

# STRATEGIC SECURITY & DEFENSE

## XR-SSD Mission



Agency develops missions for space research and the application of plasma techniques in the DEEP SPACE, but also prepares the industrial and technological tools (7 patents writing) applicable to the Moon satellite, but also for other planets and satellites.

From this point of view and consequently to the inherent level of Risk we consider that Security and Safety are the absolute fundamental core of our Missions:

- At Human level
- At R&D and Conception Levels
- At Technological Level
- And fundamentally at Strategic Level

This is the way the missions of GlycanSpaceXR will validly contribute to colonization in the solar system and beyond.

## Deep Space: GlycanSpaceXR primordial land

The extreme vacuum existing in the deep space represents the ideal conditions for the creation of plasma both theoretical, experimental and industrial (see the attached tables bellow).

It should be noted that on Earth the contamination of the high vacuum originates from the nanoparticles of the vacuum pumps and O-rings and nano-distortion of the parts exposed to an ultrahigh-vacuum and the crystalline nature of the metals forming the alloys which always contain impurities included Oxygen which link to alloys, rebroadcast in the vacuum enclosures.

Agency technologies should use ultra pure alloys of the order of 99.9 (9)% nine (9) after the point.

We are limited on Earth to 99.9 (5)%, five (5) after the point.

These ultra-pure materials will be obtained in the deep space or in the HELIOTORR orbital stations.

Pressure ranges of each quality of vacuum in different units			
Vacuum quality	<u>Torr</u>	<u>Pa</u>	<u>Atmosphere</u>
<u>Atmospheric pressure</u>	760	$1.013 \times 10^5$	1
Low vacuum	760 to 25	$1 \times 10^5$ to $3 \times 10^3$	$9.87 \times 10^{-1}$ to $3 \times 10^{-2}$
Medium vacuum	25 to $1 \times 10^{-3}$	$3 \times 10^3$ to $1 \times 10^{-1}$	$3 \times 10^{-2}$ to $9.87 \times 10^{-7}$
High vacuum	$1 \times 10^{-3}$ to $1 \times 10^{-9}$	$1 \times 10^{-1}$ to $1 \times 10^{-7}$	$9.87 \times 10^{-7}$ to $9.87 \times 10^{-13}$
<u>Ultra high vacuum</u>	$1 \times 10^{-9}$ to $1 \times 10^{-12}$	$1 \times 10^{-7}$ to $1 \times 10^{-10}$	$9.87 \times 10^{-13}$ to $9.87 \times 10^{-16}$
Extremely high vacuum	$< 1 \times 10^{-12}$	$< 1 \times 10^{-10}$	$< 9.87 \times 10^{-16}$
<u>Outer space</u>	$1 \times 10^{-6}$ to $< 1 \times 10^{-17}$	$1 \times 10^{-4}$ to $< 3 \times 10^{-15}$	$9.87 \times 10^{-10}$ to $< 2.96 \times 10^{-20}$
Perfect vacuum	0	0	0

In the DEEP SPACE the obtained vacuum values are  $10^4$  lower than on the ground with conventional molecular or diffusion pumping systems, so the background noise associated with the mean free path of a particle can be considerable  $10^5$  km to  $10^7$  km.

The deep space away from a plasma wind (star) contains only 1 to 3 atoms of hydrogen per  $\text{cm}^3$ , these low values make vacuum a considerable scientific tool for space industries, cryogenic conditions of the order of 5 K to 10 K favor the industrial exploitation of rare gases or certain rare earths- $(\text{Ln}^{3+})$  of which Yb and elements of transitions.

