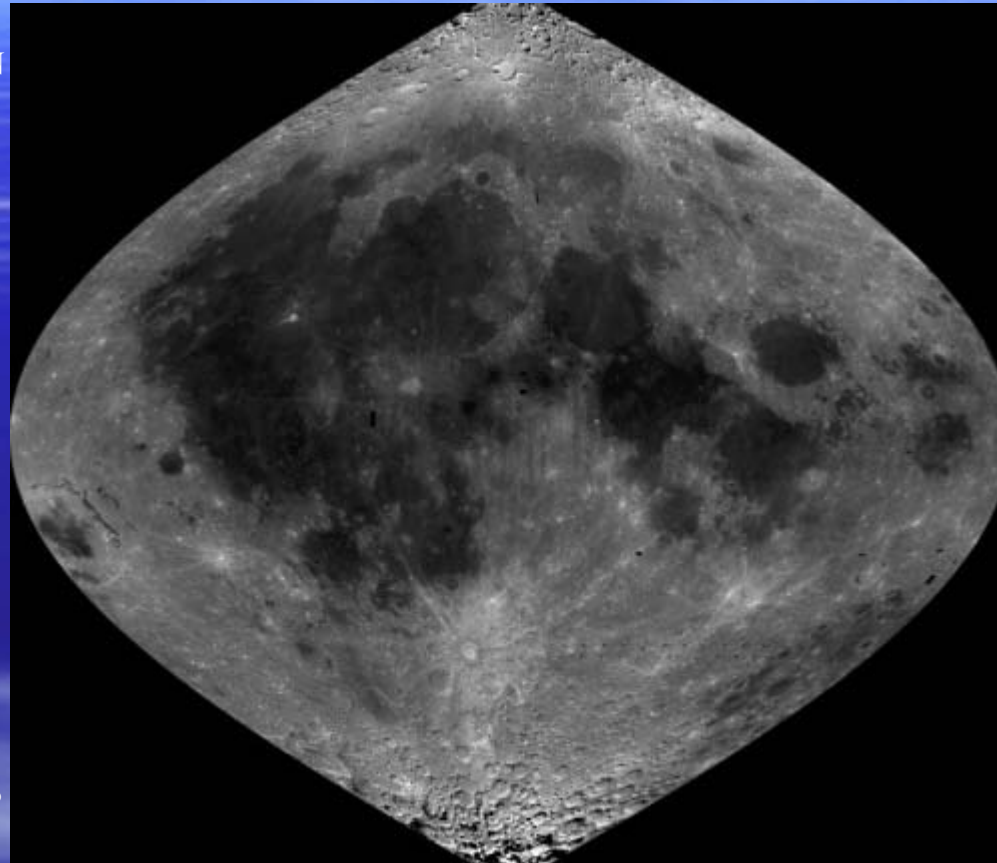
100.0°E

86.4°N

86.4°N

85.9°S

85.9°S



260.0°E

100.0°E

Image Statistics:

Scale = 1.8952 kilometers per pixel (true at the equator).

Top Latitude = 86.4 degrees north.

Bottom Latitude = 85.9 degrees south.

Right Longitude = 100.0 degrees east.

Left Longitude = 260.0 degrees east

Lunar North Polar Claim

180°E - 180°E

90.0°N - 86.5°N



Image Statistics:

Scale = 0.4003 kilometers per pixel (true at the equator).

Top Latitude = 90.0 degrees north.

Bottom Latitude = 86.5 degrees north.

Right Longitude = 180.0 degrees east.

Left Longitude = 180.0 degrees east

Lunar South Polar Claim

180°E - 180°E

85.8°N - 90.0°N



Image Statistics:

Scale = 0.4003 kilometers per pixel (true at the equator).

Top Latitude = -85.8 degrees south.

Bottom Latitude = 90.0 degrees south.

Right Longitude = 180.0 degrees east.

