

The Guiana Space Center

Why the city of Kourou is an excellent spatial base ?



The Guiana Space Center, or more commonly named The CSG, is a French and European launch base situated near of Kourou in French Guiana, which was commissioned in 1968.

But why Kourou? There are many reasons that make Kourou today is called the "space city" like her geographic, political and natural conditions.



- In first, Kourou is a great city for the launches of the CSG because, gracefulness to a very close latitude of the equator, the satellites launched from The Space Center receive an additional speed of nearly 460m/s. Related to the speed of rotation of the eart. In addition, this latitude is deal to place in orbit geostationary satellites. In late 2004, the European Space Agency and the Russian space agency Roskosmos signed an agreement to launch Soyuz rockets from 2007 from the Guiana Space Center in French Guiana to take advantage of both the low-cost launcher and situation geographic CSG, which due to its proximity to the equator, can significantly increase the payload when the orbit is a geostationary orbit launch capacity into geostationary transfer orbit password 1.7 to 2.8 tons. Soyuz will be used to place satellites in orbit Arianespace must start when the size does not justify the use of Ariane 5.



- Secondly, the basement of the region consists of a granite shield has a very good stability and earthquakes or volcanic eruptions are unknown in this region. The climate also makes Kourou immune to climatic disasters.
- Thirdly, the wide opening of the site on the sea, allows great launch amplitude axes as well as to the east to the north, this without flying over inhabited land and therefore with minimal risk to people and surrounding property.

Volcanism in the world:



Earthquake in the world:



Finally, there are three types of rockets, Soyuz, Vega and Ariane.



NAMES	Launches successfully	Takeoff weight	Payload in <u>LEO</u>	Height
ARIANE	73	750 ton	Entre 18 et 21 ton	55 meters
SOYUZ	More than 1 700	305-313 ton	9 000 ton	46 à 51 meters
VEGA	4	136 ton	0,3 à 2,3 ton	30 meters