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	Pressure (Pa or kPa)	Pressure (Torr)	<a href="#">Mean Free Path</a>	Molecules per cm <sup>3</sup>
<a href="#">Standard atmosphere, for comparison</a>	101.325 kPa	760	66 nm	$2.5 \times 10^{19}$ <sup>[63]</sup>
Intense <a href="#">hurricane</a>	approx. 87 to 95 kPa	650 to 710		
<a href="#">Vacuum cleaner</a>	approximately 80 kPa	600	70 nm	$10^{19}$
<a href="#">Steam turbine exhaust (Condenser Backpressure)</a>	9 kPa			
<a href="#">liquid ring vacuum pump</a>	approximately 3.2 kPa	24	1.75 $\mu$ m	$10^{18}$
<a href="#">Mars atmosphere</a>	1.155 kPa to 0.03 kPa (mean 0.6 kPa)	8.66 to 0.23		
<a href="#">freeze drying</a>	100 to 10	1 to 0.1	100 $\mu$ m to 1 mm	$10^{16}$ to $10^{15}$
<a href="#">Incandescent light bulb</a>	10 to 1	0.1 to 0.01	1 mm to 1 cm	$10^{15}$ to $10^{14}$
<a href="#">Thermos bottle</a>	1 to 0.01 <sup>[4]</sup>	$10^{-2}$ to $10^{-4}$	1 cm to 1 m	$10^{14}$ to $10^{12}$
Earth <a href="#">thermosphere</a>	1 Pa to $1 \times 10^{-7}$	$10^{-2}$ to $10^{-9}$	1 cm to 100 km	$10^{14}$ to $10^7$
<a href="#">Vacuum tube</a>	$1 \times 10^{-5}$ to $1 \times 10^{-8}$	$10^{-7}$ to $10^{-10}$	1 to 1,000 km	$10^9$ to $10^6$
<a href="#">Cryopumped MBE chamber</a>	$1 \times 10^{-7}$ to $1 \times 10^{-9}$	$10^{-9}$ to $10^{-11}$	100 to 10,000 km	$10^7$ to $10^5$
Pressure on the <a href="#">Moon</a>	approximately $1 \times 10^{-9}$	$10^{-11}$	10,000 km	$4 \times 10^{15}$ <sup>[64]</sup>

<u>Interplanetary space</u>				11 <sup>14</sup>
<u>Interstellar space</u>				1 <sup>16</sup>
<u>Intergalactic space</u>				10 <sup>-6</sup>

## Elementary Disclosure

At the theoretical level, the results obtained and the contracts between the industries and the International Agencies and Laboratories must be absolutely protected.

We expect to use the new QM Quantum Machines for security and data protection, and DEFENSE.

GlycanSpaceXR missions are affected by these necessary safety.

Moreover, the conventional bio-metric protections will have to be improved and supplemented by genetic and radiative signature.

This discussion is not part of this Agency's public presentation.

As indicated in our analysis, Agency wants to move the physical and chemical industries into another industrial dimension in order to meet the needs of colonization in the solar system and beyond.

Our expertise since 1979 to date should be able to help reach this new frontier with the help of National and International Agencies and Laboratories.

It is therefore essential to train the Engineers to these new security from the quantum machines.

This will constitute a great intellectual passage, including for theoreticians, physicists and mathematicians who will have to accustom themselves to the diversity of intelligence of matter and energy.

Indeed, our terrestrial binary logic is based on the values of the bytes 1 or 0, imagine an algorithmic technology which would use the values 1 - 0 but also the variables to be classified trivially as "maybe" to the number of 8 to 64., therefore more than two bosons entangled serial, already discussed in XR-IR mission.

These hidden but pure variables observable in the repository would match the results of analyzes with a much more acute logic even in the presentation of uncertainties.

The results obtained would yield series of numbers and numerical positions but also Hamiltonians to interpret, as related to the "analytical judgment of the obtained values".

The QMachines could match the results obtained with completely valid "precession" values with the experimental formalism of quantum mechanics.

Cryptography security would then have an unprecedented powerful tool to secure XR missions, their transmissions and storage of data on celestial objects and their satellites or in orbital stations as needed.

We consider by the word defense the means used to protect vital programs, but also the compulsory response in order to limit the extent of possible damages. and damage inflicted on missions.

**Remaining Undisclosed**