Left Longitude = 180.0 degrees east

Moon - South Pole-Aitken (SPA) basin

125.0°E - 235.0°E

14.2°S - 85.8°S

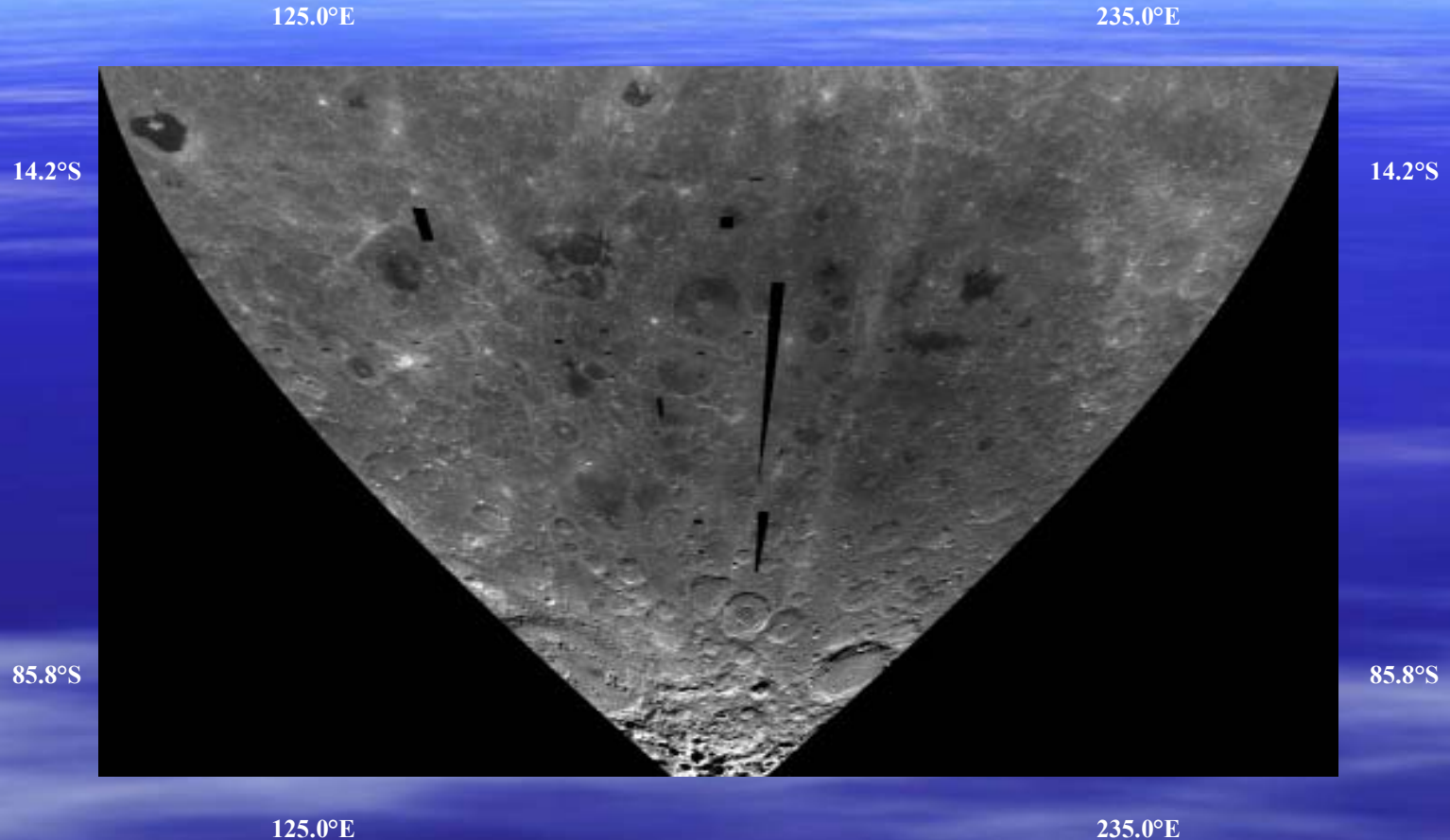


Image Statistics:

Scale = 1.8952 kilometers per pixel (true at the equator).

Top Latitude = -14.2 degrees south.

Bottom Latitude = 85.8 degrees south.

Right Longitude = 235.0 degrees east.

Left Longitude = 125.0 degrees east

Moon - Icarus (Far Side Reserved area for Tele-RadioScope) Region

170.0°E - 190.0°E

10.0°N - 10.0°S

170.0°E

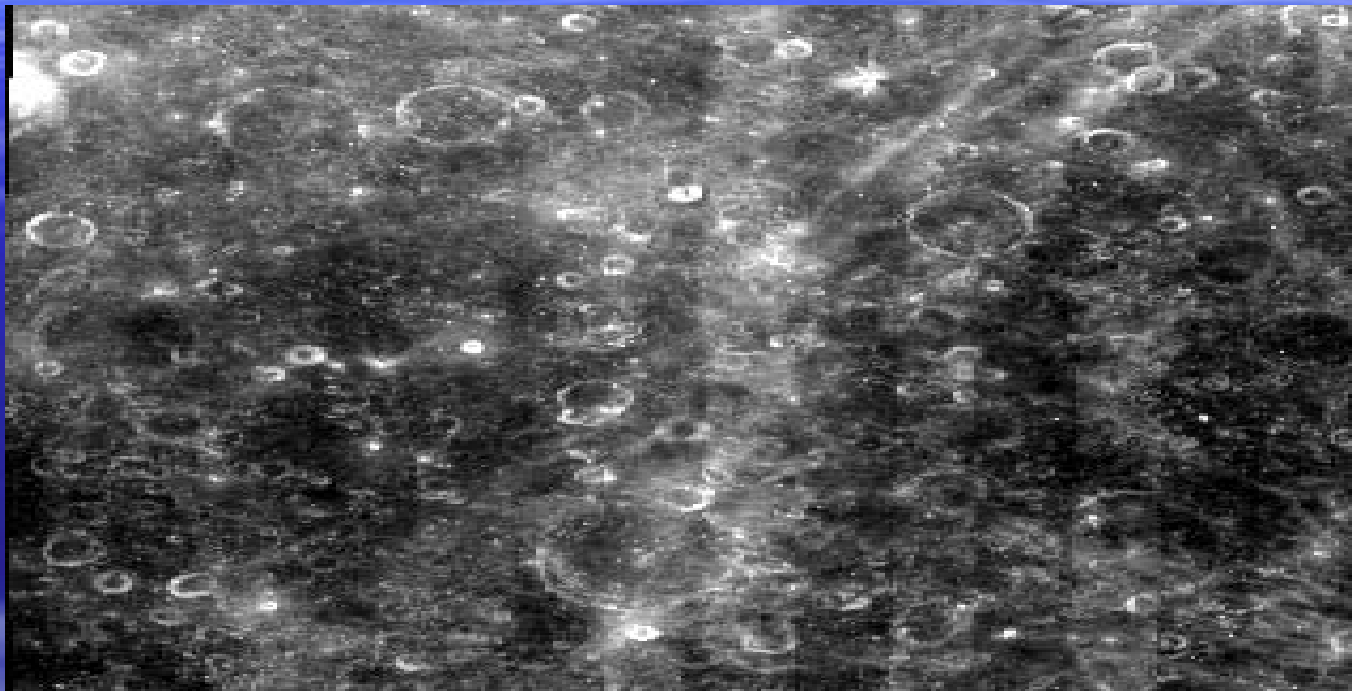
190.0°E

10.0°N

10.0°N

10.0°S

10.0°S



170.0°E

190.0°E

Image Statistics:

Scale = 1.8952 kilometers per pixel (true at the equator).

Top Latitude = 10.0 degrees north.

Bottom Latitude = 10.0 degrees south.

Right Longitude = 190.0 degrees east.

Left Longitude = 170.0 degrees east

**Lunar Mineral Claim- Privately held - Owner wishes to remain anonymous
at this time . This is the only region on the near side of the lunar surface
outside of the ROC claims**

Moon - Lacus Somniorum "Lake of Dreams"

20.8°E - 39.2°E

44.0°N - 32.0°N

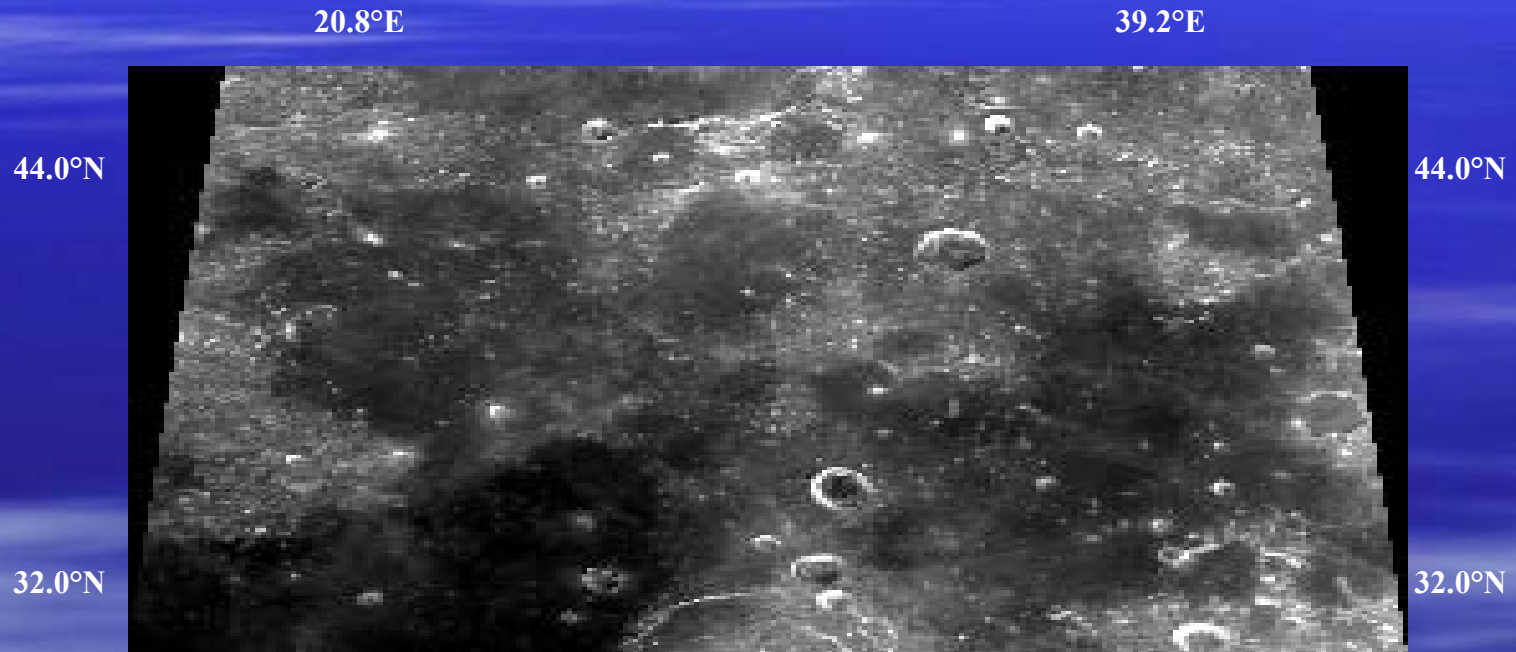


Image Statistics:

Scale = 1.8952 kilometers per pixel (true at the equator).

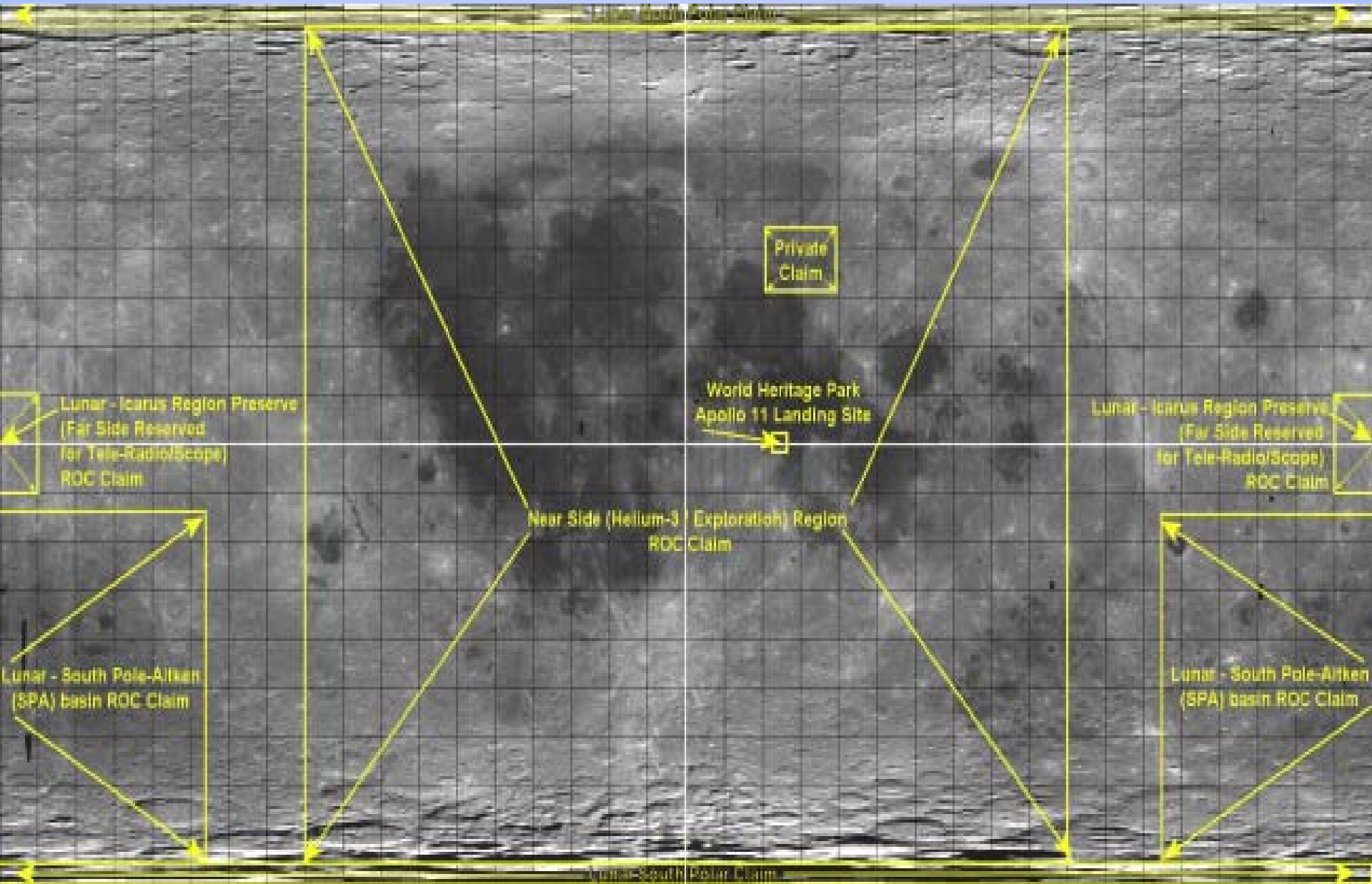
Top Latitude = 44.0 degrees north.

Bottom Latitude = 32.0 degrees north.

Right Longitude = 39.2 degrees east.

Left Longitude = 20.8 degrees east

The following map shows all Lunar Parks, Preserves and ROC claims (not under park status)



With key areas now obtained and protected by the ROC team the public now has access to Space and to the [Universal Mineral Leases Registry](#) for acquisition of mineral rights to other areas on the Moon, Mars and beyond and to share in the legacy of Man's development and commercialization of space.

These actions were taken in order to allow the general public to share in the commercialization and exploration of Space.

END